

# Approach to the Geopolitical Influences of Great Powers in Southeast Asia: Case Studies of China and the US

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**Abstract:** A quantitative approach to the national geopolitical influence is helpful to provide a reference for national sustainable development on the international stage, based on describing national diplomatic capacity and overseas influence. Herein, this study proposes a complex geopolitical influence model, considering the affected nations' response. The geopolitical influences of great power in the affected nation are correlated with overall strength, the acceptance degree of the affected nation to the great power and the distance between both sides. Then, the geopolitical influences of China and the US in Southeast Asia countries are empirically analyzed from 2005 to 2015. The geopolitical influence of China in Southeast Asia has been largely growing for the past decades, accompanying with a constant trend of the US' effects. It is believed that China and the US can coexist peacefully in Southeast Asia to promote the regional development, and jointly create an open, inclusive and balanced regional cooperation architecture that benefits all nations in this region and great powers, through mutual political trust and economic beneficial cooperation. This study may contribute to advancing the policy debate and determining the optimal cooperation in pledging commitment to a new and sustainable model of great power relationship among the various regional geopolitical options.

**Keywords:** geopolitical influence; great power; Southeast Asia; China; the US

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## 1 Introduction

The peace and development have become the global themes, since the end of Cold War. Globalization is transforming deeply the international community and promoting the interdependence and interaction among nations (Keohane and Nye, 2012; Scott, 2012). National development and regional prosperity have become increasingly impacted by other nations, especially great powers (Jacques, 2009; Cohen, 2011). Meanwhile, great powers gradually abandoned the traditional geopolitical

ideology, such as pursuing for absolute national strength, and shifted their attentions toward improvement of state geopolitical influences. The proposed concept of geopolitical influence conforms to this trend of changing power structures in international relations, and could become an important indicator to measure national international image, overseas communication and coordination capacity (Cohen, 2011; Scott, 2012; Sui and Dong, 2012). The exploration of the national geopolitical effects, especially of great powers, is helpful to improve the policy debating of foreign affairs, and

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it provides a reference for national sustainable development on the international stage, based on describing real national diplomatic capacity and overseas strength.

The researches on geopolitical influences have been rapidly developing recently in the world (Fairgrieve, 1915; Jaffe and Nebenzahl, 2001; Keohane and Nye, 2012; Scott, 2012; Sui and Dong, 2012), including in China (Hu et al., 2014; Gu and Wang, 2015; Wang et al., 2015a; 2015b). Geopolitical influence is also known as 'geopolitical potential' (Hu et al., 2014; Wang et al., 2015a; 2015b), that can be viewed as the geographic, economic and political impacts generated by the comprehensive strength released from one nation (i.e., source nation or region) acts on the other nations (i.e., objective nation or region), due to the interrelation and interaction of hard power, soft power and interdependent power, based on complex geographical location and distance. It is one type of ability of one country to influence other countries, coming from the size and power of geo-bodies (Wang et al., 2015a; 2015b). The current related studies primarily stem from the research perspectives of political economy, ethnic culture and national image (Jaffe and Nebenzahl, 2001; Jacques, 2009; Scott, 2012). A few quantitative studies of geopolitical influence has also begun to be explored based on the concept and framework of location potential (Hu et al., 2014; Wang et al., 2015a; 2015b), in spite of the aporia of multiple and complex conception and quantification. Reviewing the literature on Southeast Asia geopolitics, this region is increasingly attracting global attention due to its significant geographical location, abundant resource endowment, along with diversified culture. The researches on geopolitics of Southeast Asia focused mainly on the Southeast Asia geopolitical security situation (Esterline, 1997), especially with involvement of extraterritorial national impacts (McGregor, 2005; Burgos and Ear, 2010; Fang and He, 2013; Graham, 2013; Lavina and Lee, 2016), natural resources disputes such as trans-boundary water resources (Bakker, 1999; Klöpper, 2008; Wang and Li, 2009; Paladini, 2012), geo-political structure and geo-economic spatial pattern, and the geopolitical dilemma and conflicts (Su et al., 2013; Wilson, 2015) and geopolitical vulnerability (Cao et al., 2011; Li et al., 2016). Also, the South China Sea dispute has become one of the most prominent international affairs (Kim, 2016; Kreuzer, 2016). However, the existing literature on Southeast Asian

geopolitics mainly referred to pattern and policies, and the comparative study in a qualitative way. National geopolitical influence is still a fuzzy concept and difficult to quantitatively analyze, as it relies on mechanism of multi-factors, such as strength, power, foreign affairs and policy effectiveness, although it is real and tangible. Few studies conducted quantitative approaches considering geography, except for several studies mainly analyzing economic and resource factors (Jacques, 2009; Cohen, 2011; Sui and Dong, 2012; Gu and Wang, 2015). This study tried to analyze empirically the geopolitical influences of great powers, based on data in the aspects of politics, economics, geography, culture and diplomatism, taking the examples of both China and the US in Southeast Asia, applying the data of the year 2005, 2010 and 2015, respectively. The spatio-temporal patterns of the geo-influence of China and the US in Southeast Asia and the influencing factors are discussed. This study may contribute to the national decision-makers and commercial individuals for making a reasonable foreign policy based on a macro understanding of regional situation.

## 2 Materials and Methods

### 2.1 Study area

Southeast Asia is located in the southeast part of Asia, including eleven countries, namely Brunei, Cambodia, Timor-Leste, Indonesia, Laos, Malaysia, Myanmar, Philippine, Singapore, Thailand and Vietnam. Geographically, it lies in the center of Asia and Oceania region, is one of the most significant water transportation arteries, as the critical gateway and the vital East-West oil passage from Oceania to Asia and to Europe and Africa, and from the Pacific to Indian Ocean. The Malacca Strait in this area is one of the most prosperous and important marine transportation channels across the world. Southeast Asia involves two sub-regions: Indo-China Peninsula and Malay Archipelago. Myanmar, Thailand, Laos, Cambodia, and Vietnam are located in the Indo-China Peninsula, and the marine Southeast Asian countries refer to Malaysia, Singapore, Indonesia, Brunei, the Philippines and Timor-Leste in the Malay Archipelago. Located in an important critical position, the region is directly affecting the security of China, Korea, and Japan energy channel, also directly related to the border security of China's southwest region, including South

China Sea stability and development issues. This region is of great interests for great powers around the world, including China and the US, also with profound influences on regional development and prosperity of Southeast Asia. After long-term international interaction, both countries have formed close ties with Southeast Asia in the context of political, economic and cultural issues, and have substantial geopolitical interests in Southeast Asia. Both have been always maintaining strong geopolitical influences on this region. So this study takes Southeast Asia as the study object, considering the spatio-temporal changes in the geo-influences of China and the US generally over the past decades.

**2.2 Model**

The potentials derived from the differences of powers and their changes are key factors for spatial interaction and various forms of ‘forces’. The geopolitical influences mainly include two aspects, namely strength released from the great powers, and the geopolitical distance between a great power and the affected nation. The military power, economic strength, soft power, state interdependence and scientific strength primarily contribute to the former (Keohane and Nye, 2012; Scott, 2012; Hu et al., 2014; Wang et al., 2015a; 2015b). And, the latter is mainly related to an actual physical distance and a comprehensive political and economic distance with the consideration of the differences in fictions of various media to power projection. The strengths from the powers are primarily comprised of hard power and soft power. Land and sea have different resistance de-

gree to the strength’s transferring process (O’sullivan, 1986). The distance between the source nation and the objective nation refers to a comprehensive physical distance. The use of spatial straight-line distance, such as Euclidean distance, is not desirable. Not only the unilateral role of the source nation, but the degree of acceptance of the objective nation, need to be considered. With consideration of state interdependence and interacting relation, degree of acceptance can be measured by the comprehensive dependence, related to security and politics (S&P), economy and trade (E&T), and humanistic dependence.

The geopolitical influence model is constructed as follow,

$$G_{ij} = f_{ij} \cdot (w_h H_j + W_s S_j) \cdot e^{-d_{ij}} \tag{1}$$

where  $G_{ij}$  represents the geopolitical influence of nation  $j$  (the source nation, such as China and US) on another nation  $i$  (the objective nation, such as various Southeast Asia countries).  $H_j$  is the hard power of the nation  $j$ , and  $S_j$  is the soft power of the nation  $j$ . Hard power and soft power constitute the comprehensive strength of the source nation.  $f_{ij}$  represents the degree of acceptance of the objective nation  $i$  to the strength of the source nation  $j$ , measured by the dependence of the objective nation  $i$  on the source nation  $j$ .  $d_{ij}$  is the comprehensive friction of distance between two nations  $i$  and  $j$ .  $e$  is the base of the natural logarithm.  $W_h$  is the weight of the hard power of nation  $j$ ,  $W_s$  is the soft power’s weight. All the indicators are shown in Table 1.

**Table 1** The index system of power

| Evaluation index              | Primary indicators                          | Secondary indicators             |
|-------------------------------|---|----------------------------------|
| Hard power $H_j$ (0.5)        | Basic strength $A_{1j}$ (0.2)               | Population (0.5)                 |
|                               |   | Land area (0.5)                  |
|                               | Economic strength $A_{2j}$ (0.4)            | GDP (1)                          |
|                               | Technological strength $A_{3j}$ (0.1)       | R&D expenditure (0.5)            |
| Soft power $S_j$ (0.5)        | Military strength $A_{4j}$ (0.3)            | High-tech exports (0.5)          |
|                               | The operation of state $B_{1j}$ (0.4)       | Military expenditure (1)         |
|                               |   | Political stability (0.5)        |
|                               | International responsibility $B_{2j}$ (0.3) | Government efficiency 0.5)       |
|                               |   | Cultural exchange $B_{3j}$ (0.3) |
| Contributions to the UN (0.5) |   |                                  |
| Cultural goods exports (0.5)  |   |                                  |
|                               |   | Number of foreign students (0.5) |

$$H_j = W_{\alpha 1j}A_{1j} + W_{\alpha 2j}A_{2j} + W_{\alpha 3j}A_{3j} + W_{\alpha 4j}A_{4j} \quad (2)$$

where  $A_{1j}$  is the basic strength of the source nation  $j$ , relating to population and land area.  $A_{2j}$  is the economic strength, measured by GDP.  $A_{3j}$  is the technological strength, including mainly R&D and high-tech exports.  $A_{4j}$  is the military strength, measured by the military expenditure.  $W_{\alpha 1j}$ ,  $W_{\alpha 2j}$ ,  $W_{\alpha 3j}$  and  $W_{\alpha 4j}$  are the weights for  $A_{1j}$ ,  $A_{2j}$ ,  $A_{3j}$  and  $A_{4j}$ , respectively.

$$S_j = W_{b1j}B_{1j} + W_{b2j}B_{2j} + W_{b3j}B_{3j} \quad (3)$$

where  $B_{1j}$  is the operating status of the source nation  $j$ , including political and institutional stability and government efficiency.  $B_{2j}$  is the international responsibility activities, related to global peacekeeper and the contribution to the United Nations.  $B_{3j}$  is the cultural exchange ability, made up of the cultural goods exports and the foreign students.  $W_{b1j}$ ,  $W_{b2j}$  and  $W_{b3j}$  are the weights for  $B_{1j}$ ,  $B_{2j}$  and  $B_{3j}$ , respectively.

$$f_{ij} = W_{eij}E_{ij} + W_{pij}P_{ij} \quad (4)$$

$$E_{ij} = W_{c1ij}C_{1ij} + W_{c2ij}C_{2ij} \quad (5)$$

$$P_{ij} = W_{d1ij}D_{1ij} + W_{d2ij}D_{2ij} \quad (6)$$

where  $f_{ij}$  represents the degree of acceptance of the strength of the source nation  $j$  in the objective nation  $i$ .  $E_{ij}$  represents the dependence of the objective nation  $i$  on the source nation  $j$  in the aspects of economy and trade.  $P_{ij}$  represents the dependence of the objective nation  $i$  on the source nation in the aspects of security and political affairs.  $G_{1ij}$  is the trade dependence, measured by the ratio of the bilateral trade to the GDP of the objective nation  $i$ .  $G_{2ij}$  is the dependence of the FDI, measured by the ratio of the FDI to the objective nation  $i$  from the source nation  $j$  to the total FDI to the objective nation  $i$ .  $D_{1ij}$  is the dependence on security, measured by the ratio of the weapon imported to the objective nation  $i$  from the source nation  $j$  to the total amount of weapons imported to the objective nation  $i$ .  $D_{2ij}$  represents the

dependence of the national political attributes, measured by the similarity of the two national political systems.

$$d_{ij} = 0.2d_{sea\ ij} + d_{land\ ij} \quad (7)$$

where  $d_{ij}$  is the comprehensive distance among nations.  $d_{sea\ ij}$  is the maritime distance, and  $d_{land\ ij}$  is the land distance.

It is supposed that the maritime distance is equivalent to one fifth of the land distance. The comprehensive distance between China and the land neighboring countries such as Myanmar, Laos and Vietnam is measured by the highway distance from China's land port to the capital of the objective nation  $i$ . The comprehensive distance between China and the other countries is the sea route length between China's economy center (Shang Hai) and the largest port of the objective nation  $i$ . The comprehensive distance between the United States and the Southeast Asian countries is the sea route length between the largest port in the west coast of the United States (Los Angeles) and the largest port of the objective nation  $i$ .

The data sources in this study are shown in Table 3. Data of physical meanings of various indicators were handled first in a dimensionless way, and then the model is estimated based on the processed data and the geo-influences of China and the US in Southeast Asia were estimated. The research of Timor-Leste is excluded due to insufficient data.

### 3 Results

#### 3.1 Comparison of national strength

The hard power and soft power of China and the US in the years of 2005, 2010 and 2015 are indicated in Table 4. The hard power of China and the US were both growing constantly, while China's growth rate was larger. The hard power of the United States was clearly larger than that of China, but this gap has been gradually decreasing for these ten years. In 2005, the hard power of China was less than one-third of that of the US. And, the value was closed to a half in 2010, and in 2015, it has reached 70% of the US. Similarly, the soft power of the US has also been larger than that of China, and the soft power of both were continuously increasing. The soft power of the United States was 7.4 times of that of China in 2005, and in 2015, it was only 1.6 times. But the soft power gap changed few in the value of over 0.5.

**Table 2** Index of the degree of national acceptance

| Primary indicators                               | Secondary indicators                 |
|--|--------------------------------------|
| Economic and trade dependence $E_{ij}$ (0.6)     | Trade dependence $C_{1ij}$ (0.8)     |
|  | FDI dependence $C_{2ij}$ (0.2)       |
| Political and security dependence $P_{ij}$ (0.4) | Security dependence $D_{1ij}$ (0.6)  |
|  | Political dependence $D_{2ij}$ (0.4) |

**Table 3** Data sources

| Data   | Source   |
|--|--|
| Population, Land area, GDP, R & D expenditure, High-tech exports, Military expenditure | World Bank Database  |
| Political stability, Government efficiency   | Worldwide Governance Indicators  |
| Contributions to the UN Peacekeepers   | United Nations Peacekeeping Website  |
| Contributions to the United Nations  | United Nations official website  |
| Cultural goods exports   | United Nations Educational, Scientific and Cultural Organization             |
| Number of foreign students   | International Institute for Educational Research                             |
| Weapons trade data   | Stockholm International Peace Research Institute                             |
| National political system attributes   | Freedom House  |
| Trade data   | United Nations Commodity Trade Statistics Databases<br>Statistical Yearbooks |
| FDI  | ASEAN Statistical Yearbooks  |
| Sea route length   | www.searates.com   |

**Table 4** Hard power and soft power of China and the US

| Year | Nation | Hard power | Soft power |
|------|--------|------------|------------|
| 2005 | China  | 0.202      | 0.073      |
|      | US     | 0.624      | 0.542      |
| 2010 | China  | 0.365      | 0.191      |
|      | US     | 0.767      | 0.650      |
| 2015 | China  | 0.568      | 0.466      |
|      | US     | 0.806      | 0.734      |

The overall strength of the United States is larger than China. However, this gap has been shrinking down gradually, especially since 2010.

Since the Soviet Union collapsed, the US has been the world's sole superpower. In 2015, the GDP of the US was 17947 billion dollars, while China's GDP was 10 866.4 billion dollars, accounting for 60% of the US's GDP. Southeast Asia GDP was accounting for 13%. The geopolitical significance of a nation related to its land area, population, economy and military is still an important indicator of overall strength. Hard power is still the primary indicator to measure overall strength. The role of soft power is smaller compared to hard power, but is increasingly influencing overall strength. The national overall strength is to importantly determine geopolitical influence, but more strong overall strength does not mean more strong geopolitical influence. The spatial attenuating tendency also take effects in geopolitical influence, linked to location and physical distance.

**3.2 Southeast Asia countries' acceptance degree for power effects**

Southeast Asia countries' acceptance for China geopo-

litical effects showed an increasing trend. The average value of the ten Southeast Asian countries' acceptance degree was 0.269, 0.333 and 0.405, in 2005, 2010 and 2015, respectively. The Southeast Asia continental countries' acceptance degree was larger than that of the maritime countries. In 2005, the average acceptance degree of China in the continental countries was 0.302, while it was 0.237 for maritime countries. It was 0.537 and 0.273 in 2015, respectively (Fig. 1). In contrast, Southeast Asian countries' acceptance degree for the US geopolitical effects presented a degreasing trend. The average value of Southeast Asian countries' acceptance to the United States was 0.302, 0.223 and 0.216, in 2005, 2010 and 2015, respectively. The US political effects were more accepted by the central Southeast Asia, mainly including Singapore, Malaysia, Thailand, Cambodia and the Philippines. In the recent 10 years, the average value of these five countries' acceptance degree was 0.316, while for the other five countries, the acceptance degree was only 0.178 (Fig. 2). In 2005, the average of the acceptance degree of the US was larger than that of China, but after 2010, China was more accepted than the US in Southeast Asia issues, especially in economy and trade cooperation, due to location advantages. This might explain to a certain extent why the implement of *Back to Asia* and *Pivot to Asia* is after 2010. In 2005, only 4 countries' acceptance degree of China was larger than that of the US, including Laos, Myanmar, Vietnam and Brunei. The number of countries increased to 6 and 7 in 2010 and 2015, respectively, which are Myanmar, Laos, Brunei, Cambodia, Vietnam, and Malaysia, and Laos, Myanmar, Brunei, Cambodia,

Vietnam, Malaysia and Thailand, respectively. It is obviously indicated that both the comprehensive strength and the acceptance degree of China were growing increasingly, and thus China's geopolitical influence could be rising. The United States' comprehensive strength was on the rise, although its acceptance in Southeast Asia declined a little. This is related to China's rapid economic growth and the increasing economic cooperation capacity, and the situation that geopolitical focus of the US was towards the West or East.

### 3.3 Geopolitical influences of China and the US in Southeast Asia

The average value of the geopolitical influence of China in Southeast Asian countries was 0.085, 0.213 and 0.485 in 2005, 2010 and 2015, respectively. China had more geopolitical influences in the Southeast Asia continental countries than the maritime countries. This average value in the continental and maritime countries in 2005 was 0.099 and 0.072, respectively. And, that is 0.273 and 0.152 in 2010, and 0.659 and 0.311 in 2015, respectively (Fig. 3). The average value of the United States' geopolitical influence on Southeast Asian countries was 0.219, 0.198 and 0.209, in 2005, 2010 and 2015, respectively. The average of the geopolitical influence of the United States in the five countries of central Southeast Asia was 0.364, 0.312 and 0.305, in 2005, 2010 and 2015, respectively, while in the other five countries, was only 0.075, 0.084 and 0.114, respectively (Fig. 4). China had a more advantageous geopolitical influence in only 2 countries of Laos and Myanmar, than that of the United States, in 2005. In 2010, this number increased

to 5, which is Myanmar, Laos, Brunei, Vietnam and Cambodia. In 2015, the number was 7, i.e. Laos, Myanmar, Vietnam, Cambodia, Brunei, Malaysia and Thailand, except for Philippines, Singapore, and Indonesia. Obviously, China had an advantage in mainly continental Southeast Asia, most of them were neighboring countries of China. The above trends are consistent with the spatio-temporal changes of China and the United States' acceptance degree in Southeast Asia. The comprehensive geopolitical influence of the United States is still huge, as the world's sole superpower. China's influence in the maritime Southeast Asia region was still relatively small, compared to the continental Southeast Asian countries. The maritime Southeast Asia countries in their policy and systems are similar to the US, but different from China. Among those countries the US maintained a traditional great geopolitical influence. China is adjacent to the continental Southeast Asian countries; meanwhile, their degrees of acceptance were also high. Among the maritime countries, the Philippines is of the shortest distance with the US, but Thailand, Singapore and Malaysia have relatively longer distances than the other countries in which the US geopolitical influence was lower. The US still maintained a strong geopolitical influence in some Southeast Asian countries.

## 4 Discussion

The study pointed out that geographical influences are related with the three components, namely, national comprehensive strength, the objective nation's acceptance

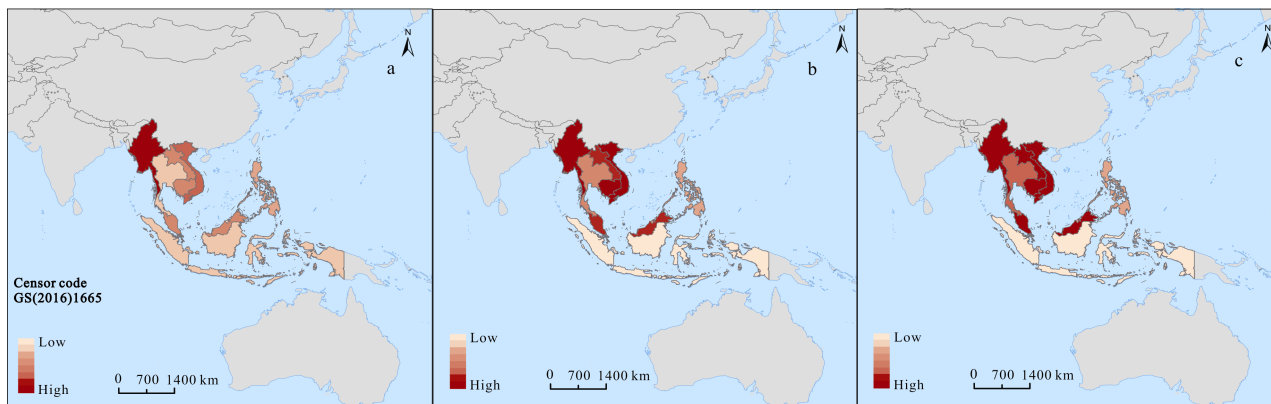
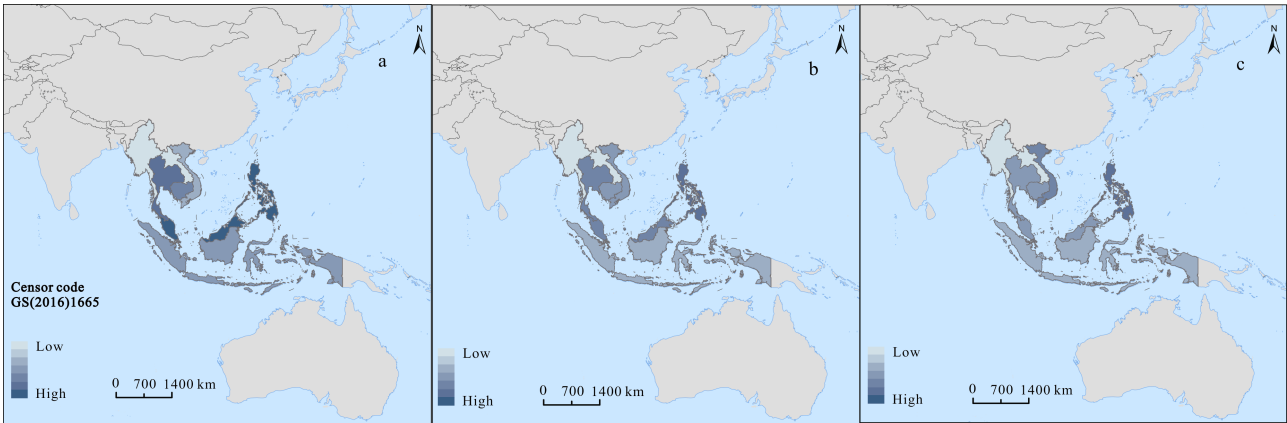
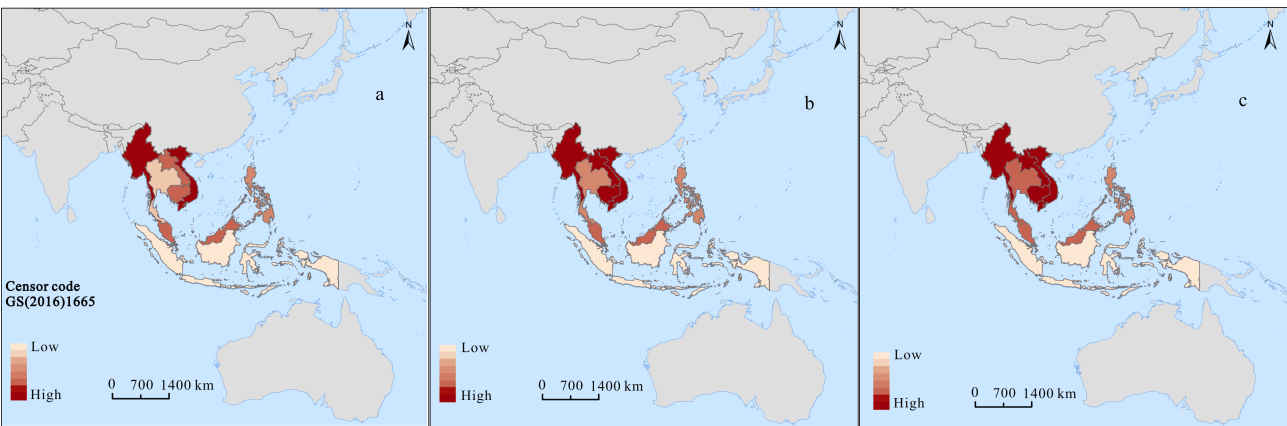


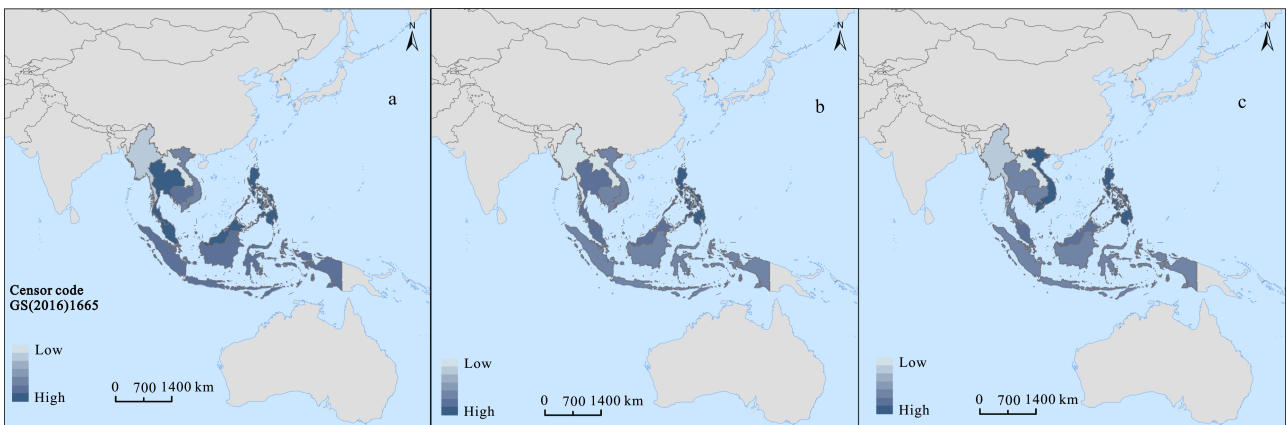
Fig. 1 Southeast Asian countries' acceptance degree for China geopolitical effects



**Fig. 2** Southeast Asian countries’ acceptance degree for the US effects



**Fig. 3** Spatio-temporal changes of the China geopolitical influence in Southeast Asia



**Fig. 4** Spatio-temporal changes of the US geopolitical influence in Southeast Asia

degree and the international comprehensive distance. Both the comprehensive strength and the acceptance degree of China in Southeast Asia were increasing, as a result, China’s geopolitical influence has been rising.

The US comprehensive strength was increasingly on the rise, although the acceptance of the United States declined in a certain period. The geopolitical influence of the United States had also a general increase in South-

east Asian countries.

Since the establishment of reform and opening up, especially the end of the Cold War period, the partnership relationship between China and Southeast Asia countries have been well developing. China established diplomatic relationships with Brunei and Singapore, and gradually rebuilt the diplomatic relations with Indonesia and Vietnam (Wang, 2009). During the Asian financial crisis in the late 20th century, China did its utmost to support the stricken Southeast Asian countries for economy recovery, with the recognition of a responsible power (Luo, 2007). Especially, China has always been committed to substantial cooperation paradigm with ASEAN and its members. *Treaty of Amity and Cooperation in Southeast Asia* and *Declaration on the Conduct of Parties in the South China Sea* enters into force. And, with the increasing economic and trade cooperation, the global largest free trade area of developing countries was preliminarily established between China and ASEAN in 2010. China's acceptance degree in Southeast Asia countries has also been increasing, especially in the continental Southeast Asia countries. China was closed to these land neighboring countries for a long time historically and culturally. China's recent development path also gives them a new referential economy mode. And, the Great Mekong Sub-Region (GMS) Cooperation Mechanism established by China and its land neighbors was driving the realistic economic cooperation and the development of bilateral relations (He, 2007). However, in the maritime Southeast Asia area, China's effects and relations with these countries were relatively small, with the geographical and cultural distance, especially the intensifying South China Sea dispute recently (Yuan, 2006). China is a continental mainland-oriented historically, and now a mixed continental and ocean nation, developing to the ocean-oriented economy. And, the US is a typical trade-dependent marine nation, and has maintained a long closed relationship with the maritime Southeast Asia countries, since the beginning of modern history times. These results are also partly consistent with the empirical researches of Asian Barometer Survey (Wang and Yang, 2009), where among six investigated Southeast Asian countries, the China's image in Thailand and Vietnam, in the international stage, is better than that in the Philippines, Singapore, Indonesia and Malaysia.

The US has tremendous geopolitical interest in

Southeast Asia. For a long time, it is this region's largest trading partner and investment source, and also, a close security partner with many Southeast Asian countries, although the development of bilateral relations has been gradually diminishing, since the period of George Bush's administration (Liu, 2010). Since the outbreak of the economic crisis in 2008 and the later subprime mortgage crisis originated in the US, the US has been in a prolonged economic slump and thus a strategy of retracting and shrinking, including withdrawing troops and pulling back overseas investments. Both trade and the investment between the US and the Southeast Asian countries were also decreasing. So the geopolitical influence of the US started to decline and the US' acceptance degree in Southeast Asia is also decreasing, as shown in this study. The Obama government beginning settling down actively to restoring and rebuilding the relationships with Southeast Asian countries (Tang, 2010), however, the substantial relation of economy and trade still lagged behind cooperation in the field of politics and security in Southeast Asia. The US has not even signed a free trade agreement with Southeast Asian countries, unlike China, Japan, and South Korea (Parameswaran, 2017). Whether or not, the policy of the Obama administration echoed a significant recovery of the geopolitical influence of the US in Southeast Asia from 2010 to now, especially with the implement of *Back to Asia* and *Pivot to Asia* after 2010. The most countries in central Southeast Asia accepted highly national identity for the United States. Thailand and the Philippines are traditional allies with the US, and even Singapore maintains more closed military cooperation (Wang, 2004; Stern, 2015; De Castro and Lohman, 2016). In the cooperation field of security, economy and trade, the relations between the US and these countries (including Malaysia) were closer than continental Southeast Asian countries (excluding Thailand), in addition to Indonesia enhanced external independence. In recent years, the geopolitical influence of the United States in continental Southeast Asia has been growing, especially for Myanmar and Vietnam. Goh (2007) also partly echo these findings that China maintained a great impact on the continental Southeast Asian countries than the marine area. China maintained a great impact on the continental Southeast Asian countries, while the US affected more in the marine area.

Basically, the geopolitical influence of the China and



the United States in Southeast Asia were both continuously increasing, especially in recent years. Hereinto, the geopolitical influence of the United States in the continental Southeast Asia has also been growing, developing an increasing relationship with Myanmar and Vietnam. Simultaneously, China and the United States both maintained a prevailing geopolitical influence in Thailand and Malaysia. This revealed a certain message that China and the United States could coexist peacefully in Southeast Asia to promote commonly the prosperity and development of the area, and the evolution of the geopolitical influence of the two powers in Southeast Asia was not a zero-sum game. China and the United States share a common aspiration to protecting maritime routes for free trade and maintaining regional security and stability in Southeast Asia. When taking more notice of common interests and more attention to each other's cooperation, China and the US will be able to find more common ground and be in a win-win situation in Southeast Asia. The Pacific is wide enough to accommodate both China and the United States, as should be in the Southeast Asian region of the Western Pacific. The crux is the long run local dialogue and negotiation mechanism critically. China and the US can coexist peacefully in Southeast Asia to promote the regional development.

## 5 Conclusions

This study explored a quantitative assessment approach to geopolitical influences of great powers, and analyzed the spatio-temporal change of the geopolitical influence of China and the US in Southeast Asia, from 2005 to 2015. The geopolitical influences of great powers are related with overall strength, the acceptance degree of the objective nation, and the distance among nations. The comprehensive strength of the great power is composed of hard power and soft power, the acceptance degree of the objective nation is measured by the dependence and the distance between two nations. The overall strength is not equal to geopolitical influence as mostly known, and the distance friction inversely affects geopolitical influence.

Overall, the geopolitical influences of China in Southeast Asia has consistently increased, as a regional power, while that of the US in Southeast Asia has changed a little and slowly improved with small fluctua-

tions, as a global power. The evolvement of China and the United States' geopolitical influence were not mutually exclusive, but a double-wins game, differed from some literature where influences of China and the US are conflicting and irreconcilable. China and the United States could coexist peacefully in Southeast Asia to promote the development of the region, and jointly creating an open, inclusive and balanced regional cooperation architecture that benefits all, with mutually political trust and economical beneficial cooperation with each other, based on promoting mutual policy coordination and people-to-people bonds. In the future, China-US joint building the Maritime Silk Road oriented towards ASEAN, can not only help promote the economic prosperity of the countries in Asia and regional economic cooperation, also can strengthen exchanges and mutual learning between different civilizations, and promote world peace and development.

This study has provided a general overview of the China and the US's likely geopolitical influences in Southeast Asia, which is among the significantly challenging in the world due to the scale of global powers and geo-activities involved. It should be noted that geopolitical influence is not a simulation of the interaction level between two nations, and also difficult to make predictions about unexpected diplomatic events. That is developed to describe the probability of interaction between different geographical elements. Therefore, geopolitical influence is also an indicator to describe the probability of interaction between nations and macroscopic pattern of geopolitics. Although clearly a more detailed study is needed, to answer the question of how best to proceed before any unquestionable conclusion can be drawn, especially regarding the index system on comprehensive interdependence effects among nations, and regarding prediction and its robustness, only such studies deriving the quantitative estimates such as those presented in this study, is helpful to advance the policy debate and determine the optimal cooperation in pledging commitment to a new and sustainable model of great powers and the region relationship among the various geopolitical options, including ASEAN countries issues.

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