This short paper explores how key leaders on both sides of the Pacific might take steps to avoid war or, failing that, to contain conflict and quickly end it should a major crisis develop over Taiwan. The first section provides military background on what I see as the most worrisome set of scenarios—not invasion, and not a coup-like PRC attack on Taiwanese leadership, but coercive uses of force featuring missile strikes or a naval blockade. The second part investigates approaches that China and the United States might consider as means of avoiding escalation.

COULD CHINA COERCe TAIWAN’S CAPITULATION?

My analyses suggest that China would have great difficulty invading Taiwan. Amphibious assault has always been very difficult militarily, and that fact is increasingly true in the era of all-weather day-night strategic reconnaissance and precision strike. In addition, China would be unlikely to achieve the type of aerial dominance against Taiwan normally enjoyed by successful invasion forces in the past. Any effort on its part to marshal a large aerial preemption force for use against Taiwan's planes and airports
would tip off Taipei about the looming threat. Even if China somehow could achieve air
dominance, and avoid massive losses from antiship missiles against its invading armada,
the PRC's amphibious and airborne forces appear to be five to ten times smaller than
what would be needed to create a defensible lodgment on Taiwan's shores. ¹

Even if China could not seize Taiwan, however, it could try to use military force
in a more limited way to pressure Taipei to accept terms for political association highly
favorable to Beijing. Two scenarios are of particular interest: a missile attack designed
to terrorize or coerce (rather than to achieve direct military conquest), and a blockade. In
the latter case, U.S. military forces would probably need to come to Taiwan’s assistance
in order to avoid a slow strangulation of the island.

Consider first a possible missile attack by China against Taiwan. The PRC has
several hundred ballistic missiles deployed near Taiwan today. From their current
positions, the M-9 and M-11 missiles can reach Taiwan. But as shown above, neither
possesses sufficient accuracy to effectively strike military assets using conventional
explosives. Indeed, they would generally miss their targets by several football fields and
almost always by the length of at least a single field. Granted, if Beijing unleashed a
salvo of hundreds of missiles, it might register a few direct hits against lucrative military
targets (as well as dozens of hits, with varying degrees of lethality, against population
centers). Commercial sea traffic might diminish drastically for a period of time. But if
China exhausted the bulk of its missile inventory to sink a grand total of two or three
cargo vessels, and temporarily slow operations at a port or airfield, that might not be seen
as such an intimidating or successful use of force.

Used against civilian populations, each missile might typically kill anywhere from
a few to 10 or 20 citizens, judging by the experiences of Operation Desert Storm and the
Iran-Iraq “war of the cities.”² Such terror tactics would be tragic for the well-being of the
Taiwanese—but limited in overall magnitude, at least by the standards of war, and more
likely to embitter and harden the Taiwanese than coerce their capitulation, if past
experience with such terror tactics is any guide. In the end, using missile attacks in this
way would say more about Chinese weakness than anything else—just as limited air and cruise missile attacks by the United States in recent years have often shown irresoluteness rather than strength or staying power, and achieved correspondingly poor results. 3

The more troubling coercive scenario is a blockade. Rather than relying on sheer terror and intimidation, it would take aim at Taiwan’s economy, and try to drag it down substantially for an indefinite period. It is doubtful that China could truly cut Taiwan off from the outside world with such a blockade. However, if willing to take losses, it could certainly exact attrition from commercial vessels trading with Taiwan as well as Taiwanese military forces trying to break the blockade. Even with an imperfect, “leaky blockade,” it could sink enough commercial ships to scare others off, and do so over an extended period. Should it convince most commercial shippers not to risk trips to Taiwan, it could effectively begin to strangle the island. If Beijing then offered Taiwan a compromise deal, Taipei might be coerced into capitulation. For example, Beijing might demand reaffirmation of the one-China principle and some degree of political fealty from Taiwan while permitting the island to retain autonomous rule and finances, and perhaps some armed forces. Moreover, whether Taipei could be coerced in this way or not, China might believe it could—and hence try such a coercive use of force in response to future behavior from Taipei that it finds unacceptable. 4

A Chinese blockade could take a number of forms. But for the PRC, the least risky and most natural approach would simply attempt to introduce a significant risk factor into all maritime voyages in and out of Taiwan by occasionally sinking a cargo ship with submarines or with mines it laid in Taiwan’s harbors. Using airplanes and surface ships would put more of its own forces at risk, especially since it could not realistically hope to eliminate Taipei’s air force with a preemptive attack. A blockade using planes and surface ships would also be rather straightforward for the United States to defeat quickly. China might couple such a blockade with a preemptive air and special-forces attack—but perhaps just a limited one focused on Taiwanese submarine-hunting ships and airplanes, which it might be able to attack effectively.
In conducting a blockade of Taiwan, China would be taking advantage of three main facts. First, Taiwan has only a small coastline—forcing ship traffic to take predictable routes into ports. Second, it is quite vulnerable to blockade because it has few natural resources, extreme energy dependence, and no other way to import or export than via sea or air. Taiwan’s foreign trade accounts for two-thirds of its GDP. Finally, Taiwan has few submarines or long-range attack aircraft to conduct a countervailing blockade of its own. Ships headed to or from China could simply sail around Taiwan far enough to keep out of range of its weapons. China does not enjoy these types of asymmetric advantages over Taiwan for much-ballyhooed scenarios such as computer virus warfare, so it seems more likely that Beijing would resort to a blockade to cause Taiwan economic harm.

Taiwan could take a number of steps to break a Chinese blockade and to mitigate any effects it might have. Ships could come and go from Taiwan’s eastern shores as much as possible. They could avoid the Indonesian Straits and South China Sea and force the PRC to attempt attacks in the open oceans far from Chinese territory. This approach would add a few thousand miles and modest cost to the merchant ships’ journey, but such costs are not particularly onerous in modern shipping. It would also permit any of Taiwan’s surviving antisubmarine surface ships escorting the commercial vessels to operate either within cover of land-based Taiwanese airpower, or out of range of both PRC and Taiwanese fighter bombers. Similarly, Taiwanese airpower would be well-positioned to defend ships to the east of the island from any PRC aircraft that might pursue them.

Nonetheless, Taiwan would remain rather vulnerable. If it tried to route ships only to ports on its east coast, it would give up use of its Kaohsiung Harbor, which is the third largest port in the world and accounts for more than half of all of Taiwan’s trade, as well as harbor facilities near Taichung, which account for another quarter of Taiwan’s total trade. Other ports could probably handle somewhat more traffic than they do today, but Taiwan’s harbors are already busy and it is implausible that they could sustain anything close to current levels of trade without Kaohsiung and Taichung. Taiwan could
certainly mitigate the economic effects of its reduced trade by rationing use of fuel and certain foods, stockpiling manufactured goods with long shelf lives to export once the blockade was lifted, and giving preferential treatment to its highest-revenue exports and most crucial imports. It could also offload some ships anchored near shore using small barges, easing the constraint posed by the limited harbor capacity on its eastern shore.\(^9\) But as with Britain in World War II, its ability to endure a long blockade is not certain.\(^{10}\)

Most of China’s submarines do not have anti-ship cruise missiles or great underwater endurance at present,\(^{11}\) and their capacity to conduct a coordinated blockade operation in conjunction with surface and aerial assets is limited.\(^{12}\) However, these shortcomings may not be particularly onerous when the submarines’ targets are commercial ships approaching Taiwan. The submarines have adequate ranges on a single tank of fuel—typically almost 10,000 miles—to stay deployed east of Taiwan for substantial periods.\(^{13}\) Although their ability to coordinate with each other and reconnaissance aircraft is limited, that might not matter greatly for the purposes of a “leaky” blockade. Carrying torpedoes with ranges of 10 kilometers or more, and being able to pick up commercial ships by sonar or by sight, such submarines acting individually could maintain patrols over a large fraction of the sea approaches to Taiwan.\(^{14}\) It could take Taiwan weeks to find the better PRC submarines (of which China has 9 today, as shown in Table 1), particularly if China used them in hit-and-run modes. Modern attack submarines are able to detect enemy warships at considerable distance, and are fast when submerged (unlike the case, say, in World War II)—giving them a chance to escape surface ships without running vulnerably on the surface.\(^{15}\)

Taiwan could use its surface fleet to set up and accompany convoys of merchant ships. It would be harder to do this for ships approaching Taiwan that for those leaving, however, since those that approach come from many different places—and if they assembled east of Taiwan to wait for escorts they would be vulnerable at that point. An additional complication is that Chinese submarines lucky enough to be lying quietly in wait in the right places would tend to hear approaching convoys before they were
themselves detected, making it likely that they could often get off the first shot—if not the first couple—before being put at risk themselves.

The overall outcome of this struggle is very hard to predict. China’s advanced submarine force is small, but Taiwan’s advanced anti-submarine warfare capabilities are not much greater. In addition are the uncertainties over how many escort ships Taiwan would have lost in a preemptive Chinese attack, and uncertainties over how proficiently the two sides would use their respective assets.\textsuperscript{16}

Chinese mines would likely pose a problem too. China’s submarines usually each carry two to three dozen mines, so half of its entire submarine fleet would carry about 1,000. If half the fleet was able to deploy mines near Taiwan without being sunk, China would be able to deploy nearly as many mines as Iraq did—with considerable effect—against the U.S.-led coalition in 1990-1991. China surely has, and will acquire, more sophisticated mines than Iraq possessed, moreover, including “smart mines” that would be difficult for minehunters to find or neutralize.\textsuperscript{17} Moreover, Taiwan’s minesweeping ships are limited in number and mediocre in quality and condition. It is likely that China could exact a price with its mines, perhaps causing attrition rates of a couple percent each time ships tried to enter or leave Taiwan’s ports, by analogy with the U.S. Persian Gulf experience and other previous conflicts.\textsuperscript{18}

**IMPLICATIONS--AS WELL AS LESSONS FOR CONFLICT AVOIDANCE AND CONFLICT MANAGEMENT**

The above analysis, if right, should be sobering for Chinese and American officials (not to mention those in Taiwan!, though this analysis focuses on the two largest players and treats Taiwan's behavior largely as a given). Neither can be sure of how a PRC naval blockade of Taiwan in particular would play out. How much damage might result to Taiwan's economy, to U.S. Navy ships involved in breaking the blockade, and to China's military forces in any such encounter is very hard to predict.
For Chinese leaders, one risk is that a coercive use of force would not succeed because of American intervention, leading not only to a hostile great-power relationship for years but to military defeat. Another risk is that the United States might try to destroy most PRC naval and air assets within combat range of Taiwan, leading to substantial Chinese military losses.

For the United States, which would clearly share the risk of a poisoned relationship with China for years to come, an additional risk is that some of its Navy ships, perhaps even including an aircraft carrier, could be sunk trying to break a Chinese blockade. Indeed, a recent Naval War College paper estimated that a dozen or more U.S. ships could be lost. Thousands of American casualties and $10 billion or more in military hardware could be the price. A second danger is that China could end its attacks as soon as U.S. ships and planes reached the region in large numbers--but then resume the strikes later, at a time and convenience of Beijing's choosing. China's geographic proximity would be a major advantage in such a protracted scenario.

As noted, one likely consequence of a war, especially one that either involved large numbers of casualties or ended in an unsettled and tense way, would be a poor U.S.-PRC relationship. For example, long-term trade sanctions could easily be imposed by each side on the other. In addition, while both Washington and Beijing would surely try to maneuver for position internationally, there is a danger for China in particular that America's economic sanctions could be reinforced by those of other parts of the international community. Clearly, the PRC is attempting to improve its diplomatic standing throughout the region and world, partly to reduce the risks of such an outcome in a crisis, but it is hard to know in advance that China would be successful.

Both sides would also face the danger, even if small, of an escalating war. Once combat began, neither would be likely to find failure an acceptable option, meaning that either might consider highly provocative second and third steps. For the United States, its options might include attacking a wide range of PLA targets, even beyond the
immediate combat theater and even on the Chinese mainland, particularly if a blockade proves hard to break and/or if American assets are lost in the battle. For China, options might include threats against American targets in places such as Japan, and even veiled nuclear threats--perhaps designed to strike military targets, or use EMP against civilian targets, rather than kill large numbers of civilians.

Possible American Responses to Limit the Dangers

Given these dire stakes, how could leaders in Washington and Beijing try to avoid war or, failing that, try to end it as quickly and safely as possible? Obviously, much would depend on the specifics of a given crisis. But a few broad guidelines can be offered in advance.

**Trying Nonmilitary Responses.** For Washington, one response is not to go to war right away if Taiwan is seen as provoking the crisis. For example, if China uses force with some degree of restraint, avoiding not only American ships and other interests but innocent Taiwanese civilians as well, the United States might show restraint at first. It could use strong language to criticize Beijing publicly but meanwhile tell Taipei quietly to retract whatever language about independence had contributed to the crisis.

This approach might work. However, it also might not, because America's pro-Taiwan feelings would probably intensify once Taiwan was attacked. In addition, the United States would be concerned about showing a lack of resolve to defend its allies and interests around the world. That might telegraph to China that future uses of force could be undertaken safely. It could also signal the world that the United States was not willing to come to its allies' defense quickly. That could have repercussions from Korea to Japan to the Middle East, among other things making some American allies more inclined to pursue nuclear weapons.
Of course, there are many policy steps between "doing nothing" and going to war. Washington would have the option of responding with trade sanctions rather than force, if it needed to do something decisive yet wished to avoid war. It could also threaten to base military forces on Taiwan's soil and keep them there indefinitely, further reducing whatever ambiguity remains about its likely response to a crisis between Taiwan and China.

**Using Force.** If the above methods did not work or were not deemed adequate, Washington could gradually ratchet up the toughness of its response. It could either directly use force, or publicly state the conditions under which it would, leaving it to China to have the last clear chance to avoid war.

The United States would clearly defend any military assets it deployed to the region near Taiwan, firing back if fired upon. It would also likely fire back at any Chinese assets that targeted Taiwan's military or commercial shipping or ports, if its declared reason for deploying forces to the vicinity was to protect its friend.

Ideally the United States could avoid escalation beyond this point, and in fact it should try to do so. Direct defense of one's own assets in international airspace and international waters is hardly a provocative act, so ideally the United States would be able to keep its military response at this level for a time, permitting time for talks.

But Washington's uses of force would probably not remain at that level indefinitely. Unless China quickly relented, the United States might for example declare its intention to break China's blockade of Taiwan and state that after a certain time period it would attack and sink Chinese military assets that ventured beyond China's coasts and ports. This would still be a restrained military response, in that it would only target those Chinese assets that one had to assume as being tactically committed to put Taiwanese or American assets at risk. It would also attempt to keep the onus of starting any direct engagement between US and PRC forces on China.
One would hope that the war would never escalate beyond that point. If however intensive combat ensued, and American forces began to take losses, there would be pressure for a more general type of escalation in which American military forces attacked Chinese airfields on PRC territory as well as ships in port. Because of the dangers associated with this step in particular (even if only ports and airfields in southeastern China were attacked), it should be considered only as a very last resort. Before resorting to it, Washington should redouble efforts to end the conflict. The most natural method might be for Washington to promise Beijing that it would pressure Taiwan to retract its provocative statements. Indeed, Washington might pledge not to engage in normal diplomatic or economic interaction with Taiwan until that happened.

However, under such circumstances, China would make a mistake to assume that because the United States elected to be tough on Taiwan, it would be weak or uncommitted on the battlefield. Once PRC military assets were killing not only Taiwanese but Americans, the overriding instinct of most American decisionmakers would be to pursue victory and toughen rather than weaken resolve. The American public might, as with the Iraq war, be somewhat befuddled by what had caused this unexpected war and why it was being fought. But once involved in hostilities, Americans' natural instincts to rally together and rally behind their president would probably ensure a commitment to military success.

That said, if China responded to American attacks on its assets by relative restraint, it would be appropriate for Washington to do the same. Even if the battle did not reach a natural conclusion or negotiated settlement, rather than continue hostilities, Washington would be better advised to join with its regional and global partners to give China economic incentives--carrots as well as sticks--to stop using force.

Possible Chinese Actions
There would also be a need for Chinese leaders to work out concepts for restraint. Clearly, as with American leaders, their first goal would be to win as they defined that term. But both sides would have to find ways to reduce risks in the process; some kinds of victory could actually be worse than defeat.

Chinese leaders would probably hope, in the event of war, to deter American involvement. They might believe that U.S. citizens would not be willing to risk great-power war to defend a small island far from the United States and near to China. Failing that, they might hope American minds would change if a U.S. ship was sunk in the opening stages of any conflict—especially if Chinese goals for the conflict seemed reasonable and restrained, to American citizens as well as other countries in the region and the world.

Under such conditions, for Chinese leaders, showing restraint might be seen as weakness. But unfortunately, the United States probably would not stay out of such a war for long if Taiwan's basic integrity and security were threatened. The most China could probably hope for would be an American willingness to be reasonable and negotiate a compromise political framework for ending the conflict; keeping the United States out of the conflict would be too much to expect.

**Trying Nonmilitary Responses.** China might consider nonmilitary responses to Taiwanese movement towards independence, even if PRC leaders felt that Taiwan had crossed a red line that required firm response. For example, China might suspend all trade and threaten to seize Taiwanese investments on mainland China. As drastic as such measures would be, they would be preferable to war that could ultimately pit two nuclear weapons states against each other.

Alternatively, China could issue an ultimatum. It could threaten war unless the United States and its allies promised not to recognize Taiwan's demands for more sovereignty and also committed to pressure Taipei to retract its latest declarations and promise not to repeat them in the future. As with some of the American responses
suggested above, China could give the other side the last clear chance to avoid war, while at the same time working to protect its core interests unflinchingly.

**Using Force.** If it did feel obliged to act militarily, China could work hard to minimize the casualties that ensued. One way of doing so would be to apply a limited amount of force against Taiwan, sending a strong message and trying to create economic uncertainty that would affect Taiwan's stock markets and trade—but then stop hostilities as U.S. forces approached the region in large numbers. Beijing would not have to view this approach as a sign of weakness; rather, it could be seen as smart warfare of the Sun Tze tradition—using just enough force to achieve the needed political effect without risking general war. Geography would work sufficiently to China's advantage that it could always use force again, if necessary, once American ships and airplanes had largely left the region. China could even say so as a threat to Taiwan. But avoiding the crossing of a line in which PRC assets would fire upon those of the United States would still be a very important form of restraint, and avoid the danger that all involved should most fear.

Escalating beyond this point would be a dicey proposition for China. Trying to sink American ships would likely work against PRC interests whether the attempts were successful or not. Unless China was actually in a position to prevail in such engagements, which seems unlikely until its submarine forces and other antiship assets get much better, it would have to rely on weakening America's will. And as noted above, that is not a likely result of the killing of many hundreds of U.S. sailors. Attacking Japanese bases used by U.S. forces would probably just harden Japanese sentiment and unify the country in support of the United States and Taiwan. My own assessment is that such PRC escalation would be a mistake under any conceivable circumstances, and that China would be much better advised to view time and geography rather than direct military escalation as its main assets, waiting for a better moment to resume pressure against Taiwan.

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