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Çağlar Kurç, Serhat Güvenç, Arda Mevlütoğlu & Sıtkı Egeli

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# Balancing aspiration and reality: autarky in Turkish defence industrial policy

Cağlar Kurç na, Serhat Güvenç nb, Arda Mevlütoğlu nc and Sıtkı Egeli nd

<sup>a</sup>Department of Political Science and International Relations, Abdullah Gul University, Kayseri, Turkey; Department of International Relations, Kadir Has University, Istanbul, Turkey; The Institute of Future Research, Ankara, Turkey; Department of Political Science and International Relations, Izmir University of Economics, Izmir, Turkev

#### **ABSTRACT**

Countries with limited financial resources, internal markets, and human resources, such as Turkey, face significant challenges in achieving defence autarky and competing with multinational corporations in the international arms market. Consequently, the literature suggests that these countries should adjust their defence industrialisation goals to match their financial capabilities. However, Turkish decision-makers maintain a public discourse emphasising the goal of defence autarky despite the defence industry's financial crises and structural problems. Even though there is a growing recognition of the limits of the pursuit of defence autarky, Turkey still needs to devise a defence industrial policy focusing on niche markets. This paper argues that the persistent rhetoric of defence autarky enjoys very strong public appeal in domestic politics. Defence industrialisation, coupled with nationalism, creates a zone of impunity for the ruling party. This dynamic allows the ruling party to deflect criticism by highlighting successes in defence production, directly appealing to nationalist sentiments. Ultimately, the political gains for the ruling elites outweigh financial limitations, preventing an open shift toward a more moderate defence industrialisation goal.

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#### Introduction

The battlefield success of Turkish weapons systems, especially the drones, not only brought international attention to Turkish weapons and defence industrialisation but also, through the demonstration effect, helped to increase Turkish defence exports (Kurç 2024, 382, 389; Tavsan 2022). Turkey has been a rising supplier in the international arms market, capturing a 1.6% share of global arms exports between 2019 and 2023 (Wezeman et al. 2024, 2). While drones grab the headlines, Turkey is exporting various weapons systems, ranging from armoured vehicles to corvettes and precision munitions to military-grade batteries, showing the broad product range of

CONTACT Çağlar Kurç 🔯 caglar.kurc@agu.edu.tr 🗈 Department of Political Science and International Relations, Abdullah Gul University, Kayseri, Turkey

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Turkish defence industries. The expansion of the defence industry and the increase in arms exports are encouraging for Turkish policymakers, who have been striving to reduce dependency on foreign suppliers, enhance national security, reap economic benefits and gain prestige on the global stage. Yet, on the other side of the coin, Turkish defence industrialisation is reaching its limits and falling short of its primary goal of defence autarky.

Achieving self-sufficiency in defence production is arduous, particularly for countries like Turkey, which have comparatively limited financial resources, modest domestic demand for defence material, and relatively small pool of qualified human capital. Emerging defence industries in countries like Turkey lag behind multinational defence companies in the United States and Europe, which are commanding higher research and development budgets, larger human resources, and bigger share in global markets. Through their intricate research and supplier networks, these companies could develop state-of-the-art technologies at lower unit costs than is the case with the emerging players (Bitzinger 1994; DeVore 2013; Sköns and Wulf 1994). Thus, emerging defence industries face a challenge: either continue to pursue defence autarky and pay more for this goal, or alternatively follow more moderate defence industrialisation by focusing on a smaller list of domains and technologies to indigenise (Bitzinger 2003a, 2015). Many states realise that the cost of achieving defence autarky is high and they consequently shift their defence industry policy (DeVore 2013, 2015). Cases in point are Brazil, South Africa, and Taiwan (Bitzinger 2003b, 39-62). However, despite these challenges and undergoing serious economic and financial difficulties for over a decade now, Turkey refuses to openly acknowledge the limits of its goal of pursuing defence autarky and to adjust its defence industrial policy accordingly.

The persistence of defence autarky in public discourse, even in the face of financial crises and structural problems within the defence industry, raises intriguing questions about the ulterior motives of policy and decision makers associated with Turkey's defence policies and practices. Turkey's defence industrialization has historically been driven by a combination of domestic and international factors. Domestic drivers include historical path dependency, innovation capabilities, the requirements of the armed forces, institutional capacities, civil-military relations and political will whereas international drivers include distribution of power, alliance politics and global arms trading patterns. Domestic drivers have occasionally eclipsed international drivers in shaping the course of Turkey's defence industrialization whose ultimate goal is persistently framed as emancipation from external pressures and influences. Hence, the defence industry is perceived by the Turkish public as an enabler for strategic autonomy in foreign policy. Consequently, this paper posits that the persistent emphasis on defence autarky is less about practical achievement and more about the domestic political benefits it provides to the ruling political elites. By coupling defence industrialisation with nationalism, the ruling Adalet ve Kalkınma Partisi (AKP - Justice and Development Party) articulates a politically beneficial narrative that bolsters the party's domestic standing and also shields it from criticism.

Moreover, this narrative allows the ruling party to maintain an aura of success and resilience, which appeals to nationalist sentiments and deters opposition parties from challenging the government's defence policies. The secretive nature of defence production enables the ruling party to avoid demands for transparency and accountability.



Consequently, the political gains from maintaining the rhetoric of defence autarky outweigh the financial limitations and practical challenges of achieving true selfsufficiency.

This paper explores the dynamics of Turkish defence industrialization by focusing on what drives Turkey's arms-production policies in the face of technological and economic challenges, could Turkey escape reliance on foreign inputs in critical areas, which strategies and policies have Turkey implemented to develop its defence industry, do early successes in local arms production breed greater ambitions, which lead to overreach and what is the impact of intangible, non-economic and non-military factors as reasons to engage in defence manufacturing. Thus, by analyzing the interplay between international political and domestic policy factors, the paper aims to provide a nuanced understanding of these questions.

#### Balancing autonomy and dependency in defence production

Defence industrialisation in emerging countries is paradoxical. Almost all new entrants in the contest to constitute and develop defence industrial capabilities did invest in their respective defence industries because of the fear of abandonment, entrapment, or weakening in international for a due to the adversarial and/or obstructive policies of their main suppliers and allies. Hence, at the root of defence industrialisation for those states lies breaking the dependence on foreign suppliers so as to gain greater latitude in foreign policy making through their access to the state-of-the-art military technologies. This indeed constitutes the core motivation in most cases. In addition, states are also looking for the economic benefits and international and domestic prestige that defence industrialisation would bring. To satisfy their core motivation, states putting themselves into such endeavour felt obliged to reach self-sufficiency in arms production so that they would be able to pursue more independent foreign policy (Kurç and Bitzinger 2018; Kurc and Neuman 2017; Neuman and Kurç 2017). But, to have autonomy, the newly industrialising states needed foreign partners to initiate the process.

While having foreign partners at the initial stages seems to perpetuate dependency on foreign suppliers by other means, emerging states do not perceive foreign partnerships and cooperation in the early developmental stage of defence industrialisation as contradictory. It is perceived as a necessary inconvenience that can be overlooked in the interim for the sake of ultimate self-sufficiency. In other words, foreign partnerships are becoming the stepping stones for improving production capabilities, for improving a state's position within the global defence production hierarchy, and eventually for becoming self-sufficient (Bitzinger 2022, 3). In this respect, astounding shifts in the international arms market from the mid-1980s onwards and throughout the 1990s and the 2000s created a favourable environment for many emerging states.

As the cost of producing advanced weapons continued to rise, and as defence budgets dwindled after the end of the Cold War, major defence companies and their parent states sought to diversify their overseas clients, hence they ended up being more willing to share their military technologies and industrial know-how. This has created an opportunity for less advanced arms and non-arms producers to invest in defence industrialisation. As the major defence companies sought a larger share of the international arms market, international competition intensified, thus increasing the bargaining power of emerging countries (Oudot and Renaud 2019, 181). Emerging countries began systematically demanding technology transfer, technical data and industrial know-how to improve their defence industrial capabilities. Through expanding contractor and subcontractor relationships, the emerging defence industries have found the opportunity to become increasingly integrated into the transnational network of company-to-company exchanges (Sköns and Wulf 1994, 47–49; Kurc and Oktay 2018, 475–77). They would thus be better positioned to shoulder the increased costs of producing their own weapons. For many, this strategy worked for many emerging countries and helped them improve their status in the global defence industry hierarchy.

From this perspective, where a state is located in the global hierarchy of arms production determines what it could achieve and what it could not in international politics. In other words, the hierarchy at stake determines the relations between the suppliers and recipients (Neuman 1984, 2010). The first-tier defence producers, such as the United States, can innovate at the technological frontier. These producers have a strong R&D base and a sizable domestic market to sustain the sector. Thus, they mainly rely on domestic markets rather than export orders to sustain their defence industrial base. Still, the quality of their arms developed primarily for their own military, would also render them a prominent actor in the international arms markets and allow them to generate significant political leverage as they create dependencies. The second-tier suppliers, such as France and the United Kingdom, are capable of producing technologically cutting-edge weapons and adapt them to specific market and client needs, too. Yet, second-tier producers have got limited R&D base and smaller domestic demand than is the case with the first-tier producers. Hence, they choose to rely heavily on export markets to sustain their defence industrial base. This makes them more willing to sell and less likely to use arms sales as a political leverage. Finally, there are the third-tier suppliers, such as North Korea, whose defence industrial and manufacturing activity would be confined to copying and reproducing existing products and their associated technologies. Similar to the second-tier competitors, suppliers in this tier depend more heavily on the export markets and they typically specialise in producing low-cost and unsophisticated weaponry. Both second and third-tier suppliers depend on export markets to sustain their respective defence industrial bases by struggling to make up for the relative weaknesses of their production capacity, limited size of domestic market and/or limited cost-effectiveness of their indigenous weapons systems. But increasing exports is a more pressing issue for third-tier suppliers (Krause 1990; 1995, 31–32). Thus, third-tier suppliers are more willing to export arms without any strings attached. While their defence industrial production capabilities continued to expand and improve, they have nonetheless failed to reach their much-cherished self-sufficiency goals due to financial and structural limitations.

In comparison with the first-tier producers, emerging countries suffer from financial and structural weaknesses, too. They have limited financial resources, translating into limited R&D budgets and a smaller domestic market. Limited domestic demand imposes serious constraints on the ability to attain economies of scale, thus making their indigenous weapons systems more expensive and/or less capable than those produced by major producers and their large conglomerates. On top of the limitation in financial resources, emerging states also suffer from a lack of human resources, weaknesses in industrial and organisational management, hence additional

inefficiencies in defence production further increasing the cost to such countries of producing modern weapons systems (Hayward 2000; Markusen 1999). While the nature and the impact of these limitations vary among the emerging states, they are all, in one way or another, affected by these limitations, which force these states to make difficult policy choices with the consequent variations in the defence industrialisation policies.

Defence industrialisation does not happen in a vacuum. The path of defence industrialisation results from domestic (e.g. historical path dependency, innovation capabilities, the military requirements of the armed forces, institutional capacities, and civilmilitary relations) and international factors (e.g. the impact of globalisation of arms production, alliance politics, the nature of the international order) (Béraud-Sudreau and Schmitt 2024; DeVore 2015; Kurç and Bitzinger 2018; Kurc and Neuman 2017). Many analysts believe that the globalisation of arms production will force emerging states to shift their defence industrial policies. Rather than seeking across-the-board production capacities, they had to liberalise their defence markets, open up for investments from multinational corporations, and invest in niche areas where they have a comparative advantage (Hartley 2007; Hartley and Sandler 2003; Sjolander 1999; Struys 2004). Despite these gloomy predictions, various states continue to pursue defence autarky, only to change their policies when the realities imposed by financial limitations become too insurmountable (Franko and Herz 2018; Rubin 2017). But when states change their policy and are ready to let go of some production capacity by focusing on what they see as niche areas, they face tough questions and dilemmas such as the following: which areas to focus on, which foreign partners to trust, and to what extent should they rely on foreign inputs? (Florian Bodamer quoted in Guiberteau, Hellemeier, and Schilde 2023, 2). Accepting limited production capacity and using foreign inputs would make these states dependent on foreign suppliers. Hence, the paradox of defence industrialisation emerges. States that initiate defence industrialisation to sever the dependencies would become dependent on foreign inputs for the sustainability of defence industrial capabilities and end up sacrificing autonomy.

While sacrificing autonomy seems at first glance to be a failure to reach the defence autarky goal of defence industrialisation, it is still a worthwhile endeavour. Having some defence production capability is always better than not having it at all. Even the modicum of defence industrial capabilities increase the adaptation capability of the military, which allows states to better respond to surprises in war (DeVore 2017, 2021). And even if the emerging states cannot break their dependence on their foreign suppliers, defence industrialisation increases a state's policy options and moderates the political influence of foreign suppliers over them (Borchert 2018). Additionally, the more states cooperate with one another in arms production, the more likely it becomes for them to coordinate and collaborate on the overall defence and security matters. In other words, collaboration in arms production may have spillover effects promoting cooperation on other levels and aspects of defence and security policy. Industrial integration could also establish a security community, reinforcing shared norms and strengthening relations between community members (Ditrych and Kucera 2023, 133-37). Yet, in the end, the path of defence industrialisation and procurement depends on the state's defence and foreign policies, which are likely to be driven, among others, by domestic factors (Droff et al. 2024, 33-36).

Turkey's defence industrialization is mainly driven by its fear of abandonment and, thus, its search for power. Yet, its bid is affected by the nature of international order, alliance politics, and the changes in global arms production, which provide opportunities and risks for Turkey. The domestic factors, such as institutional capacities and civil-military relations, determined whether Turkey captured the opportunities and avoided risks that are the result of international factors. While Turkey continued to search for defence autarky, mainly due to domestic factors, its increased defence industrial capacity enabled Turkey to use its military force and defence products to support its foreign policy objectives. However, as foreseen by the literature, the dependency on foreign inputs continues.

# The search for autonomy through defence industrialization - focus on the case of Turkey

Defence industrialisation is primarily a means to increase military power and to follow a more independent foreign policy. During the interwar years of the 1920s and 1930s, Turkey's defence industrialisation was motivated by the legacies of the late Ottoman period. Having become almost entirely dependent on foreign arms suppliers at the turn of the 20th Century, the Ottomans slowly lost their autonomy in foreign policy. Decision and policymakers of the New Turkish Republic had no intention to fall in the same trap. Following two decades of absolute dependence on the grant aid of US-made weapons, the 1964 Johnson Letter and the 1975 US arms embargo over Cyprus acted as wakeup calls and galvanised Turkish leadership's fears and determination in this respect. Those two events stand out as the occasions to have increased Turkey's fear of abandonment, and to have motivated Turkish defence industrialisation towards the self-sufficiency goal (Mevlütoğlu et al. 2024, 7). While Turkey desired to expand its defence industrial capabilities, in retrospect the nature of international politics shaped and determined the options available to Ankara.

From the perspective of the states aspiring at building up their defence industrial capabilities, the international system determines what could be achieved and alongside which partners. For instance, during the interwar years of the 1920s and 1930s, the international system was ripe for finding partners willing to help Turkey build its defence industry. Yet, while Turkey wanted to create a self-sufficient defence industry, the dire economic circumstances of the country after many years of incessant war, as well as its lack of industrialisation were considerable impediments to developing a robust national defence industry (İşler 2021, 21). Thus, Turkey had to find willing partners, not only to sell itself arms, but also to invest in Turkey's schemes for defence industrialisation.

The multipolar nature of the international order during the interwar period provided Turkey with the needed flexibility in finding willing partners. Noteworthy enough, Britain and France were not interested in supplying arms to Turkey due to a multitude of political issues – from the Mosul dispute with Britain to the delimitation of the Turco-Syrian border with France (Hale 2013, 42, 50), and the their lack of trust towards the fragile government in Ankara. This hesitation allowed Italy, the Soviet Union, and Germany to step in as willing suppliers and partners. While Turkey procured weapons from Italy (Barlas and Güvenç 2002; Güvenç and Barlas 2003) and the Soviet Union (Chamberlain and Ellis 1972, 240; Ness 2002, 227), Germany stood

out as the most willing partner. In this sense, the German connection was evident in Turkey's early arms production capabilities. Among German companies to have been involved in Turkey's small arms and ammunition manufacturing were Rheinmetall, Mauser, Nielsen Winther, and AEG (Egeli et al. 2024, 7). Turkey also invested in aircraft-building capabilities with the help of the Germans. Famous German aircraft builder Junkers set up an assembly plant in 1926 in Kayseri in an attempt to preserve German know-how on military aircraft development and production, because the latter were banned under the Versailles Treaty. The venture (TOMTA\$) ended in failure a decade later mostly for financial reasons (Braatz 1974; Braatz and Simon 1975). Yet, the factory continued to live under different owners and survived up until today as an aircraft maintenance facility under the umbrella of the Türk Silahlı Kuvvetleri (TSK - Turkish Armed Forces) (Yavuz 2013, 37-38).

While Germany remained an important partner, by the late 1930s, the power balance in Europe was shifting, and new partners emerged (Gulmez 2017). On the eve of the Second World War, Ankara could find a pro-status quo European power willing to sell arms to Turkey under generous credit terms - namely Britain which began figuring more prominently in the transfer of arms to Turkey. Britain helped Turkey revive aircraft manufacturing capability with the licensed assembly of Miles Magister trainers at MKE's aircraft factory in Ankara (Yalçın 2013, 147). Yet, while Turkey had made significant progress during the interwar years, its defence industrialisation slowed down and came to a near halt during and after the Second World War.

In this sense, the bipolar international order to have emerged after the end of the Second World War severely limited Turkey's options and forced Ankara to make hard strategic choices on its foreign and defence policies. During the war, Turkey had followed a policy of active neutrality that kept diplomatic and economic channels open with both sides while avoiding active participation in the conflict (İnanç 2006). During the early years of the war, Allied powers were relatively comfortable with Turkey's neutrality. However, as the tide turned, they pressed Turkey to take a more active part. Turkey procrastinated until it was sure Germany would be defeated and could thus not retaliate. This stand frustrated the Allied powers, which resulted in Turkey's isolation in the immediate aftermath of the war (Hale 2013, 75-77). Such isolation increased Turkey's apprehensions, especially from the Soviet Union.

Given that Turkey's economy was severely affected by the war and all it possessed were obsolete weapons, the Soviet demands on the Turkish Straits and two of Turkey's northeastern provinces compounded Turkish concerns (Isci 2023). Based on this perceived threat, Turkey shifted its resources to build up its economy and infrastructure, while depending on the American grant aids for military hardware. Additionally, Turkey's domestic scenery, marked by the transition from one-party rule to multiparty politics in May 1950, rendered a reshuffling of public funds away from the military to satisfy the economic needs of the electorate. The only choice for the newly elected Democratic Party was, thus, to rely totally on the US military assistance to equip and sustain Turkish armed forces. This process would spell the slow death of Turkey's fledgling domestic arms industry (Ermiş and Gümüşel 2023; Guvenc and Uyar 2022). Yet, under these circumstances, maintaining a modicum of defence industrial capability seemed the only possible defence policy to follow. In doing so, Turkey sacrificed its autonomy, a decision it later regretted.

Turkey's dependency on the United States on arms was not a problem until the United States abandoned Turkey in one of Ankara's most critical foreign policy quarrels. Against the background of the 1963–64 Cyprus crisis, US President Johnson sent a very strongly worded letter to the Turkish Prime Minister İsmet İnönü to dissuade him from intervening militarily in the ongoing inter-communal violence on the island. His letter served as a harsh reminder to Turkish decision-makers that Turkey could not employ US-supplied arms and equipment for non-NATO contingencies, such as the one in Cyprus. The Turkish Prime Minister had to backtrack under the circumstances (Bolukbasi 1993, 517). Turkey realised that its allies might not help it pursue its national interests. Hence, diversification of its arms suppliers and re-investing in the national defence industry emerged as the only way in gaining its autonomy and reducing the impact of external pressures on its foreign policy. However, not much was achieved during this period of the mid-1960s and early 1970s as Turkey struggled to find necessary financial resources. Moreover, domestic political turmoil prevented adoption of a clear path for defence industrial development (Mevlütoğlu 2016).

In July 1974, when the junta in mainland Greece orchestrated a coup d'état in Cyprus, Turkey interpreted this as a clear move towards the island's eventual annexation by Greece. Turkey was unable to persuade the United Kingdom to intervene as one of the three legitimate guarantors of the constitutional order on the island, so it felt obliged to initiate a military operation all by itself (Özdamar and Erciyas 2020, 470). While the initial phase of Turkey's military intervention was justified by the treaties to have constituted the Cypriot Republic (Hughes-Wilson 2011, 86), the second phase to have followed roughly a month later was widely condemned by the international community, leading to significant diplomatic repercussions against Turkey. One of the harshest responses came from the United States, which did impose a comprehensive arms embargo on Turkey in February 1975 (Goode 2020). This embargo halted all US grants, credits, and sales of military equipment to Turkey, severely affecting the operational capabilities and readiness of the Turkish armed forces. The Turkish Air Force, heavily reliant on US hardware and spare parts, was hit particularly hard. The serviceability of combat aircraft, capital naval vessels, armoured vehicles, and communication equipment deteriorated rapidly. The crisis underscored the need for Turkey to develop its national defence industry to support its foreign and defence policies in line with national interests (Güvenç and Özel 2022, 528). In this sense, the US arms embargo of 1975 sharpened Turkey's resolve to build a solid national defence industrial base. While some major defence companies, such as ASELSAN and ASPILSAN, were founded immediately after the arms embargo, the more visible and effective push for comprehensive defence industrialisation began in the 1980s, coinciding with yet another shift in the international order.

Turkey's defence industrialisation from the 1980s onwards was facilitated by the end of détente between the United States and the Soviet Union, thus increasing the number of Western partners willing to assist Turkey's defence industrialisation. Once again, the defence autarky became the ultimate goal of Turkish defence industrialisation from the 1980s onwards (Official Gazette 1983, 1998). It should be noted that the military coup in 1980 enabled the Turkish military to overcome domestic political and institutional impediments to the launch of a very ambitious armaments program before transferring power to the elected civilian government. The program the military devised was beyond

what Turkey could afford economically at the time, posing a serious challenge for the subsequent governments. Rather, similarly to the earlier period of Turkish defence industrialisation during the 1920s, foreign help was seen primarily as a stepping stone towards reaching defence autarky. As a reflection of the circumstances and power distribution within the international order, the United States emerged as the leading partner in Turkish defence industrialisation efforts.

However, in contrast with the previous eras, starting in 1983, Turkey adopted a more effective defence industrialisation strategy based on the joint venture model. This approach created a framework for Western defence manufacturers to collaborate with Turkish private sector investors, by bringing in the necessary technology and capital to co-produce their products in Turkey. Through these joint ventures, Turkey quickly accessed technology and expertise from leading American and European defence contractors in areas such as fighter aircraft, armoured vehicles, radios, radar, and electronic warfare systems. This new approach enabled the Turkish defence industry to accumulate experience, adopt advanced manufacturing techniques, and develop critically important and often neglected project management skills. The joint venture model was further supported by the creation of novel institutional and bureaucratic structures, along with which Turkey's defence industries underwent a series of strategic administrative, legal and fiscal reforms aimed at streamlining the country's complex and archaic bureaucratic structures and practices, therefore facilitating the implementation of the joint venture model (Egeli et al. 2024, 10-14). Administratively, a new state agency, the Undersecretariat for Defence Industries (SSM), was established in 1985 to manage largescale defence hardware programs, award and handle contracts, and oversee production and delivery (Official Gazette 1985). SSM's role expanded over time to include managing, planning, and financing the entire defence industry, as well as promoting and coordinating defence R&D activity, implementing offset trade, and promoting defence exports. SSM has become ever since the cornerstone of Turkey's defence industrialisation and its quest for self-sufficiency. Maintaining and advancing defence industrial capabilities has been a consistent and unwavering policy priority for every government since then. The new defence industrialisation strategy and the institutional framework laid the foundation for the Turkish defence industries.

From a different angle, the end of the Cold War and the emergence of a new international order gave Turkey more flexibility and new options in the pursuit of its defence and foreign policy objectives. Noteworthy enough, Turkey during that period established defence industrial relationships with suppliers beyond Europe and the United States. First and foremost, from the mid-1990s, Israeli contractors benefited in a major way from Turkish defence acquisition (Defence Weekly 1999) and industrialisation programs until political tensions in 2007 between the two governments abruptly ended Turkish-Israeli defence cooperation. In a more interesting tilt, when Western allies declined to assist, Turkey sought expertise and materials from China to develop ballistic missiles (Isik and Zou 2019, 280). Additionally, Turkey made its first-ever defence hardware acquisitions from the Russian Federation, including utility helicopters, wheeled armoured vehicles, tank tractors, and small arms, as part of a barter deal to settle Russia's outstanding debt toward Turkey (Doğan 1994). In a way, the new international environment enabled Ankara to take advantage of the greater flexibility and multiplying options in its defence relationships. In other words, Turkey could now switch between different suppliers and use defence procurement to support its foreign policy objectives – a policy line reminiscent of the "contracts-for-compensation" practice of the Ottomans a century ago (Noppen 2015). In hindsight, this increased flexibility enabled a complementary and reinforcing relationship between foreign policy, defence acquisition, and defence industry. Towards and during the 2000s, not only the circumstances of the international system, but also Turkey itself was going through yet another profound transformation.

The AKP's electoral victory in 2002 ushered in a new phase of Turkish defence industrialisation. AKP's commitment to economic liberalisation and its persistent and patient efforts to tame and marginalise TSK - in which they saw a secular arch-rival and existential threat - provided a new impetus for the SSM and Turkish defence industry. Under the AKP rule, Turkey continued to seek self-sufficiency, but with a slightly altered defence industrialisation model (Egeli et al. 2024, 16).

The model adopted was different from the previous two decades of joint venture company and transfer of technology-based recipes. Instead, the appointment in 2004 of a new head to SSM - for the first time, a former SSM employee with defence industry background - heralded the beginning of what the Turkish government called the period of "indigenous solutions" (Military Technology 2004). This implied the development by Turkish private- and public-sector contractors of new defence products employing ample R&D funds furnished by the SSM. The aim was to break free of the dependence on foreign suppliers and their capricious governments. Additionally, defence solutions to be developed indigenously were hoped to provide a free hand in international defence markets, hence attracting sizable export orders for Turkish defence products. Participation in international programs and consortia was yet another tenet of the new SSM strategy (SSM (2007); 2009), but one to have failed dismally during this new period.

Although foreign partnerships have worked well in rebuilding the Turkish defence industrial capabilities, when things came down to transferring cutting-edge, sensitive technologies to enable Turkish partners to gain autonomy and take a leap forward, foreign partners and/or their respective export control authorities were seen to be uncooperative or outright obstructive. For example, the United States did not allow Turkey access to the software source codes and threat library of the self-protection suites supplied for Turkish F-16s (Cakirozer 2003). Thus, Turkey focused more on indigenous solutions, decreasing international cooperation and increasing costs and production time. Yet, the international system during the early 2000s was favourable for the indigenisation of foreign technologies.

Fortunately enough, the 2000s coincided with the most favourable and relaxed security environment for Turkey in centuries: Partiya Karkeren Kurdistane (PKK - the Kurdistan Workers' Party) threat was contained; building upon the mutual earthquake gestures, a new chapter of rapprochement with Greece was underway; given its abysmal economic and political conditions, Russia was not in a position to challenge Turkey; the U.S. had just eliminated the Saddam threat and also restrained Tehran in the process; and a thaw was underway with the Syrian regime as well. This was, in retrospect, the period of threat deficiency and peace dividends for Turkey. Yet, instead of cutting back defence spending, Ankara took advantage of it to invest in developing indigenous products whose deliveries could conveniently be deferred (Egeli et al. 2024, 16).

The abundance of funds in international markets and the subsequent boom in direct foreign investment also contributed. Similarly, the imperative for full commitment of the political authority to the burdensome endeavour of developing defence industries was undoubtedly present in the successive AKP governments, owing not only to the geostrategic deliberations, but also to the Prime Minister Erdoğan's personal fervour and fascination with capital defence equipment. In other words, his uninterrupted tenure translated into a strong and consistent political will behind defence industrialization for the first time in Turkey.

Throughout the 2010s, Turkey's multiple development projects aimed at coming up with indigenous designs and products continued to mature and produce their first concrete results. The platform and system solutions that became available as such provided the Turkish military with cutting-edge capabilities tailored to its needs. As Turkish defence industry capabilities expanded, so did the range of products Turkey could offer to overseas customers. Turkey was now developing or producing various weapons systems, from 5th-generation fighter planes to utility helicopters, corvettes to main battle tanks and uncrewed systems, and different defence equipment and technologies, such as guided munitions and electronic warfare and radar systems. As the capabilities grew, an increasing number of the Turkish weapons systems became operational and combat-proven, which increased their attractiveness.

The successful use of Turkish weapons in combat zones increased its attractiveness due to the demonstration effect. Wars serve as key demonstration platforms for weapons systems, showcasing their performance, tactical applications, combined use with other technologies and systems, and adaptability in various combat environments, which reduces uncertainty and attracts international buyers. The Turkish Bayraktar TB2 UAV exemplifies this, proving the effectiveness of mid-tech drones against both nonstate actors and advanced military systems in conflicts like those in Libya, Syria, Nagorno-Karabakh, and Ukraine. Its success not only altered air power strategies but also highlighted how affordable UAVs can provide cost-effective access to precisionguided weapons, driving a global trend toward mid-tech drones as an alternative to expensive traditional aircraft (Kurç 2024, 382, 389; Rossiter and Cannon 2022, 5-11; Calcara et al. 2022, 149-69). Thus the visibility and credibility of Turkish defence industries in the international arms market grew.

In relation with defence exports; Turkey's defence industry acquired a critical mass during the late 1990s in the direction of becoming not only a recipient but also a supplier of arms in the international markets. Throughout the 1990s, Turkish defence contractors sought to increase their footprint in regions and states of greater interest for Turkey. For instance, Georgia and Azerbaijan began receiving significant military training, technical assistance and excess defence items from Turkey. Azerbaijan, in particular, became a leading customer of Turkish defence products. In the Middle East, the United Arab Emirates (UAE) became the first major customer of Turkish defence products and services through its orders of reasonably large quantities of tracked armoured vehicles, artillery rockets, and patrol boats, as well as training support for transitioning to F-16 fighters purchased from the U.S. Yet, Turkey's moment in the international arms market came in the 2010s and 2020s. Qatar, as Turkey's closest ally in the Middle East, became the first client of Turkish-made drones in 2012. Ukraine followed the suit as the second international customer of the same in 2019. In 2020, Libya and Azerbaijan acquired TB2 drones in undisclosed quantities. Tunisia signed a contract for Anka-S drones, followed by reports of Morocco ordering Bayraktar TB2s. Additionally, Hungary expressed interest in Turkish drones, alongside contracts signed with Poland and Romania. The export successes of the Turkish defence industry contributed to AKP's domestic standing.

The AKP governments realised the potential of such fancy gadgets in mobilising the public and gaining their admiration and support. Turkish defence products have increasingly been showcased in AKP's election propaganda works and election programs. The domestic arms which were introduced in quick succession did strike a chord with the Turkish public. Such a strong connection between the public and domestic arms has cemented the AKP leadership's commitment to the defence industry. The failed coup attempt in July 2016 marked a turning point as a militarist mindset, pumped and promoted by the ruling political elite, gradually prevailed in the Turkish public. The coup attempt represented an existential threat to the country. For survival, the country hence needed a strong military supported by a robust national defence industry according to this mindset. A succession of crossborder military operations into Syria helped consolidate this highly militaristic mindset. However, militarization of domestic politics and foreign policy shortly took its toll economically in the form of rising food prices. In response to the public outcry, Erdoğan, then, "urged the voters to focus on the price of a 'bullet,' not food" (Bloomberg, February 8, 2019).

In addition, increased defence industrial capabilities and arms exports further encouraged the investments in, and the expansion of, the Turkish defence industry (Bağcı and Kurç 2017, 54-57). This resulted in an uncontrolled growth in Turkish defence industrialisation despite the warnings in the strategic documents about duplicating the capabilities, products and their manufacturers. Despite the success on the surface, Turkish defence industrialisation has arguably reached its limits. It would now be forced to tackle with its mismanaged (or uncontrolled) expansion and the consequences of Turkey's economic crises and financial meltdown in the recent few years.

#### **Limitations of Turkish Defence industrialization**

Despite significant improvements in defence industrial capabilities, Turkish defence industrialisation also suffers from a series of problems culminating from structural, political, and economic factors. The early years of defence industrialisation had to endure civil-military rivalry. While Turgut Özal who came to office in 1983 strove to increase civilian control over defence industrialisation, the military jealously guarded their control over the arms production and procurement. Thus, the SSM emerged as a compromise between civilian and military control, though it represented a significant shift away from military's domination. Despite the compromise, the military sought to restore its exclusive authority. This has resulted in institutional duplication and jurisdictional complications. Furthermore, the military, through Turkish Armed Forces Foundation-affiliated companies, continued to exert indirect control over the defence industrial production and planning. This has resulted in a constant tug of war between the civilian and military bureaucracies. At one point in time, the military sought to decapitate SSM and transfer its functions and responsibilities to the Milli Savunma Bakanlığı (MSB- Ministry of National Defence). The latter has traditionally been an entity staffed by active-duty military officers tasked with rubber-stamping decisions made by the Turkish Armed Forces'

General Staff HQ. The military's attempts to reinstate its control over defence industrialisation and procurement reached its peak in late-1990s. However, the friction became irrelevant with the ascendance to power of AKP in 2002 (Kurç 2017, 266-70). All in all, the consequent in-fighting was responsible for inefficiencies and delays in defence programs, and waste of limited financial resources.

Turkey has limited financial resources like other emerging states. Consequently, it has a relatively modest domestic defence market in scale. The Turkish economy experienced several crises during the 1990s, which forced Turkey to scale down its ambitious defence procurement programs (Rivers 1999). With the help of economic restructuring programs and an abundance of credits, the Turkish economy experienced a boom in the early 2000s. This did positively reflect on defence industrialisation, as the economy's growth allowed the government to spend more on defence projects. During this period, Turkey constantly increased its defence spending and the number of indigenous defence programs. However, Turkish defence spending was severely affected by the currency and debt crises once more from 2018 onwards, which resulted in a 40% depreciation of the Turkish Lira during 2018 (Aliriza and Yekeler 2019). The financial prospects further deteriorated during and after the COVID-19 pandemic, and finally, a massively destructive earthquake hit the nation in early 2023. Inevitably, though it continued to increase in Turkish lira terms, Turkish defence spending has shrunk in US Dollar terms (SIPRI 2024). Especially in the post-COVID environment, small and medium enterprises that were sub-contractors of the major companies raised the warning flag on postponed payments by the main contractors and the consequent debt burden that they were forced to shoulder (SASAD 2018). In short, the impact of financial strains over defence spending began jeopardising the sustainability of the Turkish defence industry as a whole. In response, the government began to increase spending on defence and security in both Turkish Lira and US Dollar terms in 2023. Still, the ratio of defence spending to the GDP remained lower (1.5% in 2023) than the previous decades (SIPRI 2024). This has once more validated the imperative to divert resources to other areas, and the Turkish decision makers do not have the freehand to keep spending on the defence industry as much as they wished. This observation raises questions about the sustainability of the Turkish defence industry, especially regarding the expansion of the industry irrespective of superlative and consistent policies, regulations, and strategic targets.

In this sense, the increased interest in the defence industry, its successes, and the overall push for defence autarky resulted in an uncontrolled expansion of the Turkish defence industries through the entire spectrum of product and technology domains. Such growth is understandable when the ultimate goal is reaching defence autarky. On the one hand, the sector was not devoid of carefully written strategy documents describing the directions and the ways Turkish defence industries would expand. The strategy documents also aimed to limit the duplication of capabilities and encouraged new entrants to invest in new capabilities. Furthermore, the same strategy documents also aimed to limit the number of prime contractors within respective sectors (SSM 2009). However, those strategies were not or could not be followed through. The Turkish defence industry in the 2000s and 2010s expanded very fast, and this expansion gave rise to multiple duplications in the investment and capabilities. While such duplications and redundancy could be seen as part of efforts to create a highly competitive industry, in some sectors, Turkey went beyond what was deemed as a healthy competitive environment in its own strategy

documents. For example, in the 2009-2016 Defense Industry Sector Strategy Document, the land systems sector strategy foresaw the creation of a sustainable land system sector, in which the SSM would take necessary precautions to prevent replication of already existing capabilities and focus on improving existing infrastructure and capabilities (SSM (2009), 22).

However, in reality just the opposite happened and currently, there are six different armoured vehicle manufacturers (FNSS, BMC, Otokar, Nurol Makina, Katmerciler, and Tümosan) offering identical or similar products. This number is in fact smaller in other countries with much larger defence spending and with larger, more versatile and diversified defence industrial infrastructure than that of Turkey's. To better illustrate the point, all these companies produce tactical wheeled armoured vehicles: FNSS Pars 4 × 4, BMC Amazon 4 × 4and Vuran, Otokar Cobra I and Cobra II, Nurol Yörük and Ejder Yalçın, Katmerciler Hızır 4 × 4, and Tümosan Pusat. Interestingly, except for Pusat, Turkish military simultaneously commissioned all these tactical-wheeled armoured vehicles. Similar trends can also be observed in other areas, such as naval shipbuilding, aircraft engines, and uninhabited systems (Kurç 2024, 385). Given the relatively small size of the domestic defence market, Turkish defence companies, especially in the areas with high levels of duplication, would struggle to survive without the economies of scale.

The history of overly ambitious deadlines and challenges transitioning from prototypes to serial production compounds the problem of the cost efficiency of defence production. For instance, the Altay Main Battle Tank project, initiated in 2004, aimed to deliver 15 tanks by 2020 but only handed over two tanks in April 2023, with a serial production agreement just signed in 2024 (Fiorenza 2024). Delays stemmed from selecting an inexperienced prime contractor, BMC, who had no experience producing tracked armoured vehicles and was not the tank developer, and Germany's refusal to supply engines and transmissions, forcing Turkey to seek alternatives (Domingo 2024). Similarly, the 105 mm Boran Howitzer project began in 2008, with testing planned for completion by 2020; deliveries started in 2022, and serial production followed in 2023 (Yiğitoğlu 2023). The TF2000 frigate project, launched in 2007, remains incomplete despite an expected completion in 2021 (Çavdar 2024). The HavaSOJ electronic warfare aircraft project, initiated in 2009, faced delays, with temporary acceptance anticipated in 2025 and full mission capability projected for 2026 (Tanış 2023). These examples highlight systemic issues in meeting timelines for defence projects and increasing costs.

To increase the sustainability of the Turkish defence industry, Ankara encourages Turkish companies to focus on the international markets and increase arms exports (SSB 2023). Indeed, Turkey has been steadily increasing its arms exports in recent years, which is a positive development for Turkish defence industry's sustainability. However, in highly saturated sectors, the companies, more often than not, compete for the same export opportunities (Kula 2023). This is not only a problem for the sustainability of these companies, but also a problem for achieving economies of scale. While there is little information about the unit cost of most Turkish weapons systems, there have been signs that reaching economies of scale may become a problem. For example, Turkish 5thgeneration fighter KAAN is expected to be more expensive than its foreign competitors due to the high cost of investment in the infrastructure and non-recurring costs. However, the unit cost would decrease if Turkey manages to find export customers for KAAN (Ozberk 2024, 85). Reaching economies of scale becomes even more difficult at the level of sub-systems and components. For example, the Turkish Kaan fighter currently relies on General Electric's F110 engine. Turkish officials aim to transition to a domestically produced engine, expected to be ready by 2028, with additional time required for certification. Until then, Turkey plans to continue using American-made engines, while also in talks with British Rolls-Royce for a new engine (Istanbul Ticaret 2023; Newdick 2024). All those factors create strong pressure on Turkish companies and the government alike to seek keenly for export opportunities in international markets.

One obvious way to overcome this impasse is to sell more weapons systems and endproducts abroad, which Turkey already aims for. The other is to integrate Turkish defence companies into foreign supply chains. This would help Turkish companies broaden their customer base in the international markets. Such integration could also allow Turkey to use readily available foreign technologies in a manner decreasing the unit costs, though this would also mean Turkey would have to continue depending on others for specific technologies and items. This is the very predicament that Turkey had tried, though unsuccesfully to escape.

In the current state of Turkish defence industrialisation, the dependency on foreign inputs persists, though to a lesser degree as compared to 10 or 20 years ago. As the Turkish defence industry's production capabilities increased, the nature of its dependency on foreign inputs changed, too. Turkish dependency has shifted from major systems level toward sub-system and component levels. Several SASAD reports prove that Turkish companies continue to import in large volumes from foreign sources (SASAD 2023, 2022, 2021, 2020).

Enduring dependence on foreign inputs and financial limitations are slowly changing the Turkish defence industrialisation policy. There is a recognition that the search for absolute defence autarky may be futile. Thus, the discourse has been shifting in recent years towards increasing indigenous technologies in main platforms and weapons systems. During a press conference, SSB President Haluk Görgün explained that the agency estimates and reports the localization rate in financial terms, highlighting that Turkey currently fulfils 80% of its needs domestically, with the remaining 20% being foreign inputs, primarily for subsystems and a few platforms. He emphasized that while achieving 100% local and national production is significant, the broader goal is to establish systems that allow products to be utilized freely, without requiring external approval or facing restrictions when needed (Yıldırım et al. 2024). A subtle acceptance of the continuing existence of foreign inputs but inputs that would not hamper Turkey's use of these systems. Yet, it is not surprising to see that defence autarky discourse will survive this shift.

### Securitising the source of domestic prestige

A basic discourse on which successive AKP governments have drawn their legitimacy has been their claim of being far more successful than their predecessors. The visible and concrete objects that enable this discourse to penetrate the minds of the public are symbolic structures. These symbolic structures ranging from double-lane highways and large city hospitals to new bridges and a new and giant international airport for the city of Istanbul, are primarily in the construction sector. Another sector creating symbolic products for the successive AKP governments has been the defence industry.

Weapons systems produced by the defence industry have been presented as revealing the country's technological capabilities and became as such the symbols of the country's increasing military power and its strategic autonomy (Cooper 2011, 137-38). The discourses such as fully independent Turkey and a strong army equipped with national weapons systems encompass a strong nationalist appeal. In this regard, the AKP's emphasis on the defence industry became more pronounced after 2010 and began to take up more space both in the party program and in the officials' public discourses.

Defence industry, which has always been an important field for the AKP, was seamlessly incorporated into the portrayal of AKP's success story. While the defence and defence industry was addressed within the context of cooperation with the European Union in the 2002 General Election Manifesto of the AKP (AKP 2015a, 90), defence became a part of the election campaign under a separate title in the 2007 Election Manifesto. With the 2007 Manifesto, it is possible to identify traces of an emerging defence industry discourse that will become more profoundly pronounced in the following periods (AKP 2015, 209). However, it is possible to contend that the discourse used between 2007 and 2010 was more modest than the one subsequent to 2010. Starting with the 2011 manifesto, what is being observed is more frequent use of the "domestic and national" discourse in the defence industry (AKP 2011, 56). This discourse has become an essential tool for the AKP to integrate the defence industry and eye-catching weapons produced as such into its success story. In addition, statistics on the ratio of locally produced weapons within Turkey's overall defence equipment acquisitions were pushed forward to measure and substantiate AKP's success in the defence and defence industry fields. In this sense, the "local and national" discourse shows directly the difference between the AKP and its predecessors, and elevates the AKP above its predecessors and in terms of instrumentalizing the defence industry to stay in power. In the defence industry, this discourse is embodied in the AKP's distinction between "before us" and "after us" (Haber 2011; Cumhurbaşkanlığı 2016; Medya Ege 2018). Indeed, such characterisation fits perfectly in AKP's overall political discourse of differentiating the AKP from the preceding periods and governments, and it has become as such one of the crucial tools used to gain and preserve public support. Public opinion reflects a strong belief in the need for Turkey to achieve self-sufficiency in defence production, coupled with concerns about external efforts to hinder this progress. According to a survey by Areda, 37.4% of respondents emphasized the importance of eliminating dependencies for a competitive defence industry, while 76.8% believed that foreign states actively work on obstructing Turkey's defence industrialization. The United States was identified as the primary actor in these efforts by 77.3% of participants. These findings highlight how the AKP's narrative has influenced public perceptions, fostering a sense of threat to the country's defence industry (Areda 2019). Yet, nothing is perfect.

As the limitations of the goal of full autarky in the defence industry became evident, and as the tone and intensity of the criticism increased, cracks in the established discourse began to emerge. Like it does in several other domains, AKP is increasingly securitising the defence industry to avoid and negate any criticism. In other words, AKP has carried the defence industry to a supra-political level and equates any criticism of the sector as being threats directed at the survival and security of the country. Put it differently, by resorting to a security and national survival-laden language, the AKP leaders are trying to exempt the defence industry and in fact themselves from any and all kinds of criticism. As such,

the defence industry and therefore the AKP, are given impunity. Critics are presented as traitors and enemies of state and nation trying to impair development of not only the defence industry, but also the country. Even for those criticisms confined to the technical sphere, the critics are still subjected to AKP's hostility, because every criticism made against the "local and national" products is portrayed as an attack on the industry, therefore an attack on the positive image of the AKP in the eyes of its devout supporters (Anadolu Ajansı 2015; İletişim Başkanlığı 2019; CNN Türk 2019; SDE 2021).

One of the implications of the securitisation of the defence industry is the resulting obstruction of any discussion or deliberations on the need to modify or alter the current defence industry policy aimed at achieving defence autarky. The more the success of defence industrialisation is linked with independent foreign policy and increasing military strength of the country, the more difficult it becomes to change the associated public discourse. In such an environment, altering the discourse would be unequivocally equal to admitting the limits and shortfalls of the unquestioned goal of defence autarky. Likewise, admitting that a certain degree of dependency on others is inevitable becomes self-defeating. Such a shift and admission would go against the public image that AKP has carefully constructed of itself over the decades. While at the level of implementation and hidden within the comments of defence industry officials is a general acceptance of the limits of the defence autarky goal and a slow shift towards a more cooperative defence industrialisation stand more recently, complete independence and further increasing the ratio of domestic products within Turkey's defence acquisitions persist unabated at the discourse level. The problem with the insisting on such discourse of defence autarky and securitisation of defence industries is that it is difficult to have an open debate about the sector and formulate sound and realistic defence industrialisation policies for the future.

#### Conclusion

Turkey's defence industrialisation is primarily motivated by the desire to increase the country's military power and to follow a more independent foreign policy. Many emerging states share similar motivations when they initiate their defence industrialization. To these ends, Turkish policymakers emphasised self-sufficiency in defence production as a critical goal. While Turkey's defence industrial capabilities have grown, achieving complete autarky remains elusive, again much similar to the cases of other emerging states. Turkey suffers significant financial, structural, and technological challenges, and its dependencies on foreign suppliers, while in decline, continue to affect manufacturing in the defence field. Furthermore, the evolving nature of global defence markets and the inherent complexities of high-tech arms production make it imperative to accept and tolerate a certain level of international cooperation, integration, and interdependence. All those factors notwithstanding, the rhetoric of defence autarky continues to resonate strongly within Turkey and finds its reflection on the broader themes of national identity and political legitimacy.

Noteworthy enough, this insistence on defence autarky is driven not only by practical considerations of national security and foreign policy independence, but also by political and economic gains derived from promoting a narrative of technological prowess and national strength. The securitisation of the defence industry discourse protects the ruling party from criticism by way of linking any opposition to assaults on national sovereignty. This strategic use of defence autarky as a symbol of national pride and resilience bolsters domestic support for the government while masking the underlying dependencies on foreign technologies and partnerships.

Ultimately, the Turkish experience underlines the paradox of defence industrialisation: the quest for autonomy often necessitates strategic dependencies. Balancing these dependencies while striving for greater self-sufficiency will remain a defining challenge for Turkey's defence policy in the future. However, the political and symbolic value of defence autarky ensures that this goal will continue to shape Turkey's defence industrial strategy for the foreseeable future.

Turkey should prioritize reinvigorating its links with the West in foreign policy, focusing on strengthening ties with reliable Western allies like Italy, Poland, Romania, Spain, and the UK, while maintaining its role in NATO. In the defence-industrial sector, Ankara should narrow its focus to areas where it already demonstrates growing expertise in order to avoid overstretching its resources. This strategy must include a robust export framework to manage technology transfers and foster sustainable defence cooperation. Balancing these priorities would mitigate risks and position Turkey as a competitive player in the international defence market.

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#### **Notes on contributors**

Çağlar Kurç is an Assistant Professor at the Department of Political Science and International Relations at Abdullah Gul University and a Research Fellow at the Center for Foreign Policy and Peace Research.

Serhat Güvenç is a Professor of International Relations at Kadir Has University, where he served as International Relations Department Chair and Associate Dean of the College of Economics, Administrative, and Social Sciences. In 2004, he became the first Turkish scholar awarded a fellowship to the West Point Summer Seminar in Military History.

Arda Mevlütoğlu is an astronautical engineer with 20 years of defense industry consulting and a board member of the Institute of Future Research.

Sitki Egeli is an Associate Professor of International Relations at Izmir University of Economics. Dr. Egeli previously worked at Turkey's Undersecretariat for Defense Industries and was a Board Member of TUSAŞ - Turkish Aircraft Industries between 1994 and 1999.



#### **ORCID**

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