

We Need Wonders at a Reasonable Price

HOW SOUND IS RUSSIA'S CURRENT DEFENSE-INDUSTRIAL POLICY?

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Breakthrough Cure: Spend Trillions

Russia's defense-industrial policy (OPK) has recently been brought back into focus by the announcement of a new stage of army reform, which has the objective of raising the level of new equipment in Russia's deployed weapons arsenal to as much as 70 percent by 2020. The government has pledged an impressive 19 trillion rubles (approximately \$683 billion) over the next 10 years for the purchase of these armaments. When signed, a newly redrawn Armaments State Program, GPV-2020, will set the content and schedule of deliveries. The program will be backed by a series of issue-specific investment programs that will scoop up another one trillion rubles (about 100 billion rubles a year) for the "technological re-armament" of the industry itself.

This 20-trillion ruble OPK plan fits into a larger scenario of "innovation breakthrough" that is fueled by an upsurge of expenditure, championed by the Ministry of Industry and Trade, and apparently embraced by the Ministry of Defense and the "ruling tandem" of President Dmitry Medvedev and Prime Minister Vladimir Putin. Speaking at the Krasnoyarsk Economic Forum in February 2011, however, Finance Minister Alexei Kudrin voiced strong warnings against a strategy that relies on unbalanced spending; he specifically objected to the newly hiked 20-trillion ruble military expenditure – equal to the addition of an extra 0.5 percent of GDP per year to the budget deficit. Given the magnitude of the plan as well as the magnitude of the economic gamble, it seems appropriate to give the new policy a closer look.

This memo focuses on the public portion of the policy discussion in government that intensified in 2009-2010 when OPK issues were addressed at a series of dedicated government meetings. The memo acknowledges that present OPK policy recognizes the urgency of modernizing Russia's defense industry. However, certain changes being implemented threaten to be undermined by an overreliance on administrative control and are outweighed by the cumulative inefficiency of state policy.

Diagnosis, Symptoms, and Treatment of the Complex's Complex

Russia's defense-industrial complex struggled through the official neglect of the 1990s and bouts of reorganization in the 2000s. Over the past decade, it has absorbed increasingly heftier budgets, from what now appears a modest 60 billion rubles in 2001 up to an estimated one trillion rubles in 2010 (in current prices). Around 2007, the year-to-year growth of the defense budget began to be complemented by a growth in budget-funded investment for the modernization of the industry. During the crisis of 2008-2009, funding actually increased to include a 175-billion ruble package of anti-crisis measures.

A turnaround in actual deliveries of new weapons came about in 2007-2008, when certain systems were procured in quantities unseen in the post-Soviet period and others were entirely re-introduced (like submarines, warships, and anti-missile systems). Despite continuous growth in expenditures, however, results have fallen short of expectations. In April 2010, Prime Minister Putin pointed out the "the dangerous disproportion between the technological capacity of the defense enterprises and the demands of the armed forces." President Medvedev, in September 2010, noted that "on many levels, the Russian OPK is not yet capable of responding to an increase of orders or financing with an adequate growth of hi-tech output." On the military side, Deputy Defense Minister Vladimir Popovkin, in charge of armaments, laid down a bleak picture of the industry at a roundtable in April 2010, saying that it was still living "the legacy of the 1980s." He said that Russia had fallen behind by an entire generation of weapons in "certain critical areas" and with certain systems was unable to meet the needs of the army in the necessary timeframe.

Industry Sore Spots

Innovation is Medvedev's signature theme as well as the rhetorical trademark of the OPK. On more than one occasion, Medvedev has criticized the industry for living off the research and development (R&D) inventory "of previous years." He has also mused about setting up a dedicated agency for stimulating breakthrough research. For his part, Putin has noted that around forty percent of defense R&D projects were never actually realized. Defense Minister Anatoly Serdyukov blamed such data on an "imperfect" system of information exchange. Another meeting, however, revealed that in any case few new industry patents existed.

In October 2009, Minister of Industry and Trade Victor Khristenko, the civilian counterpart of the minister of defense for armaments planning, acknowledged "a significant number" of **quality control** issues relating to domestic defense orders and "even a certain increase" in claims from foreign customers. He mentioned that only ten percent of defense enterprises had implemented internationally certified quality management systems. From a different angle, Sergey Ivanov, vice prime minister in charge of the OPK, cited statistics on civil and military aircraft accidents caused by the use of counterfeited spare parts. He blamed this "disastrous and intolerable" situation on weak quality control and inadequate information systems.

Concern about controlling **costs** is palpable in Putin's turn of phrase: "Our OPK is capable of working wonders; however, we need not just any wonders but only those that actually make the country's defense stronger and come at a reasonable price." The issue of controlling the price tag has come up as a key problem whenever planning, budgeting, contracting, or executing on contracts are concerned. There is a distinct concern about the "vanishing attractiveness" of Russian arms exports because of growing costs.

As the starting point of the current policy, discussions have identified **technological backwardness** as the key cause of the OPK's malaise. The policy intends to treat it with massive expenditures that would enable a technological re-equipping of the industry by breeding indigenous innovation and by purchasing advanced technologies from abroad. The modernized industry would then be fully equipped to deliver 19-trillion rubles worth of new weapons and become a generator as well as a consumer of innovation along the way.

New Treatments

Talk of the OPK as a locomotive for the technological breakthrough of the Russian economy has been around for the entire post-Soviet period. As well, the previous OPK policy also boosted funding for many years in a row. However, the present policy does have a few novel emphases.

Modernization: Traditionally, planning and budgeting have been focused on defense orders and the mechanics of their implementation. For the first time, the present policy puts a principled emphasis on the technological modernization of the industry as a precondition for receiving defense order financing. Surprising as it may be from a commonsense point of view, the thesis of "antecedent technological re-armament" needed to be articulated and stressed as a distinct principle, exemplified by this passage by Putin in December 2010: "It is very important to coordinate the implementation in such a way that the [defense order] money <...> would be coming to those enterprises that are capable of realizing the tasks we put before them. Where re-equipping is needed, it must be done and completed prior to receiving the defense order money." While the defense order remains the principal instrument of OPK policy, so-called federal target programs (FTsP) that channel budget-funded investment have also been elevated to a higher plane of funding. For the 2011-2013 contracting cycle, the military is pressing for at least 100 billion rubles a year, with 60 billion approved so far by the Finance Ministry. The increased prominence of the modernization-focused FTsP and the emphasis on the urgency of technological re-equipping reflect a consensus that deep systemic modernization is the "primary, foundational, and key condition" (in Khristenko's words) of "OPK survival" and the success of army reform.

International Cooperation: The second new emphasis in the defense industry policy is best illustrated by the much-discussed presentation by Armaments Chief Vladimir Popovkin in April 2010, in which he conceded that modern defense production is "impossible without an international division of labor." Popovkin cited a list of technologies missed by the Russian defense industry during the 1990s and argued that

catching up on indigenous capacity for the production of a full range of new-generation weapons was an insurmountable task for Russia's economy; thus, "there is no other way than cooperation with the companies of the [technologically] advanced countries" via joint projects that include the transfer of key technologies. Popovkin's concession, however, fell short of a manifesto for "international cooperation in weapons." He insisted that national military planning will continue to rely on the concept of self-sufficiency in areas such as strategic nuclear and defense forces (among others) and that foreign weapons purchases would be exceptional measures undertaken to "cover the gaps" in military needs where the national industry is unable to develop or manufacture required systems. Even with these serious reservations, this position marks an important turning point in relations between Russia's military and its defense industry, exemplified by deals on purchasing Israeli unmanned aerial vehicles (UAVs) and French Mistral-class warships.

The declaration of an international division of labor in defense production by Russia's top armaments officer underscores a gradual shift in the international dimension of OPK policy. Traditional arms exports remain a priority backed by the full support of the state. At the same time, there is a more decided turn to international cost sharing in high-cost development projects. Russia has progressed the furthest in joint co-development ventures with India, the latest being an HAL-Sukhoi/Rosoboronexport venture on shared-cost design and development of advanced fifth generation fighter aircraft (FGFA). This form of cooperation, in which technology transfer occurs both ways, is still a rare occurrence; India has so far been the only partner with which Russia shares a degree of geopolitical compatibility and has accumulated a long and progressively complex experience of bilateral armaments cooperation.

A relatively newer and expanding form of international activity falls along the lines of "cooperation with companies from advanced countries," whereby Russia takes on the role of a recipient of technology and cooperates mainly with Europe and Israel. Between 2008-2010, Rostekhnologii, the principal state agent for technological cooperation, signed agreements and contracts with Renault, EADS/Airbus, Boeing, Thales, Augusta Westland, Israel Aerospace Industries, and Iveco Defense Vehicles, among others. From this list, Augusta Westland, Israel Aerospace Industries, and Iveco are setting up joint ventures with Rostekhnologii's companies to open assembly lines on Russian territory (for, respectively, civil helicopters, UAVs, and armored vehicles) with prospective "domesticization" of technologies. An important part of the Mistral deal, signed in December 2010 and now negotiated to become a contract, was the assumption that along with the two warships Russia would acquire a set of related technologies, and possibly production lines, for manufacturing two more of the warships at a national shipyard.

State-Run Treatment?

OPK policy is undergoing other changes, in terms of certain improvements in contracting mechanisms and (presumably) greater attention to the quality of goal-

setting and planning (as reflected in the protracted deliberations surrounding the GPV-2020).

Lesser optimism, however, is warranted when considering the underlying reliance of OPK reform on state control. In Russia's OPK, the concentration of defense production, a worldwide trend, has taken a distinctly top-down, administrative-led form. In 2010, about 50 percent of the industry's total output belonged to so-called "integrated structures," conglomerates of companies and subcontractors broken down by production areas, superimposed by a bureaucratic "head structure" representing the entire "holding" in dealings with the state. Concentration has gone in parallel with de-privatization, firmly anchoring the industry under state control, sometimes personified by prominent regime insiders on corporate boards (Igor Sechin, for example, as chairman of the board of directors of the United Shipbuilding Corporation).

The "state corporation" Rostekhnologii, with its virtual empire of over 400 enterprises and 23 percent of OPK output, is a good illustration of the top-down organizational model. Brought into being by the enormous insider weight of its head Sergei Chemezov, Rostekhnologii uses administrative resources to provide its member enterprises with greater budgetary support, investment, and more contracts. Likewise, in the international field, it uses its special access privileges to bring in big-name foreign investment and international partnerships in advanced technological ventures. By virtue of owning companies like VSMPO-AVISMA, the world's leading titanium producer, Rostekhnologii can build long-term strategic partnerships with global giants like EADS and Boeing and return the state's favor by turning these partnerships into prestige assets.

In the 20-trillion ruble armaments plan, the "integrated structures" are specifically counted on as hubs of "concentrated assets and responsibility" to facilitate technological re-equipping and financial flows. This policy of structuring the industry environment according to a bureaucratic logic of all-encompassing administrative control does place a high stake on the quality of the administration. At the same time, however, it habituates the industry to be budget-dependent and forecloses the possibility of relying on market mechanisms. With the success of the strategy hinging on the sheer volume of state budget expenditures, the affordability of which depends on the course of the global oil market over the next ten years, OPK policy rests on an extremely vulnerable foundation without viable fallback options.

An Unfavorable Prognosis

Indisputably, the defense industry is an economic sector that requires a great degree of state intervention due to the specific nature of its products. However, in the critical situation of Russia's OPK, a heavy bias toward the extension of full state control over the industry must be justified by no less than excellence of state regulation. Apart from snowballing instances of the overall incompetence of the "vertical"-based administrative model, OPK policy provides its own evidence of ineffectiveness. Returning to official perspectives for just one example, it is striking that Sergey Ivanov, the top state official in the OPK since 2005, was clamoring in 2010 against the

“intolerable” use of counterfeited spare parts in military aircraft, a full four years after the arms-export establishment had to swallow the return of fifteen MiG-29s by Algeria for just this reason.

The ineffectiveness of existing policy cannot be reversed by the area-specific changes currently underway. It is easy to notice that official discussion – even informed by a sense of urgency – is lacking in the important capacity of self-reflection. The entire public discourse uncritically relies on faith in the power of big numbers and the belief that setting up a new agency or program will advance innovation or allow new designs to materialize. The self-contained quality of this particular policy discussion and the resulting vulnerability of the unfolding OPK strategy can only be eliminated by a return to political competition and accountability practices in the larger sociopolitical space.

Acronyms

OPK *Oboronno-Promyshlennyi Komplex* (Defense Industrial Complex)
GPV *Gosudarstvennaya Programma Vooruzheniy* (Armaments State Program)
FTsP *Federalnaya Tselevaya Programma* (Federal Target Program)