

Chapter 2

The Origins and the Nature of the Russian OPK

The structure of the Russian defence industry can be very confusing to Westerners and even to industry analysts. The industry differs fundamentally from any Western model because of its Soviet, centrally-planned economic heritage. In order to unravel the complexities of the industry, one needs to look into the history of the Soviet-era military-industrial complex (VPK) and examine developments in the industry under the Yeltsin and Putin Administrations. This background creates a necessary platform for an increased understanding of the contemporary Russian defence-industrial complex (OPK).

The Late Soviet-era VPK

The embryo for Soviet economic advancement—including the evolution of the VPK, came in the form of Stalin’s First Five-Year Plan beginning in 1928. The first of twelve Five-Year Plans, it spawned spectacular industrial growth, especially in capital investment. More importantly, it laid the foundation for the centralised industrial planning so often associated with the Soviet Union. Heavy industry received much greater investment than light industry throughout the Stalin period, and this set the precedent for the considerable size of the late Soviet-era VPK.¹ In the post Second World War period, and for the next 40 years of its adversarial relationship with the United States, the Soviet Union tried to compete militarily with an economy several times its size. Viewed in an historical light, the militarisation of the Soviet economy perhaps appears to have been inevitable. However, other nations, even though not as frequently involved in conflicts as the Soviet Union, have passed in and out of wars without their economies being so totally and lastingly dominated by the military sector as did the Soviet Union.²

Josef Stalin and his successors, influenced by the Soviet Union’s victory over Nazi Germany, believed that the Soviet Union’s national security depended on a tried and tested strategy. This involved massive conscript armies, numerical superiority, robust hardware, advanced technologies and extensive military-industrial capacities and reserves. These factors would allow it to fight and

1 Library of Congress, Federal Research *Division*, *Country Studies: Soviet Union*, available at <<http://lcweb2.loc.gov/frd/cs/sutoc.html>>, accessed 28 April 2009.

2 Clifford G. Gaddy, *The Price of the Past: Russia’s Struggle with the Legacy of a Militarized Economy*, Brookings Institution Press, Washington, DC, 1996, p. 33.

win prolonged wars against other mass armies and defend against blitzkrieg assaults. This national strategy put the Soviet Union in a position where it was outspending its post-war adversaries in the field of military procurement. It also made Kremlin leaders receptive to the ingratiation of the VPK, which sought to simultaneously advance its institutional interests while serving the country.³ The General Staff, the Ministry of Defence (MoD) and the VPK never tired of discovering new military vulnerabilities and devising programs to redress them. These programs usually succeeded in an economy where consumers and rivals could not compete for resources in the marketplace.⁴

VPK expert, Vitaly Shlykov, underscores this reality with two insights. First, he points out that the Kremlin was not entirely oblivious of consumer needs. Structural militarisation was pursued through a policy of 'guns and margarine', which provided the population with a no-frills living standard while freeing up all other resources for defence purposes.⁵ Second, this militarisation continued unabated as technological progress increased Gross Domestic Product (GDP) because military doctrine required the MoD and VPK to plan not just for the worst case, but for the unimaginable as well. Therefore, it was imbued in Soviet policy that there could never be too much defence. This *modus operandi* began to change with the accession to power of Mikhail Gorbachev, who was concerned with the size of the defence budget, as a proportion of total Soviet GDP. His calculations were simple: whatever the Soviet Union gained by spending so much on its military was being threatened by its inability to make the rest of the economy work, especially in attempting to raise the living standards of its people.⁶ This assessment proved tragic for the Soviet Union in its brutal simplicity and accuracy.

The sheer scale of Soviet weapons production and defence spending is remarkable, especially in light of the post-Communist downward revision in Soviet purchasing power parity in 1989, as computed by Aleksei Ponomarenko, then deputy director of Goskomstat. It indicated that US Gross National Product (GNP) was three times higher than that of the Soviet Union at that time. The Kremlin devoted a disproportionate share of the nation's resources to military activities. The best estimates indicate that the VPK employed 16 million people as well as supporting 6 million soldiers and up to 20 million reservists.⁷ The most important attribute of the Soviet production system was its structural militarisation. The institutionally embedded demand for weapons was seemingly limitless and supply capacities were continually expanded. As a consequence,

3 Steven Rosefielde, *Russia in the 21st Century*, Cambridge University Press, Cambridge, 2005, p. 52.

4 Rosefielde, *Russia in the 21st Century*, p. 52.

5 Rosefielde, *Russia in the 21st Century*, p. 51.

6 Gaddy, *The Price of the Past*, p. 49.

7 Rosefielde, *Russia in the 21st Century*, p. 51.

the defence share of GDP rose to 25–30 per cent during the post-war period, with the civilian share diminishing reciprocally. As a result, the only economic success the Kremlin ever achieved was mass weapons production.

With the notable exception of Gorbachev, Soviet leaders have always emphasised investment in military production over investment in the civilian economy. This had very positive effects on the production of armaments within the Soviet Union, some of which were widely regarded as the world's best. The downside was the Communist country's inability to produce basic consumer goods of satisfactory quality or in sufficient quantities. The high priority given to military production has traditionally enabled military-industrial enterprises to commandeer the best managers, labour and materials from civilian plants. In the late 1980s, however, Gorbachev transferred some leading defence industry officials to the civilian sector of the economy in an effort to make it as efficient as its military counterpart.

The Soviet-era VPK also experimented with production of civilian goods. It was during the Brezhnev era that the Soviet Government began to turn to its defence plants for the production of civilian necessities. Though conversion to civilian production was not the order of the day, 'conversion' of the defence sector was attempted through the establishment of factories geared towards the development and manufacture of civilian products within a defence framework. These efforts, however, had very limited results (results that Boris Yeltsin would have benefited from examining prior to his OPK conversion drive in the 1990s). Even though the defence industry was well ahead of the civilian sector in terms of its scientific, technological, and professional standards, a technology gap remained within the defence sector between its civilian and its military level of production.⁸ Overall, defence factories produced a maximum of 22 per cent of all consumer goods other than food.⁹ This production of civilian goods within the VPK, like that of military products, was heavily subsidised by the state.

The numerous ministries and factories that made up the Soviet-era Military-Industrial Complex were coordinated by the Military-Industrial Commission (also known as VPK). Officially, eight ministries fell under the direct control of the VPK, but numerous other so-called 'civilian' ministries also produced military equipment. In fact, nearly all of the industrial sectors within the Soviet economy were involved in the production of goods used by the military.¹⁰ This formed a vast military-industrial complex that dominated the Soviet economy

8 Mikhail I. Gerasev and Viktor M. Surikov, 'The Crisis in the Russian Defense Industry: Implications for Arms Exports', *Russia in the World Arms Trade*, Brookings Institution Press, Washington, 1997, p. 11.

9 Gerasev and Surikov, 'The Crisis in the Russian Defense Industry: Implications for Arms Exports', p. 10.

10 Mikhail Agursky, *The Soviet Military Industrial Complex*, The Magnes Press, Jerusalem, 1980, p. 7.

and ultimately led to structural militarisation: 'The Military-Industrial Commission represented the keystone of the entire system, controlling and coordinating all levels of activity.'¹¹

Below the ministries were the defence research and design bureaux, and the factories that made up the Soviet Union's VPK. Western analysts placed these entities into three broad categories during the Cold War: research institutions, design organisations, and production facilities. The research institutions were responsible for scientific research that could be applied within the design organisations. Their responsibilities included planning for new products and machines, and designing new processes, installations and machinery. The new weapons and military material projects developed by the research institutions were progressed from concept to prototype, and then handed off to the production enterprises. The production enterprises were responsible for manufacturing the new product, or applying the process developed by the research and design facilities.¹² For example, there was no single company that designed, built and sold the Sukhoi series of aircraft. There was the Sukhoi design bureau that was responsible for developing the designs and prototypes of the Su series aircraft, but these aircraft were subsequently built by a number of factories located in different regions—the most important being the Irkutsk plant (NPK Irkut) and the Komsomolsk-on-Amur aviation plant.

The Soviet Union of the late 1980s had the largest centralised economy in the world. The regime established its economic priorities through central planning—a system under which administrative decisions rather than the market determined resource allocation and prices. The integration of the Communist party, government, and military within the Soviet Union was most evident in the VPK. It was the Military-Industrial Commission that coordinated the activities of the Defence Council and the Defence Industry Department of the Central Committee.¹³ The Defence Council, made up of high-ranking military personnel, was the overarching head of the various research and design bureaux, and it made decisions on the development and production of major weapon systems. Meanwhile, the Defence Industry Department of the Central Committee was the overarching head of the production facilities. The State Planning Committee (or Gosplan) had an important role in directing necessary supplies and resources to military industries.

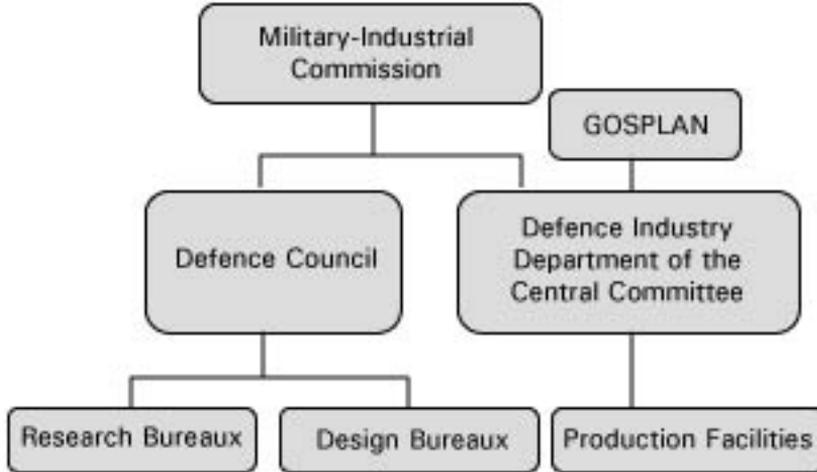
11 Thierry Malleret, *Conversion of the Defense Industry in the Former Soviet Union*, Institute for East-West Security Studies, Westview Press, New York, 1992, p. 7.

12 Refer 'Russia/Soviet Military Industry', GlobalSecurity.org, available at <<http://www.globalsecurity.org/military/world/russia/industry.htm>>, accessed 28 April 2009.

13 Library of Congress, Federal Research Division, *Country Studies: Soviet Union*.

Soviet-era VPK Structure

Figure 2.1: Soviet-era VPK Structure



(Source: Cameron Mitchell, based on details noted in Thierry Malleret, *Conversion of the Defense Industry in the Former Soviet Union*, Institute for East-West Security Studies, Westview Press, New York, 1992)

In 1989 the defence industry consisted of a number of industrial ministries subordinate to the Military-Industrial Commission. The names of most of these ministries were not indicative of the types of weapons or military equipment they produced. The Ministry of Medium Machine Building manufactured nuclear warheads. The Ministry of General Machine Building produced ballistic missiles. Other ministries (such as the Ministry of Automotive and Agricultural Machine Building) also produced military equipment and components, but to a lesser extent of their total output.¹⁴ This meant that defence finances were spread amongst a number of ministries, thereby ensuring funds allocated to defence were far higher than was ever publicly admitted by the government.

For example, in 1988 military spending was a single line item in the state budget, totaling 21 billion rubles, or about US\$33 billion. Given the size of the military establishment, however, the actual figure was estimated to be at least ten times higher. Western experts have concluded that the 21 billion ruble figure reflects only operations and maintenance costs.¹⁵ Other military spending (including training, military construction, and arms production) may have been concealed within the budgets of all-union ministries and state committees. The amount spent on Soviet weapons R&D was an especially well-guarded state

¹⁴ Library of Congress, Federal Research Division, *Country Studies: Soviet Union*.

¹⁵ Library of Congress, Federal Research Division, *Country Studies: Soviet Union*.

secret. According to US government sources, from the mid-1980s to the collapse of the Soviet Union, between 15 and 17 per cent of annual GNP was annually devoted to military spending.¹⁶ Officially, current Russian Federation defence expenditure (listed as 'National Defence' within the budget) runs at around 2.7 per cent of GNP annually, but, like the Soviet Union, many defence related expenses fall under the responsibility of other ministries. According to the Jane's Information Group, in recent years the aggregation of these extra revenues has boosted defence related expenditure within the Russian Federation to nearly 5 per cent of GDP:¹⁷ it seems old habits are deeply entrenched in the Russian system, and are hard to shake.

Post Soviet Union, the defence-industrial complex went through two distinct phases. The years 1991 through 1997 saw a steep decline, with a focus on privatisation of the defence industry and unsuccessful efforts to restructure defence output into production of civilian goods. From 1998, the emphasis shifted towards increasing and modernising the production of military items. Vladimir Putin revitalised this process in 1999–2000, and also began to renationalise and restructure a large part of the defence industry. These actions have all reinforced the viability of Russia's arms industry in the twenty-first century.

1990–99: The Transition of the VPK to OPK

The term *Oboronnyi-promyshennyi kompleks* (OPK) was introduced in the late 1990s in an effort to distance the Russian Federation defence-industrial complex from its Soviet military-industrial complex predecessor. The term was also assessed to be less aggressive: changing the 'military' to 'defence'. In reality little changed except for the name. It was a facade and the hard work associated with restructure came with the accession of Putin and Sergei Ivanov. This restructure, in conjunction with a greater number of export orders and growing natural energy prices, has finally given the OPK a new identity that goes deeper than just a mere change of title.

The final years of the Soviet regime and the beginning of the 1990s saw increasingly erratic supplies to military producers, a failure of conversion programs from military to civilian production, a further reduction in defence spending, and plummeting exports—all of which caused a decline in defence sector output. Moreover, the military managed to squeeze resources out of the

16 Library of Congress, Federal Research Division, *Country Studies: Soviet Union*.

17 'Russia: Defence Spending', in *Jane's Sentinel Security Assessment*, Jane's Information Group, Coulsdon, Surrey, 2006.

state budget, in return for their support during the final year of the Communist regime, and consequently defence spending in 1990 was higher than in any other year during the entire Cold War.¹⁸

The bubble finally burst in dramatic fashion and, between 1991 and 1995, 2.5 million of the 6.1 million employees left the defence sector. Despite this 41 per cent loss in manpower, in 1996 only 10 per cent of the industry capability was being utilised, rather than the assumed 59 per cent.¹⁹ Between 1992 and 1995, production in the defence sector fell by 60 per cent annually. This was the result of both the sharp deterioration in economic conditions and the lower priority given to the military under Yeltsin. The volume of resources allocated for defence was not enough to finance the reorganisation of defence industries.

Until the early 1990s, the Soviet state was at the centre of the defence industry, providing direction and control to all elements involved in the development of weapon systems. The various elements or enterprises in the VPK did not have Western-style contractual relationships. The plants were all state owned and production complied strictly with the orders of the Party. The state ensured all the enterprises worked together and that no money changed hands between enterprises due to the centralised economy. Furthermore, thanks to a special pricing and taxation system, the defence sector obtained eight times more value for its money than the commercial sector in its procurement of equipment. Economic preferential treatment propelled the VPK to a leading position in the Soviet economy.

Technology advances resulting from the states VPK bias enabled the Soviet Union to successfully compete with the defence industries of the United States and Western Europe throughout the Cold War period.²⁰ This system broke down with the demise of the Soviet Union. The Russian OPK's adjustment to market economy conditions was difficult because the Soviet-era VPK was always heavily supported and subsidised by state financial resources, inventories, and research/technical personnel.²¹ In contrast, the Yeltsin Administration of the early and mid-1990s had neither the ability nor desire to support or subsidise Russia's OPK. Instead, efforts went into restructuring defence output with a focus on conversion of military production into civilian production. Moreover, the new Russian Government tried to transform the system into a market-based one. It proved to be too much change in too short a period for the industry to cope with. Some 75 years of forced conformity had taken its toll on the average

18 Paul Rivlin, *The Russian Economy and Arms Exports to the Middle East*, Memorandum no. 79, The Jafee Centre for Strategic Studies, Tel Aviv University, November 2005, p. 16.

19 Robert H. Donaldson, 'Domestic influences on Russian arms sale policy' Presented to the 43rd Annual Meeting of the International Studies Association, New Orleans, 24 March 2002, p. 7, available at <<http://www.personal.utulsa.edu/~robert-donaldson/domestic.htm>>, accessed 28 April 2009.

20 Gerasev and Surikov, 'The Crisis in the Russian Defense Industry: Implications for Arms Exports', p. 10.

21 Gerasev and Surikov, 'The Crisis in the Russian Defense Industry: Implications for Arms Exports', p. 9.

Russian defence industry worker's sense of capitalism. However, slow transition, longevity of some key Soviet-era technologies and Russian practicality and resourcefulness all helped to ensure OPK survival during this turbulent period.

The serious depression in the defence industry was the result of government neglect and a global downturn in the demand for arms and was a major contributor to the severe domestic economic crisis in Russia throughout the 1990s. Unlike its Soviet predecessor, the Russian Government could no longer arbitrarily set and maintain artificially low prices for military hardware. Nor could it force privately owned parts suppliers and subcontractors to fulfil defence orders against their will.²² Following the breakup of the Soviet Union at the end of 1991, the Russian Federation inherited a defence sector consisting of 1200 military factories with a workforce of some 4 million. Many more enterprises were partially engaged to fulfil defence orders. Together, they accounted for between 70–80 per cent of the R&D potential and some 80 per cent of the manufacturing capacity of the former Soviet VPK.²³ However, Russia's opportunities to independently develop and produce even model arms and equipment in the early 1990s turned out to be limited because of the need for component supplies from other countries of the Commonwealth of Independent States (CIS). The figures speak for themselves: between 1992 and 1996 munitions production plummeted by 93 per cent, radio engineering products by 93 per cent, and electronic products by 95 per cent.²⁴

Soviet industry specialist Dr Michael Checinski noted that maintaining a massive arms capacity within the new Russian Federation could only be transformed into operational reality if three issues were examined: (1) the number and type of weapons to be produced; (2) the time scale for fulfilling the production plans; and (3) how to overcome the bottlenecks in production and distribution that were ever present in Soviet industry.²⁵ Soviet economic planning gave high priority to addressing these problems and the state-directed pricing policy was one important element in this planning system. As in a market economy, prices were seen as instrumental in achieving efficient distribution of goods and services. However, efficiency was measured only in terms of military security and not against wider social and economic considerations.²⁶ Soviet methods that were utilised to achieve such efficiency were unacceptable in a democracy (more specifically, were unaffordable in Yeltsin's democracy) and, therefore, the OPK of the Russian Federation suffered accordingly. The OPK today, however,

22 Steven E. Miller, and Dmitri V. Trenin (eds), *The Russian Military: Power and Policy*, MIT Press, Cambridge, MA, 2004, p. 160.

23 Gerasev and Surikov, 'The Crisis in the Russian Defense Industry: Implications for Arms Exports', p. 13.

24 Gerasev and Surikov, 'The Crisis in the Russian Defense Industry: Implications for Arms Exports', p. 13.

25 Ian Anthony (ed.), *Russia and the Arms Trade*, SIPRI, Oxford University Press, Oxford, 1998, p. 225, available at <http://books.sipri.org/product_info?c_product_id=162>, accessed 28 April 2009.

26 Anthony (ed.), *Russia and the Arms Trade*, p. 225.

has no requirement to match Soviet-era production and has been able to make considerable progress in adapting to a quasi-market protectionist economy under Putin.

The subsequent difficulties facing the OPK during the immediate aftermath of the collapse of the Soviet Union included the distribution of intellectual property rights, the privatisation of plants and design bureaux, and delayed R&D and production. These difficulties were all attributed to a system of separate research, design and production. Pushing Communist-era structures into a capitalist environment was akin to 'putting round pegs in square holes'. Yeltsin's early 1990s campaign to demilitarise the OPK, the so-called 'conversion', was an attempt to stop it from relying on a dwindling State Defence Order (SDO) and produce consumer products required within a supply and demand environment. Conversion was the main restructuring policy applied in the industry during the first years of the Russian Federation.

Unfortunately, the quality of civil use goods produced by Russian defence plants were questionable and export experience to that point had been exclusively with military equipment and commodities. The scheme unsurprisingly produced poor results—the Sukhoi design bureau was known for its aircraft, not its washing machines or refrigerators. This scheme, combined with a lack of free-market experience and a dearth of government funding, were the main contributors to the gloomy OPK prospects during the 1990s. Even today, civilian use products from Russia are exported at a fraction of the rate of defence related exports, and it is the companies such as RSK MiG and Sukhoi Corporation, or products such as the AK-47 *Kalashnikov*, that are the most widely recognisable in the West. The policy was considered a failure by the mid 1990s, and post 1997, the Ministry of Economy took over the running of the defence industry and changed the direction of reform. From 1997, the aim was still to restructure the defence industry, but by using arms production itself as a fundamental reference point.²⁷

Compounding the OPK's problems was the dramatic fall in world oil prices during the early Gorbachev years—a 40 per cent decline between 1985 and 1989, the bulk of the decline occurring in 1986. As a result, the Soviet Union had already suffered substantial losses on actual revenues from arms sales. Oil-producing countries that had been able to pay in dollars for arms could no longer afford to pay in hard currency. In most cases, however, this did not lead to suddenly decreased orders or deliveries; the arms kept flowing, and it took some time before payment was due. But that was not a concern for the producer plants—that was for the government to resolve. As far as the enterprises were concerned, it was

²⁷ Antonio Sánchez-Andrés, 'Arms Exports and Restructuring in the Russian Defence Industry', *Europe-Asia Studies*, vol. 56, no. 5, July 2004, p. 687.

business as usual. It took the collapse of the Soviet Union's Eastern European empire in 1989–90 to actually affect the producers, because actual orders dropped then as well. In 1990, there was also a shift in Russia's foreign aid policy. This made it more difficult to justify or mask the subsidising of arms sales even to Soviet non-oil client states.²⁸ At the end of the Cold War, Russian defence plants lost nearly 80 per cent of government funding.²⁹ At the same time export earnings were declining due to loss of traditional Soviet bloc markets—especially Eastern Europe. The general decline in the world arms market, and the abundance of cheap, pre-produced Cold War stocks were complicating factors. It was only the slow trickle of hard currency still received from exports to China that kept the industry alive during this transitional period.

Many analysts believed that the very existence of the Russian defence industry, as well as the nation's military high technology, was in jeopardy. This would have had far-reaching implications for the defence sector and its scientific and technological potential, along with the country's natural resources, which remained the only assets on which to base the ultimate success of economic reform and the retention of Russia's status as an industrially developed nation.³⁰

The decline in government contracts for military equipment also had grievous social consequences. Russia lost about one third of its scientific potential over the years of various industry and economic reforms. Scientists involved in computing mathematics, genetics and bio-technologies were usually the first to leave Russia, for the greener pastures of the West. The 'brain drain' became especially active at the end of the 1990s, when specialists started leaving Russia in large groups. According to expert estimates, the total number of people involved in scientific and research works halved from 1990 to 2002.³¹ More specifically, the exodus of qualified personnel from defence enterprises has been great. During the first half of 1994, the number of production staff in the defence sector diminished by 15 per cent, up from 12 per cent in 1993.³² The exodus was mainly attributable to low wages and can still be felt today, although far less so than the mid 1990s levels.

When these exodus statistics are considered, it is amazing that Russia still possesses one of the world's largest defence R&D establishments, both in terms of the number of research centres and employees.³³ The R&D base continues to

28 Gaddy, *The Price of the Past*, p. 62.

29 Refer 'Russia/Soviet Military Industry', GlobalSecurity.org, available at <<http://www.globalsecurity.org/military/world/russia/industry.htm>>, accessed 28 April 2009.

30 Gerasev and Surikov, 'The Crisis in the Russian Defense Industry: Implications for Arms Exports', p. 9.

31 Refer 'With brain drain declining after the period of perestroika, Russia's national intellect is still in danger', *Pravda*, 17 December 2005, available at <http://english.pravda.ru/main/18/88/351/16590_scientists.html>, accessed 28 April 2009.

32 Gerasev and Surikov, 'The Crisis in the Russian Defense Industry: Implications for Arms Exports', p. 15.

33 Miller and Trenin (eds), *The Russian Military: Power and Policy*, p. 160.

survive by maintaining its significant capacity and in many cases prospers—in particular in the cases of developments in aero-engine, submarine, and missile technology. For example, Jane’s Information Group has stated that Russia’s S-300 family of air-defence systems is highly procurable and also well respected: ‘The Russian S-300 surface-to-air anti-missile system is superior to the US-made *Patriot* air-defence system and is also cheaper.’³⁴

While the needs of the Soviet armed forces were the dominant factor in planning, at various times the existence of foreign suppliers and foreign markets were probably helpful from both a production perspective (to fill gaps in any given production line) and also in price setting. Goods produced for export were integrated into the overall defence order alongside goods produced for the Soviet armed forces. Furthermore, the chief purpose for exporting these goods was political rather than financial. Soviet foreign policy wielded weapons sales as a means of safeguarding foreign allies’ loyalty and enlarging the communist camp. Financial recompense was rarely received if indeed expected—many nations are still paying off Soviet-era debt to Russia to this day. This deficiency in domestic demand, coupled with the lack of market-economy experience in arms exports, were the sources of the subsequent problems faced by the OPK post 1990.

With the dramatic reductions in the volume of state orders, the relative importance of arms exports to the defence industry increased. During the 1990s, the arrears on state payments to the military production facilities came to a figure equivalent to domestic military procurements themselves. In 1996 for example, the accumulated arrears made up nearly half the value of the domestic military procurements accumulated since 1992 and were greater than the orders solicited that year. In 1999, they represented one third of the cumulative internal military orders. This points to the importance of exports for the defence industry. Exports allowed some sense of continuity to be maintained in some parts of the defence industry, which enabled it to avoid the brunt of the economic crisis, as well as the destructive phenomena associated with it.³⁵ Since 2000, exports have taken on a whole new level of importance, generating a quadrupling in earnings.

1999–2006: The Putin Factor and the OPK

Under the Putin Administration, it became evident that the Kremlin intended to use ownership as its primary control instrument of the OPK. Putin kept

34 ‘Russia: Defence Production and R&D’, in *Jane’s Sentinel Security Assessment*, Jane’s Information Group, Coulsdon, Surrey, 2006.

35 Sánchez-Andrés, ‘Arms Exports and Restructuring in the Russian Defence Industry’, p. 691.

requisitioning powers in the background and minimised budgetary subsidies at a time when state weapons procurement programs were smaller than those of the Soviet past.

Ilya Klebanov, former Deputy Prime Minister and now Minister for Industry Science and Technology, is Putin's architect for the OPK reform program. Klebanov hopes to reestablish state control over domestic military-industrial activities while creating new entities, such as the Unified Aircraft Corporation, in the anticipation that they will capture a larger share of the global arms market.³⁶ The melding of design and production makes the new consolidated OPK structures potentially more responsive to domestic and foreign weapons demand and also ensures that designers such as RSK MiG do not rely on regular sales of their products for survival. In essence, more state control over the arms manufacturers will safeguard their survival as they will no longer have to exist solely on the success of their exports.

From 1999, the fundamental principles underpinning defence-industrial reform have consisted of substantially reducing the size of the industry by expelling organisations from the sector and changing to the state controlled structure. As for the policy on arms exports, there has been a tendency to concentrate external orders in a smaller number of companies and, in particular, to assign orders to only a few companies from all of those that could complete them.³⁷ For example, the military's decision to develop a new tank based on the T-90 at the Ural Coach Works in Nizhny Tagil means that the Transmash factory in Omsk with its T-80 loses out, as the T-80 design was discarded as an option for further development. Furthermore, the MoD approves new designs and finances R&D activities that subsequently bring export revenues to the enterprises and the MoD decides whether or not to permit the sale of various types of armaments abroad. That means any duplication in arms production is avoided. The advantage of this policy revolves around the fact that although there is less variety of production, the country's defensive capacity is not reduced and the government maintains control over the defence industry as a whole.

The aforementioned policies for OPK reform were made official with the advent of the Putin Administration. The Russian Prime Minister in 2001, Mikhail Kasyanov, was the key signatory of government Resolution 713 'On Reforming and Developing the defence-industrial complex in 2002–2006'. He proposed the 'civilianising' of some 1200 enterprises and institutions, stripping them of their military assets, including intellectual property, and transferring this capital to 500 amalgamated entities called 'system-building integrated structures', which the media refers to simply as 'holdings'. The aim is for these holdings to be

³⁶ Rosefielde, *Russia in the 21st Century*, p. 94.

³⁷ Sánchez-Andrés, 'Arms Exports and Restructuring in the Russian Defence Industry', p. 699.

51 per cent state owned and to be able to compete with defence giants such as Lockheed Martin Corporation and Europe's EADS. The plant equipment and intellectual property of the more than 1000 enterprises no longer considered a part of the OPK would be transferred into the new holdings.³⁸

This rearrangement will increase the military focus of the OPK by divesting it of its civilian activities and also strengthen the defence lobby and augment state ownership. Also, the government is to have a controlling stock of the lead companies (design bureaux) of the system-building integrated structures. This equates to the termination of traditional Soviet separation of design from production and the creation of integrated entities capable of designing, producing, marketing and servicing OPK products.³⁹ In January 2002, Putin approved this armaments program that called for the 'coordinating, management, and control functions' held by federal entities that manage the OPK to be transferred to so-called system-building integrated structures by 2010.⁴⁰ In essence, the plan called for an increase in state ownership throughout the sector by rethinking the privatisations of the 1990s, which officials say lost the government billions of dollars worth of intellectual property. The license production agreement for Sukhoi Su-27 manufacture in China signed in 1994 is a good example.⁴¹

Up to this point Putin's plan has been largely successful, albeit behind schedule. In 2001, Defence minister Sergei Ivanov was quoted as complaining that: 'About 70 per cent of the military budget is being spent merely to maintain troops and bureaucrats, leaving precious little to maintaining and upgrading equipment.'⁴²

However, the following six years have proved that statements such as this have not fallen on deaf ears, and indeed, Ivanov himself has contributed to rectifying the problems aired in his own statement. The SDO has risen every year since, and schedules aside, both Putin and Ivanov are pushing defence industry reform towards ensuring a rise in domestic procurement orders.

As discussed, the main mechanism favoured by Putin and Ivanov for reforming the OPK is the increase in governmental ownership of the complex. This follows the trend set within the energy industry. In the past two years Putin has moved aggressively to reassert state control over Russia's huge oil and gas reserves, which had fallen into private hands in the early 1990s. Putin seems to be 'socialising the guns and privatising the butter' within Russia. There has been little drive to reassert state control over non-primary industry. Primary industry is the main focus, as Mikhail Khordokovsky, the jailed oligarch and

38 Miller and Trenin (eds), *The Russian Military: Power and Policy*, p. 167.

39 Rosefelde, *Russia in the 21st Century*, p. 92.

40 Miller and Trenin (eds), *The Russian Military: Power and Policy*, p. 166.

41 Catherine Belton, 'A Call to Arms', 3 December 2001, available at <http://www.businessweek.com/magazine/content/01_49/b3760127.htm>, accessed 28 April 2009.

42 Donaldson, 'Domestic influences on the Russian arms sale policy', p. 7.

former head of Yukos, Russia's largest oil company, found out to his detriment after a questionable and highly publicised trial process. As a result, the Kremlin has already regained more than 30 per cent of the country's oil industry. As the journalist Michael Franchetti wrote in early 2006: 'It's about making the state more powerful. And it's about controlling what Putin thinks are strategically important companies.'⁴³

Putin sees the OPK as having strategic importance; hence the move to exercise further state control over the defence industry. Currently 40 per cent of OPK enterprises are state owned, 17 per cent are stock companies with some form of state participation, and 43 per cent are in private hands.⁴⁴ These figures were taken with the understanding that a private company had less than 25 per cent state ownership, a state company had 100 per cent state ownership and the remaining 17 per cent of companies had state ownership between 25 and 100 per cent state ownership. Officially, by the end of 2006 (but realistically three or more years thereafter), the government was expected to have a controlling stock in all the head companies of the system-building integrated structures. As a rule, the head company running a holding will be a design bureau. As previously noted, design bureaux were separate from production plants during the Soviet era and were the best known entities of the VPK in the West. Design bureaux such as Tupolev, MiG and Mil were more recognisable than their associated production plants near Moscow, Gorkii and Rostov-on-Don. The new program is intended to put an end to this separation by integrating the design bureaux and production plants into new, vertically-oriented system-building structures. In addition, the state's shares in the remaining enterprises in the OPK holdings will be put into trusts held by the head companies.⁴⁵ So in effect, Putin is striving to wrest control of one half of the Russian defence industry from the private sector and orient each of the new entities that are created in such a way that they can research, design and produce the requisite weapon system.

Given the unwillingness of the production plants to share their profits with the state, the government has decided to convert these plants into new holdings (that is, system-building integrated structures). Within the aforementioned government Resolution 713, there would be two stages, both of which are still being implemented with delays from their original deadlines. In the first stage (officially 2002–2004, but now behind schedule), head companies were chosen to develop new weapons and equipment and to establish new integrated structures (holdings) along the lines of existing defence industry branches. The fewer than 500 companies of the OPK that are to remain once the restructure concludes

43 Mark Franchetti, 'Putin Flexes Muscles of 'Kremlin Inc'', 1 January 2006, available at <<http://www.timesonline.co.uk/tol/news/world/article783971.ece>>, accessed 28 April 2009.

44 'Ownership Structure in the Russian Defense Industry', *Moscow Brief*, February 2005, available at <<http://mdb.cast.ru/mdb/2-2005/facts/owner/>>, accessed 28 April 2008.

45 Miller and Trenin (eds), *The Russian Military: Power and Policy*, p. 167.

will then be divided into these holdings. The plan consists of 40–45 such holdings, with potential options for further consolidation of assets. Integrated holdings have or will shortly be created in aviation, shipping, automobile, radio-electronics, information technology, missile space, ammunition and conventional armaments sectors.⁴⁶

In the second stage (officially 2005–2006, and also behind schedule), the program calls for the creation of new kinds of diversified research and production complexes that will combine enterprises from different branches of industry, produce both military and civilian goods, and be capable of competing in the global market.⁴⁷ The composition of every structure, at both the first and the second stages, must be approved by presidential decree. The Ministry of Industry and Energy is responsible for the program overall. The Ministry of Atomic Energy, the Aviation and Space Agency, the Control Systems Agency, the Shipbuilding Agency, and the Ammunition Agency were originally responsible for achieving the program's objectives within their respective branches.⁴⁸ However, yet another restructure, this time at the governmental level, now sees the Industry Agency, within the Ministry of Industry and Energy, solely responsible for achieving the program objectives, and this streamlining will greatly assist the overall process of restructure. The overall completion of the reforms within the OPK, factoring in the slippage from the original 2006 goal, is expected in 2010.⁴⁹

Most of the reform policies currently in place or being considered are the concepts of Putin and Ivanov. At the very least, these policies must receive approval from one or both of these figures; thus their importance in the reform of the OPK cannot be underestimated. There have been delays associated with the reform deadlines; hence the discrepancy in the 2002–2006 timeline for the implementation of Resolution 713. However, the overall process is being stubbornly implemented regardless of delay, by Putin and Ivanov and then down the chain of command. The reforms have assisted the OPK to date, but whether the end product ensures that the OPK resembles the phoenix rising from the ashes remains to be seen.

46 Irina Isakova, *Russian Defense Reform: Current Trends*, Strategic Studies Institute, US Army War College, Carlisle, PA, November 2006, p. 45, available at <<http://www.strategicstudiesinstitute.army.mil/pubs/display.cfm?pubID=740>>, accessed 28 April 2009.

47 Miller and Trenin (eds), *The Russian Military: Power and Policy*, p. 171.

48 'Special Report—Russian Defence Industry Rises Again', *Jane's Defence Industry*, 12 January 2005.

49 Isakova, *Russian Defense Reform: Current Trends*, p. 46.

