

The South Korean defense industry in numbers: Is the new dawn coming?

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In the second half of 2020, there was good news for South Korea's defense industry. The Korean Fighter eXperimental (KFX) prototype, which was under development using domestic technology, has entered the final assembly stage. This means that the industry can anticipate a new platform for sales. Meanwhile, the K-9 self-propelled howitzer was selected as the preferred negotiator for a 833 million USD artillery acquisition project as part of the Australian Army's modernization projects. Stockholm International Peace Research Institute (SIPRI) revealed that, compared with the 2010-2014 period, South Korea's arms exports increased by 143 percent in 2015-19 and its share in global exports increased from 0.9 to 2.1 percent. South Korea's world ranking as an arms exporter also rose from 12th in 2017 to 10th in 2018.

The most welcome news may be the upward reversal of the sales volume. Stagnant at the beginning of the Moon Jae-in government, the volume increased to 11.18 USD billion in 2018 from 10.47 billion USD in 2017, according to South Korea's Defense Acquisition Program Administration (DAPA). Over five years, the industry's total sales grew an average of 11.8 percent per year, reaching a peak of 13.2 billion USD in 2016. According to the Korea Institute for Industrial Economics & Trade (KIET), the next year it fell back to 11.5 billion USD. Both data showed the same trend. The drop was the first one since DAPA was established. So, the reversal in 2018 was supposed to be good news.

There was good news for South Korea's defense industry in the second half of 2020. As part of the Australian Army's modernization projects, the K-9 Thunder self-propelled howitzer was selected as the preferred negotiator for a 833 million USD artillery acquisition project. In 2015-19, South Korea's arms exports increased by 143 percent with its share in global exports increasing from 0.9 to 2.1 percent. South Korea's world ranking as an arms exporter rose in 2018 from 12th to 10th, in line with a year-on-year increase in sales volume from 10.47 billion to 11.18 billion USD. Overall, these are hopeful signs for the defense industry, but they are too weak to promise a "new dawn" and a return to its former glory.

The question is whether this is a structural and sustainable reversal. If the reversal eliminated or eased the structural causes behind the industry's decline, it would be a very welcome development. Some experts have pointed to structural causes for the 2017 downturn. Compared to other developed countries, South Korean products, companies and government showed a low competitiveness.

Since a detailed analysis of the 2018 upturn is not available yet, it is hard to judge whether the reversal is a structural one. Therefore, this brief reversal provides an incipient analysis about whether this trend hints at a structural change. There are four

issues under consideration: the share of domestic industry's sales in the defense budget spending, that of overseas purchases, of export trends, and of large defense companies in defense exports.

The first issue is the share of domestic industry's sales in the defense budget spending. According to the DAPA 2019 report and KIET's 2018 statistics, this was above 34 percent until 2016, but shrank to 30 percent in 2017 while the defense budget itself increased. The domestic industry capturing a lower share from the increased budget means that the vitality of defense contractors, which are highly dependent on defense spending, was weakened.

The next issue is overseas purchases by the South Korean Ministry of National Defense (MND). Foreign purchases which hit a low point in 2016 at 620 million USD rose to 3.2 billion USD in 2018. According to SIPRI, South Korean purchases increased significantly since 2017, including aircraft and air defense weapons. The increase in overseas purchases is not good news as it reduces the relative share of South Korean industry's sales in the defense budget's spending.

The third issue are decreasing exports. According to KIET, exports peaked at 2.49 billion USD in 2016 but went down to 1.56 billion USD in 2017. The sluggish number of exports is also evident in the sales figures of the top ten Korean defense companies. KIET points out that their shares of exports, out of total sales, decreased from 18.3 percent in 2016 to 13.6 percent in 2017.

The last issue is related to the export performance of major companies which also declined. In 2017, SIPRI's top 100 defense companies included only four South Korean companies: Hanwha Techwin, LIG Nex1, Daewoo Shipbuilding & Marine, and Korea Aerospace Industry (KAI). In 2016, there were seven Korean companies in the list.

The plunge in exports is largely due to the decrease

in sales of T-50 training airplanes and submarines. While exports of ground weapons such as artillery increased, the decline in global demand for conventional weapons affected exports. Some experts argue that the global economic downturn, the aftermath of the domestic shipbuilding industry's restructuring, and the South Korean government's unfair restrictions against defense companies also negatively affected exports.

Considering the earlier downturn, the upturn in 2018 is certainly welcome. But it is unclear whether it signals a sustainable upward trend because the statistics show mixed signals. This is due to the characteristics of domestic sales, arms imports and exports.

The first issue is the potential to expand domestic sales. According to the MND and DAPA, domestic sales increased to about 482 million USD in 2018 compared to 2017. The number is welcoming, but not satisfactory as sales in 2017 were 865 million USD less than 2016. In addition, the share of domestic spending in the defense budget was more than 30 percent before 2016, but fell to 27 percent in the two following years. As the defense industry relies heavily on domestic budget, which has been on the rise, one can consider the industry stable because its sales rise with the increase in the defense budget. Taking a closer look, however, reveals the risk that the industry may not continue expanding in line with the defense budget.

The second issue is overseas weapon purchases. In 2017-18, purchasing rose from 1.2 billion to 3.18 billion USD but dropped back to 2.08 billion USD in 2019. Purchases by both foreign commercial and Foreign Ministry Sales (FMS) went down. If the decrease came from an improvement in the South Korean industry's competitiveness, it would be desirable. But it seems improbable as a significant weapons upgrade in the span of one year is unlikely. Thus, the direction of the fluctuation is not yet clear.

The third issue is exports. MND and DAPA data

show a year-to-year increase from 1.4 billion to 1.6 billion USD in 2018. The share of exports out of total sales increased from 13 percent to 15 percent in 2018. However, this is not a good percentage, either. Before 2016, during the industry's expansion, the share of exports had reached 18 percent. The importance of exports seems to have declined. Moreover, the recent increase in exports is mainly the result of large export contracts signed in 2013-2015, according to an MND official. If there were no more big contracts after 2016, the prospects for exports are not bright. In reality, the outlook is negative. According to the DAPA, the number of export permissions in 2018 (2,261) went down in 2019 (1,964). The amount per individual approvals and the total sum are not available. But it is not difficult to imagine that they are not good.

Fourthly, the number of Korean defense companies in the world's top 100 fell from four in 2017 to three in 2018. Among the top 100 companies, their sales and shares, including exports, went down from 5.5 billion USD (1.4% share) in 2017 to 5.2 billion USD (1.2% share) in 2018, according to SPIRI. As these companies operate both domestically and internationally, this situation can be seen as a sign of the defense industry's declining competitiveness.

Thus, despite all the welcome news in 2020 and the favourable statistics of 2018, it is too early to judge the present and future of the defense industry until there is more information about domestic sales. But the road ahead for the industry does not seem as gloomy as was projected in 2019 because the Moon government has taken active steps since 2018 when discussions about the 'crisis of the defense industry' began to take place.

A key element of the government's response was the "4th industrial revolution and export". In 2018, the Blue House appointed an officer in charge of the industry to foster it and promote exports. The next year, the South Korean MND reported a plan to the president to upgrade the industry's competitiveness.

The plan included the establishment of a R&D system for the 4th industrial revolution and the enhancement of inter-governmental cooperation, a guarantee of conditions for the stable management of defense companies, and the transformation of the industry into an export-oriented one.

The MND increased the share of domestic investment of the defense capability enhancement budget from 30 to 80 percent. It also established a one-stop export support system and reformed the offset system. In 2020, the MND increased its budget by 7.4 percent, resulting in an increase of funding for weapons procurement and R&D by 8.6 percent from the previous year.

The MND increased its support to the defense industry by meeting CEOs and promising financial support. The DAPA announced the establishment of a regional-industrial cooperation ecosystem, selected one local government for a pilot project, and announced subsidies of 2.5 billion USD over five years. In 2020, a law on the development of and support for the defense industry was adapted. The above-mentioned measures might have contributed to the upward reversal of the trend and will provide more opportunities for the industry to enhance its competitiveness and increase sales in South Korea.

Nevertheless, there remain difficult challenges. Firstly, there is no noticeable new sizable project. Big projects, such as the next-generation aircraft project KTX, the Jangbogo-III Batch-1 submarine project or the Gwanggaeto-II Batch-II for Aegis surface ship, have been the primary source of sales for the industry. Without such projects, the decline of the industry is hard to avoid. The Moon government is focusing on the project but is yet to launch a sizeable new project.

Moreover, inter-Korean relations add uncertainty to the future of the industry. An improvement in South-North relations and the likely realization of arms reduction would directly damage the industry. The Covid-19 crisis undoubtedly hurts the industry

as well by cutting in the defense budget. A last but not negligible issue is the impact of a continuing anti-corruption campaign. Moon who has criticized the widespread corruption in the defense industry pushed for a cleaning up campaign after his inauguration. Of course, the direction of these

measures is right. But some experts were concerned that a collateral chilling effect may affect the industry during the anti-corruption campaign. In sum, despite hopeful signs for the defense industry, the light of the “new dawn” is still too weak to illuminate the industry’s dark tunnel and bring back its former glory.

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