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A raging urban people at war: a comprehensive defence plan for Taiwan

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ABSTRACT

This article analyses Taiwan's strategic situation of increasing Chinese military superiority and United States limitations for deterring a possible invasion by the People's Liberation Army (PLA). It builds upon previous recommendations concerning an asymmetrical strategy by advocating for its integration with Taiwan's extensive urban landscape. It proposes that a strategic posture of explicit and forceful weaponisation of its densely populated cities with part of its regular forces and most of the reserve command in decentralised, but interconnected resistance nodes, could weigh on Chinese calculations regarding the occupation phase of an island invasion.

KEYWORDS

Asymmetric strategy; territorial defence; urban warfare; military strategy; insurgency; Taiwan

The efforts by Taiwan and the United States to deter and prevent Chinese aggression may no longer be effective in a relatively short period of time.¹ A prevailing agreement exists that the Chinese have already altered the balance of power in the Taiwan Strait, now equipped with the necessary skills and resources to overcome Taiwan in a direct and symmetrical conflict. The exercises carried out by the People's Liberation Army (PLA) in 2023 and 2024 indicate this strategic framework in which the island is effectively isolated from an interposition by the United States.²

Consequently, the United States and Taiwan are reviewing their strategic guidelines for a potential conflict with China. The former recognises that it is incapable of mobilising sufficient means to interrupt a Chinese invasion or blockade expeditiously. A substantial concentration of its globally distributed military units and Indo-Pacific allies will be necessary, whose deployments will need to be carefully evaluated to avoid a hasty nuclear escalation. Therefore, a viable and plausible United States response may take weeks.³ The political leadership of Taiwan yields to its advisors and military leaders; and those of the United States, on the need to "restructure its defence strategy, emphasising the asymmetrical advantage of being the defender, to deny the People's Republic of China its strategic objectives rather than defeat its invasion force."⁴ In other words, there is a conclusion that, in the event of an invasion, Taiwan will need to be able to withstand on its own for a relatively long time in order to frustrate Beijing.⁵

Accordingly, Taiwanese defence policy and force posture have been amended according to the Overall Defence Concept (ODC). Originally proposed by Admiral Lee Shi-in in 2017, when he was the Chief of the General Staff, it suggests a new asymmetric approach to the force build-up and concept of operations.⁶ Basically, it involves the distribution across the island of a large number of “small, mobile, affordable, and resilient anti-air and anti-ship systems that could survive initial strikes and effectively resist airborne or amphibious invasion.”⁷ This approach has been endorsed and reinforced by a growing number of Western analysts, but it still faces resistance within the Ministry of National Defence (MND) in Taipei.⁸

In addition to the strategic and organisational culture aspects within the Taiwanese military,⁹ there are two factors that undermine the effectiveness of the proposed asymmetric warfare strategy. On one hand, many of the formulations and recommendations supporting this approach focus primarily on acquiring specific types of platforms, yet they lack clarity regarding their employment in the context of a Chinese invasion. The formulation of a Taiwan war plan is often simplified to a material dimension, primarily focusing on tactical and logistical elements, whilst strategic considerations are seldom explored in depth. Namely, how to employ effectively regular and paramilitary forces, reservists, the population, and geography.¹⁰ On the other hand, most proponents and defenders of an asymmetrical strategy assume that the defeat of a Chinese invasion could be decisive in the straits and beaches of Taiwan, outside its major urban and industrial centres, implicitly with limited collateral damage.¹¹ This expectation fosters the misconception that the absence of a swift and conclusive victory could suffice to dissuade China, whereas Beijing possesses both the resources and political resolve to pursue multiple initiatives.¹² This formulation also conceals the profound distrust held by some American analysts concerning the potential surrender or dismantling of Taiwan’s armed forces in a prolonged conflict with China.¹³

The primary policy implication is that Taiwan’s defence documents exhibit contradictions between the guidelines for deploying its regular armed forces to engage Chinese forces in conventional warfare and the measures for mobilising a comprehensive defence aimed at re-establishing the front line and enhancing civil resilience. The 2021 Quadrennial Defence Review indicated that “[a]symmetric systems, which are small, numerous, smart, stealthy, mobile and hard to be detected and countered, shall be built up and associated with innovative tactics and employments” due to the assertion that “[c]onventional warfare of attrition or an arms race is not a viable option for our nation.”¹⁴ Although substantial reviews towards a real asymmetrical strategy are noted in the 2025 Quadrennial Defence Review, the ROC Armed Forces persist at targeting the enemy’s operational centre of gravity and critical nodes.¹⁵ This strategy is designed to disrupt the enemy’s operational tempo, delay, weaken, and paralyse their offensive moves, thereby seizing battlefield initiatives and creating advantages for a swift victory.¹⁶ Taiwan’s strategic guidance aims to “impose multiple interdictions and joint fire strikes to degrade its capabilities, disrupt its offensive, and prevent it from landing, ultimately to defeat its aggression.”¹⁷ Consequently, whilst all-out defence and the utilisation of reserves in urban warfare are referenced, there is a lack of guidance beyond improving population awareness, resilience and civil inter-agency co-ordination.¹⁸ Finally, a protracted-operations phase is only mentioned, but never developed.¹⁹

The lack of strategic direction undermines the effective utilisation of Taiwan's long-term defence advantages: its extensive, densely urbanised metropolitan areas.²⁰ This paper argues that the struggle for Taiwan will inevitably be urban, with profound consequences and civil and economic damages. Accordingly, it contends that the primary reason China may refrain from an invasion is the expectation that Taiwan is willing to execute a brinkmanship strategy that offsets Chinese material advantages and locks any invasion to uncontrollable developments. Consequently, China would confront a severe dilemma involving significant domestic and foreign policy repercussions: either to obliterate part of Taiwan's capital to diminish the costs of occupation or risk being drawn into a protracted conflict, the ultimate outcomes and associated costs of which may be unpredictable and unacceptable.

Even taking into account the lessons learnt from the wars in Ukraine and Gaza, we propose that there are no recent parallels and analogies upon which Taiwan's forces can develop a suitable concept of operation.²¹ We propose that the deployment of regular, reservist, and irregular people's forces around a territorial defence that combines urban warfare tactics and the strategic use of civilian infrastructure cannot be Taiwan's last line of defence and, thus, neglected. Taipei must invest in weaponising its urban areas, amongst the densest in the world, in order to serve as a force multiplier for its asymmetric warfare platforms in a comprehensive defence plan. Moreover, it must adopt strategic communication with China that, in the event of an invasion, presents resolve to bear the costs of resisting where the damages for both sides are difficult to estimate and control.

The bloody elephant in the room

In 2024, China allocated \$234 billion to defence, compared to Taiwan's \$18.86 billion, considering the recent augmentation in Taipei from provisional allocations for initiatives such as the Naval and Air Force Enhancement Programmes.²² However, Taiwan's military capabilities – particularly its Navy – have seen little expansion. It has 12 destroyers and 20 frigates, with no major additions in sight. In contrast, China has rapidly expanded its naval power, doubling its destroyer count, adding modern cruisers and aircraft carriers, and modestly increasing its number of frigates. Taiwan's procurement of new F-16 V fighters and long-range conventional missiles is unlikely to create deterrents against China's reunification objectives or prevent an invasion, as it faces limitations in incorporating them rapidly and significantly.²³ Finally, Taiwan's ground forces currently possess primarily tube artillery, besides a large number of multiple launching rocket systems (MLRS) of limited range, eleven M142 HIMARS, and still a few drones.²⁴

Meanwhile, the PLA demonstrates significant assault capability. Its army comprises fifteen special operations brigades, two air assault brigades, and six amphibious assault brigades, supported by 135 heavy transport helicopters with a range exceeding 700 km, enabling two trips without refuelling from the most distant coastal base of the Southern Theatre Command, approximately 300 km from Taiwan. Additionally, it has 236 landing ships or vessels. The navy's marine contingent includes one special operations brigade and six infantry brigades, supported by three helicopter-carrying amphibious ships, eight amphibious transport dock ships, and 121 landing craft. Lastly, its air force's 15th Airborne Corps consists of one special operations brigade, five parachute

brigades, and one air assault brigade, supported by 280 heavy and medium transport aircraft. Even though these are not fully deployed, only the Southern Theatre Command, the most dedicated to an invasion of Taiwan, has another twenty brigades of heavy, medium, and light combined arms capable of conducting all key phases of an invasion and occupation.²⁵ Therefore, China possesses substantial capabilities for the interdiction, blockade, and invasion of Taiwan.²⁶

Washington has recommended a shift in Taiwan's defence strategy towards approaches focused on prolonging and winning asymmetrical engagements, which may offer a means to impede an invasion even in challenging circumstances.²⁷ Subsequently, after a decade of internal debate, Taiwan launched the Overall Defence Concept (ODC) in 2017, which recommends prioritising asymmetric capabilities and whole-of-society defence.²⁸ However, prior analyses have identified substantial shortcomings in its implementation, with three being especially significant.²⁹ First, organisational resistance exists at the upper levels of the Taiwanese Armed Forces, obstructing the complete integration of an asymmetrical strategy into defence documents until 2021, which was barely mentioned before that. Second, this asymmetrical strategy has been formulated in a relatively superficial manner and with a lot of flexibility; therefore, the interest groups, including senior officials and lobbyists, are not constrained by a specific budget or clearly defined platforms, which allows them to influence the bureaucracy towards more profitable investments in conventional systems.

Third, the asymmetrical ground operations of Taiwan are founded on three pillars: force protection, decisive battle in the coastal zone, and the destruction of the enemy on the landing beaches.³⁰ All of them are contingent upon mobility; however, the terrain of Taiwan significantly restricts it, particularly in the areas surrounding Taipei. The island is deficient in strategic depth and possesses an inadequate road network through barriers, including rivers and rugged terrain that complicate the deployment, positioning, and withdrawal of missile, drone, and rocket units.³¹ As interregional connectivity in Taiwan continues to be notably limited, most of its military installations are located north of Taipei, which limits combat zones to the urban area. Consequently, the implementation of a high-mobility asymmetric strategy appears improbable, as Taiwan's existing regular ground forces, which consist of seven brigades (four armoured and three mechanised), will be required to function within a relatively confined operational area in the face of the enemy's superior firepower.³²

It raises concerns about how Taiwanese strategists address these deficiencies. It remains unclear whether its defence posture and doctrines are being redirected towards resilient, low-cost asymmetric platforms – such as mobile missiles, drones, landmines, and cyber-capabilities – or how well these would integrate with legacy conventional systems.

It should be noted that, due to international consequences, a Chinese invasion would be unlikely to occur in any scenario other than one of eventual or self-perceived regional aero-naval superiority. Even though this estimate would not be based on an objective assessment of force correlation with the United States, this will have to overcome layers of protection and contest the Pacific island chains before penetrating the Chinese blockade over Taiwan.³³ Moreover, Taiwan cannot reliably count on European and Asian military support in the necessary time and strength.³⁴ During this period, Taiwan's resistance against Chinese occupation will be the determining variable.³⁵

Meanwhile, a significant portion of the proposals concerning the land-based component of Taiwan's asymmetric strategy appear to be both dangerously illusory and mutually contradictory. On one hand, prevailing assumptions within Taiwan's strategic community suggest a relatively swift and decisive defeat of a Chinese amphibious assault, a belief that underpins the current orientation of Taiwan's military doctrine and force posture.³⁶ On the other hand, numerous US analysts posit that a Chinese invasion could instead devolve into a protracted and attritional conflict, with the potential to destabilise, or even threaten the continuity of the Chinese Communist regime.³⁷ This latter scenario – partly informed by the trajectory of the war in Ukraine – has increasingly been viewed by Taiwanese military practitioners and policy analysts as highly undesirable, given its anticipated human, economic, and political costs.³⁸ As a result, there appears to be a growing divergence between Taiwan's preferred strategic outcomes and risk tolerances and those envisaged by its main strategic partner, raising concerns about alignment and coherence in deterrence planning and crisis management.

Another, and arguably more consequential, lesson derived from the Ukrainian experience is the observation that, in the absence of a sustained occupation, a population is unlikely to capitulate within a short timeframe. This insight holds particular relevance for Taiwan, whose unique physical and human geographies present significantly more complex strategic and tactical challenges to any invading force than may be suggested by recent analogies. Taiwan's densely urbanised areas provide a formidable environment for sustained resistance against the progression of offensive campaigns. Moreover, the increasing sense of national identity and political autonomy amongst the Taiwanese population suggests a high potential for prolonged civilian armed defiance. In this context, Taiwan possesses the capacity to impose a dilemma on China.

The scenario of urban warfare in Taiwan is plausible for two central reasons. First, the symbolic core of the island's political power – comprising the Presidential Palace, the Executive, Legislative, and Judicial branches, as well as the Ministries of National Defence and Foreign Affairs – is concentrated in densely urbanised areas. Moreover, the Taiwanese government, with the support of the United States, has developed hardened underground command and control complexes in the northern region of Taipei. Thus, barring an unconditional surrender, the neutralisation of the government would require the control of a significant part of the metropolitan area of the capital, which is not mere speculation, given that China has already produced replicas of these buildings and conducted occupation exercises at training facilities.

Secondly, although minor in relation to the political-strategic dimensions, the control of urban areas associated with advanced technological industrial sectors has additional value and cannot be disregarded. A substantial share of these companies is situated in the region of New Taipei, notably Taiwan Semiconductor Manufacturing Company (TSMC) and United Microelectronics Corporation (UMC) in Hsinchu Science Park.

Megacity warfare

Taiwan's urban geography should play a central role in shaping both its societal resilience and its defence posture. As one of the most densely populated territories in East Asia, Taiwan exhibits a high degree of urban concentration, with over 78% of its population residing in urban areas. Among these, the capital city of Taipei stands as the political,

economic, and administrative epicentre of the island. Situated in the Taipei Basin in the northern region, the city is surrounded by natural barriers – including rivers and mountainous terrain – that both constrain expansion and offer potential advantages for urban defence.³⁹

With an urban population of approximately 2.5 million in Taipei City and over 7 million in the greater metropolitan area, the city's urban fabric is characterised by high-density residential zones, vertical construction, and a complex infrastructure network, including mass transit systems and underground shelters. Studies indicate that the average population density in Taipei exceeds 9,800 inhabitants per square kilometre, surpassing cities such as Tokyo and Shanghai.⁴⁰ The city's older districts are characterised by narrow alleyways that significantly hinder manoeuvrability and access, as well as complicate the extraction of civilians.⁴¹

Furthermore, Taipei maintains an extensive system of subterranean shelters, many of which date back to the Japanese colonial era and are currently managed under civil defence protocols.⁴² This environment poses significant operational challenges to any occupying force, as dense urban combat historically favours defenders and renders conventional military superiority less decisive (Figure 1).⁴³

Furthermore, Taipei's status as a knowledge-based, digitally integrated city contributes to both its strategic value and its vulnerability. The presence of central government institutions, critical communications infrastructure, and global financial connections makes it a primary target in any military conflict, but also a likely focal point of resistance.⁴⁴ The city's educated and politically engaged population enhances the likelihood of co-ordinated civilian defence efforts, whilst its compact yet intricate urban layout, facilitates decentralised and mobile resistance strategies. In short, Taipei exemplifies a modern urban battlespace where geography, demography, and infrastructure converge to create a highly complex and potentially attritional environment for military operations, especially in the context of asymmetric warfare and civil–military resilience.

However, dominant Western and Chinese military urban warfare doctrines remain heavily influenced by post-9/11 experiences in Iraq, Afghanistan, and Syria, where urban warfare was often framed through counter-insurgency against weaker adversaries. This perspective leads to flawed assumptions about the applicability of such tactics to Taiwan. Chinese analysts, for example, focus narrowly on tactical victories in battles like Baghdad and Fallujah while ignoring their broader strategic failures, particularly in urban stabilisation.⁴⁵ These interpretations underestimate the challenges of a potential invasion of Taiwan, where the urban terrain – spanning massive, densely populated areas such as Taipei and New Taipei – far exceeds the scale and complexity of most Middle Eastern cities. Moreover, the United States lacks recent experience in high-intensity urban warfare against peer adversaries, with the last comparable engagements dating back to World War II.⁴⁶

Megacity warfare would comprise a three-dimensional battleground composed of vertical buildings, underground spaces and interconnected digital infrastructure, imposing severe restrictions on troop mobility and making it difficult to carry out command and control operations.

Urban infrastructure restricts mobility and reduces the effectiveness of heavy weaponry, making command and control difficult. In addition, the presence of civilians imposes strict rules of engagement, raising troop stress, and increasing logistical

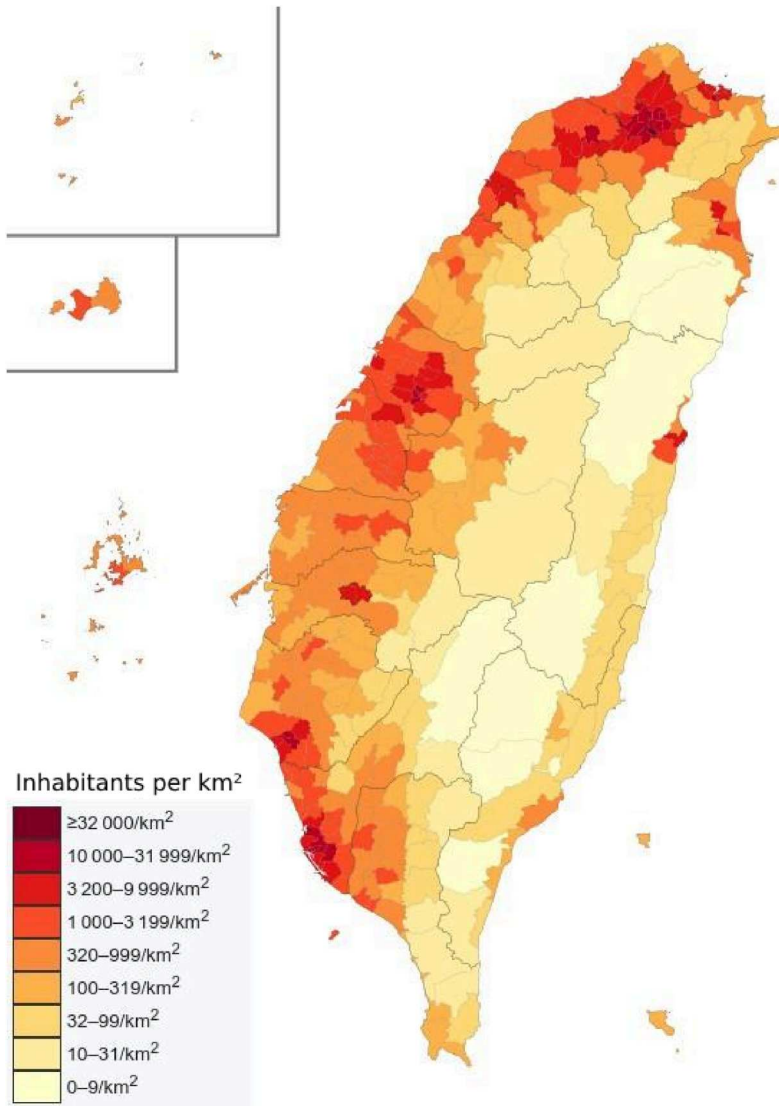


Figure 1. Population density map of the island of Taiwan.

challenges. Moreover, urban canyons are not only characterised by the verticality of their skyscrapers, but also by a highly developed underground infrastructure. Parking lots, shopping malls and subway networks significantly expand a new kind of underground warfare, creating formidable operational challenges for invading forces and simultaneously offering logistical, tactical, and strategic advantages for the defence, where local forces and population can resupply, resist, and manoeuvre.⁴⁷

Defence forces will be able to mitigate an enemy's technological advantages to some extent, creating a resilient defence adjusted to the complexities of the urban environment. Operations in megacities will generate an enormous amount of data from sensors, visual technologies, human sources, and acoustic systems. This information overload exceeds current analytical capacity. In addition, the need for line of sight across wide terrain

and the difficulty in filtering critical information from urban noise add to operational challenges. The result is a challenge of increasing magnitude, where complexity exceeds the limits of traditional modelling, overloading even military supercomputers. The exponential multiplication of variables over time renders software systems incapable of processing the subtleties of such an intricate combat environment.⁴⁸

A PLA invasion of Taiwan will find that urban environments inherently diminish the material and technological advantages typically held by advanced modern militaries, fundamentally altering the dynamics of conflict between invasion and defence forces. Unlike open terrain, the complexity and density of the urban landscape restrict the effective use of long-range weapons, surveillance systems, and satellite-based navigation, thereby narrowing the technological gap between conventional forces and irregular combatants. Cities obstruct line-of-sight communication and GPS signals, reducing the utility of sophisticated command-and-control systems and forcing a shift towards decentralised, small-unit operations. This decentralisation effectively weakens the conventional numerical superiority, as tactical engagements are often fragmented and localised, making it difficult to concentrate overwhelming force to bear on an objective.

As a result, the traditional military heuristic of a three-to-one advantage required for offensive success becomes insufficient in urban combat, where the terrain itself acts as a force multiplier for defenders. Furthermore, urban warfare involves intense close-quarters combat, which not only increases the physical and psychological toll on soldiers, but also generates distinct patterns of injury and trauma. Consequently, as happened to Russian forces in Ukraine, Chinese's huge manpower, firepower, and technological superiority will be confined to carrying out simultaneous micro-sieges, potentially isolated amongst them, challenging conventional doctrines, and demanding specialised training, equipment, and mental preparedness for sustained operations in such environments.⁴⁹ This is a scenario that China, rightly, already fears and that could be exploited by Taiwan.⁵⁰

For this reason, it is also reasonable to consider the alternative course of action that China could “flatten” Taiwan to circumvent urban combat and isolate the areas surrounding the government buildings and command and control centres, as well as the main industrial complexes. We argue that as far as moderate strategic options – such as decapitation or limited coercion – are exhausted, Xi Jinping or his eventual successor will face inherent dilemmas. The decision regarding invasion, coercion through strangulation, or extensive destruction will be determined by political, economic, and military considerations.

The common understanding of Beijing's policy generally suggests that its main goal is to reclaim the rebellious province of Taiwan whilst also preserving its economic potential, which encompasses infrastructure, industrial capacity, and human resources as essential elements of a feasible post-reunification strategy, heralding the ultimate restoration of the Chinese people. This assumption necessitates additional clarification, as it differs from punishing Taiwan to the point of destruction.

The CCP's current discourse emphasises that its interests over Taiwan are predominantly political-symbolic: showcasing sovereignty, reaffirming the narrative of national unity, and strengthening internal legitimacy. From this perspective, the requirement for the island to maintain economic integrity may be subordinated to the symbolic

significance of “victory”; in specific situations, the regime’s political assessment may prioritise legitimising outcomes over material expenses.⁵¹

Nonetheless, an interdiction campaign with significant civilian casualties and extensive destruction would likely provoke economic, diplomatic, and technological reprisals – such as sanctions, financial isolation, and technological containment measures – whose consequences could undermine immediate geopolitical advantages and diminish Beijing’s strategic standing. Recent observations of regimes subjected to sanctions indicate that the associated costs are challenging to internalise without incurring significant domestic political repercussions.⁵²

The interdependence of high-tech value chains amongst Taiwan, China, and much of the global landscape indicates that substantial harm to Taiwan’s factories or industrial clusters presents a systemic risk to China as well. Furthermore, as Taiwan leverages a portion of its semiconductor sectors to develop sensors, drones, and missiles, it will become inevitable for China to target these nodes and their valuable human resources, leading to significant disruptions in the global economy and Chinese technological efforts.⁵³

This issue may have further and more significant domestic effects, as the regime’s legitimacy largely relies on the guarantee of continued prosperity and political stability. A comprehensive interdiction campaign leading to considerable economic fallout and the slaughtering of the Chinese people residing on the island (who have deep family ties to the mainland) could undermine the CCP’s legitimacy, creating harmful incentives for dissent or the restructuring of elites with conflicting goals. As an authoritarian regime aware of the potential risks of internal disorder, China may find that coercive measures are less attractive than their perceived operational effectiveness suggests.⁵⁴

From an operational standpoint, investing in long-range strikes presents its own dilemma because it may not be effective given Taiwan’s extensive underground complexes and hardened command and control structures. As a result, it could lead to greater collateral damage than intended, especially in situations of widespread armed resistance, even after the flattening of Taipei, which would have a moral effect on both parties involved.

This dilemma acquires a broader structural dimension. War can be an instrument of prestige – a visible assertion of systemic rank – yet, as Robert Gilpin cautions, the long-run costs of sustaining hegemony frequently outweigh its immediate gains.⁵⁵ In Taiwan’s case, a “victory” bought through the devastation of urban life would hollow the prestige it aims to confer, turning a demonstration of coercive mastery into a source of strategic fragility once the attendant economic, normative and political costs crystallise.

Given these considerations, the PLA is most likely to adopt a balanced strategy that includes an invasion backed by substantial firepower. This article contends that as the probability of prolonged urban resistance rises, the political and economic expenses linked to alternative strategies for Beijing also escalate. As a result, the importance of converting metropolitan areas into prominent and politically contentious battlegrounds grows within the context of Taiwan’s deterrence.

For the Taiwanese government this dynamic creates a stark political dilemma: Taiwan’s defence has shifted from a presumption of categorical external commitment to one of conditional contingency, meaning the island can no longer assume it will be treated as a non-negotiable vital interest by the United States, Japan, and Europe. Consequently, the distributed and resilient posture embodied in its current asymmetric

strategy depends as much on Taiwan's resistance as it does on allied political co-ordination and operational support. Absent a credible domestic policy that can both endure extended confrontation and visibly demonstrate symbolic and material resolve, the prospect of timely, decisive allied relief is significantly reduced. Consequently, converting metropolitan areas into politically salient and operationally resilient battlegrounds becomes a central pillar of Taiwan's deterrence strategy.

Their finest hour

A large part of Western and Chinese reports and proposals assume that the population of Taiwan is an apathetic mass uninterested in the fate of their nation. Therefore, they conceive that the defence of Taiwan will be through a decapitation strike on the political and military leadership, with the rest of the occupation and annexation occurring by default. This would be one of the reasons why the operational environment of these studies takes place outside the metropolitan areas of northern Taiwan.⁵⁶

However, any study on war must go beyond the theory of victory at hand and include the always central role of the population.⁵⁷ In the particular case of Taiwan, its citizens have the right to fight for their freedom and way of life, which has never developed according to the communist single-party model or other traits of mainland China. Moreover, it is unrealistic to separate troops and civilians, as Taiwan's main cities are port cities, which the Chinese military would try to seize first, and they will be forced to meet the Taiwanese military on the ground. The high density of urban areas and the lack of space for strategic manoeuvres or retreats clearly indicate that the fight for Taiwan will directly involve its population. In a war scenario, the expectation is that a large proportion of Taiwanese citizens will be involved, directly or indirectly, in defensive efforts.⁵⁸

There is an increasing sense of identity among Taiwanese that highlights a separation from mainland China, posing a challenge to peaceful reunification. A 2020 survey by the Pew Research Centre indicated that merely 35% of Taiwanese respondents possess a favourable opinion of China, whereas approximately 60% express negative sentiments. This finding is supported by data indicating that only 27.5% of respondents identify as "Chinese and Taiwanese," whereas 67% identify solely as Taiwanese, and fewer than 6% advocate for reunification with China.⁵⁹ Moreover, the Taiwan Defence Surveys, conducted since 2021, indicated that on average 65% of respondents are very willing or somewhat willing to fight for Taiwan, demonstrating significant social support for national defence.⁶⁰ Another recent study indicated a significant rise in the willingness of Taiwanese individuals to defend their country, with 70.2% of respondents indicating a readiness to engage in military action against China, a position further strengthened by Russia's invasion of Ukraine. The survey revealed an increasing acceptance of extending compulsory military service and training for reservists, aimed at enhancing the military readiness of the population.⁶¹

An additional piece of evidence of popular willingness to engage is the grass-roots mobilisation movements since 2021. Amongst them, for example, the Kuma Academy was created, an organisation of volunteers that offers practical civil defence courses, addressing disaster prevention, medical rescue, and modern combat techniques.⁶² It should be noted that total mobilisation is mentioned in the 2021 defence documents, and the Total Defence Mobilisation Agency (ADMA) was created the following year,

but with guidelines limited to raising public awareness in crisis response. In 2022, the National Security Council studied international resilience experiences, such as Swedish civil resistance plans, addressing crisis response centres, civil training, strategic stock-piles, and civil air defence. However, there is still little co-ordination by the Ministry of National Defence and support in the country's parliament for concrete actions.⁶³

In this context, civilian participation should not remain merely complementary in Taiwan's defence strategy, but constitute an essential component, transforming Taiwan's urban infrastructure and citizens into assets. Popular support strengthens the viability of a deterrence policy based on the concept of "whole-of-society defence," which integrates the efforts of the government, the military, and the population. Strategies that use civilian infrastructure, along with civil defence training, would send a clear message to the international community – among allies and adversaries – that the Taiwanese people are willing to defend their sovereignty.⁶⁴

Taiwan should adopt Admiral Lee's recommendation on a territorial defence force made up of reservists trained for localised operations and with decentralised command for a decisive role in urban warfare, rather than relegating it to secondary tasks such as garrison duties, disaster relief, or reinforcing regular units.⁶⁵ The Ministry of National Defence reports a sizable reserve force of approximately 3.5 million personnel, including 2.7 million in the Army – comprising 300,000 officers, 1.4 million non-commissioned officers (NCOs), and 1.7 million enlisted troops. Taiwan continues to assign its reservists primarily to static beachhead defence, favouring a conservative and protective doctrine. Though recent defence documents mention urban warfare and anti-airborne capabilities, these remain marginal and underdeveloped, highlighting a critical gap in Taiwan's all-out defence strategy.⁶⁶

Furthermore, given Taiwan's ageing population and reserve structure, adopting a territorial defence doctrine would be a more feasible and effective approach than relying on conventional force-on-force deployment. With only 5.9% of the population in the 20–29 age range – typically the most combat-capable demographic – and 26.1% aged 30–64, Taiwan must realign its defence priorities to leverage the manpower it actually possesses. Territorial defence is particularly suited for this context because it emphasises localised, decentralised resistance using smaller, tailored-trained units that can operate defensively in familiar terrain. Unlike mobile conventional forces, territorial defence units can include older reservists with strong local knowledge and military-related civil expertise.⁶⁷

A territorial defence posture does not need to be monolithic; it can be tailored to specific national needs. It encompasses a range of force types and roles – from local militia and civil defence groups to integrated reserve formations – each with their own doctrines and operational scopes. This allows Taiwan to craft a layered defence strategy that maximises the capabilities of its large, albeit ageing, reserve force. Such a posture offers not only a militarily sound, but also a politically sustainable path for Taiwan's long-term defence planning.

In recent years, countries such as Estonia, Poland, and Ukraine have prioritised territorial defence as a central pillar in their national security strategies. This shift reflects a broader trend in Europe, which seeks a greater focus on mobilisation exercises and cyber-defence, preparing nations for a faster and more effective response in the event of conflict.⁶⁸ Estonia, for example, has revised its defence policies to increase civilian and military resilience, emphasising the mobilisation of its population and the

integration of defence strategies with NATO.⁶⁹ As we see in Ukraine, whilst territorial defence alone lacks the capability to overcome a large-scale invading force, it possesses the potential to impede the likelihood of a swift and conclusive victory. However, for such forces to be fully effective, they need to be integrated with tactics and technologies that amplify their impact. The logic of territorial defence is aligned with a broader approach, in which every element of urban space, civil technology and organised society becomes part of the resistance effort.

Weaponising smart cities

Historically, asymmetric warfare has been marked by “low-tech” operations in rural environments, in which less developed groups or societies face enemies with superior industrial capabilities. However, this concept should be substantially transformed, if not partially skipped, in the specific context of Taiwan because its urban infrastructure can be readily mobilised in a conflict scenario where there is the possibility of “the weaponisation of everything.”⁷⁰ Taiwan is not a technologically backward country; on the contrary, the adoption of emerging technologies – many of which are for civilian use – can generate new levels of effective complexity in decentralised military operations, considerably increasing defence effectiveness.

In this context, the “smart cities” technologies necessitate an acknowledgement of the vulnerabilities these networks may introduce. The potential Chinese access to information poses risks to local security, which would allow the PLA to gather information from censuses, public safety databases, market surveys, and property records in the public domain or susceptible to access, which would become a structured basis for planning and executing strategies in dense urban environments. The likelihood is high that almost the entire battlefield will be visualised and monitored by means of long-range drones, satellites and cyber-capabilities, implying that few areas will be beyond the reach of observation. Tools such as 3D modelling and millimetre-wave radars can provide the invading force with a detailed view of the urban terrain, allowing for an unprecedented level of monitoring and analysis.⁷¹ Finally, Beijing has already demonstrated its capability to sabotage submarine cables and could employ cyber-attacks to isolate Taiwanese cities, as evidenced by the operation targeting Matsu Island in 2023.⁷² This all underscores the importance of effective cyber-security management and data protection within smart city frameworks, as already implemented in New Taipei, such areas where European countries could provide significant support.⁷³

Nonetheless, the use of integrated sensors such as traffic cameras and environmental sensors installed at intersections could be reprogrammed to serve as early warning systems, in conjunction with image recognition software based on artificial intelligence, to identify enemy troop movements or armoured vehicles, sending real-time alerts to decentralised commands via encrypted networks. A practical simulation could involve noise pollution sensors, originally designed for environmental monitoring, being used to detect explosions or enemy helicopter movements, allowing local forces to adjust their defensive tactics in a matter of minutes. These applications not only highlight the potential of civilian infrastructure as a force multiplier, but also underscore the importance of prior planning to integrate these systems into a cohesive defence network, with clear protocols for their use in times of crisis.⁷⁴

Therefore, developing measures that make it difficult to identify precise targets in urban space becomes as crucial as ensuring that defence forces have the best capabilities to identify and neutralise their own objectives. Although the island's urban battlefield has undergone many years of development, with its defensive structures considerably completed, it is possible to consider their augmentation to offer layered kinetic and non-kinetic strategic depth. This means to pre-plan hundreds of killing zones served by facilities with ordnance and escape routes; portable air defence systems; anti-tank guided missiles; landmines; sniper rifles; and portable jamming devices to be used to block the PLA's BeiDou navigation system.⁷⁵

Additionally, Taiwan's urban territorial defence units can be equipped with open-source software to provide more resilient communications and targeting capabilities.⁷⁶ On one hand, LoRa (Long Range) technology consists of a wireless communication protocol designed to enable data transmissions over long distances whilst consuming little energy. This feature makes it particularly suitable for applications in the field of the Internet of Things. The ability of LoRa to operate over distances ranging from several kilometres in rural areas to hundreds of metres in densely populated urban environments highlights its versatility and efficiency. Moreover, its low energy consumption allows devices to operate for long periods using small batteries, facilitating their implementation in distributed sensors and field equipment.⁷⁷ On the other hand, the Android Team Awareness Kit (ATAK) is an open-source platform developed to provide geospatial visualisation and situational awareness, initially created for military use by the US Air Force Research Laboratory (AFRL).⁷⁸ This application allows users in tactical scenarios to access and share information in real time through mobile devices, such as smartphones and tablets, which enhances co-ordination during military and emergency operations. ATAK stands out for its ability to integrate geospatial data, images, and map overlays, facilitating collaboration and informed decision-making in challenging environments. In addition to its application in the armed forces, the software has also been adopted by disaster response agencies and civilian organisations, expanding its use to public safety contexts and emergency operations.⁷⁹

In the case of Taiwan, a practical example could be converting a share of its countless motorcycle and scooter repair shops scattered across the metropolitan areas to modify rapidly scooters for tactical use. This would be especially useful in dense urban areas where larger vehicles struggle to navigate, and electric scooters can be turned into a mobile signal relay point using LoRa and ATAK devices, enabling resistance units to maintain communication even during a telephone network blackout.

In relation to the political domain and external public opinion, including that of mainland China, Taiwan could additionally use decentralised communication platforms and satellite video devices to document and broadcast human rights violations and abuses committed by the PLA, generating international pressure and undermining the legitimacy of the occupation. The strategic use of social media, as demonstrated by Ukraine, has a significant impact on mass communication, influencing the formation of narratives and consolidating global support.

All this logistical and informational preparation could only be effectively operationalised through a civil resistance programme inspired by the "people in arms" comprehensive plan. In addition to special attention regarding inventory organisation and energy resilience already addressed in other studies,⁸⁰ the development of readiness initiatives,

such as training volunteers in basic defence tactics and establishing intelligence and community surveillance networks, would strengthen the country's ability to organise a distributed and decentralised resistance.⁸¹ A potential spillover effect would be to strengthen Taiwan's overall economic resilience. Civilian technology, telecommunications, and vehicle maintenance can strengthen the local economy in times of peace while facilitating logistical adaptation during periods of crisis. The concept of "defence by denial" leverages local technologies and strengthens defensive capabilities without relying excessively on prolonged military assistance and does not represent a substantial financial burden. Thus, this strategy appears to be a viable approach to strengthening Taiwan's security, with less investment in conventional armaments and greater mobilisation of endogenous resources, adapting them efficiently to the region's geopolitical scenario.⁸²

Nonetheless, that approach comes with its own set of costs and challenges. The expenses associated with weaponising metropolitan areas are considerable, yet they do not greatly exceed the financial commitments already made for domestic aerospace and naval industries. However, it will significantly affect the daily lives of people, involving construction and the relocation of businesses, public services, and residences. All this requires sustaining public engagement and ensuring that the civil administration remains committed to implementing measures for the conversion and fortification of urban spaces for potential combat, which must encompass compromise from both major political parties overcoming their own current polarisation.

The principal political challenge for Taiwan lies in the fact that China possesses the means and networks to foment social divisions or generate animosity capable of undermining or eroding collective resilience. In other words, whilst China's current assertiveness and military primacy reinforce the perception of threat, once this condition becomes normalised – particularly under the influence of selective incentives and pressure applied by Beijing – there may be a tendency for both authorities and the public in Taiwan to lower their guard.

The alignment of Taiwan's strategy with those of its allies and security partners constitutes an additional challenge. Operationally, the United States and Japan have already indicated their willingness to assume strategic roles, as evidenced during joint military exercises in June 2025, although the precise contours of such roles remain unclear.⁸³ One potential contribution concerns strengthening Taiwan's deterrence posture through enhanced passive-defence measures, including the rapid deployment of units to Taiwan's airspace, territorial waters, or territory. While such actions could risk early escalation, they may equally serve to deter Chinese coercion in the grey-zone domain.

A second role involves preparing to support Taiwanese forces and the civilian population during any blockade phase of a Chinese offensive. This would entail stockpiling weapons, critical systems, and essential supplies to prolong resistance, as well as devising plans to breach a potential Chinese *cordon sanitaire* and maintain timely contact with Taiwan's defenders. Finally, the United States, in particular, could facilitate the exchange of expertise between Taiwan and NATO members experienced in territorial defence planning, thereby strengthening Taiwan's resilience and whole-of-society defence strategy.

Making China avoid an unwinnable war

Territorial defence, combined with the strategic use of megacities, makes up a comprehensive model of defence capable of making any invasion of Taiwan an extremely costly

undertaking for China. The convergence of urban insurgency, cyber-warfare and societal mobilisation redefines the contours of contemporary security, positioning Taiwan as an emblematic case study for today's urban conflicts.

The weaponisation of its urban population should not be Taiwan's final recourse. The essential related measures outlined in this article and others must be incorporated into the planning of the Ministry of National Defence, rather than being relegated to agencies or levels outside the highest decision-making authority. Furthermore, they should be integrated into a communication strategy designed to signal clearly Taiwan's intent and capability to counter Chinese aggression through an unprecedented kind of people in arms. By maintaining its political will and capacity to execute this, it could potentially shape Beijing's perception and influence its cost-benefit analysis against a full-scale invasion.

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