# Unraveling Chinese Bilateral Diplomatic Behavior: Evidence from Post-Coup Sino-Myanmar Relations, a Rational Choice Approach

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## Abstract

Attempting to understand the strategic motives and geopolitical interests behind Chinese actions in bilateral international relations, this paper examines Beijing's reaction to the 2021 Myanmar Coup. Adopting a rationalist approach, the paper conducts cost and benefit analysis through game-theoretical lenses and categorizes Chinese interests as expansionary and defensive, both contributing to its potential payoff in bilateral exchanges. Applying the resulted model to the Post-Coup Sino-Myanmar interactions in which Beijing's attitude shifted from the initial ambiguity to more favorable stance towards the Tatmadaw, the authors find that such shift can be attributed to a changing reality of China's perceived political and economic outcomes at different time periods. In addition to offering insights into ongoing China-Myanmar relations, this article identifies key patterns of the decision-making process taken by Beijing. It argues that, when countries engage with China bilaterally, they will likely face a more volatile, daring player willing to take more controversial actions.

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#### 1.0 Introduction

The turn of the century marks China's rise as an important player on the global stage. Following its decades-long growth, China transformed from an influence recipient to a competitor seeking to spread its influence not only in the Asia Pacific but also globally. In fact, it can be argued that the world has now entered a stage of bipolarity where the rising regional hegemon China is competing with the US. Many scholars have highlighted Chinese expansion in not only economic power, but also military and global institutional influence in past decades, arguing that it poses challenges to the US-centric liberal world order (Friedberg, 2012) (De Graaff et al., 2020). It has become even more challenging for western allies in the Asia Pacific such as Australia and Japan to engage with Beijing. Medcalf (2018) in particularly, highlighted a shift in Australia-China relations since 2016, highlighting the difficult reality of under the current hegemonic competition. As a result, it becomes not only important but also decisive to study China under the changing global context. However, along with its significant rise in global and regional roles, Beijing's diplomatic style and behavior in international relations have changed dramatically and thus became much less predictable in recent years (Roland, 2021) (Haenle and Tcheyan, 2020). Moreover, its increasing effort to establish economic and diplomatic relations in different parts of the world, some of which it had traditionally been distant from, combined with its tendency to make unpredictable moves have made understanding its diplomatic behavior ever more difficult. Among IR scholars, there have been debates over the changing pattern of Chinese international relations and foreign policy orientation and behaviors. Some argue that Chinese foreign policy has taken a turn towards a more aggressive and assertive orientation (Liao, 2018). Many described Chinese foreign policy under Xi Jinping as "Wolf Warrior Diplomacy" (Brandt and Schafer, 2020) (Sullivan and Wang, 2022), a term used to highlight Beijing's aggressive words and combative attitude, an attitude that seems to contradict the cooperative rhetoric often used under previous leaders (Daekwon, 2017). However, others believe that occasional assertiveness remains one of the typical and traditional characteristics of Chinese diplomatic attitudes (Jerdén, 2014). Nevertheless, scholars studying China seem to agree on the surge of assertiveness in China's diplomatic style, despite holding different opinions regarding the dynamics of the change.

Despite the surge of research literature focusing on Chinese diplomatic behavior in newly developed areas such as Latin America and Africa (see (Jenkins, 2012; Thrall 2015; Pu and Myers, 2021), the Asia-Pacific remains a pivotal region for China. Indeed, in addition to China's historical and cultural connection to the area, economic and political power consolidation in the region is crucial to China's status as a global power (Scobell et al., 2020). As the Asia-Pacific is geopolitically diverse and has been frequently subject to domestic economic and political disturbances, Chinese diplomatic ties with many countries in the region are frequently being put to test. Given its importance to China and the possibility of these conflicts affecting China's domestic stability, diplomatic responses are often carefully calculated to maximize favorable outcomes in Beijing's interest. Studying these diplomatic exchanges under such circumstances can thus offer countries invaluable insights into Chinese international behavior and shed light on how to engage with an ever-changing China on a global stage.

Having established the importance of studying Chinese diplomatic behavior under the changing context of the Asia Pacific, we have chosen to study Beijing's responses following the 2021 Myanmar Military Coup d'état through a rational choice approach. The case is indeed an example of how an unexpected political disturbance in a neighboring country can pose challenges to China's diplomatic relations within a region. Analyzing and understanding the steps Beijing has taken since the Coup can thus offer insights into China's diplomatic behavior with countries around the world. The importance of holding Myanmar close is undeniable for China. With its pivotal geographical position, a well-established relationship with Myanmar can help advance China's Belt and Road Initiative (BRI) projects and achieve a strategic presence in the Indian Ocean. Mannan (2020) argued that in addition to geopolitical interest, Sino-Myanmar relations are pivotal to China's balance of power against the US in the Asia-Pacific. He highlighted that partnership with Myanmar in various economic and developmental aspects can help balance the US's presence in the region and thus empower China and safeguard its interests (Mannan, 2020). In his book, Zhao (2015a) also pointed out that Myanmar holds a pivotal place in China's energy and resource access in the Southeast Asian region. However, with the unforeseen and sudden change brought forth by the 2021 coup, Beijing had to choose the best possible strategy for a continued beneficial relationship. Beijing's initial ambiguous attitude towards the coup favored neither the Tatmadaw

or the protest movement. However, this paper argues that Beijing gradually shifted towards the Tatmadaw in the later months as it became increasingly costly to appear neutral.

Adopting a rational choice approach, the authors examine a series of diplomatic exchanges following the 2021 Myanmar coup. Identifying key patterns of Beijing's response and attempting to better understand its decision-making process in the Sino-Myanmar case, the authors construct a cost-benefit-analysis model rationalizing Chinese strategic interests when engaging in bilateral relations. Through the construction and application of such model, this paper attempts to explain how different Chinese interests interact and eventually lead to Beijing's shifting attitude in leaning towards the Tatmadaw. In addition to unraveling the motives and interests behind Beijing's shifting attitude and analyzing the event through a more systematic lens, the authors hope to identify important patterns of Chinese behavior and offer insights into future diplomatic exchanges with China.

This paper will start with a section outlining the history of diplomatic interactions between China and Myanmar following the February Military Coup in 2021. Adopting a game theoretical approach, a model based on Chinese diplomatic interests and engagements will then be constructed and an analysis of Beijing's attitude using a game-theoretical approach will be elaborated in the following section. The general application of our model to other scenarios concerning Chinese bilateral engagement will be explained in the third section. The final section will conclude with the findings and policy implications of the article.

#### 2. Beijing's response to Myanmar's coup

China and Myanmar share a long history of diplomatic relations, although subjected to frequent changes due to domestic and international factors. Nevertheless, the pre-coup Sino-Myanmar relations had been on the friendly side under the Aung San Suu Kyi government (Han 2021). The relatively warm relationship between China and its largest neighbor suggests that Myanmar had helped to alleviate the border and security-related concerns China had. Much of the past bilateral interaction between the two countries had been focusing on fostering closer ties through additional economic engagement. Myanmar officially joined the BRI in 2017, when Aung San Suu Kyi attended a BRI forum held in Beijing (Yhome, 2018). Since then, the two countries had deepened their economic and diplomatic ties through various economic projects. Indeed, China remains one of the top investors in Myanmar, contributing to an accumulated 21 billion US dollars of Foreign Direct investment as of March 2020 (Samsani, 2021). Diplomatic visits between the two countries also showcase a warm relationship. Since Suu Kyi's first official visit to Beijing as a state counselor in 2016, the two countries have frequently arranged diplomatic visits and exchanges. In 2020, Xi Jinping paid an official visit to Myanmar celebrating 70 years of diplomatic ties between the two and promoting further bilateral economic ties (Oo and Win, 2020). In fact, in January 2021, just weeks before the Myanmar Military staged the Coup, then Chinese Foreign Minister Wang Yi made a visit to Myanmar (Moon, 2021). Ready to contribute to Myanmar's effort to fight against the Covid-19 pandemic, Wang was welcomed by State Secretary Aung San Suu Kyi and President Win Myint (Moon, 2021).

After the Military Coup took place, many countries expressed their immediate concerns and denounced the military regime. Many, including the US, UK, and Canada imposed various sanctions on the Myanmar Military (Reuters, 2021a). China, however, remained very cautious in its comments on such political change. Its hesitation in expressing any negative attitude towards the Myanmar military can be shown through Beijing's ambiguous rhetoric. Initially it only "noted" the coup in Myanmar and expressed hopes for all sides to uphold stability (Reuters, 2021b). Chinese state-owned media referred to the situation in Myanmar as a "cabinet reshuffle" and avoided the term "Coup" in their reporting (Xinhua, 2021). A few weeks into the coup, Beijing started promoting a resolution of the Myanmar crisis in the ASEAN forum, emphasizing the prevention of foreign influence and intervention and the avoidance of violence "on all sides" (Chongkittavorn, 2021).

Beijing's ambiguous rhetoric toward the Myanmar coup was perceived negatively by the population in Myanmar. It further fostered accusations by Myanmar protesters that China had been informed about the coup in advance or was even directly involved in it. As a result, anti-China sentiment surged in Myanmar, leading to a series of destructive actions towards Chineseowned assets, the boycott of Chinese goods and the destruction of Chinese flags. In March 2021, Chinese-owned factories in the outskirts of Yangon were set on fire, leading to the death of 38 people, although the identity of the actual perpetrators was never confirmed (Regen, 2021). In May, 32 China-backed factories were torched in the Hlaingtharyar Industrial Zone (Chaudhurry, 2021). Later in June, another factory in Ayeyarwady was attacked with explosives (Irrawaddy 2021a). China expressed concerns over the safety of Chinese nationals and Chinese-owned businesses and urged Myanmar to take measures to protect 'properties of Chinese companies and personnel' (Global Times, 2021). However, it continued to avoid expressing any sign of condemnation of the Myanmar military in its statement.

Further contributing to the unclear position of Beijing was that China seemed to be "playing both sides". Indeed, while China remained in contact with the Myanmar military, it also made contact with the pro-democracy side under China's multilayered approach - the 'party-to-party' platform has been used to engage with the deposed National League for Democracy (NLD) (The Irrawaddy, 2021b) (Peter, 2021). China may be very much aware that, although the junta leader Min Aung Hlaing claimed victory, the State Administration Council has no legitimacy, and the junta will need to look for an exit strategy. This strategy could potentially involve a political compromise with the NLD. Keeping in mind that China's foremost goal is stability in its vicinity and the maintaining of its economic corridor (with its gas and oil pipelines) leading to the Bay of Bengal, China is already eyeing the next elections in Myanmar and hopes for a balanced outcome between the military and the NLD. Such interest may have contributed to China's initial effort in working towards preserving the legitimacy of the NLD, although the military has signaled several times the dissolution of the party (The Irrawaddy 2021c). Such effort can also be seen when China cooperated with the US on an agreement blocking the coup regime from attending the UN General Assembly meeting in September 2021, adding further ambiguity to its position (Lynch et al., 2021).

While Beijing's initial attitude can very much be seen as ambiguous and its behavior of engaging with both sides seems to be an act of balancing, a few months after the Coup, China seems to have become increasingly edging closer to Myanmar's new military regime. The first explicit show of this attitude is a Facebook post from June 2021 following the meeting between Min Aung Hlaing and the Chinese ambassador to Myanmar, in which the coup leader was described as the "Leader of Myanmar" (Chinese Embassy in Myanmar, 2021). Chinese state-owned media, which usually directly reflects Beijing's position soon took over such rhetoric (Jiang and Kironska, 2021). From this moment onwards, the leaning towards the Tatmadaw became ever clearer – the Myanmar junta was invited to various international meetings organized by China, such as the BRI meeting, the ASEAN-China Foreign Ministers, and the Mekong-Lancang Cooperation meeting (The Irrawaddy, 20221d). In September 2021, a Chinese special envoy met with the junta leader in Myanmar (Kurlantzick, 2022). Moreover, several projects to be implemented in Myanmar have been approved by the junta and China delivered Covid-19 vaccines to Myanmar in fall 2021 (Chaudhury, 2021). Internationally, China even lobbied for the junta's attendance at various international events despite opposing voices from ASEAN states. Moreover, during foreign minister under the Military regime Wunna Maung Lwin's diplomatic visit to Beijing in April 2022, Wang Yi aired China's support for Myanmar disregarding "situation changes", a statement many sees as a clear sign of support for the military regime (The Associated Press, 2022). Most recently, in May 2023, Chinese Foreign Minister Qin Gang visited Myanmar, highlighting the existing Sino-Myanmar friendship and expressing China's will to boost further ties (Al Jazeera, 2023).

This shift in attitude from a seemingly neutral stance to increasingly supporting the Tatmadaw may seem puzzling at first glance. Indeed, during the early period following the Coup, many were hoping that China could act as a mitigating force encouraged by its significant economic interests at stake (Kurlantzick, 2022). However, the reality seems to suggest otherwise. What made Beijing change its rhetoric in regards to Myanmar? Understanding the decision process behind such shift may be able to provide insights into Chinese diplomatic behaviors. The next section will thus investigate the strategic interests behind Sino-Myanmar relationship through the lenses of rational choice theories.

#### 3. A Rational Choice Approach

In order to better examine China's diplomatic behavior, we have constructed a cost-and -benefit model, theorizing China's actions and its general strategic interests. The foundation of our rational actor model for Chinese incentives and the deductive logic of consequence come from game theory. Game theory is frequently used to help understand international relations, especially focusing on incentives and interests behind decision-making. Indeed, many scholars had used game theory as an instrument to understand diplomatic interactions such as the formation of international alliances (Gardner, 1995) (Powell, 1999), arms and deterrence races (Gleditsch, 1990), (Reuveny and Maxwell 1998), and international crises (Evans and Newham 1998). However, the popularity of game theory as an instrument for political scientists has decreased in recent years, largely due to the limitations of its rational actor assumptions. Scholars studying China in International Relations have nonetheless benefited from the logical deductive nature of game theoretical applications. Farroqui and Niazi (2016) argue that the multidisciplinary nature of such approaches and their focus on strategic thinking makes them a useful tool to be applied in complex situations. In their paper, Cole et al. (2014) also argue that game theoretical approaches are particularly useful to "penetrate to the core of complex decisionmaking challenges" and urge researchers to consider them as an option. Scholars have long adopted game theory models in analyzing Chinese bilateral diplomatic exchanges. Benson and Niou (2007) in particular, used a game theory model of economic linkage and peace to better understand the seemingly conflicting rise in both economic dependence and political hostility in China-Taiwan relations. We argue that our rationalist approach which borrows important modelling technique from game theory can be useful to study Chinese behavior in international relations, as the model can help to isolate noises and focus on key factors defining Chinese strategic interests. Moreover, the process of logical deduction can help infer patterns of Beijing's diplomatic decision and thus provide invaluable policy implications.

For our cost-benefit model, the game is defined as a two-player nonzero-sum game where Player 1 is the Chinese state and Player 2 is the state engaged in diplomatic exchanges. Player 1 is presented as having three possible actions: to support (S<sub>1</sub>), to not support(S<sub>2</sub>) and to remain neutral (S<sub>3</sub>) and Player 2 two: to cooperate (s<sub>1</sub>) or not to cooperate(s<sub>2</sub>). Beijing's interests are analyzed and presented as different components of its utility function. The model set the current utility balance for China and any Player 2, U<sub>0</sub>, as the initial point, where U<sub>0</sub> = 0.

The constructed model allows us to gain an understanding of the decision-making process of Beijing based on its behavior following the Myanmar crisis, in which Player 2 is the Tatmadaw. While we acknowledge the importance of other actors such as the NLD, civilian protest groups and the ethnic armed groups, we believe that Tatmadaw should be focused on as the main player, as the post-coup diplomatic exchanges had primarily been between Beijing and the Military. This application can help better understand the motives behind Beijing's reaction under changing circumstances and thus provide insights into its shifting attitude after the Coup.

Through mathematical and logical deduction, the model offers insights on factors motivating Chinese diplomatic moves. In addition, it identifies important patterns of Chinese behavior and provides insight into future diplomatic exchanges with China for other countries. As the model only intends to construct a cost-benefit analysis for China as a rational actor, it does not include Player 2's utility function. This is because the paper aims to push forward a rational choice and logic of consequence approach on analyzing Chinese diplomatic decision-making, instead of constructing a complete game theory model, which may be hard to apply empirically. However, acknowledging that Player 2's interest may also affect the utility outcome, we encourage future research to further investigate the utility function of Player 2 and complement the model.

## 4. Expansionary Power

Chinese interests are defined as expansionary and defensive. The existence of such a division has long been established by the competing schools of offensive and defensive realism in IR (Mearsheimer, 2001) (Walt, 1987). Expansionary power refers to the expansion of political, military, or economic power to spheres further removed from the national core; the loss of such power does not threaten the survival or physical security of the regime. Defensive power, on the other hand, is the ability to defend one's territorial integrity and border security. The loss of it can directly endanger the regime's long-term survival. Although structural realists have put a particular emphasis on the military aspect of expansionary power, the military expansionary agenda has been relatively unimportant in Chinese foreign policy. Holding economic and political power globally, on the other hand, had risen to be a pivotal part of Chinese strategic interests, with the launch of BRI marking an important step in Beijing's international agenda (Clarke, 2017). Hence to account for this interest, the model assigns an expansionary power component to the Chinese utility.

An important variable for such power is indeed the BRI, as it provides effective leverage over host countries for China. Indeed, many see the BRI as a means to develop an effective Sino-dominated market and provide effective statecraft under Xi (Chatzy and McBride, 2020). Most BRI projects are invested, however, by Chinese state-owned enterprises rather than the state, and thus the economic returns do not directly contribute to the government. These enterprises are also not engaged in profit-maximization, but instead further the political agenda of the government (Fan et al., 2007). As a result, the utility component for the BRI implication excludes these short-term economic benefits. The utility of BRI gain is expressed as a function of the investment amount of each of the projects that are moving forward or new projects adding into the region, and GDP: U(xg, GDP). The BRI loss when existing projects become stalled or canceled can be expressed as U(xl, GDP). The GDP of player 2 is included as a variable to account for the relative economic leverage China has over the region.

As the level of importance of BRI projects differ in different national and international context. We account for the relative importance and the geopolitical importance of the player by adding a multiplier term to the utility function. It amounts to values between 1 to 3: with 1 representing little influence on the overall outlook and the rhetoric of the BRI, and 3 donating fundamentals for such completion and Chinese geopolitical influence. In the case of Myanmar, for example, such multiplier is likely to take a high value, as it constructs an inseparable part of the BRI project. The model also considers the possible cost of a negative shock of Chinese expansionary power  $\pi$ e. This may include a large-scale cancellation of BRI projects and other Chinese involvement in the entire region, or when the "One China Principle" becomes discredited globally as a result of Player 2's actions.  $\pi$ c may occur when there is extreme damage to China's reputation based on its actions. The cost is expressed with  $C(\pi c)$ . The probability of the negative shock  $\Phi$  (Si,  $\pi$ e, ti) is also a function of the current state of world ti, as the influence of taking action Si can differ significantly depending on the world state. Allying with Islamic extremist groups before and after 9/11 would, for example, incur different levels of damage to reputation. An alliance formation, immediately following the tragedy or years after such an event, can also incur different possibilities of extreme damage to reputation. Generally speaking, such probability is quite low, as the drastic change would trigger not only consequences for China but the entire international system, which would affect many other countries. However, given the increasingly intensified hegemonic competition between the United States and China, such probability may be increasing.

### 5. Defensive Power

Security concerns are one of the most important defensive interests of the Chinese government, as it directly influences domestic stability and the regime's legitimacy. Indeed, as nationalism has traditionally been a powerful and effective tool to reinforce the state's legitimacy and maintain ideational loyalty among Chinese citizens and has been adopted frequently under Xi's leadership, domestic security thus remains a top priority for Beijing (Zhao 2016). Security concerns are particularly salient in interactions with countries with close geographical proximity. When China shares a border with the country in question, security issues such as the inflow of uncontrolled refugees and border security crisis may occur. The impact on security can be drastically different, however, in countries far away. To account for such differences, the model adopts  $\alpha$  as a term to account for geographical proximity, with  $\alpha = 1$  for countries that share borders with China and  $\alpha = 0$  for those that do not. The cost arising from security concerns is expressed as follows:

 $\begin{cases} C(p.d.m)if \alpha = 1 \\ C(a.M)if \alpha = 0 \end{cases}$ 

Conflicts in one state can indeed often spread to neighboring countries, invoking security costs (François and Sud 2006). The study adopts concepts from previous research and expresses the cost as a function of distance to the potential conflict region d, the population of the country facing internal conflict p, and the military capacity of the conflict m, measuring the severity of the conflict (Murdoch and Sandler 2003). Empirically, the closer the conflict zone, the higher the military capacity and the more populated the country is, the higher the security cost. Both the proximity of the conflict and the country's population could influence the number of refugees crossing the border, increasing the cost of settlement and potential violence domestically. China with its strict refugee policy is neither well-equipped nor particularly willing to handle a large inflow of refugees, and such cost can be expected to be higher than that of countries with a more open refugee policy. When Player 2 does not border with China, the cost incurred by security issues is much less direct. It is expressed as a function of the number of close alliances player 2 has in the Chinese neighboring region a, and military presence in the Asia-Pacific, M.

Although empirically rare in recent years, it is possible for a country to gain defensive power when a new friendly relationship is established with a new partner. An example of such gain is a newly established agreement with a neighboring country leading to more physical and economic efforts dedicated to the physical border. This also depends, however, on factors such as the proximity to China, the military capabilities in the region, as well as the amount of domestic resources available to be dedicated to border security. The probability of defensive gain is very low, however, when the player does not border China and has no important link with Asia Pacific. To account for such variation, we assign a control term  $\beta$ , which takes value between 0 to 1, where  $\beta=0$  for a country sharing no border and having no geopolitical presence in the Asia-Pacific. As the country's potential influence and its geographical proximity with China grow,  $\beta$  gets closer to 1. The function of the gain would therefore take the forms of  $\beta^*G(p,l,m)$  where the gain in defensive power is dependent on the size of the country, accounted by population p, the length of shared borders l, and the military capabilities m.

The shock term  $\mathbf{\pi}$ d is included to account for possible shock in defensive power in which the loss of one ally creates a domino effect, leading to the loss of a series of regional and international allies. Such shock can also be seen as the collapse of China's balance of power, leading to China holding little to no voice globally. The result of such shock is detrimental and can potentially threaten the existence of the current regime. Such an event can only occur when there is a loss of balance of power:  $\Phi(Si, \pi d, ti) = 0$  if  $\Delta DP \ge 0$ .

It is important to note that in comparison to expansionary power, as defensive power directly affects the survival of the regime, sustaining the current defensive power is always preferred to obtaining additional expansionary power. Within the defensive power, it needs to be acknowledged that the magnitude of the unlikely event  $\mathbf{\pi}$ d has a larger cost than all other costs combined:  $C(\pi_d) > C(p,d,m)$ . Intuitively, the cost of a negative shock of allies is much larger and more unsustainable than partial security concerns. Similarly, the shock of large-scale cancellation of BRI and other projects  $\mathbf{\pi}$  is also much larger than the cost of project failure in a single region and thus  $C(\pi_e) > U(xj, GDP)$ .

The mathematical expression of the utility function for both defensive power and expansionary power can be found in the appendix.

#### 6. The Utility Function and Payoff for the Chinese Government

In this section, an utility outcome table is presented, along with equations for each possible action taken by China. A more detailed explanation and the process of mathematical deduction can be found in Appendix 1. The basic idea is that the possible consequence and payoff for China after choosing action Si is a function of possible change to expansionary and defensive power relative to its current state of balance of power.

		Player 2: Myanmar Military	
		s <sub>1</sub> : cooperate	s <sub>2</sub> : not cooperate
Player 1: China	S <sub>1</sub> : Support	U(S <sub>1</sub> , s <sub>1</sub> ) = defensive gain + expansionary gain	$U(S_1, s_2) =$ defensive loss + equal chance of expansionary gain and loss
	S <sub>2</sub> : Not Support	U(S <sub>2</sub> , s <sub>1</sub> ) = equal chance of expansionary gain and loss + no defensive loss	U(S <sub>2</sub> , s <sub>1</sub> ) = defensive loss + expansionary loss
	S <sub>3</sub> : Neutral	$U(S_3, s_1) = no change$	$U(S_3, s_2) = defensive loss + expansionary loss$

Table 1. Chinese Payoff Table following the Myanmar Coup

Equation 1 Utility Payoff of action  $S_1$ 

$$U (S_1) = \Phi(S_1, xi) * \psi[U(xg, GDP)] - \Phi(S_1, \pi_e, t_i) * C(\pi_e) + P(s_1) * \Phi (S_1, G) * \beta$$
  
\*  $G(p, l, m) - P(s_2) * \{\Phi (S_1, C) * C(p, d, m) + \Phi (S_1, \pi_d, t_i) * C(\pi_d) + \Phi(S_1, xl) * \psi[U(xl, GDP)]\}$ 

Equation 2 Utility Payoff of action S<sub>2</sub>

$$U (S_2) = -\Phi(S_2, \pi_e, t_i) * C(\pi_e) - \Phi(S_2, xl) * \psi[U(xl, GDP)] + P(s_1) * \{\Phi(S_2, xi) \\ * \psi[U(xi, GDP)] + \Phi (S_2, G) * \beta * G(p, l, m)\} + P(s_2) * \{-\Phi (S_2, C) \\ * C(p, d, m) - \Phi (S_2, \pi_d, t_i) * C(\pi_d)\}$$

Equation 3 Utility Payoff of action S3

$$U (S_3) = P(s_2) * \{-\Phi (S_3, C) * C(p, d, m) - \Phi (S_3, \pi_d, t_i) * C(\pi_d) - \Phi(S_3, x_l) \\ * \psi[U(xl, GDP)] - \Phi(S_3, \pi_e, t_i) * C(\pi_e)\}$$

# 7. Explaining China's shifting attitude in Sino-Myanmar Post-Coup Relations

This section attempts to apply the model to the case of the Post-Coup Sino-Myanmar relationship in explaining the shift in Beijing's attitude towards the Tatmadaw. Firstly, we assign values to the two multipliers based on the characteristics of player 2. As Myanmar shares a border with China and controls its strategic access to the Indian Ocean, the control term  $\beta$  is close to 1 and the multiplier term  $\Psi \ge 2$ . We then look at the relative magnitude of defensive gain and loss. Considering the previously relatively warm relationship between China and the NLD government, and thus a fairly well-established defensive system between the two, the potential loss of defensive power is likely to be higher than that of the potential gain C(p,d,m)> G(p,l,m). Similarly, the relative magnitude of expansionary gain and loss is assessed. As indicated in the previous section, although Chinese economic engagement has been active in Myanmar, with major BRI projects moving forward, its local reputation is subject to improvement. Progress on existing projects and establishment of new ones could contribute to expansionary utility gain; suspension of projects, either due to unfriendly diplomatic relations or strong public objections can incur an expansionary loss. It is therefore assumed that the value of potential gain and loss are similar:  $|U(xg,GDP)| \approx |U(xl,GDP)|.$ 

In terms of relative probability, the probability of loss of defensive power is most likely when China chooses not to support the Tatmadaw. This is because Beijing's disapproval would give the Tatmadaw less to no incentive to invest in the security of its border connected to China, raising security concerns to Beijing. Moreover, given that the military takeover has triggered a high degree of public hostility and the regime is yet to gain legitimacy, there is a possibility of civil war occurring in Myanmar. Without the economic and military assistance provided by China, the Myanmar military may find it difficult to prevent the civil war. An occurrence of a civil war can then lead to a refugee crisis and thus leads to a defensive loss to China. Therefore, as a result of the above, when China chooses to not support the Tatmadaw, the risk of border securities and refugee crisis can be much higher than if it were to support it,  $\Phi(S_2,C) > \Phi(S_3,C) \ge \Phi$  $(S_{ij},C)$ . Similarly, the gain in defensive power is more likely when China takes action S1:  $\Phi(S_{n}G) > \Phi(S_{n}G)$ . Following the same logic, expansive power is also most likely to expand when action S1 is taken:  $\Phi(S_{\mu},xg)$ 

 $> \Phi(S_2, xg); \Phi(S_2, xl) > \Phi(S_1, xl) \ge \Phi(S_3, xl)$ . It is important to note that, although China cannot accurately estimate the probability of the Tatmadaw cooperating, especially since the Myanmar generals are known for their dislike and mistrust of the Chinese, it can deduce an approximate likelihood of cooperation. Given the lack of options on the Tatmadaw's side, it is fairly likely that they will cooperate with China and thus  $P(s_1) > P(s_2)$ .

The game between China and the Tatmadaw needs to be analyzed in two different periods: the one immediately following the coup t<sub>1</sub>, and the long-term situation t2. Indeed, the coup attracted international attention and criticism was widely circulated. As a result, openly supporting the Tatmadaw would have incurred damage to the Chinese international reputation and thus increase the risk of a possible negative shock of its expansionary or soft power  $\pi_{\rho}$  in early period t<sub>1</sub>. Hence the probability of expansionary power shock is largest when S1 is taken, followed by similar chances for S3 and S2:  $\Phi(S_{l}, \pi_{e'}t_{l}) \ge \Phi(S_{3}, \pi_{e'}t_{l}) \ge \Phi(S_{2}, \pi_{e'}t_{l})$  where  $\Phi(S_{l}, \pi_{e'}t_{l}) - \Phi(S_{3}, \pi_{e'}t_{l}) \ge$ 0.1. Given that Myanmar is geopolitically important for China, China's open condemnation would have increased the chance of defensive power shock **π**d, as:  $\Phi(S_{2}, \pi_{d}, t_{1}) > \Phi(S_{2}, \pi_{d}, t_{1}) \ge \Phi(S_{1}, \pi_{d}, t_{1})$ . As a result, the model shows that at the immediate period t1, the utility output of taking a neutral position  $S_3$  is higher than that of  $S_1$  and of  $S_2$ :  $S_3 > S_1 > S_2$  as  $U(S_3) > U(S_1) > U(S_2)$ . In this case, remaining neutral is strictly preferred to all other positions, as it yields the highest possible utility payoff to China. The above analysis contributes to the understanding of Beijing's initial hesitation and its cautious attitude. As appearing neutral is likely to lead to the best payoff scenario, Beijing avoided any statement that would present themselves as having a definite position.

The stakes, however, changed in period t2. At this later period, there began to be a shift of media attention and news cycles to other subjects than the Myanmar Coup. Indeed, there was a significant decrease in international attention given to the February Coup and thus the chance of reputational damage leading to expansionary shock decreased significantly. In effect, retaining an ambiguous position could actually contribute negatively to China's reputation internationally at this point. This is because a long period of hesitation with ambiguous diplomatic responses with a country that China had historically been very involved with could make China appear as an indecisive player and an unreliable diplomatic partner. It could further hurt trust already established with allies in the region, as their confidence of China supporting them during times of crisis will decrease. Such image could also cause the loss of prospective partners considering to establish new diplomatic and economic relationships. Therefore, over the long-term, appearing neutral becomes increasingly costly and thus the government is forced to take a position. In this case  $\Phi(S_{2'}\pi_{e'}t_2) > \Phi(S_{1'}\pi_{e'}t_2) \ge \Phi(S_{2'}\pi_{e'}t_2)$ . In terms of defensive shock, the relative possibility remains unchanged:  $\Phi(S_{2'}\pi_{d'}t_1) > \Phi(S_{3'}\pi_{d'}t_1) \ge \Phi(S_{1'}\pi_{d'}t_1)$ . Therefore,  $U(S_3)$ - $U(S_1) < 0$  and thus  $S_1 > S_3$ , taking a positive position is strictly preferred to remaining neutral. Comparing the utility of taking S2 and S1, the difference in probability of defensive shock between the two steps, combined with a much higher chance of gaining defensive and expansionary gain when S1 is taken renders  $U(S_1)$ - $U(S_2) > 0$  and thus the Chinese utility maximizing position is likely one that is positive towards the Tatmadaw.

In the long term, Beijing is likely to become increasingly friendly to the military regime. This is because the border security and defensive power concerns make it extremely unlikely to come into direct conflict with Myanmar. Moreover, given the ongoing war between Ukraine and Russia, the possibility of Russia being able to offer any support to help establishing the latter's legitimacy becomes less likely. Therefore, the probability of them cooperating with China is a lot greater than refusing to cooperate: P(s1) >P(s2). Assuming all other factors stay relatively constant in the long term, the Chinese payoff of supporting the Tatmadaw would be greater than any of the other two options. Therefore, it is rational for both economic, political and defensive reasons, for Beijing to move closer to the military regime.

#### 8. General Applications and Policy Implications

Although the above model was constructed as an attempt to better understand the case of China and Myanmar, it can be applied to any bilateral relationship between China and a foreign state. It is important to note that the analysis is interested in the relative magnitude of the probability, rather than its mathematical value, as such a value cannot be accurately calculated, nor is it useful in a utility maximization comparison.

When attempting to define an optimal strategy for China, one should determine the characteristics of Player 2 to find the value of  $\Psi$  and  $\beta$ . A close neighbor with a high level of military or economic presence in the Asia-Pacific region would provide a higher value of  $\Psi$  and  $\beta$ , and thus render the potential defensive and expansionary gain a higher importance. When Player

2 does not share a border with China and has no geopolitical presence in the region,  $\beta\approx 0$  and there is hence little to no possibility of defensive power gain with the country  $\Phi(S_p G) * \beta * G(p,l,m) \approx 0$ . The characteristics of the state can also help determine the relative magnitude of its defensive and expansionary changes. For faraway countries like Canada, who do not share borders with China have little geopolitical influence in the Asia-Pacific, the security cost function takes the form of C(a,M) and its value is likely to be low. The low value is also due to the country's low military presence in the nearby region of China. In terms of expansionary power, a country with very few existing Chinese economic activities is likely to have much larger room for expansionary power gain than loss and thus |U(xg, GDP)| > |U(xl, GDP)|. One of the most defining factors is the relative probability of outcomes of shocks for each action, as the cost of such loss is greater than other changes combined. Although  $\Phi$  (Si, $\pi$ e/d,ti) is usually low, a large difference between two possible steps could incur enormous utility loss, exceeding all other possible benefits combined. An extreme case would be Player 2 being North Korea and China choosing not to cooperate. In this case, the probability of a defensive shock occurring  $\Phi(S2,\pi d,t1)$  is very high. This is because conflicts between North Korea and China would not only lead to Beijing losing a major ally and an important partner in the Asia-Pacific Region, but also lead to border chaos and Beijing's loss of voice in the region. Note that given the extremity of the shock, even a high possibility would likely be less than 5 per cent. However, although the probability seems to be quite low, when compared with  $\Phi(S1,\pi d,t1)$ , which is close to 0, the outcome of a defensive loss could be enormous, as  $0.5 * C(\pi d)$  is likely to be larger than all the other benefits combined. In general, the fear of a possible negative shock of power can often make Beijing overlook the possible benefits from having a definite position. This is particularly true when comparing the option of remaining neutral (S3) and not supporting (S2). Indeed, in most cases where ambiguity has minimal chances of introducing loss, when the option of remaining neutral is presented, China is likely to always prefer to be ambiguous rather than risking potential defensive power loss by openly disapproving. Similar logic applies to expansionary power shock, though the consequence is less detrimental as it usually does not directly affect regime survival. Such results may also explain China's silence in many of the global issues that do not involve itself or its closest allies or which infringe on the "One China Principle". In the Russia-Ukraine War,

China's ambiguity at the early stages may also be attributed to such factor. Indeed, Russia has been an important partner in Beijing's effort against the West and has an important role in China's balance of power on the global stage. Siding with the West and condemning Russia would heighten the risk of Chinese defensive power shock, in which China could not only lose its balance of power, but also face domestic criticisms on its regime legitimacy, as the ruling party's legitimacy had been built upon anti-western ideologies and sentiments. Openly supporting Russia, however, can also lead to serious consequences of expansionary power shocks. This is because as serious sanctions had been imposed on Russia by major economies of the world, siding with Russia could not only damage China's image globally, but also invites sanctions onto its own economy. In this case, appearing to be neutral, or simply trying to not have a clear position has the lowest possibility of incurring any shock and thus could yield the highest utility to China. Although the rational choice would be to remain ambiguous, as shown in the case of Myanmar long-term ambiguity may not be sustainable, and hence Beijing's gradual shift in closer ties with Russia. Different from the case of Myanmar, Russia has been a powerful partner of China and have been important in pushing back US's power globally. Continued ambiguity could significantly hurt the long-established ties with Russia. Moreover, as the hegemonic competition between the US and China continues to intensified, the importance of maintaining its current partnership and ally as a means to conserve its balance of power becomes ever more important. In this case, as an attempt to prevent loss of exiting expansionary power and despite the lasting global attention on the war, overtime China gradually edged closer to Russia. However, despite the strengthened ties over the past year, China seemed to be reluctant to provide substantial material support to Russia (Fossum, 2023)-pointing to Beijing's continued effort to maintain an apparent ambiguity as the risk of serious sanctions causing expansionary power shocks. This example further demonstrates that China is engaging in serious cost-and-benefit analysis when making diplomatic decisions. It is also important to note, however, that the expansionary shock may only occur when there is a considerable amount of Chinese soft power influence. As the Chinese leverage and reputation within the western core alliance had been quite limited, when dealing with countries within the liberal core alliance such as the US or Australia, the probability of such a shock is close to zero. This may explain why Beijing, although traditionally reserved in expressing

its opposition, has been active in expressing public condemnation towards statements and policies of western states, such as the US or Australia, in recent years.

The application of the model thus has several policy implications for countries wishing to engage with China. First, concerning a new event or an establishment of a new relationship, Chinese attitude may be subject to change over a period of time, as many factors of uncertainty may be at play in the initial time period. Countries need to be aware of the possible shift in attitude when engaging with Beijing diplomatically. Secondly, as argued above, although Beijing has traditionally tried to avoid international backlash, or in other words, tried to preserve its possible soft power internationally, it has adopted a much more daring and direct attitude in recent years. Indeed, as public opinion has taken a downturn following the Covid-19 pandemic as well as the international backlashes from the inhumane treatment towards Uighurs in Xinjiang, the so-called Chinese soft or reputational power may be close to exhaustion, which in turns could lead to Beijing's increased willingness to take more extreme actions. This has been shown through many of the more controversial actions taken by the CCP, such as cooperating militarily and economically with Iran and developing a partnership with the Taliban. Therefore, countries, especially those in the Western core alliance, need to treat China as a player that is a lot more daring and direct, not shy of public condemnation with harsh words and attitudes. Finally, the most fundamental goal of the CCP is to consolidate its power domestically and thus, on questions that could directly affect its political survival, Beijing will likely be willing to sacrifice many other economic and political interests to assure its goal.

## 9. Conclusion

This paper has highlighted the importance of studying Chinese behavior in international relations in the current world context, especially for western allies in the Asia Pacific. We have studied the detailed exchanges between Beijing and the Tatmadaw after the 2021 Myanmar military Coup. A shifting attitude from an initial seemingly neutral position to a much more favorable attitude is identified. Constructing a rational choice model based on Chinese underlying interests and applying the game theoretical analysis to the Post-Coup Sino-Myanmar relations, we suggest that China is likely to engage more closely with the Myanmar military regime in the future. Such a shift

is likely to occur as Beijing seeks to advance its existing BRI projects and consolidate its alliance network in the Asia Pacific. Although the loss of both regional and international reputation remains a potential risk, the probability of such risk has decreased significantly. Although the analysis focuses on Beijing's reactions in 2021, it's important to note that the probability of risk for the Sino-Myanmar relationship is likely to have decreased even further due to the surge of many other high-profile and more salient international events such as the war in Ukraine taking away more of the public and political attention.

In addition to analyzing Sino-Myanmar relations, the general application of the model helps to highlight patterns of Chinese bilateral diplomatic behavior and offers important policy suggestions to countries wishing to engage with China. First, the paper argues that China seeks to gain both expansionary power and defensive power in international relations. It is important to separate the two categories as the sources of such power differ and their level of importance varies greatly. As defensive power can directly affect the regime's survival, preserving the current defensive power is always preferred over any small gain of expansionary power. As a result, China is likely to be willing to sacrifice possible expansionary gain (both politically and economically) to ensure that it doesn't face any potential territorial, security, or political defensive threat. Secondly, the paper suggests some traits of the changing Chinese diplomatic style. It demonstrates that although China has traditionally been careful in adopting provocative and controversial actions or language, such an era may have come to an end. With the downturn of Chinese expansionary power in the West, China is likely to adopt a much more direct and daring attitude, not holding back when it comes to diplomatic condemnation. In sum, the world needs to be ready for a China that is much more direct, bold, and willing to take controversial actions to ensure its own interests.

Finally, there are several limitations associated with the model in the paper. As previously discussed, the current model does not include the utility function of player 2 and given that player 2's action may impact player 1's perception of probability, it may be useful to consider Player 2's payoff when applying the model to a specific scenario. Moreover, the fundamental assumption of both players being rational players attempting to make utility-maximizing decisions may be problematic. A perfectly rational agent, in reality, may be rare, a fact that could potentially bias the result. The authors

encourage further researchers to consider potential factors or patterns of irrationalities of the players when applying the model to different situations. Furthermore, a set of Chinese strategic interests have been identified and defined to serve as utility assumptions for the model. Although the current function covers many different aspects of Beijing's interests, the assumption of these interests may be subject to change from the international state. Therefore, it is important to recognize such changes and adjust the weight of each utility payoff accordingly.

# **Appendix 1: Mathematical Deduction and Explanation of Utility Functions**

Equation 1 Expansionary Power Utility Function

$$\Phi (S_{\rho}xg) * \psi[U(xg,GDP)] - \Phi (S_{\rho}xl) * \psi[U(xl,GDP)] - \Phi (S_{\rho} \pi_{e'} t_{i}) * C(\pi_{e})$$

Note that  $\Phi(Si,xi)$  represents the probability of outcome xi when action Si is taken.

*Equation 2 Defensive Power Utility Function for countries sharing border with China* 

$$\Phi(S_{i},G) *\beta *G(p,l,m) - \Phi(S_{i},C) *C(p,d,m) - \Phi(S_{i},\pi_{d},t_{i}) *C(\pi_{d})$$

There are six possible payoff outcomes in the game, listed below:  $U(S_1,s_1) = Beijing$  gains defensive and expansionary power, but expansionary shock remains possible

$$=\Phi(S_{p}xg)*\psi[U(xg,GDP)] - \Phi(S_{p}\pi_{e},t_{i})*C(\pi_{e})\Phi(S_{p},G)*\beta*G(p,l,m)$$

 $U(S_1, s_2) =$  Beijing loses defensive power and there is an equal chance of expansionary power gain or loss

$$= -\Phi (S_{l}, C) * C(p, d, m) - \Phi (S_{l}, \pi_{d'}t_{i}) * C (\pi_{d}) + \Phi (S_{l}, xg) * \psi[U(xg, GDP)] - \Phi (S_{l'}, xl) * \psi[U(xl, GDP)] - \Phi (S_{l'}, \pi_{e'}t_{i}) * C(\pi_{e'}) * \psi[U(xl, GDP)] - \Phi (S_{l'}, \pi_{e'}t_{i}) * C(\pi_{e'}) * \psi[U(xl, GDP)] - \Phi (S_{l'}, \pi_{e'}) * \psi[U(xl, GDP)] - \Phi (S_{l'}, \pi_{e'}) * \psi[U(xl, GDP)] - \Phi (S_{l'}, \pi_{e'}) * \psi[U(xl, GDP)] + \psi[U(xl, GDP)$$

 $U(S_2,s_1) =$  equal chance of expansionary gain and loss but the no defensive power loss and possible gain

$$= \Phi (S_2, xg) * \psi[U(xg, GDP)] - \Phi (S_2, xl) * \psi[U(xl, GDP)] - \Phi (S_2, x_i, t_i) * C(\pi_e) + \Phi (S_2, G) * \beta * G (p, l, m)$$

 $U(S_{2}, s_{1})$  = Beijing loses both expansionary and defensive power

$$= -\Phi (S_{2}, C) * C(p, d, m) - \Phi (S_{2}, \pi_{d}, t_{i}) * C(\pi_{d}) - \Phi(S_{2}, xl) * \psi[U(xl, GDP)] \\ - \Phi (S_{2}, \pi_{e}, t_{i}) * C(\pi_{e})$$

 $U(S_3,s_1) = no \text{ change of power} = \text{constant } U_0 = 0$  $U(S_3,s_2) = \text{Beijing loses both defensive and expansionary power}$ 

$$= -\Phi (S_{3},C) * C(p,d,m) - \Phi (S_{3},\pi_{d'}t_{i}) * C(\pi_{b}) - \Phi (S_{3},xl) * \psi[U(xl,GDP)] - \Phi (S_{3},\pi_{o'}t_{i}) * C(\pi_{o})$$

Plugging into the above function:

$$\begin{split} U(S_{l}) &= P(s_{l}) * U(S_{l},s_{l}) + P(s_{2}) * U(S_{l},s_{2}) \\ &= P(s_{l}) * \{ \Phi(S_{l},x_{i}) * \psi[U(x_{l},GDP)] - \Phi(S_{l},\pi_{c'}t_{i}) * C(\pi_{c}) \\ &+ \Phi(S_{l},G) * \beta * G(p,l,m) \} + P(s_{2}) * \{ -\Phi(S_{l},C) * C(p,d,m) - \\ &\Phi(S_{l},\pi_{b'}t_{i}) * C(\pi_{b}) + \Phi(S_{l},x_{i}) * \psi[U(x_{l},GDP)] - \Phi(S_{l},x_{l}) * \\ &\psi[U(x_{l},GDP)] - \Phi(S_{l},x_{l'}t_{i}) * C(\pi_{c}) \} \end{split}$$

Through factorization, we get:

$$\begin{split} U(S_{l}) &= \Phi(S_{l}, x_{i}) * \psi[U(x_{g}, GDP)] - \Phi(S_{l}, \pi_{e'}, t_{i}) * C(\pi_{e}) + P(s_{l}) * \\ \Phi(S_{l}, G) * \beta * G(p, l, m) - P(s_{2}) * \{\Phi(S_{l}, C) * C(p, d, m) + \\ \Phi(S_{l}, \pi_{d'}, t_{i}) * C(\pi_{d}) + \Phi(S_{l'}, xl) * \psi[U(x_{l'}, GDP)]\} \end{split}$$

For action S2:

$$\begin{split} U(S_2) &= P(s_2) * U(S_2,s_1) + P(s_2) * U(S_2,s_2) \\ &= P(s_1) * \{ \varPhi(S_2,x_i) * \psi[U(xg,GDP)] - \varPhi(S_2,xj) * \psi[U(xl,GDP)] \\ &- \varPhi(S_2,\pi_e,t_i) * C(\pi_e) + \varPhi(S_2,G) * \beta * G(p,l,m) \} + P(s_2) \\ &* \{ - \varPhi(S_2,C) * C(p,d,m) - \varPhi(S_2,\pi_d,t_i) * C(\pi_d) - \varPhi(S_2,xl) \\ &* \psi[U(xl,GDP)] - \varPhi(S_2,x_i,t_i) * C(\pi_e) \} = - \varPhi(S_2,\pi_e,t_i) * C(\pi_e) - \\ &- \varPhi(S_2,xl) * \psi[U(xl,GDP)] + P(s_1) * \{ \varPhi(S_2,x_i) * \psi[U(x_i,GDP)] \\ &+ \varPhi(S_2,G) * \beta * G(p,l,m) \} + P(s_2) * \{ - \varPhi(S_2,C) * C(p,d,m) - \\ &- \varPhi(S_2,\pi_d,t_i) * C(\pi d) \} \end{split}$$

For action S3:

$$\begin{split} U(S_3) &= P(s_2) * \{ - \Phi(S_3, C) * C(p, d, m) - \Phi(S_3, \pi_d, t_i) * C(\pi_d) - \Phi(S_3, xl) * \\ \psi[U(xl, GDP)] - \Phi(S_3, \pi_d, t_i) * C(\pi_d) \} \end{split}$$

To compare the utility returns, we can try to subtract one from another. A positive result would mean the former returns greater utility than the latter. After factorization, the results are presented below:

$$\begin{split} U(S_3) &- U(S_2) \\ &= P(s_2) * C(p,d,m) [ \varPhi(S_2,C) - \varPhi(S_3,C) ] \\ &+ C(\pi_e) [ \varPhi(S_2,\pi_e,t_i) - P(s_2) * \varPhi(S_3,\pi_e,t_i) ] + P(s_2) \\ &* C(\pi_b) [ \varPhi(S_2,\pi_b,t_i) * - \varPhi(S_3,\pi_b,t_i) ] + \psi [ U(xl,GDP) ] \\ &* [ \varPhi(S_2,xl) - P(s_2) * \varPhi(S_3,xl) ] - P(s_1) * \{ \varPhi(S_2,G) * \beta * \\ G(p,l,m) + \varPhi(S_2,xg) * \psi [ U(xg,GDP) ] \end{split}$$

If the above equation yields a positive result, indicating the utility return from action S3 is larger than that from action S2, action S3 is strictly preferred to S2 and thus the Chinese government is likely to take action S3.The logic applies to the comparison between S1 and S2, as well as between S3 and S1.

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