

# CHINESE TRADE IN PRE-SPANISH PHILIPPINES: CREDIT, HOSTAGE AND RAID REGIMES<sup>1</sup>

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## **Abstract**

The article explores documentary evidence describing protohistoric institutions in early Philippines in relation to trade between the Chinese and pre-Spanish Philippine polities. The study presents analytics utilising game theory to shed light on historical accounts and archaeological findings. What stood crucial for Chinese traders were the internal trade networks of Philippine polities as these ensured distribution of Chinese prestige goods; and property rights enforcement to enable trade in ports. Exchange is demonstrated as a Nash equilibrium in two polities where one has strong enforcement while the other has weak enforcement augmented by hostage-taking. In the third polity, the property rights enforcers are themselves the predators and raids are carried out instead of trade.

*Keywords: Chinese, pre-Hispanic Philippines, property rights*

## **Introduction**

The paper presents historical accounts and corroborating evidence on institutional arrangements surrounding commercial exchange between pre-Spanish Filipinos and Chinese traders. We utilise a game-theoretic treatment in analysing historical outcomes. This essay attempts to explore the picture of institutions and enforcement existing in pre-Hispanic Philippines and how the Chinese traded within such a context. We introduce three institutional arrangements, namely, Ma-yi, San-su and Pi-sho-ye that are considered three distinct points in a spectrum of enforcement strength.

The article is structured as follows. Section 2 features documentary evidence drawn from historical accounts on Ma-yi, San-su and Pi-sho-ye. Section 3 presents corroborating evidence that supports the observations pertaining to institutional arrangements in Ma-yi and San-su accounts as well as the explanation of the Pi-sho-ye scenario where raids are carried out instead of trade. Section 4 applies economic theory in analysing the documentary evidence and proposes the

Ma-yi game and San-su game as models to analyse respective enforcement strength in strong and weak third party enforcement polities. The Pi-sho-ye raiding regime is presented as a no-trade regime. Section 5 ends the essay with a brief conclusion.

### **The historical record on Ma-yi, San-su and Pi-sho-ye**

The earliest detailed accounts of the institutional features that governed trade between early Filipinos and Chinese traders are given by Chau Ju-Kua (or Zhao Rugua) in the thirteenth century and Wang Ta-Yuan (or Wang Dayuan) in the fourteenth century. These accounts were completed in the context of crucial developments in Chinese trade and technology. China's maritime trade thrived without precedent during the Song, Yuan and early Ming dynasties (about 960-1430). The tribute-trade system became less significant in this context. During the Song dynasty, trading ports numbered to as many as seven to nine. With respect to shipping, the Song dynasty in the twelfth century produced ships in the form of Chinese junks that were more massive and more capable of ocean travel compared to other ships in the same period. The compass and other new devices were also being employed in sailing (Curtin, 1984).

When Chau Ju-Kua completed his *Chu-Fan-Chih* (Record of Various Barbarous Nations) in 1225, he occupied the position of Superintendent of Foreign Trade Shipping or Governor of the Customhouse at the port of Chuanchao (presently Quanzhou). In the time of Chau Ju-Kua, there were only two sea ports in China. One was Canton (presently Guangzhou) and the other was Chuanchao. The latter was the primary international trading port during that period. The *Chu-Fan-Chih* provides Chinese and foreign traders' descriptions of Chinese trade with the islands in the South Seas in the twelfth and thirteenth centuries as well as information at the beginning of the thirteenth century regarding the inhabitants and products of Eastern and Southern Asia, Africa and Europe. As regards the focus of this study, Chau Ju-Kua's work contains accounts of Chinese trade in areas identified by scholars as the Philippines as a group of islands or individual polities within the present Philippines (Wu, 1959). The places mentioned in his book that are identified by scholars as part of the Philippines are grouped as Ma-yi, San-su, and Pi-sho-ye (Hirth & Rockhill, 1912; Wu, 1959).

The second earliest detailed account that provides details on the institutional features of exchange is given by Wang Ta-Yuan in his book *Tai I Chih Lio* (A Summary of the Records Regarding the Barbarians of the Islands) completed in 1349. During the Yuan dynasty (1241-1367), he ventured into the South Seas aboard a trader's ship. His traveler's account of the countries he visited resulted in the book. The places mentioned in his book that are identified as part of the Philippines are Ma-yi, San-tao, Pi-sho-ye, Min-to-lang, Ma-li-lu, and Su-lu (Wu, 1959; Wang, 1964).

With respect to Ma-yi and San-su, specific location within the archipelago differs among scholars. For instance, Beyer (Wu, 1959) and Laufer (1908) apply the name to Mindoro; Rizal (2007) applies the name to Luzon; Blumentritt (Chau, 1903-1909) who pegs Ma-yi as the Manila-Laguna region, earlier considered Bulacan;

Wang (1964) applies it to Batangas; and Go (2005) identifies the Laguna area as Ma-yi. As the differences in opinion on location within the Philippines are immaterial to the analysis, the focus on Ma-yi and San-su is predicated on the fact that they represent valuable observations on exchange and distinctions in institutional contexts. Ma-yi represents strong third party enforcement while San-su (or San-tao) represents weak third party enforcement. Drawing from scholarly work on Pi-sho-ye (Junker, 2000; Wu, 1959; Scott, 1989; Hirth & Rockhill, 1912), this study considers Pi-sho-ye as a polity-type in the Philippines that accommodates the scenario of raids being carried out rather than trade.

### ***Ma-yi Regime: Barter Trade on Credit***

Wu (1959) puts together the earliest presumptive and probable accounts of the Philippines in ancient Chinese sources prior to Spanish rule. The work evaluates the authenticity and identification of areas associated with the present Philippine archipelago. Wang (1964) looks at historical and cultural relations between the Chinese and the Filipinos. Both studies also contain translations of important references to the Philippines found in ancient Chinese texts. In the context of these accounts, Ma-yi is significant in Philippine studies as the first polity in the Philippines found in foreign historical accounts and Chinese records in particular. The documentary evidence does not only show that the Philippines have had relations with the Chinese long before the arrival of the Spanish but the Chinese also esteemed commercial relations with the early Filipinos. The mention of Ma-yi in an edict in 971 AD found in the Song dynasty annals reflects Chinese attention on Ma-yi's non-negligible part in tenth century Chinese foreign trade. Further, the Song dynasty annals and *Wen Xian Tong Kao* (A General Investigation of the Chinese Cultural Sources) written by Ma Tuan-lin (or Ma Duanlin) in 1317-1319, note that in 982 AD, the country of Ma-yi brought esteemed trade goods to Guangdong (Go, 2005).

Chau Ju-Kua's account is explicit on the presence of a chief, to whom gratuities were paid in accordance to recognised authority. The chief represented the third party enforcement. Strong enforcement in the polity is specified in the described absence of piracy and robbery as well as the Chinese traders' goods never being lost in the context of the lag between the collection of Chinese goods at the port and the payment for them. In addition, the designation of an official market as the venue for exchange and the trading procedure that was adhered to reflect strong enforcement in the Ma-yi polity. Trade between Chinese and Filipinos was facilitated through barter at the official market. As an added feature, credit was allowed owing to the described length of time that the Chinese traders wait for the payment, which constitute indigenous goods. Hence, barter on credit, whose significance in contract enforcement was missed in historical research, was a feature of pre-Hispanic trade between Chinese and Filipinos. In turn, barter on credit was hinged on a network of goods collection and distribution through which Chinese luxury goods were disposed in the different islands while the goods gathered in exchange were paid to the Chinese. The type of Filipino goods

described in exchange and the length of time to gather them imply the workings and importance of internal trade networks among Filipinos.

In Wang Ta-Yuan's account, the Ma-yi polity featured there is likewise described as having a "great chief" denoting strong third party enforcement. It is therefore consistent with the observation of "esteemed uprightness." Trade is said to be governed by a set of procedures consisting of price-setting, the taking away of the Chinese goods on credit, the exchange of Chinese goods with indigenous goods and last, the actual payment. The credit period is not stated as in Chau Ju-Kua's account. Nevertheless, the description still accommodates barter on credit owing to the waiting time that is described on the part of the Chinese. Finally, honesty on the part of the early Filipinos is noteworthy as it is consistent with strong property rights enforcement.

### *San-su/San-tao Regime: Hostage-Augmented Trade*

The detailed procedures from the arrival of the ship (i.e. "they dare not disembark at once) to actual trading denote that enforcement strength was not the same as in Ma-yi. Further, bartering on credit was not allowed while initial bargaining was carried out in the ship. Price disputes resulted in the head trader, presenting himself on board to negotiate toward an agreement. When an agreement is forged, indigenous hostages are kept in the ship while the actual trade takes place on shore. The hostages are redeemed after barter is consummated. The length of time specified for the exchange is limited to 3 or 4 days, which is a stark contrast to allowing the early Filipinos to take the goods and come back for the agreed upon payment after many months. The absence of inter-tribal control was also noted.

In Wang Ta-Yuan's version of San-su, the mention of the presence of "a chief (or chiefs)" is also found. Wang Ta-Yuan also notes the significant detail of Filipino traders' sea-going capacity as they go to China for business. And upon arrival from China, Filipino traders are ritually honoured and status is ascribed to them.

### *Pi-sho-ye Regime: Raid Scenario*

In Chau Ju-Kua's account, traders do not visit Pi-sho-ye. The chiefs are described to be in the habit of assembling raiding parties. The latter, in turn, are assembled for attacks in China. Last, the account also says that the raiders valued iron greatly. In Wang's descriptions, Pi-sho-ye is described with the absence of a chief and where robbery is customary. Inhabitants are characterised as predatory as they capture fisherfolk or wood choppers and sell them as slaves.

## **Pre-Hispanic Political Development, Enforcement Institutions and Trade**

What explains the three contrasting accounts of institutions and exchange in pre-Spanish times in the Philippines? The level of political development at the time of the conquest still lacks a definitive scholarly consensus. However, analysis on stratified political power, the institutional environment for exchange, and coordination of trade explains how the accounts of seemingly different polity types

are not contradictory but reflect the nature of economic-political development across different polities in pre-Hispanic Philippines. Citing (Clemente, 2011), the following subsections elucidate the arguments.

### ***Stratified political power***

In terms of chiefly rule for instance, the discussion in this subsection is insightful. Antonio de Morga in 1609 notes that chiefly rule in the islands was kinship-based and polities were autonomous. Through victory in battle, the chief can enlarge his power as more people and leaders come under his rule (Rizal, 1962). Moreover, the mention of San-su belonging to Ma-yi as described in the accounts of Ma-yi and San-su, implies at the very least, an extent of political authority extending from Ma-yi to Sansu (Clemente, 2011).

In the accounts of Spanish contact with early Filipinos, Pigafetta's report on the Battle of Mactan documents how Chief Zula, one of the Mactan chiefs, could not cooperate with Magellan as the latter wished because Chief Lapu-lapu constrained him (Pigafetta, 1903-1909). Further, Chief Lapu-lapu sent word to Magellan that he was not willing to bow to Rajah Humabon who cooperated with Magellan, considering that Humabon was subordinate in rank and was under his authority (Scott, 1994). This shows the stratification of political power, which is also implied by the various titles ascribed to chiefs, which signify differences in rank. Malay-Sanskrit terminology were utilised to make distinctions among chiefs who commanded control over trading ports (Scott, 1994). In Pigafetta's account of the negotiations between Magellan and Rajah Humabon (Pigafetta, 1903-1909), we find that in deciding to be Magellan's vassal Humabon was strategising to gain the upper hand among Philippine polities. His calculation considered the nuances in alliance building among the polities, but what escaped him was that Magellan did not operate within the local political economy. While Magellan's intention of colonisation was not anticipated, Humabon's decision was nevertheless a picture of the 'rational political calculus behind the decisions and actions of the early chiefs' (Clemente, 2011).

### ***Institutional environment for exchange***

As trading activities become more and more complex so do the mediating institutions. Costs of uncertain enforcement and contract violations through predation likewise increase. Hence, enforcement institutions become a crucial enabler for economic activities and their expansion (North, 1990).

We notice that in the accounts of Chau Ju-Kua and Wang Ta-Yuan, we see efforts by the Ma-yi and San-su polities to provide an environment that allows trade with the Chinese: chiefly administration, designation of official markets, and lodging for traders stationed at the port, and military protection of foreign vessels. Citing Vergouwen's (1964) study on the Toba-Batak of Northern Sumatra, Fernandez (1976) points to the "peace of the market" as an insight into enforcement in early Philippine polities, in which gains from port exchange motivate adherence to law and strong enforcement. In terms of rule of law and enforcement, custom

law was observed to be in operation among Tagalog polities suggesting an extent of organised political linkages (Plasencia, 1903-1909) that was consistent with a dispersed confederation of chiefs (Fernandez, 1975). In early Spanish contact period, there were observed details regarding what was received or not received (through inheritance or bequests) by legitimate children and children of the principalia, concubines and slaves. Further, the nuances of indigenous were observed in such details as the entitlements of a part-slave. Colin's observations also provide details on custom law's provisions against stealing (Rizal, 1962).

### *Coordination of Trade*

Beyer (1948) affirms the observations in the early Chinese accounts and describe the bartering activities as exhibiting merchandising, wholesaling and the use of secondary channels. Going further, Hutterer (1973) characterises trade between ports and the interior, involving luxury foreign goods in exchange for locally-made products. Jocano (1998) contends that foreign trade stimulated local developments in the first to the fourteenth century. Towards 16th century contact, the advance of material culture and craft specialisation shows that polities exhibited the beginning structure of the market. In other words, the expanding trade of foreign goods incentivised an institutional configuration that facilitated certain economic activities.

In Frankenstein and Rowland's (1978) model, luxury goods obtained through foreign trade are controlled by the chief. The prestige goods are redistributed to chiefs down the hierarchy for purposes of status symbols, funerary or bride wealth in support of the chief's own representation of power. To ensure the stable supply of goods to be exchanged for foreign prestige items, the chief also controlled the production of wealth and related local resources. Drawing from Earle's (1991) wealth finance model on the other hand, the procurement of luxury goods from foreign trade was crucial for goods redistribution to inferior chiefs in exchange for their political services.

Prior to European contact, the Philippines comprised of an institutional picture in which autonomous chiefdoms competed for economic and political domination. Chiefdoms were pre-state polities that were socio-politically complex. They were marked to have existed in the Philippines by AD 1000 at the earliest. A major instrument of chiefdoms to consolidate power and achieve primacy, was the control of the Chinese luxury goods trade in the regional level. In turn, the trade was hinged on the following factors. First, an efficient internal economy that allowed the harnessing of resources for export was important. This required mastery over internal trade networks, secondary channels/riverine trade systems; strong tribute mobilisation system or clientage networks; and export-led production systems. Second, the development of effective slave raiding not only meant labor capture but it also resulted in destabilising rival polities. Finally, it was crucial for chiefdoms to be able to reallocate foreign prestige goods in their control by according gifts in marriage and/or ritualised feasting. These are done to entrench and expand political alliances (Junker, 2000). Studies on specific areas such as the Dumaguete-Bacong area, Bohol and Tanjay, Negros Oriental by Bacus,

Yankowski and Junker support these findings (Bacus, 1996; Yankowski, 2004; Junker, 2002).

As the prestige goods trade commenced in the ports, a system that arranged the exchange of exotic foreign goods with local products had to operate. Foreign goods were distributed with profit while forest products with foreign demand were gathered. Historical sources point to a “vigorous internal trade among lowland Filipinos” (Hutterer, 1973). The following tables show the traded goods between the Chinese and early Filipinos based on Chau Ju-Kua’s and Wang Ta-Yuan’s accounts.

**Table 1: Filipino-Chinese barter goods in Chau Ju-Kua’s 1225 account**

	Indigenous Goods	Chinese Goods
Ma-yi	yellow wax, cotton, pearls, tortoise-shells, medicinal betel-nuts, uta (or Yu-ta) cloth	porcelain ware, trade-metals, iron tripod vessels, black lead, variegated glass-beads, iron needles, etc.
San-su	cotton, yellow wax, native cloth, coconut-pith, mats, etc.	porcelain ware, black satin, colored silk fabrics, variegated fiery pearls, leaden weights for nets and white tin

Source: Wu (1959) as presented in Clemente (2011)

**Table 2: Filipino-Chinese barter goods in Wang Ta-Yuan’s 1349 account**

	Indigenous Goods	Chinese Goods
Ma-yi	kapok, yellow bees-wax, tortoise-shell, betel-nuts, and cloth of various pattern	caldrons, pieces of iron, red cloth of taffetas of various color stripes, ivory, “ting” or the like
San-su	bees wax, cotton, cloth of various patterns	copper beads, bowls of blue or white flowers’ pattern, small figured Chintzes, pieces of iron and the like
Min-to-lang	“wu-li,” wood musk, sandal wood, cotton and “niu-jii,” leather	lacquered ware, copper caldron, Djava (Java) cloths, red taffetas, blue cloth, “tou,” tin, wine and the like
Ma-li-lu	tortoise-shell, yellow beeswax, la-ka wood, “Jwu-buh, and kapok	“ting” in standard weight, blue cloth, porcelain water jar of Chu-chou, big pot, iron caldron and the like
Su-lu	la-ka wood of middle quality, yellow beeswax, tortoise-shell, and pearls	pure gold, unpure trade silver, Patu-la cotton cloth, blue beads, Chu earthen-ware, iron bars and such like things

Source: Wu (1959) as presented in Clemente (2011)

Historical investigation on commercial activities of Filipinos outside the archipelago prior to the onset of the sixteenth century, indicates extensive trading ventures, seafaring capacity and commercial value of trade goods. The use of pre-colonial boats in tribute or trade missions abroad indicates complexity of polities especially in cases of sea-worthy vessels (Scott, 1989, Clark et al., 1993, Bolunia & Hontiveros, 2004; Manguin, 1993). Tributes were sent to China from Ma-yi and

Butuan in 970-1020 AD while tributes to China in 1370-1420 AD originated from Sulu, Pangasinan, Luzon, Maguindanao, Mao-li-lu and Soli (Junker, 2000; Scott, 1989). Tome Pires in his *Suma Oriental* which was completed in 1515, makes mention of Luzon inhabitants and their ships, who bring their goods to Borneo and from there they proceed to Malacca (Cortesao, 1944). Pigafetta on the other hand, notes a Luzon junk in Timor in 1522 (Pigafetta, 1903-1909).

### **The Ma-yi Game, San-su Game and Pi-sho-ye Raiding Regime**

In this section, we analyse three polities and consider them as representing enforcement types. In this section, Ma-yi refers to a strong third party enforcement polity while San-su refers to a weak third party enforcement polity. Pi-sho-ye is a raiding regime where the enforcer is the predator.

#### *The Ma-yi Game: Strong Third Party Enforcement Polity*

Consider trade between the Chinese trader C and the pre-Hispanic Filipino F, in the context of the Ma-yi polity where there is strong third party enforcement. C arrives at Ma-yi to sell the shipload of luxury goods in the official market, while F carries away goods on credit and brings them to the interior through internal trade networks. After a period of time, F brings back the required exportables in payment for the luxury goods. There are no indications of interest charged in relation to the barter on credit. Instead, the payment for the goods takes the length of time that it is turned over. Note that the waiting time of the Chinese merchants are described as customary. We assume that the merchants are rational and will impute this duration of waiting into the fixed price of the bartered goods.

C makes the first move and chooses between the strategies of trading with Trust or Distrust. The strategy set is {T, D}. If C chooses T, this implies that F will be allowed to take away the luxury goods on credit with the agreement that the corresponding payments in indigenous goods will be delivered at an agreed upon time. The most obvious expression of choosing T is for C to temporarily settle at port, awaiting the payment. If C chooses D, this implies that credit will be not be given and trade will collapse to barter without credit akin to San-su where this prevailed amidst weak third party enforcement.

F responds by choosing between Abiding and Embezzling. Thus, F faces the strategy set {A, E}. If F chooses A, this entails that F honours the contract and comes back after 8 or 9 months with the required exports in payment for the goods taken on credit. If F chooses E, this implies the F does not come back.

The payoffs to C and F are high when they cooperate and arrive at  $(T_1, A_1)$ . That is, bartering on credit allows a large volume to be traded. F relies on its well oiled internal trade network to make sure that the luxury goods are distributed and exports from the interior are brought back. What happens if F chooses E and does not come back? If third party enforcement were lacking, F would gain the most by choosing E if C chooses T. But because enforcement is strong in the Ma-yi polity, E entails chiefly retribution that effectively punishes F and gives him a payoff that is worse off than before he chose to embezzle. We assume that even with retribution,



the goods taken on credit by F cannot be returned. Note that the other three settlements mentioned by Wang Ta-Yuan, namely, Min-to-lang, Ma-li-lu and Su-lu, are all described as having authorities in the form of chiefs. Min-to-lang had an added detail of punishment for property rights violations (i.e. robbery) in the form of putting the family of the violator to death (Wu, 1959). This implies that where there is a third party enforcer in the form of chiefly authority, there will be third party retribution against embezzlement. This likewise applies to Ma-yi.

C on the other hand is appeased but this is only second-best. Given the possibility of E i.e. embezzlement amidst C's trust, C will opt for D, which implies trade that is collapsed to that barter without credit. If F abides, at best, he derives downgraded gains from trade. Thus, (D<sub>1</sub>, A<sub>2</sub>) is the "San-su downgrade." If C and F choose {D, E}, both traders gain the least as trade is not only limited due to the absence of credit but it has another restriction--trade not only lasts for a few days but worse, since F embezzles, F gets less than what he embezzles due to third party retribution. Below is the payoff matrix for the Ma-yi game.

**Table 3: Ma-yi Game Payoff Matrix**

		F	
		Abide	Embezzle
C	Trust (Barter on Credit)	T <sub>1</sub> , A <sub>1</sub>	T <sub>2</sub> , E <sub>1</sub>
	Distrust (Spot Trade)	D <sub>1</sub> , A <sub>2</sub>	D <sub>2</sub> , E <sub>2</sub>

The payoffs are structured as follows. For C, the Trust-Abide combination {T, A} results in the highest payoff while the Trust-Embezzle combination {T, E} provides the floor of payoffs. The Distrust combinations yield intermediate payoffs. In particular,

$$T_1 > D_1 > D_2 > T_2.$$

Similarly for F, we have

$$A_1 > A_2 > E_2 > E_1.$$

The structure of payoffs shows that given the strong third party enforcement in operation, embezzlement does not pay. {T, A} is the Nash equilibrium (Gibbons, 1992; Rasmusen, 2001), where the strategies of C and F are set, while each is aware of the other's equilibrium strategy. Further, neither one gains a better pay-off by altering their chosen strategy amidst a status quo on the part of the other. This

outcome is confirmed by historical accounts that Ma-yi trade involving barter on credit with lengthy time duration (8-9 months) was upheld for more than a century (at the very least) based on the continuity from the accounts of Chau Ju-Kua and Wang Ta-Yuan.

### *San-su: Weak Third Party Enforcement and Hostage Taking*

Chau Ju-Kua's account of San-su provides a characterisation of how exchange was structured given weak third party enforcement owing to weaker centralisation of power in the alliance-based power structure of pre-Hispanic polities. Despite weak enforcement, harbour regulations and trade protocols still exist in the settlement. For instance, the Chinese ship is moored in the middle of the stream while the Filipinos are summoned to board the ship. Wang Ta-Yuan mentions the existence of a chief and patriarchs and confirms the existence of a measure of governance. The difference between contract enforcement in Ma-yi and that of San-su is that in the latter, due to weak enforcement, exchange at the port is for a limited time and it is restricted to spot trade or barter without credit. When an agreement cannot be made, trade will have to be on shore while hostages are left in the ship. Filipino hostages are utilised as a security measure in the event of attack. If Filipino traders choose not to attack, this means that trade is carried out and hostages are redeemed after the exchange is consummated. Since, credit is not allowed, the potential customer base in the interior and other islands is not maximised leading to relatively lower returns. Moreover, the time allowed for trading spans a mere three to four days as opposed to eight to nine months in the case of Ma-yi. The time limitation likewise, severely restricts the volume of trade.

Spot trade is meant to remedy the unfeasibility of barter with credit owing to weaker chiefly enforcement. That is, chiefly control cannot enforce payment delivery by Filipino trader after the latter has claimed the goods. Going after the embezzler in San-su would be impossible if the Ma-yi barter on credit conditions applied.

Hostage-taking is an added feature that is meant to deter attack. We define "attack" as aggression by the Filipino trader resulting in the capture of the Chinese trader on shore together with the latter's goods. With C anticipating the possibility of attack, we specify that the value of the hostages on board approximate the value of the Chinese representative on shore and the latter's goods. In the event of an attack, the Chinese party loses their representative as well as the goods and gets a second best payoff. The Filipino trader on the other hand, captures the trader, takes the goods, while facing the chance of chiefly retribution at port.

If enforcement deteriorates further, there will be no trade visits by the Chinese. We further simplify by restricting the Chinese to their home port. If the Filipino raiding party chooses to attack, recognising the capacity of the Chinese to retaliate (Scott, 1989; Hirth & Rockhill, 1912), a zero-sum result will be registered on both sides. The no contact scenario involves the decision of the Chinese to not trade even while the Filipino party decides to not attack.

In the San-su Game, C still makes the first move. C’s strategy set is {T, TH, D}, where T is “(spot) trade without hostage,” TH is “(spot) trade with hostage,” and D is “don’t trade.” The San-su Game is in context of weak third party enforcement. Hence, vis-a-vis the case of Ma-yi, this is downgraded trade. T limits trade volume and no hostages are taken, while TH involves spot trading with the added feature of utilising hostages as a security bond. D on the other hand refers to C avoiding trade altogether. C is restricted to their home port. On the part of F, the option is between No Attack or Attack hence the strategy set is {NA, A} where NA entails F giving the indigenous exports in exchange for C’s luxury goods with a clause for hostage-taking. A refers to F capturing C and the latter’s goods.

Despite the restricted volume of trade compared to that of Ma-yi, C gains the most in choosing T when F chooses No Attack, resulting in the payoff  $(T_1, NA_1)$ . When C chooses T while F chooses A, the payoff is  $(T_2, A_1)$ . C loses the most while F gains the most. When C opts for hostage-taking to improve security, TH is chosen. If F chooses NA, the parties get the highest symmetric payoffs. If F chooses A, both parties lose but C loses more. When C opts for D and hence decides to avoid trade with F but the latter still resorts to A through its raiding efforts, the following payoffs  $(D_2, A_3) = (0, 0)$  are registered for both parties. The no contact scenario can result when C chooses D while F chooses NA. Here, the payoff for both parties is likewise zero. In San-su, the payoffs are structured as follows:

$$T_1 > TH_1 > TH_2 > T_2.$$

For F the following order of payoffs hold:

$$A_1 > NA_1 > NA_2 > A_2.$$

The Table below gives an example of the payoffs.

**Table 4: San-su Game Payoff Matrix**

		F	
		No Attack [NA]	Attack [A]
C	Trade (spot) with No Hostage [T]	$T_1, NA_1$ (7, 6)	$T_2, A_1$ (-7, 7)
	Trade (spot) with Hostage [TH]	$TH_1, NA_2$ (5, 5)	$TH_2, A_2$ (-5, -3)
	Don’t Trade [D]	$D_1, NA_3$ (0, 0)	$D_2, A_3$ (0, 0)

(TH<sub>1</sub>, NA<sub>2</sub>) is the strong Nash equilibrium but {D, A} also results in a Nash Equilibrium (weak). The difference in the payoffs is first seen in the magnitude. Thus, the two possibilities are trade with hostages or no trade at all. The latter reflect the Pi-sho-ye regime below.

### *The Pi-sho-ye Raiding Regime and Further Research*

Security against predation has always been an issue that lingered until the coming of the Spanish. Chinese traders only acquiesced to settle in localities where Filipino communities secured their safety (Beyer, 1948; Bernal, 1966; Wickberg, 1965). Settlement was not prevalent and after many years of port trade, in 1570, the Chinese population in Manila numbered to forty as observed by the Spanish. In the accounts of 1570 for instance, Chinese traders in Taal who attempted to flee were imprisoned as they intended to go to the Spanish whom they learned were in Mindoro. The Filipinos put to death the fleeing Chinese traders by scraping their faces. In Manila, when Martin De Goiti arrived in 1570, Chinese traders complained to the Spaniards that the Filipinos removed the helms of their ships and did not pay for the goods they carried away (Goiti, 1903-1909). Complying with harbour regulations is a less costly alternative in addressing the issue of protection. The Chinese did not adopt the Muslim system of establishing trade outposts protected by a military fort. Rather than settle in and secure their own outposts in inhospitable territory, Chinese merchants found it more efficient to have these outposts collect their trade goods. However to be able to appreciate predation during pre-Hispanic Philippines, a study on the Pi-sho-ye observations is a valuable starting point.

Chau Ju-Kua and Wang Ta-Yuan render Pi-sho-ye the most notorious among the places mentioned. Wang Ta-Yuan for example mentions that Pi-sho-ye does not have a chief, the inhabitants are characterised as predatory expressed in the prevalence of robbery and slave trading. But Wang Ta-Yuan, who comes from a country and culture steeped in highly centralised rule, the consciousness of cosmological order and law at the time that he wrote his work, it is understandable that he would associate the observed predation with no measure of chiefly authority. Descriptions on Pi-sho-ye raiding behaviour are significant for the study of institutions in pre-Hispanic Philippines. Considering the accounts of Chau Ju-Kua and Wang Ta-Yuan as juxtaposed with the study on pre-Hispanic pre-state polities in general, it is naive to take the view that Pi-sho-ye did not have a form of authority governing it. Although trade is untenable in Pi-sho-ye type settlements, it is because raiding is seen as a more efficient mechanism to mobilise resources given the circumstances of low population densities, large tracts of land, dispersed populations owing to geography and difficulty in centralising chiefly power. Chau Ju-Kua's description of military muscle is evident in the raiding parties organised by the chief. Pi-sho-ye is remarkably described as having many chiefs having significant areas in the coast, armed with the ability of organising raids composed of numerous warriors. The chiefs have the capacity to carry out both trade and aggression using their ocean-going ships. Recognising the description in Chau Ju-Kua's work and scholars' placing of Pi-sho-ye in the Visayas region, two major

findings are noteworthy. First, archaeological efforts show that in the late fourteenth to early fifteenth century, there was a concentration of a large volume of early Ming porcelains while evidence points to an iron industry that existed locally. Second, the fifteenth to sixteenth centuries mark the period in which Cebu as a polity achieved its zenith. This implies the plausibility of Cebu evolving in terms of complexity and power. It is not surprising therefore that Cebu is mentioned early by Spanish chroniclers upon contact (Juncker, 2000; Chen, 1966; Nishimura, 1992).

These allow us to contextualise the accounts of Chau Ju-Kua and Wang Ta-Yuan and appreciate that raiding instead of trading became a viable option for polities characterised by Pi-sho-ye features until other factors arose to support trade. This can be explored in further research. The Pi-sho-ye case allows us to see that an institutional spectrum can have the Ma-yi case in one end and the Pi-sho-ye case in the other end. Chinese trade is most successful in the former while it is absent in the latter. In between is San-su--the weak third party enforcement polity.

However it is also important to note that other arrangements can arise and this can be a subject for further research investigations. In the historical record, indeed there are polities that engaged in trade but were also predatory. For instance, in Wang Ta-Yuan's 1349 work, trade with Sulu is described (Wu, 1959; Wang, 1964). In the Ming annals, no other Philippine chiefdom is featured more than Sulu (Scott, 1989). The Sulu seaport grew in importance as an international trade center with the Chinese. Beyer posited that following the Sulu rulers' visit to the Ming court in 1417, an iron coinage was indigenously produced in Sulu (Jocano, 1975). On the other hand, in 1368, Chinese records attribute to Sulu the attack on Borneo in an attempt to gain leverage in the China-spice trade. The attack was repelled by Java-stationed troops of Majapahit (Scott, 1989; Wang, 2008). Juxtaposing the accounts of trade with that of predatorial actions, demonstrates Sulu's predatorial capacity even while it also engages in trade.

## **Conclusion**

This essay attempted to show the different institutional arrangements that Chinese traders faced in pre-Hispanic Philippines, while accessing commercial opportunities that lay in the trade of luxury goods to the Philippines and amassing Filipino goods that were highly valued abroad. We began by analysing the two earliest detailed accounts of exchange relations between Chinese traders and early Filipinos and putting the observations into context with pre-Hispanic trade in the Philippines. Observing that trade endured in two different institutional contexts (i.e. strong and weak third party enforcement polities), we explained the motivations for trade and posit that the Chinese luxury trade was part of pre-Hispanic pre-state polities' efforts to build the power of their chiefdoms. We then structured the analysis of institutional arrangements and gains from trade by utilising a simple game-theoretic treatment which demonstrated the highest payoffs when the Chinese and early Filipinos respectively chose to trade with trust and abide in contracts in the context of a strong third party enforcement context viz. a weak third party enforcement scenario of San-su type polities. As a jump off

point for further research, we analysed the case of Pi-sho-ye, a raiding regime where trade was not observed.

## Endnote

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