MILITARY-TECHNICAL COOPERATION BETWEEN THE RUSSIAN FEDERATION AND THE PEOPLE’S REPUBLIC OF CHINA – DRIVERS AND PERSPECTIVES OF FUTURE EVOLUTION

ABSTRACT

The article aims to identify and analyze the underlying dynamics of military-technical cooperation between the Russian Federation and the People's Republic of China – an important topic due to both states' roles as great powers and potential challengers to the Western-led liberal international order. The author identifies the main political, military and economic drivers of Sino-Russian military-technical cooperation. By introducing the context of contemporary global trends that shape the defense-industrial landscape, the text addresses the question of the continued relevance of this particular relationship. Finally, the author offers some foundations for forecasting the future trajectory of Sino-Russian military-technical cooperation.

Key words

China, Russia, defense industry, alliances, great power rivalry
The Russian Federation and the People’s Republic of China are both considered to be the leading powers contesting (if not directly undermining) the current liberal, Western-led international order. It is one of the main reasons why their evolving strategic partnership attracts a wide interest among both decision-makers and scholars of international relations. The potential risk that Beijing and Moscow could create a coalition that would counterbalance the global power and influence of the United States is one that must be considered seriously, even if the actual realization of such an idea is still some way off. This article aims to analyze an important aspect of Sino-Russian relations: the military-technical cooperation between both states, which is one of the pillars of that relationship. Moreover, it has significant political, military and economic consequences, not only for the partners but also for the allies and competitors of both states. For these reasons, military-technical cooperation between Russia and China is an interesting and important area of studies within the research on international security environment.

This article aims to answer three research questions:
1. What role has military-technical cooperation been playing in the overall Sino-Russian bilateral relationship?
2. What are the effects of the current strategic trends in the evolution of the international security environment on the shape and scope of the Sino-Russian military-technical cooperation?
3. Which factors will exert greatest influence on both sides’ calculations regarding the future value of their military-technical cooperation?

In search for answers to the questions specified above, the author proposes the following hypotheses:
1. Bilateral military-technical cooperation has strategic value for the security policy of both states due to a combination of political, military and economic considerations (the relative weight of these groups of motivations is different for each of the participants).
2. Current trends in geopolitics and the development of military technology are changing the balance of power and benefits between China and Russia.
3. The future shape of the Sino-Russian military-technical cooperation will largely depend on the state of relations within the US-China-Russia “strategic triangle” and on the development pace of Chinese defense industry.
In order to verify the hypotheses and answer the research questions, the author will conduct a comparative analysis of Chinese and Russian defense-industrial policies and potential. Moreover, the historic origins and evolution of the bilateral relationship have been traced, accompanied by the analysis of statistical data picturing the scale of the Sino-Russian arms trade. In order to make predictions as to the future shape of the bilateral relationship, the author decided to adopt the approach that involves identifying and analyzing crucial factors influencing the evolution of the process in question (instead of offering fully-fledged scenarios of the future). The article proceeds in the following manner: after introducing the wider strategic context of the Sino-Russian strategic partnership and providing a picture of the scale and scope of the military-technical cooperation, the main political, military and economic drivers of this cooperation are being identified. This is followed by an analysis of wider strategic trends in geopolitics, military technology and doctrine, as well as in economics which will shape the prospects of the cooperation. In conclusion, the drivers of Sino-Russian military-technical cooperation are revisited and their future relevance is examined.

1. Strategic drivers of military-technical cooperation between the Russian Federation and the People’s Republic of China

In order to properly analyze the military-technical cooperation between Russia and China, it is necessary to sketch the wider picture of relations between these two powers. At the very end of the Cold War, the relations between Beijing and Moscow were normalized. After the dissolution of the Soviet Union, the “unipolar” moment created an international environment conductive to Sino-Russian cooperation. Both states found themselves confronted with the hegemony of a superpower whose grand strategy was, if not threatening, then at least uncomfortable for their vital interests. Already in the 1990s China and Russia started to champion a multipolar world order and openly criticized US ambitions to promote liberal transformation of political and economic systems around the world. This stemmed to a significant extent from the beliefs of Chinese and Russian ruling elites that this policy was also aimed at changing regimes in their respective capitals. The 1990s and 2000s brought several joint declarations and initiatives of both governments attesting to their shared notions and principles regarding the desired shape of the international order (see e.g. Jintao & Putin, 2005). During that period, the emergence of an anti-American Sino-Russian alliance was
predicted multiple times, but the actual relationship remained more nuanced. Both governments’ policy towards the US went through numerous twists and turns, a detailed analysis of which would go beyond the scope of this article¹.

The 2010s have brought a much stronger convergence of Russian and Chinese interests and significant strengthening of their strategic partnership. The main driving force behind this shift is the simultaneous deterioration of both Beijing’s and Moscow’s relationships with Washington. This process has naturally been gradual and resulted from a combination of factors. For the purpose of this article it is sufficient to say that the global financial crisis raised significant doubts regarding the viability of US international leadership. At the same time numerous disputes involving China’s and Russia’s vital interests escalated (e.g. the status of Ukraine and the South China Sea dispute). In essence, both major powers found themselves in an increased rivalry with Washington. It can be argued that in China’s case the underlying cause was the growth of Chinese power and the unease it created in Washington. In the case of Russia it can be said that this declining power has been trying to maintain and strengthen its position in the face of (perceived) infringement of its vital interests by the hegemon. Definitely, the Ukrainian crisis proved to be an event which led to a significant upgrade in Sino-Russian cooperation. Moscow’s spectacular and rather prolonged stand-off with the West made close partnership with Beijing an imperative. Actually, it can be argued that from the global, geopolitical perspective, the PRC is among the greatest beneficiaries of the Ukrainian war and the subsequent freeze in Russia-West relations. There are two reasons for that: firstly, the renewed politico-military tensions in Europe forced Washington to moderate its “pivot to Asia” and again invest its attention and resources into security in Europe; secondly, estranged from the West, Russia has been left with few good options besides tightening its partnership with Beijing. This lack of alternatives gave China the chance to dictate the rules of cooperation, particularly in terms of economy.

The developments described above provide a political context for long-term and intense military-technical cooperation between China and Russia. The relevant Federal Law of the Russian Federation “On Military-technical cooperation between the Russian Federation and Foreign States” describes military-technical cooperation as “(…) activities in the field of international relations related to export and import, including supply or purchase, of goods for military use, as

¹ For a wider discussion of the current state of Sino-Russian see e.g. Charap, Drennan & Noël, 2017; Cau, 2018; Rolland, 2019.
well as with the development and production of military products”. (Federal Law 1998, Art. 1). It is important to note that the process in question includes more than just exports of finished defense goods (arms and other military equipment). As specified in the aforementioned legal act, military products also include “(…) armaments, military equipment, work, services, results of intellectual activities, including the exclusive rights to them (intellectual property) in the military-technical field (…)” (Federal Law 1998, Art. 1). Taking this into account, the author proposes to consider three areas of military cooperation as relevant for this article: 1) sales of complete armaments and military equipment; 2) technology transfers and/or joint research, development, design and production of military systems; 3) transfer of know-how for the development of military activities (e.g. education exchanges, joint training, joint development of operational concepts etc.).

In the case of the bilateral Beijing-Moscow relationship, the normalization of relations in the last days of the USSR opened possibilities to resume military-technical cooperation suspended in the 1960s. At first, it took the form of significant Chinese purchases of modern Soviet/Russian weapon systems. Throughout the 1990s it began to include such categories as i.a. combat aircraft, air defense systems, armored vehicles, surface ships and submarines. (Schwartz, 2014; Kashin, 2013) Looking back at almost three decades of Sino-Russian arms deals, we can clearly see how important partners both states have become to each other. According to the data compiled by the Stockholm International Peace Research Institute, in years 1992–2018 the Russian Federation sold to the PRC arms and armaments worth $35.33 bn.² This amounts to 79% of the total value of Chinese arms imports in the period. For Russia, the PRC has been the second largest export customer (after India), responsible for 25% of total arms sales in 1992–2018 (SIPRI, 2019). These data illustrate how strategic the relationship has become for both governments. It is also important to remember that Sino-Russian military-technical cooperation encompasses all the three areas identified above. It has gone beyond the sales of finished defense goods and began to include extensive technology transfers, a symbol of which can be the licensed production of Su-27 fighter aircraft in China. Besides simple license granting, many modern Chinese weapon systems show clear signs of being more generally influenced by Russian

² It is important to note that SIPRI is adopting its own measure of arms deals’ value. The Trend Value Indicator (TVI) aims to create a common basis to value the contracts signed at different periods in time with different currency valuations. That is why the figure given by SIPRI may not correspond to contract values at the time of their signing.
designs and technical thought. The relationship also includes the transfer of know-how in the form of education exchanges or joint exercises. These forms of cooperation significantly intensified after 2006 and reached a new level after 2014 (Schwartz, 2014).

In the analysis of motivation for such a strong and long-term partnership, three groups of factors should be considered: political, military and economic.

The political motivations for Sino-Russian military-technical cooperation have already been sketched out at the beginning of this section, in the fragment describing the politico-strategic context of the bilateral relationship. Looking at the current situation, it can be argued that for both Russia and China their strategic partnership (of which military-technical cooperation is an important element) is primarily a means to strengthen their respective positions in relation to the US. Both Beijing and Moscow currently have rather antagonistic relationship with Washington. One of the popular metaphors used to describe relations between these three great powers is the “strategic triangle” (Dittmer, 2018; Kuo, 2017). Leaving aside the debate on the merits of such a conceptualization (important as it is), it can be argued that strong bilateral ties between China and Russia provide them with more options and leverage in their dealings with the US. Even if we cannot speak about a full-blown politico-military alliance between these two powers, the mere idea of such an arrangement is a useful tool in diplomatic games with Washington.

The military motivations have been especially strong for the Chinese. Massive arms imports from Russia, accompanied by technology transfers, played an absolutely crucial role in the modernization process of the People’s Liberation Army (PLA). It must be remembered that at the turn of the 1990s the technological gap between the PLA and leading global militaries had been very wide. The majority of equipment in service represented the technological level of the 1960s if not the 1950s. Cooperation with Russia allowed more than simple generational exchange of equipment: it was a true technological leap, contributing to proper development of significantly degraded or even non-existent military capabilities in such areas as air refueling and transport, modern air defense, naval warfare, combat aviation etc. (Schwartz, 2014). It is a fact that today’s PLA – a modern, versatile and confident military force with a growing geographical reach – is to a significant extent a product of military-technical partnership with Russia. Looking at the current dynamic, it is also important to note that the post-Crimea intensification of strategic partnership has led to ever more frequent joint military operations of Chinese and Russian militaries (joint air patrols, land and naval maneuvers). Although the prospects of regular and
intense joint operations is still a distant one, the military-technical cooperation of both states may build useful interoperability of their military forces.

While military-wise China benefited from the partnership more than Russia, for Moscow the economic motivation is surely stronger. After the collapse of the Soviet Union, the accompanying economic crisis dealt a serious blow to the defense industry. The domestic orders dwindled to almost nothing, leaving the sector with little choice other than to aggressively seek export contracts. It is a common opinion that large Chinese orders of Russian arms and military equipment provided a lifeline which the struggling Russian companies desperately needed to survive and continue modest development (Kashin, 2013; Schwartz, 2014). It is also important to keep the general condition of Russian economy in mind. Defense products are among those few categories of Russian made goods which retain competitiveness on the global market. As a consequence, large arms contracts are valuable not only for the defense-industrial sector, but also for the wider national economy. The economic incentives for close military-technical ties with China increased further after 2014, when the Western sanctions hit the Russian economy very hard. Dearth of alternative partners led Russia to an economic pivot towards China, which involved not only defense industry but also energy and capital markets. In China's case, economic motivation has not been as strong – spectacular economic growth created an opportunity for large and sustained defense expenditure increases, making the PLA a wealthy buyer. However, it must also be stressed that, due to Western arms embargo, Beijing cannot rely on a wide choice of arms suppliers. When considering economic aspects, it is also important to note that purchase of complete Russian systems or technologies was probably significantly cheaper than indigenous development. (Bitzinger & Popescu, 2017).

2. Contemporary determinants of the Sino-Russian military-technical cooperation

The previous section provided an overview and analysis of factors driving the bilateral military-technical relationship throughout the post-Cold War period. In order to assess its potential future directions, it is important to identify and characterize several more general trends shaping the global military-industrial environment. Their inclusion will help assess the future viability of Sino-Russian cooperation from political, military and economic perspective. Starting from the international system level, the 2010s have clearly brought the return of great
power competition as the prime issue on the international security agenda. This is most visible in US-Russia relations, where in official strategic documents both sides clearly name each other as threats. It is a testament to the fact that deterioration in Russia-West relations stemming from the Russo-Ukrainian war has not abated and seems to have taken a semi-permanent form (at least in the medium-term perspective). As a consequence, the Russian Federation and NATO adopt competing deterrence postures in Central and Eastern Europe, which places significant demands on their force postures (Wiśniewski, 2017). In the Indo-Pacific region, China’s rise and its assertive behavior (including, but not limited to the island construction in the South China Sea) is causing a growing alarm not only in the United States, but also among other regional powers. One of the effects is the reactivation of the Quadrilateral Security Dialogue among US, Japan, Australia and India. Although it is still very far from a coherent anti-China alliance, it attests to growing polarization in the region. The abovementioned strategic trends result in an reinvigorated arms race between the leading global powers. All three participants of the aforementioned strategic triangle (i.e. the US, Russia and China) are heavily investing in new and improved military capabilities relevant for a great power conflict. The most recent US National Defense Strategy (adopted in 2018) clearly positions preparations for great power competition with Russia and China as a priority for US armed forces development, acquisitions and training activities. The US government is clearly concerned that the military technological superiority it enjoyed in the post-Cold War period is no longer certain to last. In response, the US has initiated a concerted technology development initiative known as the Third Offset, which is meant to leverage emerging technologies (such as unmanned systems, artificial intelligence, networking, space assets etc.) to offset any military advantages the potential adversaries may possess. (Tai Ming Cheung, 2018, pp. 4–8) This leaves China and Russia with little alternative besides trying to balance American innovations with new capabilities of their own. In this context it is interesting to note Vasily Kashin’s opinion that Beijing and Moscow can effectively respond to the Third Offset by combining their military R&D efforts. This could provide a new impetus for both countries military-technical cooperation. (Kashin, 2018)

Another important factor influencing Sino-Russian cooperation is related to general trends in development of military technologies. Although accurate predictions about the character of future wars and weapons most useful to fight them are notoriously difficult to make and come with a wide margin of error, the dominant directions in global weapon developments are quite clear.
Looking at investments undertaken by leading military powers, we can identify several technologies which are universally considered as crucial to achieving an advantage on the battlefield. They include such areas as artificial intelligence, unmanned systems, C4ISR systems, cybersecurity tools, hypersonic weapons, directed energy weapons and space systems. Both China and Russia will need to develop these (and other) promising technologies in order to maintain the desired level of military capabilities. What is interesting to note here is that many of the leading directions of development deal with the software side of weapon systems rather than pure hardware. This can be summarized as follows: it is still important to have high capability effectors (e.g. fast, maneuverable long-range missiles) but it has become as important to have effective systems for gathering, processing and distributing information through an extensive network to use the more traditional weapons effectively. In fact, military forces follow the society and economy in general as they are becoming increasingly digital as well. As a consequence, the defense-industrial base of a modern military power must provide not only high performance military hardware but also integrate it into sophisticated “systems of systems” connected via effective data distribution networks. This trend can potentially shift the balance of power inside the Sino-Russian military-technical relationship. Russian defense industry excels in producing particular types of military hardware (i.e. missile systems, combat aircraft, armored vehicles etc.); it is also no stranger to creation of software solutions (like automated command systems). China has benefited as a customer from these abilities. However, looking at the sheer depth and breadth of the Chinese technological sector (both military and civilian), it is clear that Beijing has an edge in this field. It is worth considering what could happen if the focus of PLA’s modernization shifted decisively from hardware investments (purchasing new combat platforms) into software investments. Perhaps then the offers of Russian industry would be not so attractive and maybe the Chinese side would have more to offer to its Russian partners.

This shift in military technology development must be analyzed in tandem with another important feature of the contemporary military-technical landscape, namely the role of civil-military synergy. Connections between the performance of defense and civilian industry are neither very new nor limited to the present time. However, in the recent decades decision-makers and business executives around the world have looked intensively for ways to leverage the heft and innovation of the civilian economy to bolster the defense-industrial base. The technological trends described in the preceding section only strengthen the case for such initiatives. In relation to the case under consideration in this
article, it is important to note that China possesses a large, diversified and competitive civilian industry. Its strengths lie in many sectors deemed strategic from the perspective of weapon development (like IT and the wider tech sector). Moreover, China is actively promoting the civil-military synergy as an official policy under the concept of *Yujun Yumin* (“locating military potential in civilian capabilities”) (Raska, 2017, p. 57). It should also be noted that the Chinese economic model, which includes state’s heavy involvement and guidance seems to be particularly well suited to nurturing this synergy. The situation in Russia is quite different. Here the defense industry is one of the few islands of high-tech and innovativeness in an economy which is not very competitive in the global market. That is why the prospects of civil-military synergy benefiting Russian defense-industrial base are rather slim. The Russian civilian economy simply cannot ensure a financial and technological support base for the defense industry comparable to what the Chinese are able to provide. When both of these trends (directions of military technology development and civil-military synergy) are taken into consideration, a possibility emerges that in the medium term Russia can develop technological dependence on China. This is especially visible in the technology sector, where Russia is ill-equipped to compete with the powerful Chinese industry. One of the early signs of this scenario becoming reality might be the preliminary agreement for the Chinese company Huawei to work on Russian 5G telecommunications network (China’s Huawei signs deal..., 2019) This area is considered highly sensitive from both economic and security perspective, and thus has become a subject of great political controversy (chiefly between the US and China). Looking at these trends from the perspective of military-technical cooperation, it is worth considering a scenario in which in the near future China will cease to need to import large quantities of Russian military hardware. Instead the balance of the bilateral relationship might shift towards greater export of Chinese software solutions to Russia.

Taking all these trends into consideration, we can reexamine the political, military and economic motivations of the Sino-Russian military-technical cooperation and assess their relevance in the near future. Starting with the political sphere, it must be noted that both sides benefit from the strength of their strategic partnership. As long as their respective relationships with the US remain broadly antagonistic, close political and military cooperation (military-technical issues included) with each other will remain a useful tool of their grand strategies. This seems to bode well for the future of bilateral military-technical cooperation. However, the growing Russian unease with the power asymmetry in this relationship can potentially complicate future cooperation.
By almost every possible indicator, China is the stronger partner and this reality is rather uncomfortable both for Russian political elites and the wider society. Russian strategic culture includes a deep-seated mistrust of China and fears of potential Chinese dominance in the Russian Far East. One of the more visible manifestations of these attitudes is something akin to a sociopolitical hysteria concerning Chinese immigration to Russia’s Asian regions. Although – judging by practically all independent expert accounts – the tide of Chinese migrants is illusory, the prevalence of such concerns is striking. On the strategic level, exports of the most advanced weapon systems to China encounter a growing resistance (or at least raise doubts) within the Russian government. As of yet, these concerns have not led to significant troubles in the Sino-Russian military-technical cooperation; however, with the growing power asymmetry favoring Beijing, they may grow stronger.

While the political motivations of close military-technical cooperation remain quite strong, the prospects for military motivations are mixed. It seems that Russian arms and technology imports have already allowed the PLA to make a significant technological leap. Chinese defense industry has also seemingly mastered the development and production of many advanced weapon systems. In such case, the need for further imports can decrease significantly. It must be noted that this is the state the Chinese side has desired from the very beginning. The concept of “industrial security”, prevalent in Chinese defense and economic policy, adopts self-sufficiency as its central idea. Both great power ambitions and historical experiences (the cut-off of Soviet assistance in the 1960s) are behind China’s determination to independently meet PLA’s modernization needs. (Boutin, 2017, pp. 39–40) Combat aviation can be a good illustration of this trend. In the 1990s China started producing Su-27 fighter aircraft on Russian license. Not long after that, a new Chinese fighter emerged, with the designation J-11. It is clearly based on the Sukhoi design. In the current decade the PLA managed to introduce the 5th generation combat aircraft (the J-20) into service before Russia did it with its counterpart (the Su-57). These developments may lead to a conclusion that Chinese defense-industrial development is progressing rapidly, and shortly the need for military-technical cooperation with Moscow will be significantly diminished. However, several important caveats are in order. Although the abilities of Chinese defense industry have increased significantly, it still lacks the ability to independently produce certain crucial components and sub-systems. Again, the sphere of military aviation provides good examples. The Chinese industry may have mastered the production of advanced fighter jets, but it is still reliant on imports of Russian high-performance jet engines
Despite China’s best efforts to eliminate this dependency (Ait, 2019; Boutin, 2017, pp. 42–45). Thus we may envision a scenario for the near (or even medium term) future, in which China imports lower quantities of complete weapon systems but remains an important customer for key subsystems and components. Generally there is a sense of shift in the focus of Sino-Russian military-technical cooperation towards more joint R&D with emphasis on the transfer of know-how. Opportunities for joint military education, training together, and access to “lessons learned” are attractive to China, given that Russian armed forces have recent combat experience which the PLA lacks.

In the economic sphere, the perspectives for continued close military-technical cooperation also vary. The general condition of Russian economy under the sanctions is rather precarious. As already mentioned, this leads to ever greater reliance on China for economic cooperation, not only in the military sphere. It also worth noting that Russian defense industry is starting to lose some of its important export markets, the most pronounced case being that of India, the largest post-Cold War importer of Russian defense exports. Actively supported by their government, US defense companies, are taking over a growing share of Indian orders, slowly pushing their Russian competitors out. In this situation Russian defense industry may grow ever more reliant on Chinese purchases. On the other hand, Beijing may be more willing to place orders in its own defense industry for military as well as economic reasons. The current economic slowdown in the PRC, related to the trade war with the US, may only increase Beijing’s willingness to support its domestic industry. For some experts it is the matter of weighing faster acquisition of the desired capabilities (through imports) against taking more time to develop them indigenously. (Bitzinger & Popescu, 2017)

Conclusions

The analysis conducted in this article allows verification of the hypotheses adopted to answer the research questions that have motivated this study. Strong drivers propelling the Sino-Russian military-technical cooperation throughout the post-Cold War era have been identified. The scale and scope of the cooperation attest to the strategic value it has both for Moscow and Beijing. However, the weight of particular motivations is different for each partner. For Russia the blooming defense-industrial relationship with China has been primarily motivated by economic and political gains. For Beijing, military and political motivations dominate. Today the relationship is shaped primarily by such
factors as the resurgence of great power rivalry, rapid military technological transformation fueled by information technology, and the rise of Chinese tech sector. These trends make the bilateral relationship less balanced, with China emerging as the senior partner. This is due to such facts as the much stronger overall national power of the PRC compared to Russia, the growing role of defense software in weapons development, and China possessing a sophisticated and mature IT sector. As the strategic relationship continues to be of significant value for both Beijing and Moscow, there are strong reasons to believe that close military-technical cooperation between both states will continue as well. However, as noted throughout this article, there are also trends which may make Beijing and Moscow reconsider this relation. Instead of offering fully developed scenarios for the future, the author would like to pose four questions which will be crucial to determine the future shape of Sino-Russian military-technical cooperation.

1. What shape will the US-China-Russia strategic triangle take? As noted throughout this article, close collaboration between Russia and China is to a large degree a product of both states’ estrangement from the US. If this situation continues, we may expect this strategic partnership to continue and even flourish. On the other hand, if relations between the three parties were to change, the factors inhibiting closer military-technical ties might grow stronger.

2. What will the level of trust between Russian and Chinese leaders be? It is obvious that close military-technical cooperation between states requires high level of trust on both sides, while – as it has also been pointed out – there is at least residual mistrust in the Sino-Russian relationship. What will be particularly crucial for the future of their military-technical cooperation is the way in which Russian leaders will cope with the growing disparity of power between Moscow and Beijing.

3. What will the respective position of Russia and China on the global arms market be? Another point of friction between Moscow and Beijing is the fact that Chinese companies are a competition for Russian arms manufacturers on the global market, frequently offering products heavily based on Russian designs and technology. If this trend continues, it may motivate Moscow to curtail military-technical cooperation with Beijing.

4. What will the future shape of PLA modernization strategy be? The central question here is whether the Chinese leadership will expect rapid acquisition of capabilities (facilitating more imports from Russia) or prefer indigenous development (which would take more time and resources).
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