

Turkey: Offense-Defense Asymmetry and the Construction of Defense-Political Dependence. A Study on Drone Diplomacy

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Abstract: The proliferation of unmanned aerial vehicles (UAVs) has democratized precision-strike capabilities, enabling middle powers to project asymmetric influence. While existing scholarship often attributes Turkey's burgeoning drone diplomacy to Neo-Ottoman ambitions or opportunistic export promotion, these frameworks primarily address strategic motivations rather than the underlying mechanisms of geopolitical success. This article argues that Turkey leverages the offense-defense asymmetry (ODA) inherent in its combat-proven drones to translate transient tactical battlefield victories into structured defense-political dependence. Employing process tracing and cross-case comparison, the study analyzes three distinct regional arenas. It demonstrates how Turkey's asymmetric interventions systematically generated an alliance-building network in the Caucasus, a resource-exchange network in Africa, and a conflict-mitigation network in the Middle East. Ultimately, this article concludes that, rather than broadly reconfiguring the macro-level regional order, Turkey has astutely exploited a technological window to alter localized balances of coercion and patterns of defense-market dependence. However, the sustainability of these diplomatic networks remains inherently constrained by significant macroeconomic vulnerabilities and normative limitations.

Keywords: Turkey, middle power, offense-defense asymmetry (ODA), drone diplomacy, structured dependence, process tracing.

Introduction

The proliferation of intelligent military technologies has profoundly recalibrated regional security dynamics and the character of contemporary warfare. Among these innovations, unmanned aerial vehicles (UAVs)

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have emerged as a disruptive force, fundamentally altering the traditional offense–defense balance (Biddle, 2021; Horowitz & Pindyck, 2023). Empirical evidence from recent local conflicts suggests a structural shift: constructing robust defense architectures has become disproportionately complex and resource-intensive compared to acquiring offensive strike capabilities (Glaser & Kaufmann, 1998; Lieber, 2019). Consequently, the mastery and operational integration of advanced UAVs have become essential instruments for states — particularly middle powers — seeking to overcome traditional capability deficits and project asymmetric power (Gilli & Gilli, 2019; Singer, 2009).

Despite lacking the defense-industrial base of a traditional great power, Turkey has adeptly capitalized on this technological window. Through the deployment of its Bayraktar TB2 drones in active conflict zones, Ankara has demonstrated how a middle power can leverage technological innovation to achieve outsized geopolitical influence (Rossiter & Cannon, 2022). However, rather than relying on the ambiguous and overly broad concept of regional order reconfiguration, this article advances a more precise and empirically testable argument: Turkey leverages the offense-defense asymmetry (ODA) inherent in its combat-proven drones to translate transient tactical battlefield successes into structured defense-political dependence across distinct regional arenas.

This raises a central research question: How exactly does a middle power convert tactical military advantages into enduring structural influence? Existing literature frequently attributes Turkey’s assertive posture to Neo-Ottoman ambitions, the pursuit of strategic autonomy, or opportunistic defense export promotion (Kasapoğlu & Özkaraşahin, 2022; Rossiter & Cannon, 2022). While these alternative frameworks elucidate Ankara’s motivations, they fail to explain the underlying mechanisms that enable a resource-constrained middle power to achieve such outcomes. To address this gap, this study employs ODA theory and process tracing to investigate the causal dynamics driving this transformation. In this context, structured defense-political dependence is operationalized as a target state’s institutionalized reliance on Turkey for tactical strike capabilities, military training, equipment maintenance, and geopolitical backing — a reliance typically formalized through exclusive bilateral treaties or strategic resource concessions.

To substantiate this argument, the article proceeds in four parts. First, it establishes the theoretical framework of offense-defense asymmetry, demonstrating why ODA provides a superior explanatory model for Turkey’s network formation compared to alternative theories. Second, employing process tracing, it examines three distinct regional arenas — the Caucasus (Nagorno-Karabakh), Africa (Libya and Somalia), and the Middle East (the Gulf) — to illustrate how Turkey’s asymmetric interventions systematically generated three typologies of dependence: alliance-building, resource-exchange, and conflict-mitigation networks. Third, a systematic cross-case comparison is conducted to validate this causal mechanism. Finally, the article addresses the strategic vulnerabilities, security dilemmas, and paradoxes inherent in Turkey’s drone-centered diplomacy, offering a nuanced assessment of middle-power technological agency.

Theoretical Framework:

Offense-Defense Asymmetry and Middle Power Empowerment

UAVs and the shift in offense-defense asymmetry

The offense-defense balance (ODB) constitutes a foundational pillar of neorealist security studies. Originally articulated by Robert Jervis and further refined by Glaser and Kaufmann, the theory posits that the likelihood of conflict and the intensity of the security dilemma are largely contingent upon whether prevailing military technology and geography favor the attacker or the defender (Glaser & Kaufmann, 1998; Jervis, 1978). The core metric of this asymmetry is the relative cost-exchange ratio: when it is significantly cheaper to destroy an adversary's forces or seize territory than to defend against such actions, the offense holds the advantage. Historically, achieving air superiority and conducting precision strikes required prohibitive investments in manned fighter jets, advanced training, and complex logistical support, thereby inherently favoring the defense for states lacking great-power resources. However, the proliferation of unmanned aerial vehicles (UAVs) has catalyzed a structural shift in the offense-defense asymmetry (ODA), democratizing offensive airpower and disproportionately empowering middle powers (Scharre, 2018).

The Turkish Bayraktar TB2 exemplifies this offensive shift by operationalizing three critical asymmetric advantages: low cost, low observability, and integrated intelligence, surveillance, reconnaissance (ISR), and strike capabilities. First, the TB2 fundamentally inverts the traditional cost-exchange ratio. With a unit cost that is only a fraction of that of conventional manned aircraft or advanced surface-to-air missile (SAM) systems, the loss of a drone is tactically and politically acceptable for the attacker (Kasapoğlu & Özkaraşahin, 2022). Conversely, for the defender, utilizing multimillion-dollar interceptor missiles to shoot down inexpensive drones constitutes an unsustainable form of economic attrition.

Second, the TB2 exploits the vulnerabilities of legacy air defense networks through its low observability. Characterized by a small radar cross-section (RCS), composite materials, and a slow flight speed, the TB2 is frequently filtered out by traditional Doppler radars, which are optimized to detect fast-moving, high-altitude fighter jets (Bronk & Cranny-Evans, 2020). This stealth-like characteristic grants the UAV persistent loitering capabilities over the battlefield, allowing it to operate largely undetected until the moment of engagement.

Finally, the TB2's integrated ISR-strike functionality (often termed a "hunter-killer" capability) drastically compresses the sensor-to-shooter kill chain. By combining real-time, high-definition optical targeting with precision-guided micro-munitions (such as the MAM-L), the TB2 eliminates the latency traditionally required to relay coordinates from a reconnaissance asset to a separate strike platform (Kasapoğlu & Özkaraşahin, 2022).

Consequently, traditional ground-based air defense (GBAD) systems — such as the Russian-made Pantsir-S1 and S-300 — face an insurmountable "defender's dilemma". Designed to intercept high-value, fast-moving targets, these defensive architectures are ill-equipped to counter persistent, low-observable drone operations (Bronk, 2020). Defenders are forced

to keep their radars active to detect drones, which immediately exposes their positions to anti-radiation strikes or direct UAV targeting. Thus, the TB2 not only drastically lowers the threshold and cost of offensive operations but also imposes substantial financial burdens and high operational failure rates on traditional defensive systems, firmly tilting the tactical asymmetry in favor of the attacker.

Competing theories and the explanatory superiority of ODA

Existing scholarship offers several theoretical lenses through which to interpret Turkey's assertive regional posture and its burgeoning drone exports. Prominent among these are Neo-Ottomanism, which emphasizes Ankara's ideational and historical drive to reclaim influence in former imperial territories; strategic autonomy and defense-industrial policy, which focus on Turkey's domestic imperative to reduce reliance on Western arms suppliers; and opportunistic export promotion, which views drone sales primarily as commercial transactions driven by economic pragmatism (Martins et al., 2023; Rossiter & Cannon, 2022).

While these frameworks effectively elucidate Ankara's strategic intentions and domestic drivers, they suffer from a critical explanatory deficit regarding the mechanisms through which these objectives are realized. Specifically, they fail to explain how Turkey — a middle power constrained by limited financial and conventional military resources — has succeeded in disrupting entrenched regional hierarchies often backed by great powers, such as Russia in Syria, Libya, and the Caucasus. Furthermore, theories such as opportunistic export promotion cannot account for the deep, institutionalized nature of the resulting relationships, which extend far beyond mere commercial transactions into the realm of exclusive defense pacts and geopolitical alignment.

Offense-defense asymmetry (ODA) theory provides the missing causal link between Turkey's strategic intent and its structural geopolitical outcomes. ODA is superior in explaining the formation of these networks for two fundamental reasons.

First, ODA explains the catalyst for intervention. Neo-Ottoman ambitions alone cannot alter a battlefield; rather, it was the specific asymmetric offensive advantage of the TB2 that enabled Turkey to intervene in high-intensity conflicts at a politically and economically sustainable cost (Kasapoğlu & Özkaraşahin, 2022). By neutralizing defenders' costly anti-access/area denial (A2/AD) systems, the UAVs provided the material capability necessary to break military stalemates.

Second, and most importantly, ODA explains the lock-in effect that generates structured defense-political dependence. Unlike the procurement of conventional firearms or unguided munitions, the integration of an advanced UAV strike complex requires a holistic ecosystem. When a target state (e.g., Azerbaijan, Libya's GNA, or Somalia) utilizes this asymmetric offensive advantage to secure its survival or achieve territorial gains, it inadvertently

becomes subject to profound path dependence (Gilli & Gilli, 2019). The continuous operation of these drones relies heavily on Turkish data links, satellite communications, proprietary munitions, software updates, and specialized operator training. Consequently, the recipient state cannot simply “buy and detach”. To maintain the asymmetric advantage that guarantees its security, the recipient is structurally compelled to align politically with Ankara by granting basing rights, resource concessions, or diplomatic backing. Thus, ODA effectively captures how a tactical technological advantage can translate into a structured, long-term political-military hierarchy.

Constructing the Causal Mechanism

Building upon the Offense-Defense Asymmetry (ODA) framework, this article constructs a four-stage causal mechanism to explain how Turkey translates transient tactical advantages into enduring geopolitical influence. This mechanism serves as the analytical template for the subsequent process-tracing case studies.

Stage 1: The Initial Condition

The process begins when a target state or faction faces an acute security crisis, an entrenched military stalemate, or an unsustainable defensive burden against a conventionally equipped adversary. In this phase, the target state lacks the indigenous capability or financial resources to overcome the adversary’s anti-access/area denial (A2/AD) systems or conventional ground forces.

Stage 2: Asymmetric Intervention

Turkey introduces its UAV strike complex (primarily the Bayraktar TB2) into the theater. By exploiting the low-cost, low-observability, and precision-strike attributes of the drones, the intervention abruptly shifts the local offense-defense balance. The UAVs systematically dismantle the adversary’s expensive, legacy defensive networks, enabling the target state to achieve rapid, disproportionate offensive gains with minimal casualties.

Stage 3: Operational Tethering

Following the initial battlefield success, the target state’s military apparatus undergoes a profound transformation. Having experienced the decisive efficacy of drone-enabled warfare, the recipient’s armed forces become structurally tethered to the Turkish techno-military ecosystem. Because the continuous operation of these advanced systems requires uninterrupted access to Turkish satellite data links, proprietary smart munitions, software upgrades, and specialized operator training, the recipient develops an irreversible tactical path dependence.

Stage 4: Institutionalization – Structured Defense-Political Dependence

To permanently secure this vital asymmetric advantage and guarantee continuous Turkish support, the target state is compelled to institutionalize the relationship, elevating it from a tactical procurement to a strategic alignment. Depending on the geopolitical context and the specific needs of the recipient, this structured dependence manifests in three distinct typologies:

- Alliance-Building Dependence (The Caucasus): Formalized through mutual defense pacts and deep military integration.
- Resource-Exchange Dependence (Africa): Traded for sovereign resource concessions, maritime rights, and overseas basing access.
- Conflict-Mitigation Dependence (The Middle East): Exchanged for massive capital influxes, defense co-production, and diplomatic normalization.

By tracing this four-stage causal pathway across different regional arenas, the following sections will empirically demonstrate how ODA serves as the fundamental driver of Turkey's expanding defense-diplomacy networks.

Case Studies and Process Tracing:

Constructing Dependence in Three Regional Arenas

To empirically validate the causal mechanism outlined above, this section employs process tracing across three distinct regional theaters. Each case demonstrates how Turkey utilized the offense-defense asymmetry (ODA) of its UAVs to break local stalemates, tether recipient militaries to its technological ecosystem, and ultimately institutionalize these tactical gains into structured defense-political dependence. To empirically substantiate the scale and institutionalization of these defense-political networks, Table 1 aggregates hard data from the Turkish Exporters Assembly (TIM), the Stockholm International Peace Research Institute [SIPRI] Arms Transfers Database, and authoritative defense media, illustrating the exponential surge in Turkey's drone exports across the three regional arenas.

The Caucasus: Nagorno-Karabakh and “Alliance-Building” Dependence

Stage 1: The Initial Condition

Prior to the 2020 Second Nagorno-Karabakh War, the conflict between Azerbaijan and Armenia was characterized by a protracted, decades-long strategic stalemate. Armenian forces held a distinct “defender's advantage,” occupying heavily fortified, mountainous terrain protected by a layered, Russian-supplied air defense network comprising S-300, Osa, and Strela surface-to-air missile (SAM) systems (Shaikh & Rumbaugh, 2020). For Azerbaijan, launching a conventional mechanized ground offensive against these

Table 1: Empirical Indicators of Turkey's Defense Export Surges and Major UAV Contracts (2020–2023)

Regional Arena (Recipient)	Timeframe / Key Event	Export Volume / Contract Value	Key Platforms Transferred	Primary Sources
The Caucasus (Azerbaijan)	2019 vs. 2020 (Pre-Karabakh War)	Surged from 261 million (2020). (Note: \$77 million recorded in Sept 2020 alone).	Bayraktar TB2, MAM-L precision-guided munitions	Turkish Exporters Assembly (TIM); SIPRI Arms Transfers Database
Africa (Aggregate & Key States)	2020 vs. 2021 (Post-Libya Intervention)	Total exports to Africa skyrocketed from 460.6 million (2021). (Includes Morocco: \$70M for 13 TB2s; Ethiopia: \$51M surge).	Bayraktar TB2	Turkish Exporters Assembly (TIM); Defense News (Bekdil, 2023)
The Middle East (UAE)	2022	Estimated \$2 billion contract for 120 drones.	Bayraktar TB2	Coskun (2022)
The Middle East (Saudi Arabia)	July 2023	Estimated >\$3 billion. (Described as the largest single defense export contract in Turkish history).	Akinci UCAV (Heavy Combat Drone)	Uppal & Saba (2023)

entrenched positions would have entailed prohibitive casualty rates and massive attrition of armor, rendering the cost of an offensive operation politically and militarily unsustainable.

Stage 2: Asymmetric Intervention

The introduction of Turkish Bayraktar TB2s into the Azerbaijani arsenal fundamentally inverted this offense-defense balance. During the 44-day conflict in late 2020, the TB2s exploited their low radar cross-section to operate above and around the engagement envelopes of Armenia's legacy SAMs. In a textbook application of ODA, the drones first executed a systematic Suppression of Enemy Air Defenses (SEAD) campaign, neutralizing the expensive S-300 batteries and early-warning radars with cheap, precision-guided MAM-L micro-munitions (Hwang & Song, 2022). Once the airspace was uncontested, the TB2s systematically dismantled Armenian armored columns, artillery positions, and logistical supply lines. The asymmetric cost-exchange ratio was stark: inexpensive Turkish drones decimated hundreds of millions of dollars' worth of heavy conventional military hardware, enabling rapid Azerbaijani territorial advances with minimal ground casualties.

Stage 3: Operational Tethering

Azerbaijan's decisive victory catalyzed a paradigm shift in its military doctrine, transitioning from a Soviet-legacy mechanized force to a network-centric, drone-enabled military. However, this newly acquired regional dominance was not self-sustaining. The operational

efficacy of the TB2 fleet required continuous integration with Turkish military intelligence, satellite data links, proprietary munitions resupply, and ongoing tactical guidance from embedded Turkish military advisors (Rossiter & Cannon, 2022). Consequently, the Azerbaijani Armed Forces became structurally tethered to the Turkish defense-industrial ecosystem. Baku realized that maintaining its deterrence against potential Armenian revanchism or Russian coercion necessitated permanent access to Turkey's asymmetric technological support.

Stage 4: Structured Defense-Political Dependence

To lock in this vital technological and tactical advantage, Azerbaijan moved to institutionalize its reliance on Ankara, elevating the relationship from a transactional arms-buyer dynamic to a formal geopolitical alliance. This structured dependence culminated in the signing of the Shusha Declaration in June 2021. The treaty explicitly established a mutual defense pact, mandated the deep integration of their respective defense industries, and synchronized their military command structures through joint training and interoperability protocols (Cornell, 2025). Through the Shusha Declaration, Turkey successfully translated the transient tactical asymmetry provided by the TB2 into an enduring, "alliance-building" defense-political dependence, thereby permanently projecting its strategic influence into the South Caucasus and securing a vital corridor to Central Asia.

Africa: Libya and Somalia as Cases of "Resource-Exchange" Dependence

Stage 1: The Initial Condition (Strategic Vulnerability)

In the African theater, Turkey's drone diplomacy has primarily engaged state actors grappling with severe internal fragmentation and protracted insurgencies. By 2019, Libya's UN-recognized Government of National Accord (GNA) was besieged in Tripoli by the Libyan National Army (LNA). The LNA maintained a distinct tactical advantage, supported by foreign-supplied combat drones and Russian Pantsir-S1 air defense systems, which rendered the GNA's conventional defensive operations highly costly and increasingly untenable (Coşkun, 2024). Similarly, in the Horn of Africa, the Somali Federal Government faced a persistent threat from Al-Shabaab. Mogadishu struggled to project state authority beyond urban centers, as conventional ground offensives in hostile, expansive terrain incurred substantial logistical burdens and high casualty rates (Hwang & Song, 2022).

Stage 2: Asymmetric Intervention (Altering the Cost-Exchange Ratio)

The introduction of Turkish UAVs provided these fragile governments with a comparatively accessible means to alter the local cost-exchange ratio. In Libya, the deployment of Bayraktar TB2s — often operating in conjunction with electronic warfare systems — managed to

degrade the LNA's Pantsir-S1 batteries. By neutralizing the adversary's localized air cover, the UAVs significantly alleviated the siege of Tripoli and shifted the tactical momentum in favor of the GNA (Bronk, 2020). In Somalia, the integration of Turkish drones afforded federal forces persistent intelligence, surveillance, and reconnaissance (ISR) alongside precision strike capabilities. This technological infusion lowered the threshold for counter-insurgency operations, allowing Somali forces to target militant strongholds with reduced reliance on vulnerable ground convoys (Coşkun, 2024).

Stage 3: Operational Tethering (Sustaining the Advantage)

While UAVs provided immediate tactical relief, they also generated a structural reliance. Neither the GNA nor the Somali federal forces possessed the indigenous defense-industrial base required to maintain, repair, or independently operate these advanced systems over the long term. Sustaining this newly acquired offensive capability necessitated continuous technical support, munitions supply, and operational training from Ankara. For instance, Turkey's establishment of Camp TURKSOM in Mogadishu served not only as a training facility but also as a logistical hub that deeply embedded Turkish military standards within the Somali armed forces (Hwang & Song, 2022). Consequently, what began as short-term military assistance gradually evolved into a medium-to-long-term operational dependency.

Stage 4: Resource-Exchange Dependence (Resource-Exchange Dependence)

To secure uninterrupted access to this vital security provision, these governments were incentivized to formalize their alignment with Ankara through strategic concessions, thereby institutionalizing a "resource-exchange" dependence. In Libya, the urgent need for Turkish military support catalyzed the signing of the November 2019 security and maritime boundary memorandums of understanding (MoUs). These agreements not only formalized defense cooperation but also controversially expanded Turkey's Exclusive Economic Zone (EEZ) claims in the Eastern Mediterranean (Coşkun, 2024). A similar dynamic unfolded in Somalia, culminating in the 2024 Defense and Economic Cooperation Agreement. Under this framework, Turkey committed to rebuilding the Somali navy and securing its coastline; in exchange, Ankara reportedly gained significant maritime access and a prospective share in the exploitation of Somalia's offshore hydrocarbon resources (Hamit, 2024). Through these mechanisms, Turkey effectively translated the tactical utility of its UAVs into tangible geopolitical and economic footholds on the African continent (Bekdil, 2023).

This resource-exchange model was a structural necessity rather than a diplomatic choice. Lacking the financial liquidity of the Gulf states or the institutional capacity of Azerbaijan, fragile regimes in Tripoli and Mogadishu had no alternative currency but to trade sovereign territorial and maritime concessions in exchange for regime survival.

The Middle East: Gulf States and “Conflict-Mitigation” Dependence

Stage 1: The Initial Condition (The Defender’s Economic Dilemma)

Unlike the fragile states in Africa or the conventional military stalemate in the Caucasus, the wealthy Gulf monarchies — particularly Saudi Arabia and the United Arab Emirates (UAE) — faced a distinct manifestation of the offense-defense asymmetry. Despite possessing some of the world’s most heavily funded militaries equipped with advanced Western Ground-Based Air Defense (GBAD) systems (such as the Patriot and THAAD), these states found themselves acutely vulnerable to asymmetric aerial threats. The 2019 attacks on Saudi Aramco’s Abqaiq and Khurais facilities by low-flying, low-cost loitering munitions and UAVs starkly illustrated this vulnerability (Jones et al., 2021). The Gulf states were trapped in an extreme “defender’s economic dilemma”: utilizing multi-million-dollar interceptor missiles to neutralize cheap, Iranian-backed asymmetric threats was financially unsustainable and tactically inefficient, eroding their regional deterrence.

Stage 2: Asymmetric Capability Transfer (Restoring Deterrence)

Recognizing the limitations of legacy defensive architectures, Gulf states sought to acquire their own advanced UAV strike complexes to implement a “cost-imposition” strategy against regional adversaries. Turkey’s demonstration of drone efficacy in Syria, Libya, and Karabakh served as a powerful catalyst. Rather than direct military intervention, Turkey’s role in the Middle East theater manifested as the transfer of asymmetric offensive capabilities. By offering advanced platforms like the Bayraktar TB2 and the heavier, high-altitude Akinci Unmanned Combat Aerial Vehicle (UCAV), Ankara provided Riyadh and Abu Dhabi with the means to conduct persistent ISR and precision preemptive strikes. This capability allowed the Gulf states to project power and mitigate asymmetric threats at a fraction of the cost of utilizing their conventional manned air forces, thereby recalibrating the local cost-exchange ratio in their favor (Hwang & Song, 2022).

Stage 3: Operational Tethering (The Illusion of Autonomy)

A critical distinction in the Gulf network is the recipients’ demand for strategic autonomy through technology transfer and local co-production. However, the nature of modern drone warfare ensures that operational tethering persists even with localized manufacturing. While the 2023 agreements included provisions for joint production, the core architecture of the Turkish UAV ecosystem — comprising proprietary source codes, encrypted satellite data links, advanced avionics, and specialized smart munitions (such as those manufactured by Roketsan) — remains firmly under Ankara’s control. Consequently, the Gulf states’ newly acquired asymmetric deterrent capacity is structurally bound to Turkey’s defense-industrial base. This technological lock-in ensures that Riyadh and Abu Dhabi cannot easily decouple their drone operations from Turkish strategic consent, creating a profound, albeit sophisticated, path dependence.

Stage 4: Institutionalization (Conflict-Mitigation Dependence)

To secure these critical defense technologies, the Gulf states were compelled to institutionalize their relationship with Turkey. Consequently, Saudi Arabia's multi-billion-dollar acquisition of Turkish UAVs is not merely an opportunistic commercial procurement; rather, it is a strategic imperative designed to compensate for the inherent vulnerabilities of Western air defense systems against asymmetric threats. Furthermore, this dynamic must be contextualized within the Gulf states' broader hedging strategy. Amid perceived U.S. retrenchment from the Middle East, Riyadh and Abu Dhabi utilize this "dependence" on Ankara as a calculated mechanism for strategic diversification, deliberately reducing their singular reliance on Washington for security guarantees (Altunışık, 2008). This dynamic catalyzed a broader geopolitical realignment, transforming the post-2017 regional rivalry into a pragmatic "conflict-mitigation" dependence. In July 2023, Saudi Arabia signed a historic contract for Akinci UCAVs, estimated at over \$3 billion. In exchange for providing this asymmetric security umbrella, Turkey secured massive economic lifelines — including billions in currency swaps and direct foreign investments — which were vital for stabilizing its fragile economy (Saudi Bayraktar Akinci, 2024). Thus, the tactical utility of Turkish drones was successfully institutionalized into a reciprocal geopolitical alignment, binding the security hedging needs of the Gulf to the economic imperatives of Ankara.

Cross-Case Comparison and Strategic Constraints

Cross-Case Comparison of Causal Mechanisms

The preceding process-tracing analysis demonstrates that Turkey's drone diplomacy is not a monolithic strategy, but rather a highly adaptable mechanism conditioned by the specific strategic environments of the recipient states. While the independent variable — the Offense-Defense Asymmetry (ODA) provided by Turkish UAVs — remains constant, the resulting dependent variable (the typology of structured dependence) varies systematically based on the target state's initial vulnerabilities and resource endowments.

A comparative synthesis reveals distinct causal pathways. In the Caucasus, Azerbaijan possessed sufficient financial resources but faced a conventional military stalemate against entrenched Armenian defenses. Consequently, the ODA intervention catalyzed a direct military victory, which was subsequently institutionalized into an "alliance-building" dependence, characterized by formal mutual defense pacts (the Shusha Declaration) and deep doctrinal integration.

It is crucial to note that these three typologies are not the product of a pre-determined, rigid grand strategy by Ankara. Rather, they are emergent properties shaped by the varying initial vulnerabilities and resource endowments of the recipient states. Conversely, in Africa, fragile governments in Libya and Somalia lacked both military capacity and financial liquidity, facing existential threats from non-state armed groups or rival factions.

Here, Turkish UAVs provided critical regime survival capabilities. Unable to pay for this security umbrella with capital, these states institutionalized their dependence through sovereign “resource-exchange”, granting Ankara maritime jurisdiction (EEZ agreements) and overseas basing rights.

Finally, in the Middle East, wealthy Gulf monarchies faced an entirely different dilemma: extreme vulnerability to cheap, asymmetric aerial threats despite possessing advanced Western air defenses. Turkey’s intervention in this theater involved the transfer of asymmetric capabilities to restore local deterrence. In exchange, the Gulf states utilized their vast financial reserves to institutionalize a “conflict-mitigation” dependence, providing Turkey with vital macroeconomic lifelines (currency swaps and investments) while securing technology transfers. As summarized in Table 2, the comparative synthesis reveals distinct causal pathways.

Table 2: Cross-Case Comparison of Turkey’s Drone Diplomacy and the Construction of Structured Dependence

Regional Arena (Case)	Stage 1: Initial Condition (Strategic Vulnerability)	Stage 2: Intervention Type (Applying ODA)	Stage 3: Tethering Mechanism (Operational Lock-in)
The Caucasus (<i>Nagorno-Karabakh</i>)	Conventional Stalemate: Entrenched Armenian defenses (S-300, heavy armor); prohibitive costs for conventional ground offensives.	Direct Asymmetric Intervention: Systematic SEAD campaigns and rapid destruction of legacy defensive networks via TB2s.	Doctrinal Shift: Transition to drone-centric warfare; absolute reliance on Turkish data links, munitions, and embedded advisors.
Africa (<i>Libya & Somalia</i>)	Regime Fragility: Internally fragmented governments facing existential threats from insurgents; lack of financial liquidity.	Tactical Relief: Neutralizing localized hostile air cover (Pantsir-S1) and providing persistent ISR to break sieges.	Logistical Dependency: Lack of indigenous defense base necessitates reliance on Turkish training (Camp TURKSOM) and maintenance.
The Middle East (<i>Gulf States</i>)	Defender’s Economic Dilemma: Wealthy states with advanced Western GBAD remain highly vulnerable to cheap, asymmetric aerial threats.	Capability Transfer: Sale of advanced UCAVs (Akinci, TB2) to implement a cost-imposition strategy and restore local deterrence.	Illusion of Autonomy: Despite local co-production, structural reliance persists on Turkish proprietary source codes, encrypted links, and smart munitions.

Strategic Constraints on the Sustainability of Defense-Political Dependence

While Turkey has successfully leveraged Offense-Defense Asymmetry (ODA) to construct localized defense-political networks, the durability of these structured dependencies should not be overstated. A rigorous assessment must acknowledge the formidable strategic, normative, and domestic constraints that expose the inherent vulnerabilities of Ankara’s technological agency and threaten the long-term sustainability of these networks (Rossiter & Cannon, 2022). The fragility of this dependence stems from four primary sources.

First, the proliferation of UAVs inherently exacerbates the regional security dilemma, prompting rapid technological counter-balancing by rival powers. The initial shock value of the Bayraktar TB2 relied heavily on the unpreparedness of legacy air defense systems. However, adversaries are actively adapting (Calcara et al., 2022). In Syria and Libya, Russia has continuously upgraded its electronic warfare (EW) and counter-UAS (C-UAS) capabilities. Similarly, in Iraq, Iran-backed militias have retaliated against Turkish drone bases using their own asymmetric loitering munitions (Dalay, 2021). As counter-drone technologies mature and proliferate, the tactical ODA currently enjoyed by Turkey will inevitably narrow, directly eroding the foundational military leverage that sustains its diplomatic networks (Reuters, 2021).

Second, Turkey's drone diplomacy faces significant normative friction and supply-chain vulnerabilities. The deployment of lethal autonomous or semi-autonomous systems in highly complex conflict zones has drawn intense scrutiny from international human rights organizations and Western allies (Bode & Huelss, 2018). Accusations of civilian casualties and violations of international arms embargoes have provoked tangible diplomatic backlash. A prominent example occurred in 2020, when Canada suspended the export of critical Wescam optical sensors used in the TB2, citing their deployment in the Nagorno-Karabakh conflict. Although Turkey accelerated its indigenous sensor development in response, such embargoes highlight the fragility of its defense-industrial base when subjected to Western normative pressure (Kurç, 2017).

Third, the structural depth of these defense-political networks is inherently bounded by the strategic agency and hedging strategies of the recipient states — most notably the wealthy Gulf monarchies. While this article characterizes the Gulf-Turkey relationship as a “conflict-mitigation dependence”, it is crucial to recognize that for Riyadh and Abu Dhabi, this engagement is a deliberate exercise in strategic diversification designed to dilute their historical over-reliance on the United States (Roberts, 2020). By simultaneously procuring advanced systems from Turkey, China, and traditional Western partners, these states maintain profound strategic autonomy. Consequently, Turkey is not unilaterally “binding” these nations in a traditional hegemonic sense; rather, Ankara is operating as a highly effective, yet ultimately replaceable, node within the Gulf's broader multipolar hedging architectures (Kamrava, 2018).

Finally, the sustainability of these networks is fundamentally constrained by Turkey's own macroeconomic vulnerabilities. The “conflict-mitigation” network in the Gulf, for instance, exposes a paradox of mutual dependence: while Riyadh and Abu Dhabi rely on Turkish defense technology, Ankara is acutely dependent on Gulf capital to stabilize its inflation-ridden domestic economy (Kutlay & Öniş, 2021). This economic fragility restricts Turkey's capacity to sustain prolonged, high-intensity military deployments or offer the massive financial subsidies typically required to maintain deep, long-term geopolitical alignments (Öniş, 2019).

In conclusion, the structured defense-political dependence cultivated by Turkey is neither absolute nor permanent. While Ankara has astutely exploited a specific technological window to alter localized balances of coercion and defense market dependencies, the sustainability of these networks remains highly contingent (Uppal & Saba, 2023). They are perpetually tested by adversary technological adaptations, supply-chain fragilities, recipient states' hedging strategies, and Turkey's own macroeconomic limitations.

Conclusion

The proliferation of unmanned aerial vehicles (UAVs) has democratized precision strike capabilities, fundamentally altering the traditional offense-defense balance. This article has argued that Turkey's drone diplomacy should not be broadly and ambiguously characterized as a sweeping "reconfiguration of regional order". Instead, it represents a highly targeted, mechanism-driven process wherein transient tactical asymmetry is translated into structured defense-political dependence (Horowitz, 2020). By employing Offense-Defense Asymmetry (ODA) theory, this study bridges the critical explanatory gap between Ankara's strategic motivations and its actual mechanisms of geopolitical success.

Through rigorous process tracing across three distinct regional arenas, the analysis demonstrated how this dependence systematically materializes. In the Caucasus, direct asymmetric intervention broke a conventional military stalemate, forging an "alliance-building" network formalized by mutual defense pacts. In Africa, providing tactical relief to fragile regimes was institutionalized into a "resource-exchange" network, trading security for sovereign maritime and basing concessions. In the Middle East, the transfer of asymmetric capabilities to wealthy yet vulnerable states generated a "conflict-mitigation" network, securing vital macroeconomic lifelines for Ankara. These typologies confirm that Turkey's diplomatic networks are not arbitrary constructs, but rather systematic institutional responses to the operational tethering inherent in modern drone warfare.

Nevertheless, a rigorous assessment must acknowledge that the sustainability of these networks is inherently constrained. The rapid adaptation of adversaries through counter-UAS technologies, the normative backlash and supply-chain vulnerabilities exposed by Western embargoes, and Turkey's own macroeconomic fragility collectively delimit the boundaries of its technological agency. Ankara has not displaced the structural primacy of traditional great powers; rather, it has astutely exploited a specific technological window to alter local balances of coercion and defense market dependencies.

Ultimately, the Turkish case offers a nuanced paradigm for understanding middle-power behavior in the twenty-first century. While technological empowerment allows middle powers to disrupt established hierarchies and project asymmetric influence at a relatively low cost, enduring strategic gains require the institutionalization of tactical victories. As the drone revolution matures, the true measure of middle-power influence will depend not merely on the deployment of advanced platforms, but on the capacity to sustain

the complex defense-political ecosystems that bind recipient states to their technological patrons.

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