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# International trade strategy of Russia's arms exporters

Reviewing Russia's military-industrial complex performance in 2003, when exports of arms and combat vehicles topped $5 billion, Russian media cited opinions suggesting that the industry's export potential was exhausted. Moreover, the media alleged that the boom in military trade would be followed by a bust **[1]**. However, the year 2004 saw a growth in military contracts compared to 2003. Despite that rise, the media continued to speculate on exports declining, this time in 2005. **[2, 3, 5, 7]**. In reality, exports of arms and armored vehicles grew compared to 2004. Thus, trade in arms has been continuously growing from 1999.

Preceded only by the US, Russia is the world's second largest exporter of military products. According to the Stockholm International Peace Research Institute (SIPRI), Russia was world's number one arms and combat vehicle exporter[1] in 2005. Following the 1990s downturn, Russia began to strengthen its presence in the international market of arms and armored vehicles.

The rapid quantitative growth in arms exports is a positive, but not the most important trend occurring in the Russian defense industry. What is more significant is the exporters' proactive policies in certain sectors of the global market that are expected to influence the whole of the military-industrial complex.

The upturn in the Russian military trade prompts us towards a conclusion that exporters started building up an international trade strategy aimed at mastering the world arms market in the medium- and long-time perspective; this strategy will help convert the quantitative growth in exports (supplies of new military products) into qualitative growth (supplying a wide selection of goods and services including new weapon models, spare parts, after-sale service and modernization). Aided by the government support, growth in exports will strengthen Russia's position on the specific and highly competitive arms market that is of paramount importance for Russia's science-intensive, high-technology machine-building industry.

[1] Russia was ranked first by the SIPRI that used a method of estimation based on the so-called trade indicators. This method suggests that identical weapons should be identically evaluated, and such evaluations often differ greatly from the real or market values of a defense product. Thus, the dollars used by the SIPRI as a measurement unit considerably differ from the genuine US dollars. However, the US dollar is dominant where the real value of the dollar is concerned.

**Exports of arms and military vehicles in 1998–2005**

In the period of 'crisis stabilization' that lasted 1993 through 1997, annual growth in exports of arms and armored vehicles averaged 3.3%; 1995 saw exports climbing 77.3% compared to the preceding period; and the steepest decline occurred in 1994 when exports totaled just 55% of the 1993 exports.

During the 1998-2005 economic upturn, the annual growth rate averaged 11.8% - thrice the previous years' figure. The largest growth in exports was observed in 1999 – 30.2%, and in 2002 – 30%. The lowest growth was in 2001 – 0.6% (fig. 1) **[2, 4, 7, 8]**.

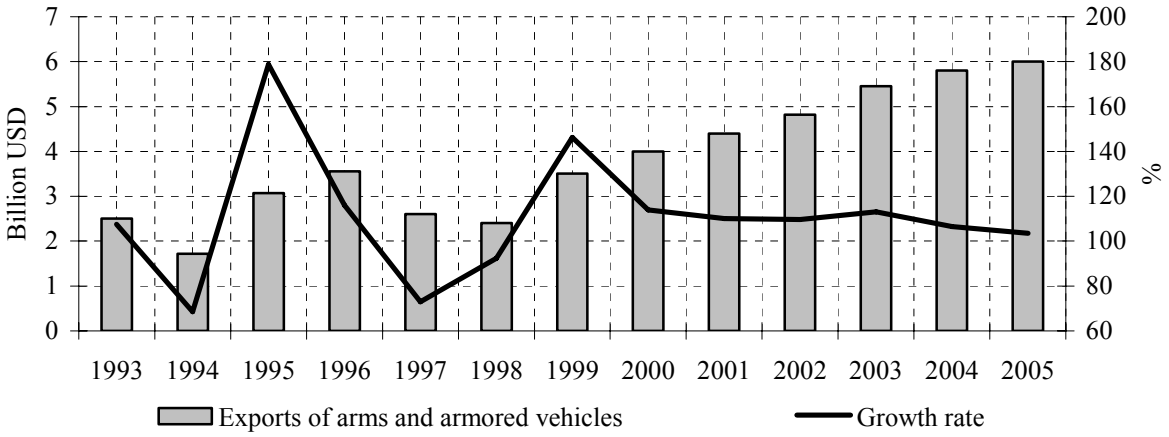


**Fig.1. Dynamics of arms and armored vehicle exports in 1993-2005**

In 2003, Russia's military exports for the first time surpassed the $5 billion mark (reaching $5.4 billion). A year later, exports climbed 5.5% to reach $5.7 billion. In 2005, exports topped $6 billion. In 2005 exports grew 7.5% compared to 2004 - reaching a record of $6.126 billion[2]. The Russian Federal Service for Military-Technological Cooperation predicts that in 2006 exports will fall 11.3% to $5.5 billion **[14]**; however further on, according to Mr. Dmitriev, exports would rally to around $7 billion owing to a wider product array offered by Russia's major defense exporter, Rosoboronexport **[13]**.

A. Denisov, deputy director of the Federal Service for Military-Technological Cooperation stated that in the 2005 exports of naval arms and military vehicles averaged 55%, military aircraft – 30%, air defense and land forces weapons - 14%, and guns accounted for just 1% **[15]**.

Russia liaises with 82 countries worldwide for military engineering, being second only to the US who maintains cooperation with 100 countries. The Europe's 'big three' – Great Britain, Germany and France – liaise with only 26, 26 and 29 countries respectively **[16]**. However, 70%

[2] Russia's President Vladimir Putin stated at the Military-Technological Committee meeting on December 29, 2005 that Russia's defense exports amounted to only $5.3 billion **[9]**. It is not uncommon that the declared export figures do not fairly present the actual results. The Vedomosti edition published an article that reported a decline in exports in 2004. According to that article, Rosoboronexport cast doubt on whether the 2003 record - when an around $5 billion export was expected - could be repeated. **[10]**. In 2005, Vedomosti wrote that the 2004 exports totaled $6 billion. **[11]**. A day earlier, Novosti news agency reported the same data as Vedomosti referring to M. Dmitriev, head of the Federal Service for Military-Technological Cooperation **[12]**.

of Russia's military exports go to only two countries – India and China - who commenced mass re-armament of their Armed Forces in late 1990s.

Rosoboronexport's military orders reached $13 billion in 2005, so Russia's share in the global arms market exceeded 20% that year.

Thus, the year 2005 proved highly successful for the domestic exporters of weapons, and the rise in exports was not the only achievement of Russia's arms industry. The exporters' success in certain sectors of the global arms market was even more important as it evidenced an increasing efficiency of Russia's international trade in arms. If this trend continues, Russia will be expanding its footprint into the global weapons market – benefiting to the exporters and Russian science-intensive, high-technology machine-building industry as a whole.

**Quality and quantity factors of exports of arms and military vehicles**

Applying Y. Yaremenko's terminology used in his 'Theory of Multi-level Economics', let us define international trade in arms as a combination of the quality and quantity elements.

The quantity constituent is composed of:

- worth of exports;
- changes in the value of Rosoboronexport military orders.

The quality constituent is composed of:

- international presence of exports (i. e. Russia exporters' worldwide footprint);
- export product mix (i. e. the range of weapons supplied within a given period of time);
- production and introduction to the global market of brand-new weapons and weapons largely modernized compared to the previous models;
- Russian exporters' expansion into such sectors of the global arms market as 'Spare parts and after-sale service' and 'Modernization of outdated weapons and military vehicles'.

The progress of the quantity constituents is extremely important as it indicates improvements in the exporters' performance, thoughtful planning of their marketing policy and seeking export diversification to ensure sustainability of their business in order to be able to address the drastic changes in the world arms market. A steady development of the quality constituents will unleash growth in military orders with Rosoboronexpot, thus encouraging growth in exports in general. In other words, growth in the value of exports and the number of orders placed with this state-supported exporter is a derivative of the quality constituents, not vice versa. Claiming leadership in military exports, the domestic defense contractors should focus on enhancing the quality constituent of trade in arms.

Presenting a holistic view of military exports, we outline an international trade strategy for Russian exporters of arms and military vehicles for medium- and long-time perspective. With this strategy, exporters will be empowered to benefit economically and form a powerful political instrument.

## 2005 positive impacts on the quality constituent of arms trade

### *Export mix and international outreach*

The exported arms include:

- arms and military vehicles for air forces;
- arms and military vehicles for naval forces;
- air defense and land forces weapons.

Arms exports mix is contract-specific, i. e. depends on what weapons and military vehicles have been contracted. This explains why there was a shift towards trade in military aircrafts. In the late 1990s, China and India awarded Russian arms producers largest in the Russian history contracts for 4+ generation fighter planes[3] – Su-27UBK, Su-27SK and Su-30MK. The last shipment arrived from the Irkut facility in 2005. Alterations in the 2005 export mix, shifting towards naval arms, were largely expected: following the re-armament of their national Air Forces China and India started modernizing their Navies (fig. 2) **[17, 18]**.

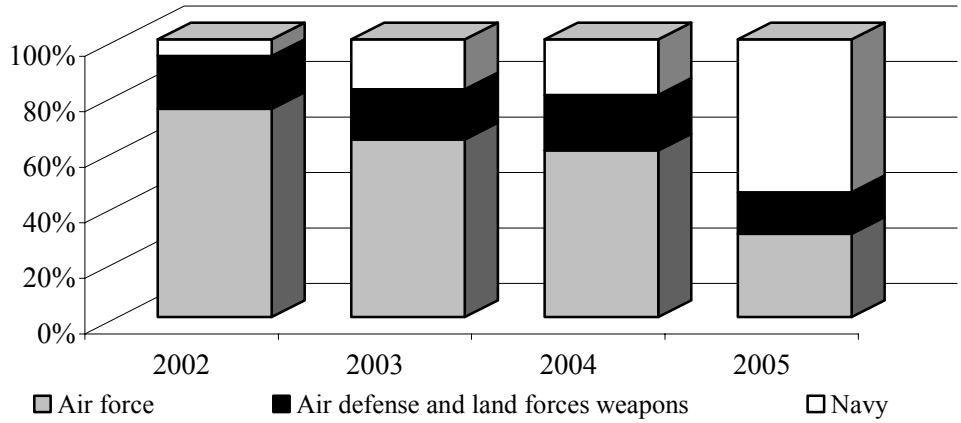


**Fig. 2. Russia's arms and military vehicle export mix in 2002–2005**

Despite there is likelihood that naval arms could dominate military exports, as did military aircraft, the 2005 export results have been positive so far: the export product mix has been diversified owing to a rise in maritime arms exports. It means that after India and China complete re-armament of their air forces, Russian military exports will not shrink. Besides,

[3] 4+ is a formal name for a fighter plane generation which emerged following the commercial success of Su-30MK fighter plane with thrust vectoring with better flight characteristics compared to the 4th generation aircraft.

diversification of exports will benefit many defense enterprises - which has paramount importance when the government cuts defense spending.

What is most important is that formation and diversification of the export mix is directly linked to the exporters' geographic expansion. What weapons and military vehicles are exported depends upon many parameters most of which were historically preconditioned thus can hardly be changed. The major parameters are:

- size of the importer country;
- level of military threat from political forces in the country bordering the importer country;
- territorial waters;
- the content of importer country's military doctrine.

In other words, the wider an exporter's presence geographically, the more diversified are the exports, not vice versa. In 2005, the export mix changed, but those changes occurred due to the former array of importers. An increase in the trade in naval arms was accompanied by a decline in military aircraft exports; but with a wider geographical presence aircraft exports could have been kept at the same level and total exports – been higher.

With no meaningful presence in the world's arms market, Russia may be facing her military exports shrinking after the major importers cut their military spending because of two powerful factors:

1. Finishing of the mass modernization of major importers' armed forces.
2. Opting for other states' arms and military vehicles which is connected on the one hand with unsatisfactory after-sale service of expensive military products and, on the other hand, with seeking diversification of supplies to reduce reliance on a single contractor. It is also connected with taking off the embargos (this regards China) imposed in 1989. The European 'big three' have repeatedly mooted cancellation of the sanctions. Europe's leading economies' seeking to cancel the sanctions is rooted in the desire to expand their presence in the thriving Chinese market where Russia has no competitors so far. On the other hand, China has been struggling to have the bans lifted from 2003. If the embargo is lifted, Russia can be at best forced to reduce exports to China and at worst ousted from the Chinese market.

With Russian exporters' weak presence in the world, Chinese and Indian demand for defense exports played a key role, so one consequence will be a fall in Russia's military exports. To ensure efficiency of the international trade and mitigate the plummeting of exports, Russia should expand its worldwide presence – this objective was partially fulfilled in 2005.

Russia made a comeback to the Latin American market from where it withdrew following the USSR disintegration. Also, it was expected that military deliveries to Algeria would compensate for dropping Chinese and Indian orders. Winning an Algerian contract, Russia would master North African markets (alongside the Latin American market) with whom the USSR maintained tight cooperation in military technology.

In 2005, Venezuela awarded Russia a $200 million **[44]** contract to supply 15 helicopters including six Mi-17 units (transport helicopters), eight Mi-35 units (intended for close support of ground forces) and one Mi-26 unit (transport helicopter). The initial shipment of three Mi-17 units has been already furnished to the customer **[41]**. Under another agreement – also signed in 2005 – Russia will deliver 100,000 Kalashnikov automatic rifles. In May 2006, the initial shipment of 33,000 units was delivered to Venezuela. The contract totaled $54 million. The two may continue their military-technological cooperation, and Russia may build in Venezuela a plant to produce Kalashnikov rifles in a five years' time. In June 2006, Venezuelan President Hugo Chavez stated that Venezuela might purchase 24 Su-30 fighter planes and a number of Su-35 planes. The first shipment can be made in 2006.

Fulfillment of the concluded contracts and announced plans will considerably strengthen Russian exporters' positions in the Latin American booming market where dissatisfaction with the US-led policies gives economies an impulse to modernize their armed forces. According to a Rosoboronexport spokesman, the South American market is estimated at $24 billion but Russia is holding only 5% in it so far **[45]**, i. e. Russian exporters would earn only $1.2 billion. The latest contracts however give us hope that Russian exports to the Latin American market will soar.

***State support.*** In March 2006, the Russian defense industry saw what results it could achieve when supported by the highest-ranking officials. 10 March 2006, President Putin visited Algeria where he signed an agreement that could mark a triumphant finale to Rosoboronexport continued efforts. Back in May 2004, Algeria was said to might want to purchase 50 MiG fighter planes produced by the Russian Aircraft Corporation MiG **[29]**. In the difficult circumstances when the corporation was facing a poor financial condition - that slightly improved after the Russian Ministry of Finance's claims to the corporation were settled - a sizeable contract like this would encourage financial stabilization and loading of the defense facilities for several years ahead. Later, the contract plan was altered however: it was adjusted so that to stipulate writing off Algeria's public debt worth $4.7, but the contract value increased and the lineup of the arms to be purchased extended. During Mr. Putin visiting Algeria, an intergovernmental agreement was signed with parameters as follows: (table 1).

**Table 1. Draft contract of delivery of arms and military vehicles to Algeria**

| Description of arms and military vehicles | Unit status | Quantity | Value, billion USD |
|---|---|---|---|
| Su-30 MKI heavy-class frontline fighter (Sukhoi aircraft holding company) | New | 28 | 3.5 |
| MiG-29 SMT light frontline fighter (Russian Aircraft Corporation MiG) | New | 34-36 | |
| Yak-130 combat trainer (Yakovlev design bureau, part of the Irkut research and production corporation) | New | 14-16 | |
| MiG-29 frontline fighter (Russian Aircraft Corporation MiG) | Return to supplier | 36 | |
| | Offered to third countries | | |
| T-90 tanks (UralVagonZavod federal state enterprise) | New | around 300 | 1 |
| T-72 tanks (UralVagonZavod federal state enterprise) | Modernization | around 250 | from 0.2 |
| S-300PMU-2 surface-to-air missile system (Almaz-Antey air defense concern) | New | 8 | 1 |
| Tunguska anti-aircraft gun/missile system (Ulianovsk Mechanical Plant, part of the) | New | 30 | 0.5 |
| Metis and Kornet anti-tank guided missiles (Tool Design Bureau, state-owned) | New | | |
| Combat ships for Algeria's Navy | Repair | | |
| **Total value of the contract** | **around 7.5** | | |

*Source: **[30, 31]***

Not all of the listed arms have been contracted so far. A $3.5 billion contract was signed for Su-30MKI, MiG-29SMT and Yak-130 planes, A. Fedorov **[32]**, MiG general director and designer said in a statement. April 8, 2006 Algerian defense Minister and the Navy Commander visited Kazan where he was shown the Zelenodolsky shipbuilding plant (ZSP) produce. The 11159 Gepard corvette was the focus of attention. ZSP Jaguar corvettes shipped to Algeria earlier will be modernized and repaired at the plant facilities **[33]**. Thus, the signed intergovernmental agreement is not a guarantee that 100% of contracts will be awarded to Russia, but pursuant to this agreement, that the debt will be written off if Algeria places at least a $4.7 billion order.

6 June 2006, Mr. Putin signed the Federal Act 'On ratifying the agreement between the Government of the Russian Federation and the Government of People's Democratic Republic of Algeria on trade and financial relations and on settling the debt of the People's Democratic Republic of Algeria to the Russian Federation for previously issued loans and a protocol thereto' **[47]**, so a $4.7 billion deal can be considered closed.

Following the signing of this agreement, Rosoboronexport's portfolio grew 40% compared to 2005, reaching $18 billion **[46]**.

***Spare parts and after-sale service and modernization of outdated weapons and military vehicles.*** It is clear that any product, when sold, should be maintained and serviced – this is especially the case with such expensive commodities as military equipment. The importer expects all required services to be performed timely. Unreliability and improperness of the supplier's service could cause the importer to cut down orders. In the recent years Russian exporters have been enhancing their performance in the spare parts and after-sale service sector, which produced an immediate effect on the price for their services. Alongside the deliveries of new models of arms and military vehicles designed in the soviet time, Russia partly owes its broad spare part production and after-sale service opportunities to the former USSR that, in the context of promoting national security issues, supplied arms and military vehicles to many countries worldwide[4]. The USSR-produced arms shipped to those countries in the past have become obsolete and need repairing and modernizing.

The industry's 2002 performance was fairly good and supplies of spare parts and after-sale service brought $130 million to Russia, **[20]** but a year after exports fell 4 times to total only $30 million **[22]**. However, in 2005 the spare parts and after-sale service exports totaled $300 million and is expected to reach around $400 million in 2006 **[19]**. Thus, if the predictions are fulfilled, Russia will reach the soviet-time level of spare parts and after-sale service exports **[21]**.

In 2005, several prospective contracts for arms modernization were signed. Last year, Russia transferred 4 modernized Mi-24V helicopters **[23]** to Kazakhstan. Based on the $3.7 million contract, **[23]**, modernization of one unit cost around $900 thousand. Kazakhstan intends to modernize another five planes; in total, it has 50 Mi-24 **[23]**, so if Kazakhstan has all of them repaired in Russia, Russia's arms industry will earn $50 million. Iran signed a contract for repair and modernization of 35 MiG-29 planes and 24 Su-24 frontline bombers. The order included a consignment of TOP-M1 anti-aircraft systems and several patrol boats and totaled $1-1.5 billion **[24]**. Assuming that the delivery of anti-aircraft systems costs around $700 million **[25],** and the patrol boat is relatively inexpensive, modernization of 59 units can total $230-250 million. Corporation MiG will modernize MiG-29 planes operated by the Slovakian Air Forces to fit them into the NATO standards **[26]**. For the MiG corporation that is going through hard times, this contract will benefit a several million gain[5]. Besides, at the Dubai Airshow–2005 the MiG

[4] By 2002, there were 510 MiG-21, 220 MiG-23, 1200 MiG-29, 200 Su-22, and more than 80 Su-25 planes globally. With this in mind, modernization and repair of the military aircraft would yield around $5 billion a year to exporters **[27]**.

[5] The number of fighter planes and value of the contract are unknown so far.

Corp. planned to sign its first trade-in[6] contract whereby the previously shipped and now outdated weapons would be deemed part of the payments under the contract. Under this contract, MiG-25 interceptors would be replaced with modern MiG-31 planes **[28]**.

Strong efforts in the above stated sectors will result in a growth of the value of performed services and forming a positive image of Russian exporters on the global arms market as suppliers offering all required services to maintain and modernize their products. These policies will strengthen Russia's position as a military exporter including due to growth in Russian products' competitiveness.

***Crisis of new arms and military vehicle developments.*** Alongside the positive trends in the trade in arms observed in the past years, there is a considerable negative factor that threatens the whole of the international strategy.

Currently, new-generation weapons are designed in practically all sectors of the arms industry. In particular, new nuclear triad weapons are being designed and tried in the missile industry. Despite deliveries of Topol-M silo-based nuclear intercontinental ballistic missiles to Russia's strategic rocket forces have already started, strategic rocket forces are being reduced rapidly. Topol-M mobile missiles are not yet supplied to the armed forces, but old models are being removed from the armed forces. The Bulava submarine-launched ballistic missiles are being tested and will be mounted on the new-class nuclear-powered ballistic missile submarines, Borei. Three such atomic submarines are now in the ship-ways of Sevmash (Severodvinsk, Arkhangelsk region). The first submarine of this series, 'Yuri Dolgoruky', was started back in 1995.

New types of strategic and nuclear weapons have no commercial value, but the issue of developing a fifth-generation fighter plane is very acute. Sukhoi aircraft holding company is engaged in development of a prospective frontline aircraft complex. Initially, it was assumed that 'revolutionary' Su-37 Berkut jets with forward-swept wings would be reviewed. But later they come to understand that considerable alterations could occur in the industry, and there wasn't any relevant information on such alterations available in public sources. Skipping consideration of the supposed technical characteristics of the plane, we will only outline the reason for the anxiety. Deferred decisions are dangerous because by 2010-2012 the fifth-generation fighter, Joint Strike Fighter F-35 (USA) might be unveiled to the global market; presently, the plane is being tested. Taking into account that solvent customers' requirements to the military products are growing, the release of F-35 may cause Russian fighter plane exports, now accounting for 25% of the fighter plane market, to drop. Besides, after the US Armed Forces will receive the

[6] Russian Aircraft Corporation MiG will maintain the Algerian contract using the same scheme.

latest F-22 Raptor[7] aircraft, the US will start sales of its used fighter planes of older generations (F-15, F-16 etc.). This will help the US to grab an additional slice in the arms market where importers are countries with impaired financial abilities. Thereby, the competition is getting tougher and Russia might be ousted from solvent markets in India and China and less potent markets in Asia and Pasific and Africa. Access to the Middle Eastern market will be considerably impeded; it can be accessed through delivering 29 TOP-M1 anti-aircraft complexes to Iran, which is opposed by the US and Israel. The anxiety is fed by Turkey's intent to purchase 100 JSF planes worth $10 billion **[50]**.

All forecast agencies see the situation on the global arms market as a fair competition between the US, EU and Russia's companies. According to Forecast International, in 2005–2014 the EU's Eurofighter will dominate the fighter plane market, closely followed by Boeing, Lockheed Martin and Sukhoi aircraft holding company. The market will be ready to spend $158 billion for planes within this period, and will require more than 4,000 combat planes in total **[48]**. Pursuant to the forecast made by somewhat 'interested' organ – the State Duma Committee for Industry, Construction and Science-Intensive Technology, Russia will hold 25% of the market between 2005 and 2015. The Committee's estimate is a bit lower than that of Forecast International, and the market is foreseen to require 3,000 fighter planes worth $130 billion. Alongside Russia, the US, Western Europe and other countries will have 31%, 29% and 15% parts in the market respectively. The overview of the key importers is as follows: European countries and Canada – 21%, South Asian countries – 14.5%, South Eastern Asian countries – 19%, China – 11.5%, Middle East and North Africa – 3.5%, Latin American region – 7.5% and CIS – 2.5% **[49]**.

These forecasts might come true, because the estimated date for F-35 supplies to the international market set for 2010-2012 can be postponed. Before the JFS is unveiled, Russian fighter planes truly can hold a quarter of the market.

***Government defense spending.*** New aircraft developments are bolstered by the exporters' international success. However, this success should be accompanied by a growth in domestic use feeding the military research and development. The problem of declining military spending has been acute since early 1990s and, despite a stable growth in the military spending, the government funds are insufficient to support the industry (fig.3) **[34-38]**.

[7] Supplies of F-22 Raptor fighter planes to the global market are not mooted at present because the aircraft is expensive and plays a strategic role in the US Armed Forces.

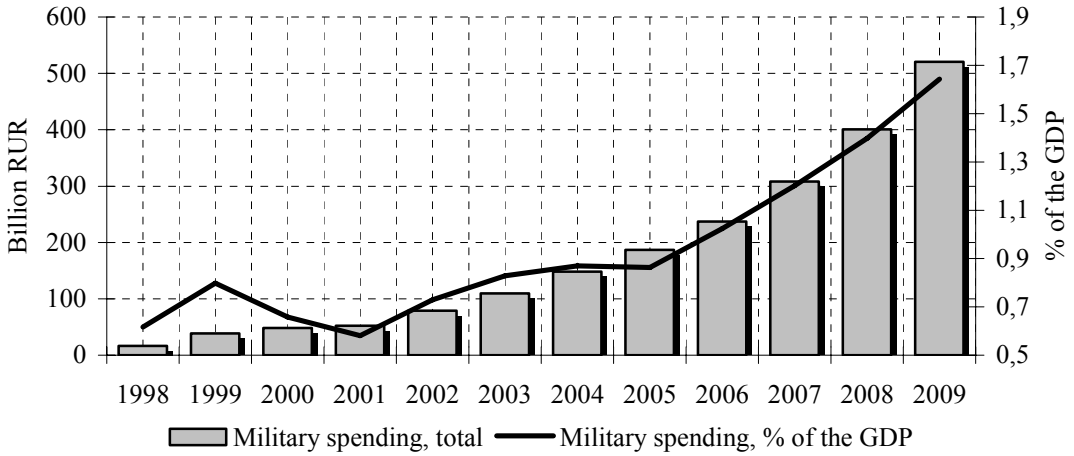


**Fig. 3. Russia's defense spending presented in correlation with the nominal GDP in 1998–2009**

Although the growth in government military contracts is slowing down, the increase in 2000-2006 averaged to more than 30%. The fastest growth was in 2002 – 52% and 2003 – 39%, the slowest growth was in 2001 – 8.3%. In 2006, state defense contracts will grow 26.7%, equal to $2 billion. However, even this rapid growth is not enough for full modernization of the national Armed Forces. For instance, in 2005, the Russian Armed Forces were to receive four strategic missiles, nine spacecrafts, two Iskander-M missile launchers, 17 T-90 tanks, 92 armored troop-carriers BTR-80, two combat frigates, one modernized strategic intercontinental missile carrier Tu-160, one new Tu-160 unit, 7 modernized frontline fighter planes Su-27SM **[39]**. It is expected that six intercontinental ballistic missiles, six spacecrafts, 31 T-90 tanks and 125 BTR armored troop-carriers will be supplied to the Armed Forces in 2006. Nine planes and eight helicopters will be supplied to the Air Force. Besides, it is planned to repair and modernize 139 tanks, 125 artillery pieces, 104 planes, and 52 helicopters. 3,700 custom-built vehicles will be delivered **[40]**. The fact of the matter is that over 60% of the defense budget funds are channeled for supporting the Armed Forces rather than their developing. According to Sergey Ivanov, Russia's defense minister and vice prime minister, a plan is being worked out to allot 50% of the total defense spending for arms purchases. But this will happen not earlier than in 2011. In 2005, only 40% of the total defense spending was allocated for arms and military vehicle purchases and research and development.

It is clear that military spending is low. The developed countries allot 2.5 to 3% of their GDPs for the military. Even if growth continues at the past years' rate and lasts for 2007-2009, by 2009 the defense budget will total only 1.7% of the GDP.

At the same time, the arms program for 2007-2015 says that by 2015 the Armed Forces of the Russian Federation will receive a total of 8,600 units of major combat vehicles. Despite the program does not stipulate any finance for building aircraft carriers, the army will receive 400

tanks (45 battalions), 4,109 infantry fighting vehicles and airborne troop carriers, 3,008 armored personnel carriers (173 motor rifle and parachute brigades), 60 Iskander missile systems (five brigades), 18 antiaircraft systems S-400 (18 divisions). 5 trillion rubles will be allocated for the plan, 63% (3.15 trillion rubles) of this money will be spent on serial purchases of arms and military vehicles **[42, 43]**.

Program realization and its 100% financing will push forward the domestic demand. The growth in demand will generate additional cash flows that could be used by enterprises for funding projects to design new-generation arms. Improvements in defense spending (except the growth in its volume) is proven by the fact that from in June 2006 it was declared that the latest models of the Mi-28N Night Hunter helicopter (intended for close fire support of ground forces), expected to replace well-performing Mi-24 helicopters, would be supplied to the Armed Forces of the Russian Federation. The first sample helicopter has been supplied to the Armed Forces and 50 Mi-28N will be delivered by 2010 **[51]**. Arm makers also admit a growth in the domestic use. Sukhoi aircraft holding company, Almaz-Antey air defense concern and Tactical Missile Armaments report that 30% in their 2005 proceeds came from the military budget. Domestic military sales of Russia's 20 leading defense enterprises grew from 32% in 2004 to 38% in 2005[8].

[8] These data do not include secret enterprises of Russia's missile and nuclear industry.

**Table 2. Russia's top ten defense enterprises in 2005**

| 2004 | 2005 | Enterprises | 2004 | 2005 | Growth in 2005/2004, % |
|---|---|---|---|---|---|
| 2 | 1 | Almaz-Antey air defense concern | 34.4 | 45 | 30.80% |
| 3 | 2 | Irkut research and production corporation | 17.4 | 19.7 | 13.20% |
| 6 | 3 | Admiralteiskie Verfi | 9.9 | 18.5 | 86.80% |
| 4 | | Sevmashpredpriyatie | 15.2 | | |
| 1 | 5 | Sukhoi aircraft holding corporation | 35.6 | 14.8 | -240.00% |
| 6 | | Severnaya Verf | 12.5 | | |
| 11 | 7 | Tactical Missile Armaments | 6.2 | 12.2 | 96.70% |
| 4 | 8 | Aerospace Equipment Corp. | 12.8 | 11.4 | -12.20% |
| 7 | 9 | MMPP Salut | 9 | 10 | 11.10% |
| 10 | 10 | Instrument Making Company | 7.1 | 7.2 | 1.40% |

*Source:* ***[52]***

## Conclusions

Having considered the dynamics of the international trade, the changes in its structure, growth in the government military spending and prospective changes in its structure to the advantage of serial purchases of arms, we can assume that, despite defense enterprises slowly put into production new-generation arms, the results of the past years are positive.

First, the foreign trade quality constituent reflects structural changes allowing for making a good base for the future. These processes include:

- diversification of exports,
- geographical expansion of exports,
- exporters' agility in the spare part and after-sale service and modernization sectors,
- enhancement of the exporters' marketing policies, namely trade-in deals in the style of the Russian Aircraft Corp., MiG's trade-in plan,
- state support of the industry.

The latter factor has partially changed the regional structure of exports where China and India dominated. After Russia-Algeria intergovernmental agreement is fulfilled, Russian suppliers will be relieved from dependence on Chinese and Indian markets.

2005 Venezuelan contracts are also conducive for diversifying exports and expansion of Russia's defense exports worldwide footprint.

With the successful 2004-2005 performance, all fears that the major importers' demand would shrink are unreasonable; in this period China and India commenced sizeable naval arms and military vehicles deals and reduced imports of military aircraft.

Proactive policies in the spheres of spare parts and after-sale service and modernization strengthens the exporters' positions in the given region, forms positive image of the supplier and, consequently, boosts further military engineering development and winning contracts to supply new-generation arms.

Development of marketing instruments will empower the Russian defense exporters to conquer new markets not accessible earlier due to their financial inconsistency. The trade-in plan reduces the cost of supplies of new arm models for importers and creates prerequisites for opening new markets for exporters.

As a result, the core provisions of the foreign trade strategy are as follows: as far as any market is a system, with the international trade tiers closely interrelated, development of the quality constituent stimulates the other, quantitative, constituent to develop too. Contracts for complicated armaments will slightly deter the positive influence on the quantitative constituent, but the quality constituent will be seeing a growth.

The development of the regional structure should be a priority and it will encourage diversification of export product mix. What happens is 'profit fixing', i. e. if the producing country has limited technology, exports will be limited too. Yet Russia is able to supply all types of arms and vehicles to the international market. Consequently, the limited development according to the 'development of the regional structure – development of the export product mix' principle should not take place.

All makers of arms and military vehicles can constantly expand their geographical presence in the markets with only two factors being able to impede the development – politics and prices. As for the pricing factor, Russian exporters have advantages. Besides, development of marketing instruments including trade-in will aid reduction of the cost of exports. Thus, arms and military vehicles exports can only be restrained by political aspects which can be partly or fully nullified owing to the state support – as was demonstrated with Algerian contract and earlier – with Sudanese order for 12 MiG-29 fighter planes when the US sharply opposed the deal. When Russian exporters expand their worldwide footprint, stronger focus on spare part and after-sale service and modernization sectors will further strengthen their position. Performing quality servicing and offering modernization of previously shipped weapons, exporters create a positive image and raise the customer's dependence on them. As a result, the chances to be awarded another contract for newer and more expensive armaments rise. At this stage, the following relations in the context of foreign trade strategy are formed: 'growth in the state exporters' portfolio entails growth in exports'.

Growth in the domestic use will allow avoiding the only significant restrictor which is able to reduce the share of the Russian exports in the global market regardless of success of other

constituent parts of the international trade strategy. The crisis in the sphere of development of new-generation products can be overcome jointly – enterprises can invest their incomes from foreign trade operations and the state can place more defense orders and plan its defense expenditures more efficiently. The third section of this chain is 'growth in the domestic use – technological streamlining of the products offered' and 'offering a new product to the market – preconditions for geographical expansion'.

This chain, including creation of brand-new armaments, modernization of new and previously made weapons, supplies of spare parts for old and brand-new arms and creation of brand-new arms is a continuous and exclusive circle. Should this chain be interrupted (like it was during the 1992-1998 economic crisis) Russian exporters might lose part in the market; coming back to this narrow, very specific and politically biased arms market is very difficult.

Brand-new types of arms and combat vehicles are not unveiled too often, but once they emerge they can instantly secure a greater part in the market (provided the products are respectively inexpensive) or oust competitors from potent regional markets (like China and India) regardless of the arms prices.

The key constituents of the foreign economic strategy are determined based on two primary objectives pursued by the exporters – first, to 'open' new markets, they should come up with competitive proposals (pricing, new products not found in other suppliers' offers etc.), secondly, they should secure a strong position in the new market.

As far as Russian exporters are able to offer competitive prices at present, they can expand further into the international market offering a wider lineup whether it is a modernized product or a brand-new development[9]. Therefore, spare part and after-sale servicing and modernization are the principal factors for the successful implementation of the international trade strategy.

The global arms market situation largely depends on the enterprises, but growth in the defense spending depends solely upon the state. If the state participates in the strategy herein determined (support for exporters on the international arena and expansion of domestic use of arms) the Russian arms industry is likely to be seeing a continued success in years to come.

[9] Appearance of F-35JSF will urge military exporters to develop new quality products if they seek expansion further into the market. Modernized arms will become obsolete soon.

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