

A photograph of a Russian T-72 tank in a city street. The tank is the central focus, with its long barrel pointing towards the left. Two crew members are visible: one on top of the turret and another in the driver's hatch. The background shows a city street with buildings and a yellow traffic line on the ground.

AUGUST 2017

Russia in the Global Arms Market

Stagnation in a Changing Market Landscape

AUTHOR
Sergey Denisentsev

CSIS | CENTER FOR STRATEGIC &
INTERNATIONAL STUDIES

A Report of the
CSIS RUSSIA AND EURASIA PROGRAM

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01

Introduction

Russia remains a major player in the global defense market. Various estimates are available on the size of Russian arms exports (more on that later)—but all leading market monitors agree that Russia is currently the world’s second-largest arms supplier after the United States. Arms exports are an important source of earnings for the Russian economy. In 2016, Russia exported \$285.7 billion¹ worth of goods and services; according to the Federal Service for Military and Technical Cooperation (FSMTC), defense hardware and services accounted for 5.2 percent of that figure (\$15 billion in absolute terms).² But Russia’s overall exports rely disproportionately on raw materials and minerals—especially hydrocarbons, which account for 62 percent of the total.³ If we exclude energy from the tally, arms exports become even more important for the Russian economy. For example, they make up over 60 percent of Russian machinery exports (\$15 billion of \$24.4 billion).⁴ In other words, arms exports are one of the very few success stories in the Russian high-tech sector, along with the exports of nuclear technologies and materials.

Arms exports are important to Russia not just economically, but also politically and militarily. President Vladimir Putin once famously said at a sitting of the Commission for Military and Technical Cooperation⁵: “Effective military and technical cooperation is a potent instrument of promoting our national interests, political as well as economic.”⁶ The Kremlin may also see major arms contracts as part and parcel of its long-standing and developing political and economic relationships, for instance with China, India, Algeria, Kazakhstan, Venezuela, and many other countries. Another notable development in this regard is the growing noncommercial arms deliveries to Russia’s allies in the Collective Security Treaty Organization (CSTO), especially Belarus and Armenia, and to non-CSTO member Syria. These deliveries are a major instrument of Russian foreign policy. They help to strengthen Russia’s closest allies that serve as buffer states along its borders (Belarus, Armenia), and to suppress the terror threat—mostly in Syria, but also in Kyrgyzstan and Tajikistan.

¹ Figures on Russian foreign trade are from Federal Customs Service, “Results of Foreign Trade of the Constituent Entities of the Russian Federation for 2016,” May 30, 2017, http://www.customs.ru/index.php?option=com_content&view=article&id=25287:-2016-&catid=250:-i-2011-&Itemid=2448.

² “Russian arms exports surpass 15bn dollars, Putin announces,” RIA Novosti, March 22, 2017, https://ria.ru/defense_safety/20170322/1490589071.html.

³ Federal Customs Service, “Results of Foreign Trade of the Constituent Entities of the Russian Federation for 2016.”

⁴ *Ibid.*

⁵ “Military and technical cooperation” is, as Russian weapons export Konstantin Makiyenko put it, “an elegant euphemism” for supplying arms and military hardware to foreign countries. See K. Makiyenko, “Role of military and technical cooperation in relations between the East and the West,” *Ekspert Vooruzheniy* 6 (1996): 10. In this paper, the term is used interchangeably with “defense exports.”

⁶ Office of the President of Russia, “Meeting of the Commission on Military-Technical Cooperation with Foreign States,” July 2, 2012, <http://www.kremlin.ru/events/president/news/15865>.

Furthermore, arms exports are an important indirect factor contributing to domestic stability. This is because, according to the Russian Ministry of Industry and Trade, the defense industry employs more than 1.3 million people.⁷ Since exports account for about a third of Russia's defense output (more on that in the "Other factors of stagnation" section), the livelihood of roughly 400,000 Russian engineers, scientists, and technicians, as well as members of their families, directly depends on defense exports. As a rule, these people form a conservative and patriotically minded electorate that is staunchly loyal to the Putin administration. As an election strategy, the Russian president and his United Russia party indirectly support this electorate through arms export stimulus packages (credit financing, government-issued guarantees, etc.).

Russian arms exports and defense relations with other countries also serve as important propaganda instruments. Russia's state-owned and pro-government media outlets offer regular and generous coverage of the latest achievements of Russian defense suppliers in foreign markets. Such achievements include large contracts signed with foreign customers and participation of Russian companies in international arms expos. The rapid growth of Russian defense exports in the 2000s is highlighted as a major achievement of the Putin era.⁸ The media often emphasize the personal role played in that success story by President Putin himself and by Sergey Chemezov, head of Rostec (the parent company of the Russian arms export intermediary Rosoboronexport), who has been a close friend of Putin since the latter's days as a Soviet agent in East Germany.⁹

Until recently, the upbeat picture painted by Russian propaganda was backed by figures. For example, during the Putin presidency, Russian arms exports skyrocketed by 440 percent, from \$3.4 billion in 1999 (when Vladimir Putin became acting prime minister) to a peak of \$15.7 billion in 2013.¹⁰ In recent years, however, that growth has slowed and then stalled completely. The focus of this paper is on the current dynamics of Russian arms exports, the reasons for their steady growth in the 2000s and early 2010s, their current stagnation, and the outlook for the coming years.

General Scope

The research and analysis presented in this paper were undertaken with the intent of answering the following questions:

- How did Russia's arms exports perform in recent years, in dollar terms?
- Who are the main importers?
- What were the reasons for the rapid growth in 1999–2013?

⁷ Ministry of Industry and Trade of Russia, "The performance indicators of the Ministry of Industry and Trade of Russia in 2014 in the sphere of the military-industrial complex, 2015," <http://minpromtorg.gov.ru/activities/industry/siszdachi/oboronprom/#>.

⁸ See, for example, Kira Latukhina, "Russia holds on to No 2 spot in world arms export ranking," *Rossiyskaya Gazeta*, March 22, 2017, <https://rg.ru/2017/03/22/putin-rasskazal-o-postavkah-oruzhiia-za-rubezh.html>.

⁹ Andrey Vandenko, "Man in Full Armor," *Itogi*, October 30, 2015, <http://www.itogi.ru/archive/2005/44/62260.html>.

¹⁰ Various articles on Russian arms trade published in *Ekspert Vooryzheniy* in 2002–2017.

- What are the reasons for the ongoing stagnation?
- Which factors in the global and regional defense markets affect Russian arms exports?
- What are the current challenges facing Russian arms exports, and what are the opportunities that could fuel their growth—or at least keep them from shrinking?
- What are the projections for Russian arms exports depending on various economic and political scenarios for Russia and for global markets?

It should be emphasized that this paper focuses on the dynamics of the defense market in general. It does not attempt an in-depth analysis of any specific market segments (aircraft, missiles, etc.). Understanding the dynamics, making projections, and drawing up recommendations for individual segments would require separate studies.

Terms of Reference

Before proceeding to the actual review of Russian defense exports, let us look at several theoretical and academic aspects of studying the arms market. The problem is that there is no shared understanding in the Russian and international academic communities as to the scope and boundaries of that market. There are several organizations that monitor the global arms trade volume—each using its own methods for calculations. As a result, there are major differences between their statistics, both globally and for individual markets. The two most reputable monitors are the Stockholm International Peace Research Institute (SIPRI), which maintains a database of international arms transfers, and America’s Congressional Research Service, which publishes regular reports headlined “Conventional Arms Transfers to Developing Nations.” There are also individual national arms export statistics; the Russian national figures are released by the FSMTC and Rosoboronexport. Finally, there are several organizations that monitor arms transfers in unit terms without trying to estimate their dollar value. These include the United Nations, with its UN Register of Conventional Arms. In recent years, however, this database has been facing a crisis as an instrument of defense market transparency because the number of states submitting national reports has plummeted from 126 in 2000 to only 12 in 2016.¹¹

What, then, are the key reasons for the differences between statistics released by various monitoring organizations? Firstly, the international arms market lacks transparency. It is extremely opaque, and information about some deals is not released to the public domain at all. This is often true of ammunition and spare parts contracts for weaponry that has already been supplied, as well as for numerous services such as weapons repair, upgrades, and personnel training. In many cases, there is some open-source information available about the quantity of systems being delivered, but the price and the financial side of contracts remains a secret. This also applies to entirely legitimate international deliveries. Many arms importers insist that the financial aspects of contracts be kept under wraps, and the reasons underlying this are not

¹¹ Various reports from United Nations, “The Global Reported Arms Trade: The UN Register of Conventional Arms,” <http://www.un-register.org/Statistics/Index.aspx>.

always commercial. Buyers often want to conceal the precise figures because they do not want the public to know about “corruption surcharges” paid on such deals, that is, kickbacks.

In an attempt to solve this problem, SIPRI developed an index called the *trend-indicator value* (TIV), which, as SIPRI describes, “is based on the known unit production costs of a core set of weapons and is intended to represent the transfer of military resources rather than the financial value of the transfer.”¹² In essence, the SIPRI figures represent a value estimate of arms exports in terms of the combat potential of weaponry being transferred, not the monetary value of the transferred equipment. Therefore, the TIV is a useful instrument for assessing the individual contributions of various arms suppliers to military capability-building programs in the importer state. It should, however, be noted that TIV estimates do not always correspond with real commercial figures.

Additionally, there is the obvious problem of methodology. The boundaries between defense product categories are often blurred, and leading research organizations sometimes disagree as to what falls under the scope of an “arms market” definition. For example, one common approach is to consider only those arms transfers that fall under one of the categories outlined in the UN Register of Conventional Arms: battle tanks, armored combat vehicles, large-caliber artillery systems, combat aircraft, attack helicopters, warships, missiles and missile launchers, and a category added in 2003: small arms.¹³ SIPRI uses a broader definition that excludes small arms, but includes radars, sensors, satellites, and engines for military hardware.¹⁴ The U.S. Congressional Research Service has a very broad formal definition of the arms market. Its statistics include all categories of weapons and ammunition, military spare parts, military construction, military assistance and training programs, and all associated services.¹⁵ As will be demonstrated in later sections, the CRS, of all monitoring organizations, actually produces the most conservative estimates of arms trade volumes—suggesting that it probably relies only on open-source data.

It should also be noted that statistics compiled by leading research organizations differ greatly from official state figures. This is because most states have their own ideas as to what constitutes the arms market. For example, Russia’s FSMTC uses a definition that includes not only weapons, ammunition, and spare parts, but also hardware repair, upgrade services, and personnel training.¹⁶ The author of this paper and his colleagues at the Moscow-based Center for Analysis of Strategies and Technologies (CAST), which monitors Russian defense exports, prefer to use the official state figures. We believe that only the government agencies that directly control arms exports and issue the necessary export licenses can possibly see the full statistical picture. The drawback of such an approach is that it is impossible to make direct comparisons between official figures released by different states. Different governments have

¹² Stockholm International Peace Research Institute (SIPRI), “Arms Transfers Database: Sources and Methods,” <https://www.sipri.org/databases/armstransfers/sources-and-methods>.

¹³ United Nations, “The Global Reported Arms Trade: The UN Register of Conventional Arms.”

¹⁴ SIPRI, “Arms Transfers Database: Sources and Methods.”

¹⁵ Catherine A. Theohary, *Conventional Arms Transfers to Developing Nations, 2008–2015* (Washington, DC: Congressional Research Service, December 19, 2016), <https://fas.org/sgp/crs/weapons/R44716.pdf>.

¹⁶ Resolution No 20-od of the Federal Service for Military and Technical Cooperation of March 13, 2015: “On approving the procedure of categorizing goods, information, works, services, and results of intellectual activities as militarily significant and of issuing conclusions to that effect by the FSMTC.”

different methodologies of calculation, and indeed, some arms exporters don't release any statistics at all.

Therefore, I will rely, in most cases, on official statistics released by the FSMTC and Rosoboronexport. However, in those sections of this report that focus on Russia's positions in individual national defense markets (which will inevitably require comparisons with imports from other states), I will use SIPRI figures. It is also worth emphasizing that I only researched legitimate international arms transfers. This paper will not consider illicit transfers, arms smuggling, and deliveries to nonstate actors. This is because, overall, the size of the black market for armaments comprises just a fraction of the legitimate market, and would therefore be of little interest to large-scale suppliers. In any case, insurgents and crime syndicates do not buy expensive systems such as combat aircraft, warships, or submarines, which make up the bulk of the market in dollar terms.

In sum, this paper will focus on the legitimate international arms market—that is, on international arms transfers, using the broad definition of the arms trade (or, as it is euphemistically referred to in Russia, "military and technical cooperation") as reflected in official Russian statistics.

Information about specific arms trade agreements and contracts is drawn from a database maintained by CAST. For more than a decade, CAST has published annual reports on the Russian arms trade in its two publications, the Russian-language *Eksport Vooruzheniy* and the English-language *Moscow Defense Brief*. Additionally, this paper uses figures from the SIPRI Arms Transfers Database, as well as information from other open sources.

02

Sales and New Contracts: From Growth to Stagnation

In general, all entities that monitor the global arms market agree that Russia remains one of the world's leading suppliers. Over the past 10–15 years, it has significantly increased the volume of its arms exports and has extended the geography of its deliveries. Differing interpretations of Russia's arms supplier status, then, are limited to the details. According to the FSMTC, Russian annual arms exports rose by 150 percent, from \$6 billion in 2005 to \$15.3 billion in 2015,¹⁷ and both the FSMTC and Rosoboronexport report that over the past few years, Russian arms deliveries have plateaued at \$15 billion per year. However, SIPRI figures show that they peaked in 2011. Since then, SIPRI reports, there was a period of crisis during which deliveries fell by 40 percent, but then started to recover.¹⁸ America's CRS offers the most conservative assessment, estimating that in 2015, Russian arms exports stood at only \$7.2 billion. (The CRS cites the U.S. government as its source of information without providing details.¹⁹) In fact, we still do not have the CRS figures for 2016, and based on past experience, its figures for previous years may yet be revised. Figure 1 illustrates discrepancies between the estimates offered by aforementioned organizations. In general, all three organizations agree that after a relatively long period of growth in 2005–2012, Russian arms exports either plateaued (this is Russia's own official estimate), or actually fell sharply, as is demonstrated by Swedish and U.S. estimates.

The Russian arms contracts portfolio (Figure 2) shows a similar trend. For a long time, exports grew steadily, and at one point exceeded \$50 billion.²⁰ However, in 2016, it too started to show signs of crisis.

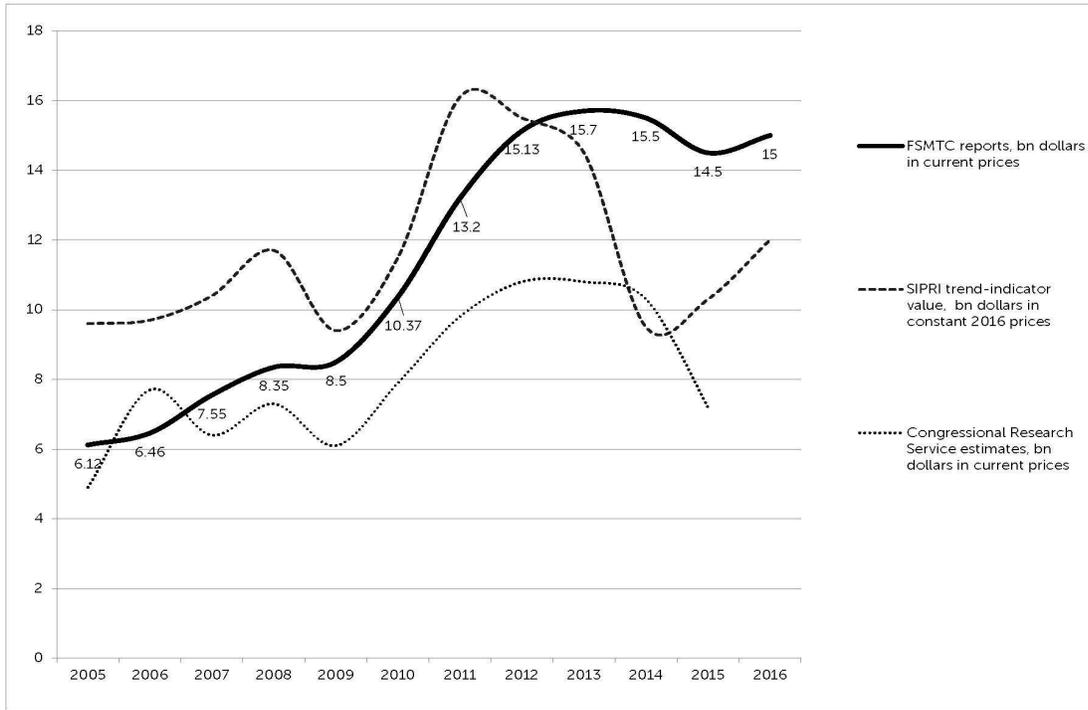
¹⁷ Remarks by President Putin, Meeting of the Commission for Military-Technical Cooperation with Foreign States, March 22, 2017.

¹⁸ SIPRI, "Arms Transfers Database," <https://www.sipri.org/databases/armstransfers>.

¹⁹ Theohary, *Conventional Arms Transfers to Developing Nations, 2008–2015*.

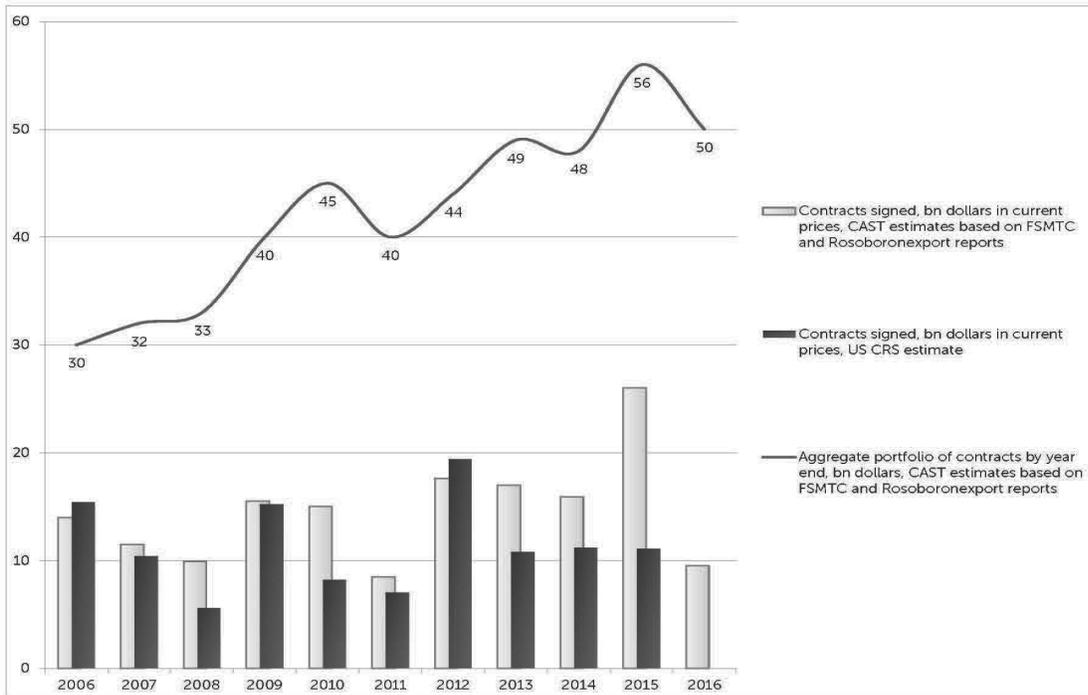
²⁰ Remarks by President Putin, Meeting of the Commission for Military-Technical Cooperation with Foreign States, March 22, 2017.

Figure 1. Russian arms exports according to FSMTC, SIPRI, and CRS, 2005–2016 (\$ billions)



Sources: Articles on Russian arms exports in the *Eksport Vooruzheniy* journal in 2006–2017; Catherine A. Theohary, *Conventional Arms Transfers to Developing Nations, 2008–2015*, Congressional Research Service, December 19, 2016; SIPRI Arms Transfers Database, <https://www.sipri.org/databases/armstransfers>.

Figure 2. Russian arms contracts portfolio and new contracts signed, according to FSMTC and estimates by the CRS, 2005–2016



Sources: Articles on Russian arms exports in the *Eksport Vooruzheniy* journal in 2006–2017; Catherine A. Theohary, *Conventional Arms Transfers to Developing Nations, 2008–2015*, Congressional Research Service, December 19, 2016.

03

Growth Drivers in the 2000s and Early 2010s

Defense Spending in the Importer States

Evidently, the Russian portfolio of foreign defense contracts is stagnating after a period of growth. In order to understand why, and to determine what awaits Russia's arms exports in the future, it is necessary to identify the factors that drove arms export growth in the early 2000s. Let us consider the geographic spread of Russian arms deliveries over the past 15 years (Figure 3). According to its own figures, Rosoboronexport supplied weapons to 116 different countries in the 15 years since it was established²¹; however, only two importers, China and India, accounted for about half of the Russian arms exports in U.S. dollars. Furthermore, 80 percent of the exports were destined for the top 10 importers of Russian arms, almost all of which belong to one of two groups: the rapidly growing Asian economies, China and India; and the petro-states, Algeria, Venezuela, Iraq, and Azerbaijan. Malaysia and Vietnam fall somewhere in between these two groups. In other words, a typical importer of Russian weapons is a country with a rapidly growing economy that is driven either by its cheap and plentiful labor, or by the rapid growth of oil prices since the turn of the century. For these countries, economic growth leads to higher defense spending, and higher defense spending leads to rising arms imports.

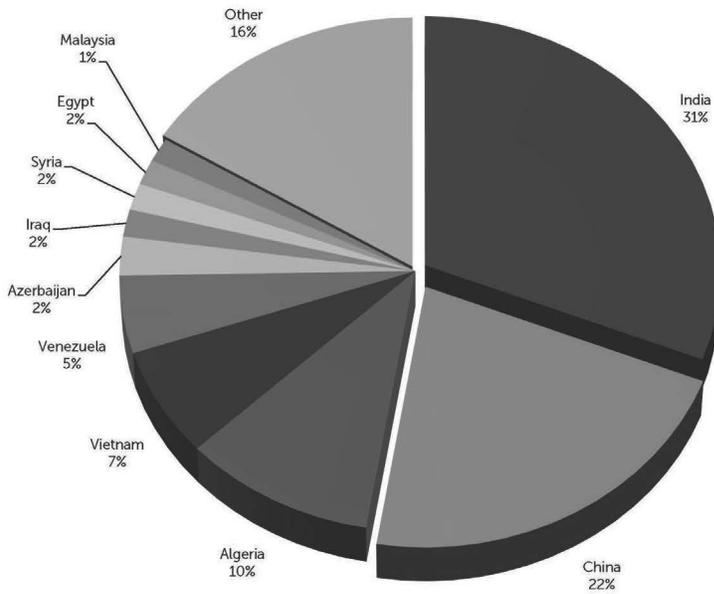
Therefore, the most obvious driver of Russian arms export growth since the turn of the century has been increased demand in the global arms market driven by the growing defense spending of Russia's traditional defense customers. This is illustrated by Figures 4, 5, and 6 showing the defense spending of Russia's main customers.

The most obvious example is China, whose defense spending has almost quadrupled since the turn of the century. Similar growth has been reported in India over the past 15 years.

²¹ "Interview of Sergei Goreslavskiy, Mia Russia Today, to the Forum Army-2016," Rosoboronexport, September 6, 2016, http://roe.ru/press-centr/news/intervyu-sergeya-goreslavskogo-mia-rossiya-segodnya-k-forumu-armiya-2016/?sphrase_id=14675.

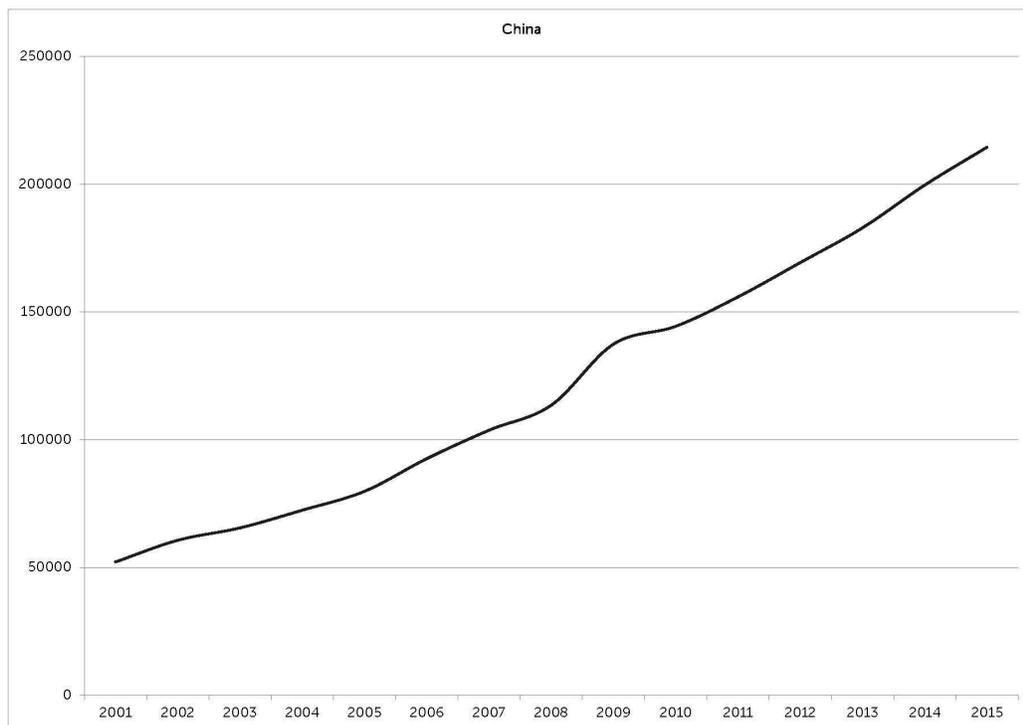
Figure 3. Geographic breakdown of Russian arms exports, 2001–2015

Geographic Structure of Russian Arms Deliveries Over the Past 15 Years



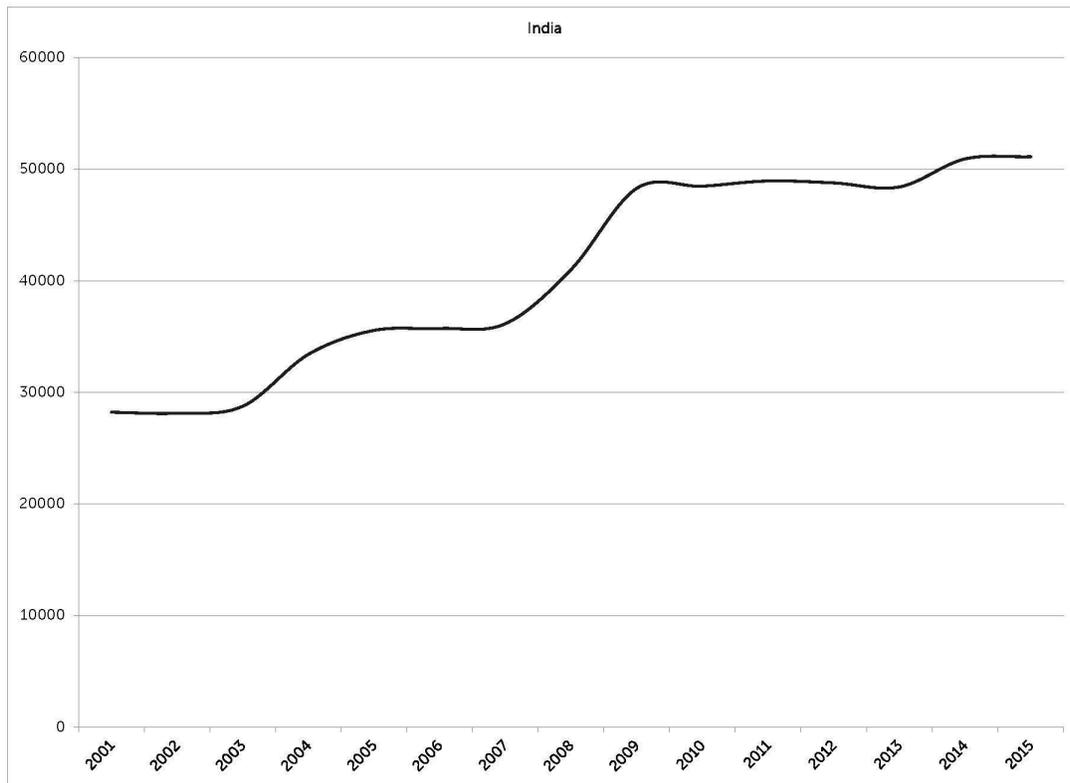
Sources: Articles on Russian arms exports in the *Eksport Vooruzheniy* journal in 2006–2017; SIPRI Arms Transfers Database, <https://www.sipri.org/databases/armstransfers>.

Figure 4. Chinese defense spending in 2001–2015 (\$ millions, in 2015 prices)



Source: SIPRI Military Expenditure Database, <https://www.sipri.org/databases/milex>.

Figure 5. Indian defense spending in 2001–2015 (\$ millions, in 2015 prices)



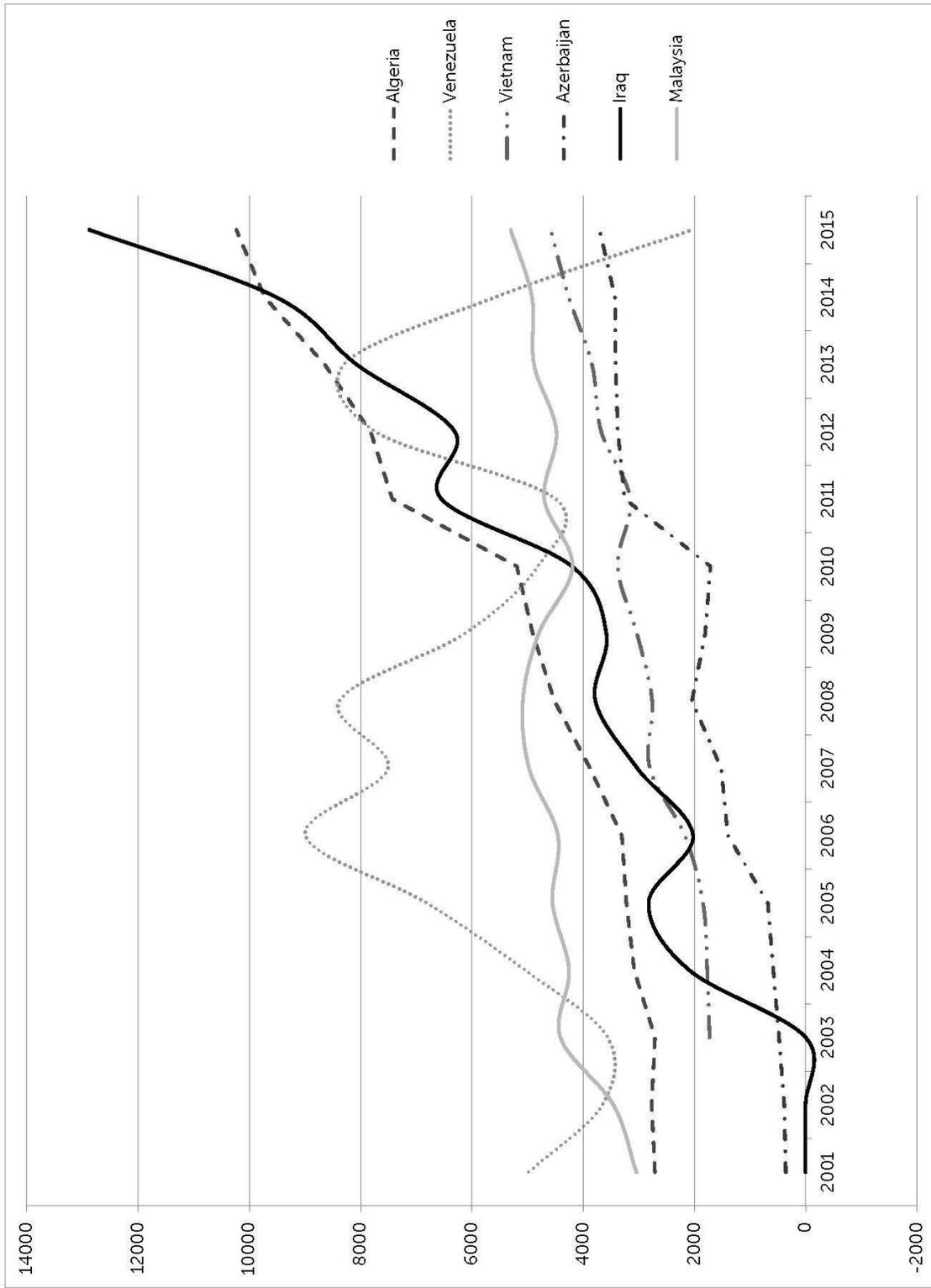
Source: SIPRI Military Expenditure Database, <https://www.sipri.org/databases/milex>.

Defense spending was also growing, albeit at a slower pace, in Russia’s other arms export destinations. The only exception here is Venezuela, where spending shot up under President Chavez, but then fell sharply after his death as the entire country was plunged into crisis.

Notably, there is a strong correlation between the aggregate defense spending of Russia’s nine largest defense customers (except Syria, for which recent figures are unavailable) and Russian arms exports (Table 1). In fact, the correlation ratio is close to 1 (0.96440687, to be precise).

To summarize, growing defense spending of Russia’s main defense customers has been the main driver of Russian arms exports growth since the turn of the century.

Figure 6. Defense spending of six large importers of Russian arms in 2001–2015 (\$ million, in 2015 prices)



Source: SIPRI Military Expenditure Database, <https://www.sipri.org/databases/milex>.

Table 1. Aggregate defense spending of Russia’s nine largest defense customers and Russian arms exports, billion dollars

Year	Aggregate spending	Russian arms exports
2001	96.4	3.7
2002	104.6	4.8
2003	112.8	5.4
2004	128	5.8
2005	140.6	6.1
2006	156.1	6.5
2007	169.1	7.6
2008	186.2	8.4
2009	214.9	8.5
2010	221.3	10.4
2011	239.2	13.2
2012	256.2	15.1
2013	273.1	15.7
2014	293.1	15.5
2015	309.7	14.5
	Correlation ratio	0.96440687

Source: Calculations made by the author using figures from articles on Russian arms exports published in *Eksport Vooruzheniy* journal in 2006–2017 and from the SIPRI Military Expenditure Database, <https://www.sipri.org/databases/milex>. The nine largest importers are China, India, Algeria, Vietnam, Venezuela, Egypt, Iraq, Azerbaijan, and Malaysia.

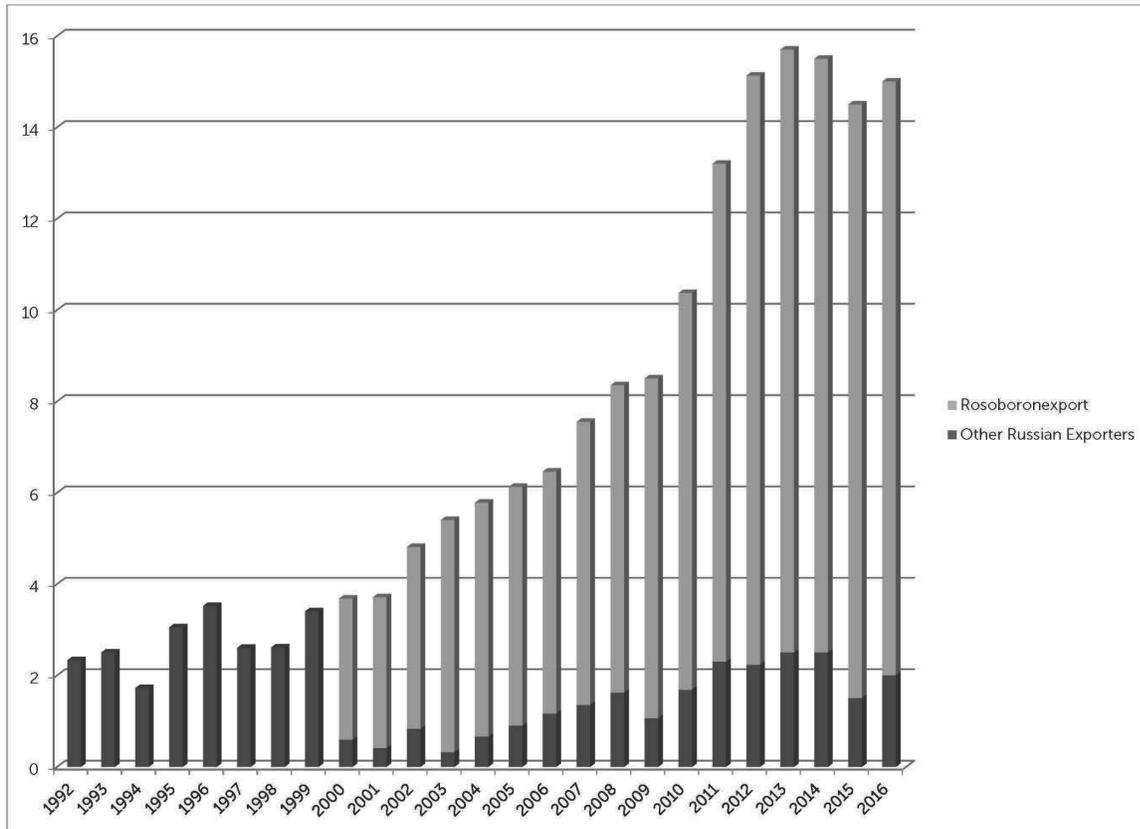
Other Growth Drivers

Since its establishment, the state-owned near-monopolist arms exporter Rosoboronexport has facilitated the growth of foreign contracts. In the 1990s, numerous Russian defense companies had export licenses, and could conduct foreign sales at their own discretion. In fact, Russia’s own defense procurement programs were miniscule, so those companies were willing to sell their weapons to anyone in order to stay afloat financially. There were also three state-owned arms export intermediaries: Rosvooruzheniye, Promexport, and Rostekhnologii. These companies were established to address some specific issues: Rosvooruzheniye was meant to sell only the latest Russian defense technologies to foreign customers; Promexport, to offload surplus weaponry sold off by the Russian MoD; and Rostekhnologii, to transfer licenses to domestic defense customers. In reality, however, the three companies competed with each other, as they were each involved in the intended spheres of the other two.²² Furthermore, due to their limited resources, they were unable to promote Russian arms in foreign markets in an organized and systematic way. As a solution to this, the creation of Rosoboronexport as a near-monopoly made it possible to optimize and streamline marketing efforts, defense-expo participation, and consumer relations. Rosoboronexport offered a comprehensive and integrated range of Russian defense products, and eliminated unnecessary competition between the various Russian suppliers. Russian arms delivery figures since 1992 demonstrate

²² For more details, see “We have not had a single year of negative growth,” interview with Rostec CEO Segrey Chemezov, by Ivan Safonov, *Kommersant*, June 6, 2016.

how effective the establishment of Rosoboronexport was to export growth (Figure 7). Let us also recall that the United States imposed sanctions on Rosoboronexport for a variety of reasons starting in 2006—but, evidently, they have not had major effects on the company’s performance.²³

Figure 7. Russian arms deliveries by Rosoboronexport and other exporters (\$ billion, in current prices)



Sources: Ivan Safronov, “Arms exports at record high,” *Kommersant Dengi*, No. 6, February 18, 2008, 6; “Targeting exports. A century of Russian arms trade,” *Kommersant Vlast*, No. 22, June 6, 2016, 9; Russian arms export reviews in *Ekspert Vooruzheniy* journal in 2006–2017.

Another important driver of growth for Russian arms exports—especially to the two main importers, China and India—was Russia’s willingness to consider technology transfers. In the aforementioned cases, these transfers were largely driven by push factors. For example, after Western states responded to the Tiananmen protests with an embargo on arms exports, China was left with Russia as its only source of military technologies. Let us also recall the U.S. sanctions imposed on India after that country conducted nuclear weapons tests.²⁴ Those sanctions did not last very long, but they strengthened the Indian government’s resolve to pursue military cooperation with Russia. It was during the 1998–2001 period, when the U.S. sanctions were in place, that Russia and India signed crucial deals on the licensed production of

²³ Vladimir Isachenkov, “Russian Firms Decry U.S. Sanctions,” *Washington Post*, August 5, 2006, <http://www.washingtonpost.com/wp-dyn/content/article/2006/08/05/AR2006080500749.html>.

²⁴ “Bush lifts India, Pakistan sanctions,” CNN, September 22, 2001, <http://www.cnn.com/2001/WORLD/asiapcf/south/09/22/ret.sanctions.pakistan/>.

Su-30MKI fighter jets and T-90 tanks, as well as joint-development of the BrahMos missile system.²⁵ Russia, meanwhile, has never imposed any restrictions on the export of its defense technologies to China or India. In this way, previous technological collaboration has been a very important driver of Russia's military and technical cooperation with the two countries.

Of course, in order to export defense technologies, a state must have technologies to export in the first place. Russia benefited greatly from the technologies it inherited from the Soviet Union. In fact, all weapons systems that make up the core of Russian defense exports are upgraded and modernized versions of technologies developed in the late Soviet period. These include the Su-30MK family of fighter jets, the Mi-8/17 and Mi-24/35 helicopters, Project 636 submarines, T-90 battle tanks, and S-300 and S-400 SAM systems, among others.²⁶ Each of these export bestsellers shares the typical features of the late Soviet approach to weapons design. They are inexpensive yet effective, optimized for mass production, and relatively easy to operate. These are the kinds of weapons that are well-suited for the fairly large armies of developing countries that cannot afford expensive Western systems. In addition, defense industries in developing countries find it easier to localize production of Russian weapons as opposed to more complex Western alternatives. Yet another factor that contributed to Russia's arms export growth was the period of stagnation in military technology that followed the end of the Cold War. Most weapons systems offered by Russia's Western competitors were also upgraded/modernized versions of systems developed in the 1970s–1980s. Meanwhile, radically new U.S. technologies, such as the F-35 fighter, remain out of reach for most arms importers because they are very expensive.

Another obvious growth driver for Russian arms exports after the turn of the century was the revitalization of the Russian economy and Russia's return to prominence as a world leader. This is because the export of weapons, in a more abstract sense, is also the export of security and assurances. A country that imports a large batch of weapons systems makes a long-term investment in its own security. Buyers want to have confidence in their ability to procure ammunition and spare parts for the weapons purchased, and that, in 10 or 15 years' time, they will be able to have those weapons upgraded. This requires confidence that the exporting country and its defense industry will continue to prosper. In the 1990s, many believed that the Russian defense industry, if not Russia itself, was on its last legs.²⁷ The country was in the throes of a severe economic crisis, and defense spending was miniscule. The government was not investing anything in the defense industry, and as a result, that industry was expected to corrode after expending the technology potential it had inherited from the Soviet Union. At the turn of

²⁵ Konstantin Makienko, "Make in India is an ideal platform for the Russian defence industry: expert," *Russia & India Report*, February 1, 2017, https://in.rbth.com/economics/defence/2017/02/01/make-in-india-is-an-ideal-platform-for-the-russian-defence-industry-expert_693221.

²⁶ Centre for Analysis of Strategies and Technologies (CAST), "Russian defense exports," 2016, http://cast.ru/For_pdf/2016_rus.pdf.

²⁷ Pavel Felgenhauer, "Russian Military Reform: Ten Years of Failure" (conference paper, Naval Postgraduate School, Monterey, CA, March 26–27, 1997), <https://fas.org/nuke/guide/russia/agency/Felg.htm>.

the century, however, Russia made a turnaround. Its economy and defense industry began to recover, its defense procurement programs began to grow, and defense suppliers were able to attract credit financing for their upgrade and R&D programs. Russia's recovery generated a combination of economic, political, and psychological factors that combined to have a hugely beneficial effect on Russian arms exports.

04

Causes of Recent Stagnation

Motives of Russia's Main Defense Customers

Why has the growth of Russian arms exports stalled? To answer this question properly, it is first necessary to discern the motives that drive importer states to make procurement decisions. In the early 2000s, my CAST colleague Konstantin Makiyenko developed a classification system for national defense markets that conceptualizes them according to their prevailing motivation to buy. He provided the following models of national defense markets.²⁸

The *military* model of arms imports emerges when a purely military motivation is dominant. In this model, the buyer is driven primarily by the combat effectiveness of systems being considered for import, with price considerations playing a secondary role. Importers in a state of military conflict, or facing a high risk of such conflict, prioritize speed of delivery, the ability to quickly train personnel in the use of imported systems, and low prices, because a country at war is usually in a state of economic stress. Military and commercial considerations are always important, but they are not always decisive. Among the large-scale importers of Russian weapons, the military model of national defense markets is exemplified by Iraq and Syria. Of these two, only Iraq currently has the means to pay for its imports. A perfect example of the military model is a rarity in the global arms market, as such clients are faced with dire financial situations, and therefore do not generate large profits for the exporter.

The most desirable customers for arms exporters are countries that fit the *dependent* model of national defense markets. In the dependent model, arms and military hardware are an intermediary product whose primary function is to obfuscate what is really being bought and sold: security assurances from the exporter country. This model is exemplified by a number of rich countries, which, for demographic or political reasons, cannot provide for their own security. Examples of "dependent" national defense markets include the oil monarchies of the Gulf during the 1990s and early 2000s: Saudi Arabia, Qatar, Bahrain, and Kuwait.²⁹ It should be noted, however, that Russia does not have such customers. Moreover, Saudi Arabia has been transitioning toward the military model, recently buying large amounts of cheap weaponry to supply Islamist groups that fight in Syria and Iraq, as well as to supply its own forces fighting in Yemen—what is perhaps a sign that the *dependent* model of defense markets is waning.³⁰

²⁸ Konstantin Makiyenko, "With Weapon: How Washington held on to its positions on the arms market," *Rossiia v globalnoy politike*, October 28, 2012, <http://www.globalaffairs.ru/number/S-oruzhiem-15734>.

²⁹ *Ibid.*

³⁰ Mariya Petkova, "War Gains: Bulgarian Arms Add Fuel to Middle East Conflicts," *BalkanInsight*, December 12, 2015, <http://www.balkaninsight.com/en/article/war-gains-bulgarian-arms-add-fuel-to-middle-east-conflicts-12-16-2015#sthash.nHaEj4Gf.dpuf>.

Some of Russia's defense customers reflect the *political* model of national defense markets, by which the importer's procurement decisions are made on the basis of political orientation. In these states, decisions are guided by the government's political and "civilizational" preferences. In this way, a "political" state differs from a "dependent" state in that the former has a certain degree of freedom to choose between various suppliers, and is not dependent on any sole provider of security guarantees. Until recently, one of the best examples of a "political" client of Russia was Venezuela, which had an explicitly anti-American orientation. However, the death of Hugo Chavez, coinciding with the decline of oil prices and the ensuing economic crisis, has forced Caracas to cut its arms import programs. As a result, Russia's only remaining "political" customers are its allies in the Collective Security Treaty Organization, primarily Belarus and Armenia—neither of which is a major customer in the economic sense.

Other importers of Russian weaponry represent the so-called *blockade* model of imports. "Blockade" states have armed forces with urgent maintenance and upgrade requirements, but face de facto or de jure blockades by the West. An example of such a state among Russia's defense customers was Libya. However, after the Libyan civil war and subsequent deposal of Col. Gaddafi, Libya's economy collapsed. As a result, Libya vanished from the list of major arms importers, and Russian companies lost \$7 billion worth of Libyan contracts. Other examples of "blockade" importers have included Syria and Iran, but, after the outbreak of the civil war, Syria also became insolvent. Furthermore, Russia largely lost the Iranian defense market after supporting UNSC Resolution 1929 in 2010. With this decision, and subsequent decisions to support sanctions and cancel S-300 SAM shipments to Iran (even though they did not fall under the scope of sanctions³¹), then-president Dmitry Medvedev drew the ire of defense industry leaders across Russia.

Another model offered by Makiyenko is the *corruption* model, by which import decisions are made not on the basis of national interest, but rather, are intended to line the pockets of high-ranking officials in the client state. This "corruption" model is exemplified by some Middle Eastern, Latin American, and African states, where corrupt personal gains are obscured by the general opacity of the arms market. In many of these cases, the size of the kickback is the decisive factor in choosing an arms supplier. However, because corruption is widely recognized in many national and regional defense markets, virtually all major suppliers know how to "play the game," and the factor of corruption does not offer a decisive advantage on its own.

The most significant arms importers, including those who buy most of their weapons from Russia, reflect the *industrial/technological* model. In this model, buyers prioritize access to the latest military and nonmilitary technologies in order to bolster technological R&D in their own defense industries and related sectors, such as aerospace. The decisive factor here is the exporter's willingness to offer technology transfers, licensing deals, and offset arrangements. The best examples of such importers, as previously mentioned, are China and India, which became Russia's most important defense customers precisely because Russia was willing to transfer technologies and participate in offset programs. These cases demonstrate, however, that export to "industrial/technological" clients has a major drawback: sooner or later, the importers learn how to produce the systems they previously had to buy. As the degree of

³¹ "Kremlin bans sale of S-300 missile systems to Iran," BBC, September 22, 2010, <http://www.bbc.com/news/world-europe-11388680>.

localization grows, the earnings of the exporter begin to fall. After a certain period, the importer gains the capability to produce the required hardware at its own facilities. In demonstrating this evolutionary process, Russia's arms export relationships with China and India provide useful cases.

Evolving Industrial/Technological Model of Chinese and Indian Imports

The best example of industrial/technological model evolution occurred in China. In the 1990s and early 2000s, the country imported large numbers of various Soviet-developed systems. In 1992–2003, it bought 36 Su-27SK fighters, 76 Su-30MKK multirole fighters, and 40 Su-27UBK combat trainers.³² Another 105 Su-27SK aircraft were assembled in 1998–2005 at a Chinese facility in Shenyang under Russian license and mainly with Russian components. Also, in 2003–2004 the Chinese naval aviation service received 28 Su-30MK2 multirole fighters. In addition to aircraft, the Chinese bought large batches of Kh-35 air-to-air missiles, Kh-31A antiship missiles, and Kh-31P antiradar missiles. Russia supplied four Il-78MK aerial refueling tankers, four A-50 airborne early warning planes, and numerous Mi-8/Mi-17 helicopters. In 2005 Beijing placed an order for 34 Il-76MD military transports and another four Il-78MK planes. The Chinese Navy bought two Project 956E and two Project 956EM destroyers, two Project 877EKM diesel-electric submarines, and 10 Project 636 and Project 636M subs. The Chinese air defense forces bought dozens of S-300PMU-1 and S-300PMU-2 SAM systems and 27 Tor-M1 short-range air-defense missile systems. In the 1992–2006 period, Chinese contracts accounted for about \$26 billion of Russia's aggregate \$58.4 billion arms export figure.³³ Over time, however, China's own industry learned how to make copies or clones of the imported Russian and Soviet systems. In some areas, the student has already surpassed the teacher. For example, Russia has completely lost its share of the Chinese market of warships to local shipbuilders. In 2006, Russia delivered the last of the Project 956EM destroyers to China.³⁴ Since then, the Chinese have been building all the ships they need at their own shipyards, and at a rate that is completely unattainable for the Russian defense industry.

At the present, China is only interested in the most advanced of Russia's weapons systems, such as the Su-35 fighter or the S-400 SAM. The remaining portfolio of Chinese contracts is fairly impressive at \$8 billion, but it comprises mostly orders for 24 Su-35 fighter jets, S-400 SAM systems, and AL-31F aircraft engines (used in the Chinese clones of the Su-30 and in the J-10 light fighter jets), as well as the D-30KP-2 engines (for use in the Xian H-6K long-range bombers and Il-76 and Y-20 transports).³⁵ Thanks to its latest fighters, air defense systems, and aircraft engines, Russia still retains a share of the Chinese defense market. These exports,

³² Aleksandra Gritsakova and Konstantin Lantratov, "China lays down Russian arms. Military and technical cooperation slowing down," *Kommersant*, May 7, 2007, <https://www.kommersant.ru/doc/763776>.

³³ *Ibid.*

³⁴ Paul Schwartz, *Russia's Contribution to China's Surface Warfare Capabilities: Feeding the Dragon* (Washington, DC: CSIS, August 2015), https://csis-prod.s3.amazonaws.com/s3fs-public/legacy_files/files/publication/150824_Schwartz_RussiaContribChina_Web.pdf.

³⁵ Konstantin Makienko, "Russian Arms Trade in 2016," *Moscow Defense Brief*, no. 1 (2017), <http://cast.ru/products/moscow-defense-brief/1-57-2017.html>

however, have no potential for growth, because China's own defense industry is rapidly catching up to the most advanced Russian technologies.

Yet another drawback for the exporter is that "industrial/technological" importers demand constant improvements in the level of technologies being bought from foreign suppliers, and their preferences gradually shift to more expensive systems. The best example of this trend is India, which overtook China as Russia's primary arms customer in 2007.³⁶ Indeed, Russian exports have comprised an important part of India's systems since the turn of the century. For example, India placed orders for a total of 272 Su-30MKI fighters, which will constitute the core of the Indian Air Force's fleet for the next few decades. India also bought a batch of MiG-29K carrier-based fighters for its Navy. India has imported considerable numbers of multirole missile systems from Russia (the Club-S for submarines and the Club-N version for surface ships). The Club is the export version of the Kalibr system, which was developed for Russia's own navy.³⁷ Intriguingly, large deliveries of Club missiles to India began in 2000, long before the Kalibr entered into service in Russia. Of considerable importance to the Russian/Indian arms partnership was the BrahMos program, in which Russian and Indian engineers collaboratively developed and produced the PJ-10 BrahMos supersonic antiship missile based on Russia's Oniks (Yakhont) system (a modified version was produced for land targets). Presently, three Indian Army regiments have been equipped with the land targeting BrahMos missiles, and the system is currently being issued to a fourth regiment.³⁸ The naval version has been installed on 12 Indian Navy ships, including the latest Project 15A (Kolkata Type) destroyers, and, in February 2015, the first Su-30MKI fighter jet armed with the BrahMos-A supersonic air-launched cruise missile was delivered to the Indian Air Force at a special ceremony in Bangalore. Additionally, Russia has built six Talwar-type frigates under two separate contracts with the Indian Navy.³⁹ Two completely unique programs have further demonstrated the impressive level of Russian-Indian cooperation on naval weapons: the completion of a Project 971 multirole nuclear submarine (commissioned by the Indian Navy), and the conversion of the Soviet-era Admiral Gorshkov heavy aircraft-carrying cruiser into an aircraft carrier. In addition to these examples, there have been dozens of smaller-scale Indian contracts for weapons systems, ammunition, components, and spare parts.

Nevertheless, clear signs of a slowdown are emerging in the Russian-Indian arms trade. Having already manufactured the cheaper Russian Su-30MKI jets, India has now signed a contract with France for Rafale fighters, led primarily by a desire to secure the transfer of French technologies (especially those related to the active phased array radar, and OSF optical-electronic systems). New Delhi has also placed orders for expensive American weapons, including Apache helicopters and P-8I Poseidon patrol planes. Once again, the choice was made in favor of the more advanced technologies.⁴⁰ Consequently, Indian orders accounted for only 16 percent of

³⁶ Aleksandra Gritsakova and Konstantin Lantratov, "China lays down Russian arms: Military and technical cooperation slowing down," *Kommersant*, May 7, 2007, <https://www.kommersant.ru/doc/763776>.

³⁷ M.S. Barabanov et al., *Indian Defense Industry and Arms Trade*, Centre for Analysis of Strategies and Technologies, 2016, <http://cast.ru/books/oboronnaya-promyshlennost-i-voenno-tekhnicheskoe-sotrudnichestvo-indii-s-zarubezhnymi-gosudarstvami.html>.

³⁸ *Ibid.*

³⁹ *Ibid.*

⁴⁰ *Ibid.*

the Russian portfolio of foreign defense contracts in 2016.⁴¹ The largest of Russian exporters, the Rosoboronexport intermediary, had \$4.6 billion worth of outstanding Indian contracts as of late 2016,⁴² having signed \$2 billion worth of new contracts with Indian customers over the course of the year.⁴³ Several large defense contracts were agreed to during President Putin's visit to India in October 2016, including orders for S-400 SAM systems, four new Project 11356 Talwar frigates, and licensed production of Ka-226T light helicopters in India.⁴⁴ These sales, if carried out, will enable Russia to maintain a large share of the Indian defense market for another few years. Nevertheless, it is clear that the Indian armed forces (as well as the country's defense industry) are constantly raising their expectations in terms of technologies being supplied and/or transferred. In consideration of this, Russian arms exports to India will inevitably nose-dive unless Russian arms suppliers devise advanced new products.

Having established a theoretical background and present status of key markets, it is clear why Russian arms exports have stalled. There are three main causes:

1. China has become self-sufficient in the development and manufacture of most weapons categories;
2. India has ramped up local production of Russian-designed systems; and
3. India's arms import preferences are gradually shifting toward higher-tech and more expensive Western systems in pursuit of the latest technologies.

Other Factors behind the Stagnation

Numerous other factors have contributed to the decline of Russian arms exports:

- Growing competition and the emergence of new arms exporters. Several countries—especially China and South Korea, and to a lesser extent South Africa, Turkey, and Singapore—have increased their arms exports in recent years, reducing the market share of Russian suppliers. Additionally, the World Trade Organization has had an indirect impact on the global arms market. WTO rules have limited the ability of national governments to provide direct stimulus measures to certain industries and exports, but these rules do not apply to the arms market because of national security implications. This is why many governments use subsidies and encourage “dumping” on the weapons market in order to increase their exports. China also regards arms supplies as instruments of political influence, so Chinese weapons are frequently offered to African, Asian, and Latin American buyers at discounted prices as part of a broader Chinese expansion policy.

⁴¹ Statement by FSMTC director Vladimir Drozhzhov, Interfax-AVN, February 14, 2016, <https://sdelanounas.ru/blogs/90258>.

⁴² Ibid.

⁴³ Ibid.

⁴⁴ Manu Pubby, “India and Russia to jointly manufacture Kamov 226 helicopter under ‘Make In India,’” *Economic Times*, October 14, 2016, <http://economictimes.indiatimes.com/news/defence/india-and-russia-to-jointly-manufacture-kamov-226-helicopter-under-make-in-india/articleshow/50316231.cms>.

- Falling oil prices. The price of Brent crude collapsed from \$113 per barrel in the summer of 2014 to \$28 in late 2015.⁴⁵ This has clearly crippled the ability of Russian defense customers such as Algeria, Azerbaijan, and Iraq to finance their imports. Oil prices have recently recovered to \$48–\$50 per barrel; however, they are not expected to rise by much in the near future, thereby putting a cap on procurement programs in petro-states.
- Also worth mentioning is the crisis of the Bolivarian project in Venezuela, though this was mostly caused by falling oil prices.
- The collapse of Libya and the subsequent loss of a \$7 billion defense contract package, of which \$2 billion worth of contracts had already been signed.⁴⁶
- The Syrian Civil War.
- The sanctions on Iran.
- Western sanctions on Russia itself. Russian companies that have been targeted by sanctions are finding it more difficult to attract credit financing and upgrade production facilities. It should be noted, however, that the overall impact of sanctions on Russia's arms export programs is not large.⁴⁷

Yet another factor undermining Russian arms exports is increased domestic demand for Russian weapons systems. Figure 8 shows Russian arms exports and domestic defense procurement since 2003. Evidently, orders placed by Russia's own Ministry of Defense (MoD) began to grow rapidly after the adoption of State Armament Program 2020.

As a result of this growth, many suppliers have lost their production capacity and have had to prioritize domestic contracts over export deliveries. For example, orders placed by the Russian MoD for the S-400 SAM systems will keep their supplier working until at least 2019,⁴⁸ thereby severely restricting the supplier's ability to serve export customers that are unwilling to wait until 2020. Also, for many weapons systems, Russian production capacity has shrunk as a result of the economic crisis, reforms, and privatizations in the 1990s. In addition to financial constraints, the SAP-2020 program is facing diminished production capacity and shortages of qualified defense industrial specialists.

A combination of all these factors has brought Russian defense exports to the brink of crisis.

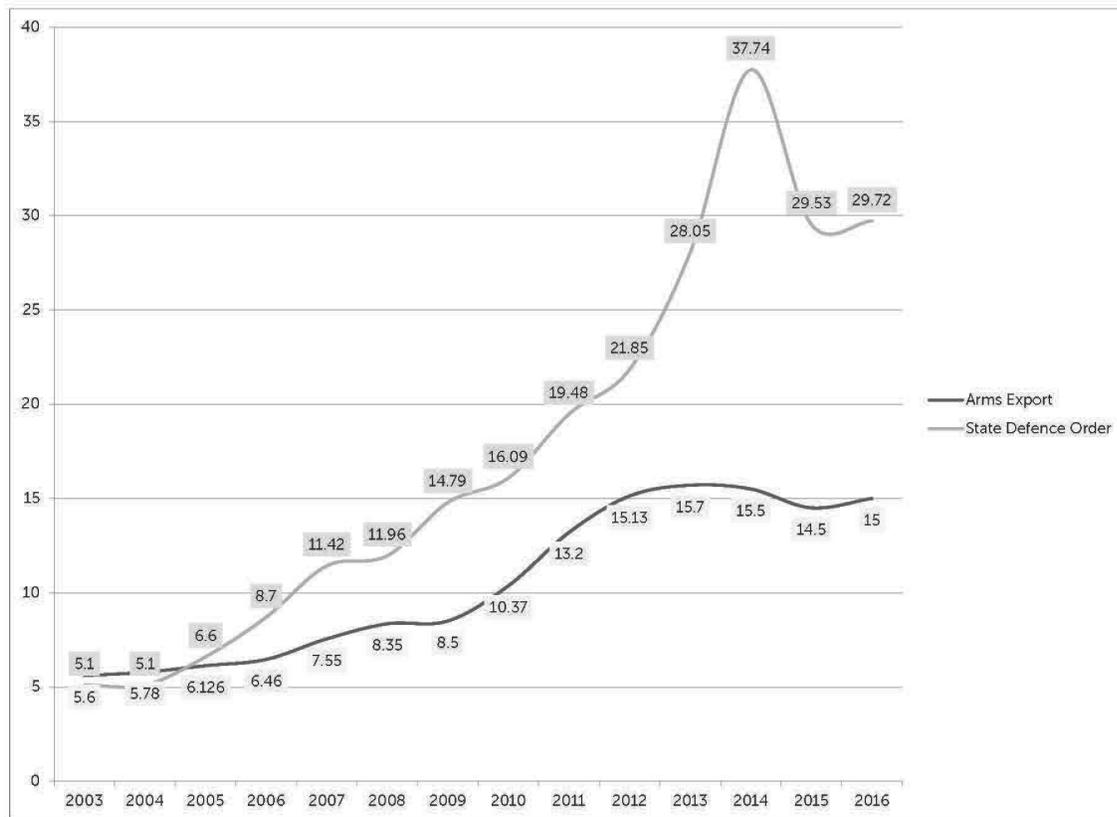
⁴⁵ Macrotrends, "Brent Crude Oil Prices—10 Year Daily Chart," <http://www.macrotrends.net/2480/brent-crude-oil-prices-10-year-daily-chart>.

⁴⁶ Ivan Safonov, "We have not had a single year of negative growth," interview with Rostec CEO Segrey Chemezov," *Kommersant*, June 6, 2016, <https://www.kommersant.ru/doc/2996060>.

⁴⁷ Dmitry Dokuchaev, "Russian arms market unhampered by sanctions, at least for now," *Russia Direct*, September 15, 2015, <http://www.russia-direct.org/analysis/russian-arms-market-unhampered-sanctions-least-now>.

⁴⁸ Leonid Nersisyan, "New plants to enable Russia to export S-400 SAM system," *Regnum*, March 3, 2017, <https://regnum.ru/news/polit/2244899.html>.

Figure 8. Russian domestic procurement programs under SAP-2020 and exports (\$ billion, current prices)



Sources: Figures for 2010–2015: Exports of Russian Weapons and Military Hardware, http://cast.ru/For_pdf/2016_rus.pdf; Figures for 2003–2009: Andrey Frolov, Russian Defense Procurement, <http://vpk-news.ru/articles/6989>, December 15, 2010; Figures for 2016: author’s own estimates. Conversion to U.S. dollars, in current prices.

Impact of the Syrian Campaign

The notion of weapons promotion as one of the main reasons for Russia’s involvement in Syria is quite popular among journalists and analysts.⁴⁹ Indeed, Russian defense industry leaders pinned some hopes on the Syrian campaign, expecting a rise in export contracts. Rosoboronexport seems to have corroborated this idea, as it commissioned a video advertising the performance of Russian weapons systems using footage from Syria.⁵⁰ For now, however, concrete effects of the Syrian campaign on Russian defense exports have not materialized. Reasons for this are listed below:

- First, the nature of Russia’s intervention in Syria has made it difficult to impress arms importers. This is because almost all other leading arms exporters—except China—are engaged in similar airstrike campaigns against militants.

⁴⁹ Mansur Mirovalev, “How Russia’s military campaign in Syria is helping Moscow market its weapons,” *Los Angeles Times*, November 30, 2016, <http://www.latimes.com/world/la-fg-russia-weapons-20161118-story.html>.

⁵⁰ “Report from Aero India 2017,” Bmpd (blog), February 6, 2017, <http://bmpd.livejournal.com/2435549.html>.

- Second, most of the Russian weaponry deployed in Syria is technologically outdated. For example, the majority of Russian sorties in Syria are flown by upgraded Su-24 and Su-25 aircraft.⁵¹ Of course, these are not the same Su-24s and Su-25s that were used in Afghanistan 30 years ago. The planes have been modernized, and have become much more capable. On the whole, however, they represent obsolete technology with little in the way of export prospects.
- Some Russian systems deployed in Syria are not yet offered to foreign customers, or are of very limited export potential. For example, potential importers were impressed by the Russian Kalibr long-range cruise missile strikes. Unfortunately for Russia, the missile technology control regime dictates that the range of cruise missiles offered to foreign customers be limited to 300km. Russia is prepared to export Club cruise missiles; however, they lack the effectiveness of the Kalibr system. Another example is the Tu-22M3 and Tu-160 heavy bombers, which have been used in Syria, but whose export potential is limited.
- The role played by Russian air defense systems in Syria is not entirely obvious. Russia has deployed its latest S-400 and Pantsir systems; however, they have only been tasked with protection of airbases. Moreover, the ongoing strikes by other countries against Syrian targets somewhat undermine Russian's efforts to promote its air defense weaponry.
- Negotiations before the signing of arms contracts tend to be drawn-out, usually over the course of several years. This being said, it is perhaps too early to assess the impact of the Syrian campaign on the arms market.

Still, the Syrian campaign probably has a certain potential to promote Russian weaponry. The most likely beneficiaries are the Su-34 tactical bomber and new air-launched munitions. Furthermore, it has been suggested that the performance of Su-34 bombers in Syria helped to sell the export version of that plane, the Su-32, to Algeria.⁵² The likelihood of new export contracts for Ka-52 and Mi-28N helicopters has also increased. On the whole, however, the Syrian campaign has had a very limited effect on Russian export prospects for the time being.

⁵¹ "Su-24 account for half of Russian Air Force sorties in Syria," *Aviation Explorer*, March 15, 2017, <https://www.aex.ru/news/2017/3/15/167363/>.

⁵² "Algeria reportedly places order for Su-34 aircraft," Bmpd (blog), January 6, 2016, <http://bmpd.livejournal.com/1665131.html>.

05

Conclusion: The Outlook for Russian Arms Exports

Russia enjoyed a period of rapid arms export growth, but has now entered a period of stagnation. What is likely to happen in the coming years, and what are the main factors that will determine outcomes for Russia?

- One of the most important factors is the completion of next-generation weapons systems and their entry into service with the Russian armed forces. Specifically, much depends on the PAKFA fifth-generation fighter jet, the Armata main battle tank, and the S-500 SAM system. These systems, which represent a new level of technology, will help Russia to reboot its arms trade with its two main partners, China and India. Russia already has the joint FGFA program with India, whose success will be instrumental for the success of the Russian PAKFA program. However, the export potential of these new systems is not obvious. This is because they are expected to be costly, with near-Western price tags. In order to secure export contracts, suppliers of these systems may have to develop simplified and cheaper versions, or offer long-term financing options.
- Oil prices: up, down, or steady? The price of oil determines Russia's ability to develop and mass-produce next-generation weapons systems. Similarly, it affects the ability of many importers (including major Russian customers such as Algeria, Iraq, Kazakhstan, and Azerbaijan) to buy such systems.
- Expansion into other corners of the arms market: Russian suppliers have long been well-represented in areas such as combat aircraft, air defense systems, and battle tanks, but there is fierce competition in these markets, with too many sellers chasing too few buyers. Russia must therefore attempt to diversify what it can sell. In terms of market capacity, promising new areas include electronic warfare systems, small submarines, and military robotics. However, new hardware does not always sell for the very reason that it is new, so any expansion into new subsections of the arms industry will require a concomitant promotional campaign aimed at convincing potential buyers of the products' need.
- New forms of cooperation must be identified, and should emphasize joint weapons development programs, especially with China and India. Presently, there is insufficient political will and military need to launch major joint R&D projects. Over time, however, growing tensions between Russia and the West, and between the United States and China, may force the Russian and Chinese defense industries to pool their efforts and resources. This, however, would increase the risk of Russia's defense industry losing self-sufficiency. It is also possible, within years or decades, that the defense industrial

relationship between Russia and China may begin to resemble the current one between Britain and the United States.

Depending on how the political and economic situation unfolds, and in which direction the market turns, Russian arms exports may encounter the following three scenarios:

- The pessimistic scenario—which is also the least likely—is predicated on political upheaval and a change of government in Russia. Russian opposition leaders and pro-opposition economists often criticize the government’s high military spending, and denounce major investments in the development of new weaponry.⁵³ At the same time, opposition parties and movements have yet to offer a coherent program for the Russian defense industry and related sectors of the economy (aerospace, electronics, and the machine-tool industry). A change of government could lead to a crisis in the Russian defense sector on a scale not seen since the 1990s, with devastating consequences for new weapons programs, and potentially, even for Russia’s ability to fulfill export contracts that have already been secured.
- The optimistic scenario assumes a strong recovery of oil prices, which would enable Russia to finance the completion of new weapons programs and bring those weapons to the export market. The current state of the oil market makes such a scenario unlikely. In fact, the Russian government has already announced defense-spending cuts of 25.5 percent, from 3.8 trillion rubles (\$65.4 billion) to 2.8 trillion (\$48 billion).⁵⁴ Another possible driver of arms export growth would be an escalation of the crisis in the Middle East, or new tensions between Washington and Beijing. Such tensions could force China to buy more weapons from Russia or to pursue new joint programs in combat and military transport aircraft (such as a new fighter-interceptor, a new heavy transport), air defense systems, hypersonic weapons, antisatellite systems, and military robots. For the time being, however, such a turn of events does not appear likely.
- The most likely scenario is that Russian arms deliveries will continue under existing contracts, and that the signing of new contracts will continue at the current rate. Negative growth in Russian arms exports is also a distinct possibility. In other words, the situation will remain unchanged for the foreseeable future; there will be no growth, and there may be a slow contraction. In the shorter term—until the arrival of the next-generation Russian systems, and barring a major change in the political situation—even keeping Russian arms exports at their current level would be a major achievement. The main objective (and the main challenge) for the Russian defense industry will be to complete development of next-generation weapons, launch their mass production, and upgrade Russia’s own defense capabilities. The focus, therefore, will be on domestic procurement programs rather than exports.

⁵³ See, for example, Sergei Guriev, “Russia’s Military Spending Is Out of Control,” *Moscow Times*, May 19, 2015, <https://themoscowtimes.com/articles/russias-military-spending-is-out-of-control-46670>.

⁵⁴ Craig Caffrey, “Russia announces deepest defence budget cuts since 1990s,” *IHS Jane’s Defence Weekly*, March 16, 2017, <http://www.janes.com/article/68766/russia-announces-deepest-defence-budget-cuts-since-1990s>.

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