

Chapter 3

Domestic Drivers for Russian OPK Success

Essentially, the long-term success of the *Oboronnyi-promyshennyi kompleks* (OPK) success hinges on six key tenets. First, a more concrete linkage of army reforms and the restructure of the OPK is required. Attempts have been made to facilitate this, particularly the introduction of the Military Industrial Commission (MIC) in 2006, which has given Sergei Ivanov more direct control and input into the OPK. Second, active attempts must be made to battle endemic corruption within the industry. Again, attempts have been made in this area too, but it must be sustained and more focused, as the problems are deep-rooted and incessant. Third, and perhaps the most actively attempted to date, is the restructuring of the OPK into a more consolidated sector. The current government push for greater state control over the industry may or may not be beneficial in the longer term; however it is the restructuring itself that is important. Fourth, Vladimir Putin and Ivanov must ensure that Russia itself becomes the foremost customer for its defence industry, by re-equipping significant sections of the Russian defence forces. Rather than the piecemeal attempts that have been witnessed to date, wholesale replacement of Soviet-era equipment must occur so as to sustain large-scale production within the defence industry. The two remaining domestic drivers for long-term OPK success are both closely linked to the external drivers. They include the continued success and utilisation of the state arms exporter Rosoboronexport and the commissioning of new joint ventures with other states. These joint ventures will provide the OPK with valuable research and development (R&D) funding, which will contribute to the viability of the OPK in the long-term as it continues to develop new military technologies.

Linking Armed Forces Reform with OPK Restructure

Since the collapse of the Soviet Union, reform of the armed forces has been one of the most frequently cited objectives of the Russian state; but also one of the most resistant to realisation. The sinking of the submarine K-141 *Kursk* on 12 August 2000 and the elusiveness of victory in the second military campaign in Chechnya only added a few more pixels of resolution to an already clear picture: after nine years under Boris Yeltsin the Russian Army was a shambles. Efforts at armed forces reform had been ill-conceived and inadequately supported financially

and politically, and were thus ultimately fruitless.¹ The rise to power of Putin in 1999–2000 signified a change in this area. The military was one of Putin's political tools and strongest partisans during this transitional period. The new president's initiatives included a National Security Concept and Military Doctrine in 2000; a package of military reform measures in January 2001; and pronouncements of an acceleration of the 'professionalisation' of the army in November 2001. These were followed by a reiteration of the importance of military reform in an address to the Federal Assembly in April 2002, suggesting that the Kremlin was finally resolved to address the problems afflicting the armed forces.²

The announcement that the military would focus more on modernisation than reform was a key element to underpinning future OPK economic success, as it meant that re-equipping of units with new military hardware would occur. In October 2003 further policies were tabled in the Duma, this time for the armed forces rather than the OPK, in the form of a Defence White Paper, also known as 'Defence Doctrine', 'Priority Tasks' or 'Ivanov Doctrine'. This comprehensive 74-page document outlined Russia's strategic environment; the tasks of the armed forces; priorities for defence 'modernisation' as opposed to 'reform'; and Russia's multilateral commitments, particularly with the CIS.³ Putin emphasised the need for civilian control over the armed forces, as well as the need to improve defence management and the structure of the armed forces. As respected Russian defence industry analyst Ruslan Pukhov suggested: 'Ingredient one [for OPK success] is the linking of the reforms within the military and the OPK.'⁴

On 28 March 2001 Putin announced a reshuffle of ministers in Russia's security apparatus. Two senior posts in the MoD went to civilians, with Sergei Ivanov and Lyubov Kudelina assuming the posts of Defence Minister and Deputy Defence Minister respectively. These executive changes had positive implications for financial reform in the military, with Kudelina's budgetary expertise⁵ complementing Ivanov's political influence.⁶ Moreover, removing Army Generals from these key posts assisted Putin in pushing reforms through the military more quickly and curbed the negative effects of nepotism and corruption within the reform process. Ivanov left the Defence Minister's post,

1 Anne C. Aldis and Roger N. McDermott (eds), *Russian Military Reform 1992–2002*, Frank Cass, London, 2003, p. 41.

2 Aldis and McDermott (eds), *Russian Military Reform 1992–2002*, p. 41.

3 Colonel C. Langton (ed.), *The Military Balance 2004–2005*, Oxford University Press, Oxford, 2004, p. 97.

4 Ruslan Pukhov, in an interview conducted at the Centre for Analysis of Strategies and Technologies, Moscow, 6 June 2006.

5 Lyubov Kudelina was a graduate of economics from the Moscow Financial Institute, with over 20 years experience in the Finance Ministry before taking her post within the Ministry of Defence.

6 Aldis and McDermott (eds), *Russian Military Reform 1992–2002*, p. 287.

being replaced in March 2007 by another Putin ally, Anatoliy Serdyukov. The move allowed Ivanov to focus on his ultimately unsuccessful candidature for the Russian Presidency in 2008.

Within the OPK, the Reform and Development of the Defence Industrial Complex Program 2002–2006, signed by then Prime Minister Mikhail Kasyanov in October 2001, reveals that the Kremlin is moving towards a reconsolidation of state authority. The reforms are driven in part by the ageing of the OPK's capital stock; and also underemployment, low pay, and poor enterprise finances.⁷ As discussed in chapter 2, the plan envisions the downsizing of the OPK, which currently consists of 1000 enterprises and organisations located in 72 regions, 'officially' employs more than 2 million workers (more realistically 3.5 million), and produces 27 per cent of the nation's machinery and 25 per cent of its machinery exports. The *Voennyi-promyshlennyi kompleks* (VPK) was wholly state-owned at the beginning of the post-Communist epoch. As at 2006, 40 per cent of its holdings remained state owned, 17 per cent were mixed state/private stock companies, and 43 per cent were fully privatised.⁸ All of these entities are responsive to the market but retain a collective interest in promoting government patronage, meaning they can be quickly commandeered if state procurement orders revive, which is expected to occur between 2006 and 2015.⁹ In the meantime, large contracts for arms from China, India and now Algeria will provide the OPK with the orders it requires to sustain the various production lines of military equipment.

Both Putin and Ivanov realise that if modernisation of the armed forces is achieved, it will greatly assist the longevity of the OPK. The key comparison between Putin's approach and the various reform plans that were put forward during Yeltsin's time is that Yeltsin's plans read like a laundry list of items that need to be fixed. Putin's problem-solving approach meant that he preferred to look at specific problems and explore the options to deal with them one at a time.¹⁰ Putin's aim was to set the scene for the large-scale resumption of Russia's domestic procurement program, which in terms of raw finance is now matching arms export revenues. Putin was also trying to scale back the bureaucracies that frustrate both the deployment of new weapons and the operation of conventional arms exports. According to the 2003 White Paper, the proportion of advanced weapons and hardware in the armed forces' entire inventory of military equipment will be raised to 35 per cent by 2010; the armed forces will be totally re-equipped by 2020–2025; and the ratio of the expenditure on weapons

7 Steven Rosefelde, *Russia in the 21st Century*, Cambridge University Press, Cambridge, 2005, p. 91.

8 'Ownership Structure in the Russian Defense Industry', February 2005, available at <<http://mdb.cast.ru>>, accessed 13 June 2006.

9 Rosefelde, *Russia in the 21st Century*, p. 91.

10 Dale R. Herspring, 'Vladimir Putin and Military Reform in Russia', *European Security*, vol. 14, no. 1, March 2005, p. 141.

and hardware to National Defence spending will be raised to 50–60 per cent by 2025.¹¹ Whether or not Russia can achieve the stipulated deadlines remains to be seen. There will probably be some delays if the reforms and modernisations achieved to date are anything to go by.

In another area of military reform, Putin initially chose to set a rather ambitious target of ‘abolishing’ conscription by 2010. This policy has since changed to dropping the conscription period to one year by 2008 and the introduction of a program pushing for more contract Manning over the same period.¹² Putin’s ‘one problem at a time’ approach is evident within the military reforms, which began with troop reductions, then focused on contract Manning, and finally soldiers’ pay and conditions. The approach is also evident within the breakdown of funds within the State Defence Order (SDO). SDOs from 2000–2005 saw the majority of the funding going towards R&D, whilst the 2006 SDO looked to be the first of many that devote the bulk of the funding towards procurement of military equipment.

Putin, to a greater extent than his predecessor, understood the dire condition of the armed forces. He cared very deeply about their plight, which is understandable, given his own background in the KGB. The magnitude of the crisis is not lost on him, but the question remains whether he will succeed in achieving real reform, as opposed to ‘paper reform’. In appointing Ivanov, a close colleague and a civilian, as Defence Minister, Putin strengthened his own control over the armed forces. He also enhanced the authority of the MoD in forming security policy at the expense of the General Staff.¹³ Up to 2004, the General Staff wielded significant power, and had been a thorn in the side of both Ivanov and Putin’s reform efforts. On 19 July 2004, Army General Anatoly Kvashnin, who had served as chief of General Staff for seven years, was discharged. He was replaced by First Deputy Chief of the General Staff Yuri Baluyevskiy. Kvashnin, a staunch advocate of a strong ground force, had fallen out with his civilian boss Ivanov over the nature of armed forces reform and the shift to a contract-based recruitment system.¹⁴ Ivanov stressed that the General Staff should be strengthened by clearly redefining the functions and duties of the upper tier of the military. Moreover, he openly criticised the General Staff arguing in 2005 that:

It spends too much time on superfluous administration and day-to-day management of the troops, to the detriment of its main purpose; situational analysis and development of troop deployment plans.¹⁵

11 ‘Russia—Tightening State Control’, *East Asian Strategic Review 2005*, National Institute for Defense Studies, Tokyo, 2005, p. 183.

12 Aldis and McDermott (eds), *Russian Military Reform 1992–2002*, p. 268.

13 Aldis and McDermott (eds), *Russian Military Reform 1992–2002*, p. 262.

14 ‘Russia—Tightening State Control’, *East Asian Strategic Review 2005*, p. 179.

15 Sergei Ivanov, in Dale R. Herspring, ‘Vladimir Putin and Military Reform in Russia’, *European Security*, vol. 14, no. 1, March 2005, p. 151.

The removal of the General Staff from a position that wielded considerable influence within policy decisions undoubtedly gave Ivanov more power and flexibility in carrying out further modernisation of the armed forces. In turn, this has given the OPK a greater chance of securing state finances. Ivanov's successor, Anatoliy Serdyukov, was no doubt relieved that he now wielded this power as Defence Minister, because by the 2008 election he needed to have achieved the reduction of conscript service to one year, the introduction of a contract-manning system for non-commissioned officers, and the implementation of a mortgage accumulation scheme of housing provision to servicemen as stipulated in the White Paper. The advantage he now has is that he will no longer have to compete with the Chief of the General Staff in policy decisions, and in addition, he now has a sizeable central staff (unprecedented in either Tsarist or Soviet military organisations) numbering around 9000 personnel with which to achieve these reforms.¹⁶

A subsequent Presidential decree in August 2004 ensured that the General Staff was relieved of non-military duties including managerial and administrative tasks. The legislation also removed two of the deputies within the General Staff in an effort to de-bloat it. Now there would be only four. In addition the General Staff now assumes the position Ivanov believed appropriate; it has become what the now legendary Chief of the General Staff under Josef Stalin, Boris Shaposhnikov, had called 'the brain of the army'. It no longer attended to operational matters. Essentially, when this bill was adopted by the Duma, Ivanov was placed in charge of all aspects of military affairs.¹⁷ This was clearly aimed at instituting more civilian control over the armed forces and ensuring timelier modernisation programs. For the first time in Soviet and Russian history, the government had established a central control and management apparatus within the MoD and thereby brought all major central staff organisations under the Defence Minister's immediate direction.¹⁸ These moves all appear aimed at strengthening the authority of the Defence Minister over the armed forces as a whole, and follow the general trend of civilianising key positions within the Defence structure.

The stress that Putin has placed on the White Paper as being a modernisation drive, rather than a reform package was purely political. This stipulation had two important electoral benefits for Putin as he chased a second term in office in 2004. First, this sentiment is popular within the military itself, especially at higher levels, because it does not threaten the existing order. Moves for significant reform and reductions in the size of the military appear threatening

16 Herspring, 'Vladimir Putin and Military Reform in Russia', *European Security*, vol. 14, no. 1, March 2005, p. 151.

17 Herspring, 'Vladimir Putin and Military Reform in Russia', pp. 150–51.

18 'Russia—Tightening State Control', *East Asian Strategic Review 2005*, p. 180.

to many of Russia's generals. Second, calling it a modernisation drive supports the President's claim that the era of instability and crisis is over, and therefore supports his electoral goals in the population as a whole.¹⁹ The most important implication of the White Paper for military reform is its basic assumption that no more significant changes to the size or structure of the armed forces are to be undertaken; it states: 'Major Armed Forces reductions are not envisioned in the future—their strength has been reduced to the level of defensive sufficiency'.²⁰

This implies that the main focus of the MoD is on modernisation—improving training, pay, doctrine, and equipment—rather than on deeper reform. This of course plays straight into the hands of the OPK, as larger and larger SDOs will be forthcoming as the Russian armed forces re-equip themselves with weaponry from Russian defence industries.

In June 2005, all of the proposals within the White Paper were approved at a sitting of the Russian Security Council. The 18-month period between drafting and passing the White Paper was an indication of the potentially massive change the White Paper will have on the Russian armed forces.²¹ If the goals within the White Paper are achieved, it will go a long way to assuage the bitter feeling of many members of the Russian military. Russian Army General Vladimir Shamanov summed up the feeling of many Russian Generals when he said:

Thank God our public has finally begun to discuss the state of the army. Maybe our strategic nuclear forces will protect the country for another decade, but then what? A strong Russia is impossible without a strong army.²²

Regardless of the terminology, Putin has begun to take the first steps required for genuine Russian military reform. He has pushed the military closer to necessary reforms in the last four years than in any time since the collapse of the Soviet Union in 1991. The reform plan is in place, its funding has increased, some weapons modernisation has begun, and most importantly Putin placed the position of Chief of General Staff under the Defence Minister. Compared with Mikhail Gorbachev, who was not interested in the military, or with Boris Yeltsin, who starved and undermined it, Putin seems to understand its importance and appears committed to dealing with its problems.²³ As Lilia Shevtsova pointed out in her recent book on Putin: 'Whereas Boris Yeltsin was revolutionary, a

19 Matthew Bouldin, 'The Ivanov Doctrine and Military Reform: Reasserting Stability in Russia', *Journal of Slavic Military Studies*, vol. 17, no. 4, 2004, p. 627.

20 Bouldin, 'The Ivanov Doctrine and Military Reform: Reasserting Stability in Russia', p. 628.

21 Yuriy Baluyevskiy, 'Igor Baluyevskiy: We do not intend waging war with NATO', *Moscow Rossiyskaya Gazeta*, Moscow, November 2005, p. 2.

22 General Vladimir Shamanov, in 'Iraqi defeat jolts Russian Military', 16 April 2003, available at <www.csmonitor.com>

23 Herspring, 'Vladimir Putin and Military Reform in Russia', p. 137.

man who destroyed the pre-existing Communist system, Vladimir Putin is a bureaucrat, a man who considers his primary task is to bring stability to Russia.²⁴

Putin believes that organisational structures of state ministries such as defence can only be changed by continually coaxing them, and gradually changing their structures, attitudes and personnel. This is why those observers who expected Putin and his hand-picked Defence Minister Ivanov to take the kind of bold decisions necessary to make military reform a reality in a relatively short period of time, were mistaken. Making bold and hasty decisions are not part of Putin's leadership style, and as Russian defence analyst Dale Herspring put it: 'He [Putin] is more the tortoise than the hare—and we all know that in the end it was the tortoise that won the race'.²⁵

Perhaps the most important development in the linkage of military reform with OPK restructure occurred in November 2005. Ivanov, while retaining his post as Defence Minister, was appointed Deputy Prime Minister with responsibility for oversight of the arms industry and its relations with the armed forces.²⁶ Furthermore, in March 2006 Putin approved the formation of the MIC. Ivanov, although retaining his other posts, was appointed chairman. However, the First Deputy Chairman, Vladislav Putilin, exercised day-to-day leadership.

The MIC, much like its Soviet predecessor, is a permanent body exercising oversight of the long-term strategy and planning, and performing operational management of the R&D and procurement projects, but it will also monitor the overall restructuring of the OPK. The body also defines the main parameters for SDOs, including timing, pricing, and personnel policy in the defence enterprises.²⁷ Its creation has centralised and strengthened the operational management of the OPK, and will no doubt greatly assist the restructuring policies currently in place for the OPK.

Battling Corruption

The problem remains, however, that a large amount of the SDO finance devoted to procurement does not reach the arms manufacturers, and this is why they focus output on the export market. As Konstantin Makienko, of the Centre for Analysis of Strategic Technologies, encapsulated:

24 Herspring, 'Vladimir Putin and Military Reform in Russia', pp. 137–38.

25 Herspring, 'Vladimir Putin and Military Reform in Russia', p. 138.

26 Julian Cooper, 'Developments in the Russian arms industry', *SIPRI Yearbook 2006*, Oxford University Press, Oxford, 2006, p. 437.

27 Irina Isakova, *Russian Defense Reform: Current Trends*, Strategic Studies Institute, US Army War College, Carlisle, PA, November 2006, p. 13, available at <<http://www.strategicstudiesinstitute.army.mil/pubs/display.cfm?pubID=740>>, accessed 28 April 2009.

Where does the State Defense Order go? You can suppose two reasons only: either all the funds are funneled to the nuclear deterrence forces, to production of Topol and Bulava ballistic missiles, or all budget appropriations disappear in defense ministry lobbies. Only small crumbs make their way to enterprises involved in the State Defense Order.²⁸

Steps are being taken to combat the issue of corruption and funds misappropriation within the OPK. According to *Jane's Sentinel Security Assessment*, at the political level, the accountability and transparency of the procurement process has increased as a result of tighter regulatory controls exercised by the Ministry of Industry and Trade. The Cabinet has adopted new procurement regulations, and their implementation is expected to push the overall cost of the defence contract down by 15 per cent. One of these regulations stipulates that all procurement contracts are now to be awarded on a tender basis. Furthermore, bidders will now be allowed to sign contracts only in the first quarter of each calendar year in an effort to tighten fiscal discipline. The cabinet is to introduce a new, 3-year fixed-price type of contract in order to manage procurement costs more efficiently.²⁹

Taking over from the old system of individual branch procurement is a new arms procurement agency, the Federal Defence Order Service. It has been set up under the MoD, and its function is to root out corruption and increase efficiency within the military. It has the responsibility of implementing a unified state policy in the areas of development, production, unification, and standardisation of armaments and general-purpose military equipment.³⁰ The agency, whose management will report directly to Defence Minister Anatoliy Serdyukov, is to put an end to the practice whereby branches of the armed forces themselves sign and oversee defence contracts.

Until recently, all combat arms and numerous directorates within the MoD had the power to commission weapons. This gave the military direct control over substantial cashflows, leaving plenty of room for corruption and funds mismanagement.³¹ One such case involved the Vice-Commander-in-Chief of the Russian Air Force, General Dmitri Morozov, who used factories and the budget of the Air Force to enrich himself, his family members and his aides. The Russian news journal *Versiya* obtained documents, from which it emerged that, since 1997, 20 repair workshops for aircraft had been used to generate profits from commercial activities. These profits were laundered through a special Air Force

28 Konstantin Makienko, in Konstantin Lantratov, 'Airplanes Will Give in to Submarines. A List of Major Defense Companies Drafted', 9 June 2005, available at <<http://www.kommersant.ru>>, accessed 18 June 2005.

29 'Procurement', *Jane's Sentinel Security Assessment: Russia*, Jane's Information Group, Coulsdon, Surrey, March 2006.

30 'Procurement', *Jane's Sentinel Security Assessment: Russia*, March 2006.

31 'Procurement', *Jane's Sentinel Security Assessment: Russia*, March 2006.

'charity fund', which was processed and managed by a Moscow bank founded by Morozov and members of his family. The money was used, among other things, to buy luxurious apartments in Moscow for Morozov and his family, the directors of the companies of the repair workshops, the main financial controller of the Air Force, and others who participated in the fraudulent scheme. After this was published in *Versiya* in 2004, Morozov requested retirement.³² This case is indicative of the culture of corruption that is undermining Putin's efforts to reform the military and OPK. This is the key reason behind the serious efforts that are currently being made to combat corruption.

The appointment of Anatoliy Serdyukov to the post of Defence Minister had two purposes: first, to ensure Ivanov could focus on his Presidential prospects in 2008; and second, to improve the accounting and supervision of MoD spending (Serdyukov was formerly head of the Federal Tax Service). The need to fight corruption, improve purchasing in the defence sector and the ineffectiveness of the MoD's own supervisory institution all played a role in the choice of Ivanov's successor.³³

Cabinet officials stated that, in the near future, financial controls over the defence budget implementation are to be tightened even further. The MoD is hiring an external auditor to conduct research on market costs of major weapon systems in which the Ministry has an interest. Its procurement and finance agency will introduce a uniform tender format for all armed services and non-MoD security agencies. Weapons will be purchased at fixed prices and the MoD suppliers will be bound by tighter quality control requirements and delivery schedules.³⁴ This process will be overseen by Ivanov and Putin within the MIC. It is too soon to assess the probability of success these efforts will have in curbing corruption, but it is noteworthy that this is the first time corruption has been attacked head on. It is certainly a step in the right direction.

Corruption associated with the export of arms to foreign states has also been sharply curtailed, although not eradicated. The November 2000 formation of Rosoboronexport assisted in quelling the rampant corruption within its predecessors, Rosvooruzhenie and Promexport. The government divided its arms export components between these two companies: Rosvooruzhenie managed the complex export contracts requiring the coordination of many OPK enterprises, while Promexport was tasked with managing the spare parts and after-sales support market, as well as any excess Russian military stock.³⁵ Putin's

32 Vadim Saranov, 'Generals of the air force enrich themselves', *Versiya*, Moscow, 25 October 2004.

33 Irina Isakova, 'The Russian Defence Reform', *China and Eurasia Forum Quarterly*, vol. 2, no. 1, March 2007, p. 81.

34 'Procurement', *Jane's Sentinel Security Assessment: Russia*, March 2006.

35 Ian Anthony (ed.), *Russia and the Arms Trade*, Stockholm International Peace Research Institute, Oxford University Press, Oxford, p. 105.

decision to create Rosoboronexport was supported by the many OPK enterprises disenfranchised with Rosvooruzhenie's questionable financial practices. The corruption problem associated with Rosvooruzhenie was compounded with widespread customer dissatisfaction with Promexport's poor after-sales support. Both were telling factors in the creation of Rosoboronexport, which has subsequently diminished, although not completely removed, the corruption problem. Rosoboronexport will be discussed in more detail shortly.

OPK Restructure

*The past year [2005] has turned out to be remarkably productive for the restructuring of the defence industry.*³⁶

Given the scarcity of past domestic financing, the inflows resulting from exports were, and still are to an extent, essential for the OPK's survival. The current approach from the government has been a restructuring policy that uses domestic finances to back those high priority armament programs that cannot receive foreign financing due to international sensitivities (for example, nuclear missiles). Likewise, those organisations that develop high-priority programs that do have the capacity to export may also receive state financing. However, for these last programs and organisations, as well as for those of medium or low-level priority, the financial flows resulting from exports will be of vital importance.³⁷ Therefore, the companies in which export orders are being concentrated will go on to constitute one of the most important pillars of the future Russian defence industry. Furthermore, their products will be the basis on which domestic military needs are covered and some of the most important Russian arms development programs are established. The policy of arms exports has thus been used as an economic tool to restructure the defence industry and, in the future, it seems that it will play a much more dynamic role in this regard.³⁸

Recent defence restructure has focused on industry consolidation, in particular on the aircraft and helicopter sectors. These attempts all stem from the policies tabled in the Reform and Development of the Defence Industrial Complex Program 2002–2006. In 2005, realising the program would expire in one year, the Russian Government ramped up its efforts to integrate the defence industry. According to Makienko, of the Centre for Analysis of Strategic Technologies, the attempt to create a Unified Aircraft Corporation (*Obyedinyonnaya Aviasroitel'naya Korporatsiya* or OAK) was the most important instance of this policy and

36 Konstantin Makienko, 'Evolution of Russia's defence industry in 2005', *Moscow Defense Brief*, no. 5, 2006, available at <http://mdb.cast.ru/mdb/1-2006/industrial_policy/item1/>, accessed 28 April 2009.

37 Antonio Sánchez-Andrés, 'Arms Exports and Restructuring in the Russian Defence Industry', *Europe-Asia Studies*, vol. 56, no. 5, July 2004, p. 701.

38 Sánchez-Andrés, 'Arms Exports and Restructuring in the Russian Defence Industry', p. 703.

plans for the integration of the electronics shipbuilding industries are also underway.³⁹ The close attention paid by political leaders and bureaucrats to the defence industry is unprecedented in the post-Soviet era. The state has taken the first steps towards financing large-scale projects in the aviation industry and integration policy has become less improvised than before, reflecting careful planning.

The OAK is to be created by means of a horizontal integration of the aerospace companies and enterprises within the sector, with the aim of optimising production lines and minimising losses. The OAK intends to bring together all of Russia's main civilian and military companies for building fixed-wing aircraft, together with the main design bureaux. It is envisaged that the state will initially own 75 per cent of the shares of the OAK, but this stake may be later reduced to 51 per cent.⁴⁰ However, the procedures involved in the creation of the OAK have been drawn out and the participation of some companies such as RSK MiG could take some time.

Regardless of OAK developments, a kind of informal alliance of former Soviet design bureaux, together with affiliated production facilities, has formed around the axis of MiG-Irkut. At the same time, Sukhoi has preserved and strengthened its status as a strong, autonomous player having the best Russian design bureau among its assets. It is moving forward with the civilian Russian Regional Jet project, is quite self-sufficient and can in principle (barring government intervention) ignore processes of integration. Thus, until such time as the OAK forcibly unites the sector through government intervention, the aviation industry will retain its bipolar structure, with MiG-Irkut and Sukhoi as its two poles.⁴¹ Indeed, with the MiG-Irkut and Sukhoi alliances acting as magnets for the other aerospace designers and manufacturers, a conglomeration of the industry has already occurred.

The consolidation of the helicopter construction industry made considerable headway in 2005, with a leading role played by a Rosoboronexport controlled company, Oboronprom. Acting quietly and effectively, without guidance from a government strategy document, Oboronprom overcame the silent opposition of regional governors and factory managers to consolidate a significant part of the nation's helicopter assets. It has acquired controlling stock in Mil Helicopters, Kazan helicopter plant, Ulan-Ude aviation plant, and Kamov Holdings—effectively the entire Russian helicopter industry except for the company Rostvertol, which it is also keen to take over. All of these firms are expected to be united under a management company called Russian Helicopters, with a

39 Makienko, 'Evolution of Russia's defence industry in 2005'.

40 Cooper, 'Developments in the Russian arms industry', *SIPRI Yearbook 2006*, p. 439.

41 Makienko, 'Evolution of Russia's defence industry in 2005'.

possible listing on the Russian stock market.⁴² Rosoboronexport's control over Oboronprom is an important factor, as Sergei Chemezov, the Rosoboronexport general director, has since stated that the company now intends to take an ownership stake in all the newly created integrated companies of the arms industry.⁴³

Indeed, Rosoboronexport's consolidation of the helicopter industry into Oboronprom was so successful that it has been tasked with overseeing the process of creating all of the holding companies within the OPK.⁴⁴ The firm will continue to act as Russia's arms exporter, giving Chemezov an important and influential role in the OPK's development.

The Federal Agency on Industry proposes two state-controlled management companies for the naval construction sector: the Centre for Subsurface Shipbuilding and the Centre for Surface Shipbuilding. The high concentration of private ownership in surface shipbuilding will make the creation of the latter centre an onerous task, involving drawn out negotiations between the state and the private sector. Still, the most important development in the surface shipbuilding industry has been the merger of the two largest (and traditionally two of Russia's most important) shipyards in St. Petersburg: Baltiysky Zavod and Severnaya Verf. This deal finally brought to an end the long-lasting and destructive conflict over who would lead structural reform in the shipbuilding industry. Yet, a tender to construct the second batch of *Talwar* frigates for India was awarded to Yantar shipyard in Kaliningrad (which had struggled to secure contracts prior to this), thereby implying that Yantar could potentially compete at the same level as the St. Petersburg shipyards if further contracts are forthcoming.⁴⁵ Regardless, Makienko suggested that the industry overall had made a step in the right direction: 'The defence industry saw during 2005 the birth of some preconditions for a real breakthrough [in sector consolidation].'⁴⁶

Other OPK reforms are afoot, with a new government agency, the Federal Agency for Defence Manufacturing, to be created to supervise further reform. Ilya Klebanov, the former Minister for Industry, Science and Technologies, is expected to head the new body. The government hopes this measure will help it to control the prices of defence products, thereby maintaining a large number of domestic arms deliveries. In 1997 the then President Boris Yeltsin abolished the forerunner (the Defence Industry Ministry) to this agency, which led to the bankruptcy of some defence companies and worsened the state of the

42 Makienko, 'Evolution of Russia's defence industry in 2005'.

43 Cooper, 'Developments in the Russian arms industry', *SIPRI Yearbook 2006*, p. 439.

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

45 Makienko, 'Evolution of Russia's defence industry in 2005'.

46 Makienko, 'Evolution of Russia's defence industry in 2005'.

Russian defence industry.⁴⁷ The two initiatives, and their subsequent outcomes, highlight the differing approaches of the two Russian presidents: Yeltsin's obsession for privatisation and an OPK governed by market forces, a policy which clearly fell short of its objectives; and Putin's more bureaucratic approach of a more centralised and consolidated OPK, which has so far yielded far more promising results.

The Rise of Rosoboronexport

Rosoboronexport is the sole state intermediary agency for the Russian arms export market—known in Russia as military-technical cooperation. There are currently six manufacturing plants within the OPK that are also allowed to export to foreign customers, however, unlike Rosoboronexport, exports from these companies must only consist of products constructed at the plant.⁴⁸ The state corporation was formed on 4 November 2000, following a Presidential decree that merged the two previous export companies: Rosvooruzhenie and Promexport.

Currently, Rosoboronexport has the right to deliver a full range of modern weapon systems to foreign countries and to render services on their operation and upkeep. This right sets it apart from the other six OPK enterprises that have the authority to export only the equipment manufactured within their factories.⁴⁹ Moreover, Rosoboronexport collaborates with over 700 OPK manufacturing plants, acting on their behalf in foreign trade activities. This enables the corporation to sell the entire range of Russia's export inventory; from *Kalashnikov* assault rifles to submarines. This state approach to arms trading serves two major functions: first, it does not allow too many potential producers to get access to foreign markets because of the possibility that existing rules and procedures for arms exports will be violated; and second, it prevents competition between Russian arms producers for the same market, thereby promoting the longevity of the OPK as a whole. As Pierre Litavrin and Ian Anthony note in their book *Russia and the World Arms Trade*, 'lack of coordination between Russian exporters also resulted in a harmful competition among themselves that weakened the position of Russia on the world market'.⁵⁰

More specifically, unauthorised contracts by Russian arms producers with foreign counterparts in the period 1992–94 had a detrimental effect on the

47 'Defense Industry set for Reform', *The Russia Journal*, available at <<http://beta.russiajournal.com>>, accessed 4 January 2007.

48 Luca Bonsignore, 'The Future of Rosoboronexport', *NATO's Nations and Partners for Peace*, vol. 49, no. 1, 2004, p. 177.

49 Sergei Chemezov in, 'This is Rosoboronexport', *Military Technology*, vol. 28, no. 9, September 2004, p. 39.

50 Pierre Litavrin in, Anthony (ed.), *Russia and the Arms Trade*, p. 107.

military potential of Russia, which Putin does not wish to repeat.⁵¹ For example, the Sukhoi Su-27 *Flanker* contract with China signed during this period gave intellectual property rights away free of charge. The creation of a state-owned military export enterprise largely did away with these problems, as the government managed to exercise control over the private OPK enterprises by forcing them to export arms via Rosoboronexport. Several programs undertaken by Rosoboronexport are of vital importance to the long-term sustainability and profit of the Russian arms export market, including repairs and spare-parts delivery, construction of defence infrastructure within the target market, modernisation of old weapon systems, and a flexible financing policy to ensure the previous programs are affordable.⁵²

The after-sales support (repairs and spare parts) market is one in which the Russians have traditionally struggled for credibility. This began to impact on the prosperity of some contracts as the poor repair record deterred a number of potential customers. In response, Rosoboronexport embarked on a public relations campaign aimed at restoring credibility within the service and maintenance sector. This saw the creation of workshops in India, China, Vietnam, Ethiopia, and Mexico, that will provide after-sales support for the weaponry previously sold to these countries. However, the Russian Government has also allowed the various defence enterprises to repair exported defence systems without Rosoboronexport input, to maximise customer satisfaction through the utilisation of the company best placed to repair the weaponry in question. The improvement in this sector was mentioned by Nikolai Novichkov, a Russian defence industry reporter: 'Over the last three years the supplies of spare parts for previously supplied military hardware grew fivefold, and this tendency will persist.'⁵³

The market for after-sales support is estimated to be worth US\$10 billion, thus both Putin and Ivanov are eager to improve upon the US\$1.5 billion earned from it in 2006, be it through Rosoboronexport or the individual defence enterprises.

Rosoboronexport has provided technical assistance for the production of defence infrastructure within many of the countries to which it has exported arms. The construction is often used as a 'sweetener' for potential arms contracts. The Sukhoi Su-27/30 licence-production in both China and India required Russian assistance to organise the production lines and generally prepare the defence industries of both nations for such a large undertaking. It is a policy that few if any Western arms manufacturers follow, which gives Rosoboronexport an edge when it comes to competing for large military hardware tenders.

51 Anthony (ed.), *Russia and the Arms Trade*, p. 107.

52 For details about Rosoboronexport, see <<http://www.sovereign-publications.com/rosoboronexport.htm>>, accessed 28 April 2009.

53 Nikolai Novichkov, 'Russian defence exports surpass targets', *Jane's Defence Industry*, 1 March 2006.

Modernisation of previously exported Russian-made equipment is obviously undertaken in cooperation with the original manufacturers, but it is Rosoboronexport that instigates the agreements. Thanks to this program, Russia is able to cater to poorer nations who could not otherwise afford direct replacement of their old weapon systems. Furthermore, it provides on-site training for operators of the updated systems. Potential financial gains from this modernisation policy are such that some of Moscow's R&D budget allocation has in the past been devoted specifically to the upgrade of 1960s or 1970s vintage systems. Some examples include the successful MiG-29SMT upgrade program (for nations including Yemen, Algeria and India) and the *Pechora-2M* upgrade package for the S-125 (SA-3 *Goa*) air-defence system. It makes perfect business sense for Moscow to focus its efforts on the upgrade of its most widely proliferated Soviet-era weapon systems.

Closely linked to the many equipment modernisation programs is the Russian Government's flexible financing policy. In order to meet customer requirements and requests, Moscow introduced new forms of accounts with foreign clients. Some forms of financing include deliveries of equipment in return for the liquidation of Soviet-era debts (South Korean procurement of tanks, APCs and hovercraft); supplying arms for payment in exchange for the settling of Russian credit (Algeria); barter agreements (utilised by many Southeast Asian nations); and various financial offset programs.⁵⁴ This policy has directly boosted Rosoboronexport's sales since the company's inception.

The problem of utilising a state-run company like Rosoboronexport for arms exports is that the process prevents maximum financial return for the OPK enterprise responsible for constructing the arms in question: Rosoboronexport is the 'middle-man'. However, the system's benefits far outweigh its detriments. Rosoboronexport ensures greater government control over exports and enables poorer importers such as Vietnam and Indonesia to procure Russian weaponry through the flexible financing options that would otherwise not be available to them. The figures speak volumes: in 2000 Rosoboronexport accounted for US\$3 billion of the total US\$3.68 billion of arms exports, and in 2004 accounted for US\$5.1 billion of the total US\$5.7 billion sales figure.⁵⁵ Table 3.1 outlines the magnitude of Russian military exports facilitated through Rosoboronexport, and its predecessor Rosvooruzhenie:

54 Sergei Chemezov in, 'This is Rosoboronexport', *Military Technology*, vol. 28, no. 9, September 2004, p. 39.

55 O. Gertsev, 'Five Years of Rosoboronexport: Trends and Prospects', *Moscow Voyenno-Promyshlennyy*, Moscow, 26 October 2005.

Table 3.1: Russian Arms Exports: 2000–2008
Value of deliveries in billions of USD

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total	3.681	3.705	4.81	5.4	5.78	6.126	6.5	7.3	8.0
Including through Rosoboronexport	2.97	3.32	4.03	5.075	5.12	5.2	5.3	Unk	Unk

(Source: *Moscow Defense Brief*, Centre for Analysis and Strategic Technologies, available at <<http://mdb.cast.ru>>, accessed 19 January 2009)

Joint Ventures

Despite reticence to allow too much foreign investment within the OPK, the growth in joint ventures over the last 12 years has been impressive. European defence companies such as EADS have been a valuable source of scientific and technical knowledge, whilst Indian companies such as Hindustan Aeronautics Limited have been a valuable source of research funding.

Specifically, the *BrahMos* Anti-Ship Cruise Missile (ASCM), Medium Transport Aircraft (MTA), and potentially, the fifth-generation fighter programs have been conducted in conjunction with India. Russian preference for joint ventures with India stems largely from the fact that India has never needed to directly invest in a Russian company, thereby avoiding potential legal and ownership issues within the OPK.

Joint ventures with European companies include the *Yak-130* advanced trainer and *Mi-38* helicopter. Despite the more complicated legal and ownership issues associated with European investment in the OPK, the *Yak-130* and *Mi-38* have been or are set to be the most successful European joint ventures with Russia's defence manufacturers.

Russia's flagship joint venture to date has been the *BrahMos*. It is a supersonic cruise missile named after the Brahmaputra and Moscow rivers, and is designed and manufactured by Russia's Mashinostroyeniya and India's Brahmos Corporation. Its cruising speed is between Mach 2.5–2.8, setting it apart from the subsonic *Harpoon*, its Western counterpart which is about three times slower than *BrahMos*.⁵⁶ The missile has been a stunning success, with India's *Rajput* and *Delhi*-class destroyers, and *Talwar* frigates all being fitted with the missile. Air and submarine launched variants as well as land attack variants are also being tested, suggesting that the missile has great utility and good prospects for further orders.

⁵⁶ 'BrahMos', at Wikipedia, available at <<http://en.wikipedia.org/wiki/Brahmos>>, accessed 28 April 2009.

The *BrahMos* experiment proved so successful, that the bulk of the joint ventures either completed, underway or under consideration by the OPK, are with Indian companies or government organisations. India is perceived as a tacit ally by Moscow, and its joint ventures do not include attempts at investment within the OPK. The MTA is due to make its maiden flight in 2012, and is one such joint venture. The MTA would be designed, developed and manufactured jointly and, as its name suggests, would fulfil medium airlift requirements for both the Russian and Indian Air Forces. Furthermore, India has indicated a preference for MiG as the producer of its joint fifth-generation fighter. Indian Defence Minister Pranab Mukherjee publicly acknowledged that India was keen to take part in the development and financing of a MiG fifth-generation fighter with Russia during his November 2005 visit to Moscow.⁵⁷ With the success of the *BrahMos* missile, and the high expectations for the MTA and fifth-generation fighter, Indo-Russian joint ventures have paid the most dividends for the OPK to date—plans are now afoot to collaborate on a next generation MBT. The emphasis placed upon them by both the Indian and Russian Defence Ministers suggest that the joint venture concept is one that both countries will continue to adopt in the future.

Although not officially a joint venture, the *Yak-130 Mitten* advanced jet trainer, which will enter service with the Russian Air Force in 2006 was assisted by Italy. A contract was signed in 1994 for the development of the *Yak-130* between the Italian aerospace company Aermacchi, Promexport (one of Rosoboronexport's predecessors), the Yakovlev Experimental Design Bureau and Nizhny Novgorod Sokol Aircraft Plant. Because of its inability to finance the *Yak-130* project on its own, Russia turned to a NATO member state and its competitor on the arms market for military-technical cooperation. The Yakovlev design bureau received the necessary US\$77 million, and the Italians received the plans for the basis of their own M-346 advanced jet trainer.⁵⁸ The majority of foreign companies that produce aviation equipment cite the main problem with joint projects in the Russian Federation as the onerous limitations placed on them by Russian legislation. Article 12 of the law 'On State Regulation of the Development of Aviation' of 8 January 1998 limits the share of foreign investors in the authorised capital of Russian aviation enterprises to 25 per cent minus one share and forbids their participation in their management bodies.⁵⁹ Furthermore, in March 2006 both the Ministry of Industry and Energy and the Ministry of Economic Development and Trade proposed a draft law limiting access by foreign investors to 'strategic sectors,' which includes 'development, production, overhauling

57 'Mukherjee invites RAC MiG to present concept of fifth-gen plane', 2005, available at <<http://news.indiainfo.com/2005/11/18/1811-mukherjee-rag-mig-concept.html>>, accessed 28 April 2009.

58 Alexandra Gritskova and Konstantin Lantratov, 'Foreign Aircraft Builders Prepare for Soft Landing', 16 May 2006, available at <http://www.kommersant.com/tree.asp?rubric=3&node=25&doc_id=673459>, accessed 28 April 2009.

59 Gritskova and Lantratov, 'Foreign Aircraft Builders Prepare for Soft Landing'.

and testing aviation equipment, including dual-use aviation equipment.⁶⁰ What impact this action will have on future foreign investment within Russia's aerospace sector remains to be seen, but it probably will not be very positive. What is certain is that the decision to approve or reject the draft law will have a considerable effect on the future of foreign investment within the OPK.

The Mi-38 project is a good example of the investment issues faced by foreign companies within the Russian defence industry. The helicopter was built by Euromil (a consortium featuring Mil Helicopters and Kazan Helicopters from Russia) and the EADS subsidiary Eurocopter, from Europe. It was conceived as a successor to the Mi-17, sharing many components, but featuring a six-blade main rotor and a redesigned cockpit with new avionics supplied by Eurocopter. After Euromil's creation in 1994, the company was split into 33 per cent shares owned by Mil, Kazan and Eurocopter.⁶¹ After the Russian laws were passed limiting foreign investment in Russian aviation companies to 25 per cent, Eurocopter was forced to withdraw from the project, although this occurred after the maiden flight of the Mi-38 in December 2003. Production began in 2007⁶², with state-run Russian oil and gas companies placing orders. This happened without Eurocopter's stake in Euromil, but the legal and ownership issues associated with the program obviously caused unnecessary delays in the helicopter's development.

Despite the problems associated with foreign investment within the OPK, joint ventures are still pushing ahead, especially with India (as it has not yet attempted to directly invest in Russia's defence industry). Russian investment in EADS could also see fewer hurdles arising from that company's association with Russian defence companies. Realistically, however, Russian preference for dealing with India appears to be the most sound plan of action, as it is the one most likely to have the least number of issues in the long term.

Re-equipping the Armed Forces: A Rising State Defence Order

From a purely economic standpoint, arms exports were originally viewed in Russia as the only way to steer the troubled OPK out of its crisis and to save

60 Gritskova and Lantratov, 'Foreign Aircraft Builders Prepare for Soft Landing'.

61 Refer 'Euromil Mi-38', *Flug Revue*, available at <<http://www.flug-revue.rotor.com/FRtypen/FRMi-38.htm>>, accessed 28 April 2009.

62 Refer <<http://www.euromil.ru>>, accessed 28 April 2009.

national scientific and high-tech industrial potential. Arms exports were also considered to be one of the most important political tools to promote Russia's influence in the world and to boost its international status.⁶³

Supporting this argument is the fact that the only OPK enterprises that have managed to thrive are producing arms for China, India, Iran and other foreign buyers. However, should Russia's economic growth and high oil prices continue, it would provide even more resources for the military and security services. In the past 10–12 years, the Russian armed forces have not commissioned large consignments of military hardware and equipment⁶⁴. This is one of the factors behind Defence modernisation being one of Putin's stated priorities. As Russia's ongoing Inter-continental ballistic missile (ICBM) force modernisation program shows, deterrence of both the United States (explicitly) and China (implicitly) remains a prime military security strategy. These nuclear weapons will give the Russian high command the breathing space it needs to compensate for the growing gap in Russian conventional capabilities and military technology.⁶⁵ Until the Kremlin is satisfied with its nuclear force, its modernisation will continue to impact on conventional weapons development programs, as considerable amounts of funding continue to be diverted to the nuclear triad. It is no coincidence then that as the export market peaks so too will the level of funding being devoted to the nuclear forces, which Putin stresses are currently being optimised for quality rather than quantity. All signs point to larger slices of the defence budget being directed to conventional weapons procurement.

The traditional reliance on exports to sustain the OPK seems to be in decline. Most industry analysts suggest that a US\$5 billion annual export order book should be expected for the foreseeable future. This figure is perhaps slightly conservative, when figures from the previous two years are taken into account—around US\$6–7 billion, probably a more likely figure. The SDO for 2007 is stated to be nearly US\$11 billion, higher than the level of export earnings, and is set to rise annually.⁶⁶ Putin has stated that the armed forces should receive many new types of military hardware in the next few years. There is reportedly a special allocation in the budget stating that 150 per cent more money was to be allocated to the rearmament of the Russian military in 2006.⁶⁷ This has meant that the Russian armed forces was to have received 6 ICBMs, 31 T-90 tanks,

63 Mikhail I. Gerasev and Viktor M. Surikov, 'The Crisis in the Russian Defense Industry: Implications for Arms Exports', in Andrew J. Pierre and Dmitri V. Trenin (eds.), *Russia in the World Arms Trade*, Carnegie Endowment for International Peace, Washington, DC, 1997, p. 1.

64 Alexander Golts, 'Arming the World: Russia's Lethal Exports', *Moscow News*, 24 February 2005, available at <<http://www.mosnews.com>>, accessed 28 June 2006.

65 Steven E. Miller and Dimitri V. Trenin (eds.), *The Russian Military: Power and Policy*, MIT Press, Cambridge, MA, 2004, p. 229.

66 Ruslan Pukhov, in Aleksey Nikolskiy, 'The VPK is Losing Clients: Russian Arms Are Not All That Popular in the World', *Vedomosti*, Moscow, 16 June 2005.

67 Olga Belova, (Television Presenter), in 'Segodnaya', *Moscow NTV MIR*, 1000 GMT, 9 November 2005.

125 APCs, 3770 trucks, three submarines, a Tupolev Tu-160 *Blackjack* strategic bomber, several Sukhoi Su-34 (*Flanker* derivatives), and eight Mil Mi-28N *Havoc* attack helicopters in 2006. For all intents and purposes, these purchases are mainly aimed at supporting the weapons manufacturers. Furthermore, the SDO for 2006 covered the upgrade of 139 tanks, 125 artillery pieces, 104 aircraft and 52 helicopters.⁶⁸ A 2004 report entitled 'Rearming Russia' stated:

Given that the Russian military is equipped with weapons manufactured in the 1970s–1980s, we expect to see a massive increase in purchases of new military products in the next decade. But consolidation is the key to survival. We believe that only those enterprises which join the newly formed holdings will have a chance of survival.⁶⁹

In November 2005, Putin announced that the country's economy was robust enough to increase spending on the development of the armed forces. Speaking at a gathering of Russia's top military commanders, he said that, by the end of 2015, the Russian armed forces will have gone through a sustained period of receiving new and refurbished military equipment: 'Only this way will we be able to advance in substantial technical modernisation of the armed forces rather than patching up holes'.⁷⁰

It seems evident from this statement that Putin understands that small-scale equipment delivery and refurbishment will not suffice. The fact that National Defence spending had doubled in nominal terms underscores the priority the Putin Administration attached to rebuilding Russia's armed forces.⁷¹

These preconditions for armed forces modernisation resulted in the aforementioned State Armaments Program 2007–2015, adopted in December 2006. Unlike its predecessors which focused chiefly on R&D and the creation of military prototypes, this program stipulates a shift towards full-scale production of military equipment.⁷² Moreover, it was the first to be formulated by the newly created MIC and 63 per cent of the US\$186 billion allocated is devoted to the purchase of new weapon systems.

Since the program was released, there have been some doubts raised regarding the ability of the OPK to satisfy demand. It is already flush with foreign

68 Henry Ivanov, 'Russia details weapon procurement plans for 2006', *Jane's Defence Weekly*, November 2005.

69 E. Sakhnova, 'Rearming Russia', United Financial Group (UFG), 2004, available at <<http://www.ufgresearch.com>>, accessed 12 March 2006.

70 'Putin for Increased Spending on Military Upgrades', *RIA Novosti*, 9 November 2005, available at <<http://en.rian.ru>>, accessed 13 June 2006.

71 *The Military Balance* 2006, Oxford University Press, Oxford, 2006, p. 151.

72 Ruslan Pukhov and Mikhail Barabanov, 'Challenges to the Reform of Defense R&D in Russia', *Moscow Defense Brief*, Issue 1, 2007, available at <<http://mdb.cast.ru/mdb/1-2007/item3/article1/>>, accessed 28 April 2009.

contracts for arms over the next five years, and the additional domestic demand will require of the industry an output not seen since the end of the Cold War. For this reason, the program prudently puts off major purchases to 2009–2010, taking export demand into consideration, and therefore allowing for a gradual shift towards full-scale military production.⁷³ Moreover, the MIC under Ivanov has pushed for government funding to be channeled into the OPK to assist its overall production capacity. The government will devote US\$11.5 billion of the US\$19 billion required for modernisation and retooling across the OPK, with the rest to come from within the increasingly profitable defence sector. It is the export successes which have enabled the OPK to front up with the remaining funds that will enable it to keep up with demand out to 2015.

Overall, Russian defence industries have proven remarkably adaptable to the post-Soviet transitional economy. Initially there were dire predictions: foreign economists envisioned failed efforts to turn tank factories into tractor plants. Such predictions proved as inaccurate as the false projection of the attempted shift from defence production to civilian production within the OPK.⁷⁴ Russia's OPK now possesses the preconditions for improvements in efficiency, including a change in the position of the state with Putin and Dmitry Medvedev rather than Yeltsin at the helm, the stabilisation of the economic situation, and a favourable situation within global markets for primary energy resources. Now the main prerequisite for the sector's further development is the existence of a strategic vision for the future and defining the most promising avenues for financial injections into the high technology complex (that is, R&D).⁷⁵

73 Ruslan Pukhov and Mikhail Barabanov, 'Report on Russia's plan for Military Industrial Complex reform', *New Delhi Force*, 1 July 2007.

74 Mark Galeotti and Ian M. Syngé, 'Russia's Economy—The Best Case', *Putin's Russia—Scenarios for 2005*, Jane's Information Group, Coulsdon, Surrey 2005, p. 8.

75 'Defense Industry Complex: Punish or Pardon? Does the State need Wings?', *Ekonomicheskiiye Strategii*, Moscow, 24 February 2005, p. 1.

