

# Curtailed Ambition: Endogenous Power Shift and Preventive War\*

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## Abstract

Preventive war arises from fears of future power shifts threatening the status quo. However, critics argue that since power shifts can be influenced by states' strategic decisions, preventive war can always be avoided. Through a lab experiment and a representative survey, this paper investigates how states' endogenous decisions affect the likelihood of conflict. We focus on two strategies: a containment policy, where rising states halt their own growth to prevent power shifts, and a commitment policy, where rising states make binding future offers without altering power shift trajectories. Our findings show that while both policies reduce the likelihood of preventive war, containment is a much less preferred policy. Additionally, declining states often resort to costly coercive containment measures rather than trusting rising states' self-containment. In the representative survey, we pose conceptually similar questions to understand broader public opinions regarding international politics and find consistent patterns with the experimental results.

**Keywords:** preventive war, endogenous power shift, containment, commitment, bargaining, conflict

**JEL Classification:** C72, C92, F51, N40

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# 1 Introduction

The emergence of a new power that contests the established hegemon's status inevitably results in tensions. Preventive war theories hold that when a rising state cannot commit to not exploiting its future power, a status quo or declining state may initiate costly conflict before the power shift is realized (Fearon, 1995; Powell, 1999; Copeland, 2000). Allison (2017) introduced the term "Thucydides Trap" to describe this scenario, raising public awareness of the tensions between the rising power, China, and the status quo power, the U.S., which pose a significant risk of escalating into a destructive military conflict.<sup>1</sup> This theoretical claim has received some empirical support (Fearon, 2004; Weisiger, 2013). However, critics argue that rapid and substantial power shifts are rarely exogenous; they are often the result of states' strategic decisions. If a rising state, facing the risk of preventive war, chooses to limit its own growth to prevent power shifts, then theoretically the conflict can be averted (Chadefaux, 2011). Thus, the mere possibility of power shifts does not inherently lead to conflict.<sup>2</sup> This endogenous nature of power shift complicates the empirical examination of the relationship between power shifts and conflict. The basic logic of preventive war examined here applies not only to international politics, but also to domestic political domains such as elites in power bargaining with the poor who threaten revolution (Acemoglu and Robinson, 2001; Powell, 2006) as well as to economic domains such as firms bargaining with newly emerging labor unions.

Curtailing its own power growth is the most extreme form of credible reassurance by a rising state in the context of endogenous power shifts.<sup>3</sup> However, this strategy poses significant political challenges and is often perceived as counterintuitive and rarely observed in history.<sup>4</sup> States and their leaders are typically reluctant to signal weakness by reducing investments that could alter the balance of power. Even if they are deterred from pursuing such investments, they often conceal this decision due to domestic pressures and the need to maintain international credibility. Instead, rising states might seek alternative means to credibly demonstrate their peaceful intentions. For instance, they could commit to preallocating a portion of future gains to the declining state. This commitment can be more favorable than self-containment for the rising state, as it does not increase its vulnerability should conflict arise. While declining states may not perceive this commitment as

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<sup>1</sup>Allison (2017) examined 16 modern historical events where a rising power challenged an established power, and discovered that war resulted in 12 of those cases.

<sup>2</sup>Debs and Monteiro (2014) goes even further by suggesting that it is the uncertainty surrounding these shifts that increases the likelihood of conflict, even if this perception is sometimes misguided.

<sup>3</sup>Self-containment could involve stopping military investments or destroying existing armaments (Debs and Monteiro, 2014), transferring war-related resources to the rival state (Chadefaux, 2011), and severing existing military alliances with other states (Krainin and Schub, 2021).

<sup>4</sup>As the realist scholar Nicholas Spykman put it (Spykman, 1942), "The number of cases in which a strong dynamic state has stopped expanding...or has set modest limits to its power aims has been very few indeed."

credible as containment, rising states could incur significant domestic audience costs if they renege on such commitments (Fearon, 1994; Tomz, 2007; Kertzer and Brutger, 2016).<sup>5</sup>

In the present study, we use a theory-based lab experiment and a representative survey to understand how states maneuver toward peace or conflict using different strategies in a preventive war scenario with endogenous power shifts. Lab experiments allow us to focus on certain policies while shutting down other channels and are ideal for establishing a causal link between state's policies and the occurrence of conflict, whereas representative surveys serve the purpose of extrapolating the experimental results from abstract settings to real-world scenarios. The experimental game is built on the seminal works of Fearon (1995) and Powell (1999). Two states, a rising state and a declining state, engage in up to two stages of bargaining. During each stage, the rising state proposes a deal to the declining state, which must choose to accept the proposal or resort to conflict. Conflict is costly and inefficient. If it occurs in the first stage, a lottery heavily favoring the declining state determines who receives the entire payoff across both stages, thereby concluding the game. Conversely, if conflict occurs in the second stage, a lottery favoring the rising state will determine who secures all the benefits. However, if peace is maintained in both stages, each state receives its accumulated bargaining payoffs. In this game, the rising state cannot initiate conflict, which as argued in Abbink, Dong and Huang (2023) restricts its preemptive motivation for conflict and allows us to focus on the declining state's preventive motivation.

In the baseline setting, preventive war is theoretically inevitable due to the substantial exogenous power shift. The declining state finds it optimal to initiate conflict in the first stage, rather than prolong the game to the second stage. In the second stage, the rising state has a higher chance of winning, making it unlikely to make any offer. As Fearon (1995) notes: "the declining state attacks not because it fears being attacked in the future but because it fears the peace it will have to accept after the rival has grown stronger."

To investigate impacts of various policy choices on bargaining outcomes, we introduce four treatments that allow the rising and/or declining state to adopt different policies, potentially endogenizing the power shift at the onset of the game. In the *RS-Contain* treatment, the rising state can halt the power shift across the two bargaining stages, while in the *RS-Commit* treatment, it can preallocate a portion of the second-stage bargaining pie to the declining state without altering the power shift.<sup>6</sup> By comparing the baseline treatment with these two treatments, we separately assess the

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<sup>5</sup>The strategies of containment and commitment are intricately connected to Fearon's (1997) definitions of costly signaling mechanisms. Fearon distinguishes between tied-hands signaling, where actions increase the costs of backing down if challenged but entail no costs if unchallenged, and sunk-cost signals, where actions are costly upfront but do not alter the relative strength of fighting. While Fearon applied these mechanisms to making credible threats to deter aggressors, in our context, they can be adapted to understand how states might credibly signal their peaceful intentions to prevent conflict.

<sup>6</sup>The commitment policy shares the same spirit as side-payments which have been shown to be an effective con-

effectiveness of each policy in mitigating the risk of preventive war. In the *RS-Choice* treatment, the rising state has the flexibility to select either policy. Although both policies are theoretically optimal and should be equally effective in preventing conflict, in the experiment, we find that the containment policy is adopted less frequently than the commitment policy. This reluctance to self-contain is especially pronounced when the rising state is granted full flexibility in choosing which policy to adopt, despite both approaches resulting in a lower frequency of conflict to a similar degree.

The finding of reluctance to self-contain leads us to explore another treatment, called *DS-Contain*, which allows the declining state the option of coercive containment. This option, however, is costly, reflecting the fact that coercion, sanctions or other hard-line policies imposed by one state can incur substantial costs for both parties. To ensure this treatment comparable to the *RS-Contain* treatment, if the declining state does not choose the containment policy, the rising state can still decide whether to self-contain, incurring no additional cost to the declining state. In this scenario, the theory predicts that the declining state should optimally wait and let the rising state adopt the self-containment policy. However, the experiment shows that the declining state often chooses to contain the rising state, at some cost to itself, rather than trusting its self-containment. Indeed, such trust often does not pay off to the declining state. Overall, our experimental evidence points to rising states' reluctance to self-contain, even though it leads to a much higher likelihood of preventive war. This challenges critics' arguments that the risk of preventive war is often overstated, particularly that war would not occur in complete information models with endogenous power shifts ([Chadefaux, 2011](#); [Debs and Monteiro, 2014](#)).

Critics of experimental research on war, while acknowledging the advantage of experiments in testing game-theoretical predictions over other empirical methods, often express skepticism regarding the relevance of these experiments to real-world conflict. To at least partially mitigate such skepticism, we conducted a representative survey of the general U.S. population to examine whether public views on foreign policies align with the findings of our abstract lab experiment. Given that public opinions can influence foreign policy decisions and citizens can provide a convenience sample reflective of elite perspectives, it is reasonable to suggest that consistent findings from both laboratory experiments and survey data would strengthen our confidence in the relevance of our study to real-world conflict. To the best of our knowledge, [Tingley \(2017\)](#) is the only other paper that tests the logic of preventive war in the context of exogenous power shifts using survey methods. However, this paper is unique in that it combines a lab experiment grounded in a game-theoretical model of war with a complementary representative survey that illuminates public

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flict resolution mechanism in experimental Ultimatum bargaining games ([Kimbrough and Sheremeta, 2013, 2014](#); [Kimbrough et al., 2015](#)).

opinions on the role of foreign policies.

We constructed survey instruments to ensure that respondents' answers are comparable to states' strategic decisions in the lab experiment. First, we provided respondents with contextual information regarding the evolving economic and military balance of power between the U.S. and China, framing China as a rising state and the U.S. as a status quo power. Respondents were then asked to estimate the probabilities of China adopting policies reflective of containment (i.e., curtailing military buildup) and commitment (i.e., making economic concessions and implementing domestic structural reforms). They were also asked to predict the probability of war between the two states, given the adoption of either policy or inaction. Consistent with the lab evidence, respondents believe that China is significantly less likely to adopt the containment policy compared to the commitment policy. Furthermore, if China were to hypothetically adopt either self-containment or commitment, respondents believe the probability of war would decrease significantly. However, unlike our lab findings, the commitment policy is not perceived to be as effective in decreasing the probability of war as the self-containment policy. This discrepancy is not entirely surprising; in the lab setting, commitment can be enforced by design, whereas respondents may have doubts about its long-term viability in reality, possibly viewing it as China's strategy of biding its time for more favorable conditions for future aggression. Overall, our survey evidence confirms the perception of rising states' reluctance to self-contain and highlights the limitations of employing the commitment policy within the realm of real-world politics.

Our study contributes to the experimental literature on the causes and resolution of conflict ([Sheremeta, 2013](#); [Dechenaux, Kovenock and Sheremeta, 2015](#); [Kimbrough, Laughren and Sheremeta, 2020](#); [Ke, Morath and Seelos, 2023](#); [Baier, Seelos and Rittmannsberger, 2024](#)), focusing on preventive war as the underlying source of conflict. From an economist's perspective, a striking aspect of the preventive war logic is that it predicts a positive likelihood of war and, in fact, inevitability of war, even under complete information.<sup>7</sup> This stands in contrast to the voluminous literature that allows at least some degree of information asymmetries or imperfect information in driving conflict (e.g., [Chatterjee and Samuelson \(1983\)](#); [Brito and Intriligator \(1985\)](#); [Kydd \(2005\)](#); [Chassang and Miquel \(2010\)](#); see reviews by [Sanchez-Pages \(2012\)](#) and [Ramsay \(2017\)](#)). To date, only a few experimental studies have focused on preventive war ([Tingley, 2011](#); [Quek, 2017](#)) and the baseline game in the present study is built upon that of [Abbink, Dong and Huang \(2023\)](#). However, all previous experiments have predominantly focused on scenarios involving exogenous power shifts. This study presents the first experimental investigation into the validity of arguments against the inevitability of preventive war in the context of endogenously determined power shifts. Further-

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<sup>7</sup>Another type of model that can predict war under complete information is the two-stage bargaining model with two-sided commitment ([Schelling, 1960](#); [Crawford, 1982](#); [Ellingsen and Miettinen, 2008](#); [Miettinen, 2022](#)), where each player can make a commitment attempt and may incur a cost of backing down if commitment is successful.

more, we extend our inquiry beyond the abstract lab environment by conducting a representative survey to examine whether public opinions align with the lab evidence, thus instilling us with more confidence in the real-world relevance of our experimental findings.

The theoretical literature on international bargaining has considered the impacts of various strategies that may endogenously shift the balance of power.<sup>8</sup> For rising states or challengers, military investments can be made to directly increase their military power or they may choose to make transgressions or concessions that may have military value lest war breaks out (Chadefaux, 2011; Debs and Monteiro, 2014; Gurantz and Hirsch, 2017; Joseph, 2023).<sup>9</sup> Similarly, Baliga and Sjöström (2020) model a successful transgression as providing a first-mover advantage in terms of military odds, effectively endogenizing power shifts. For declining states or defenders, as alternatives to preventive war, they can impose military sanctions or employ containment strategies short of war to erode the rival's military strength so that power shifts are too small to trigger a preventive war (McCormack and Pascoe, 2017), or to serve as a strategic tactic of "testing" rising states' benign intentions (Yoder, 2019). It may also be preferable for declining states to initiate low-level conflict, called hassling, to counteract rising states' military investments or transgressions while allowing bargaining to continue (Schram, 2021, 2022).<sup>10</sup> Our game-theoretical model aligns most closely with those of Debs and Monteiro (2014) and McCormack and Pascoe (2017) in the spirit of introducing the self-containment policy and the coercive containment policy for declining states, respectively. However, our model is substantially different from theirs to ensure that the various policies remain comparable and easily understood when implemented in the lab.

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<sup>8</sup>Fearon (1996) and Schwarz and Sonin (2008) consider models in which the current division of resources determines the state's balance of military power in the next round. However, such models do not consider policy choices other than simple offers of the bargaining pie division.

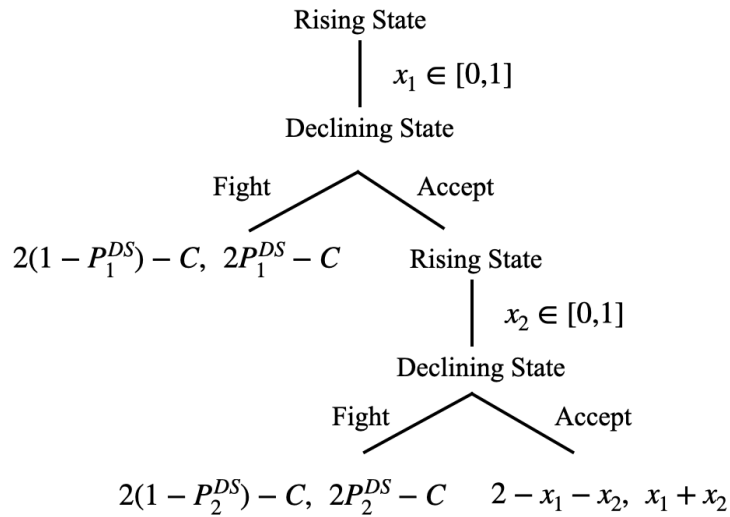
<sup>9</sup>This is also related to the literature on strategic militarization in which both states can make often unobserved arming decisions (Baliga and Sjöström, 2008; Meirowitz and Sartori, 2008; Jackson and Morelli, 2009; Meirowitz et al., 2019). However, the focus of these models is to understand how randomized arming may help deter opponents and obtain larger pies despite the fact that war may be unavoidable in equilibrium due to the information asymmetry created by this randomization.

<sup>10</sup>In the context of state consolidation, Powell (2013) models complicated strategic interactions between a government and an armed opposition in an infinite horizon game. The government can choose to consolidate power, which, if successful, will lower the opposition's payoff from fighting in the future, thereby shifting the balance of power endogenously. However, the opposition can fight in the current stage in an attempt to impede the government's efforts to consolidate, resulting in the balance of power remaining unchanged.

## 2 Theoretical Framework

The basic setup is a two-stage two-individual bargaining game under the shadow of conflict.<sup>11</sup> In each stage, two individual states—a rising state (RS) and a declining state (DS)—bargain over a pie worth one unit. Specifically, the rising state first decides how much to offer to the declining state, denoted as  $x_1 \in [0, 1]$  in the first stage and  $x_2 \in [0, 1]$  in the second stage. The declining state observes the offer and then decides whether to initiate a costly war against the rising state in each stage. If the game ends in peace, each state receives its share of the total bargaining pie according to the rising state’s offers across the two stages. Alternatively, if war occurs in either stage, any prior bargaining offers will be nullified.<sup>12</sup> The game’s payoff for each party will then depend probabilistically on their relative winning probabilities in that stage. The victor will receive the total prize worth two units, while the defeated receives nothing. Additionally, both states must bear the cost of fighting,  $C < 1$ . Figure 1 shows the game tree in this baseline setting.

Figure 1: The game tree in the baseline setting



Absent any intervention, the relative power of the two states, which reflects their relative economic and military potentials in war effort, shifts in favor of the rising state from the first to the second stage. This relative power is modeled through the declining state’s probability of winning in a

<sup>11</sup>The basic model can be generalized to an infinite horizon game without altering the key insight on the commitment problem (Fearon, 1995). It has also been suggested that focusing on simple take-it-or-leave-it offers rather than more complex bargaining protocols in a crisis bargaining game produces the same equilibrium outcome in terms of the risk of war and distribution of benefits (Fey and Kenkel, 2021).

<sup>12</sup>Abbink, Dong and Huang (2023) provided both theoretical and empirical justifications for this modeling choice. Another modeling approach is to assume that the conflict impacts only the division of the current and future bargaining resources, leaving past divisions unchanged. This approach is appropriate for examining disputes over resources that are consumed immediately. However, in reality, many prior agreements on resource distribution made during peaceful times can be overturned or revisited during conflicts. A notable instance of this is territorial control, such as in the Russia-Ukraine War, where both parties are vying for control over regions like Crimea, Luhansk, and Donetsk.



stage,  $P_1^{DS}$  in the first stage and  $P_2^{DS}$  in the second stage, whereby  $0 < P_2^{DS} < 0.5 < P_1^{DS} < 1$ . Correspondingly, the rising state's probability of winning in a stage is  $P_1^{RS}$  ( $P_2^{RS}$ ) for the first (second) stage, with the conditions that  $P_1^{DS} + P_1^{RS} = 1$  and  $P_2^{DS} + P_2^{RS} = 1$ .

In [Abbink, Dong and Huang \(2023\)](#), the power shift is exogenous; that is, the extent to which the rising state becomes stronger and the declining state becomes weaker in the second stage is determined exogenously. They show that, according to the subgame perfect equilibrium, war or peace depends on whether the rising state can make a satisfactory offer to the declining state in the first stage. Specifically, if  $2P_1^{DS} - C > 1$ , war is theoretically inevitable as a unique SPE. The key rationale for this result lies in the rising state's inability to commit to an offer in the second stage. Once the game proceeds to this stage peacefully, the rising state, now possessing greater relative power, has a strong incentive to renege on any previous bargaining offer, should it be made at all. Anticipating this commitment problem, the declining state would be better off by launching preventive war in the first stage when it is still relatively stronger.<sup>13</sup>

The central criticism of the idea that preventive war is inevitable stems from the theoretical observation that a rising state, foreseeing the potentially disastrous consequence of preventive war, would be deterred from making (transparent and verifiable) investments that lead to a significant power shift ([Chadefaux, 2011](#); [Debs and Monteiro, 2014](#)). To model the endogenous power shift under the present theoretical framework, we consider a situation in which the rising state can unilaterally decide to limit its own power growth before the first stage. When the rising state chooses to curtail its power growth, the relative power between the two states remains constant across both bargaining stages. Specifically, the declining state retains its position as the relatively stronger state in the second stage, while the rising state continues to be the relatively weaker state. To demonstrate how the endogenous power shift affects the equilibrium outcome, we focus on a parameter constellation where preventive war is theoretically inevitable under exogenous power shift, i.e.,  $2P_1^{DS} - C > 1$ . When a self-containment option is available, backward induction implies that the rising state will opt for this strategy to avoid the costly war, offering the declining state a share of the total bargaining pie equivalent to the declining state's first stage (counterfactual) war payoff plus a minimal amount to break ties; thus, the unique SPE predicts a peaceful resolution.

**Proposition 1** *Assume  $2P_1^{DS} - C > 1$ , when the power shift is exogenous, every SPE involves preventive war. When the power shift can be endogenously determined by the rising state, peace*

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<sup>13</sup>For a detailed proof, see [Abbink, Dong and Huang \(2023\)](#). To illustrate the basic idea, the declining state only accepts an offer in the first stage if  $x_1 > 2P_1^{DS} - C$ . When  $2P_1^{DS} - C > 1$ , no feasible  $x_1$  will meet the declining state's demand. In such a case, even an offer of  $x_1 = 1$  would not be sufficient for acceptance. However, if the game proceeds to the second stage, the declining state can be satisfied as long as  $x_1 + x_2 > 2P_2^{DS} - C$ , which is automatically fulfilled since  $P_1^{DS} > P_2^{DS}$ . Therefore, as long as the rising state can commit to offering the declining state  $x_1 + x_2 > 2P_2^{DS} - C$ , preventive war can be avoided. Yet, the inability to commit is inherent within the structure of this game.



*prevails in every SPE.*

It is important to note that limited containment, as opposed to full-scale containment, is theoretically ineffective in promoting peace. The declining state can obtain only its expected war payoff from the first stage, irrespective of whether the outcome is resolved through fighting or peaceful bargaining. If the game advances to the second stage, in which the rising state is even slightly stronger than it was in the first stage, the rising state has every incentive to offer less than the declining state's expected payoff from fighting in the first stage up to the point where the declining state has no incentive to fight in the second stage. Anticipating this unfavorable outcome, the declining state would be better off launching a preventive war in the first stage. In summary, the challenge with limited containment is that the declining state may conclude that "if the rising state truly had non-aggressive intentions, it would have demonstrated this through full containment." Hence, limited containment fails to resolve the underlying commitment problem.<sup>14</sup>

A related critique of the preventive war logic is that the declining state has a broader range of policy options than is assumed in the model, including coercive containment policies that may be less costly than engaging in all-out war. By adopting a containment strategy against the rising state, the declining state can effectively halt the power shift and avoid the costly consequence of preventive war. However, as previously argued, the rising state is already inclined to adopt self-containment. This undermines the necessity for the declining state to consider other containment policies, rendering the broad range of policy options theoretically redundant.

To summarize, we examine the logic of self-containment, which is theoretically viable for sustaining peace because rational rising states would choose to self-contain their growth to avoid preventive war. This strategy could be equally effective as a commitment policy, where the rising state preallocates resources to the declining state to avert conflict. However, the rationale behind self-containment may appear counterintuitive; it is often viewed as incongruous or embarrassing to voluntarily restrict one's growth and expose oneself to vulnerability. Moreover, a question arises: will the declining state trust the rising state to effectively self-contain? If such trust is absent, the declining state may resort to coercive measures to impede the power shift. While our model provides definitive theoretical answers to these questions, understanding how individuals navigate these complexities requires empirical investigation. To this end, we designed a controlled experiment to test these theoretical claims.

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<sup>14</sup>In practice, it is also unclear whether limited containment necessarily works better than full-scale containment. Limited containment might be viewed by the status quo power as the rising power's hiding capabilities and biding time, only serving to defeat the status quo power when the timing is mature.

### 3 Experimental Design and Hypotheses

#### 3.1 Treatments

To experimentally examine the potential of various policies that the rising state or the declining state could undertake to mitigate the risk of preventive wars, we designed a total of five between-subjects treatments, which will be described in detail as follows. [Table 1](#) summarizes the key features and theoretical prediction for each treatment.<sup>15</sup>

Table 1: The experimental design

Treatment	Key features	Prediction
Baseline PW	In each stage, RS allocates a 10-point pie. DS accepts or fights. Fighting costs 4 points for each state. RS’s winning probability shifts from 20% in stage 1 to 70% in stage 2.	DS fights in stage 1 irrespective of RS’s choice.
RS-Contain	RS can limit its winning probability to 20% across both stages.	RS self-contains and peace prevails.
RS-Commit	RS can preallocate stage 2’s pie in stage 1.	RS commits by offering 12 points to DS and peace prevails.
RS-Choice	RS can 1) self-contain, 2) preallocate, or 3) take no action.	RS either self-contains or commits; peace prevails.
DS-Contain	DS can adjust RS’s winning probability to 20% across both stages, which costs DS 1 point. If DS does not adjust, RS can self-contain.	DS does not adjust, RS self-contains and peace prevails.

**The PreventiveWar (PW) Treatment** The PW treatment serves as our baseline treatment, in which both the rising and declining states have no additional strategies other than bargaining and fighting. The basic design closely follows the model setup. In each of the 30 rounds, two randomly matched participants were randomly assigned to the role of the rising state and the declining state (referred to as Role A and Role B respectively in the experiment). Each participant received an endowment of 5 points per round, ensuring no one incurred a loss from participating in the game.

The baseline PW treatment consists of two stages. In Stage 1, the rising state makes an offer out of a pie worth 10 points. The declining state observes the offer and decides whether to “accept” or “reject” it. Both states’ decisions made in Stage 1 will be revealed after this stage is completed.

<sup>15</sup>[Figure C1](#) in Online Appendix C displays the timing, decisions and payoffs of the game for each treatment (with all values scaled down by a factor of one-tenth).

The declining state's choice of "reject" in Stage 1 is interpreted as the occurrence of preventive war. If this happens, the rising state's offer will not be implemented, and both states will compete for a prize worth 20 points, equivalent to the total bargaining pie across the two stages. The computer determines who receives the prize according to their probability of winning in Stage 1: 20% for the rising state and 80% for the declining state ( $P_1^{DS} = 0.8$ ). Each party will incur a fighting cost of 4 points irrespective of the outcome, and the round ends without proceeding to Stage 2.

If the declining state chooses "accept" in Stage 1, the game proceeds to Stage 2, where the rising state makes another offer from a new pie worth 10 points. The declining state observes the offer and decides whether to "accept" or "reject" it. The choice of "reject" will nullify the rising state's offers across both stages and result in a competition for a prize worth 20 points, each incurring a fighting cost of 4 points. The computer will determine who receives the prize based on the probability of winning in Stage 2, set at 70% for the rising state and 30% for the declining state ( $P_2^{DS} = 0.3$ ). Hence, a large exogenous power shift in favor of the rising state occurs in Stage 2. Alternatively, if the declining state chooses to "accept," the game concludes peacefully, with both states receiving their earnings according to the rising state's offers across the two stages. Under the chosen parameters for the baseline PW treatment, theory predicts the 100% occurrence of preventive war.

**The RS-Contain Treatment** To investigate whether the rising state would choose to contain its own fighting capabilities to avoid preventive war, we implemented the RS-Contain treatment. This treatment differs from the PW treatment in one aspect: prior to Stage 1, the rising state has the option to forestall the power shift. Specifically, the rising state can "adjust" the probability of winning to ensure it remains the same across both bargaining stages (i.e.,  $P_1^{DS} = P_2^{DS} = 0.8$ ). In other words, it means that the rising state chooses to limit its winning probability to 20%, thereby ensuring that neither the rising state gains power nor the declining state loses power. If no adjustment is made, the proceeding game will be essentially the same as the PW treatment, in which the power shift favors the rising state.

According to the theoretical analysis in the previous section, peace prevails when the power shift is endogenous. The rising state will always choose the self-containment policy and offer a total of 12 points to the declining state, assuming a tie-breaking rule that favors peace. This offer is equivalent to the declining state's counterfactual expected payoff in the event of preventive war ( $20 \times P_1^{DS} - 4 = 12$ ).

**The RS-Commit Treatment** As an alternative to the containment policy, the rising state may adopt a commitment policy that fulfills the declining state's material interest by committing a

portion or the entirety of the Stage 2 pie in advance. To facilitate comparison with the containment policy, we implemented the RS-Commit treatment, which differs from the PW treatment in one aspect: in Stage 1, in addition to deciding how to split the pie from that stage, the rising state can also make an advance allocation of the pie from Stage 2. However, this advance allocation does not make Stage 2 decision-making entirely passive; the rising state must still allocate remaining points from Stage 2, provided that no fighting has occurred. For example, if the rising state preallocates 3 points from Stage 2 to the declining state, the remaining points available for allocation in Stage 2 would be reduced to 7 points. An alternative design is to simply eliminate Stage 2; but we decide to keep the two-stage structure to facilitate cleaner comparisons with other treatments.

In equilibrium, the rising state should offer a total of 12 points, including the advance allocation, to the declining state in Stage 1 and subsequently offer nothing in Stage 2. While such a commitment policy might not be always feasible in practice due to liability constraints or enforceability issues, especially if the struggle is between great powers, our purpose is to use the RS-Commit treatment as an appropriate benchmark, in which the commitment problem is completely absent, to assess the efficacy of the containment policy.

**The RS-Choice Treatment** To expand the policy toolkit available to the rising state under the threat of preventive war, we designed the RS-Choice treatment. In this treatment, the rising state has the flexibility to choose between three strategic options prior to Stage 1: (i) to forestall the power shift anticipated in Stage 2; (ii) to make an advance allocation in Stage 1; (iii) to take no action, opting for neither forestalling power shift nor making an advance allocation. If the rising state selects either option (i) or (iii), then the game effectively mirrors the structure of the RS-Contain treatment. Conversely, should the rising state choose option (ii), the game follows the structure of the RS-Commit treatment.

The RS-Choice treatment serves two main purposes: first, to determine whether a broader policy toolkit can more effectively reduce the risk of preventive wars; and second, to identify which policy the rising state is inclined to adopt. Both questions lack clear ex-ante answers, as both policies are theoretically effective in eliminating preventive wars. Therefore, it is unclear which policy the rising state would prefer and whether the overall propensity of preventive war could be further diminished. Nonetheless, we speculate that the commitment policy may be more intuitively appealing, as it does not expose the rising state to the same vulnerability in Stage 2 that the containment policy does.

**The DS-Contain Treatment** If implementing self-containment is considered unintuitive or risky for the rising state, it may be more prudent for the declining state to actively pursue a containment

policy, even if it incurs additional costs. The DS-Contain treatment differs from the RS-Contain treatment in one aspect: prior to the rising state's adjustment decision, the declining state has the option to "adjust" the probability of winning to ensure it remains the same across the two stages, at the cost of 1 point to itself. In other words, the declining state can, at some cost, contain the rising state from gaining power. Only when the declining state chooses not to make this adjustment will the rising state have the chance to adopt its self-containment policy. From a theoretical perspective, the declining state does not need to engage in a costly containment strategy, as the rising state would invariably choose to adopt the self-containment policy on its own.

### 3.2 Hypotheses

We formally state the hypothesis regarding the occurrence of preventive war based on theoretical predictions as follows.

**Hypothesis 1** *The declining state is more likely to choose to fight in Stage 1 in the PW treatment than in any other treatments.*

While a larger policy toolkit available to either the rising state or the declining state can theoretically promote peace, the specific pathway to achieving that peace varies across treatments. According to the SPE, in the RS-Contain treatment, the rising state should adopt the self-containment policy and offer a total of 12 points to the declining state. In the RS-Commit treatment, the rising state should preallocate points from Stage 2 by offering a total of 12 points in Stage 1 while retaining all points for itself in Stage 2. In the RS-Choice treatment, it is ex-ante unclear whether the rising state is more likely to pursue the containment or the commitment policy, as both are theoretically equally effective and efficient. However, our conjecture is that the commitment policy is intuitively more appealing, as it does not render the rising state vulnerable in fighting in Stage 2. Finally, in the DS-Contain treatment, while the rising state is predicted to adopt the self-containment policy, which precludes the need for the declining state to pursue its own containment strategy, our conjecture is that the declining state may nonetheless find it advantageous to implement containment measures. This policy eliminates any uncertainty regarding the rising state's willingness to self-contain, thereby ensuring that the declining state maintains a stronger bargaining position across both stages.

### 3.3 Procedure

The experiment was conducted at the Nanjing Audit University Economics Experimental Lab with a total of 300 university students, using the software z-Tree (Fischbacher, 2007). For each of the five treatments, we conducted 6 sessions, each with 10 participants. The participants were

randomly assigned to partitioned computer terminals upon arrival. They received experimental instructions (see Online Appendix A) in written form, which were also read aloud by the experimenter at the start of each session. The experiment started once all participants completed their comprehension quiz questions about the instructions. During the experiment, participants were randomly paired in each round and randomly assigned to different roles. After each round, participants received full feedback about their own and paired member's decisions and payoffs. At the end of a session, participants were paid 1 RMB for every 6 points they accumulated in all rounds, in addition to 15 RMB for taking part in the experiment (with decimals in the final amount rounded to the nearest tenth). A typical session lasted about two hours with average earnings of 78.0 RMB.<sup>16</sup>

## 4 Experimental Results

In this section, we will first evaluate the effectiveness of the containment and commitment policies that the rising state could pursue in reducing the risk of preventive war, relative to the baseline PW treatment. Next, we will examine the rising state's preference between the two policies when both are available. Lastly, we will explore whether the declining state may pursue its own containment policy to preclude the power shift.

### 4.1 Comparing RS-Contain and RS-Commit to PW: The effectiveness of the containment and commitment policies

Table 2 presents the overall frequency of preventive wars, i.e., the likelihood of fighting in Stage 1, for each treatment. The results are generally aligned with Hypothesis 1: averaging over all rounds, the declining state is significantly more likely to initiate preventive wars in the baseline PW than when it can pursue either the containment policy (67.2% vs. 60.1%,  $p = 0.093$ ) or the commitment policy (67.2% vs. 49.4%,  $p < 0.001$ ).<sup>17</sup>

Notably, the containment policy appears to be less effective in mitigating the risk of preventive war than the commitment policy (see column (1) of Table 3, hypothesis test  $H_0$ : RS-Contain = RS-Commit,  $p = 0.013$ ). Furthermore, as Table 2 shows, both policies become more effective as our participants gain experience. While the frequency of preventive wars increased over rounds in the

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<sup>16</sup>The average per-hour earnings in the experiment were substantially higher than the minimum hourly wage, which is about 15-20 RMB in the local region. At the time of the experiment, the conversion rate was approximately 1 US dollar to 6.9 RMB.

<sup>17</sup>Unless otherwise stated, all  $p$  values in this subsection relate to the coefficient estimates from random effects probit regressions reported in Table 3.

baseline PW, it decreased in both RS-Contain and RS-Commit.<sup>18</sup> Focusing on observations from the last 10 rounds, the containment policy remains noticeably less effective than the commitment policy, although the treatment difference is not statistically significant (see column (4) of Table 3, hypothesis test  $H_0: RS-Contain = RS-Commit, p = 0.220$ ).

Table 2: The frequency of preventive wars

	All rounds	Last 10 rounds
PW	67.2%	75.0%
RS-Contain	60.1%	53.7%
RS-Commit	49.4%	43.3%
RS-Choice	47.9%	39.7%
DS-Contain	43.2%	36.3%

Table 3: Random effects probit regressions on the frequency of preventive wars

	All rounds			Last 10 rounds		
	(1)	(2)	(3)	(4)	(5)	(6)
RS-Contain	-0.094* (0.056)	0.033 (0.057)		-0.308*** (0.095)	0.015 (0.097)	
RS-Commit	-0.207*** (0.050)		0.026 (0.068)	-0.434*** (0.064)		0.106 (0.122)
Contain		-0.324*** (0.030)			-0.428*** (0.062)	
Commit			-0.363*** (0.034)			-0.532*** (0.108)
Clusters	18	12	12	18	12	12
N	2700	1800	1800	900	600	600
$H_0: RS-Contain = RS-Commit$	$p = 0.013$			$p = 0.220$		

Notes: This table reports the average marginal effects on the declining state's decision of launching preventive war. Standard errors clustered at the session level are in parentheses. The variables "Contain" and "Commit" indicate that the containment policy and the commitment policy are adopted, respectively. The PW treatment serves as the benchmark in all regressions. \*\*\*  $p < 0.01$ , \*  $p < 0.10$ .

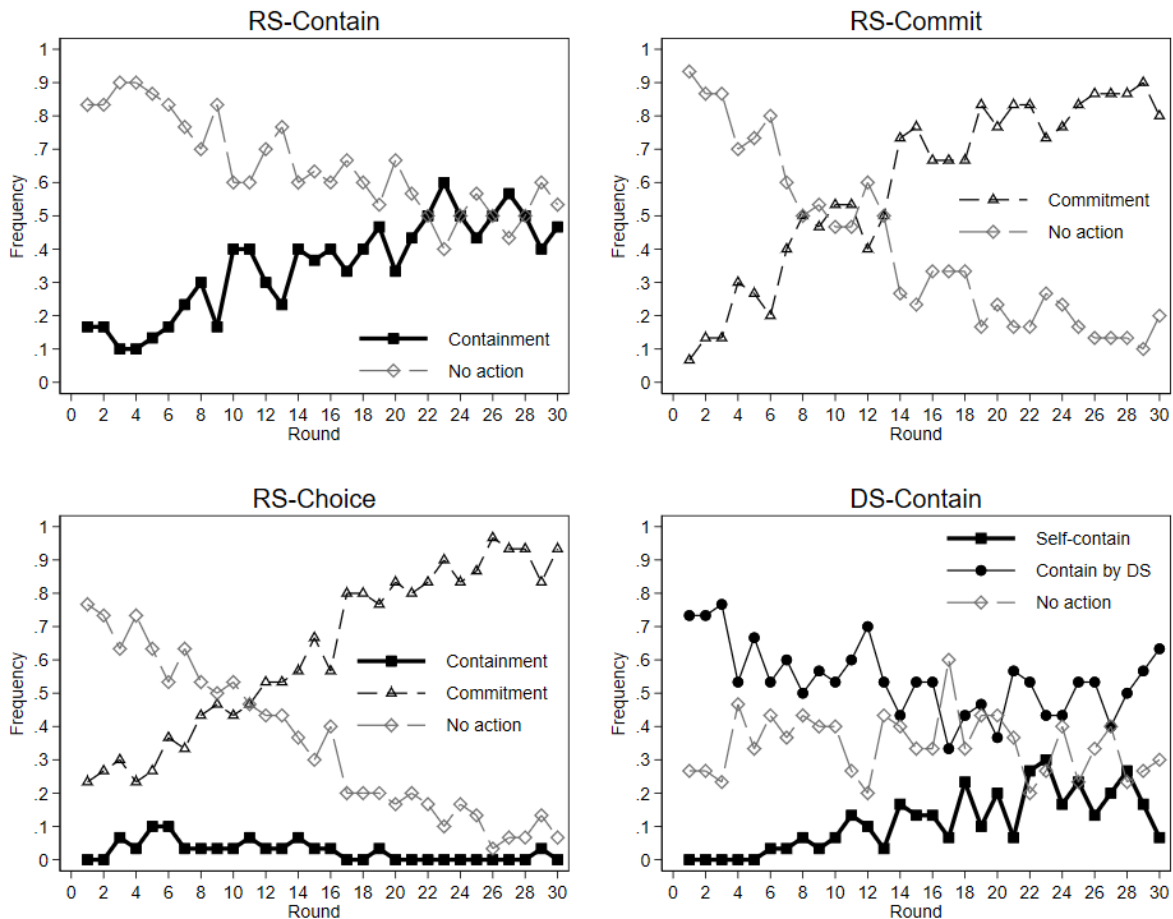
The treatment difference in overall effectiveness between the two policies may arise from the rising state's different adoption rate of each policy, the effectiveness of each policy when implemented, or a combination of both factors. To investigate the primary cause of this difference, Figure 2 shows the frequency of the rising state's policy choice in RS-Contain and RS-Commit. In RS-Commit, we say that the commitment policy is implemented when the combined offer, consisting of the stage 1 offer plus the advance allocation, exceeds 10 points. This figure shows a clear trend: while

<sup>18</sup>Also see Figure C2 and Figure C3 in Online Appendix C for the frequency of preventive wars round-by-round in RS-Contain and RS-Commit relative to PW, respectively.



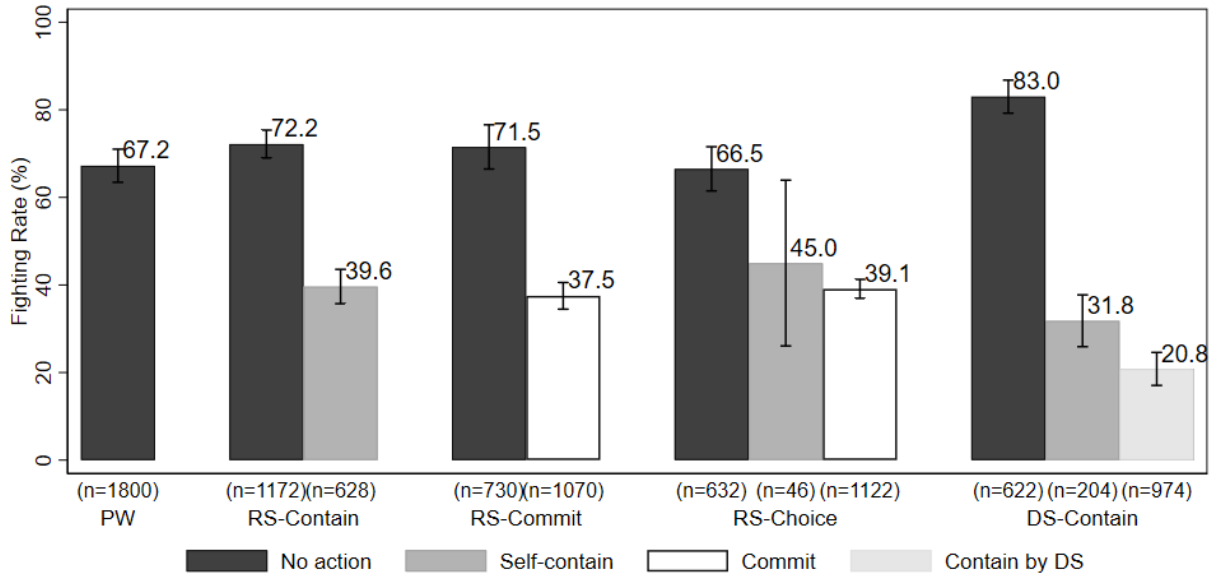
both policies are chosen more frequently over time, the commitment policy emerges as more favorable. During the last 10 rounds, while the containment policy is chosen only 49% of the time, the commitment policy is adopted 83% of the time. Further, [Figure 3](#) reveals that the frequency of preventive wars conditional on policy choices is remarkably similar between RS-Contain and RS-Commit. In both treatments, if the rising state does not adopt any policy to appease the declining state, the frequency of preventive war mirrors that of the baseline PW treatment. Conversely, when either the containment or commitment policy is chosen, both are nearly equally effective in reducing the likelihood of preventive wars (see [Table 3](#), columns (2) and (3) for statistical evidence from regressions using data from all rounds, and columns (5) and (6) using data from the last 10 rounds.).<sup>19</sup> Therefore, the difference in overall effectiveness between the two policies is mainly attributed to the rising state's greater propensity of choosing the commitment policy over the containment policy.

Figure 2: Policy choices over time



<sup>19</sup>See [Figure C4](#) in Online Appendix C for the frequency of preventive wars conditional on policy choices for the last 10 rounds, which suggests a generally similar pattern.

Figure 3: The frequency of preventive wars by policy choices



Notes: Error bars represent one standard error of means clustered at the session level. The number in each bracket indicates the number of individual-round observations.

Next, we briefly discuss the rising state's bargaining offers and the declining state's responses to these offers. In RS-Contain, as shown in Figure C5 in Online Appendix C, when the rising state chooses not to adopt the containment policy, the Stage 1 offer converges to almost 10 points, while the Stage 2 offer reduces to almost zero. This observation is consistent with that from the baseline PW and aligns well with the theoretical predictions. By contrast, when the rising state chooses the containment policy, the Stage 1 offer and the Stage 2 offer are around 8 points and 6 points, respectively. Despite the lower Stage 1 offer associated with the containment policy, the frequency of preventive wars is significantly reduced. This decrease is most clearly demonstrated in Figure C6, which suggests a lower rate of fighting in Stage 1 for almost every possible Stage 1 offer when the containment policy is adopted. This contrasts sharply with the fighting rate in PW or when the containment policy is not adopted in RS-Contain.<sup>20</sup> In RS-Commit, as shown in Figure C7, the rising state's combined Stage 1 offer, including any advance allocation, increases over time and reaches around 13 points, while the Stage 2 offer reduces to almost zero. Further, Figure C8 shows that the rate of fighting in Stage 1 generally decreases with the higher combined Stage 1 offer, suggesting that the rising state's greater commitment fosters a more peaceful outcome.<sup>21</sup>

<sup>20</sup>Table C1 in Online Appendix C reports statistical evidence from regression analyses, showing that the containment policy reduces the frequency of preventive wars across the board. In particular, beyond the overall greater effect of the offer of 10 points on reducing the fighting rate compared to the offer of less than 10 points (see the negative estimate of  $\mathbb{1}[\text{Offer}=10]$ ), the containment policy does not additionally cause the maximum Stage 1 offer to be less or more conducive to peace (see the insignificant estimate of the interaction term between Contain and  $\mathbb{1}[\text{Offer}=10]$ ).

<sup>21</sup>Note that since we define that the commitment policy is adopted if the combined Stage 1 offer exceeds 10 points,

Finally, we turn to the payoff consequence for both the rising and declining states under RS-Contain and RS-Commit, as shown in [Figure 4](#). In RS-Contain, perhaps surprisingly, although the adoption of the containment policy substantially reduces the likelihood of preventive wars, the rising state does not benefit from this concession. In fact, the rising state's payoff is lower when the containment policy is adopted than when it is not. By contrast, the declining state manages to secure an even higher payoff when the rising state signals its good intention by self-containment.<sup>22</sup> Conversely, in RS-Commit, both states experiences a more equitable split of the total payoff, with each state enjoying slightly higher payoffs under the commitment policy than in its absence.<sup>23</sup> These results may explain why the containment policy is adopted less frequently than the commitment policy.<sup>24</sup>

Although rational theory forcefully contends that the rising state should optimally choose self-containment to avert preventive war, our experimental results indicate that the potential of the containment policy in mitigating the risk of such wars is limited. This is especially telling when we compare the rising state's much greater inclination to adopt the alternative commitment policy.

**Result 1** *While the containment policy effectively reduces the likelihood of preventive wars when adopted, it is chosen with less than half of the time and primarily benefits the declining state at the expense of the self-contained rising state. In contrast, the commitment policy is at least equally effective in lowering the risk of preventive war, is adopted much more frequently, and benefits both the rising and declining states.*

## 4.2 Focusing on RS-Choice: Does the rising state prefer the containment or commitment policies?

We have observed that when the only alternative is to take no action, both the containment and commitment policies are often adopted to mitigate the risk of preventive wars, with the latter appearing more favored. Now we turn to the RS-Choice treatment, in which the rising state can choose between both policies. Our purpose is to explore which policy is more likely to be adopted and the consequence of each policy choice. As shown in [Table 2](#), the overall frequency of preven-

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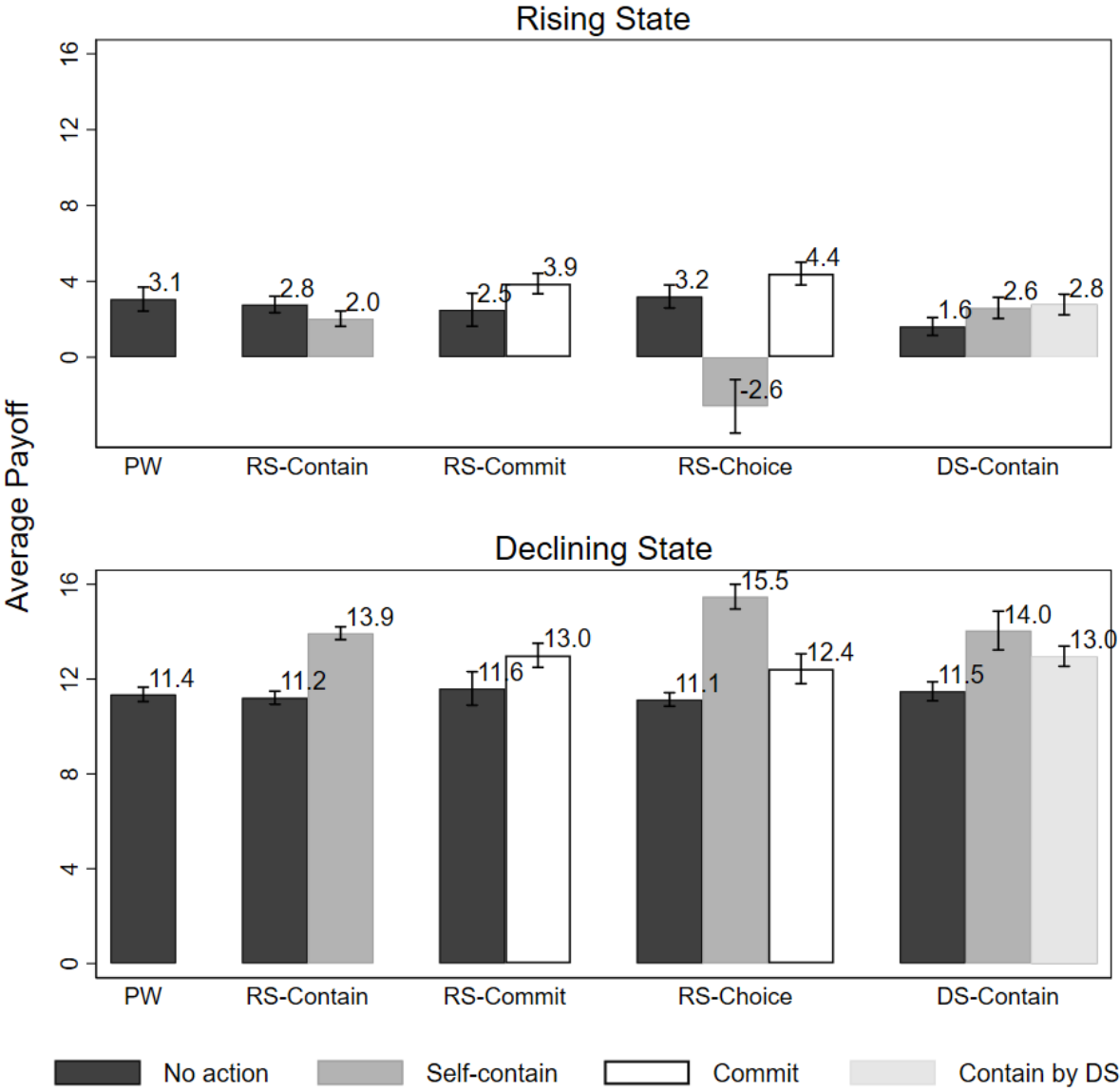
this conditional analysis can readily take a slightly different interpretation: the rate of fighting in Stage 1 is clearly lower when the commitment policy is adopted than when it is not. This is the same analysis conducted in columns (3) and (6) of [Table 3](#).

<sup>22</sup>[Table C2](#) in [Online Appendix C](#) provides statistical evidence using regression analyses. The regression results additionally suggest that when the containment policy is not adopted, both states' payoffs are not significantly different from their counterparts in the baseline PW.

<sup>23</sup>[Table C3](#) in [Online Appendix C](#) suggests that only the payoff increase for the declining state is statistically significant.

<sup>24</sup>See [Figure C9](#) in [Online Appendix C](#) for the average payoffs of both states in the last 10 rounds, which suggests the pattern is persistent over rounds.

Figure 4: The rising state's and declining state's average payoffs (excluding 5 points endowment)



Notes: Error bars represent one standard error of means clustered at the session level.

tive wars in RS-Choice is the lowest among all the treatments analyzed so far. In particular, the fighting rate is significantly lower than in the baseline PW and the difference widens over rounds (47.9% vs. 67.2% for all rounds,  $p < 0.001$ ; 39.7% vs. 75.0% for the last 10 rounds,  $p < 0.001$ , see columns (1) and (3) of Table 4).<sup>25</sup>

Figure 2 illustrates a clear preference for the commitment policy in RS-Choice. Over time, the

<sup>25</sup>See Figure C10 in Online Appendix C for the frequency of preventive wars round-by-round in RS-Choice relative to PW.

commitment policy becomes the dominant policy choice, while the containment policy is rarely selected.<sup>26</sup> Notably, during the last 10 rounds, while the commitment policy is adopted 88% of the time, the containment policy is almost never used at just 0.3%. Further, as shown in [Figure 3](#), the frequency of preventive wars associated with each policy choice aligns closely with our findings from RS-Contain and RS-Commit. Both policies effectively reduce the likelihood of preventive wars when adopted; however, the effect of the containment policy is less precisely estimated due to the limited number of observations (see [Table 4](#), column (2) for statistical evidence from a regression using data from all rounds, and column (4) using data from the last 10 rounds).

Table 4: Random effects probit regressions on the frequency of preventive wars in RS-Choice

	All rounds		Last 10 rounds	
	(1)	(2)	(3)	(4)
RS-Choice	-0.230*** (0.042)	-0.054 (0.072)	-0.412*** (0.034)	-0.025 (0.079)
Contain		-0.326* (0.182)		
Commit		-0.256*** (0.057)		-0.460*** (0.073)
Clusters	12	12	12	12
N	1800	1800	600	599

*Notes:* This table reports the average marginal effects on the declining state’s decision of launching preventive war in RS-Choice. Standard errors clustered at the session level are in parentheses. The variables “Contain” and “Commit” indicate that the containment policy and the commitment policy are adopted, respectively. The variable “Contain” cannot be estimated for the last 10 rounds in column (4) because there are only two instances of the containment policy being chosen. The PW treatment serves as the benchmark in all regressions. \*\*\*  $p < 0.01$ , \*  $p < 0.10$ .

Next, we briefly examine the patterns of bargaining offers and conditional fighting responses. As the containment policy is rarely chosen, we focus on the cases where either the commitment policy is adopted or no policy is chosen. Overall, the observed patterns resemble those observed in RS-Commit. As shown in [Figure C11](#) in [Online Appendix C](#), when the commitment policy is adopted, the rising state’s combined Stage 1 offer increases over time, stabilizing at around 13 points. In contrast, when neither policy is adopted, the Stage 1 offer converges to almost 10 points, similar to what was seen in PW. In Stage 2, the offer drops to almost zero in both cases. Further, [Figure C12](#) shows that when the (combined) Stage 1 offer in either case does not exceed 10 points, the conditional fighting rate in Stage 1 remains relatively high. However, once the combined offer

<sup>26</sup>Here, for simplicity, we say that the commitment policy is chosen if the rising state chooses the option of making advance allocation, and the combined Stage 1 offer does not need to exceed 10 points. However, only 7.6% of the combined offer is less than 10 points and 20.9% is exactly 10 points. Thus, the qualitative conclusion holds even if we do not classify these individuals as adopting the commitment policy.

exceeds 10 points as it becomes a feasible option upon the adoption of the commitment policy, the conditional fighting rate decreases sharply.<sup>27</sup>

Finally, we turn to the average payoff in RS-Choice. Figure 4 shows that when the commitment policy is chosen, both the rising state's and the declining state's payoffs increase. However, it is worth noting, albeit with the caution due to the low number of observations, that when the containment policy is selected, only the declining state's payoff increases at the expense of the rising state's payoff. This finding is consistent with our early observations in RS-Commit and RS-Contain.<sup>28</sup>

Overall, our findings from the RS-Choice treatment do not support the theoretical claim that the rising state should optimally contain its own growth under the shadow of preventive wars. In fact, the containment policy is never empirically appealing from the very beginning of the experiment when the alternative commitment policy is available. This suggests that the reluctance to adopt the containment policy is less about the rising state's negative experience (due to lower payoffs relative to the baseline PW) and more about the counterintuitive nature and inherent risk of the containment policy, as it renders the rising state more vulnerable should conflict arise in the future.

**Result 2** *When both the containment and commitment policies are available, the rising state predominantly chooses the commitment policy and rarely adopts the containment policy.*

### 4.3 Comparing RS-Contain and DS-Contain: Does the declining state adopt the containment policy?

So far, we have observed that the rising state is reluctant to self-contain itself to reduce the likelihood of preventive wars. This hesitation is understandable, as such policy eventually hurts the rising state's final payoff by allowing the declining state to exploit its vulnerability, grabbing a larger share of the total bargaining pie than what it could have obtained through preventive fighting. In this subsection, we examine the DS-Contain treatment, in which the declining state can proactively pursue its own containment policy before the rising state takes any action. Our goal is to explore whether the declining state is willing to adopt this costly containment policy to forestall the potential power shift that the rising state may be reluctant to address (at no cost).

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<sup>27</sup>Table C4 in Online Appendix C provides statistical evidence showing that the fighting rate in Stage 1 is significantly lower when the combined Stage 1 offer exceeds 10 points. In contrast, when the offer is no higher than 10 points (either when neither policy is chosen in RS-Choice or when the commitment policy is chosen but the combined offer is no higher than 10 points), the fighting rate is not significantly different between RS-Choice and PW using observations from all rounds.

<sup>28</sup>Table C5 in Online Appendix C suggests that only the payoff increase for the declining state is statistically significant when the commitment or containment policy is chosen.

Table 2 reveals that the overall frequency of preventive wars in DS-Contain is the lowest among all treatments. In particular, the fighting rate is significantly lower than in RS-Contain (43.2% vs. 60.1% for all rounds,  $p < 0.001$ ; 36.3% vs. 53.7% for the last 10 rounds,  $p = 0.023$ , see columns (1) and (3) of Table 5).<sup>29</sup>

Figure 2 shows that the declining state chooses to contain the rising state approximately 54% of the time, with this frequency remaining relatively stable across rounds. When the declining state does not choose the containment policy, the rising state is still more likely to take no action rather than adopt self-containment; across all rounds, the conditional frequency of self-containment is only 25%, rising to 38% during the last 10 rounds. This behavior contradicts the SPE prediction but aligns with our conjecture discussed in Section 3. Further, Figure 3 indicates that the declining state is least likely to fight if it adopts the containment policy against the rising state (see columns (2) and (4) of Table 5 for statistical evidence from regressions). Additionally, this conditional fighting rate drops to just 10% during the last 10 rounds (see Figure C4). The fighting rate is also slightly lower when the rising state chooses to self-contain, following the declining state's decision not to contain it, compared to the similar scenario in RS-Contain, although the difference becomes insignificant and reverses direction during the last 10 rounds (see the negative estimate of the interaction term Self-Contain $\times$ DS-Contain in column (2) of Table 5 and the insignificant estimate in column (4)). It is important to note that these findings do not necessarily imply that the declining state's pursuit of the containment policy is more effective in reducing the likelihood of preventive wars compared to the rising state's self-containment. A potential selection effect complicates this interpretation: some individuals playing the role of the declining state and choosing the containment policy may be inherently less prone to fighting, while others may be more predisposed toward conflict. This possibility aligns with the observation in Figure 3, indicating that the highest fighting rate occurs in instances of "no action."

Next, we briefly discuss the patterns of bargaining offers and conditional fighting responses, which generally mirror those observed in RS-Contain. Figure C14 in Online Appendix C shows that when the containment policy is chosen, the Stage 1 offer and Stage 2 offer revolve around 8 points and 6 points, respectively. Additionally, Figure C15 shows that the fighting rate is lower across all Stage 1 offers when the containment policy is adopted than when it is not. Thus, whether the containment policy is pursued by the declining state or the rising state does not significantly affect the patterns of bargaining offers and conditional fighting rates. Finally, regarding average payoffs, Figure 4 shows that when the containment policy is chosen by either state, both states' payoffs increase.<sup>30</sup>

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<sup>29</sup>See Figure C13 in Online Appendix C for the frequency of preventive wars round-by-round in DS-Contain relative to RS-Contain.

<sup>30</sup>Table C6 in Online Appendix C suggests that only the payoff increase for the declining state is statistically



Table 5: Random effects probit regressions on the frequency of preventive wars in DS-Contain

	All rounds		Last 10 rounds	
	(1)	(2)	(3)	(4)
DS-Contain	-0.202*** (0.038)	0.100 (0.064)	-0.250** (0.110)	-0.008 (0.133)
Self-Contain		-0.288*** (0.029)		-0.416*** (0.046)
Self-Contain×DS-Contain		-0.195** (0.087)		0.070 (0.081)
Contain by DS		-0.564*** (0.066)		-0.557*** (0.099)
Clusters	12	12	12	12
N	1800	1800	600	600

*Notes:* This table reports the average marginal effects on the declining state’s decision of launching preventive war in RS-Choice. Standard errors clustered at the session level are in parentheses. The variables “Self-contain” and “Contain by DS” indicate that the containment policy is adopted by RS and DS, respectively. The RS-Contain treatment serves as the benchmark in all regressions. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ .

The main takeaway from the DS-Contain treatment is that even when the containment policy entails costs, the declining state is far more likely to adopt this policy to preclude any potential power shift and, allowing it to bargain from the position of strength. In contrast, the rising state remains reluctant to pursue self-containment, even though it incurs no direct cost. These results further undermine the theoretical argument that the rising state can be relied upon to rationally contain its own growth to eliminate motives for preventive war.

**Result 3** *The declining state often adopts the costly containment policy, even though the rising state could have chosen the same policy at no cost. The DS-Contain treatment yields the most peaceful outcome among all treatments considered in this paper.*

## 5 Evidence from a Representative Survey on Public Opinions of Foreign Policies and Their Effectiveness

In this section, we present evidence from a representative survey fielded on U.S. residents, aimed at examining whether the public opinions on foreign policies align with our lab evidence. The survey was distributed online by the commercial survey company Dynata in July 2024.<sup>31</sup> To ensure the

significant when the containment policy is chosen by either the declining state or the rising state.

<sup>31</sup>See [Stantcheva \(2023\)](#) for a detailed discussion on how these online commercial survey platforms typically recruit and compensate respondents, as well as an evaluation of their sample representativeness compared to population

quality of responses, we exclude potentially inattentive respondents whose response time was less than 200 seconds or more than 10,000 seconds, which accounts for 2.0% of the initial sample. Additionally, we drop respondents who self-reported their inattention (to be explained below, 0.72% of the sample). The final sample comprises 541 individuals. Our results are robust when including all respondents. [Table 6](#) presents the sample characteristics in comparison with the U.S. population statistics. By design, the final sample statistics closely match the population demographics for the targeted dimensions of gender and age. Further, the sample is broadly representative on other dimensions such as employment status, marital status, race, and political affiliation. However, survey respondents tend to have higher incomes and higher levels of education than the general population, which is typical for online survey panels.<sup>32</sup>

## 5.1 Survey questions

The full questionnaire is available in [Online Appendix B](#). Upon entering the survey, respondents were first shown a consent page that informed them their participation in our academic study was entirely voluntary and that all identifying information would remain confidential. They were instructed to answer honestly and read the questions carefully before responding. After consenting, respondents were asked to provide background socioeconomic information, including their gender, age, highest level of education obtained, employment status, income, race, marital status, number of children, place of residence, and political orientation. Following the recommendation of [Stantcheva \(2023\)](#), we included a question not only to gauge self-reported attention but also to encourage respondents to consider the subsequent questions thoughtfully.<sup>33</sup>

Respondents were then directed to the main question block on international relations. The key questions were designed to ensure that respondent's answers were comparable to the states' strategic decisions in our lab experiment. At the start of this block, respondents read two paragraphs outlining facts about the evolving U.S.-China economic and military balance of power, emphasizing that China has become stronger relative to the U.S. in both aspects over the past few decades. The purpose of presenting these facts is to frame China as a rising power and the U.S. as a status

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statistics.

<sup>32</sup>Around 16% of respondents entered the survey but then dropped out at various points without completing it. For many of these respondents, we collected demographic information before they dropped out, allowing us to examine the attrition issue. Overall, older and/or retired respondents are more likely to drop out. This is likely due to the length of our survey (59 questions in total). However, since our sample is already representative of the general population in terms of age, we do not view this attrition as a serious issue for our research design.

<sup>33</sup>The question is "Before proceeding to the next set of questions, we want to ask for your feedback about the responses you provided so far. It is vital to our study that we only include responses from people who devoted their full attention to this study. This will not affect in any way the payment you will receive for taking this survey. In your honest opinion, should we use your responses, or should we discard your responses since you did not devote your full attention to the questions so far?"

Table 6: Survey sample characteristics

	U.S. population	Survey
Male	0.49	0.51
18–24 years old	0.11	0.12
25–34 years old	0.17	0.17
35–44 years old	0.19	0.22
45–54 years old	0.17	0.15
55–64 years old	0.16	0.12
65–74 years old	0.14	0.14
75–84 years old	0.07	0.08
\$0–\$19,999	0.35	0.15
\$20,000–\$39,999	0.21	0.16
\$40,000–\$69,999	0.21	0.29
\$70,000–\$99,999	0.10	0.19
\$100,000–\$149,999	0.07	0.13
\$150,000+	0.06	0.09
Four-year college degree or more	0.43	0.57
High-school graduate or less	0.33	0.17
Employed	0.59	0.62
Unemployed	0.02	0.09
Retired	0.19	0.22
Married	0.41	0.44
White	0.58	0.67
Black/African American	0.11	0.12
Hispanic/Latino	0.21	0.09
Asian/Asian American	0.07	0.07
Democrat	0.25	0.41
Republican	0.25	0.28
Independent	0.49	0.31
Sample size		541

*Notes:* The U.S. population statistics on gender, age, income, race, education, marital status, and employment status are from the IPUM-CPS, ASEC (Annual Social and Economic Supplement) data set for March 2023 (Flood et al., 2023). The population statistics on party affiliation for March 2023 are from Gallup (2023).

quo power. Subsequently, respondents were asked to predict the probability of war between the U.S. and China within the next decade and to indicate how certain they were about their prediction, following the method of measuring cognitive uncertainty proposed by Enke and Graeber (2023).

Subsequent questions focused on predicting the probability of China adopting policies reminis-

cent of containment (i.e., slowing down military buildup) and commitment (i.e., making economic concessions and domestic structural reforms). Respondents were then asked to assess whether the probability of war between the two states would increase, decrease, or remain unchanged, and to provide a point estimate of this probability if either policy has been hypothetically adopted. Additionally, respondents were asked to predict the probability of war if the U.S. had taken proactive actions to contain China's economic and military expansion, paralleling the containment policy by declining states in the DS-Contain treatment of our lab experiment. These key questions allowed us to examine public perceptions about the rising state's willingness to self-contain and the effectiveness of each foreign policy in reducing the risk of war.

Next, respondents were asked to adopt the perspective of the top leaders of either the U.S. or China and to evaluate their approval of different foreign policies. These questions aimed to examine public expectations regarding the attitudes of political elites. By posing the same questions from the perspective of U.S. and Chinese elites separately, we could investigate whether discrepancies in perceived attitudes of elites from both nations contribute to the predicted effectiveness of each policy. Finally, we asked a series of questions about respondents' general attitudes toward China, their level of nationalism, their interest in news about U.S.-China relations, and their predictions for military spending of the U.S. and China over the next 12 months.<sup>34</sup>

All variables of respondent characteristics are defined in [Table C7](#) and all outcome variables in [Table C8](#) of Online Appendix C.

## 5.2 Main results

Consistent with the lab evidence, [Figure 5](#) shows that, on average, respondents believe China is significantly less likely to adopt the containment policy than the commitment policy (26.5% vs. 36.5%,  $p < 0.001$ , Wilcoxon signed-rank test). Regarding the perceived effectiveness of each adopted policy, [Figure 6](#) indicates that if China adopts the containment policy, 58% of respondents predict that the probability of war would decrease, while only 20% predict the opposite. Similarly, though to a lesser degree, if China adopts the commitment policy, 37% of respondents predict a decrease in the probability of war, while 27% predict an increase. Using the point estimate of the probability of war, [Figure 7](#) provides consistent evidence that both containment and commitment policies are predicted to reduce the probability of war relative to the benchmark probability when no policy is adopted (containment: 24.6% vs. 32.0%; commitment: 27.7% vs. 32.0%,  $p$

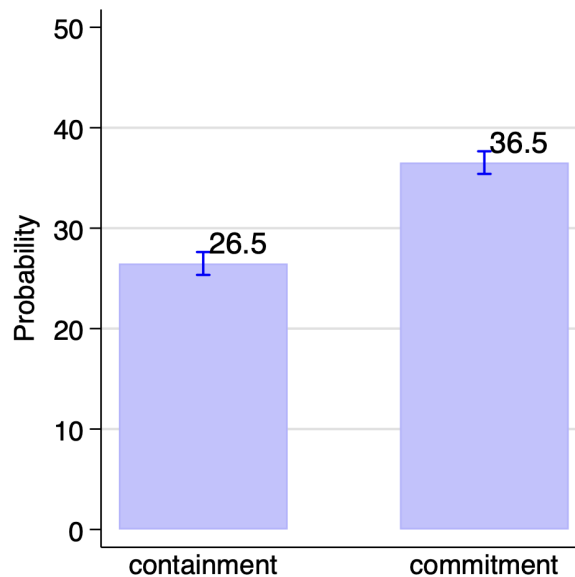
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<sup>34</sup>The questions that measure respondents' general attitudes toward China and their level of nationalism are adapted from [Lee \(2023\)](#). After answering all questions about international relations, respondents proceeded to answer a series of questions about their macroeconomic and personal expectations. These questions are irrelevant to the present study and therefore not analyzed in this paper.

< 0.001).<sup>35</sup> However, the predicted effectiveness of the containment policy is significantly higher than that of the commitment policy ( $p < 0.001$ ).

We also asked respondents to predict the probability of war if the U.S. adopts a coercive containment policy toward China. Perhaps surprisingly, [Figure 6](#) indicates that 54% of respondents actually predict an increase in the probability of war, while only 22% predict a decrease. Similarly, as [Figure 7](#) shows, the point prediction of the probability of war is slightly higher than the benchmark probability, though the difference is not significant ( $p = 0.170$ , Wilcoxon signed-rank test). While the evidence here is not consistent with the findings in the DS-Contain treatment of our lab experiment, it should be interpreted with caution. Unlike China’s hypothetical policies of self-containment and commitment, the U.S. has already implemented such coercive measures against China in reality. Therefore, the observed data likely reflect the public’s perception that these actions have intensified the competitive or adversarial relationship with China, thereby increasing rather than decreasing the risk of war.<sup>36</sup>

Figure 5: The perceived probability of China adopting containment or commitment policy



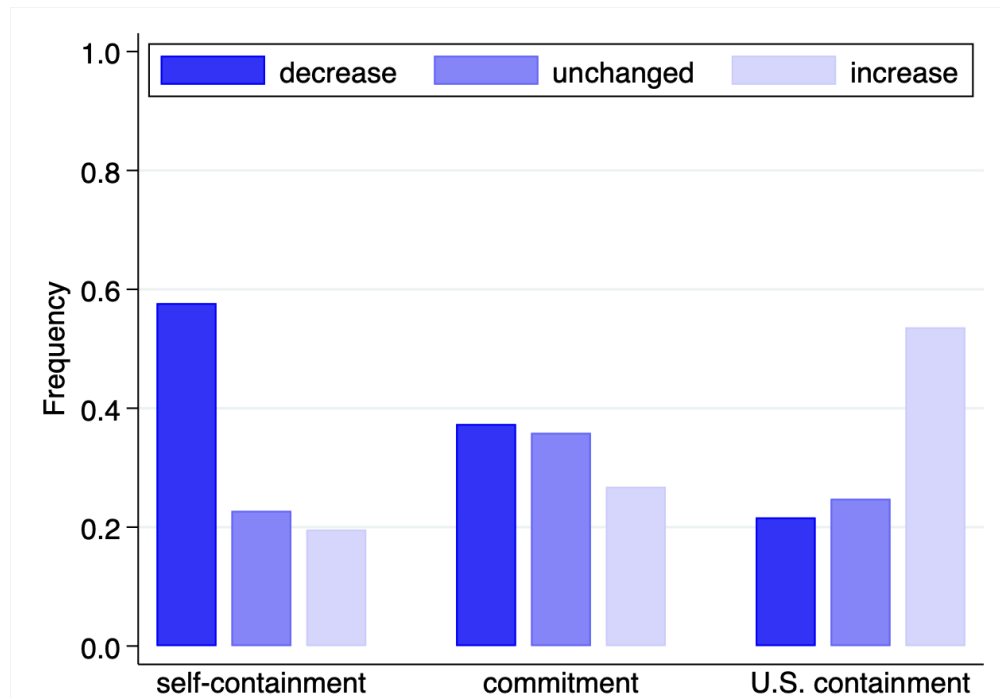
*Notes:* Error bars represent one standard error of means. The data are based on the continuous variables “Containment” and “Commitment” defined in [Table C8](#) of [Online Appendix C](#).

In the survey, respondents were asked to evaluate the approval level of U.S. or Chinese elites for

<sup>35</sup> Respondents’ cognitive uncertainty level, measured by their answer regarding the benchmark probability of war, does not affect the relative effectiveness of each policy, although those with a high level of cognitive uncertainty (above median) tend to predict a lower probability of war regardless of whether a policy is adopted or not.

<sup>36</sup> In the survey, we cannot identify whether the perceived change in the probability of war is driven by an increased likelihood of preventive war initiated by the U.S. or by a heightened probability of an attack from China. Consequently, the observation that the U.S. containment policy is perceived to slightly elevate the probability of war may be attributed to the public’s belief that China is more likely to attack the U.S. in response to curtailed growth.

Figure 6: The distribution of predicted change to the probability of war between the U.S. and China for each policy adopted

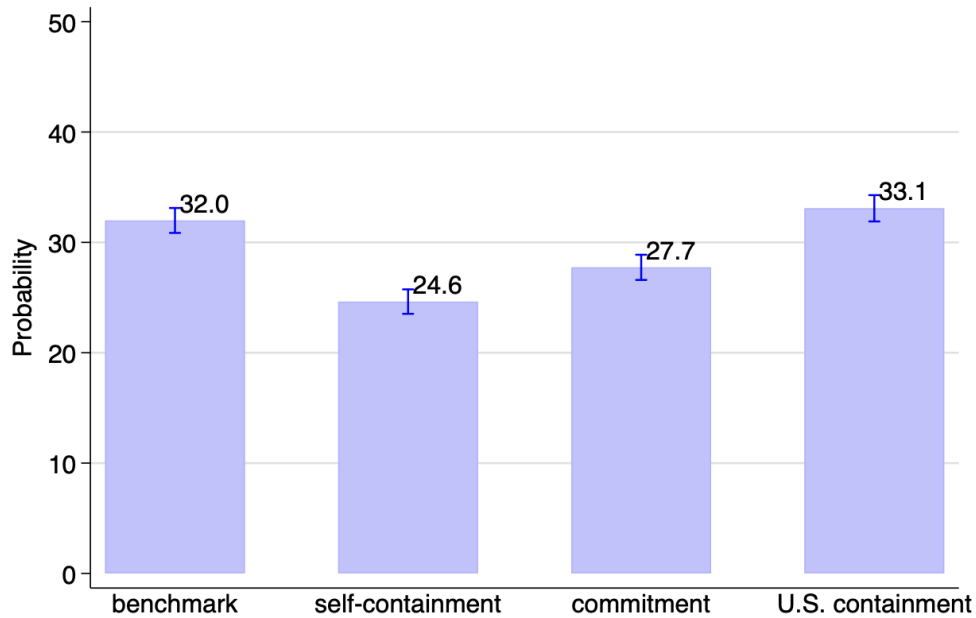


Notes: The data are based on the categorical variables “Self-containment war decrease”, “Commitment war decrease”, and “U.S. containment war decrease” defined in [Table C8](#) of Online Appendix C.

each policy. [Figure C16](#) in Online Appendix C plots the distributions of their responses. U.S. elites are perceived to approve more of China’s self-containment than commitment ( $p < 0.001$ , Wilcoxon signed-rank test). By contrast, Chinese elites are perceived by U.S. citizens to favor commitment than self-containment ( $p < 0.001$ ). Both U.S. and Chinese elites are perceived to be least supportive of the U.S. adopting the containment policy. This perception of Chinese elites’ attitudes aligns with the higher predicted probability of China adopting the commitment policy. Conversely, the perception of U.S. elites’ attitudes is consistent with the higher predicted effectiveness of the self-containment policy. Interestingly, at the individual level, [Table C9](#) in Online Appendix C suggests that a larger discrepancy between U.S. and Chinese elites in their perceived attitudes toward a policy correlates with a higher probability of war if that policy is adopted. However, this attitude gap shows no correlation with the predicted effectiveness of the policy relative to the benchmark when no policy is adopted. This suggests that a wider divergence in attitude between U.S. and Chinese elites is perceived to increase the risk of war, irrespective of specific policies adopted.

Finally, we observe important heterogeneity in the main outcome variables. First, [Table C10](#) in Online Appendix C reports regressions of the probability of China adopting each policy on the full array of respondent characteristics defined in [Table C7](#). Compared to the younger gen-

Figure 7: The predicted probability of war between the U.S. and China for each policy adopted



*Notes:* The data are based on the continuous variables “Benchmark war”, “Self-containment war”, “Commitment war”, and “U.S. containment war” defined in [Table C8](#) of Online Appendix C.

eration, middle-aged (35-44 years old) or elderly (45-64 years old) respondents are less optimistic of China’s likelihood of adopting either policy, especially self-containment. By contrast, black/African American respondents, those with higher levels of nationalism, and those who predict a higher likelihood of the U.S. spending more on military in the next 12 months are more optimistic of China adopting either policy, particularly self-containment. Middle-aged or Republican respondents, or those who predict a higher likelihood of China spending more on military in the next 12 months, perceive greater relative reluctance of China choosing to self-contain, while respondents with a higher level of nationalism perceive the opposite. Importantly, [Table C10](#), column (3) shows that the difference in the probability of adopting the two policies is no longer significant after controlling for the full set of respondent characteristics.

Second, [Table C11](#) in Online Appendix C reports regressions of the probability of war conditional on each adopted policy. Older, married respondents, and those who disagree with the idea of China replacing the U.S. as the hegemon in East Asia predict lower probabilities of war. Conversely, black/African American respondents, those who view China as an adversary to the U.S., and those who predict a higher likelihood of increased China’s military spending over the next 12 months predict higher probabilities of war. Last but not least, [Table C12](#) reports regressions of predicted changes in the probability of war conditional on each adopted policy relative to the benchmark probability. Older respondents tend to be less optimistic about the effectiveness of



each policy, particularly self-containment, in reducing the risk of war (but this is likely due to their already low prediction of the benchmark probability of war as shown in [Table C11](#)). Conversely, Republican or independent respondents, those who view China as an adversary to the U.S., those who disagree with the idea of China replacing the U.S. as the hegemon in East Asia, and those who often follow news on U.S.-China relations tend to be more optimistic about the effectiveness of each policy, especially self-containment. However, this evidence should be taken with caution, as the coefficients on these variables are not consistently large or significant.

## 6 Conclusion

Our study offers new insights into the dynamics of preventive war in the context of endogenous power shifts, employing both experimental and survey methods. The experimental results reveal a significant reluctance among rising states to adopt the containment policy, despite its theoretical effectiveness in preventing conflict. This reluctance may stem from the fear of signaling weakness by reducing military investments, which could have detrimental domestic and international consequences. Our findings challenge the prevailing critique that the occurrence of preventive war relies crucially on the assumption of exogenous power shifts. We demonstrate that even in scenarios characterized by complete information and endogenous power shifts, the risk of conflict remains substantial. The introduction of coercive containment by declining states—though costly and effective—further highlights the desperate measures states might resort to in the face of potential threats.

Our representative survey conducted among U.S. residents corroborates the experimental findings, indicating a general skepticism toward the likelihood of rising states adopting containment policies. While the public perceives commitment as a more probable and somewhat effective policy, doubts about its enforceability in real-world politics may persist. This discrepancy between theoretical predictions and public perceptions emphasizes the challenges in implementing conflict prevention strategies that are both credible and effective.

Our study bridges the gap between theoretical models, abstract lab experiments and real-world applicability by showing broadly consistent patterns across both controlled experimental settings and broader public opinions. We believe that our integrated approach holds promise for illuminating research questions, such as those related to war and conflict, that may traditionally be considered unsuitable for experimental methods.

## References

- Abbink, Klaus, Lu Dong, and Lingbo Huang.** 2023. "Preventive Wars." *Games and Economic Behavior*, 142: 552–569.
- Acemoglu, Daron, and James A Robinson.** 2001. "A Theory of Political Transitions." *American Economic Review*, 91(4): 938–963.
- Allison, Graham.** 2017. *Destined for War: Can America and China Escape Thucydides's Trap?* Houghton Mifflin Harcourt.
- Baier, Alexandra, Sophia Seelos, and Thomas Rittmannsberger.** 2024. "Peace in an unequal world? Experimental evidence on the relationship between inequality and conflict in a guns-vs-butter setting." *Games and Economic Behavior*, 147: 74–87.
- Baliga, Sandeep, and Tomas Sjöström.** 2008. "Strategic Ambiguity and Arms Proliferation." *Journal of Political Economy*, 116(6): 1023–1057.
- Baliga, Sandeep, and Tomas Sjöström.** 2020. "The strategy and technology of conflict." *Journal of Political Economy*, 128(8): 3186–3219.
- Brito, Dagobert L, and Michael D Intriligator.** 1985. "Conflict, War and Redistribution." *American Political Science Review*, 79(4): 943–957.
- Chadefaux, Thomas.** 2011. "Bargaining over power: when do shifts in power lead to war?" *International Theory*, 3(2): 228–253.
- Chassang, Sylvain, and Gerard Padró I Miquel.** 2010. "Conflict and deterrence under strategic risk." *Quarterly Journal of Economics*, 125(4): 1821–1858.
- Chatterjee, Kalyan, and William Samuelson.** 1983. "Bargaining under Incomplete Information." *Operations Research*, 31(5): 835–851.
- Copeland, Dale C.** 2000. *The Origins of Major War*. Ithaca, NY: Cornell University Press.
- Crawford, Vincent P.** 1982. "A Theory of Disagreement in Bargaining." *Econometrica*, 50(3): 607–637.
- Debs, Alexandre, and Nuno P. Monteiro.** 2014. "Known Unknowns: Power Shifts, Uncertainty, and War." *International Organization*, 68(1): 1–31.

- Dechenaux, Emmanuel, Dan Kovenock, and Roman M Sheremeta.** 2015. "A survey of experimental research on contests, all-pay auctions and tournaments." *Experimental Economics*, 18(4): 609–669.
- Ellingsen, Tore, and Topi Miettinen.** 2008. "Commitment and Conflict in Bilateral Bargaining." *American Economic Review*, 98(4): 1629–1635.
- Enke, Benjamin, and Thomas Graeber.** 2023. "Cognitive Uncertainty." *The Quarterly Journal of Economics*, 138(4): 2021–2067.
- Fearon, James D.** 1994. "Domestic Political Audiences and the Escalation of International Disputes." *American Political Science Review*, 88: 577–592.
- Fearon, James D.** 1995. "Rationalist Explanations for War." *International Organization*, 49(3): 379–414.
- Fearon, James D.** 1996. "Bargaining over Objects that Influence Future Bargaining Power." mimeo, Standard University.
- Fearon, James D.** 1997. "Signaling Foreign Policy Interests: Tying Hands versus Sinking Costs." *Journal of Conflict Resolution*, 41(1): 68–90.
- Fearon, James D.** 2004. "Why Do Some Civil Wars Last So Much Longer than Others?" *Journal of Peace Research*, 41(3): 275–301.
- Fey, Mark, and Brenton Kenkel.** 2021. "Is an Ultimatum the Last Word on Crisis Bargaining?" *The Journal of Politics*, 83(1): 87–102.
- Fischbacher, Urs.** 2007. "z-Tree: Zurich toolbox for ready-made economic experiments." *Experimental Economics*, 10(2): 171–178.
- Flood, Sarah, Miriam King, Renae Rodgers, Steven Ruggles, J. Robert Warren, Daniel Warren, Annie Chen, Grace Cooper, Stephanie Richards, Megan Schouweiler, and Michael Westberry.** 2023. "IPUMS, Current Population Survey: Version 11.0." 10.18128/D030.V11.0.
- Gallup.** 2023. "Party Affiliation, in Depth: Topics A to Z." <https://news.gallup.com/poll/15370/party-affiliation.aspx>.
- Gurantz, Ron, and Alexander V. Hirsch.** 2017. "Fear, Appeasement, and the Effectiveness of Deterrence." *The Journal of Politics*, 79(3): 1041–1056.
- Jackson, Matthew O, and Massimo Morelli.** 2009. "Strategic Militarization, Deterrence and Wars." *Quarterly Journal of Political Science*, 4(4): 279–313.

- Joseph, Michael F.** 2023. “Do Different Coercive Strategies Help or Hurt Deterrence?” *International Studies Quarterly*, 67(2): sqad018.
- Ke, Changxia, Florian Morath, and Sophia Seelos.** 2023. “Do groups fight more? Experimental evidence on conflict initiation.” University of Innsbruck Working Papers in Economics and Statistics 2023-16.
- Kertzer, Joshua D., and Ryan Brutger.** 2016. “Decomposing Audience Costs: Bringing the Audience Back into Audience Cost Theory.” *American Journal of Political Science*, 60(1): 234–249.
- Kimbrough, Erik O., and Roman M. Sheremeta.** 2013. “Side-payments and the costs of conflict.” *International Journal of Industrial Organization*, 31(3): 278–286.
- Kimbrough, Erik O., and Roman M. Sheremeta.** 2014. “Why can’t we be friends? Entitlements and the costs of conflict.” *Journal of Peace Research*, 51(4): 487–500.
- Kimbrough, Erik O., Jared Rubin, Roman M. Sheremeta, and Timothy W. Shields.** 2015. “Commitment problems in conflict resolution.” *Journal of Economic Behavior & Organization*, 112: 33–45.
- Kimbrough, Erik O., Kevin Laughren, and Roman Sheremeta.** 2020. “War and conflict in economics: Theories, applications, and recent trends.” *Journal of Economic Behavior & Organization*, 178: 998–1013.
- Krainin, Colin, and Robert Schub.** 2021. “Alliance Dynamics in the Shadow of Shifting Power.” *International Studies Quarterly*, 65(4): 905–918.
- Kydd, Andrew H.** 2005. *Trust and Mistrust in International Relations*. Princeton, NJ: Princeton University Press.
- Lee, Soyoung.** 2023. “Domestic Distributional Roots of National Interest.” *American Political Science Review*, 1–16.
- McCormack, Daniel, and Henry Pascoe.** 2017. “Sanctions and Preventive War.” *Journal of Conflict Resolution*, 61(8): 1711–1739.
- Meirowitz, Adam, and Anne E Sartori.** 2008. “Strategic Uncertainty as a Cause of War.” *Quarterly Journal of Political Science*, 3(4): 327–352.

- Meirowitz, Adam, Massimo Morelli, Kristopher W. Ramsay, and Francesco Squintani.** 2019. “Dispute Resolution Institutions and Strategic Militarization.” *Journal of Political Economy*, 127(1): 378–418.
- Miettinen, Topi.** 2022. “Commitment Tactics in Bargaining Under Complete Information.” In *Bargaining - Current Research and Future Directions*. , ed. Emin Karagözoğlu and Kyle B. Hyndman, 11–34. Cham:Springer International Publishing.
- Powell, Robert.** 1999. *In the Shadow of Power: States and Strategies in International Politics*. Princeton, NJ:Princeton University Press.
- Powell, Robert.** 2006. “War as a Commitment Problem.” *International Organization*, 60(1): 169–203.
- Powell, Robert.** 2013. “Monopolizing Violence and Consolidating Power.” *The Quarterly Journal of Economics*, 128(2): 807–859.
- Quek, Kai.** 2017. “Rationalist Experiments on War.” *Political Science Research and Methods*, 5(1): 123–142.
- Ramsay, Kristopher W.** 2017. “Information, Uncertainty, and War.” *Annual Review of Political Science*, 20(1): 505–527.
- Sanchez-Pages, Santiago.** 2012. “Bargaining and Conflict with Incomplete Information.” In *Oxford Handbook of the Economics of Peace and Conflict*. , ed. Michelle R Garfinkel and Stergios Skaperdas. Oxford University Press.
- Schelling, Thomas C.** 1960. *The Strategy of Conflict*. Cambridge, MA:Harvard University Press.
- Schram, Peter.** 2021. “Hassling: How States Prevent a Preventive War.” *American Journal of Political Science*, 65(2): 294–308.
- Schram, Peter.** 2022. “When Capabilities Backfire: How Improved Hassling Capabilities Produce Worse Outcomes.” *The Journal of Politics*, 84(4): 2246–2260.
- Schwarz, M., and K. Sonin.** 2008. “A Theory of Brinkmanship, Conflicts, and Commitments.” *Journal of Law, Economics, and Organization*, 24(1): 163–183.
- Sheremeta, Roman M.** 2013. “Overbidding and Heterogeneous Behavior in Contest Experiments.” *Journal of Economic Surveys*, 27(3): 491–514.
- Spykman, Nicholas.** 1942. *America’s Strategy in World Politics: The United States and the Balance of Power*. New York, NY:Harcourt, Brace and Company.

- Stantcheva, Stefanie.** 2023. “How to run surveys: A guide to creating your own identifying variation and revealing the invisible.” *Annual Review of Economics*, 15(1): 205–234.
- Tingley, Dustin.** 2017. “Rising Power on the Mind.” *International Organization*, 71(S1): S165–S188.
- Tingley, Dustin H.** 2011. “The Dark Side of the Future: An Experimental Test of Commitment Problems in Bargaining.” *International Studies Quarterly*, 55(2): 521–544.
- Tomz, Michael.** 2007. “Domestic Audience Costs in International Relations: An Experimental Approach.” *International Organization*, 61(04).
- Weisiger, Alex.** 2013. *Logics of War: Explanations for Limited and Unlimited Conflicts*. Ithaca, NY: Cornell University Press.
- Yoder, Brandon K.** 2019. “Hedging for Better Bets: Power Shifts, Credible Signals, and Preventive Conflict.” *Journal of Conflict Resolution*, 63(4): 923–949.

# Online Appendix

(for online publication)

## **A Experimental Instructions**

In the following, we translate the original instructions in Chinese into English for each treatment.

### **A.1 Instructions for the Preventive War treatment**

#### **General Information**

You are participating in a decision-making experiment. The instructions for the experiment are the same for everyone, please read them carefully. Communication among participants is prohibited during the experiment, please set your mobile phone to silent mode or turn it off. If you have any questions, please raise your hand at any time, and the experiment staff will come to assist you.

For your punctual attendance, you have already received a reward of 15 RMB. You can earn more rewards through the decisions you make in the experiment. The points you earn will depend on both your own decisions and the decisions of other participants. At the end of the experiment, your total points will be converted into RMB: 6 points = 1 RMB. The final reward will be deposited into your bank card within 5 working days. The decisions made by participants in the experiment are completely anonymous; that is, your name will be kept strictly confidential in the study, and other participants will not know your total experiment reward for today.

#### **Experiment Overview**

This experiment consists of 30 rounds. Before each round begins, you will be randomly paired with another participant, and you will randomly play the role of either A or B. If you are role A (or B), then the other participant will be role B (or A). In each round of the experiment, both the participant you are paired with and the roles you play will change randomly.

Before each round begins, participants will first receive a starting income of 5 points. Each round includes two decision-making stages. In each stage, role A and role B will decide how to split 10 points. In the following, we will explain their respective decisions in detail.

#### **Stage One Decision-making**

Role A will first decide how to allocate 10 points between himself and role B.

After observing A's choice in Stage One, B will then choose to "Accept" or "Reject".



- If B chooses “Accept”, she will receive the number of points allocated to her by A. Once B has made her choice for Stage One, A will be informed of B’s decision. A and B will then proceed to Stage Two decision-making.
- If B chooses “Reject”, the computer will decide who gets 20 points. **A has a 20% chance of winning these 20 points, while B has an 80% chance of winning.** In addition, regardless of the outcome, both parties must pay a cost of 4 points (this cost is not incurred if B chooses “Accept”). At this point, the round will end after Stage One and will not proceed to Stage Two.

### Stage Two Decision-making

Similar to Stage One, A will first decide how to allocate 10 points between himself and role B. B will then choose to “Accept” or “Reject”.

- If B chooses “Accept”, she will receive the number of points allocated to her by A.
- If B chooses “Reject”, **the decision from Stage One is nullified**, and the computer will decide who gets 20 points. **A has a 70% chance of winning, while B has a 30% chance of winning.** In addition, regardless of the outcome, both parties must each pay a cost of 4 points (this cost is not incurred if B chooses “Accept”).

### Summary of the Two Stages of Decision-making

1. Stage One: First, A decides how to allocate 10 points, then B decides to “Accept” or “Reject”.
2. Stage Two: If B decides to “Accept” in Stage One, they proceed to Stage Two. First, A decides how to allocate 10 points, then B decides to “Accept” or “Reject”.

### Earnings per Round

- If B chooses “Accept” in both stages, then the total number of points she earns in that round (besides the 5 points starting income) is equal to the sum of the points allocated to B by A in both stages. A’s total number of points is equal to the sum of the points allocated to himself in both stages.
- If B chooses “Reject” at any stage, then the earnings for that round are unrelated to any of A’s decisions in either stage, and will only depend on whether they win 20 points at a cost of 4 points in the stage where B chose “Reject”. **It is important to note that although B has a higher chance of winning in the first stage (80%), A has a higher chance of winning in the second stage (70%).**

Your total earnings in this experiment will be the sum of earnings from each round. These experimental points will be converted into RMB at the end of the entire experiment.

This concludes all the experiment instructions. To ensure that all participants are fully aware of these instructions, please complete the following practice questions to help everyone understand. If you have any doubts, please raise your hand. Once all participants have correctly answered the practice questions, we will begin the experiment.

## **A.2 Instructions for the RS-Contain treatment**

### **General Information**

You are participating in a decision-making experiment. The instructions for the experiment are the same for everyone, please read them carefully. Communication among participants is prohibited during the experiment, please set your mobile phone to silent mode or turn it off. If you have any questions, please raise your hand at any time, and the experiment staff will come to assist you.

For your punctual attendance, you have already received a reward of 15 RMB. You can earn more rewards through the decisions you make in the experiment. The points you earn will depend on both your own decisions and the decisions of other participants. At the end of the experiment, your total points will be converted into RMB: 6 points = 1 RMB. The final reward will be deposited into your bank card within 5 working days. The decisions made by participants in the experiment are completely anonymous; that is, your name will be kept strictly confidential in the study, and other participants will not know your total experiment reward for today.

### **Experiment Overview**

This experiment consists of 30 rounds. Before each round begins, you will be randomly paired with another participant, and you will randomly play the role of either A or B. If you are role A (or B), then the other participant will be role B (or A). In each round of the experiment, both the participant you are paired with and the roles you play will change randomly.

Before each round begins, participants will first receive a starting income of 5 points. Each round includes three decision-making stages. For ease of explanation, we will first describe the decision-making in the second and third stages, and then explain the first stage. In each of the second and third stages, role A and role B will decide how to split 10 points. In the following, we will explain their respective decisions in detail.

### **Stage Two Decision-making**

Role A will first decide how to allocate 10 points between himself and role B.

After observing A's choice in Stage Two, B will then choose to "Accept" or "Reject".

- If B chooses "Accept", she will receive the number of points allocated to her by A. Once B has made her choice for Stage Two, A will be informed of B's decision. A and B will then proceed to Stage Three decision-making.
- If B chooses "Reject", the computer will decide who gets 20 points. **A has a 20% chance of winning these 20 points, while B has an 80% chance of winning.** In addition, regardless of the outcome, both parties must pay a cost of 4 points (this cost is not incurred if B chooses "Accept"). At this point, the round will end after Stage Two and will not proceed to Stage Three.

### **Stage Three Decision-making**

Similar to Stage Two, A will first decide how to allocate 10 points between himself and role B. B will then choose to "Accept" or "Reject".

- If B chooses "Accept", she will receive the number of points allocated to her by A.
- If B chooses "Reject", **the decision from Stage Two is nullified**, and the computer will decide who gets 20 points. **A has a 70% chance of winning, while B has a 30% chance of winning.** In addition, regardless of the outcome, both parties must each pay a cost of 4 points (this cost is not incurred if B chooses "Accept").

### **Stage One Decision-making**

Now we return to Stage One, where role A will decide whether to adjust the probability of winning in Stage Three to be the same as in Stage Two.

- If A chooses to "Adjust", then when B chooses "Reject" in Stage Three, **A has a 20% chance of winning, while B has an 80% chance of winning.**
- If A chooses "Not to Adjust", then **A has a 70% chance of winning, while B has a 30% chance of winning.**

Before the start of Stage Two, B will be informed of A's choice.

### **Summary of the Three Stages of Decision-making**

1. Stage One: A decides whether to adjust the probability of winning for Stage Three.
2. Stage Two: First, A decides how to allocate 10 points, then B decides to "Accept" or "Reject".

3. Stage Three: If B decides to “Accept” in Stage Two, they proceed to Stage Three. First, A decides how to allocate 10 points, then B decides to “Accept” or “Reject”.

### **Earnings per Round**

- If B chooses “Accept” in both Stage Two and Stage Three, then the total number of points she earns in that round (besides the 5 points starting income) is equal to the sum of the points allocated to B by A in these two stages. A’s total number of points is equal to the sum of the points allocated to himself in these two stages.
- If B chooses “Reject” at any stage, then the earnings for that round are unrelated to any of A’s decisions in either stage, and will only depend on whether they win 20 points at a cost of 4 points in the stage where B chose “Reject”. **It is important to note that although B has a higher chance of winning in the second stage (80%), if A does not “Adjust”, then A will have a higher chance of winning in the third stage (70%).**

Your total earnings in this experiment will be the sum of earnings from each round. These experimental points will be converted into RMB at the end of the entire experiment.

This concludes all the experiment instructions. To ensure that all participants are fully aware of these instructions, please complete the following practice questions to help everyone understand. If you have any doubts, please raise your hand. Once all participants have correctly answered the practice questions, we will begin the experiment.

## **A.3 Instructions for the RS-Commit treatment**

### **General Information**

You are participating in a decision-making experiment. The instructions for the experiment are the same for everyone, please read them carefully. Communication among participants is prohibited during the experiment, please set your mobile phone to silent mode or turn it off. If you have any questions, please raise your hand at any time, and the experiment staff will come to assist you.

For your punctual attendance, you have already received a reward of 15 RMB. You can earn more rewards through the decisions you make in the experiment. The points you earn will depend on both your own decisions and the decisions of other participants. At the end of the experiment, your total points will be converted into RMB: 6 points = 1 RMB. The final reward will be deposited into your bank card within 5 working days. The decisions made by participants in the experiment are completely anonymous; that is, your name will be kept strictly confidential in the study, and other participants will not know your total experiment reward for today.

## Experiment Overview

This experiment consists of 30 rounds. Before each round begins, you will be randomly paired with another participant, and you will randomly play the role of either A or B. If you are role A (or B), then the other participant will be role B (or A). In each round of the experiment, both the participant you are paired with and the roles you play will change randomly.

Before each round begins, participants will first receive a starting income of 5 points. Each round includes two decision-making stages. In each stage, role A and role B will decide how to split 10 points. In the following, we will explain their respective decisions in detail.

### Stage One Decision-making

Role A will first decide how to allocate 10 points between himself and role B. **Additionally, A will choose how many points, from another set of 10 points to be allocated in Stage Two, to allocate in advance to B.** If A decides to allocate  $X$  points (where  $X$  can be any integer between 0 to 10) from Stage Two to B in advance during Stage One, then the points available for allocation in Stage Two will be reduced to  $10 - X$  points.

After observing A's choice in Stage One, B will then choose to "Accept" or "Reject".

- If B chooses "Accept", she will receive the points allocated to her by A (including any points allocated in advance from Stage Two). Once B has made her choice for Stage One, A will be informed of B's decision. A and B will then proceed to Stage Two decision-making.
- If B chooses "Reject", the computer will decide who gets 20 points. **A has a 20% chance of winning these 20 points, while B has an 80% chance of winning.** In addition, regardless of the outcome, both parties must pay a cost of 4 points (this cost is not incurred if B chooses "Accept"). At this point, the round will end after Stage One and will not proceed to Stage Two.

### Stage Two Decision-making

Similar to Stage One, A will first decide how to allocate  $10 - X$  points between himself and role B (where  $X$  is the number of points already allocated in advance to B in Stage One). B will then choose to "Accept" or "Reject".

- If B chooses "Accept", she will receive the points allocated to them by A.
- If B chooses "Reject", **the decision from Stage One is nullified**, and the computer will decide who gets 20 points. **A has a 70% chance of winning, while B has a 30% chance of winning.** In addition, regardless of the outcome, both parties must each pay a cost of 4 points (this cost is not incurred if B chooses "Accept").

## Summary of the Two Stages of Decision-making

1. Stage One: First, A decides how to allocate the 10 points of Stage One and how many points from Stage Two to allocate in advance to B, then B decides to “Accept” or “Reject”.
2. Stage Two: If B decides to “Accept” in Stage One, they proceed to Stage Two. First, A decides how to allocate the  $10 - X$  points, then B decides to “Accept” or “Reject”.

## Earnings per Round

- If B chooses “Accept” in both stages, then the total number of points she earns in that round (besides the 5 points starting income) equals the sum of the points allocated to B by A in both stages. The total number of points A earns is equal to the sum of the points allocated to themselves in both stages.
- If B chooses “Reject” at any stage, then the earnings for that round are unrelated to any of A’s decisions in either stage, and will only depend on whether they win 20 points at a cost of 4 points in the stage where B chose “Reject”. **It is important to note that while B has a higher chance of winning in the first stage (80%), A has a higher chance of winning in the second stage (70%).**

Your total earnings in this experiment will be the sum of earnings from each round. These experimental points will be converted into RMB at the end of the entire experiment.

This concludes all the experiment instructions. To ensure that all participants are fully aware of these instructions, please complete the following practice questions to help everyone understand. If you have any doubts, please raise your hand. Once all participants have correctly answered the practice questions, we will begin the experiment.

## A.4 Instructions for the RS-Choice treatment

### General Information

You are participating in a decision-making experiment. The instructions for the experiment are the same for everyone, please read them carefully. Communication among participants is prohibited during the experiment, please set your mobile phone to silent mode or turn it off. If you have any questions, please raise your hand at any time, and the experiment staff will come to assist you.

For your punctual attendance, you have already received a reward of 15 RMB. You can earn more rewards through the decisions you make in the experiment. The points you earn will depend on both your own decisions and the decisions of other participants. At the end of the experiment, your total points will be converted into RMB: 6 points = 1 RMB. The final reward will be deposited into

your bank card within 5 working days. The decisions made by participants in the experiment are completely anonymous; that is, your name will be kept strictly confidential in the study, and other participants will not know your total experiment reward for today.

## **Experiment Overview**

This experiment consists of 30 rounds. Before each round begins, you will be randomly paired with another participant, and you will randomly play the role of either A or B. If you are role A (or B), then the other participant will be role B (or A). In each round of the experiment, both the participant you are paired with and the roles you play will change randomly.

Before each round begins, participants will first receive a starting income of 5 points. Each round includes three decision-making stages. For ease of explanation, we will first describe the decision-making in the second and third stages, and then explain the first stage. In each of the second and third stages, role A and role B will decide how to split 10 points. In the following, we will explain their respective decisions in detail.

### **Stage Two Decision-making**

Role A will first decide how to allocate 10 points between himself and role B.

After observing A's choice in Stage Two, B will then choose to "Accept" or "Reject".

- If B chooses "Accept", she will receive the number of points allocated to her by A. Once B has made her choice for Stage Two, A will be informed of B's decision. A and B will then proceed to Stage Three decision-making.
- If B chooses "Reject", the computer will decide who gets 20 points. **A has a 20% chance of winning these 20 points, while B has an 80% chance of winning.** In addition, regardless of the outcome, both parties must pay a cost of 4 points (this cost is not incurred if B chooses "Accept"). At this point, the round will end after Stage Two and will not proceed to Stage Three.

### **Stage Three Decision-making**

Similar to Stage Two, A will first decide how to allocate 10 points between himself and role B. B will then choose to "Accept" or "Reject".

- If B chooses "Accept", she will receive the number of points allocated to her by A.
- If B chooses "Reject", **the decision from Stage Two is nullified**, and the computer will decide who gets 20 points. **A has a 70% chance of winning, while B has a 30% chance of winning.** In addition, regardless of the outcome, both parties must each pay a cost of 4

points (this cost is not incurred if B chooses “Accept”).

### **Stage One Decision-making**

Now we return to Stage One, where role A will choose one of the following three strategies:

- **Adjust Winning Probability:** Decide whether to adjust the probability of winning in Stage Three to be the same as in Stage Two. That is, if A chooses to “Adjust”, then when B chooses “Reject” in Stage Three, **A has a 20% chance of winning, while B has an 80% chance of winning.**
- **Advance Allocation:** Decide how many points, from another set of 10 points to be allocated in Stage Three, to be allocated in advance to B. If A decides to allocate  $X$  points (where  $X$  can be any integer from 0 to 10) in advance to B in Stage Two, then the points available for allocation in Stage Three will be reduced to  $10 - X$  points.
- **Neither Adjust Winning Probability nor Advance Allocation:** That is, the points available for allocation in Stage Three remain at 10, and in Stage Three, **A has a 70% chance of winning, while B has a 30% chance of winning.**

Before Stage Two begins, B will be informed of A’s choice.

### **Summary of the Three Stages of Decision-making**

1. Stage One: A decides whether to adjust the winning probability for Stage Three, advance allocate points from Stage Three, or neither.
2. Stage Two: First, A decides how to allocate 10 points. If A has chosen to advance allocate in Stage One, he will also decide how many points to allocate in advance to B from Stage Three. Then B decides to “Accept” or “Reject”.
3. Stage Three: If B decides to “Accept” in Stage Two, they proceed to Stage Three. First, A decides how to allocate 10 points (or  $10 - X$  points, if advance allocation was chosen), then B decides to “Accept” or “Reject”.

### **Earnings per Round**

- If B chooses “Accept” in both Stage Two and Stage Three, then the total number of points she earns in that round (besides the 5 points starting income) equals the sum of the points allocated to B by A in these two stages. The total number of points A earns is equal to the sum of the points allocated to themselves in these two stages.
- If B chooses “Reject” at any stage, then the earnings for that round are unrelated to any of A’s decisions in either stage, and will only depend on whether they win 20 points at a cost of



4 points in the stage where B chose “Reject”. **It is important to note that although B has a higher chance of winning in the second stage (80%), if A does not “Adjust” the winning probability, then A will have a higher chance of winning in the third stage (70%).**

Your total earnings in this experiment will be the sum of earnings from each round. These experimental points will be converted into RMB at the end of the entire experiment.

This concludes all the experiment instructions. To ensure that all participants are fully aware of these instructions, please complete the following practice questions to help everyone understand. If you have any doubts, please raise your hand. Once all participants have correctly answered the practice questions, we will begin the experiment.

## **A.5 Instructions for the DS-Contain treatment**

### **General Information**

You are participating in a decision-making experiment. The instructions for the experiment are the same for everyone, please read them carefully. Communication among participants is prohibited during the experiment, please set your mobile phone to silent mode or turn it off. If you have any questions, please raise your hand at any time, and the experiment staff will come to assist you.

For your punctual attendance, you have already received a reward of 15 RMB. You can earn more rewards through the decisions you make in the experiment. The points you earn will depend on both your own decisions and the decisions of other participants. At the end of the experiment, your total points will be converted into RMB: 6 points = 1 RMB. The final reward will be deposited into your bank card within 5 working days. The decisions made by participants in the experiment are completely anonymous; that is, your name will be kept strictly confidential in the study, and other participants will not know your total experiment reward for today.

### **Experiment Overview**

This experiment consists of 30 rounds. Before each round begins, you will be randomly paired with another participant, and you will randomly play the role of either A or B. If you are role A (or B), then the other participant will be role B (or A). In each round of the experiment, both the participant you are paired with and the roles you play will change randomly.

Before each round begins, participants will first receive a starting income of 5 points. Each round includes three decision-making stages. For ease of explanation, we will first describe the decision-making in the second and third stages, and then explain the first stage. In each of the second and third stages, role A and role B will decide how to split 10 points. In the following, we will explain their respective decisions in detail.

### Stage Two Decision-making

Role A will first decide how to allocate 10 points between himself and role B.

After observing A's choice in Stage Two, B will then choose to "Accept" or "Reject".

- If B chooses "Accept", she will receive the number of points allocated to her by A. Once B has made her choice for Stage Two, A will be informed of B's decision. A and B will then proceed to Stage Three decision-making.
- If B chooses "Reject", the computer will decide who gets 20 points. **A has a 20% chance of winning these 20 points, while B has an 80% chance of winning.** In addition, regardless of the outcome, both parties must pay a cost of 4 points (this cost is not incurred if B chooses "Accept"). At this point, the round will end after Stage Two and will not proceed to Stage Three.

### Stage Three Decision-making

Similar to Stage Two, A will first decide how to allocate 10 points between himself and role B. B will then choose to "Accept" or "Reject".

- If B chooses "Accept", she will receive the number of points allocated to her by A.
- If B chooses "Reject", **the decision from Stage Two is nullified**, and the computer will decide who gets 20 points. **A has a 70% chance of winning, while B has a 30% chance of winning.** In addition, regardless of the outcome, both parties must each pay a cost of 4 points (this cost is not incurred if B chooses "Accept").

### Stage One Decision-making

Now we return to Stage One, where role B will decide whether to adjust the probability of winning in Stage Three to be the same as in Stage Two.

- If B chooses "Adjust", then when B chooses "Reject" in Stage Three, **A has a 20% chance of winning, while B has an 80% chance of winning.**
- If B chooses "Not to Adjust", then **A has a 70% chance of winning, while B has a 30% chance of winning.**

**Note: If B chooses "Adjust", then B will incur an additional cost of 1 point.**

After B has made her decision, if B has chosen "Not to Adjust", then A will also have the opportunity to decide whether to adjust the probability of winning in Stage Three to be the same as in Stage Two (with no additional cost).

- If A chooses “Adjust”, then when B chooses “Reject” in Stage Three, **A has a 20% chance of winning, while B has an 80% chance of winning.**
- If A chooses “Not to Adjust”, then **A has a 70% chance of winning, while B has a 30% chance of winning.**

Before Stage Two begins, B will be informed of A’s choice, and the final outcome of Stage One will be determined by A’s decision.

### **Summary of the Three Stages of Decision-making**

1. Stage One: First, B decides whether to adjust the winning probability for Stage Three. If B chooses not to adjust, then A has the opportunity to decide whether to adjust the winning probability for Stage Three.
2. Stage Two: First, A decides how to allocate 10 points, then B decides to “Accept” or “Reject”.
3. Stage Three: If B decides to “Accept” in Stage Two, they proceed to Stage Three. First, A decides how to allocate 10 points, then B decides to “Accept” or “Reject”.

### **Earnings per Round**

- If B chooses “Accept” in both Stage Two and Stage Three, then the total number of points she earns in that round (besides the 5 points starting income) equals the sum of the points allocated to B by A in these two stages. The total number of points A earns is equal to the sum of the points allocated to themselves in these two stages.
- If B chooses “Reject” at any stage, then the earnings for that round are unrelated to any of A’s decisions in either stage, and will only depend on whether they win 20 points at a cost of 4 points in the stage where B chose “Reject”. **It is important to note that although B has a higher chance of winning in the second stage (80%), if neither B nor A chooses to “Adjust” the winning probability, then A will have a higher chance of winning in the third stage (70%).**

Your total earnings in this experiment will be the sum of earnings from each round. These experimental points will be converted into RMB at the end of the entire experiment.

This concludes all the experiment instructions. To ensure that all participants are fully aware of these instructions, please complete the following practice questions to help everyone understand. If you have any doubts, please raise your hand. Once all participants have correctly answered the practice questions, we will begin the experiment.

## B Full Questionnaire

1. What is your gender?

- Male
- Female
- Other-binary / third gender
- Prefer not to say

2. What is your age range?

- under 18
- 18 - 24
- 25 - 34
- 35 - 44
- 45 - 54
- 55 - 64
- 65 - 74
- 75 - 84
- 85 or older

3. What is your highest level of education obtained?

- Less than high school
- High school graduates
- Some college
- 4 year college degree
- Professional degree
- Doctorate

4. What of the following describes your current situation most accurately?

- Employed full time
- Employed part time

- Unemployed looking for work
- Unemployed not looking for work
- Retired
- Student
- Other

5. In your main job, are you employed by public institution (such as federal, state and local government, government agencies, or public schools and hospitals) or by a private firm, or by another institution (such as a foundation, an association, or a non-profit organization)?

- Public institution
- Private firm
- Other institution

6. What is your approximate yearly income level, before taxes?

- Less than \$10,000
- \$10,000 to \$19,999
- \$20,000 to \$29,999
- \$30,000 to \$39,999
- \$40,000 to \$49,999
- \$50,000 to \$59,999
- \$60,000 to \$69,999
- \$70,000 to \$79,999
- \$80,000 to \$89,999
- \$90,000 to \$99,999
- \$100,000 to \$149,999
- More than \$150,000

7. How would you describe your ethnicity/race?

- European American/White

- African American/Black
- Hispanic/Latino
- Asian/Asian American
- Other

8. What is your marital status?

- Never married
- Married
- Legally separated or divorced
- Widowed

9. How many children do you have?

- I don't have any children
- 1
- 2
- 3
- 4
- 5 or more

10. Which state do you currently reside in?

11. Generally speaking, do you usually think of yourself as a Republican, a Democrat, an Independent, or something else?

- Republican
- Democrat
- Independent
- Other

12. Which of the following best describes your political views?

- Very Liberal
- Liberal

- Neither liberal nor conservative
- Conservative
- Very conservative

13. Before proceeding to the next set of questions, we want to ask for your feedback about the responses you provided so far. It is vital to our study that we only include responses from people who devoted their full attention to this study. This will not affect in any way the payment you will receive for taking this survey. In your honest opinion, should we use your responses, or should we discard your responses since you did not devote your full attention to the questions so far?

- Yes, I have devoted full attention to the questions so far and I think you should use my responses for your study.
- No, I have not devoted full attention to the questions so far and I think you should not use my responses for your study.

### **Probabilities**

In some of the following questions, we will ask you to think about the probability (in %) of a particular event occurring. Your answers can range from 0 to 100, where 0 means there is absolutely no chance, and 100 means that it is absolutely certain. For example, numbers like:

- 2 or 5 percent may indicate “almost no chance”.
- 18 percent or so may mean “not much chance”.
- 47 or 52 percent may be a “pretty even chance”.
- 83 percent or so may mean a “very good chance”.
- 95 or 98 percent may be “almost certain”.

### **International Relations Block (26 questions)**

#### **Background information about U.S.-China relationships**

We now would like you to read the following paragraphs.

During the past four decades, China’s economy has been growing rapidly. According to estimates by World Bank, on an exchange rate basis (i.e., by dollar value), China’s economy was approximately 11% of the US in 1960, but in 2022 it is 71%. In 2016, China’s economy already surpassed that of the U.S. on purchasing power parity basis (i.e., adjusted for local prices of the same prod-

ucts). As per estimates by IMF for 2023, the economy of China is 1.22 times larger than that of the U.S. on purchasing power parity basis.

The rapid growth and modernization of China's military have sparked concerns in the U.S. According to estimates by World Bank, the defense budget of the U.S. is \$320 billion in 2000, compared with \$22 billion of China. In 2022, the U.S. still spends more on defense than the next 10 countries combined — \$877 billion, compared with \$292 billion in reported spending by China. But the gap in military expenditure is much narrower than in the past.

We now would like to ask you some questions about your expectations regarding the U.S.-China relationships.

14. What do you think is the probability (in %) of war between the U.S. and China over the next decade? Please enter a number (0 - 100) in the box below.
15. Your answer to the previous question indicates that you believe there is a X% chance that war between the U.S. and China would occur during the next decade. How certain are you the optimal guess is somewhere between (X-1)% and (X+1)%?
16. Under the U.S. persistent economic and military pressure, what do you think is the probability (in %) that China will take each of the following actions at some time during the next decade? Please enter a number (0 - 100) in each box below.
  - China will slow or stall its military buildup to the point that its military strength can never compete with the U.S. in battles occurring in the Pacific theater.
  - China will make economic concessions via a series of enforceable trade agreements that requires structural reforms and other changes to China's economic and trade regime in the areas of intellectual property, technology transfer, agriculture, financial services, and currency and foreign exchange.
17. Your answer to a previous question indicates that you believe there is a X% chance that war between the U.S. and China would occur during the next decade. For each of the following hypothetical actions taken, what do you think would happen to the probability (in %) of war between the U.S. and China over the next decade?
  - Action 1: China decides to slow or stall its military buildup to the point that its military strength can never compete with the U.S. in battles occurring in the Pacific theater.
    - The probability of war will decrease
    - The probability of war will increase



- The probability of war will not be affected by China’s action
  - If you are to give one number as your prediction of the probability of war between the U.S. and China given that Action 1 has been taken, what would it be?
  - Action 2: China decides to make economic concessions via a series of enforceable trade agreements that requires structural reforms and other changes to China’s economic and trade regime in the areas of intellectual property, technology transfer, agriculture, financial services, and currency and foreign exchange.
    - The probability of war will decrease
    - The probability of war will increase
    - The probability of war will not be affected by China’s action
  - If you are to give one number as your prediction of the probability of war between the U.S. and China given that Action 2 has been taken, what would it be?
  - Action 3: The U.S. decides to contain China’s economic and military growth by imposing a series of tariffs, sanctions, and other coercive economic measures toward China (e.g., most notably China’s semiconductor industry).
    - The probability of war will decrease
    - The probability of war will increase
    - The probability of war will not be affected by China’s action
  - If you are to give one number as your prediction of the probability of war between the U.S. and China given that Action 3 has been taken, what would it be?
18. What kind of foreign policy strategies or actions do you think could most effectively reduce the probability of war between the U.S. and China?
19. Now try to imagine you were one of the top leaders of the U.S. How much would you approve of each of the following actions?
- China slows or stalls its military buildup to the point that its military strength can never compete with the U.S. in battles occurring in the Pacific theater.
    - Approve strongly
    - Approve
    - Approve slightly

- Neither approve or disapprove
  - Disapprove slightly
  - Disapprove
  - Disapprove strongly
- China makes economic concessions via a series of enforceable trade agreements that requires structural reforms and other changes to China’s economic and trade regime in the areas of intellectual property, technology transfer, agriculture, financial services, and currency and foreign exchange.
  - The U.S. contains China’s economic and military growth by imposing a series of tariffs, sanctions, and other coercive economic measures toward China (e.g., most notably China’s semiconductor industry).
20. Now try to imagine you were one of the top leaders of China. How much would you approve of each of the following actions?
- China slows or stalls its military buildup to the point that its military strength can never compete with the U.S. in battles occurring in the Pacific theater.
  - China makes economic concessions via a series of enforceable trade agreements that requires structural reforms and other changes to China’s economic and trade regime in the areas of intellectual property, technology transfer, agriculture, financial services, and currency and foreign exchange.
  - The U.S. contains China’s economic and military growth by imposing a series of tariffs, sanctions, and other coercive economic measures toward China (e.g., most notably China’s semiconductor industry).

Now please tell us about your opinions on the following statements.

21. Do you think China is an adversary, a serious problem but not an adversary, or not an adversary for the U.S.?
- An adversary
  - A serious problem but not an adversary
  - Not an adversary
  - Don’t know

22. Do you think the U.S. should pursue friendly cooperation with China or actively work to limit China's power?

- The U.S. should pursue friendly cooperation with China
- The U.S. should actively work to limit China's power
- Don't know

23. Do you think that China is trying to pursue friendly cooperation with the U.S. or working to undermine U.S. power and influence?

- China is trying to pursue friendly cooperation with the U.S.
- China is trying to undermine U.S. power and influence
- Don't know

Now please tell us how much you agree or disagree with the following statements.

24. The world would be a more secure place if China replaced the United States as the hegemon in East Asia.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

25. The world would be a better place if people from other countries were more like Americans.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

26. I would rather be a citizen of America than of any other country in the world.

- Strongly agree
- Somewhat agree

- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

27. I usually follow news on the international relations regarding U.S.-China.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

28. What do you think is the probability (in %) that 12 months from now the military spending by the U.S. will be higher than it is now? Please enter a number (0 - 100) in the box below.

29. What do you think is the probability (in %) that 12 months from now the military spending by China will be higher than it is now? Please enter a number (0 - 100) in the box below.

**Macroeconomics Block (20 questions)**

This block contains 20 questions asking respondents about their expectations about macroeconomics, as well as their own saving, investment, and spending behavior. The questions are omitted here as they are irrelevant to the present study.

## C Additional Figures and Tables

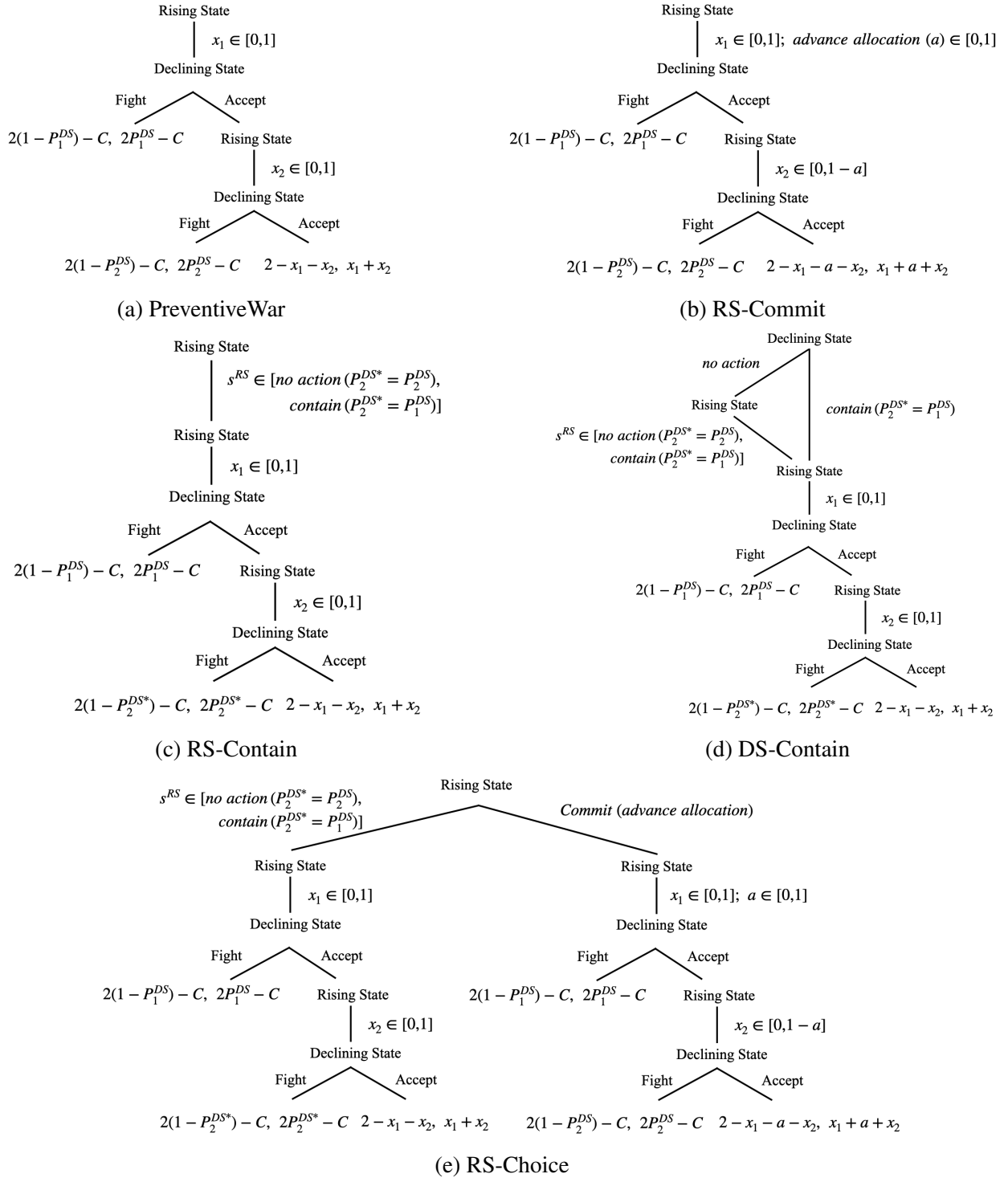


Figure C1: The game tree for each treatment

Notes: The chosen parameters are:  $P_1^{DS} = 0.8$ ,  $P_2^{DS} = 0.3$ ,  $C = 0.4$ . All values (except for parameters for probability of winning) in the figure need to be scaled up by a factor of 10 to equate with the actual values in the experiment.

Figure C2: The frequency of preventive wars over time in RS-Contain

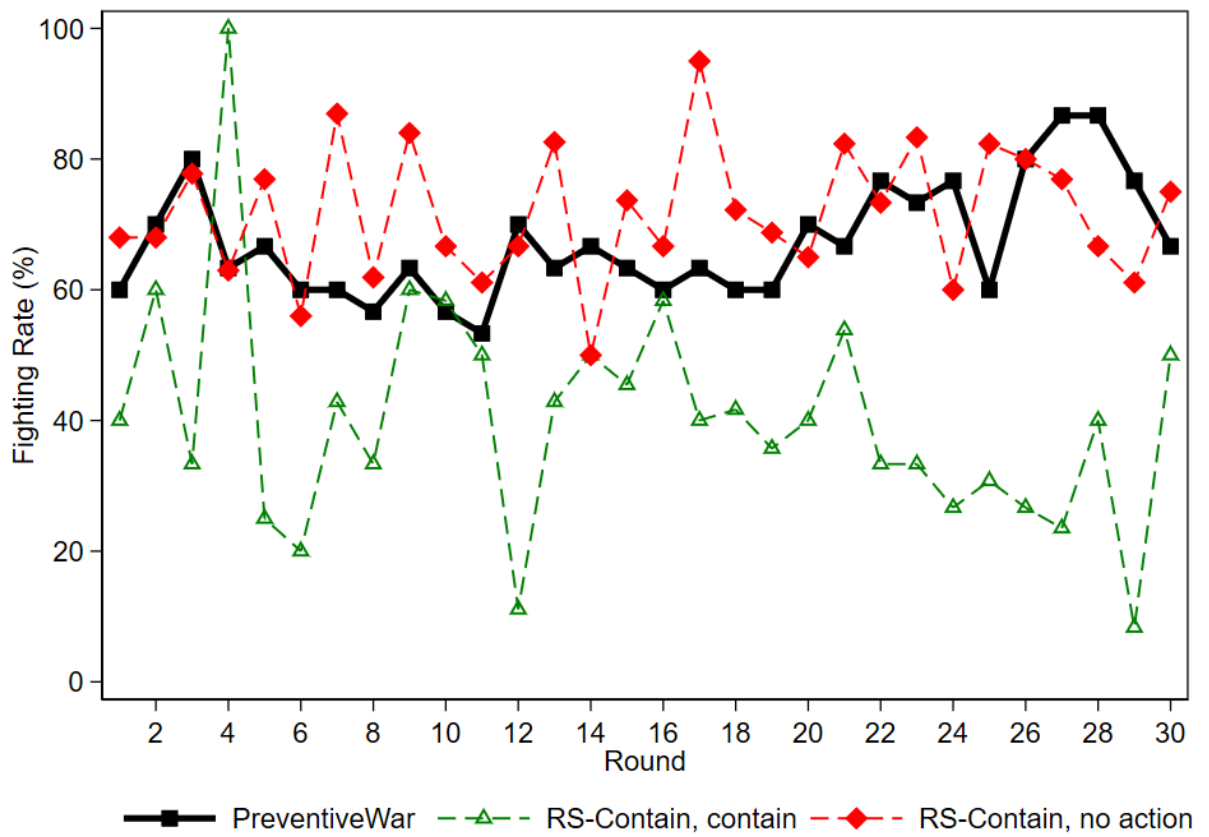


Figure C3: The frequency of preventive wars over time in RS-Commit

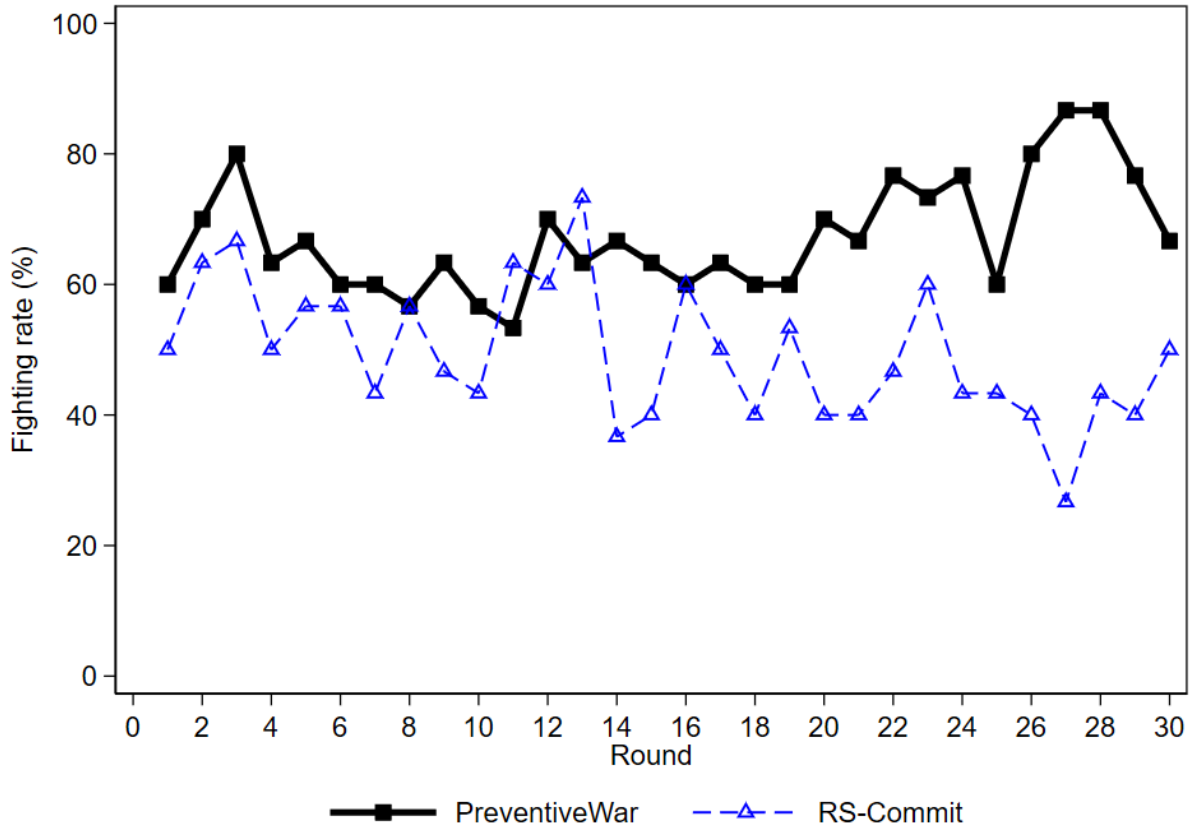
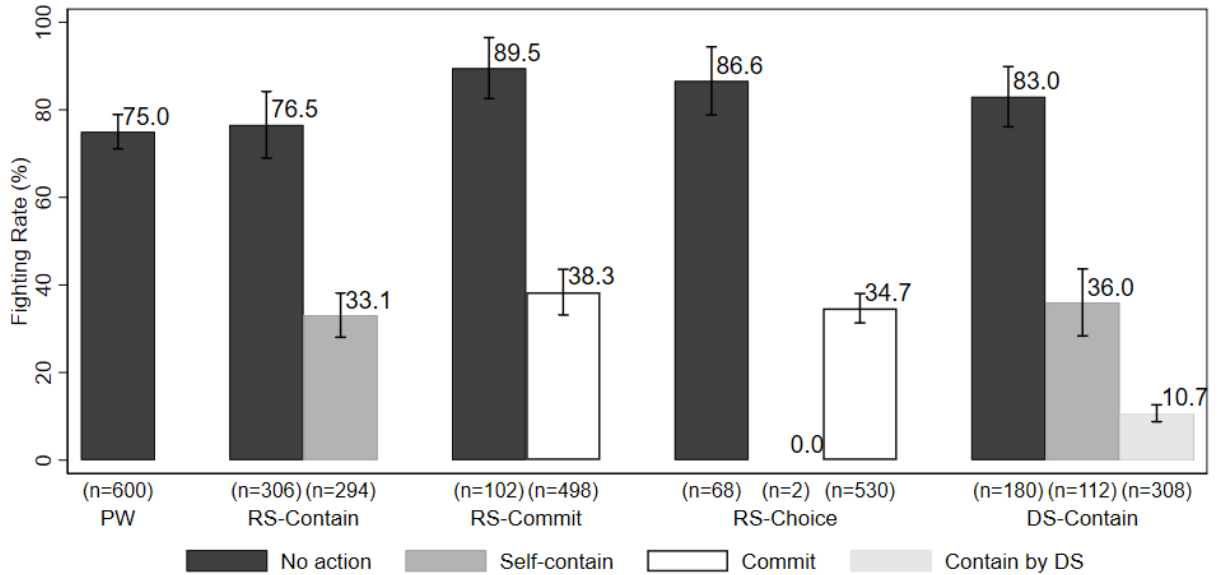


Figure C4: The frequency of preventive wars by policy choices during the last 10 rounds



Notes: Error bars represent one standard error of means clustered at the session level. The number in each bracket indicates the number of individual-round observations during the last 10 rounds.

Figure C5: Rising state's offers in both stages over time in RS-Contain

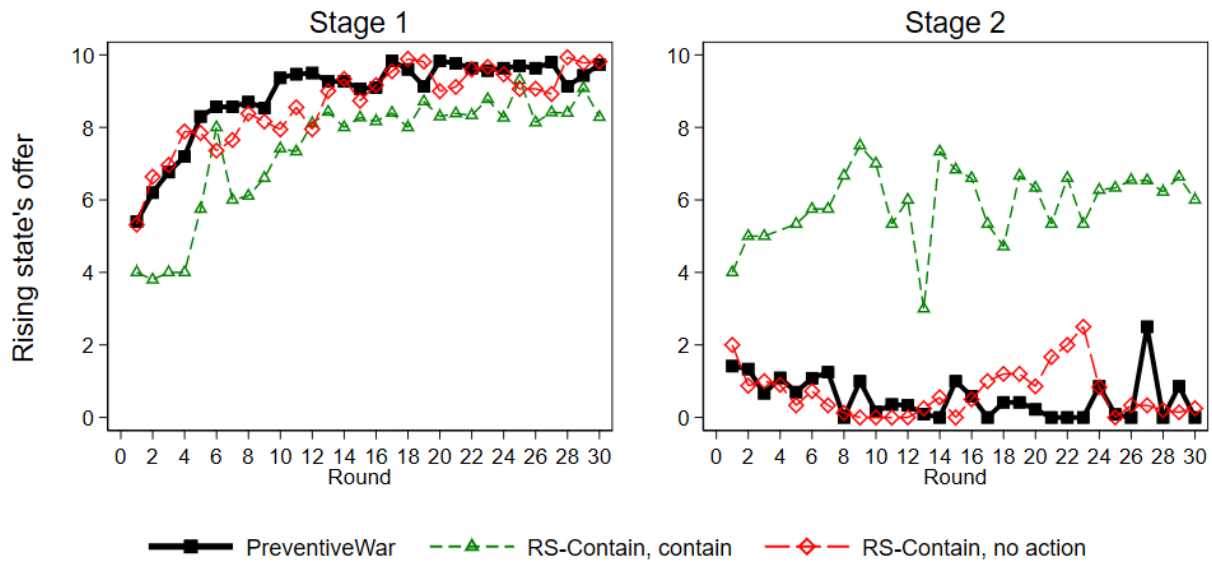


Figure C6: The frequency of preventive wars conditional on the rising state's stage 1 offer in PreventiveWar and RS-Contain

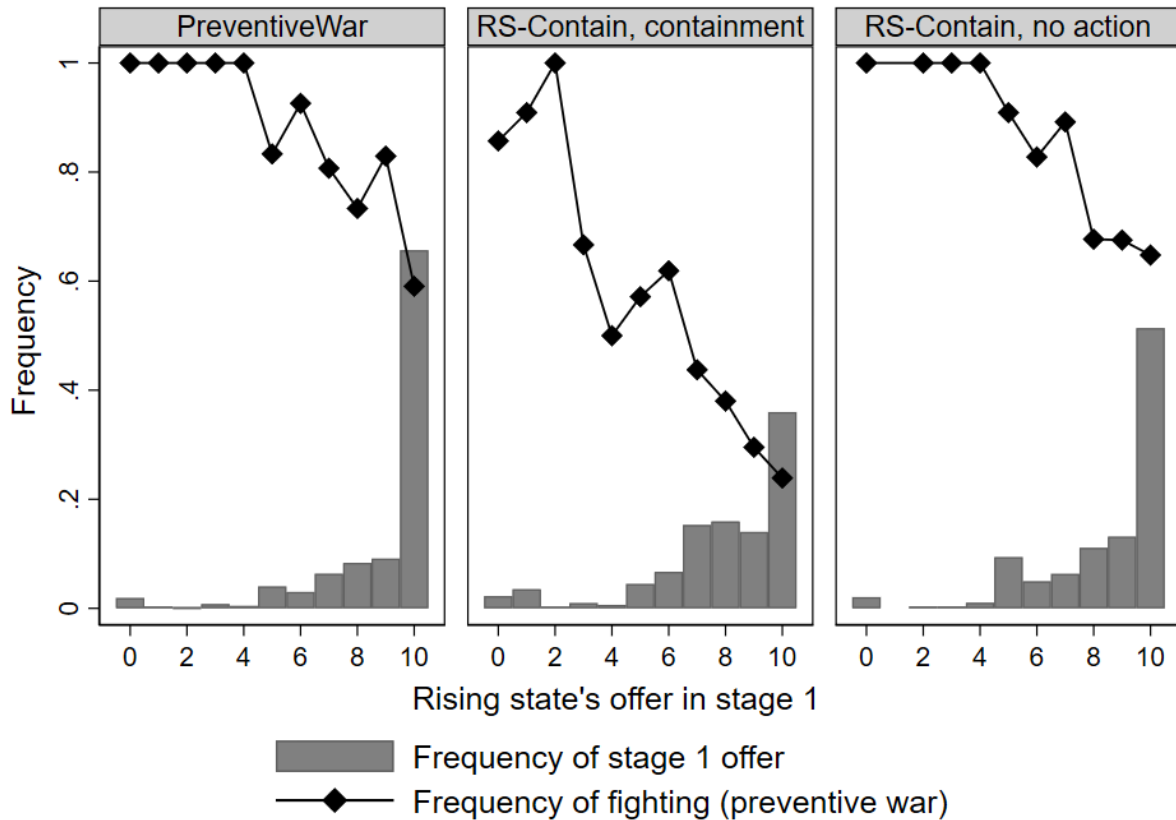




Figure C7: Rising state's offers in both stages over time in RS-Commit

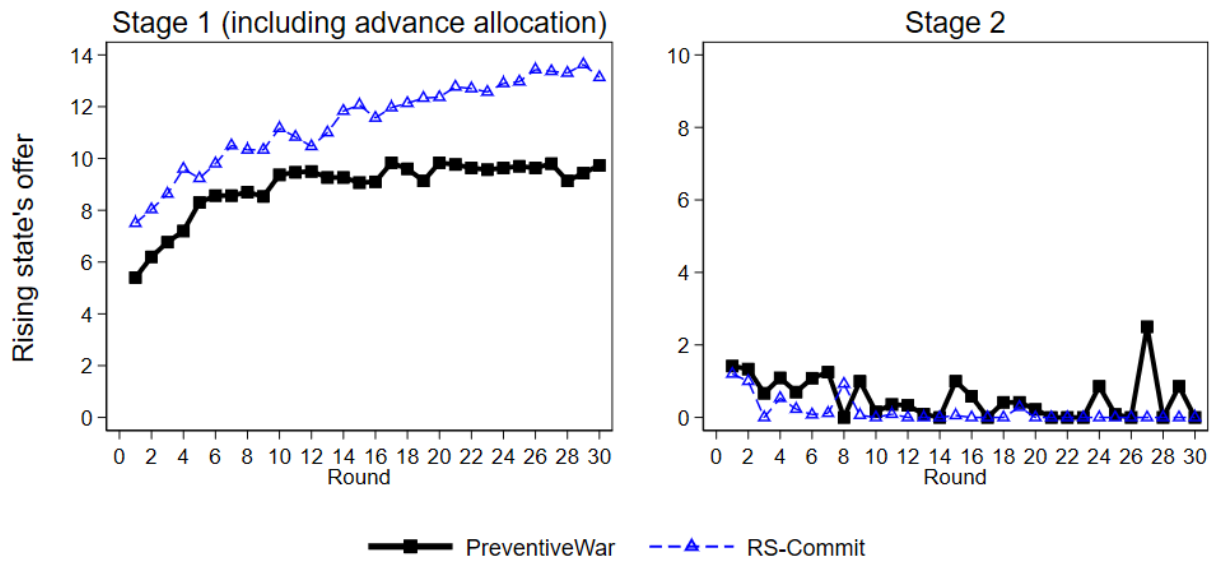


Figure C8: The frequency of preventive wars conditional on the rising state's stage 1 offer in RS-Commit

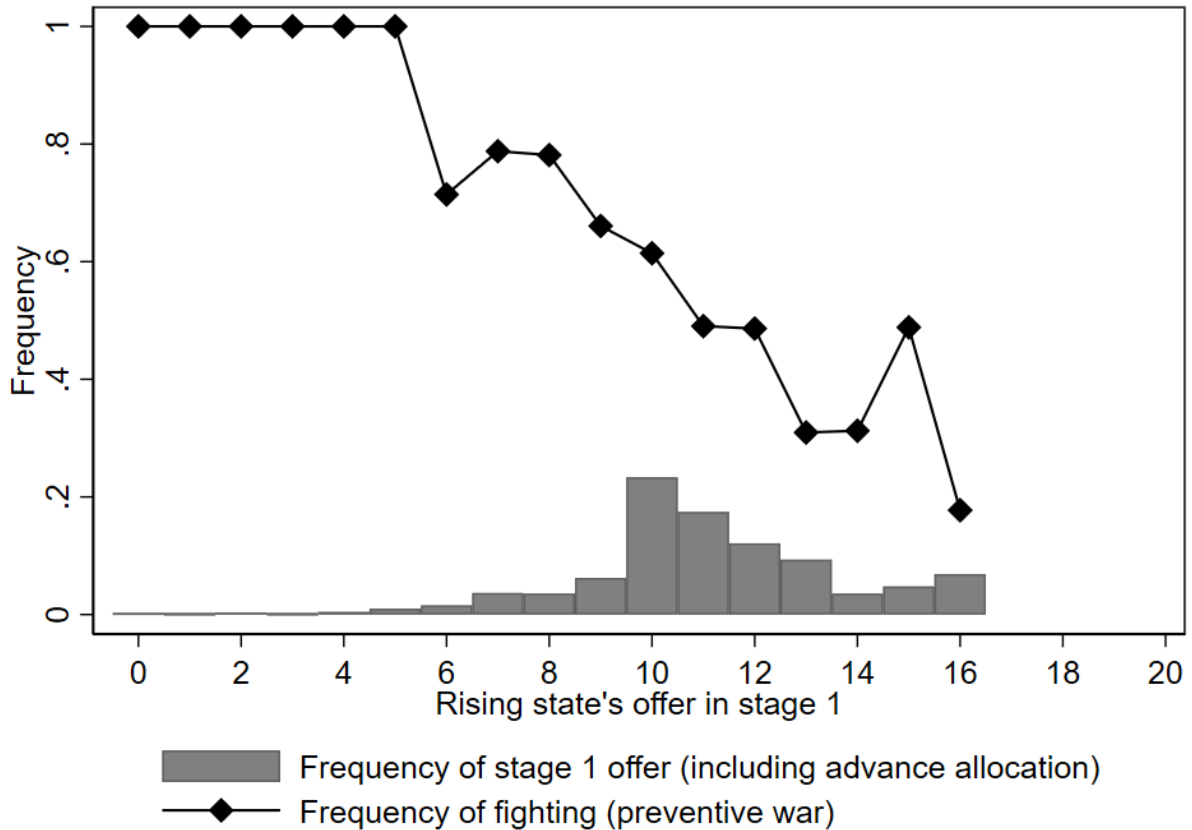
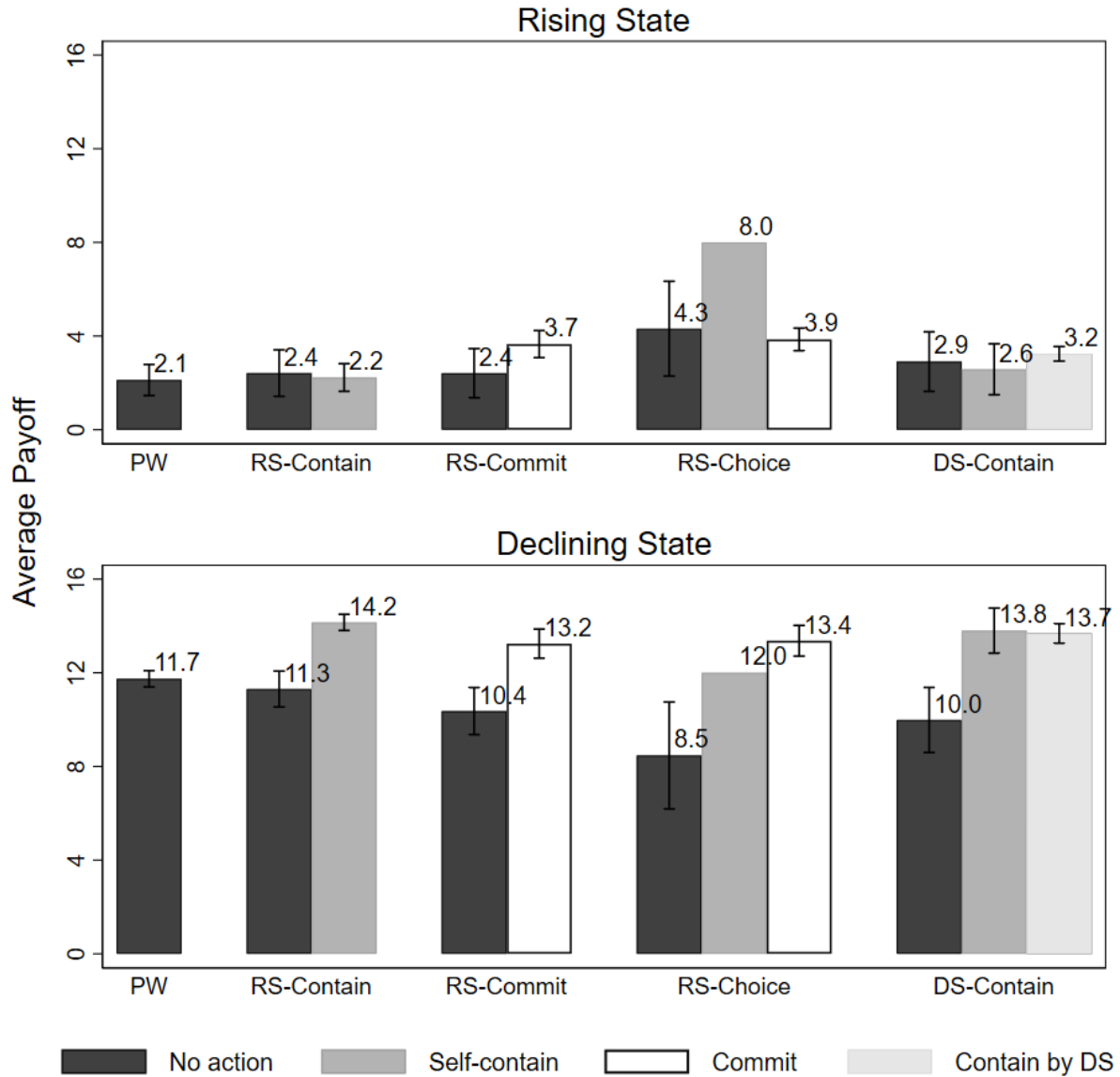


Figure C9: The rising state's and declining state's average payoffs (excluding 5 points endowment) in the last 10 rounds



Notes: Error bars represent one standard error of means clustered at the session level.

Figure C10: The frequency of preventive wars over time in RS-Choice

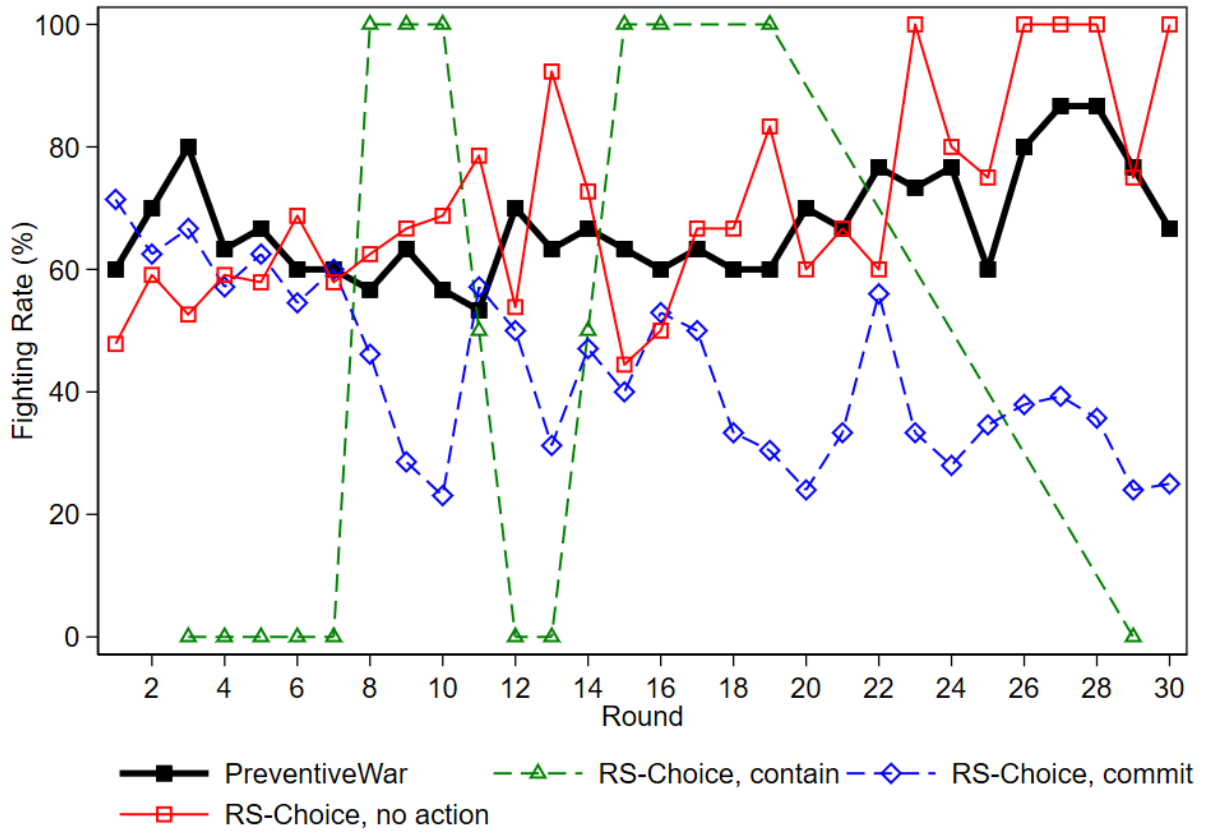


Figure C11: Rising state's offers in both stages over time in RS-Choice

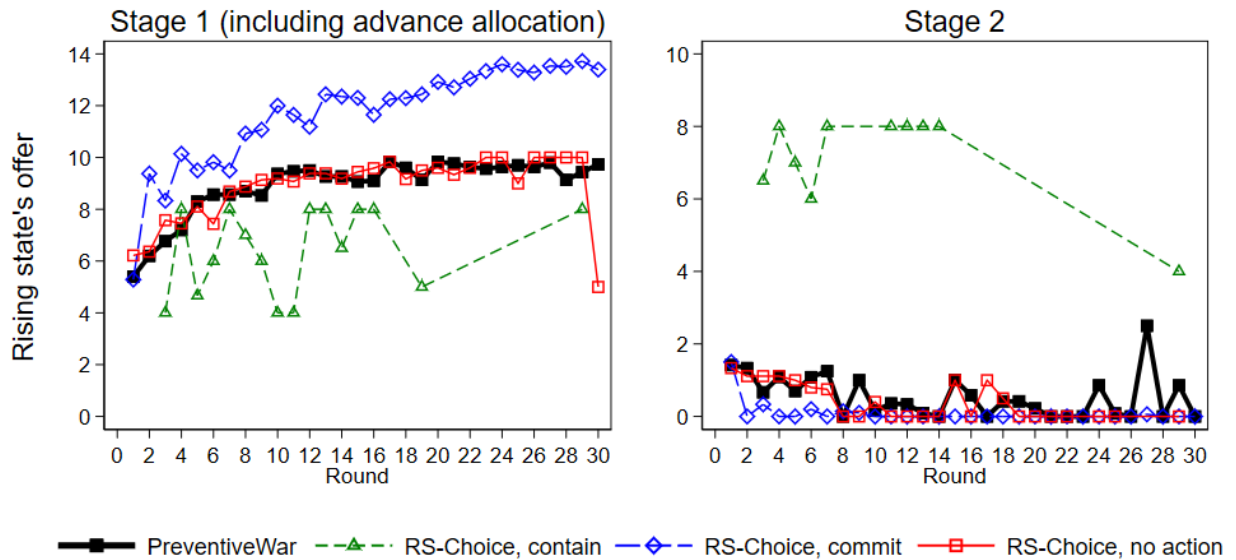


Figure C12: The frequency of preventive wars conditional on the rising state's stage 1 offer in RS-Choice

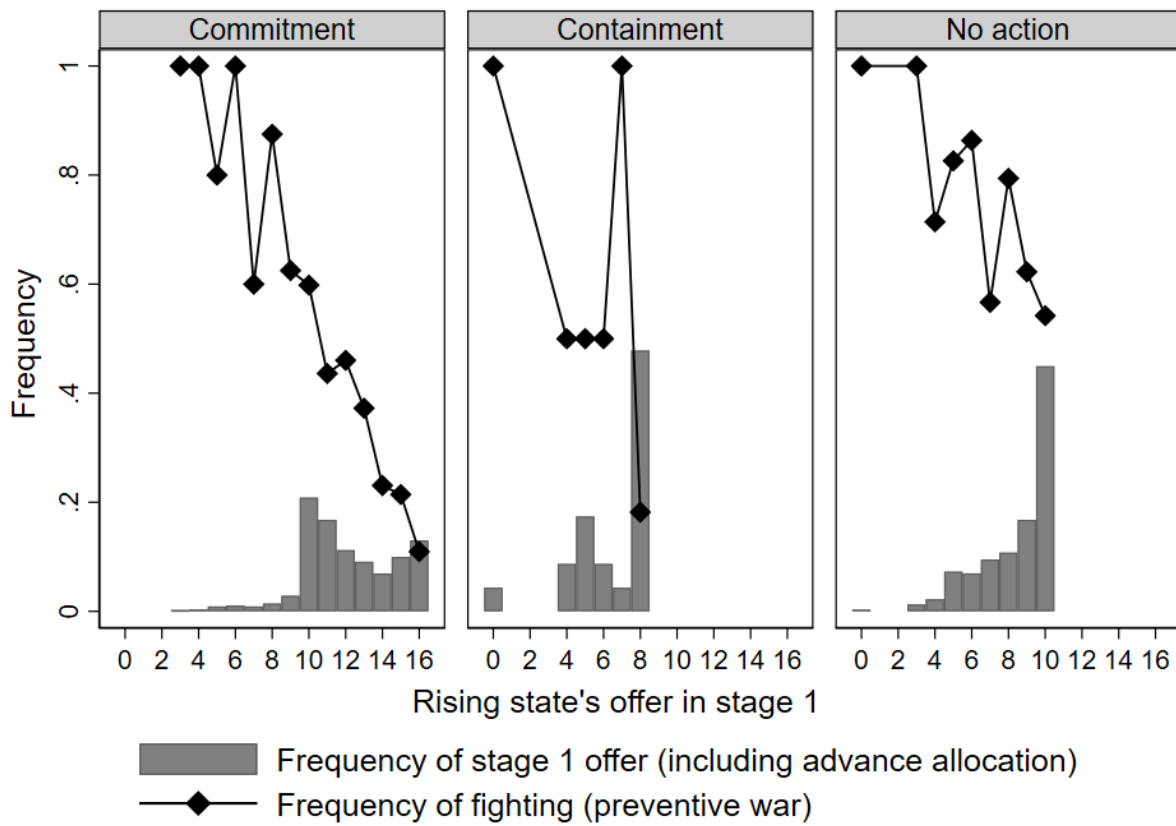


Figure C13: The frequency of preventive wars over time in DS-Contain

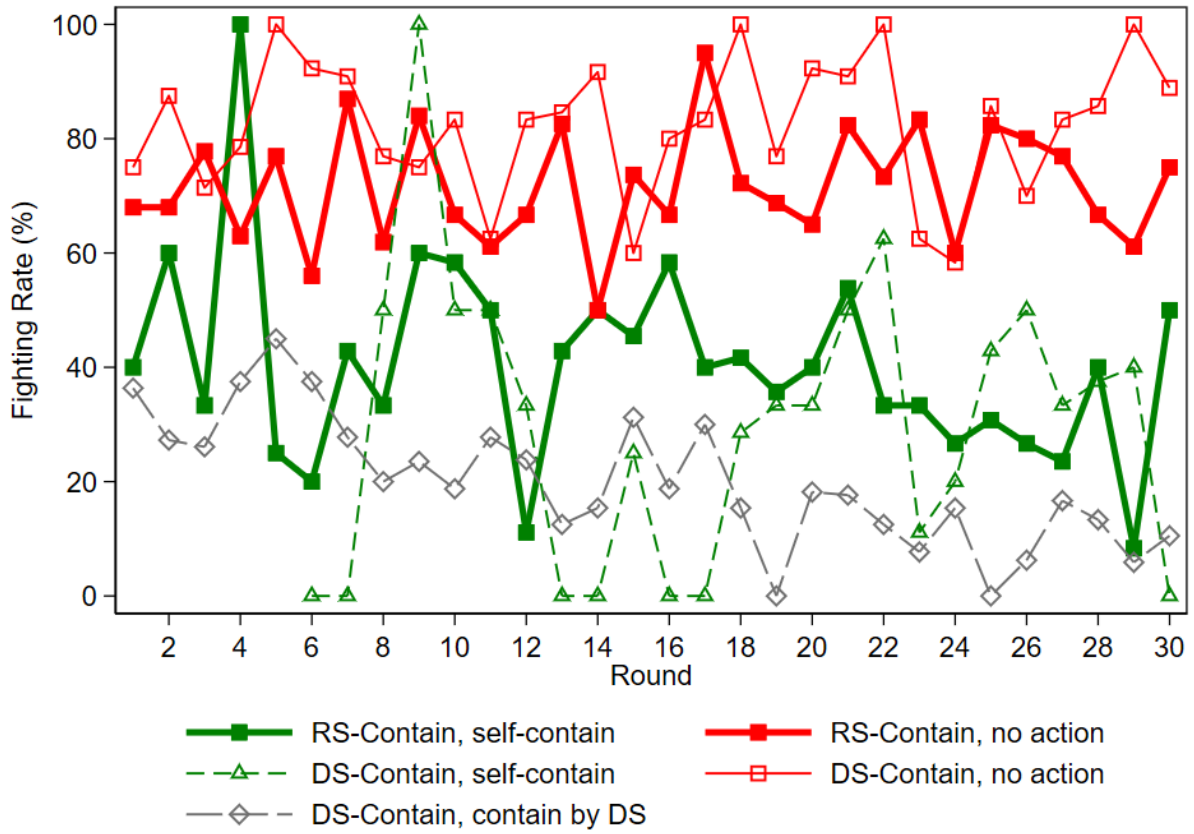


Figure C14: Rising state's offers in both stages over time in DS-Contain

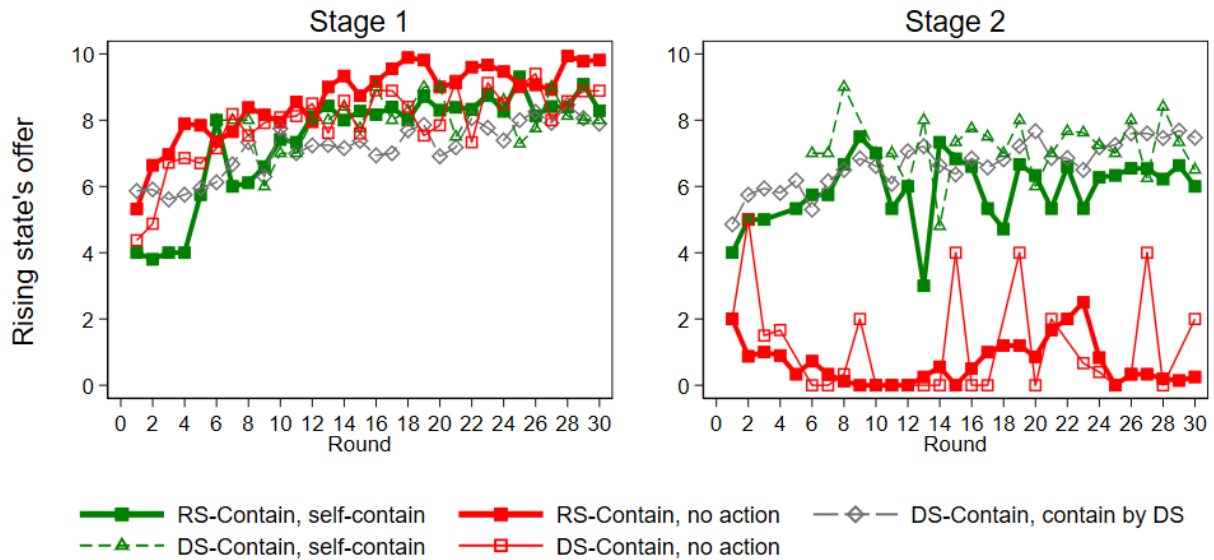


Figure C15: The frequency of preventive wars conditional on the rising state's stage 1 offer in DS-Contain

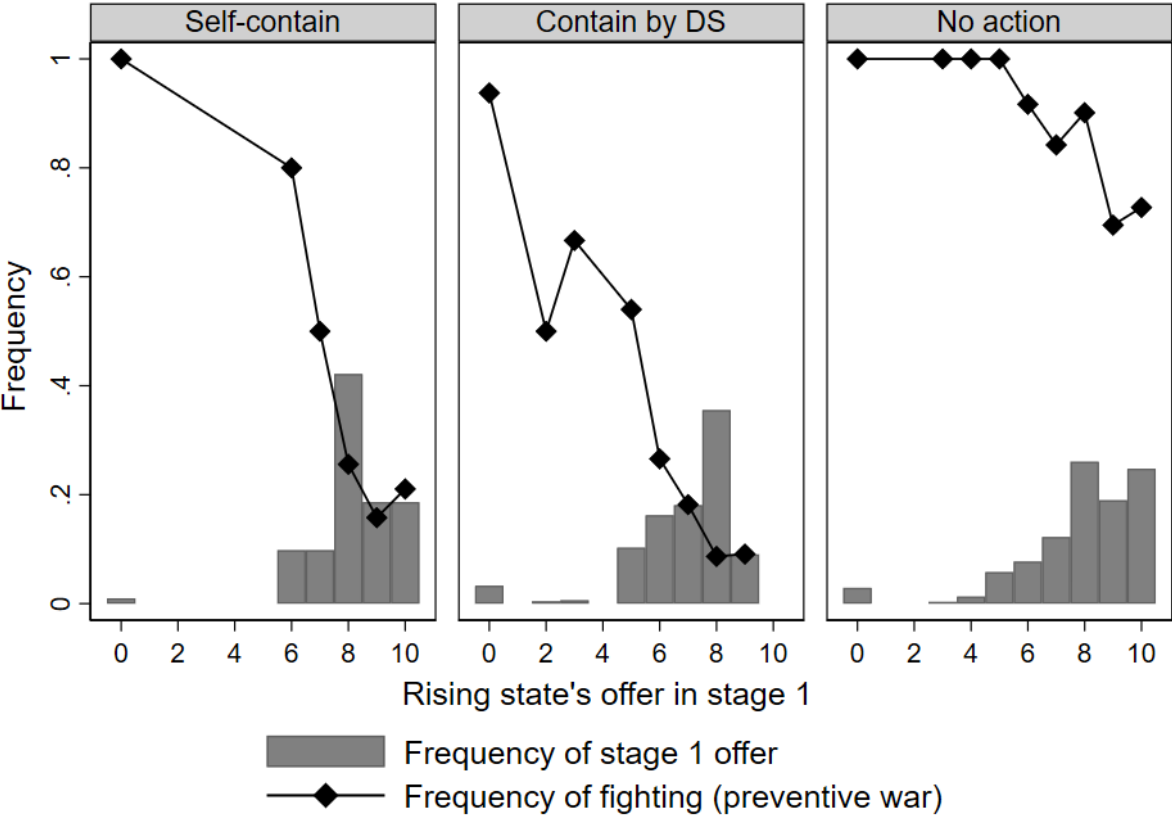
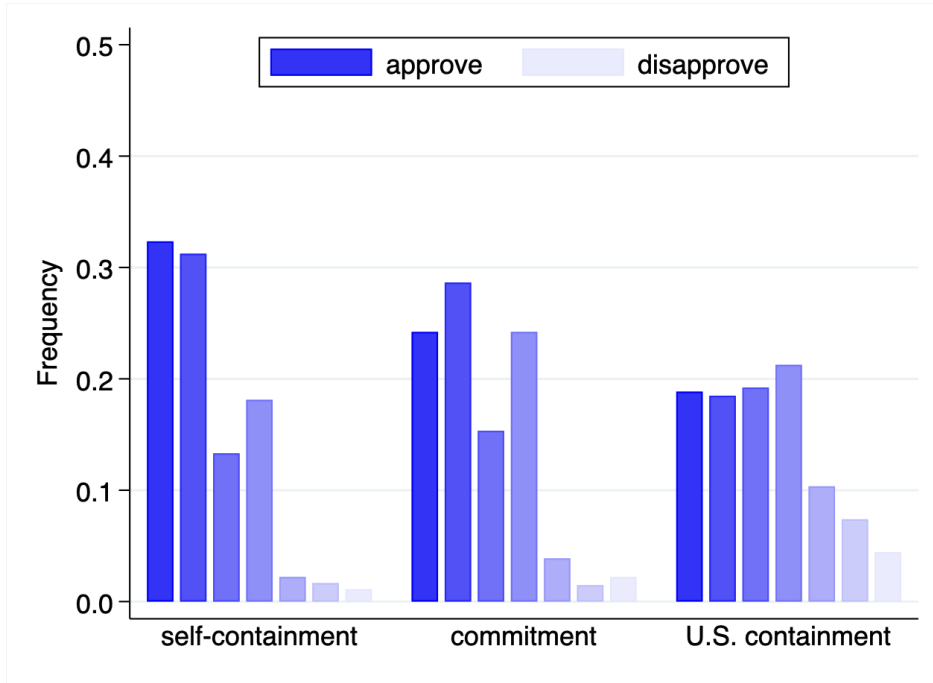
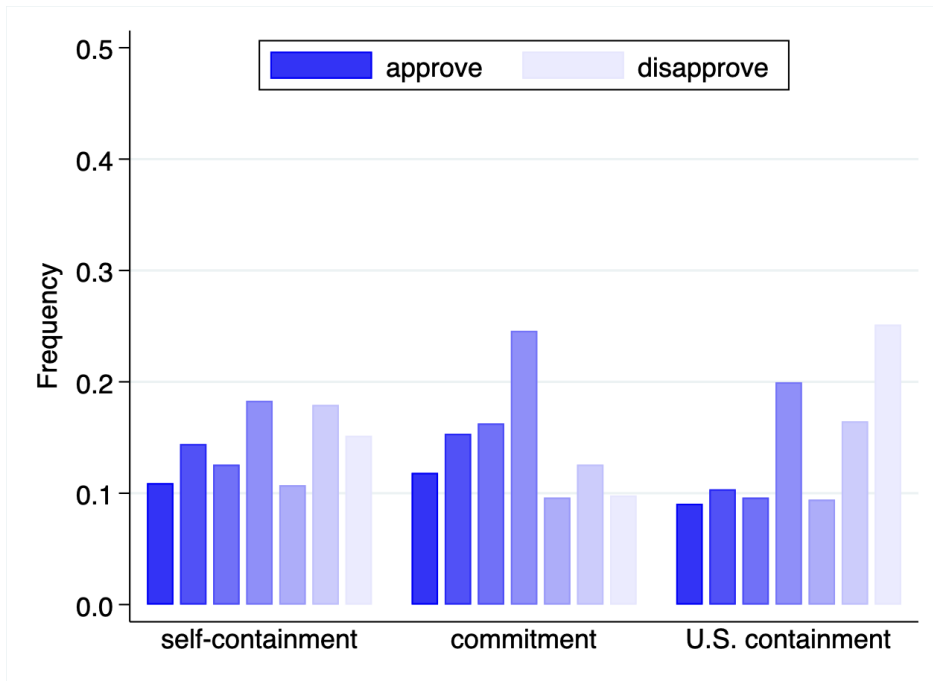


Figure C16: The distribution of approval of each policy from the U.S. or China perspective



(a) U.S.



(b) China

Notes: Respondents were asked to imagine themselves as one of the top leaders of the U.S. or China and to assess how much they would approve of each foreign policy adopted by either country. Their answers were based on a 7-point scale from “approve strongly” to “disapprove strongly”.

Table C1: Random effects probit regressions on the frequency of preventive wars conditional on Stage 1 offer in RS-Contain

	All rounds	Last 10 rounds
	(1)	(2)
RS-Contain	-0.004 (0.060)	-0.005 (0.097)
Contain	-0.356*** (0.042)	-0.499*** (0.150)
$\mathbb{1}[\text{Offer}=10]$	-0.238*** (0.031)	-0.181 (0.132)
Contain $\times$ $\mathbb{1}[\text{Offer}=10]$	-0.005 (0.064)	0.035 (0.099)
Clusters	12	12
N	1800	600

*Notes:* This table reports the average marginal effects on the declining state’s decision of launching preventive war conditional on the rising state’s Stage 1 offer. Standard errors clustered at the session level are in parentheses. The variable “Contain” indicates that the containment policy is adopted. The PW treatment serves as the benchmark in all regressions. \*\*\*  $p < 0.01$ .



Table C2: Random effects regressions on payoff in RS-Contain

	All rounds	Last 10 rounds
	(1)	(2)
RS-Contain	-0.244 (0.745)	0.164 (1.240)
Contain	-0.823*** (0.276)	-0.199 (1.022)
DS	8.296*** (0.895)	9.620*** (0.967)
RS-Contain×DS	0.097 (1.132)	-0.261 (1.915)
Contain×DS	3.605*** (0.363)	2.926* (1.558)
Constant	8.061*** (0.606)	7.123*** (0.635)
Clusters	12	12
N	3600	1200
H0: RS-Contain + RS-Contain×DS = 0	$p = 0.714$	$p = 0.897$
H0: Contain + Contain×DS = 0	$p < 0.001$	$p < 0.001$

*Notes:* Standard errors clustered at the session level are in parentheses. The variable “Contain” indicates that the containment policy is adopted. RS’s payoff in the PW treatment serves as the benchmark in all regressions. \*\*\*  $p < 0.01$ , \*  $p < 0.10$ .

Table C3: Random effects regressions on payoff in RS-Commit

	All rounds	Last 10 rounds
	(1)	(2)
RS-Commit	0.208 (1.037)	1.328 (1.083)
Commit	0.490 (0.708)	0.288 (1.258)
DS	8.300*** (0.898)	9.620*** (0.967)
RS-Commit×DS	-0.461 (1.621)	-2.953* (1.708)
Commit×DS	1.655 (1.120)	2.932 (2.093)
Constant	8.059*** (0.608)	7.123*** (0.635)
Clusters	12	12
N	3600	1200
H0: RS-Commit + RS-Commit×DS = 0	$p = 0.675$	$p = 0.014$
H0: Commit + Commit×DS = 0	$p < 0.001$	$p < 0.001$

Notes: Standard errors clustered at the session level are in parentheses. The variable “Commit” indicates that the commitment policy is adopted. RS’s payoff in the PW treatment serves as the benchmark in all regressions. \*\*\*  $p < 0.01$ , \*  $p < 0.10$ .

Table C4: Random effects probit regressions on the frequency of preventive wars conditional on Stage 1 offer in RS-Choice

	All rounds	Last 10 rounds
	(1)	(2)
RS-Choice	-0.047 (0.070)	0.030 (0.077)
Commit	0.028 (0.035)	0.241** (0.109)
$\mathbb{1}[\text{Offer} > 10]$	-0.401*** (0.070)	-0.717*** (0.144)
Clusters	12	12
N	1777	599

Notes: This table reports the average marginal effects on the declining state’s decision of launching preventive war conditional on the rising state’s (combined) Stage 1 offer. Standard errors clustered at the session level are in parentheses. The variable “Commit” indicates that the containment policy is adopted but the combined offer is no higher than 10 points. The PW treatment serves as the benchmark in all regressions. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ .

Table C5: Random effects regressions on payoff in RS-Choice

	All rounds	Last 10 rounds
	(1)	(2)
RS-Choice	0.416 (0.859)	0.608 (1.800)
Contain	-2.003 (2.533)	4.912*** (1.660)
Commit	0.814 (0.697)	1.044 (1.761)
DS	8.300*** (0.898)	9.617*** (0.961)
RS-Choice×DS	-0.688 (1.237)	-1.942 (3.486)
Contain×DS	4.830 (3.472)	-3.330 (3.322)
Commit×DS	0.632 (1.256)	1.999 (3.595)
Constant	8.059*** (0.608)	7.125*** (0.632)
Clusters	12	12
N	3600	1200
H0: RS-Choice + RS-Choice×DS = 0	$p = 0.493$	$p = 0.437$
H0: Contain + Contain×DS = 0	$p = 0.003$	$p = 0.347$
H0: Commit + Commit×DS = 0	$p = 0.020$	$p = 0.103$

*Notes:* Standard errors clustered at the session level are in parentheses. The variables ‘Contain’ and ‘Commit’ indicate that the containment and commitment policies is adopted, respectively. RS’s payoff in the PW treatment serves as the benchmark in all regressions. \*\*\*  $p < 0.01$ .

Table C6: Random effects regressions on payoff in DS-Contain

	All rounds	Last 10 rounds
	(1)	(2)
DS-Contain	-1.448* (0.750)	0.331 (1.346)
Self-contain	1.028 (0.901)	-0.219 (1.717)
Contain-by-DS	1.202* (0.644)	0.713 (1.330)
DS	8.299*** (0.897)	9.612*** (0.949)
DS-Contain×DS	1.604 (1.166)	-1.434 (2.553)
Self-contain×DS	1.457 (1.963)	3.506 (3.228)
Contain-by-DS×DS	0.233 (1.066)	2.431 (2.650)
Constant	8.059*** (0.607)	7.127*** (0.626)
Clusters	12	12
N	3600	1200
H0: DS-Contain + DS-Contain×DS = 0	$p = 0.731$	$p = 0.385$
H0: Self-contain + Self-contain×DS = 0	$p = 0.025$	$p = 0.041$
H0: Contain by DS + Contain-by-DS×DS = 0	$p = 0.006$	$p = 0.022$

*Notes:* Standard errors clustered at the session level are in parentheses. The variables “Self-contain” and “Contain by DS” indicate that the containment policy is adopted by RS and DS, respectively. RS’s payoff in the PW treatment serves as the benchmark in all regressions. \*\*\*  $p < 0.01$ , \*  $p < 0.10$ .

Table C7: Definitions of respondent characteristics variables

<b>Variable</b>	<b>Definition</b>
Male	Respondent is male
Age 18-34	Respondent's age is between 18 and 34 years (omitted category in regressions)
Age 35-44	Respondent's age is between 35 and 44 years
Age 45-64	Respondent's age is between 45 and 64 years
Age 65-84	Respondent's age is between 65 and 84 years
Low income	Respondent's annual personal income is below \$39,999 (omitted category)
Lower-middle income	Respondent's annual personal income is between \$40,000 and \$69,999
Upper-middle income	Respondent's annual personal income is between \$70,000 and \$99,999
High income	Respondent's annual personal income is above \$100,000
College	Respondent has at least a 4-year college degree
Student or other	Respondent is student or other (omitted category in regressions)
Working	Respondent is employed full time or part time
Non-working	Respondent is unemployed whether or not looking for work
Retiree	Respondent is retiree
Married	Respondent is married
Has children	Respondent has children
White	Respondent's ethnicity is European American/White (omitted category)
Black	Respondent's ethnicity is African American/Black
Hispanic	Respondent's ethnicity is Hispanic/Latino
Asian or other races	Respondent's ethnicity is Asian/Asian American or Other
Republican	Respondent's political affiliation is Republican
Democrat	Respondent's political affiliation is Democrat (omitted category)
Independent or other	Respondent's political affiliation is independent or other
Adversary	Respondent believes China is an adversary to U.S.
Serious problem	Respondent believes China is a serious problem but not an adversary to U.S.
Not adversary	Respondent believes China is not an adversary or a serious problem to U.S. (omitted category)
US aggression	Respondent thinks the U.S. should actively work to limit China's power
China aggression	Respondent thinks China is trying to undermine U.S. power and influence
China not replace US	Respondent chooses Somewhat or Strongly disagree to the statement "The world would be a more secure place if China replaced the United States as the hegemon in East Asia".
High nationalism	Respondent chooses Somewhat or Strongly agree to both statements: "The world would be a better place if people from other countries were more like Americans" and "I would rather be a citizen of America than of any other country in the world."
Follow news	Respondent chooses Somewhat or Strongly disagree to the statement "I usually follow news on the international relations regarding U.S.-China"
U.S. military spending	Respondent predicts the probability of U.S. increasing its military spending
China military spending	Respondent predicts the probability of China increasing its military spending

Table C8: Definitions of outcome variables

<b>Variable</b>	<b>Type</b>	<b>Definition</b>
Containment	Continuous	Respondent predicts the probability of China adopting the containment policy (0-100)
Commitment	Continuous	Respondent predicts the probability of China adopting the commitment policy (0-100)
Benchmark war	Continuous	Respondent predicts the probability of war (0-100)
Self-containment war	Continuous	Respondent predicts the probability of war given China adopts the self-containment policy (0-100)
Commitment war	Continuous	Respondent predicts the probability of war given China adopts the commitment policy (0-100)
U.S. containment war	Continuous	Respondent predicts the probability of war given U.S. decides to contain China (0-100)
Self-containment war decrease	Categorical	Respondent predicts the probability of war would decrease given China adopts the self-containment policy (with increase or unchanged as omitted category)
Commitment war decrease	Categorical	Respondent predicts the probability of war would decrease given China adopts the commitment policy (with increase or unchanged as omitted category)
U.S. containment war decrease	Categorical	Respondent predicts the probability of war would decrease given U.S. decides to contain China (with increase or unchanged as omitted category)
China approve self-containment	Categorical	Respondent thinks Chinese elites would approve of the self-containment policy (with neutral or disapprove as omitted category)
China approve commitment	Categorical	Respondent thinks Chinese elites would approve of the commitment policy (with neutral or disapprove as omitted category)
China approve U.S. containment	Categorical	Respondent thinks Chinese elites would approve of U.S. adopting the containment policy (with neutral or disapprove as omitted category)
U.S. approve self-containment	Categorical	Respondent thinks U.S. elites would approve of China adopting the self-containment policy (with neutral or disapprove as omitted category)
U.S. approve commitment	Categorical	Respondent thinks U.S. elites would approve of China adopting the commitment policy (with neutral or disapprove as omitted category)
U.S. approve U.S. containment	Categorical	Respondent thinks U.S. elites would approve of the U.S. containment policy (with neutral or disapprove as omitted category)

Table C9: Regressions of the probability of war on the discrepancy between U.S. and Chinese elites' perceived attitudes toward each policy

	Benchmark (1)	Self-containment (2)	Difference (3)	Benchmark (4)	Commitment (5)	Difference (6)
Elites' attitude gap in self-containment	0.936* (0.479)	1.478*** (0.467)	-0.542 (0.475)			
Elites' attitude gap in commitment				1.424*** (0.494)	1.569*** (0.500)	-0.145 (0.502)
Constant	33.69*** (1.423)	27.32*** (1.388)	6.365*** (1.414)	33.60*** (1.254)	29.52*** (1.267)	4.083*** (1.273)
Observations	541	541	541	541	541	541

Notes: Standard errors are in parentheses. The dependent variable of the regression (3) is the difference between the probability of war when self-containment is adopted and the benchmark probability. The dependent variable of the regression (6) is the difference between the probability of war when commitment is adopted and the benchmark probability. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table C10: Regressions of the probability of China adopting each policy

	Containment	Commitment	Difference
	(1)	(2)	(3)
Age 35-44	-10.28*** (3.286)	-3.514 (3.306)	6.768** (3.171)
Age 45-64	-7.095** (3.260)	-6.113* (3.279)	0.982 (3.145)
Black	8.588** (3.690)	7.465** (3.712)	-1.122 (3.560)
Republican	-3.289 (2.799)	2.852 (2.816)	6.140** (2.701)
High nationalism	10.14*** (2.475)	3.271 (2.490)	-6.872*** (2.388)
U.S. military spending	0.130*** (0.0496)	0.132*** (0.0499)	0.00202 (0.0478)
China military spending	-0.0596 (0.0522)	0.0878* (0.0525)	0.147*** (0.0503)
Constant	21.50*** (5.874)	25.91*** (5.910)	4.406 (5.668)
Observations	541	541	541

*Notes:* Standard errors are in parentheses. The dependent variable of the regression (3) is the difference between the probability of China adopting the commitment policy relative to the containment policy. The regressions control the full array of respondent characteristics defined in [Table C7](#). For clarity, only those variables showing large and significant heterogeneity are reported in the table. The omitted categories are Age 18-34, White, and Democrat. All outcome variables are defined in [Table C8](#). \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .



Table C11: Regressions of the probability of war given conditional on adopted policy

	Benchmark	Self-containment	Commitment	U.S. containment
	(1)	(2)	(3)	(4)
Age 35-44	-7.823** (3.155)	-1.340 (3.240)	-3.987 (3.253)	-4.483 (3.336)
Age 45-64	-6.331** (3.130)	1.862 (3.214)	-2.310 (3.226)	-0.0831 (3.309)
Married	-1.793 (2.449)	-4.769* (2.515)	-5.138** (2.525)	-7.459*** (2.589)
Black	8.371** (3.543)	9.180** (3.638)	11.63*** (3.652)	7.436** (3.745)
Adversary	12.15*** (3.393)	3.123 (3.484)	6.267* (3.498)	7.603** (3.587)
China not replace U.S.	-7.554*** (2.506)	-7.642*** (2.573)	-7.212*** (2.583)	-5.532** (2.649)
U.S. military spending	0.0567 (0.0476)	0.0656 (0.0489)	0.0844* (0.0491)	0.186*** (0.0503)
China military spending	0.156*** (0.0501)	0.0889* (0.0514)	0.135*** (0.0516)	0.143*** (0.0529)
Constant	20.96*** (5.640)	19.18*** (5.791)	21.09*** (5.814)	19.54*** (5.963)
Observations	541	541	541	541

*Notes:* Standard errors are in parentheses. The regressions control the full array of respondent characteristics defined in Table C7. For clarity, only those variables showing large and significant heterogeneity are reported in the table. The omitted categories are Age 18-34, White, and considering China as neither an adversary nor a serious problem. All outcome variables are defined in Table C8. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table C12: Regressions of predicted changes to the probability of war conditional on adopted policy

	Continuous: Change relative to benchmark			Categorical: Probability of war decreases		
	Self-containment	Commitment	U.S. containment	Self-containment	Commitment	U.S. containment
	(1)	(2)	(3)	(4)	(5)	(6)
Age 35-44	-6.483*	-3.836	-3.340	-0.0752	-0.0345	-0.108**
	(3.335)	(3.432)	(3.447)	(0.0629)	(0.0621)	(0.0522)
Age 45-64	-8.193**	-4.021	-6.248*	-0.0931	0.0169	-0.0730
	(3.307)	(3.404)	(3.419)	(0.0624)	(0.0616)	(0.0517)
Married	2.976	3.345	5.666**	-0.0534	0.0726	0.0896**
	(2.588)	(2.663)	(2.676)	(0.0488)	(0.0482)	(0.0405)
Republican	5.058*	3.361	3.340	0.0240	-0.00261	0.0282
	(2.840)	(2.923)	(2.936)	(0.0536)	(0.0529)	(0.0444)
Independent	6.156**	5.265*	6.362**	0.0332	0.0175	0.0562
	(2.677)	(2.755)	(2.768)	(0.0505)	(0.0498)	(0.0419)
Adversary	9.026**	5.883	4.546	0.124*	0.0252	-0.00242
	(3.585)	(3.690)	(3.706)	(0.0676)	(0.0667)	(0.0561)
China not replace U.S.	0.0874	-0.343	-2.022	0.145***	0.0934*	-0.0266
	(2.648)	(2.725)	(2.737)	(0.0499)	(0.0493)	(0.0414)
High nationalism	1.005	4.102	6.053**	-0.0758	-0.0162	0.0920**
	(2.512)	(2.585)	(2.597)	(0.0474)	(0.0468)	(0.0393)
Follow news	4.486*	4.947*	2.492	0.0526	0.140***	0.0536
	(2.484)	(2.556)	(2.568)	(0.0468)	(0.0462)	(0.0389)
U.S. military spending	-0.00893	-0.0277	-0.130**	0.00197**	0.000978	-0.000516
	(0.0503)	(0.0518)	(0.0520)	(0.000948)	(0.000937)	(0.000787)
Constant	1.781	-0.135	1.421	0.388***	0.267**	0.147
	(5.960)	(6.134)	(6.162)	(0.112)	(0.111)	(0.0932)
Observations	541	541	541	541	541	541

Notes: Standard errors are in parentheses. The regressions control the full array of respondent characteristics defined in Table C7. For clarity, only those variables showing large and significant heterogeneity are reported in the table. The omitted categories are Age 18-34, White, Democrat, and considering China as neither an adversary nor a serious problem. All outcome variables are defined in Table C8. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .