

Russian defense industry and arms trade: facts and figures

prepared by the Centre for Analysis of Strategies and Technologies

Contents

1. Russian arms exports
2. Russian defense budget and procurement
3. Key current contracts for Russian arms exports
4. Ranking of the top Russian defense companies

More detailed information can be found in the *Eksport Vooruzheniy* or *Moscow Defense Brief* journals published by CAST. For subscription, please visit <http://cast.ru/eng/>.

1. Russian arms exports

The key indicators used to quantify Russian arms exports include:

- value of deliveries made over the reported year (i.e. the worth of the arms and military equipment already delivered);
- revenue (money received under arms contracts);
- accumulated value of arms contracts signed during the year; and
- accumulated portfolio of contracts by the year's end.

The headline figure for arms exports is usually the value of deliveries made. But in any event, a distinction must be made between the four key indicators listed above, as they are sometimes confused by journalists, who unwittingly misinterpret the source figures and draw the wrong conclusions.

Starting from 2007, Rosoboronexport, a state-owned company, has been the only Russian entity that holds the full license to export arms and military equipment. Previously, similar licenses were also held by RSK MiG aircraft corporation (Moscow), KBP instrument design bureau (Tula), KBM machine-building design bureau (Kolomna, Moscow region) and NPOmash research and production company (Reutov, Moscow region). Now defense companies (only 22 of them) can export only spare parts and components for weapons systems exported via Rosoboronexport.

It is therefore useful to make a distinction between:

- total Russian arms exports;
- exports via Rosoboronexport (ROE); and
- exports of independent spare parts suppliers.

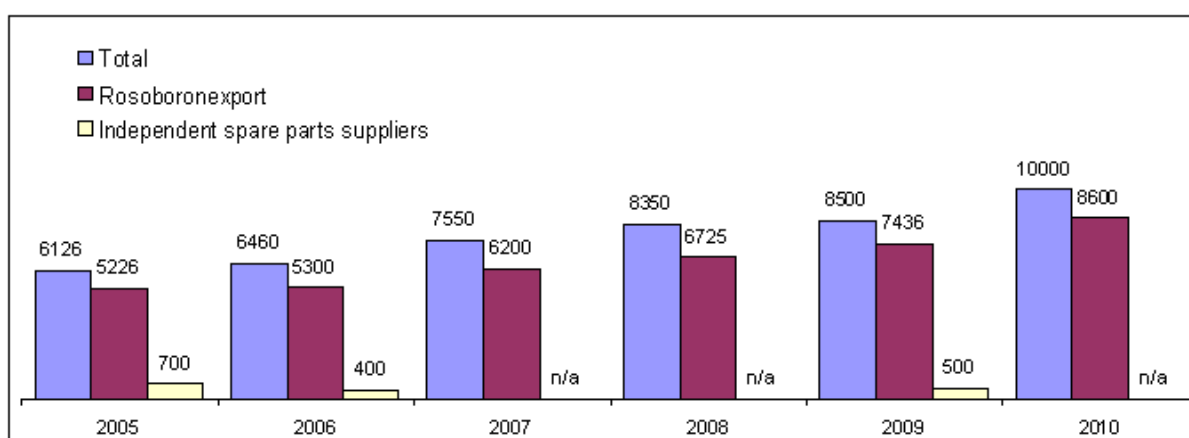
It must be taken into account that total exports do not equal ROE exports plus direct spare parts contracts signed by independent suppliers. The difference is made of deliveries still being made under weapons system contracts signed by MiG, KBP, KBM and NPOmash prior to 2007, when ROE became the sole authorized Russian arms exporter. Also, as far as we know, NPOmash has the right to extend previously signed supply contracts with India under the BrahMos Aerospace, a 50-50 joint venture between Russia and India. Essentially that means that NPOmash has partially retained its status as an independent arms exporter¹.

¹ BrahMos is NPOmash's main export project. The joint venture develops and manufactures various versions of the eponymous anti-ship missile.

Deliveries

Information about Russia's total arms exports and exports via ROE are almost always available from open sources. This data is regularly announced by Russian officials, although no official annual report on Russian arms exports is published at this time. However, information about results of independent spare parts exporters (a total of [23 companies](#)) seldom appears in the media (Figure 1.1).

Figure 1.1. Russian arms deliveries under export contracts, million USD in current prices



	2005	2006	2007	2008	2009	2010
Total	6,126	6,460	7,550	8,350	8,500	10,000
Rosoboronexport	5,226	5,300	6,200	6,725	7,436	8,600
Independent spare parts suppliers	700	400	n/a	n/a	500*	n/a

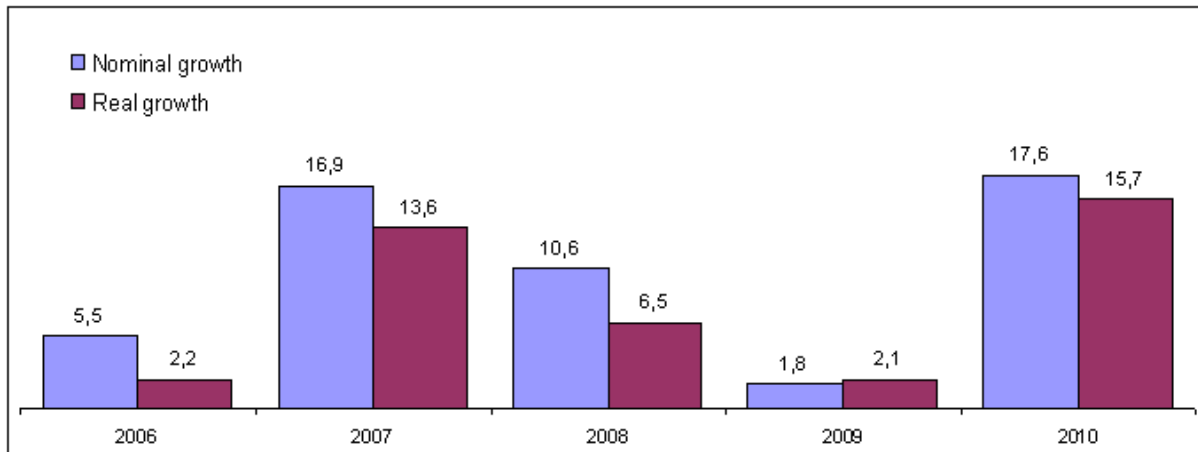
* - CAST estimates.

Sources: Russian Federal Service for Military and Technical Cooperation, Rosoboronexport, CAST estimates.

Nominal and real growth of arms exports

Let's count Russian arms deliveries in constant prices. This will allow us to evaluate the real (inflation-adjusted) growth of Russian arms exports. As Figure 1.2 shows, in real terms Russian arms deliveries grow slower than officials used to say.

Figure 1.2. Nominal and real annual growth of Russian arms deliveries (in %)



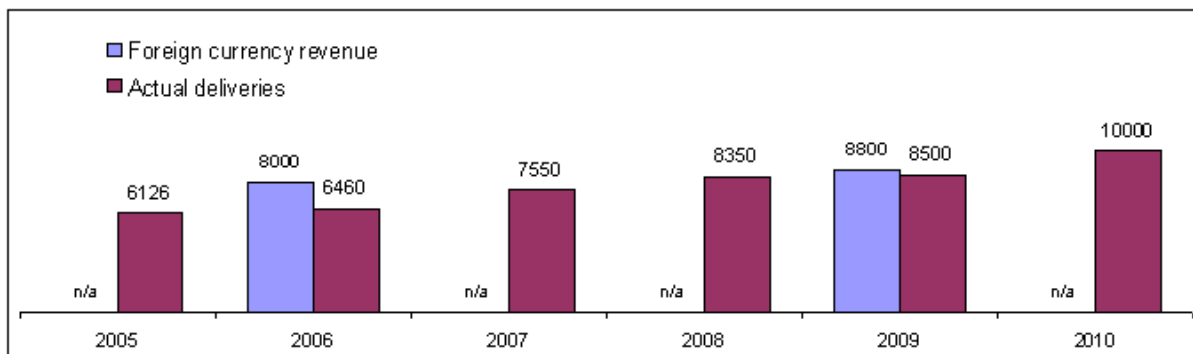
	2005	2006	2007	2008	2009	2010
Deliveries in current prices	6,126	6,460	7,550	8,350	8,500	10,000
Nominal growth, %	-	5.5	16.9	10.6	1.8	17.6
Inflation/deflation in the US, %	-	3.24	2.85	3.85	-0.34	1.64
Deliveries in constant 2010 prices	6,842	6,989	7,942	8,459	8,639	10,000
Real growth, %	-	2.2	13.6	6.5	2.1	15.7

Sources: Russian Federal Service for Military and Technical Cooperation, www.inflationdata.com, CAST calculations.

Foreign currency revenue from export contracts

Figures of revenues from arms exports contracts are announced by Russian officials only occasionally. According to the information at our disposal, these figures are always higher than the dollar value of the actual deliveries made during the reported period (Figure 1.3).

Figure 1.3. Foreign currency revenue from Russian arms exports, million USD in current prices



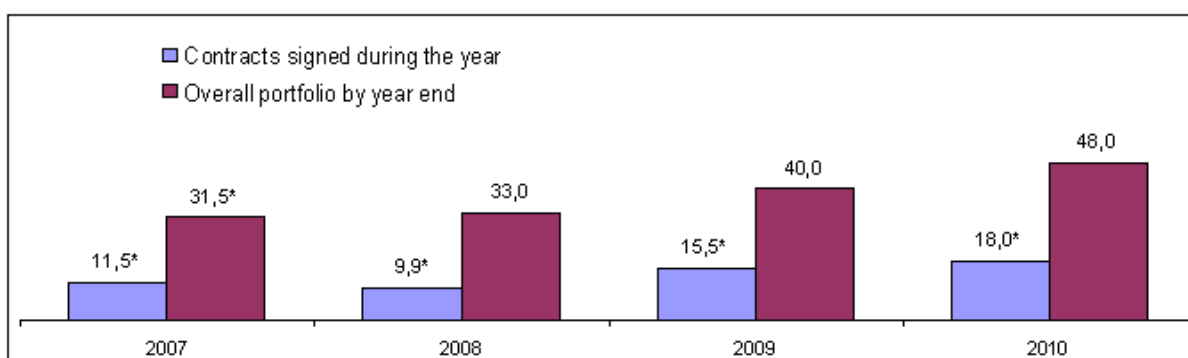
	2005	2006	2007	2008	2009	2010
Foreign currency revenue	n/a	8,000	n/a	n/a	8,800	n/a
Actual deliveries	6,126	6,460	7,550	8,350	8,500	10,000

Sources: Russian Federal Service for Military and Technical Cooperation, Rosoboronexport.

Value of contracts signed

Information about the value of arms exports contracts signed during the year appears quite seldom. But it can be calculated with a certain degree of precision based on the worth of the overall arms exports portfolio (that information is published much more frequently in the media) and the worth of the deliveries made during the reported year. To illustrate, the worth of the contracts signed in 2007 equals the overall arms exports portfolio as of the end of 2007 minus the 2006 portfolio plus the 2007 deliveries.

Figure 1.4. Russian arms exports portfolio, billion USD in current prices



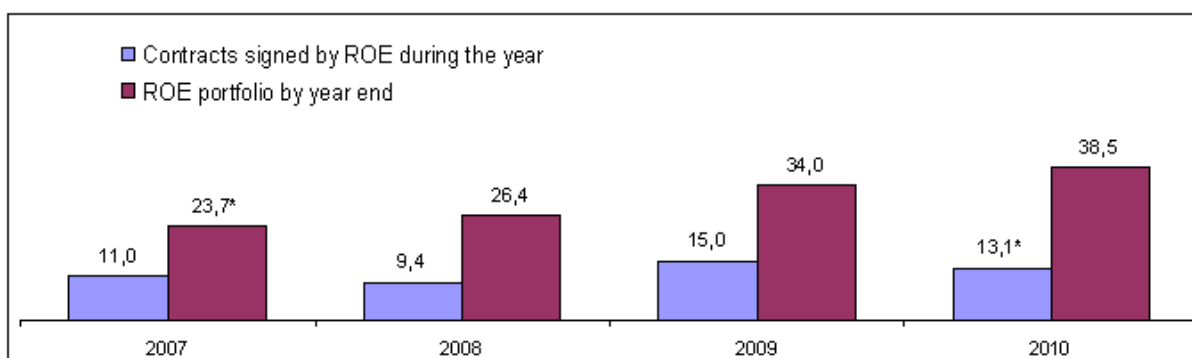
	2007	2008	2009	2010
Contracts signed during the year	11.5*	9.9*	15.5*	18.0*
Overall portfolio by year end	31.5*	33.0	40.0	48.0

* - CAST estimates. Rosoboronexport official data is also used in these estimates (see below).

Sources: Russian Federal Service for Military and Technical Cooperation, Rosoboronexport, CAST estimates.

In any discussion about the contracts, a distinction must be made between Russia's overall arms exports portfolio and the ROE portfolio (as well as between overall contracts signed and ROE contracts signed during the reported period). The ROE figures are, of course, lower than the overall exports. The difference is made of contracts signed prior to 2007 bypassing ROE (MiG, KBP, KBM and NPOMash), deliveries on which still continue in some cases, contracts signed by BrahMos Aerospace joint venture, and the spare parts contracts signed by independent supplies.

Figure 1.5. Rosoboronexport portfolio, billion USD in current prices



	2007	2008	2009	2010
Contracts signed by ROE during the year	11.0	9.4	15.0	13.1*
ROE portfolio by year end	23.7*	26.4	34.0	38.5

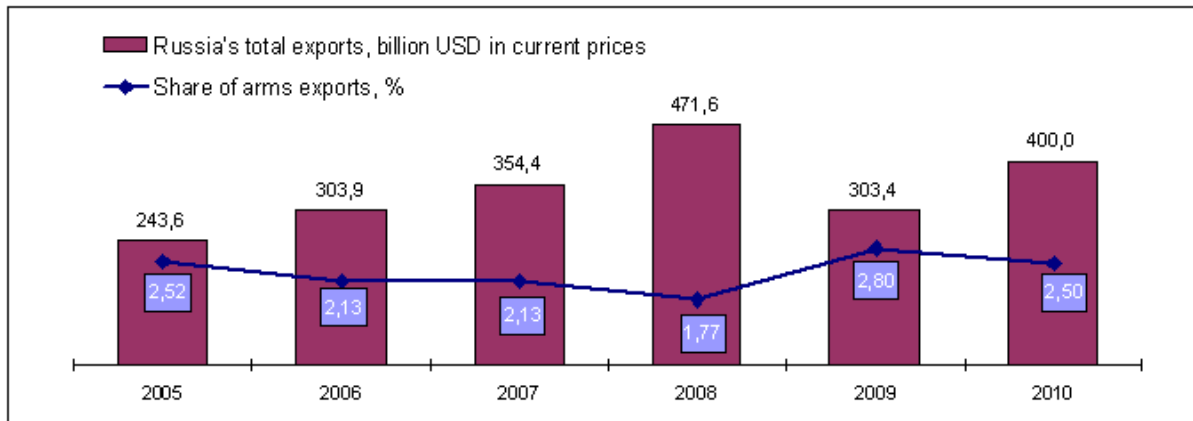
* - CAST estimates.

Sources: Rosoboronexport, CAST estimates.

Arms exports and total Russian exports

Figure 1.6 illustrates that the share of arms sales in the overall Russian exports is quite small.

Figure 1.6. Russia's total exports and share of arms exports



	2005	2006	2007	2008	2009	2010
Russia's total exports, billion USD in current prices	243.6	303.9	354.4	471.6	303.4	400.0
Share of arms exports, %	2.52	2.13	2.13	1.77	2.80	2.50

Sources: Russian Federal State Statistics Service, CAST calculations.

2. Defense budget and procurement

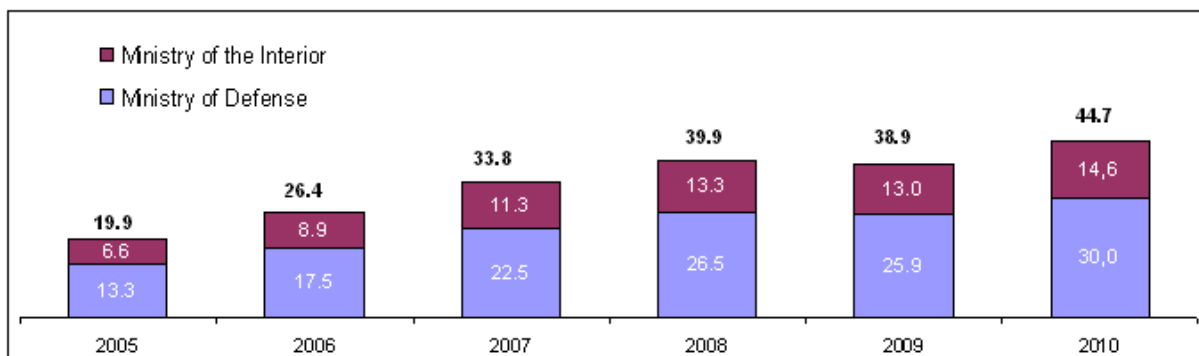
Defense budget

Defense budget is the part of the national budget channeled into defense-related activities.

There is no official definition of the term in the Russian national budget. The moneys spent on the Russian military are accounted for under numerous articles of the national budget, and the names of these articles are not always obviously defense-related. Calculating the real size of the Russian defense budget is therefore an impossible task for an outsider.

The official figure than can be used as a guideline is the combined spending of the Ministry of Defense and the Ministry of the Interior, the two main Russian agencies in charge of national security (Figure 2.1).

Figure 2.1. Official guideline figure of Russian defense budget, billion USD in current prices



	2005	2006	2007	2008	2009	2010
Total	19.9	26.4	33.8	39.9	38.9	44.7
Ministry of the Interior	6.6	8.9	11.3	13.3	13.0	14.6
Ministry of Defense	13.3	17.5	22.5	26.5	25.9	30.0
Exchange rates, roubles / USD	28.31	27.14	25.55	24.89	31.76	30.38

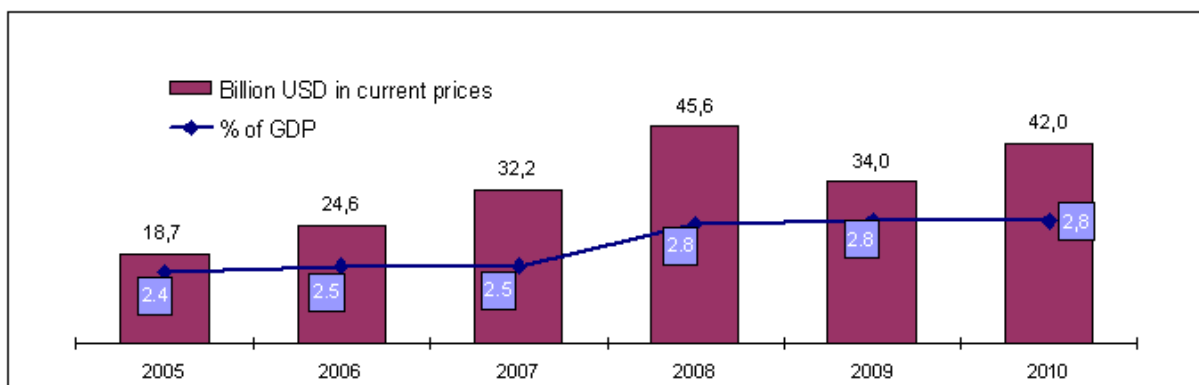
Sources: Russian Ministry of Finance, Russian Central Bank, CAST calculations.

To emphasize, these are just guideline figures that only give an overall idea of Russian defense budget. Russian defense programs have sources of funding other

than the Defense Ministry or Interior Ministry spending (that is especially true of defense R&D)².

We therefore believe that a more useful and accurate source of information is the various statements about the size of the country's defense budget made by Russian officials. Obviously, some of those officials can be misinformed - but once the dubious figures are weeded out (using, among other things, the MoD/Interior Ministry spending figures as a guideline), the aggregate of the remaining ones can be a fairly accurate estimate of Russian defense budget (Figure 2.2).

Figure 2.2. Russian defense budget



	2005	2006	2007	2008	2009	2010
Billion USD in current prices	18.7	24.6	32.2	45.6	34.0	42.0
% of GDP	2.4	2.5	2.5	2.8	2.8	2.8
Exchange rates, roubles / USD	28.31	27.14	25.55	24.89	31.76	30.38

Sources: Russian media, Russian Federal State Statistics Service, Russian Central Bank, CAST calculations.

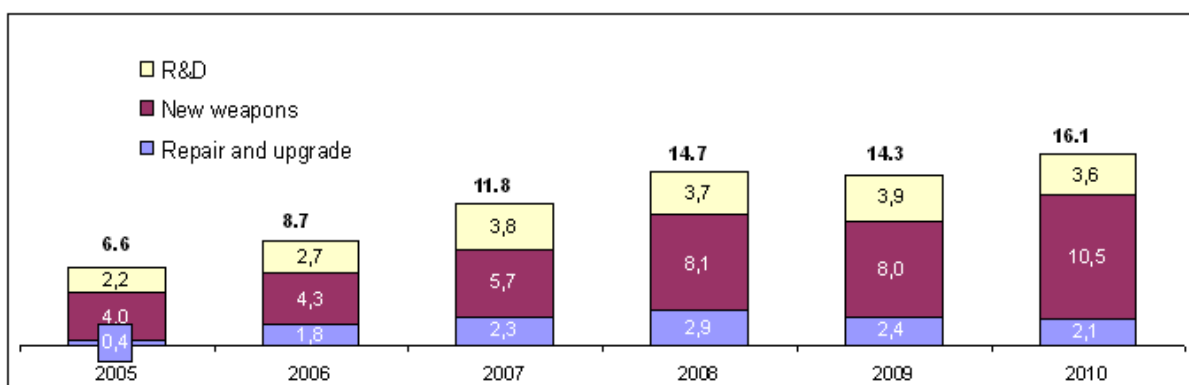
² It is known, for example, that R&D for the fifth-generation fighter project was funded from the budget of the Russian Ministry of Industry and Trade (Ministry of Industry and Energy before May 2008).

Defense procurement

Defense procurement is defined as total government spending on repair and upgrade of the existing military hardware, purchase of new arms and equipment, and R&D conducted in the interests of the armed forces and law-enforcement agencies.

There is no official definition of defense procurement in the Russian national budget. In any event, many procurement programs are classified. The only source of figures on Russian defense procurement is therefore statements made by Russian officials. We are focusing on procurement programs of the Russian armed forces (as opposed to the Ministry of the Interior, the Emergency Control Ministry, etc), so our figures are based on statements made only by the Russian Ministry of Defense representatives (Figure 2.3).

Figure 2.3. Russian armed forces defense procurement, billion USD in current prices



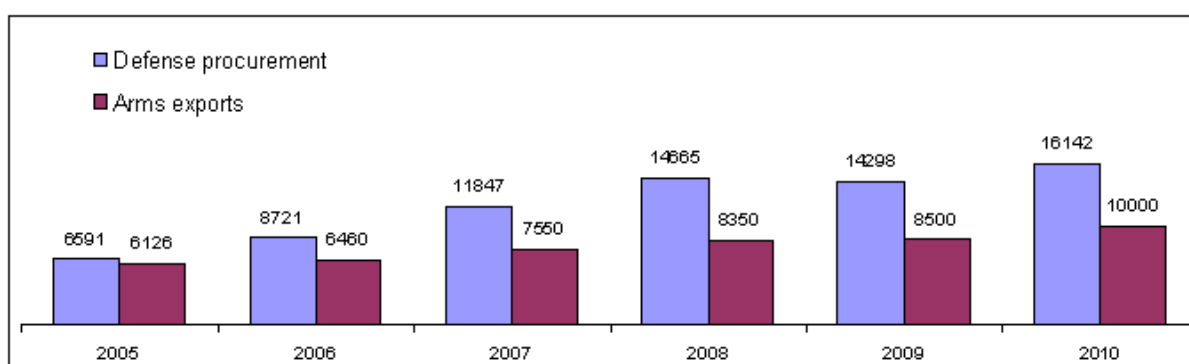
	2005	2006	2007	2008	2009	2010
Total	6.6	8.7	11.8	14.7	14.3	16.1
R&D	2.2	2.7	3.8	3.7	3.9	3.6
New weapons	4.0	4.3	5.7	8.1	8.0	10.5
Repair and upgrade	0.4	1.8	2.3	2.9	2.4	2.1
Exchange rates, roubles / USD	28.31	27.14	25.55	24.89	31.76	30.38

Sources: Russian media, CAST calculations.

Defense procurement and arms exports

Let compare Russian defense procurement and arms exports. Economic stability of Russian defense companies was fully depended on export contracts in 1990s. In recent times the situation has changed dramatically. As Figure 2.4 shows, now the defense procurement is the main support for Russian defense Industry, exceeding the national arms exports in one-and-half times.

Figure 2.4. Russian defense procurement and arms exports, mln USD in current prices



	2005	2006	2007	2008	2009	2010
Defense procurement, mln USD	6,591	8,721	11,847	14,665	14,298	16,142
Arms exports, mln USD	6,126	6,460	7,550	8,350	8,500	10,000
Exchange rates, roubles / USD	28.31	27.14	25.55	24.89	31.76	30.38

Sources: State Duma's Defense Committee, Russian Federal Service for Military and Technical Cooperation, Russian Central Bank, Russian media, CAST calculations.

3. Key* current contracts for Russian arms exports (as of March 2011)

Contract	No of units.	Year signed	Deliveries time frame	Value, million USD	Comments
India					
Su-30MKI kits for licensed assembly	140	2000	2004-?	3,300	
Su-30MKI fighters / Su-30MKI kits	20 / 20	2007	2008-2011	1,600	
Su-30MKI fighter upgrade program	40	2010	2012-?	800**	Two of the planes are to be upgraded in Russia, the rest in India.
MiG-29K/KUB ship-based fighters	29	2010	2012-?	1,500	To be based on the Vikramaditya aircraft carrier (the former Admiral Gorshkov). Option to 2004 contract
Upgrade of MiG-29 fighters to MiG-29SMT spec	63	2008	2011-2013	964	Six of the planes are to be upgraded in Russia, the rest in India. They will be fitted with Zhuk-ME radars and new RD-33 Series 3 engines.
Mi-17V-5 transport helicopters	80	2008	2011-2014	1,300	The deal includes a 400m USD offset program to be financed by Russia.
AL-551 aircraft engines	180	2005	2008-?	1,000	The engine's development costs were 250m USD. The overall worth of the program, which includes supplies of Russian engines to India and licensed assembly of the engines in India itself, is estimated at 1bn USD. The engines will be fitted onto HJT-36 and HJT-39 trainer jets.
Talwar Project 11356M frigates	3	2006	2011-2012	1,600	
Repair and refitting of Project 11434 Admiral Gorshkov heavy aircraft carrying cruiser	1	2004	2012	2,350	Under an additional agreement to the contract signed in early 2010, the value of the contract was increased to 1.5bn USD, and the delivery date pushed back from 2008 to 2012. The Indian Navy will rename the ship Vikramaditya once it is commissioned.

Contract	No of units.	Year signed	Deliveries time frame	Value, million USD	Comments
Repair and upgrade of Project 877EKM diesel-electric submarines	10	1998	1999–2014	1,000	The submarines are being fitted with Club-S anti-ship systems.
Lease of Project 9711 Nerpa nuclear-powered submarine	1	2004	-	650	The term of the lease is 10 years, starting from 2011.
T-90S main battle tanks / T-90S assembly kits	124 / 223	2007	2008–2011	1,237	
BrahMos anti-ship missiles	n/a	2010	n/a	2,000	The whole contract is worth 4 billion USD. The share of NPOMash in the Brahmos Aerospace joint venture is 49.5 %.
Vietnam					
Su-30MK2 fighters	8 12	2009 2010	2010–2011 2011–2012	1,300	The order for weapons systems for the planes was placed as part of another contract.
Project 636M diesel-electric submarine	6	2009	2013–2018**	3,200	Under the contract, Russia will build on-shore infrastructure for the submarines from scratch because Vietnam has never had a submarine fleet.
Burma					
MiG-29B/SE/UB fighters	10 / 6 / 4	2009	2011	560	The value of the contract is 400 million euros. The MiG-29UB will come from the existing Russia Air Force stock; the rest are previously mothballed airframes that will now be finished by the manufacturer.
Algeria					
Su-30MKI(A) fighters	16	2010	2011–?	1,000	

Contract	No of units.	Year signed	Deliveries time frame	Value, million USD	Comments
S-300PMU2 Favorit SAM systems	4 batt.	2006	2008-?	500	Only one battery has been delivered by the moment.
Pantsir-S1 SAM systems	38	2006	2011-?	570	
Syria					
MiG-29M/M2 fighters	24	2007	n/a	1,000-1,200**	
“Buk-M2E” SAM systems	8 batt.**	2007	n/a	1,000**	
Repair and upgrade of T-72 main battle tanks to T-72M1M spec	1,000	2006	2007–2011	500	
UAE					
Pantsir-S1 SAM systems	50	2000	2009–2012	800	
USA					
RD-180 rocket engines	101	1997	1997–2017	1,000	The engines are used on the American Atlas III and Atlas V space launchers.

* - worth over 500m USD.

** - CAST estimate.

Sources: Russian media, CAST estimates.

4. Ranking of the top Russian defense companies in 2009

Key operational results

Total revenue (Table 4.1 at the bottom of the section)

The combined total revenue of the Top-20 companies reached the rouble equivalent of 17.37bn USD³ in 2009, up from 16.8bn the year before. If the 0.34-per-cent US deflation figure⁴ for 2009 is taken into account, the real inflation-adjusted rise in revenues is 3.69 per cent. However, most of that rise comes from the inclusion in the 2009 ranking of two new holding companies – United Aircraft Corporation (UAC) and United Engine Corporation (UEC), rather than any real increase in the Russian defense industry's output. These two new holdings include a number of divisions that were previously not included in the Top 20 as individual businesses, and therefore did not contribute to the combined revenue figures. They were either too small to be included, or did not qualify because less than 80 per cent of their revenue was generated by defense contracts. The two most prominent examples are Aviastar and VASO, two formerly independent aviation plants based in Ulyanovsk and Voronezh, respectively. Both are now subsidiaries of UAC and have therefore contributed to the combined Top-20 revenue figure.

In actual fact, the Russian defense industry's output has actually shrunk a little. Of the top five companies in the ranking (which account for over 70 per cent of the combined total revenue of the Top 20), only Russian Helicopters have reported rise in revenue, and earned a profit. It is therefore safe to say that Russian Helicopters is showing the best operational results in the Russian defense industry, thanks primarily to high foreign demand for the company's mainstream product – Mi-17 helicopters, and rising domestic procurement of combat and transport helicopters.

State-owned defense contractors accounted for 92.4 per cent of the combined Top-20 total revenue in 2009. The figure changed little since 2008, when it rose sharply following the nationalization of several large defense contractors: Irkut aircraft corporation (Irkutsk), UMPO (Ufa, Bashkortostan) and Saturn (Rybinsk, Yaroslavl region) engine-building companies and others. All of them are now part of state-owned holding companies.

In actual fact, defense output of the Top-20 companies grew much slower (if at all) than the headline figure would suggest. Among the Top 5 companies, which account for over 70 per cent of the combined Top 20 revenues, only Uralvagonzavod (UVZ) showed growth.

³ Conversion from roubles into dollars based on average yearly exchange rates: 31.76 roubles to the dollar in 2009 and 24.89 roubles to the dollar in 2008. Data by the Russian Central Bank.

⁴ http://www.inflationdata.com/inflation/inflation_rate/currentinflation.asp.

Defense revenue (Table 4.2 at the bottom of the section)

Defense revenues of the Top-20 defense contractors fell by 8.16 per cent (adjusted to deflation in US) in 2009 to 12.25bn USD. It confirms that the increase in the combined Top-20 revenues was generated by the civilian divisions of UAC and UEC. Almaz-Antey, an air defense systems maker, is a clear leader in terms of revenue generated by defense contracts. It is followed by UAC; Tactical Missiles Corporation (TMC) is a very distant third. OEC, which is the third biggest of the Top-20 companies in terms of its overall revenue, is only sixth in the defense-contracts ranking; most of its business is in the civilian sector (including the oil and gas industry).

The structure of the revenues of the two leaders, Almaz-Antey and UAC, is well balanced between exports contracts and the domestic market. But whereas Almaz-Antey depends almost entirely on Russian defense procurement for its domestic custom (it is known that the concern makes the S-400 SAM systems for the Ministry of Defense), UAC also sells a lot of civilian aircraft to Russian customers. UAC's Russian defense procurement side of business was also booming in 2009 - but that was largely thanks to a large one-off deal (the purchase by the Russian Air Force of 31 MiG-29SMT/UBT fighters previously turned down by Algeria).

In the past two or three years there has been a steady increase in revenues generated by the domestic market (including defense procurement). In 2009, the share of those revenues in the combined Top 20 figure rose by 11.9 percentage points to 60.4 per cent. But exports still remain crucial for the financial and economic well-being of the Russian defense industry. The main export contracts for the top Russian exporters in 2009 were as follows:

- Almaz-Antey: S-300PMU2 SAM systems sold to China;
- UAC: 43 Su-30 family fighters (including 18 kits for licensed assembly in India) delivered to Algeria, India and Malaysia;
- Tactical Missiles Corporation: airborne missile weapons for the fighters delivered by UAC;
- Russian Helicopters: about 120 helicopters of various types; and
- Uralvagonzavod (UVZ): about 100 T-90S main battle tanks to India.

If the United Shipbuilding Corporation (OSC) were to submit a consolidated operational report, it would have probably made it into the Top 5 in terms of defense revenue, relegating UVZ to the 6th place. Sevmash, Russia's largest shipbuilder in terms of 2009 revenues, also relies heavily on defense procurement contracts (it builds Project 955 nuclear submarines)⁵. The Severnaya Verf shipyard also has a

⁵ The share of exports contracts in Sevmash revenue was estimated at 10 per cent due to a quirk in the Russian accounting system, under which payments received for a ship in several installments can be reflected in the accounts only once that ship is fully finished. Sevmash will therefore report a big spike in revenues and in the share of exports contracts once the Admiral Gorshkov aircraft carrier is delivered to India – although the actual output of the company will not have increased from the

share of the procurement pie (it makes Project 20380 corvettes and Project 22350 frigates for the Russian Navy), as does the Admiralteyskiye shipyard (Project 677 diesel-electric submarines).

Armored vehicles manufacturing is a much smaller industry than aerospace or shipbuilding. UVZ, the holding company that owns all the Russian tank manufacturing assets, came only fifth in the overall ranking in terms of its defense revenue. It would have been sixth if OSC were to be included in the ranking as a single business. In addition, the UVZ holding's defense contracts portfolio may become much slimmer starting from 2011, once last deliveries have been made on the Indian contract for 347 T-90S tanks. Meanwhile, if the Russian producers of light armor and artillery (the Arzamas machine-building plant, the Motovilikha plants and the Kurgan machine-building plant⁶) were to be merged into a single holding company, such a company would come ninth in the ranking. Most of these companies' business depends on Russian defense procurement contracts. The only possible exception is the Kurgan plant, the maker of the BMP-3 infantry fighting vehicles, which is now negotiating a large upgrade contract with the UAE. As for the long-awaited Greek contract for over 400 BPM-3M vehicles, it is unlikely to be signed any time soon.

Sources and structure of the ranking

The ranking was compiled based mostly on official annual reports and press releases of the Russian defense contractors, as well as reports in the leading Russian media. The ranking also made use of information provided directly by the companies themselves. In a number of cases where official figures were not available, CAST used its own estimates.

The structure of the ranking includes the following operational indicators:

- revenues;
- net profit (net loss)
- share of exports in overall revenues;
- share of civilian contracts in overall revenues;
- number of employees;
- sector: aerospace (AS), naval (N), ground equipment (G), equipment and electronics (EQ), artillery (A), small arms (SA), munitions (M), engines (E), air defense systems (AD); and
- ownership: private (P – state-owned stake less than 25 %), majority private-owned (MP – state-owned stake between 25 % and 50 %), majority state-

previous several years. Taking the Admiral Gorshkov contract into account, that actual share of export contracts on Sevmash is now over 10 per cent.

⁶ The Kurgan plant's 2009 defense revenue was 78.4m USD, so the company was relegated from the Top-20 for that category. It was replaced by the Krasnogorskiy plant, an optics maker, which reported a total revenue of 97.6m USD, of which 88.3m USD was generated by the defense side of the business.

owned (MS – state-owned stake between 50 % and 75 %) and state-owned (S – companies with a state-owned stake of over 75%).

The ranking does not include:

- companies working for the Russian nuclear forces or space forces;
- companies which derive over 80 per cent of their revenues from civilian contracts; and
- companies whose operational figures are not available and there is not enough information to make an accurate estimate.

Table 4.1. Ranking of the top Russian defense companies by total revenue in 2009

No	Company	Sector	Ownership	Revenue, million USD		Net profit/loss, million USD		Share of exports in revenues, %		Share of civilian contracts in revenues, %		Number of employees	
				2009	2008	2009	2008	2009	2008	2009	2008	2009	2008
1	Almaz-Antey air defense concern (Moscow)	AD / EQ	S	3,657.0	4,616.8	n/a	100.0	49.0	50.9	11.0	6.1	90,411	89,866
2	United Aircraft Corporation (Moscow)	A	S	3,589.4	4,230.6	-656.1	333.5	60.5	52.5	24.6	31.7	97,500	92,100
3	United Engine Corporation (Moscow)	E	S	2,277.9	2,363.5	-228.3	-318.6	30.0	n/a	70.0	n/a	73,725	n/a
4	Russian Helicopters (Moscow)	AT	S	1,815.9	1,657.1	172.6	114.2	39.4	42.0	55.3	49.0	37,930	n/a
5	Uralvagonzavod (Moscow)	G	S	1,142.1	1,506.9	-225.4	-245.7	55.8	30.0*	30.0*	65.2	30,493	33,140*
6	Tactical Missiles Corporation (Moscow)	G	S	987,6	1,225.4	65.3	112.5	37.4	80.0	8.0	5.0*	23,323	21,200*
7	Sevmash (Severodvinsk, Arkhangelsk region)	N	S	666,3	538.8	59.2	69.0	10.0*	20.0*	20.0*	20.0*	26,951	26,191*
8	Salyut engine building company (Moscow)	E	S	519,9	466.1	27.1	-67.5	65.3	n/a	5.1	5.0	12,214	n/a
9	NPOmash corporation (Reutov, Moscow region)	M	S	360,9	244.5	5.2	6.4	40.0*	40.0*	5.0*	5.0*	n/a	3,800*
10	Severnaya verf shipyard (Saint-Petersburg)	N	P	337,5	189.5	1.0	-83.5	54.5	58.1	50.0*	n/a	3,278	2,866
11	Zvezdochka ship repair facility ((Severodvisnk, Arkhangelsk region)	N	S	304,3	n/a	10.3	n/a	10.0*	n/a	20.0*	n/a	n/a	n/a
12	Degtyarev plant (Kovrov, Vladimir region)	SA /M	P	259,0	274.9	-0.3	8.3	33.0	25.0	10.1	13.3	10,650	10,769

13	Motovilikha plants (Perm)	A	MP	258,2	267.3	n/a	16.3	20.0*	20.0*	50.0	n/a	n/a	n/a
14	Sozvezdiye electronic concern (Moscow)	EQ	S	224,4	146.2	2.6	11.9	9.3	n/a	20.0*	n/a	n/a	n/a
15	Admiralteyskiye shipyard (Saint-Petersburg)	N	S	204,7	146.2	n/a	-56.2	50.0*	n/a	10.0*	n/a	n/a	n/a
16	Yantar shipyard (Kaliningrad)	N	S	179,0	4.4	-4.7	-0.9	n/a	n/a	20.0*	20.0*	3,056	2,670
17	Arzamas Machine-Building Plant (Arzamas, (Nizhniy Novgorod region)	G	P	177,5	178.3	9.9	0.0	21.1	14.2	12.6	18.5	4,332	4,934
18	Kurgan Machine-Building Plant (Kurgan)	G	P	152,9	265.3	2.8	1.9	19.7	20.0*	50.0*	50.0*	5,184	6,247
19	Almaz shipbuilding company (Saint-Petersburg)	N	P	131,6	24.2	0.3	0.3	26.9	0.0	20.0*	20.0*	830	658
20	UOMZ optical & mechanical plant (Yekaterinburg)	EQ	S	120,5	153.5	0.5	0.5	38.1	35.5	30.0*	33.9*	3,905	4,554

* – CAST estimate. Estimates of the share of exports and civilian contracts in the total revenue of the ship-building companies were made based on actual revenue figures as opposed to output indicators. See more details in Reference 5. The only exception is the Admiralteyskiye shipyard, where the 2009 estimate is based on output figures.

Notes for individual companies:

- Revenue figure for Russian Helicopters also includes Rostvertol revenue. Although formally Oboronprom, the parent company of Russian Helicopters, owns only a blocking stake in Rostvertol, it controls operational management of the company.
- Salyut – consolidated revenue (including Omsk engine plant and several smaller companies) reached 673.8m USD in 2009
- NPOmash corporation – figures reflect only the head company's results;
- Sozvezdiye – figures reflect only the head company's results;
- Zvezdochka – figures reflect only the head company's operational results for the period from November 2008 to December 2009 (i.e. since the company's incorporation); and
- Admiralteyskiye shipyards - 2009 figures reflect output rather than actual revenue.

Sources: annual reports and company press releases; media reports, CAST estimates.

Table 4.2. Ranking of Russian defense companies by defense revenue in 2009

No	Company	Sector	Ownership	Revenue from defense contracts, million USD		Share of exports, % in total revenue		Share of civilian contracts, % in total revenue		Number of employees	
				2009	2008	2009	2008	2009	2008	2009	2008
1	Almaz-Antey air defense concern (Moscow)	AD / EQ	S	3,254.7	4,335.2	49.0	50.9	11.0	6.1	90,411	89,866
2	United Aircraft Corporation (Moscow)	A	S	2,707.8	2,889.5	60.5	52.5	24.6	31.7	97,500	92,100
3	Tactical Missiles Corporation (Moscow)	M	S	908.6	1,164.1	37.4	80.0	8.0	5.0*	23,323	21,200*
4	Russian Helicopters (Moscow)	A	S	811.7	845.1	39.4	42.0	55.3	49.0	37,930	n/a
5	Uralvagonzavod (Moscow)	G	S	799.5	524.1	55.8	30.0*	30.0*	65.2	30,493	33,140*
6	United Engine Corporation (Moscow)	E	S	683.4	n/a	30.0	n/a	70.0	n/a	73,725	n/a
7	Sevmash (Severodvinsk, Arkhangelsk region)	N	S	533.0	431.0	10.0*	20.0*	20.0*	20.0*	26,951	26,191*
8	Salyut engine building company (Moscow)	E	S	493.4	442.7	65.3	n/a	5.1	5.0*	12,214	n/a
9	NPOmash corporation (Reutov, Moscow region)	M	S	342.8	232.2	40.0*	40.0*	5.0*	5.0*	n/a	3,800*
10	Zvezdochka ship repair facility ((Severodvisnk, Arkhangelsk region)	N	S	243.5	n/a	10.0*	n/a	20.0*	n/a	n/a	n/a
11	Degtyarev plant (Kovrov, Vladimir region)	SA / M	P	232.9	241.9	33.0	25.0	10.1	13.3	10,650	10,769
12	Admiralteyskiye shipyard (Saint-Petersburg)	N	S	184.2	n/a	50.0*	n/a	10.0*	n/a	n/a	n/a

13	Sozvezdiye electronic concern (Moscow)	EQ	S	179.5	n/a		9.3	n/a	20.0*	n/a	n/a	n/a
14	Severnaya verf shipyard (Saint-Petersburg)	N	P	168.8	170.5		54.5	58.1	50.0*	n/a	3,278	2,866
15	Arzamas Machine-Building Plant	G	P	155.2	145.4		21.1	14.2	12.6	18.5	4,332	4,934
16	Yantar shipyard (Kaliningrad)	N	S	143.2	3.5		n/a	n/a	20.0*	20.0*	3,056	2,670
17	Motovilikha plants (Perm)	A	MP	129.1	n/a		20.0*	20.0*	50.0	n/a	n/a	n/a
18	Almaz shipbuilding company (Saint-Petersburg)	N	P	105.3	19.4		26.9	0.0	20.0*	20.0*	830	658
19	Krasnogorskiy optical plant (Krasnogorsk, Moscow region)	EQ	MS	88.3	111.5		25.1	7.9	10.0*	10.0*	4,337	4,676
20	UOMZ optical & mechanical plant (Yekaterinburg)	EQ	S	84.4	101.4		38.1	35.5	30.0*	33.9*	3,905	4,554

* – CAST estimate. Estimates for the share of exports and civilian contracts in the overall revenue of the shipbuilding companies were made based on actual revenue figures as opposed to output indicators. See more details in Reference 5. The only exception is the Admiralteyskiye shipyard, where the 2009 estimate is based on output figures.

Company notes are the same as for Table 1.

Sources: annual reports and company press releases; media reports, CAST estimates.