

ARMS AND ALLIES – A WAR GAME FORECAST

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## **Introduction:**

Based on the reviewed literature, states can provide themselves (“manufacture”) security through two main methods. First, a nation can provide national security for itself via arms; i.e. military power. Second, a nation can achieve national security in a more efficient manner through alliances with other like-minded nations. Usually, however, combinations of the two are what provide a nation with security against aggressors.

The main thrust of this paper is to understand how nations choose the level and the capability that would lead them to believe that their homeland is indeed “secure”. Lake (1996) defines security as “the ability to consume, invest, or otherwise use national wealth as a polity sees fit”<sup>1</sup>, meaning that really it is the wealth and resources of a nation that needs to be secure. Therefore, wealth cannot be coerced from a particular nation without war. Thus, by attaining a certain level of security, a nation may establish itself as “immune” from an attack by another nation (i.e. it is able to defend itself in an adequate fashion). In the following sections, we outline the conditions for a nation’s decision to attain arms, the decision to establish and maintain alliances, and the decision to intervene in a war. I then will use this information to forecast these decisions for a hypothetical crisis involving China, India, and Pakistan, in order to see if this decision analysis seems plausible in the real world. Since we will be forecasting outcomes, this article is not a test of the existing theory, but a method to see how policymakers can use this information to attain the best possible foreign policy in order to secure their interests.

## **The Decision to Arm:**

According to Morrow (1993), the decision to attain military capability is a tradeoff against a decision to create an alliance. He states that a nation will pursue arms building when the marginal cost of the armament is lower than building an alliance with another nation. He suggests that nations engage in cost-benefit analysis in order to arrive at a decision to build up their military forces. The cost associated with the decision to arm is mostly due to “political cost of diverting resources to the military”<sup>2</sup> as well as the difficulty in attaining manpower (conscription is widely unpopular). However, the benefit is in terms of reliability, because a nation’s military follows the will of its polity. Furthermore, having a strong military reduces the dependency of a nation on

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<sup>1</sup> See Lake: Pg. 5

<sup>2</sup> See Morrow: Pg. 208

other nation-states, leading to greater sovereignty and autonomy. Fearon's (1997) model shows how leaders use their military prowess in order to bring about foreign policy outcomes. Having a large military force (alliances are exogenous to Fearon's model) raises a nation's probability of winning a particular conflict. Thus, he shows arms as a mechanism of coercion as well as a mechanism for self-defense.

Fearon (1997) posits two main methods of signaling foreign policy intent by nations, i.e. through "Sinking Costs" and "Tying Hands". The methods have associated costs, "audience costs" are generated for tying hands and direct monetary costs are generated for sinking costs. However, he does state that if a particular nation has greater military capability (assuming the threatened nation has this information) they will choose to generate audience costs rather than direct sunk costs. What this implies is that through greater military prowess, a strong nation is able to coerce a weaker nation into following its policy interests with no significant costs to itself. This is an important justification for arms building that can well offset the costs for doing so. Thus, this increased capability may be used as a negotiating tool, allowing nations to concede less and attain more in terms of foreign policy.

Lake (1996) puts forward two main types of regimes (anarchy and hierarchy) that can also influence the decision to arm. A strong military can produce incentives that may lead powerful nations towards imperialism, since an established military can be more coercive than an alliance. As he suggests, a strong presence can be used to protect the nation from the "opportunism" of allied nations. He does mention how the choice between anarchical and hierarchical relations is a choice between the costs of opportunism and governance costs<sup>3</sup> for a superpower, but the strength of the military can actually lower the governance costs because they provide subordinate nations with disincentives to go against the will of the imperial power.

### **The Decision to Ally:**

As stated earlier, there is a tradeoff between the security provisioning choices available to a nation. As opposed to arming themselves, nations may choose to ally themselves with like-minded nations in order to provide an efficient alternative to arms building (according to Morrow). Smith (1995) defines an alliance as "an agreement between two nations, entered into voluntarily, that represents a *nonbinding* commitment to help

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<sup>3</sup> See Lake: Pg. 22-29

each other in event of armed conflict”<sup>4</sup> (emphasis added). There is an immediate benefit for building alliances, because they theoretically increase a nation’s military capability instantaneously. The main cost associated with alliances (in the literature) is political as well. Specifically, it is the political cost of the nation having to change its policies to align itself with its allies. The issues with alliances hardly stop there, however. There is concern about alliances being unreliable (due to the nonbinding nature of the agreement), especially after some time has passed. This leads to possible “abandonment” at times of conflict by the allies. There is also concern about “entrapment” where an ally may act recklessly and thus nations are dragged into an unwanted and unnecessary war. Furthermore, Morrow (1993) states that these two concerns can lead to “Buck Passing” and “Chain ganging” respectively.

Smith (1995) provides the best model for alliances and their impacts on the behavior of states. Based on the reliability, alliances act as a deterrent of war in that perceptions of the strength of an alliance provide disincentives for the aggressor by raising the costs of war. Furthermore, the costs associated with abandonment of an alliance would deter allies from reneging on their agreement. Since alliances (via treaties and such) would be common knowledge, information about the costs associated with breaking an alliance would also be available to the parties involved. Thus, as opposed to arms, alliances carry more information regarding reliability, allowing the aggressive nation to make a more prudent decision about carrying out an attack.

### **The Decision to Intervene:**

Powell (1999) presents a game-theoretic model of the decision for a third nation to intervene in the event of a conflict. He picks up from Morrow’s cited concepts of “Chain ganging” and “Buck passing” (which Powell refers to as “bandwagoning” and “waiting”) and adds another option of “Balancing” as well. The idea here is that when two nations go to war, a third nation has the opportunity either to wait until the outcome, or to intervene on behalf of either the aggressor (bandwagoning) or the defender (balancing). Using a two-stage three-actor game, Powell argues that the decision to intervene on behalf of either party depends on the incentives for the third nation. In the second round of the game, bargaining takes place. Thus, the indirectly involved actor may decide to wait until the second round by abstaining, though it risks losing its territory to the victor (depending on the victor’s disposition). If the third party aligns itself with the stronger nation, it has a

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<sup>4</sup> See Smith: Pg. 410

greater chance of winning the war, though at less than favorable bargaining terms<sup>5</sup>. However, if the third party aligns itself with the weaker nation, and it actually wins the war, the bargaining terms would be more favorable to the third party. Thus, a trade-off may occur. Powell then accounts for the returns to scale of combining forces as well as the resolve of the attacker to show which method of intervention (if any) is more feasible. Powell, however, holds the existence of alliances to be exogenous, though he does mention their impacts.

Smith (1995) shows the impact of existing alliances on the outcome of war. His model includes the costs of alliance formation and the costs of failing to honor the alliance. Logically, if the cost of reneging on the alliance is low, the alliance would be deemed unreliable, and the third party would not have an incentive to intervene, leading to abandonment. However, if either the formation costs or the honor costs are high, the third party could be expected to aid its ally, raising the reliability of the alliance and the probability of intervention.

### **The War Game:**

Based on the decision mechanisms above, let us consider the possibility of war and possible alliance among three Asian nations, China, India, and Pakistan. All three are nuclear states, but for this exercise, let us assume that none of these three has nuclear capabilities (or rather, would not use their nuclear weapons). First, let us focus on Fearon's model, use India and Pakistan's dispute over Kashmir as the backdrop, and assume India to be the aggressor. Since India is more democratic, we would expect them to use audience costs as the primary method of signaling, whereas Pakistan (being more authoritarian) would be more likely to use the sinking costs method of signaling their intent. Fearon's prediction also states that the stronger military (India) is more likely to use the tying hands mechanism. Given the history between the two nations, if India were indeed to engage in tying hands then a bluff would be out of the question. The fierce rivalry between the two would be enough to ensure that India would not back down. On the other hand, we may expect bluffing from Pakistan, since it is militarily weaker, and would not expect a favorable outcome to the war. We can also regard this situation as a crisis, and based on Fearon's predictions, war is a likely outcome.

Next, turning to Lake's model, how can we expect the superpower (in this case, India) to handle the subordinate nation (Pakistan) in case of an agreement? Based on the geographical location and the history

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<sup>5</sup> The bargaining terms are assumed to carry the same ratio as the distribution of power between the two remaining actors.

between the two nations, we can see that the governance costs to India would be low (close proximity, similar institutions, negligible language barriers, rapid military presence, etc.) and that the costs of opportunism (abandonment, possibility of entrapment, etc.) to be high. This would suggest that India would strive to establish its domination over Pakistani policies and possibly form an informal empire. We would also suggest that the dispute over Kashmir so far (India demanding sovereignty over the entire state, whereas Pakistan accepting the partition of Kashmir) would suggest the possibility of hierarchical rule.

Third, turning to Morrow, how would Pakistan and India choose between arms and allies? India, being the regional superpower, would be expected to continue building arms whereas Pakistan would necessarily need to pursue both arms and allies in order to ensure its security. The marginal cost to India for building arms would always be less than the marginal cost of armament for Pakistan, given India's greater resources endowments and technological advantages. Furthermore, since we are only considering China as the third party, an alliance between India and China is highly unlikely because of similar border disputes. Therefore, the marginal cost of alliance with China would pose significant costs since their interests are quite far apart. By contrast, Pakistan would find the marginal cost of an alliance with China to be much lower, since their interests (especially when concerning India) are quite similar. Furthermore, given Pakistan's resource disadvantage, we would expect resolution of any conflicting interests as a favorable option. Thus, India would choose arms and Pakistan would choose an alliance with China at the margin.

Fourth, Smith's model asks what the impact of an alliance would be on the possibility of war between two nations. Using his backwards induction approach, we can see that in the event of a war, China would side with Pakistan (the main reason being mutually conflicting interests with India). In the first stage, India would choose to attack Pakistan because of their military strength and higher probability of success. Pakistan would be expected to fight rather than surrender (higher payoff associated with resistance based on prior wars). Next, China would choose to side with Pakistan. Given China's high military capabilities and resource endowments, India would then have to fight on two fronts, implying that the alliance between China and Pakistan would yield increasing returns to scale. Thus, knowing that China has a reliable alliance with Pakistan, war is averted and India chooses the status quo option.

Finally, Powell's model will grant us with some insights as to whether China will balance, bandwagon, or wait. Holding China's issues with India as exogenous to this analysis, China is the third party and has the following characteristics: increasing returns to scale with Pakistan (for the reason mentioned above), and high attacker resolve (based on the tying hands mechanism). Thus, with increasing returns to scale, China would not choose to wait. In deciding on which side to align with, we need to look at the outcome and power distributions. With balancing (siding with Pakistan), China lowers its chances of winning, but only slightly due to the increasing returns to scale. In addition, the distribution of power (between China and Pakistan) heavily favors China. Thus, the greater distribution of power would more than offset the lower probability of losing, and therefore we would expect China to choose balancing in this case. The gains from balancing outweigh the gains from bandwagoning. Hence, Pakistan can count on China's support.

### **Conclusion:**

Based on the literature, we have looked at the decision models used by nations when trying to decide the optimal method of choosing its security. We simulated a crisis scenario between India and Pakistan to see what the models predict. While we cannot test the results yet, we can at least explain why Pakistan and India have had relative peace since 1976. According to the forecast, we expect to see that India would use the tying hands mechanism to signal intent and would want to establish an informal empire in Pakistan. India would choose arms over allies, whereas Pakistan chooses to ally with China, this alliance would deter India from attacking, and finally, China would choose balancing over bandwagoning or waiting (implying greater reliability of the alliance). An interesting side note here is that this forecast addresses Smith's concern over selection bias.

Smith (1995) states that in order to establish the relationship between alliances and war; we would need to look at alliance formation motivation and alliance reliability, and would need to include events that have not led to war in addition to war-related outcomes. Due to the nuclear capability of the three nations involved in our analysis above, we cannot say that we have fulfilled his concerns entirely (since we assume that the states do not carry a nuclear threat), however, we feel that this war-game forecast comes close in addressing his concerns. In any case, time will tell us how accurate the models are, but they make for an understanding into the foreign policy decision-making instruments used to avoid war and ensure security of the nations in question.

## References

Fearon, J. D. (1997). "Signaling foreign policy interests: tying hands versus sinking costs." *The Journal of Conflict Resolution* 41: 68-90.

Lake, D. (1996). "Anarchy, hierarchy and the variety of international relations." *International Organization* 50(1): 1-34.

Morrow, J. (1995). "Arms versus Allies." *International Organization* 47(2): 207-34.

Powell, R. (1999). *In the shadow of power: states and strategies in international politics*. Princeton, N.J., Princeton University Press. Chapter 5.

Smith, A. (1995). "Alliance formation and war." *International Studies Quarterly* 39: 405-25.