Co-chairs Schriver and Mann, members of the Commission and staff, thank you very much for your invitation to testify on the implications of the Ukraine conflict for a PRC-Taiwan scenario.

Beijing is undoubtedly observing all dimensions of the Ukraine war. There are signs that the Chinese are paying close attention to the unifying effect that Putin’s invasion has had on NATO. They are surprised by the speed and scale of sanctions imposed on Russia by the US and its allies in Europe and the Indo-Pacific. Beijing is likely also tracking the decisions by over 1,000 foreign companies to shutter or curtail their operations in Russia. My testimony will focus on the lessons that the Chinese military may draw from this conflict, as requested by the Commission.

The People’s Liberation Army (PLA) studies and learns from foreign wars, and the Ukraine conflict will not be an exception. If the past is a reliable guide, the Chinese military won’t draw conclusions rashly. China’s judgments about the implications of prior conflicts like the Falklands War and Desert Storm came only after a lengthy period of study and debate lasting 1-2 years. With fighting in Ukraine still underway and the outcome of the conflict uncertain, it is premature to assess with confidence the lessons that China will eventually absorb and translate into practice. Nevertheless, it is not too early to start thinking about these issues and their implications for integrated deterrence.

Based on the first five months of the Ukraine war, China’s study of Russian and Ukrainian operations has likely validated much of the PLA’s ongoing reforms and modernization plans, while also providing lessons that could result in adjustments aimed at enhancing the prospects of success at a lower cost if the Chinese leadership decides to launch an invasion.

Similarities and Differences from a Military Perspective

The most obvious similarity between Russia’s invasion of Ukraine and a potential Taiwan scenario from a military perspective is that just as Russia has significant conventional military advantages over Ukraine, China has substantial conventional military advantages over Taiwan. But contrary to expectations, Russia’s possession of an overwhelming military advantage in combat power was not employed in a way that could enable a quick victory. Instead, it was offset by skillful application of asymmetric military capabilities. If the PLA tries to seize Taiwan, it

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1 Yale School of Management Data Base, https://som.yale.edu/story/2022/over-1000-companies-have-curtailed-operations-russia-some-remain.
will need to use massive force and move quickly. A second similarity is that both Russia and China are nuclear powers, while Ukraine and Taiwan are not but its backers are. A third similarity is that no country has a treaty obligation to defend Ukraine, and Taiwan also has no treaty ally, although the United States is required under the 1979 Taiwan Relations Act to sell Taiwan defensive weapons and has a policy commitment “to maintain the capacity of the United States to resist any resort to force or other forms of coercion that would jeopardize the security, or the social or economic system, of the people on Taiwan.” However, Beijing has long planned for the possibility of US intervention in a Taiwan conflict, whereas Moscow did not have to factor in the potential for direct US involvement in planning its invasion of Ukraine.

The differences between Russia’s aggression against Ukraine and a possible PRC action against Taiwan are significant. Prior to Russia’s full-scale invasion in February 2022, it had already occupied approximately 7 percent of Ukraine, including Crimea and portions of the Donetsky republic. There were already tens of thousands of Russian troops occupying the Crimean Peninsula. By contrast, the PRC has not seized any of the ROC’s claimed territory. In addition, a total of 23,000 Ukrainian soldiers received training from the US and other NATO countries beginning in the aftermath of the 2014 attacks right up to Russia’s invasion in February 2022. US training of Taiwan’s troops has likely involved much smaller numbers.

The geographical differences between the two regions are pronounced. Since Russia shares a land border with Ukraine that has mostly flat terrain, rolling Russian tanks across the border was relatively easy. An operation to seize and control Taiwan would require the PLA to transport hundreds of thousands of troops across the sea, which is 90 miles wide at the narrowest point. The readiness of the PLA to successfully conduct an amphibious assault remains a subject of heated debate among experts.3

Ukraine also has the advantage of sharing land borders with NATO members, which has enabled the flow of weapons and humanitarian assistance into the country over land routes. Delivery by land and air of Javelin antitank missiles, Stinger anti-aircraft missiles, small arms and ammunition and other weapons has kept the morale of Ukraine’s fighters relatively high and helped to give the Ukrainian military the ability to sustain the fight. Logistics could be the deciding factor in the war. As an island, Taiwan can be relatively easily cut off. The PLA’s substantial air and maritime capabilities would enable the imposition of a blockade that would raise the escalatory risk of any resupply efforts. The Chinese military would also be able to block Taiwan’s exports from Keelung and Kaohsiung, its major ports in the north and south. In a point

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3 For example, Kevin McCauley argues that the PLA likely does not currently possess the requisite logistics capabilities to successfully support a large-scale amphibious landing on Taiwan. China Maritime Report No. 22: Logistics Support for a Cross-Strait Invasion: The View from Beijing, China Maritime Studies Institute, U.S. Naval War College, July 2022, https://digital-commons.usnwc.edu/cmsi-maritime-reports/22/. Lonnie Henley maintains that the PLA’s concept of operations includes requisitioning civilian vessels operated by China’s maritime militia that could enable a large-scale ambitious assault. China Maritime Report No. 21: Civilian Shipping and Maritime Militia: The Logistics Backbone of a Taiwan Invasion, China Maritime Studies Institute, U.S. Naval War College, May 2022, https://digital-commons.usnwc.edu/cmsi-maritime-reports/21/.
of similarity with Russia’s operations in Ukraine, Moscow has prevented Ukraine’s grain exports by blockading the ports of Odesa and Ochakiv.

**Will Ukraine Embolden or Caution Beijing?**

The impact of the Ukraine conflict on China’s approach to Taiwan in the near-term is not likely to be significant. There is no evidence that Xi Jinping has already made the decision to use military force to compel cross-Strait unification and the Ukraine crisis by itself will probably not lead him to make that decision. Beijing’s policy toward Taiwan has its own logic and timetable that will not be substantially influenced by Putin’s war. Reunification is an “historical mission” of the CCP, but where it fits among Xi Jinping’s priorities and ambitions is not clear. Despite public opinion polls in Taiwan that show only a small percentage of the population support unification with China, CCP documents continue to state that “time and momentum” are on China’s side. If the article by Taiwan Affairs Office Director Liu Jieyi published in People’s Daily on July 7 is a reliable indicator, the Chinese Communist Party’s new “Comprehensive Plan for Resolving the Taiwan Issue in the New Era” will contain many elements of continuity with recent policy, though I expect there will be increased emphasis on legal warfare and various forms of coercion.

Over time, as China’s study of the war yields conclusions, some of those lessons may give the Chinese leadership greater confidence that it can succeed in a military takeover of Taiwan and embolden Beijing to act; other lessons are likely to inject greater caution. At this juncture, I think that the lessons that will induce caution outweigh those that will bolster confidence that an invasion can succeed at a low cost. However, as I noted above, it is early days and even if my analysis is correct today, China’s assessment could shift over time.

Lessons that China may draw from the Ukraine conflict that could embolden Beijing include:

**Employ nuclear threats:** Putin’s threat to use nuclear weapons and his decision to put Russian nuclear forces on “special combat readiness” may strengthen China’s belief that nuclear deterrence could deter foreign intervention, enable conventional military conflict, and keep the conflict contained. Beijing appears to have already begun to shift away from its policy of building “a lean and effective deterrent force,” as articulated in its 2009 Defense White Paper, and has likely already conditionalized its “no first use” policy.

**Impede enemy resupply:** The key role of logistics, as noted above, has been crucial in the Ukraine war. Russia has been unable to prevent NATO from providing weapons and other forms of assistance to Ukraine. In the case of Taiwan, resupply would be far more difficult, and Beijing would likely impose a blockade to isolate Taiwan and raise the escalatory risk of any resupply.

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efforts. The PLA’s confidence in its ability to cut off outside assistance could strengthen confidence that the PRC can prevail.

**Ensure information dominance:** A negative lesson that could embolden Beijing is the impact of leadership in Ukraine’s battle against Russian forces. Ukrainian President Volodymyr Zelenskyy has played a vital role in inspiring patriotism in his people and encouraging them to continue to fight, while also marshaling international support for Ukraine’s sovereignty. China has advantages that it may believe could enable it to dominate the information environment in advance of and during a conflict. These include the PRC’s significant control over Taiwan’s media, its ability to spread disinformation on social media, and its ability to limit or even cut off internet access. The PRC likely believes it can dominate the cyber, space, and electromagnetic domains. China’s plan to establish information dominance will likely prioritize operations to decapitate Taiwan’s political and military leadership.

**Use overwhelming force and win a quick victory:** Another negative lesson from the Ukraine war is that a decisive victory cannot be won without the use of massive force. China will double-down on its plans to invade Taiwan with overwhelming firepower. It will seek to achieve victory before the US can come to Taiwan’s defense, and the Ukraine conflict has provided the lesson that the PLA must avoid getting bogged down in a protracted conflict.

Lessons that China may draw from the Ukraine conflict that could induce additional caution Beijing include:

**The costs of war in blood and treasure will likely be high:** To date, approximately 15,000 Russian soldiers have been killed in the war in Ukraine, and up to 45,000 more have been wounded. Unlike the Russian military, the PLA has no recent extensive combat experience. The PLA could lose large numbers of soldiers in an amphibious assault, and perhaps more in a protracted conflict on Taiwan’s soil. Strong resistance by the Ukrainian population will require the PLA to consider Taiwan’s will and capacity to resist, a factor that it previously discounted. Instead of a quick victory, the PLA could get bogged down in a stalemate. Consideration must be given to war termination and post-war governance.

**The PLA can’t count on having the element of surprise:** The accuracy of US intelligence regarding the timing and plans of Russia’s invasion of Ukraine has likely altered Beijing’s thinking about whether it can achieve strategic-level surprise in an invasion of Taiwan. The mobilization required to invade Taiwan with overwhelming force cannot be completely hidden from US intelligence gathering satellites and other means.

**China’s security environment will deteriorate significantly:** The Chinese leadership is increasingly worried about unfavorable trends in China’s security environment, including the emergence of coalitions to push back against Chinese assertive behavior. The strong response of many countries to Russia’s invasion and the willingness of the United States and its allies to punish Russia has not gone unnoticed. At the G20 foreign ministers meeting in Indonesia in mid-

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July, Russian Foreign Minister Sergei Lavrov was met with harsh criticism from many countries’ representatives who called for Moscow to end the war and the grain blockade. Xi Jinping told President Biden in March that “the prevailing trend of peace and development is facing serious challenges.” Global diplomatic condemnation of a Chinese attack on Taiwan is highly likely. Before embarking on an invasion of Taiwan, the Chinese will have to carefully weigh the reputational costs and determine whether an attempt to reunify the nation will enable or set back Beijing’s ambitions to be a global leader along with its quest to achieve national rejuvenation by mid-century.

**The civilian leadership needs to question its military’s assessments:** Prior to the launch of the invasion, Russia’s military was overconfident about its prospects for a quick victory. We know very little about what the PLA’s estimates are of its capabilities to seize and control Taiwan or what the Chinese military has told Xi Jinping. But it is reasonable to assume that Xi Jinping could demand a high degree of certainty that an attack would succeed before launching a full-scale invasion. In the near-term, he may be skeptical of the PLA’s assessment of its ability to take Taiwan as a result of the Ukraine war, and take measures to ensure that any deficiencies are first identified and rectified. The poor performance of Russia’s military and Russian weaponry, especially in the early phases of the war, may add to Chinese doubts about PLA readiness to succeed in a military takeover of Taiwan.

**Unintended consequences are unavoidable:** The Ukraine war has led to numerous unintended consequences, including the expansion of NATO to include Sweden and Finland. Beijing also needs to consider the potential unintended consequences of a PLA attempted takeover of Taiwan by force. Once possible unintended consequence is the increased willingness of countries with territorial disputes with China to forge closer ties with the United States and join quasi anti-China coalitions. A particularly alarming unintended consequence could be a decision by Japan to develop nuclear weapons, which might depend on the outcome of the war and Tokyo’s perception of U.S. willingness and capability to defend Taiwan.

**The implications of defeat must be considered:** The Ukraine conflict is not over, but if Russia is defeated, Chinese leaders are almost certain to think more deeply about the implications of a PRC defeat. For Beijing, a failed attempt to seize Taiwan could weaken Xi Jinping’s rule as well as CCP legitimacy and make China’s attainment of national rejuvenation unattainable.

**Taiwan’s Military Lessons from Ukraine**

Russia’s invasion of Ukraine has heightened concern in Taiwan about the possibility of the PRC using force to attempt a takeover of the island. Taiwan’s President Tsai Ing-wen is trying to use the Ukraine crisis to promote national unity as well as to encourage defense reforms that will strengthen deterrence and better prepare for defending the homeland if deterrence fails. At the same time, she has sought to reassure the public by insisting that Taiwan’s circumstances are different from Ukraine and that the military is prepared to respond to any contingency. In March, Tsai donned army fatigues and body armor to observe army reservist training under a pilot program to enhance readiness. She told the reservists that “The recent situation in Ukraine once
again proves that the protection of the country, in addition to international solidarity and assistance, depends on the unity of the whole people.”7 On other occasions, Tsai has endorsed the concept of “asymmetric warfare” that emphasizes mobility and survivability in wartime.

Taiwan’s Ministry of National Defense (MND) warned in June that the PLA would be capable of fighting against Taiwan and allied forces by 2027, though it did not echo the claim by some Americans that 2027 is a target date for a Chinese invasion of Taiwan. The ministry cited steps that are being taken to improve Taiwan’s defense capabilities in joint operations to resist an invasion, including integrated air defense systems and maritime interception.8 It also noted that MND is planning to boost its missile production capacity to 497 from 207 per year. The National Chung-Shan Institute of Science and Technology plans to build 34 new facilities to manufacture missiles. Domestically produced missiles include Wan Chien air-to-ground missiles as well as the Hsiung Feng IIE missile and the longer range Hsiung Sheng land-attack missile.9 The ministry is also reportedly planning to start manufacturing attack drones.

Taiwan’s annual Han Kuang exercises this year incorporated lessons from the war in Ukraine. Major General Lin Wen-huang, director of joint operations under the military’s planning office, told reporters that the exercises would use lessons from the Ukraine conflict to “improve our capabilities in asymmetric warfare, cognitive warfare, electronic warfare and the reserve force.” He said the military would test the effectiveness of local forces in dealing with cognitive warfare launched by Beijing and mobilizing reserve forces in working with policy, firefighters and civilian volunteers. The exercises reportedly used portable Javelin and Stinger missiles as well as military drones.10

Discussion is underway in Taiwan regarding whether to extend the period of compulsory military service, which was reduced to 4 months in 2013 as part of a plan to shift to an all-volunteer military. Sources suggest mandatory service will be extended to 10 or 12 months. Defense Minister Chiu Kuo-cheng has publicly committed to present a plan to bolster Taiwan’s defenses by the end of this year, which many believe will include extending national service.

Under the army reserve pilot program, which began implementation prior to the invasion of Ukraine, 15,000 reservists are being called up for two stints of 14 days, instead of four stints of 5-7 days, and their training regimen has been modified to include 10 hours per day, night training, live-fire drills, and training with active-duty soldiers. But the total amount of required training over the period of their eight-year service will not increase over the existing program.

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8 “China able to take on Taiwan, allies by 2027: MND,” Taipei Times, June 6, 2022, https://www.taipeitimes.com/News/front/archives/2022/06/06/2003779417.
The results of the training program will be evaluated in the last quarter of 2022, at which time a decision will be made on whether to apply the new procedures across all the reserves.\textsuperscript{11}

Taiwan’s lessons from the key role played by Ukrainian civilians in resisting Russia’s armed invasion remain unclear. Defense Minister Chiu seemed to imply that he recognized the value of civil defense when he told reporters last March that giving people guns and sending them to fight after a few days of training was among the lessons that Taiwan could learn from Ukraine.\textsuperscript{12} Yet there is no concrete plan to create a territorial defense force, in part because neither MND nor the Ministry of Interior supports it. In April, Taiwan’s newly established All-Out Defense Mobilization Agency, an organ of the MND, issued the first ever “war survival guide” to citizens that provided information about what to do in a crisis, including how to locate bomb shelters and make first-aid kits. But the Agency has not been tasked with organizing civilian resistance.

Several non-governmental groups emerged in Taiwan to try to fill the gap even before the outbreak of the Ukraine war, including the Forward Alliance, which trains civilians in skills such as first aid and emergency response, and the Taiwan Military and Police Tactics Research and Development Association, a paramilitary organization composed of former, reserve, and active-duty special operations soldiers, members of Taiwan’s SWAT police units, and others with special skills. Former Chief of General Staff Admiral Lee Hsi-min (ret.), continues to advocate for Taiwan to create a standing, all-volunteer, territorial defense force to signal the PRC that even if the PLA can successfully establish a beachhead on Taiwan’s territory, it will not easily be able to occupy and control Taiwan.\textsuperscript{13}

Based on my observations, there are efforts in Taiwan to draw lessons from the Ukraine conflict and apply them to strengthen Taiwan’s defense capabilities, but the persistence of long-standing obstacles to defense reform will likely hamper those efforts. Moreover, Taiwan’s government and military appears less urgent about the PRC invasion threat than their counterparts in the United States.

\textbf{US and Allied Lessons from Ukraine for Deterrence in the Taiwan Strait}

The concept of integrated deterrence, as introduced by Secretary of Defense Lloyd Austin attaches importance to working with our allies and partners. As Undersecretary for Policy Colin Kahl has stated, “We have to work alongside our allies and partners so that our adversaries know that they are not just taking on the United States, they’re taking on a coalition of countries who are committed to upholding a rules-based international order.”\textsuperscript{14}

\textsuperscript{11} “New intensified reservist training program set to launch,” \textit{Focus Taiwan}, March 2, 2022, https://focustaiwan.tw/politics/202203020008.
\textsuperscript{12}“Taiwan’s Tsai says Ukraine war shows need for unity in defense.”
The Ukraine war has raised questions about whether the US and its allies did enough to deter Russian President Vladimir Putin from invading Ukraine. It is impossible to know whether Putin could have been deterred, but it is logical that a strategy aimed at deterring Putin had to focus on altering his cost/benefit calculus. Deterring a Chinese attack on Taiwan must similarly focus on changing Xi Jinping’s cost/benefit calculus. We must understand where unification resides on Xi’s list of priorities, as well as what he fears, and what will constrain him. We need to identify actions the US and our allies and partners can take that will deter Xi from moving against Taiwan and avoid taking measures that will likely provoke use of force.

Our allies and partners in Europe and the Indo-Pacific are increasingly concerned about China’s destabilizing measures to change the status quo in the Taiwan Strait. They increasingly appreciate the imperative to avert crisis and preserve peace and stability. They will be more willing to work alongside the US in peacetime, crisis, and wartime if they assess that Washington has a coherent strategy that is unlikely to inadvertently provoke conflict with China, but instead will deter Chinese aggression.

Below are five important steps that the US and its allies can take as they seek to apply lessons from the Ukraine war to the task of strengthening deterrence in the Taiwan Strait:

- **Seize the opportunity of growing international concern about Taiwan to strengthen Taiwan’s connections with other countries.** The US should encourage our allies and partners in Europe and the Indo-Pacific to expand their contacts and cooperation with Taiwan. Moscow underestimated the extent of international support for Ukraine. Steps should be taken to ensure that Beijing understands that many countries have a stake in preserving peace and stability in the Taiwan Strait.

- **Build a united coalition of like-minded countries willing to demonstrate the concrete costs that China would incur if it used force against Taiwan.** The sanctions that Western governments threatened to impose on Russia prior to the invasion were less severe than the sanctions they imposed after the invasion. The US and its allies should signal resolve to take measures that would inflict substantial pain on China’s economy and deny China the ability to achieve national rejuvenation by Xi Jinping’s stated goal of 2049. Advance coordination and planning with allies are essential. Candid discussions should include establishing redlines for various scenarios as well as courses of action in response.

- **Strengthen Taiwan’s ability to defend itself and fight an insurgency, if necessary.** Assist Taiwan to establish a Territorial Defense Force. Taiwan should learn from such programs in Finland, Sweden, and the Baltic states. There is no evidence that PLA planning to date has anticipated a protracted war in Taiwan. The strong Ukrainian resistance has hampered the ability of Russian forces to achieve their military goals. Demonstrating the will and capability of Taiwanese citizens to fight to preserve their freedoms will introduce greater uncertainty and alter Beijing’s risk/benefit calculus.
• **Increase Taiwan’s inventory of missiles and other munitions.** Taiwan’s missile production capacity is insufficient to enable Taiwan to fight a protracted war. The US should augment Taiwan’s indigenous systems through the supply of anti-ship missiles, coastal defense cruise missiles, and precision-guided munitions, enabling Taiwan to stockpile large quantities of these capabilities. The US must also increase its own production of missiles in preparation for a Taiwan Strait crisis. If the US detects Chinese mobilization for an invasion, Washington should be prepared to supply additional weapons quickly.

• **The US and Japan should expand ongoing bilateral discussion and operational planning with an eye to signaling the capability to jointly respond to Chinese aggression against Taiwan.** Tokyo and Washington should discuss in greater detail their respective roles and missions in various contingencies. Effective allied response will require rapid policy decisions and implementation that necessitate advance planning.

**Recommendations for Congressional Action**

• Congress should require the DoD to conduct a review of Taiwan’s progress in implementing defense reforms and developing capabilities to defend itself.

• Congress should support the establishment of the Taiwan Security Assistance Initiative as called for in Section 204a of the Taiwan Policy Act introduced by Senators Lindsey Graham and Bob Menendez that authorizes $4.5 billion over four years in Foreign Military Financing for Taiwan and prioritizes Taiwan’s requests for assistance.

• Congress should expedite the delivery of backlogged military equipment that the US has agreed to provide to Taiwan and take steps available to make the arms sales process more transparent and ensure the timely delivery of future arms shipments.