

The limits of economic statecraft:  
RMB internationalization and the external security  
environment

Siyao Li\*      Aditi Sahasrabuddhe<sup>†</sup>      Scott Wingo<sup>‡</sup>

July 3, 2023

**Abstract**

Expanded use of the Chinese currency beyond China’s own borders is an important indication of China’s growing influence in global affairs. Contrary to earlier expectations however, China has only internationalized its currency, the renminbi (RMB), on a very limited scale. While this outcome is not altogether puzzling, we argue that the conventional wisdom on international reserve currencies has overlooked security considerations, namely security and military partnerships from the currency issuing state, and the external security environment as key factors in generating and strengthening support for international markets in its currency. We advance an historically informed argument of the security limits to RMB internationalization. We demonstrate that the deployment of China’s primary tool for currency internationalization—RMB swaps—is constrained by the dual exigencies of guaranteeing security for overseas economic interests in addition to domestic goals of maintaining domestic financial stability. We then show that RMB internationalization is influenced by both Chinese and US security alliances. We find that, counterintuitively, the growth of China’s military power and ability to back its economic interest seem to constrain its choice of BSA partners in regions closer to China given existing US military alliances.

---

\*Graduate School of Public and International Affairs, University of Pittsburgh. Email: [siyao.li@pitt.edu](mailto:siyao.li@pitt.edu)

<sup>†</sup>Department of Political Science, Brown University. Email: [aditi\\_s@brown.edu](mailto:aditi_s@brown.edu)

<sup>‡</sup>Center For Advanced China Research.

# 1 Introduction

Since the Global Financial Crisis (GFC), The People’s Bank of China (PBoC) has “steadily and prudently promoted the international use of the RMB, with the aim to advance the facilitation of cross-border trade and investment and serve the real economy with adequate cross-border settlement policies and infrastructure” (Chin, 2014; The People’s Bank of China, 2021, p. 3). A primary instrument for currency internationalization that the PBoC uses is the bilateral swap agreements (BSAs) in renminbi, with partner economies. Since 2009, China has entered into forty-one bilateral swap agreements (BSAs) with partner central banks across the world. These swaps have received a great deal of attention from scholars and policymakers, as they symbolize China’s growing role in the global financial system, its centrality as a provider of financial rescue mechanisms to several emerging and developing economies (Horn et al., 2023), and its financial policy agenda of renminbi (RMB) internationalization (Liao and McDowell, 2015).

Expanding the use of one’s currency comes with coveted political and financial benefits. In the economic and financial policy area, the use of one’s currency by others reduces transactions in foreign currencies and avoids foreign exchange volatility. It allows states to delay costly economic adjustments, and lowers the international costs of borrowing for the issuing states. Eichengreen, Hausmann, and Panizza (2007) label this burden of financing debt in foreign currencies the “original sin” of international capital markets, a burden that the issuing state of the predominant international currency is able to avoid. In addition, the issuer is able to gain international seigniorage revenue that allows for what Charles de Gaulle’s adviser, Jacques Rueff, famously called a “deficit without tears.” Moreover, as the issuer of the global reserve currency, the US can and regularly does engage in “currency statecraft” and flex its “monetary muscles” to exert influence on international affairs through monetary policy (Cohen, 2019; McDowell, 2023).

China’s push to internationalize its currency is often painted as an effort by China’s leadership to dethrone the US dollar from its position as the global reserve currency. It is thus geopolitically and geoeconomically salient. RMB internationalization can protect China from the vulnerabilities of being overly exposed to dollar-denominated assets, by promoting

and developing “more diversified and resilient export markets” (McNally and Gruin, 2017). It can also offer other countries seeking to be less dollar-dependent an alternative currency to engage in international transactions, or even offer them an alternative for global economic leadership more generally (Broz, Z. Zhang, and Wang, 2019). BSAs then, in principle, offer partner countries an alternative to the global dollar order as they promote RMB settlements in cross-border trade and direct investment.

Many have therefore anticipated that the RMB will soon occupy a central position in the reserve system, possibly even replacing the dollar as the top reserve currency (Subramanian, 2011; Prasad and Ye, 2012). This sentiment was spurred by the global financial crisis that some interpret as the decline of US relative power (Helleiner and Kirshner, 2014; Kirshner, 2014), as well as the growing concern that the extensive use of sanctions by the US might reduce governments’ willingness to hold US dollar reserve assets in the future (McDowell, 2023). The World Bank in 2011 predicted that “the dollar would lose its position as the unquestioned principal international currency by 2025, making way for an expanded international role for the euro and a burgeoning international role for the renminbi.”

But China’s efforts in promoting international use of the RMB to date have had at best mixed success. Indeed, RMB international use increased from near-zero before the GFC. And as of May 2023, the Society for Worldwide Interbank Financial Telecommunication (SWIFT, 2023) estimated that the RMB has retained its position as the fifth most active currency for global payments by value, with a share of 2.54% behind the U.S. dollar (42.6%), euro (31.7%), British pound (6.47%), and Japanese yen (3.11%). While this marks an increase from previous months, *all* payments currencies increased by 8.75% since April 2023. Even more, the RMB’s global performance is particularly lackluster when compared to China’s economic size and weight in international trade. China is the world’s second largest economic bloc by GDP, with \$17.73 trillion (aggregate output in current US dollars, as of 2021), behind only the US (\$23.3 trillion) and overtaking the Euro area (\$14.56 trillion).<sup>1</sup> The current share of RMB reported in global reserve portfolios is about 3% in comparison with 60% of global reserves denominated in dollars (Naef et al., 2022). Most offshore RMB activity remains concentrated in Hong Kong, a traditional entrepôt for commerce between mainland China

---

<sup>1</sup>World Bank, 2023.

and the outside world (SWIFT, 2023).<sup>2</sup>

Why has RMB internationalization not matched China’s economic rise despite its active pursuit of this goal? While this outcome is not entirely puzzling, it has important implications for geopolitics and geoeconomics. We suggest that the expansion of China’s currency internationalization is constrained by the dual exigencies of security considerations by China and its partners, in addition to domestic economic constraints (L. Zhang and Tao, 2015; McDowell, 2019). Domestically, China’s need for financial stability compels it to select currency internationalization instruments and locales where usage of the RMB can be isolated to more easily managed pockets. Externally, China’s unfavorable global position vis-à-vis the United States’ extensive network of security alliances and partnerships, and the threat of escalating US-China tension, mediates secondary states’ willingness to pivot away from the US. Our analysis focuses on the security constraints on RMB internationalization efforts, to complement the large literature on the domestic economic constraints on RMB internationalization.

We therefore contend that any analysis of the RMB’s ascendance on the international stage warrants incorporating the influence of China’s role in the current international security environment. Even more, the equation on military strength and monetary power would not be complete without consideration of China’s military strength in relation to that of the United States. We argue that China’s choices for BSA partners is influenced not only by its own economic goals and preferences, but how its partners perceive China’s global rise, and the current system of security arrangements, in particular, whether RMB swap partners in China’s neighborhood are US allies. We find that China’s choices for BSA partners decreases closer to its borders, where US allies are *more* concerned about the security threat that China poses in their region. China will have a larger number of potential swap partners in regions where it is more difficult for China to project its military power, and where U.S. allies are less concerned about the security implications of partnering with China on monetary initiatives.

To our knowledge, this is one of the first papers that empirically shows the security concerns that factor into counter-party states’ considerations as they enter into BSAs and take up non-dollar currency alternatives. We focus on the combined effect of China’s key tool

---

<sup>2</sup>Hong Kong accounted for 75.68% of RMB clearing activity in 2017.

for RMB internationalization—RMB swaps—and US and Chinese security partnerships, on China’s RMB internationalization efforts. Using a cross-national panel of China’s bilateral swap agreements (BSAs), we find that these agreements are constrained by the extensive network of US security alliances and partnerships, in their ability to generate support for RMB use in the global reserve system. They are further constrained by China’s external security environment (US-China tensions) and limited security partnerships, in addition to its domestic economic infrastructural constraints. We supplement our findings with insights from elite interviews with current and former central bank and financial ministry officials in neighboring East and Southeast Asian states. Our findings contribute to the study of interstate competition in international monetary affairs and highlights how secondary powers and small states can influence the scope of RMB internationalization.

Next, we review the literature on RMB internationalization. In part 3, we introduce our argument and hypotheses on the security constraints of China’s RMB swap program. In part 4 we describe the data and research design. We then present and discuss our findings in part 5 before we conclude.

## 2 Foundations of International Currencies

The economic conditions necessary for a currency’s internationalization are relatively undisputed. Broadly, three determinants of international currencies can be identified: First, confidence in a currency’s stable value. Stable domestic institutions, the rule of law, and central bank independence, backed by democratically elected governments that make the credible commitments are necessary to support these economic conditions (North and Weingast, 1989; Schultz and Weingast, 2003). Second is liquidity. In order to fulfil their various functions, international currencies’ need for large and liquid financial markets and confidence in the domestic banking system, open capital accounts and exchange rate flexibility, robust growth and labor-force productivity. The third determinant is that of extensive transactional networks of the issuing country to underpin the currency’s acceptability (Eichengreen, 2013; Helleiner, 2008). The more extensive these networks, the more likely it will be that other countries will use a currency for settlements international trade and investment, or as a

monetary anchor (Helleiner, 2008). The size and depth of US markets and the US economy, its political stability, and unmatched military provide confidence, liquidity and transactional networks that together sustain dollar centrality (Kirshner, 2008).

In contrast, RMB internationalization is undoubtedly constrained by China’s domestic political and economic infrastructure. These factors limit China’s scope to instill confidence in the RMB and its ability to provide currency liquidity, despite China’s extensive international trade and investment networks. Eichengreen and Kawai (2015) question whether China’s one-party rule can withstand liberalizing its capital account without undermining the existing political foundations of the Chinese economy. China’s capital account remains more closed than open, with significant legal barriers limiting international financial markets’ exposure to RMB-denominated assets. China requires special licenses to convert more than small amounts of RMB to other currencies, and efforts to internationalize the renminbi have constituted a series of exceptions to this rule rather than fundamental changes to it.

China’s relatively closed financial system is perpetuated in large part by the need to maintain financial stability domestically. China’s financial system is dominated by the “Big Four” state-owned banks, which engage in a policy of “financial repression,” or holding deposit interest rates below the rate of inflation in order to lend to preferred firms and local governments at favorable rates (Kroeber, 2016). Sustaining a supply of cheap credit is only possible with a relatively closed capital account in which local investors do not have unrestricted access to more lucrative foreign destinations in which to invest their savings (Cohen, 2015). The vulnerabilities in China’s domestic financial institutions limit the degree to which RMB transactions can be made liquid to foreign holders of the RMB. China’s lagging financial depth hinders confidence in the RMB’s long-term value (SWIFT, 2023). Consequently, RMB holders cannot confidently expect to be able to easily spend the money, unless to settle business with Chinese firms, as in the case of cross-border trade.<sup>3</sup> These policies have led to the accumulation of substantial internal debt, especially those owed by local governments to the central government or state-owned banks. However, because much of this debt is owed from one government organization to another, policymakers can simply choose to ignore it,

---

<sup>3</sup>China’s deposit interest rates are legally no longer controlled by the state. However, as in other countries, they are subject to central bank policy, and the People’s Bank of China has so far left interest rates at low levels. See Song (2017) for more discussion.

and in the event of local government default, China's large foreign exchange reserves are adequate to cover external debts and stave off a genuine crisis (Prasad, 2016, pp. 173–212).

## 2.1 The Security Foundations of International Currencies

We argue that economic and domestic political factors alone do not paint a full picture. After all, monetary regimes ultimately depend on configurations of power within the international political system (Gilpin, 1981; Kindleberger, 1973). This also includes the balance of military and security power. Before dollar hegemony, sterling sustained its hegemonic position through political dependencies with its colonies, that endured even after most of these former colonies gained independence (Strange, 1971). In addition to providing markets and liquidity to foreign countries, the key currency issuing state also generated broader acceptance of its currency through international political relations (Helleiner, 2008).

Using historical data from the late-nineteenth and early twentieth century, Eichengreen, Mehl, and Chițu (2019, p. 322) show that economic size, credibility, *and* military alliances boost the share of currencies of alliance partner's foreign reserves. Between 1890-1913, they find “a sizeable geopolitical or security premium in international currency choice” (Eichengreen, Mehl, and Chițu, 2019, p. 322). Indeed, sterling's decline was commensurate with slippage in Britain's power beginning with World War One, continuing through the late 1950s, as former colonies gained independence (Strange, 1971).

While the dollar had already made its way into global reserve holdings before 1945, its primacy was embedded by a range of post-war compromises and guarantees that determined the configurations of power in the international system. Alongside the Bretton Woods agreement to establish the gold-Dollar standard, the Marshall Plan also played a central role on post-war reconstruction and development, and created a demand for US commodities and consequently dollars in exchange for American reconstruction assistance and security guarantees in Western Europe and Japan. Zimmermann (2002) shows that in the 1960s, West Germany's support for the dollar was directly linked to its security relations with the US. Through the mid-century years, security guarantees, military support and aid through the Marshall Plan, the Mutual Security Pact, and eventually NATO, have continued to buttress US military hegemony and dollar centrality today.

In other words, military strength translates into a “security premium” in which US ability to maintain security in its homeland assures investors and increases their confidence in investing in the United States (Norrlof, 2010). As Cohen (2015, p. 12) notes:

At the private level, a militarily powerful nation can provide a ‘safe haven’ for nervous investors (James, 2009; Norrlof, 2010). A strong defense ensures a more secure investment climate. At the official level, currency preferences of governments may be influenced by broader foreign-policy ties—traditional patron-client linkages, informal security guarantees, or formal military alliances. Can it be an accident that with the conspicuous exception of the PRC, most of the big dollar holders around the world are all formal or informal allies of the United States? The greater the ability of an issuing state to project power beyond its borders, the more likely it is that others will feel comfortable using its money.

In that vein, the perception of the dollar as a safe haven currency is backed by the fact that the US has expanded global military strength to maintain security of its homeland, and to intervene in other countries to maintain political and economic stability and secure its own interests. Eichengreen (2011) also characterizes a quid pro quo in terms of US allies supporting the greenback in exchange for security assurances from the US.

## 2.2 Security Constraints of RMB Internationalization

China has been labeled a “partial power” (Shambaugh, 2013). Despite its pronounced economic power, its military capacity and ability to project military power globally is dwarfed by the United States. China has a single treaty ally, North Korea, while the United States has fifty-eight (Gibler, 2009); China has a single overseas military base in Djibouti, while as of 2017, the United States military maintains overseas posts in thirty-five countries and six territories (United States Department of Defense, 2017); China has two aircraft carriers, one of which is predominantly for training purposes; the United States has twelve, not counting nine more ships which are technically classified as “amphibious assault ships” but boast conspicuously flat decks with fighter jets aboard (United States Navy, 2018).<sup>4</sup> Kardon (2022) notes further that although China has developed increased great power-projection capability through its Navy’s increased global maritime access, its military footprint is limited by its

---

<sup>4</sup>For more on this controversy regarding the classification of “amphibious assault ships,” see Farley (2014).



continental geography, technological disadvantages of its current military basing, and the extensive network of American alliances and partnerships.

While the United States’ might is spread across the globe, China’s is concentrated in one region.<sup>5</sup> China’s strategy for naval expansion has been to focus on the near seas first and only incrementally to boost its power projection capabilities in further-away areas of interest such as Indian Ocean shipping lanes (Cole, 2012, pp. 176–78). Overall, the military power balance between China and United States is undoubtedly closer in East Asia than elsewhere, where the United States remains dominant.

Liao and McDowell (2016) argue that geopolitics explain a significant share of early demand for RMB reserves. China’s efforts to create an alternative to the US liberal order will attract followers whose preferences diverge from the US. Security ties and broader geopolitical considerations shape countries’ reserve currency choices; in contrast to earlier dollar challengers, China is the “first newcomer ... that can be seen as a potential adversary,” with the political authority to back a dollar rival (Helleiner and Kirshner, 2014; Liao and McDowell, 2016).

Building on this work, we advance an argument on the security foundations of international currencies, and the related limits to RMB internationalization. Because global reserve data are patchy, to evaluate the PBoC’s efforts towards RMB internationalization, we evaluate the scope of its RMB swap program in the context of both the global economic and security environments. We analyze how China’s options for swap partners is influenced by security considerations: namely, the extensive global network of US security guarantees and the security threat that China poses to “secondary powers” in its neighbourhood.<sup>6</sup> We show that these influences play out differently between states that rely on both rival powers, where choosing one partner would entail security and economic risks (Pempel, 2020), and those relatively insulated from the emergent superpower rivalry.

Specifically, we argue that countries’ willingness to commit to monetary instruments

---

<sup>5</sup>This has led to some debate about the precise nature of the military balance in the Western Pacific. For instance, Goldstein (2017) see asymmetric weapons such as conventional missiles, submarines, and sea mines as giving China the ability to compete with the United States in East Asia; others believe that talk of a Chinese ability to deny others access to seas in its neighborhood is premature (Christensen, 2015).

<sup>6</sup>We use “secondary powers” or “secondary states” to refer to small and medium states that are neither ‘great’ nor ‘superpowers’. They are differentiated from “small” or “weak” powers by their significant material capabilities that affords them a degree of agency in international politics (Wilkins, 2023, p. 95).

denominated in RMB vary greatly depending on both their distance from China as well as their geopolitical orientation, that is whether or not they are a US ally. The RMB swap network is also limited by regional security concerns, such as territorial disputes with China, as well as its limited network security cooperation partnerships. We do not imply that military alliances and security pacts uniquely *cause* countries to use economic or security partners' currencies. Rather, security partnerships and currency internationalization are inextricably linked and further embed the status quo in international monetary affairs.

### 3 Theory

A currency's international position is underwritten by both the economic power and military strength of a state. China's internationalization efforts gathered speed after the GFC. The decade that followed has seen both growing territorial disputes in the Indo-Pacific *and* increased security cooperation to its west, within a context of escalating rivalry between the US and China. In response to this emergent rivalry, Obama's pivot to Asia in 2012 "raised the US profile in Southeast Asia" to strengthen military ties and aid in the region. China has also similarly increased its presence in the region (Shambaugh, 2018).

This development has had important implications for secondary powers in the region. States such as Japan, Korea, or Singapore, continue to rely on the US for their security guarantees, but increasingly rely on China for their economic prosperity (Wilkins, 2023). They are also located in what today is the main theatre for increasing tensions and fears of conflict stemming out of US-China rivalry. How these states respond to China's expansive efforts, will influence the potential for RMB internationalization via the PBoC swap network.

China's neighboring countries perceive Chinese military power differently depending on their preexisting political and military alliances, while also balancing<sup>7</sup> their economic interests, on which they now rely increasingly on China. Although a US ally, a neutral, or China-leaning country may have similar assessments of the People's Liberation Army's (PLA) raw capabilities, they are likely to have very different perceptions of what that means for their own interests, especially regarding their own security.

---

<sup>7</sup>We do not use this in the international relations sense of the word.

A growing literature has emerged on how secondary states' are responding to the changing balance of power, especially in countries surrounding China's coastline, and the increasing US-China rivalry. The choices that these states make will influence China's foreign economic goals. Many secondary states such as Japan, Korea or Singapore, rely on US for their security, but increasingly on China economically. As of now, these states have retained the capacity and flexibility to cooperate with both major powers, and avoided having to choose between them (Chong, 2023; Pempel, 2020). Largely, secondary states near China have chosen a strategy of hedging, that has been the focus of a growing literature (Jones and Jenne, 2021). Hedging strategies are pursued in order to develop strong relations with rival great powers, protect against risks and uncertainties, and maintaining all options as long as possible.

Our argument offers added insights into how secondary states' hedging strategies might influence the scope of RMB internationalization, via their engagement with China's expansive monetary initiatives. In short, we argue that how secondary states respond to and influence China's RMB internationalization efforts will be shaped by whether these are allies of the US, their geographic distance from China, and their security relations with China. Specifically, US allies neighboring China will hedge between the rivals, but their economic engagement with China will depend on the security environment. Cooperation with This policy strategy will be contingent on stable relations with China. We speculate that in the event that tensions escalate, they will revert to their ties with the US and limit engagement with China. Non-US allies in the region who do not rely on the US for security guarantees will be less sensitive to the growing superpower rivalry with regards, and will more likely pivot towards China as it presents an attractive alternative to the global dollar order, because they cannot afford to stand up to Beijing, or both. US allies further away from China will be least concerned by the security threat and will also be attracted the non-dollar alternative that China presents. They will continue hedging between the two powers. These patterns will also be influenced by China's preferences to engage differently with US allies near and far. We elaborate on each part of our argument below.

To start, we expect that secondary states that are US allies will perceive China's growing military power as a threat to their own security. Traditional international relations theory tells us that these states will therefore seek to balance against China (Walt, 1987). This may

include avoiding monetary interdependence for fear of being left exposed in a crisis. Today, however, despite the security risk, these states rely more and more on China rather than the US for their economic prosperity, and have instead adopted a strategy of hedging.

Secondary states that are US allies will engage in a strategy of *contingent* hedging. That is, they will engage in cooperation with China through agreements such as RMB swaps as long as they enjoy stable relations with China. Secondary states that are US allies will also primarily rely on US security support and continue to cooperate with the US in economic affairs. As long as the US maintains a stable security presence in the region, such countries are likely to continue engaging in the quid pro quo of supporting the dollar in exchange for security assurances from the US, alongside economic engagement with China. However, when faced with real security threats, such as territorial disputes, or diplomatic disagreements with China, secondary states' security alliances with the US will prevail over economic cooperation with China. US allies in China's neighbourhood will choose to hedge between the rival powers, but prioritise economic and security ties with the US. Their willingness to enter a swap agreement with China will be mediated by the degree of their security concerns.

Non US allies will be more likely than US allies to perceive Chinese military power to be relatively benign. As Shambaugh (2018, pp. 97–98) notes, many smaller states have “moved into the Chinese orbit without fanfare” as they can no longer afford to stand up to Beijing on their own, and see the decision to tilt towards China as pragmatic. While regional allies will hedge against the risks of escalating US-China tensions, regional non-allies will pivot toward China. Many smaller Southeast Asian states have grown to view the US pivot to be “more hype than reality.” On the other hand, China offers them access to an alternative reserve currency and liquidity to settle cross-border transactions.

These dynamics change as one moves further away from China. For countries further away from China, Chinese military power is less present and less of a concern for both US allies and non-allies. Potential swap partners in these regions, for their part, are likely to feel less concerned with security dynamics in the Western Pacific. Many states further from China are also looking to diversify their reserve portfolios and settlement currencies away from the US dollar. RMB swaps present these countries with such an opportunity. These countries will similarly be more likely to diversify their monetary portfolio by joining China's

currency initiatives unencumbered by the additive need for continued ties with the US. For them, given the absence of the fear of superpower conflict, despite their ties with the US, RMB swaps present another source of accessing currency liquidity to meet their economic and financial needs. It also facilitates many states' growing wish for an alternative currency to diversify towards, thus decreasing the burdens of dollar dependence.

There are, of course, two sides to this story. China, for its part, may also be wary of greater engagement with neighbors that are allied with the US, or at the very least see monetary initiatives as a potential bargaining chip in influencing security balance in the region. For example, in 2017, China allowed its bilateral currency swap (BSA) with US-allied South Korea to expire for one week during a diplomatic row over THAAD (Terminal High Altitude Area Defense), an American-built missile defense system. However, non-US allies in turn, present China with the opportunity to expand its regional orbit. In these countries, China will not be deterred by the threat of US security interference to the same degree as it would be in its engagement with US allies. China will therefore be more likely to increase monetary engagement to literally capitalize on the absence of a strong US security presence among non-US allies.

Moreover, further away from China, China will also be less deterred by US alliances and its security presence. In fact, China may also be less likely to regard US security presence in these countries as a threat to its regional political and security aspirations. American security guarantees in regions such as Europe and Latin America may well be net positives for China, which has economic interests in these areas but little military presence there. Rather, in regions further away from China, the security alliances and military presence provided by the United States provide public goods of stability and security, and China is thus more comfortable partnering with currencies in these regions.

All in all, countries' willingness to commit to monetary instruments denominated in the RMB vary greatly depending on both distance from China and geopolitical orientation. This was the logic behind leading Chinese international relations scholar Wang Jisi's 2012 article "Go West," which establishes the maintenance of stability in areas to the west of China as an area of common interest with the United States, as opposed to a more confrontational relationship in East Asia. In other words, China feels uncomfortable making financial com-

mitments to American allies in its own neighborhood, where geopolitical tension is a fact of life, but actually benefits from American security guarantees in further-flung regions where China is less geopolitically involved.

### 3.1 Bilateral Swap Agreements

We test and illustrate our arguments through an analysis of the economic and political—namely the security—determinants of the PBoC’s currency swap network. The RMB swap program is a key component of China’s broader strategy to increase RMB use in trade and investment and build confidence in the RMB. Through these bilateral swap agreements, China provides RMB liquidity to its partner central banks. Bilateral swap agreements have been promoted since 2008 as part of China’s RMB internationalization strategy, and is an embodiment of China’s ambitions to rival the US in the international monetary order (Liao and McDowell, 2015; F. Zhang et al., 2017).

Until 2009, PBoC swap agreements were only made through Chiang Mai Initiative [Multilateralization] (CMIM), and primarily denominated in U.S. dollars. Since 2009, however, China has signed a series of BSAs denominated in renminbi, serving the dual purpose of providing liquidity to foreign countries and promoting its international use (Brummer, 2017, p. 476) and has signed forty-one agreements with partner economies.<sup>8</sup> RMB swaps bypass the dollar and authorize a temporary exchange between central banks of renminbi for the counterparty’s currency to promote liquidity. Companies can access renminbi at their local banks, thus facilitating trade transactions with its partners and alleviating the possibility of a crunch for foreign currency. The total value of the agreements are also non-trivial, amounting to \$554 billion in RMB as of the end of 2022.

China’s BSAs have steadily expanded to countries of different regions from 2009 through 2020 (see Figure 1). With a few significant exceptions, China’s earliest BSAs were concentrated in its neighborhood, and have since been regionally diversified. Past studies of China’s bilateral swap agreements have taken note of this fact and have tended to attribute it to the centrality of trade facilitation to China’s BSAs.<sup>9</sup>

García-Herrero and Xia (2013) show that trade factors are important determinants for

---

<sup>8</sup>China’s bilateral currency swap agreements are usually signed for a duration of three years. All of the

Figure 1: People’s Bank of China Bilateral Swap Agreements by Year of Initial Signature, 2009-2020



*Note:* Data from McDowell, 2023. Note that the ECB’s swap since 2013 is not reflected in this figure.

China’s choice of BSA partners, but that investment interests are not. Pushing back against a tendency to attribute all decision-making to China, Liao and McDowell (2015) find that partner countries’ degree of trade dependence on China is a more important driver of swap agreements than is China’s trade dependence on partners. Lin, Zhan, and Cheung (2016) find that countries that have strategic partnership and free trade agreements with China are more likely to enter into swap agreements. While we recognize that facilitating trade and boosting liquidity are key reasons for signing swaps, the modest extent to which BSAs have done so reflects limitations to renminbi internationalization. One useful contrast to illustrate this is the fact that China has the largest number of BSAs of any country in the world (forty-one as of the end of 2022), suggesting the intent to promote currency usage; however, only about US \$5 billion have been drawn from the agreements, in comparison to \$583 billion drawn from the US Federal Reserve’s swap lines (Steil and Walker, 2015).

---

swaps up for renewal have been renewed, sometimes after a short period of delay.

<sup>9</sup>The primary use of the RMB in international markets has been in trade with China. The RMB is used in less than 3% of worldwide cross-border transactions, but about 30% of China’s cross-border trade transactions are now denominated and settled in RMB (Prasad, 2016).

## 3.2 RMB Swaps and the Security Environment

To quantitatively test the observable implications of our theory, we choose to focus on this particular instrument that is used to facilitate RMB internationalization—the PBoC’s bilateral currency swap program—that is a key component of the RMB’s overall internationalization strategy through China’s trade relationships (The People’s Bank of China, 2021; Liao and McDowell, 2015; Prasad, 2016). While central bank swaps from different providers operate differently to serve different purposes, studies find that geopolitical ties and motivations influence central banks’ selection of swap recipients: diplomatic pursuits and disputes can influence a states’ likelihood of receiving a swap, and issuing central banks may use these instruments as leverage over their counterparts (Sahasrabuddhe, 2019; Vaughn, 2020). RMB swaps in particular have been deployed intentionally to advance China’s geopolitical, economic and financial aims (Armijo and Katada, 2015; Subacchi, 2017; Prasad, 2016; McDowell, 2019). While this monetary instrument has been regarded as one of the most convincing displays of RMB strength (Liao and McDowell, 2015), we instead analyze it to illustrate the limitations of RMB internationalization, building on McDowell (2019), to show how military and security factors also constrain China’s economic statecraft.

Previous explanations of patterns in bilateral currency swaps agreements (BSAs) signed by China with its trading partners are incomplete because they overlook an important empirical puzzle on part of BSAs: if BSAs are signed due to intensive trade with China and are viewed as instruments of cooperation that reduce barriers to trade (Liao and McDowell, 2015), why is it the case that few of these BSAs have actually been utilized by China’s partner countries in trading with China?

## 3.3 Hypotheses

We bring together the security foundations of international currencies and China’s currency goals through the RMB swap network to show the geopolitical limits of RMB internationalization. We focus on membership in the United States’ network of security alliances as the main indicator of whether or not states view China’s military strength as a threat. Figure 2 shows US allies and non-US allies separately, with the countries that have signed swaps with



China in a darker color (black). We use a measure of American security commitments that comprises of both formal alliances and “major non-NATO allies” (MNNAs), a Congressional designation which authorizes certain types of arms transfers and defense cooperation with or without a formal treaty (22 USC § 2321k, [1996](#)).

While the United States’ treaty allies are concentrated in the Western Hemisphere and Europe due to the post-World War II formal institutionalization of security commitments in these regions, the MNNAs are significantly tilted towards Middle Eastern countries and better represent United States military activity in the contemporary era (Tertrais, [2004](#)). The graphic pattern largely conforms to our theoretical expectations. US allies that have signed swaps with China tend to be outside of China’s immediate sphere of geopolitical influence. For countries not allied with the US however, BSAs with China are more appealing in regions closer to China where China can project its military power and back its currency. This leads to our first two hypotheses:

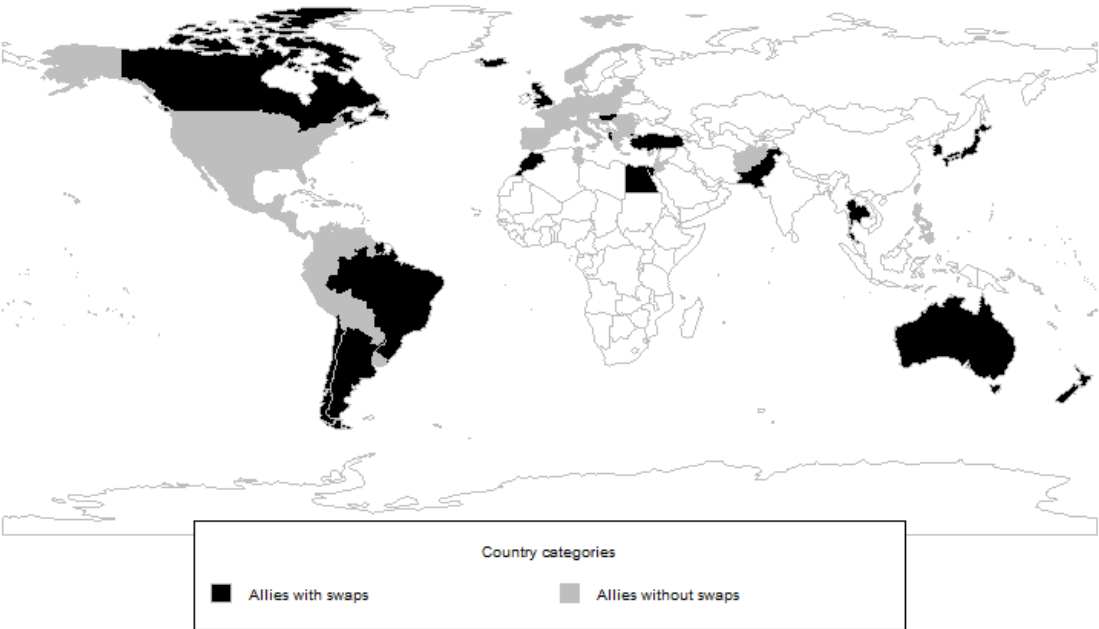
**H1:** United States allies are less likely to sign bilateral swap agreements with China.

**H1a:** The deterrent effect of an alliance with the United States on bilateral swap agreements with China will decrease with distance from China.

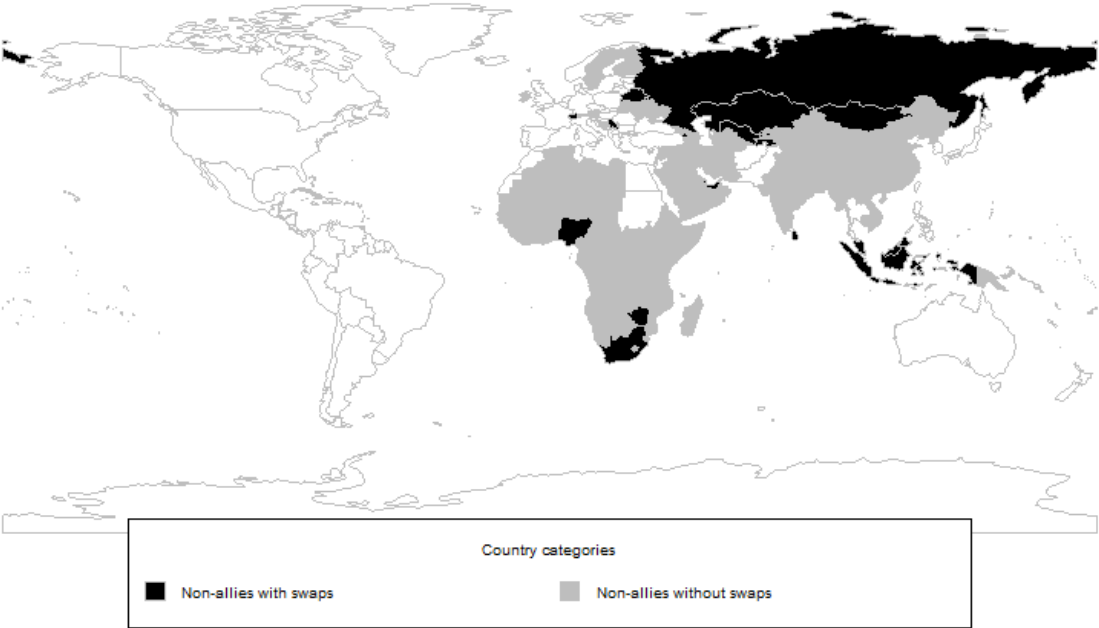
Our analysis also highlights the positive effect of security ties on currency internationalization. As discussed above, security guarantees and partnerships have been found to offer a quid pro quo in terms of reserve issuer’s allies supporting the international use of their currency in exchange for security assurances from the US (Eichengreen, Mehl, and Chitu, [2019](#)). Geopolitical ties and affinities among states, especially those more visibly opposed to the US-led order, underpinned by both economic and security considerations, will generate increased support for China’s emerging alternative. Given the absence of Chinese formal military allies, barring North Korea, we refer to states with bilateral or multilateral military exercises and security partnerships with China as “security partners.” We evaluate the impact of the geopolitics of the RMB swap network on China’s financial goal of RMB internationalization. As discussed earlier, despite China’s expansive efforts at securing economic and political ties across the globe, it it faces an uphill battle of dis-embedding the US-led status

Figure 2: People’s Bank of China Bilateral Swap Agreements by US Ally Type

(a) US allies



(b) Countries not allied with the United States



*Note:* Data from McDowell, 2023. The figures reflect US alliance relationships in 2020. Countries are considered “with swaps” if they signed a swap with China at any time by 2020. Note that the ECB’s swap since 2013 is not reflected in this figure.

quo. The limited reach of China’s security partnerships, and its engagement in territorial disputes with neighboring countries, vis-a-vis the extensive and established network of US security alliances, will inhibit the international use of its currency. This leads to our next two hypotheses:

**H2:** States with military and security ties with China are more likely to sign bilateral swap agreements with China than other countries.

**H2a:** States engaged in a territorial dispute with China are less likely to sign bilateral swap agreements with China than other countries.

## 4 Data and Methods

Below, we describe our data and methods to evaluate our argument. Our dataset covers 195 countries from the onset of the financial crisis in 2007 to 2020.

### 4.1 Dependent Variables

We use a country-year panel dataset with China’s bilateral swap agreements as the primary dependent variable. Our dependent variable is China’s bilateral swap agreements. Data on swap agreements is taken from McDowell (2023),<sup>10</sup> and is based on the People’s Bank of China’s RMB Internationalization Reports as well as external media reports. In the final year within our sample, 2020, 23 countries have bilateral swap agreements with China. This includes developing countries such as Indonesia, Albania, and Qatar, as well as developed economies such as Australia, United Kingdom, and Switzerland. Table 1 shows China’s bilateral swap agreements and the initial signing dates as reflected in People’s Bank of China’s RMB Internationalization reports (The People’s Bank of China, 2021).

In our estimations, we omit country-years during which the country in question diplomat-

---

<sup>10</sup>We thank Daniel McDowell for generously sharing these data with us.

Table 1: China’s Bilateral Local Currency Swap Agreements, as of December 31, 2020

<b>Partner</b>	<b>Initial Signing Date</b>
Hong Kong	January 20, 2009
Malaysia	February 8, 2009
Belarus	March 11, 2009
Indonesia	March 23, 2009
Argentina	April 2, 2009
South Korea	April 20, 2009
Iceland	June 9, 2010
Singapore	July 23, 2010
New Zealand	April 18, 2011
Uzbekistan	April 19, 2011
Mongolia	May 6, 2011
Kazakhstan	June 13, 2011
Thailand	December 22, 2011
Pakistan	December 23, 2011
United Arab Emirates	January 17, 2012
Turkey	February 21, 2012
Australia	March 22, 2012
Ukraine	June 26, 2012
Brazil	March 26, 2013
United Kingdom	June 22, 2013
Hungary	September 9, 2013
Albania	September 12, 2013
European Central Bank	October 8, 2013
Switzerland	July 21, 2014
Sri Lanka	September 16, 2014
Russia	October 13, 2014
Qatar	November 3, 2014
Canada	November 8, 2014
Suriname	March 18, 2015
Armenia	March 25, 2015
South Africa	April 10, 2015
Chile	May 25, 2015
Tajikistan	September 3, 2015
Morocco	May 11, 2016
Serbia	June 17, 2016
Egypt	December 6, 2016
Iceland	December 21, 2016
New Zealand	May 19, 2017
Nigeria	April 27, 2018
Japan	October 26, 2018
Laos	May 20, 2020

ically recognizes Taiwan.<sup>11,12</sup> We also omit non-sovereign dependencies from the sample.<sup>13</sup> Because swap agreements are signed between central banks and not national governments per se, we weight eurozone country observations to combine them into a single unit as the European Central Bank.<sup>14</sup> For variables such as the UN ideal point where countries have equal weight, we take the average among eurozone countries as the value for the ECB, and for variables such as capital account openness and government effectiveness, we take the GDP-weighted mean scores among eurozone countries.<sup>15,16</sup> Weighting countries by GDP better replicates the incentives faced by policymakers, who are more likely to pay attention to governance in countries with larger shares of eurozone output. For variables such as trade with China and GDP, we take the aggregate sum of eurozone countries. We also subtract intra-eurozone trade from trade dependency measures for the ECB to better compare the Eurozone’s external trade dependency with that of nation-states.

## 4.2 Independent Variables

The primary independent variable of interest is countries’ alliance with the United States. We include both formal alliances and “major non-NATO allies” (MNNAs). “Major non-NATO US allies” is a congressional designation that is an important part of American security commitments in an era with few formal arrangements. In the contemporary era, formal

---

<sup>11</sup>Beijing as a matter of policy does not sign official agreements with countries that maintain relations with the government in Taipei, and no BSAs have to date been signed between the People’s Bank of China and a central bank whose national government recognizes Taiwan.

<sup>12</sup>Country-years in which countries switch recognition are included in the sample, since these years are often marked by a flurry of inducements and aid packages from both sides of the Taiwan Strait.

<sup>13</sup>Only one dependency, Hong Kong, has signed a bilateral swap agreement with China. As the primary conduit between onshore and offshore renminbi trading, Hong Kong is crucial to the renminbi’s international use, but is an atypical case in that it has limited autonomy from the Chinese government.

<sup>14</sup>The European Central Bank (ECB) oversees the monetary policy of the nineteen states which use the euro. It is the second-largest currency bloc in the world, and the largest with which the People’s Bank of China has signed a bilateral swap agreement.

<sup>15</sup>For each year in the sample, GDP-weighted mean scores were calculated according to the formula:

$$\sum_{i=1}^{n_t} \left( \frac{GDP_{it}}{\sum_{i=1}^{n_t} GDP_{it}} \times Variable_{it} \right)$$

<sup>16</sup>Many European Union institutions are headquartered in Brussels, and we use data for Belgium to approximate distance to the eurozone. This provides a reasonable approximation of an economic center of gravity between the twin giants of France and Germany.

treaty alliances are less common and are typically more informal arrangements such as those surrounding military exercises and arms transfers (Tertrais, 2004). Introduced in 1989 as a legal mechanism for the authorization of aid and arms transfers, MNNA has grown from designated to six countries to nineteen. Six of these countries—Argentina, Australia, Japan, Pakistan, the Philippines, and South Korea—already had alliance treaties with the United States, but the rest do not. Our US alliance variable is therefore a binary variable based on the *Correlates of War* project’s “Formal Alliances” dataset (Gibler, 2009) supplemented with “major non-NATO allies” (MNNAs).<sup>17</sup> Country-years were coded as 1 if the country was allied with the United States for any part of the year in question.

We also include measures for security relationships with China in our analysis, including Shanghai Cooperation Organization (SCO) membership and territorial disputes with China. Following Liao and McDowell (2015), we include SCO membership as the closest approximation to a “Chinese alliance” variable. The SCO is a regional security initiative which includes China, Russia, India, Pakistan, and the former Soviet republics of Central Asia, with the exception of Turkmenistan. China has no firm security commitments to these states, but participates in counterterrorism and other defense cooperation with them. China has ongoing territorial disputes with Brunei, Bhutan, India, Japan, Malaysia, the Philippines, Taiwan, and Vietnam. These disputes are invariably between China and nearby countries and will influence these countries’ perceptions of their large neighbor’s military capabilities as well as their assessments of broader diplomatic relationships with China (Fravel, 2005), leading them to be less likely to sign a BSA with China. The territorial dispute variable is a binary based on Fravel (2005), with a modification made to reflect the 2011 formal end to China and Tajikistan’s boundary dispute.<sup>18</sup>

We include a set of control variables for political and economic relationships between China and other countries. We control for political relationships using the United Nations

---

<sup>17</sup>The *Correlates of War* data is updated to include Albania’s and Croatia’s 2009 accession to the North Atlantic Treaty Organization (NATO), as well as Mexico’s (2004), Bolivia’s (2014), Nicaragua’s (2014), and Venezuela’s (2015) departures from the Rio Pact (North Atlantic Treaty Organization, 2009; Organization of American States, 2018).

<sup>18</sup>The years 2007-2010 are coded as 1 for Tajikistan, but the year 2011 itself is coded as 0, since the Tajikistani parliament’s January 2011 decision to ratify the agreement to end the border dispute presented an opportunity in that year for further diplomatic agreements in areas such as finance. See BBC News (2011).

ideal point data and regime type data. The United Nations ideal point data come from Bailey, Strezhnev, and Voeten (2017), who construct an index of political affinity to the liberal world order based on United Nations voting records. We use these data to construct an ideal point distance measure between the partner country and China. For regime type, we use the Polity score from The Center for Systemic Peace’s Polity IV Annual Time-Series that codes country regime types from hereditary monarchies to consolidated democracies.

We control for economic relationships using Chiang Mai Initiative membership, international trade data, and oil production. We include Chiang Mai Initiative (CMI) membership to account for the possibility that countries cooperating with China in the Chiang Mai Initiative are more likely to cooperate further through bilateral swaps. The Initiative establishes currency swaps among ASEAN countries, Japan, China, South Korea, and the Hong Kong Special Administrative Region following the Asian Financial Crisis. The measure is a time-variant dummy variable that records the years that respective states have active swap agreements with one another.<sup>19</sup> Using trade data from United Nations Conference on Trade and Development (2017), we measure China’s trade dependence on partner countries as the total trade volume between China and the country in a given year divided by China’s total trade with all countries in that year. We measure partner trade dependency on China based on the same formula: the partner country’s total trade with China in a given year divided by the partner country’s total trade in that year. Trade dependency data is logged to account for positive skew. To control for the role of energy security in China’s foreign economic policy, we also include data on oil production in thousands of barrels per day from the United States Energy Information Administration (2017). Oil production data is transformed according to the formula  $\ln(Oil + 1)$  to account for positive skew without losing a large number of observations with a value of zero.

Two variables that account for alternative explanations of currency cooperation are capital account openness and government effectiveness. Data on the former comes from Chinn and Ito (2006), who construct a state-level measure of financial openness based on an index

---

<sup>19</sup>The ASEAN+3 (Japan, South Korea, China) entered into bilateral currency swap agreements under the Chiang Mai Agreement in 2000. The Chiang Mai Initiative Multilateralization established a multilateral agreement in 2010 with the addition of Hong Kong. China’s CMI swap with Japan expired in 2013 and was not renewed until 2018.

of various laws and regulations related to capital mobility. The latter is measured using the Worldwide Governance Indicator for government effectiveness (Kaufmann and Kraay, 2017). This was selected as a strong proxy for a state’s ability to manage the economy, prevent financial instability, and (where applicable) implement capital controls.

We include traditional gravity model variables of gross domestic product (GDP) and distance. GDP data come from the World Bank’s *World Development Indicators* and are logged to account for positive skew. Distance data come from CEPII’s 2017 *GeoDist* dataset. We use CEPII’s *distw* variable, which measures distance between most important cities/agglomerations in terms of population. This distance variable is also used to assess the hypothesized interactive effect between alliance with the United States and distance from China.

### 4.3 Research Design

We use logistic regressions to model swap agreements with China as binary outcomes. Given the number of countries that have not signed swaps with China, our models face issues of near-complete separation, especially with respect to relatively time-invariant variables such as US alliance and geographic location. To prevent over-fitting due to near-complete separation, we use Firth’s (1993) method of penalized maximum likelihood estimation. This method penalizes coefficients toward zero based on the risk of over-fitting due to near-complete separation and small sample size. Heinze and Schemper (2002) find it to be less biased than exact logistic regression in small samples. Leitgöb (2013) uses Monte Carlo simulations to demonstrate that in more extreme cases of near-perfect prediction and when working with smaller samples, Firth’s penalized maximum likelihood method is more effective in dealing with bias than King and Zeng’s 2001 more widely used rare events method.<sup>20</sup> We also lag variables that vary year-by-year to avoid post-treatment bias in our control variables.

Our data also contains significant trends over time. The People’s Bank of China’s BSAs are signed in three-year increments and could technically be allowed to lapse after three

---

<sup>20</sup>King and Zeng’s rare events method as implemented in R’s Zelig package frequently either did not converge for our models or yielded coefficients in the tens of thousands. Results are available from the authors upon request.



years, but this happens very infrequently, such as with Belarus’s agreement allowed to lapse in 2012, and Uzbekistan’s in 2014 (Lin, Zhan, and Cheung, 2016). Carter and Signorino (2010) find that the inclusion of a cubic time polynomial in a binary response model of panel data approximates a survival model. Because almost all PBoC BSAs to date have been extended indefinitely, our data has some properties similar to that of survival data. Following Carter and Signorino (2010), we add an integer variable for “time” coded as 1 for the first year in the sample set, and two more variables for the squared and cubed values.

## 5 Results and Discussion

Table 2 presents main results on our hypotheses. The coefficients shown in the table represent the change in the log-odds of signing a bilateral swap with China for a one-unit change in the predictor variable, while holding all other predictors constant. The results provide evidence for our theoretical expectations. Before an interactive term between alliance and distance is included, the association between alliance with the US and PBoC BSAs is actually positive (column 1), seemingly contradicting H1, that United States allies would be less likely to sign bilateral swap agreements with China. However, the inclusion of the alliance-distance interactive term in column (2) tells a different story. When this term is included, we find that alliance with the United States decreases the probability of signing a swap with China, but that US allies further away from China are more likely to sign BSAs with China. These results provide support for H1 and H1a.

Figure 3 visualizes the marginal effect of distance from China on the probability of US allied countries signing a swap with China as according to the model in column (2) of Table 2. The contingent effect of a formal US alliance is projected to reach zero at 4,590 km; for reference, the US allied country with distance from China closest to this value is Afghanistan, a Major Non-NATO Ally from 2012 to 2022. The interaction effect becomes unambiguously positive at the 95% level of confidence at 6,270 km, approximately the distance of Bahrain to China, a Major Non-NATO Ally since 2002.

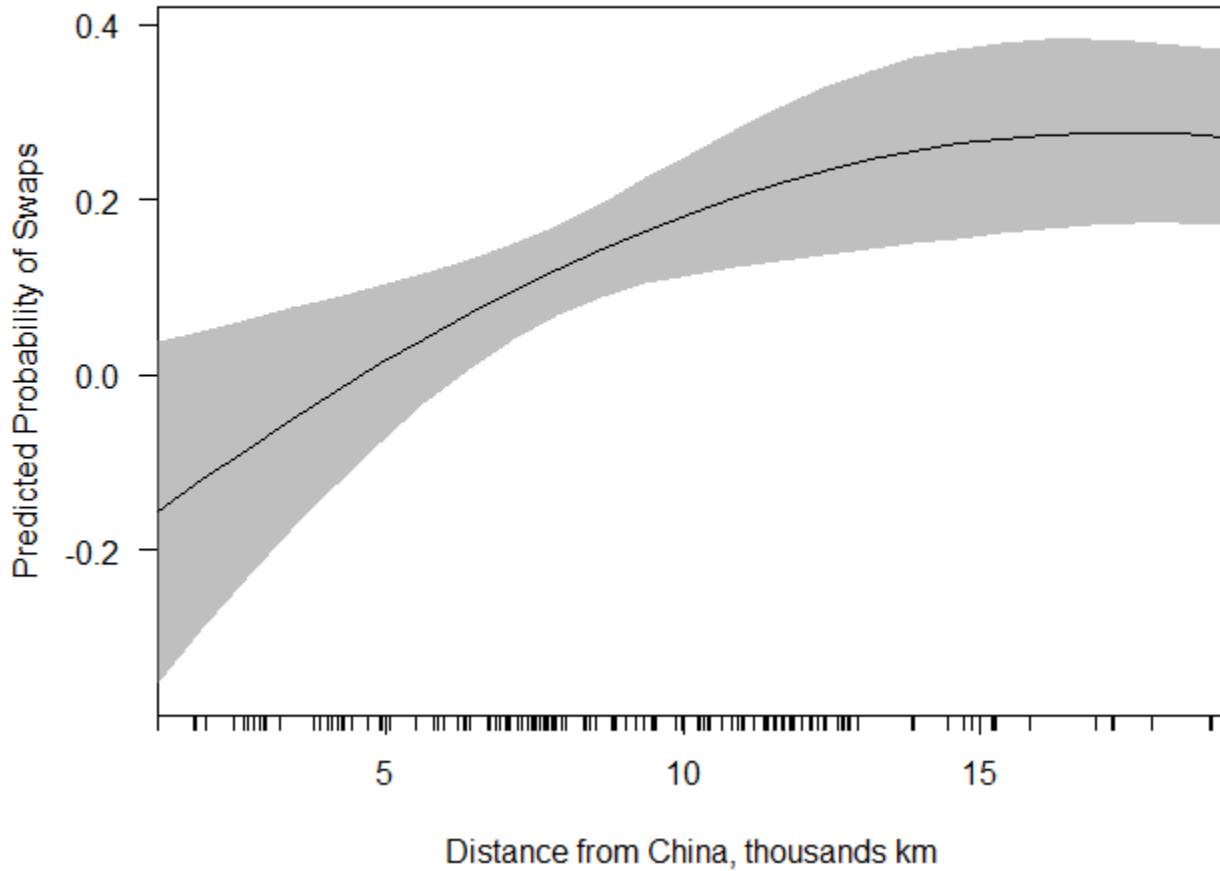
Table 2: Explanations of Chinese currency swaps

	(1)	(2)
US ally (all)	1.366*** (0.312)	-1.935* (1.062)
Distance from China	-0.129*** (0.032)	-0.140*** (0.033)
US ally $\times$ Distance from China		0.421*** (0.133)
SCO membership	1.336*** (0.389)	1.312*** (0.392)
Territorial dispute with China	-2.460*** (0.457)	-2.693*** (0.466)
Capital account openness	-0.272*** (0.093)	-0.265*** (0.093)
Government effectiveness	1.206*** (0.184)	1.174*** (0.185)
China's trade dependency (log)	-4.315 (6.406)	-3.362 (6.482)
Trade dependency on China (log)	4.128*** (1.221)	3.818*** (1.242)
Ideal point distance from China	-1.026*** (0.197)	-1.062*** (0.201)
Polity score	0.066*** (0.019)	0.071*** (0.019)
Chiang Mai membership	1.348*** (0.385)	1.590*** (0.393)
Oil production (log)	0.109** (0.052)	0.142*** (0.054)
GDP (log)	0.412*** (0.107)	0.383*** (0.108)
Time (2007=1)	1.033 (0.655)	0.959 (0.650)
Time <sup>2</sup>	-0.040 (0.087)	-0.030 (0.087)
Time <sup>3</sup>	-0.001 (0.004)	-0.001 (0.004)
Constant	-16.599*** (2.976)	-15.743*** (2.982)
Observations	1,395	1,395
Log Likelihood	-363.648	-358.940
Akaike Inf. Crit.	761.297	753.879

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Figure 3: Predicted probability of US allies signing Chinese currency swap given distance from China



*Notes:* Predicted probability of signing currency swaps with China for an average US ally, given its distance from China in terms of thousands of kilometers (km). The shaded area denotes the 95% confidence interval. The rug plot on the x-axis shows the distribution of data points.

We also find evidence for our two hypotheses on China’s security relationships. States with military and security partnerships with China, as measured by membership in the Shanghai Cooperation Organization, are more likely to sign bilateral swap agreements with China. Converting the log-odds coefficient to probability and holding all other predictors constant, being a SCO member increases the probability of signing swaps with China by

75.6%. Similarly, holding all other predictors constant, having a territorial dispute with China decreases the probability of signing swaps with China by 6.3%.

Although our model cannot capture the direct effect of dispute onset on secondary states' hedging practices, we do this using brief qualitative examples to illustrate this pattern. Our quantitative evidence for our hypotheses is also supported by qualitative accounts from elite interviews<sup>21</sup> with policymakers in RMB swap partner economies, as well as recent cases that provide additional evidence on the role of security considerations in monetary cooperation with China. For example, when RMB swap lines were arranged through the Chiang Mai initiative swaps, on separate occasions, both the Philippines and Japan did not renew a swap with China due to territorial disputes.<sup>22</sup>

The case of Japan's swap with China in 2018 serves to illustrate how BSAs signed by China are not simply monetary instruments designed to weather illiquidity, but political instruments not independent of geopolitics and of great power dynamics. Japan for example, had not signed a bilateral currency swap with China outside of the multilateral Chiang Mai agreement while its alliance with the United States was robust. A bilateral currency swap was signed in 2018 however, after US-Japanese relationship faced fractures and Sino-Japanese relationship warmed up on the converse. As US support for the Asia Pacific economy and security waned, Japan reached agreement on a local currency swaps with China that bypassed the dollar.<sup>23</sup> <sup>24</sup> Before this, Japan and China had not reached an agreement on a bilateral swap that is denominated in local currencies due to general strategic distrust fueled by issues such as territorial dispute over the Senkaku Islands.<sup>25</sup> The *Global Times*, a semi-official outlet of the Chinese government, read great significance into the event, posting a news report online titled "Revived Beijing-Tokyo currency swap could be key to ending US dollar's domination."<sup>26</sup> The *South China Morning Post*, a reputable English-language

---

<sup>21</sup>IRB exemption was received from Brandeis University in November 2022.

<sup>22</sup>Source: Lee C. Chipongian. "China, PH revive talks on BSA." *Manila Bulletin*. May 7, 2018, and "Japan, China to resume currency swap agreement." *The Mainichi*. October 20, 2018.

<sup>23</sup>The previous two-way currency swap between China and Japan was signed under the Chiang Mai initiative in 2002.

<sup>24</sup>*CNBC*. Oct. 26, 2018. "China, Japan sign bilateral currency swap deal of up to \$30 billion."

<sup>25</sup>Tetsushi Kajimoto. October 26, 2018. "China-Japan sign three-year FX swap deal to strengthen financial stability, business activity." *Reuters*.

<sup>26</sup>Xiao Xin. October 21, 2018. "Revived Beijing-Tokyo currency swap could be key to ending US dollar's domination." *Global Times*.

news source based in Hong Kong, ran a headline titled “China and Japan sign US\$29 billion currency swap to forge closer ties.” However, more recently, with tensions in East Asia on the rise, countries in the region—Japan, South Korea, and Taiwan—have *increased* their holdings of US dollar assets.

These accounts were corroborated by policymakers in ministries of finance and central banks in Japan, Singapore, and Indonesia. These interviews were conducted between January and May 2023 by one co-author of this project.<sup>27</sup> While these interviews are limited in their number (5) and representativeness, they highlighted important political concerns underlying the swap arrangements with China. One former central banker in Japan talked of the influence of the territorial dispute with China as a major hurdle to pursuing stronger economic and financial relations with China until 2018. Given Japan’s proximity to China and its history of conflict in the region, Japan’s engagement with China is significantly determined by its relations with Beijing at a given time.<sup>28</sup> Similarly, one current policymaker at the Monetary Authority of Singapore (MAS), Singapore’s central bank, noted their tenuous position in the region, as a small city state with deep economic and financial ties with both the US and China, but also strong security ties with the US. These security ties are especially important given Singapore’s fears of the threat of a US-China conflict in its backyard. As such, Singapore continues to lean heavily on US security support and also on the dollar anchor, while engaging with China in the trade and monetary spheres in peacetime.<sup>29</sup>

The case of Indonesia is different in that unlike Japan or Singapore, Indonesia has no formal alliance or partnership with the US. As such, Indonesia’s position vis-a-vis China’s might and history of conflict in the region is less contingent on perceptions of a security threat. Recently, ASEAN states, which includes Indonesia, have sought to resolve disputes in the South China Sea and the development of a “code of conduct” to set norms in the region to prevent a clash in disputed waters (Karmini, 2023; Yeo, 2023). While Indonesia has expressed opposition to China’s claims over the norther parts of the Natuna Islands, it has not actively challenged China’s territorial and maritime claims along with its ASEAN

---

<sup>27</sup>Other co-authors do not have access to interview notes as IRB exemption was only received for one researcher for this project.

<sup>28</sup>Interview, Bank of Japan (former).

<sup>29</sup>Interview, Monetary Authority of Singapore.

counterparts. Both parties, despite disagreements and unyielding positions on security and territorial issues, as well as on religious grounds, remain committed to deepening security ties. Indeed, China plays a central role in helping small states in the region generate economic prosperity, and also relies on its neighbours' mutual trust over security concerns (Zou, 2023).

In an interview, a former official of the Ministry of Finance in Indonesia talked of the importance of keeping in China's good books and maintain and strengthening economic ties, despite concerns among the Indonesian public of China's growing influence in the region and tensions between ethnic Chinese expats and Indonesian Muslims within Indonesia. As such, Indonesia's swap with the PBoC had to be very carefully announced when it was first signed, to get the politics right.<sup>30</sup> While the question of ethnicity and economic cooperation is not the focus of our paper, it is interesting also that an MAS official also noted that ethnic ties between Singapore and China help generate support for increased engagement and cooperation in trade and finance between the two states.<sup>31</sup>

## 6 Conclusion

Historical precedent and existing theory would indicate that large, rising powers will want to internationalize their currencies. This paper shows that despite this goal and extensive policy efforts to achieve it, doing so in a system where one currency is so deeply entrenched as the global anchor, rising powers will face significant limits in meeting their aims. Even more, these limits are not only sourced in the domestic economic and political systems of rising powers, but in the broader international economic and security environment in which they operate. Specifically, the case of China's efforts in internationalizing the RMB demonstrates the obstacles faced by an emerging market economy with limited military projection capabilities and domestic financial stability concerns in challenging a monetary order led by an established power.

The financial crisis prompted critical reflection of America's espoused practices and brought in "a new heterogeneity of thinking" in which states are more inclined to seek ways of

---

<sup>30</sup>Interview, Ministry of Finance in Indonesia (former).

<sup>31</sup>Interview, Monetary Authority of Singapore.

managing international finance that diverge from past practices (Kirshner, 2014). The post-2008 financial environment in which our analysis is situated is indeed more heterogeneous and amenable to new players in global monetary affairs such as China. However, we argue that there are constraints on the capacity of up-and-coming contenders such as China for a greater share of currency power to meaningfully challenge America’s global financial dominance. Taken together, this paper makes three key empirical and theoretical contributions to the literature.

First, we show that while previous assessments of Chinese RMB internationalization justifiably placed emphasis on the domestic financial constraints of the Chinese system, external security constraints were not given their fair due. These constraints can manifest from the preferences and capabilities of China, its economic partners, and states located in its immediate neighborhood. How states choose to engage with China’s economic expansion is influenced by their ties with the US, and their reliance on US security guarantees. This is especially important in the context of growing US-China rivalry and ongoing territorial disputes to the east and south of China. Our study addresses this gap in the literature and emphasizes the intertwined relationship of military capacity with currency power.

Secondly, our findings contribute to the emerging and growing literature on hedging strategies and how secondary states choose to respond to the threat of great power conflict, given their geographic location and existing military ties. Specifically, this literature is focused on perceptions and concerns of threat of conflict in the region and with the US. While our model cannot directly capture how cooperation and participation in China’s monetary initiatives change in the event of a real dispute, our analysis and qualitative insights highlight how hedging strategies may play out in the actual event of conflict escalation. Specifically, we find that when threats become actual disputes, US allies will revert to their security ties with the US and limit engagement with China. Non-US allies in the region who do not benefit from American security support provide China with more opportunities to expand its regional economic footprint.

Third, we also show that security partnerships with China can serve as a key tool for creating greater demand for RMB. Moreover, security concerns, namely, territorial disputes with China have a hindering effect of engagement with China’s monetary initiatives through

the RMB swap program, and therefore the scope of RMB internationalization. This has important implications for China's increasing military expansion and goals of monetary expansion. Our findings suggest, counterintuitively, that the growth of China's military power and ability to back its economic interest seem to constrain its choice of BSA partners in regions closer to China given existing US military alliances.

In summary, we show how, in addition to conventional economic arguments of currency internationalization, the international political environment, and existing security order can serve to preserve the balance of monetary power and limit the rising powers' practice of financial statecraft. Our study has implications for understanding great power transitions and monetary dimensions thereof.



## References

- [1] 22 USC § 2321k. *Designation of major non-NATO allies*. 1996. URL: [http://uscode.house.gov/view.xhtml?req=\(title:22%20section:2321k%20edition:prelim\)#executivedocument-note](http://uscode.house.gov/view.xhtml?req=(title:22%20section:2321k%20edition:prelim)#executivedocument-note) (visited on 08/20/2018).
- [2] Leslie Elliott Armijo and Saori N. Katada. “Theorizing the Financial Statecraft of Emerging Powers”. In: *New Political Economy* 20.1 (Feb. 2015), pp. 42–62. ISSN: 13563467.
- [3] Michael A. Bailey, Anton Strezhnev, and Erik Voeten. “Estimating Dynamic State Preferences from United Nations Voting Data”. In: *Journal of Conflict Resolution* 61.2 (Feb. 2017), pp. 430–456. ISSN: 0022-0027, 1552-8766. DOI: [10.1177/0022002715595700](https://doi.org/10.1177/0022002715595700). URL: <http://journals.sagepub.com/doi/10.1177/0022002715595700> (visited on 08/20/2018).
- [4] BBC News. “Tajikistan cedes land to China”. In: (Jan. 13, 2011).
- [5] J. Lawrence Broz, Zhiwen Zhang, and Gaoyang Wang. “Explaining Foreign Interest in China’s Global Leadership”. In: *Forthcoming* (2019). DOI: [10.2139/ssrn.3138278](https://doi.org/10.2139/ssrn.3138278).
- [6] Chris Brummer. “The Renminbi and Systemic Risk”. In: *Journal of International Economic Law* 20.3 (Sept. 1, 2017), pp. 447–507. ISSN: 1369-3034, 1464-3758. DOI: [10.1093/jiel/jgx026](https://doi.org/10.1093/jiel/jgx026). URL: <http://academic.oup.com/jiel/article/20/3/447/4553496/The-Renminbi-and-Systemic-Risk> (visited on 06/28/2018).
- [7] David B. Carter and Curtis S. Signorino. “Back to the Future: Modeling Time Dependence in Binary Data”. In: *Political Analysis* 18.3 (2010), pp. 271–92.
- [8] CEPII. *GeoDist*. Paris, 2017. URL: [http://www.cepii.fr/cepii/en/bdd\\_modele/presentation.asp?id=6](http://www.cepii.fr/cepii/en/bdd_modele/presentation.asp?id=6).
- [9] Gregory Chin. “China’s Rising Monetary Power”. In: *The Great Wall of Money: Power and Politics in China’s International Monetary Relations*. Ed. by Eric Helleiner and Jonathan Kirshner. Ithaca: Cornell University Press, 2014.

- [10] Menzie D. Chinn and Hiro Ito. “What Matters for Financial Development? Capital Controls, Institutions, and Interactions”. In: *Journal of Development Economics* 81.1 (2006), pp. 163–192.
- [11] Ja Ian Chong. “Other Countries Are Small Countries, and That’s Just a Fact: Singapore’s Efforts to Navigate US–China Strategic Rivalry”. In: *China-US Competition: Impact on Small and Middle Powers’ Strategic Choices*. Ed. by Simona A. Grano and David Wei Feng Huang. Cham: Springer International Publishing, 2023, pp. 307–338. DOI: [10.1007/978-3-031-15389-1\\_12](https://doi.org/10.1007/978-3-031-15389-1_12).
- [12] Thomas Christensen. *The China Challenge: Shaping the Choices of a Rising Power*. New York: W. W. Norton, 2015.
- [13] Benjamin J. Cohen. *Currency Power: Understanding Monetary Rivalry*. Princeton University Press, 2015.
- [14] Benjamin J. Cohen. *Currency Statecraft: Monetary Rivalry and Geopolitical Ambition*. University of Chicago Press, 2019.
- [15] Bernard D Cole. *The Great Wall at Sea: China’s Navy in the Twenty-first Century*. 2nd ed. OCLC: 821183703. Annapolis: Naval Institute Press, 2012. ISBN: 978-1-61251-163-4. (Visited on 05/13/2018).
- [16] Barry Eichengreen. *Exorbitant Privilege: The Rise and Fall of the Dollar and the Future of the International Monetary System*. Oxford University Press, 2011.
- [17] Barry Eichengreen. “Number One Country, Number One Currency?” In: *World Economy* 36.4 (Apr. 2013), pp. 363–374. ISSN: 03785920.
- [18] Barry Eichengreen, Ricardo Hausmann, and Ugo Panizza. “Currency Mismatches, Debt Intolerance, and the Original Sin: Why They Are Not the Same and Why It Matters”. In: *Capital Controls and Capital Flows in Emerging Economies: Policies, Practices and Consequences*. Ed. by Sebastian Edwards. Chicago: University of Chicago Press, 2007.

- [19] Barry Eichengreen and Masahiro Kawai. “Introduction and Overview”. In: *Renminbi internationalization: achievements, prospects and challenges*. Ed. by Barry Eichengreen and Masahiro Kawai. Tokyo and Washington: Asian Development Bank Institute and Brookings Institution Press, 2015, pp. 1–23.
- [20] Barry Eichengreen, Arnaud Mehl, and Livia Chițu. “Mars or Mercury? The Geopolitics of International Currency Choice\*”. In: *Economic Policy* 34.98 (Apr. 2019), pp. 315–363. ISSN: 0266-4658. DOI: [10.1093/epolic/eiz005](https://doi.org/10.1093/epolic/eiz005).
- [21] Robert Farley. “Does the US Navy have 10 or 19 Aircraft Carriers?” In: *The Diplomat* (Apr. 17, 2014). URL: <https://thediplomat.com/2014/04/does-the-us-navy-have-10-or-19-aircraft-carriers/>.
- [22] David Firth. “Bias reduction of maximum likelihood estimates”. In: *Biometrika* 80.1 (1993), pp. 27–38.
- [23] M. Taylor Fravel. “Regime Insecurity and International Cooperation: Explaining China’s Compromises in Territorial Disputes”. In: *International Security* 30.2 (2005), pp. 46–83.
- [24] Alicia García-Herrero and Le Xia. *China’s RMB bilateral swap agreements: What explains the choice of countries?* BOFIT Discussion Papers 12/ 2013. Helsinki: Bank of Finland Institute for Economies in Transition, 2013.
- [25] Douglas M. Gibling. *International military alliances, 1648-2008*. Washington: CQ Press, 2009.
- [26] Robert Gilpin. *War and Change in World Politics*. Cambridge: Cambridge University Press, 1981. ISBN: 0-521-24018-2.
- [27] Lyle Goldstein. “The US–China Naval Balance in the Asia-Pacific: An Overview”. In: *The China Quarterly* 232 (Dec. 2017), pp. 904–931. ISSN: 0305-7410, 1468-2648. DOI: [10.1017/S030574101700131X](https://doi.org/10.1017/S030574101700131X). URL: [https://www.cambridge.org/core/product/identifier/S030574101700131X/type/journal\\_article](https://www.cambridge.org/core/product/identifier/S030574101700131X/type/journal_article) (visited on 08/20/2018).

- [28] Georg Heinze and Michael Schemper. “A solution to the problem of separation in logistic regression”. In: *Statistics in Medicine* 21.16 (Aug. 30, 2002), pp. 2409–2419. ISSN: 0277-6715, 1097-0258. DOI: [10.1002/sim.1047](https://doi.org/10.1002/sim.1047). URL: <http://doi.wiley.com/10.1002/sim.1047> (visited on 08/20/2018).
- [29] Eric Helleiner. “Political Determinants of International Currencies: What Future for the US Dollar?” In: *Review of International Political Economy* 15.3 (Aug. 2008), pp. 354–378. ISSN: 09692290.
- [30] Eric Helleiner and Jonathan Kirshner. *The Great Wall of Money : Power and Politics in China’s International Monetary Relations*. Cornell University Press, 2014.
- [31] Sebastian Horn et al. “China as an International Lender of Last Resort”. In: *AidData Working Paper 124* (2023).
- [32] Harold James. “The Enduring International Preeminence of the Dollar”. In: *The Future of the Dollar*. Ed. by Eric Helleiner and Jonathan Kirshner. Ithaca and London: Cornell University Press, 2009, pp. 24–44.
- [33] David Martin Jones and Nicole Jenne. “Hedging and grand strategy in Southeast Asian foreign policy”. In: *International Relations of the Asia-Pacific* 22.2 (Feb. 2021), pp. 205–235. DOI: [10.1093/irap/lcab003](https://doi.org/10.1093/irap/lcab003).
- [34] Isaac B. Kardon. “China’s Global Maritime Access: Alternatives to Overseas Military Bases in the Twenty-First Century”. In: *SECURITY STUDIES* (Oct. 2022). ISSN: 09636412. DOI: [10.1080/09636412.2022.2137429](https://doi.org/10.1080/09636412.2022.2137429).
- [35] Niniek Karmini. *ASEAN Vows to Conclude Pact with China on Disputed Territory*. <https://apnews.com/article/politics-indonesia-government-association-of-southeast-asian-nations-min-aung-hlaing-china-07ff4443471fae04c2d093608d4eeb70>. Feb. 2023. (Visited on 06/28/2023).
- [36] Daniel Kaufmann and Aart Kraay. *Worldwide Governance Indicators*. Washington: World Bank, 2017.
- [37] Charles P. Kindleberger. *The World in Depression, 1929-1939*. Berkeley: University of California Press, 1973. ISBN: 0-520-02423-0.

- [38] Gary King and Langche Zeng. “Logistic Regression in Rare Events Data”. In: *Political Analysis* 9.2 (2001), pp. 137–163. ISSN: 1047-1987, 1476-4989. DOI: [10.1093/oxfordjournals.pan.a004868](https://doi.org/10.1093/oxfordjournals.pan.a004868). URL: [https://www.cambridge.org/core/product/identifier/S1047198700003740/type/journal\\_article](https://www.cambridge.org/core/product/identifier/S1047198700003740/type/journal_article) (visited on 08/20/2018).
- [39] Jonathan Kirshner. “Dollar Primacy and American Power: What’s at Stake?” In: *Review of International Political Economy* 15.3 (Aug. 2008), pp. 418–438. DOI: [10.1080/09692290801928798](https://doi.org/10.1080/09692290801928798).
- [40] Jonathan Kirshner. “Regional Hegemony and an Emerging RMB Zone”. In: *The Great Wall of Money: Power and Politics in China’s International Monetary Relations*. Ithaca: Cornell University Press, 2014.
- [41] Arthur R. Kroeber. *China’s Economy: What Everyone Needs to Know*. Oxford University Press, 2016.
- [42] Heinz Leitgöb. “The Problem of Modeling Rare Events in ML-based Logistic Regression: Assessing Potential Remedies via MC Simulations”. Conference of the European Survey Research Association. Ljubljana, 2013.
- [43] Steven Liao and Daniel McDowell. “No Reservations: International Order and Demand for the Renminbi as a Reserve Currency”. In: *International Studies Quarterly* 60 (2016), pp. 272–93.
- [44] Steven Liao and Daniel McDowell. “Redback Rising: China’s Bilateral Swap Agreements and Currency Internationalization”. In: *International Studies Quarterly* 59.3 (2015), pp. 401–22.
- [45] Zhitao Lin, Wenjie Zhan, and Yin-Wong Cheung. “China’s Bilateral Currency Swap Lines”. In: *China & World Economy* 24.6 (2016), pp. 19–42.
- [46] Daniel McDowell. *Bucking the Buck: US Financial Sanctions and the International Backlash Against the Dollar*. Oxford: Oxford University Press, 2023.
- [47] Daniel McDowell. “The (Ineffective) Financial Statecraft of China’s Bilateral Swap Agreements”. In: *Development and Change* 50.1 (Jan. 2019), pp. 122–143. ISSN: 0012155X.

- [48] Christopher A. McNally and Julian Gruin. “A novel pathway to power? Contestation and adaptation in China’s internationalization of the RMB”. In: *Review of International Political Economy* 24.4 (July 4, 2017), pp. 599–628. ISSN: 0969-2290, 1466-4526. DOI: [10.1080/09692290.2017.1319400](https://doi.org/10.1080/09692290.2017.1319400). URL: <https://www.tandfonline.com/doi/full/10.1080/09692290.2017.1319400> (visited on 06/12/2018).
- [49] Alain Naef et al. *The Renminbi’s Unconventional Route to Reserve Currency Status*. 2022.
- [50] Carla Norrlof. *America’s Global Advantage: US Hegemony and International Cooperation*. Cambridge, UK: Cambridge University Press, 2010.
- [51] North Atlantic Treaty Organization. *Ceremony to mark the accession to NATO of Albania and Croatia to be held at NATO HQ on Tuesday 7 April 2009*. Apr. 7, 2009. URL: [https://www.nato.int/cps/en/natohq/news\\_52876.htm?selectedLocale=en&mode=pressrelease](https://www.nato.int/cps/en/natohq/news_52876.htm?selectedLocale=en&mode=pressrelease) (visited on 08/20/2018).
- [52] Douglass C. North and Barry R. Weingast. “Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England”. In: *The Journal of Economic History* 49.4 (Dec. 1989), pp. 803–832. ISSN: 00220507.
- [53] Organization of American States. *B-29: Inter-American Treaty of Reciprocal Assistance (Rio Treaty)*. URL: <http://www.oas.org/juridico/english/sigs/b-29.html> (visited on 08/20/2018).
- [54] T.J. Pempel. “Asia’s Lesser Powers Confront US–China Threat to the Regional Order”. In: *Issues and Studies / Issues & Studies* 56:2 (June 2020), pp. 5–25. ISSN: 1013-2511.
- [55] Eswar Prasad. *Gaining Currency: The Rise of the Renminbi*. Oxford: Oxford University Press, 2016.
- [56] Eswar Prasad and Lei (Sandy) Ye. *The Renminbi’s Role in the Global Monetary System*. 2012.
- [57] Aditi Sahasrabudde. “Drawing the Line: The Politics of Federal Currency Swaps in the Global Financial Crisis”. In: *Review of International Political Economy* 26.3 (May 2019), pp. 461–489. ISSN: 0969-2290. DOI: [10.1080/09692290.2019.1572639](https://doi.org/10.1080/09692290.2019.1572639).

- [58] Kenneth A. Schultz and Barry R. Weingast. “The Democratic Advantage: Institutional Foundations of Financial Power in International Competition”. In: *International Organization* 57.1 (Jan. 2003), pp. 3–42. ISSN: 0020-8183.
- [59] David Shambaugh. *China Goes Global: The Partial Power*. Oxford: Oxford University Press, 2013.
- [60] David Shambaugh. “U.S.-China Rivalry in Southeast Asia: Power Shift or Competitive Coexistence?” In: *International Security* 42.4 (2018), pp. 85–127.
- [61] Houze Song. *The State of China’s Deposit Rate Liberalization*. Macro Polo. June 26, 2017. URL: <https://macropolo.org/analysis/state-chinas-deposit-rate-liberalization/>.
- [62] Benn Steil and Dinah Walker. “Are China’s RMB Swap Lines an Empty Vessel?” In: *Council on Foreign Relations* (May 21, 2015).
- [63] Susan Strange. *Sterling and British Policy*. Oxford: Oxford University Press, 1971.
- [64] Paola Subacchi. *The People’s Money: How China Is Building a Global Currency*. Columbia University Press, 2017.
- [65] Arvind Subramanian. “Renminbi Rules: The Conditional Imminence of the Reserve Currency Transition”. In: *Peterson Institute for International Economics Working Paper 11-14* September (2011).
- [66] SWIFT. *RMB Tracker*. May 2023. La Hulpe, Belgium: SWIFT, 2023.
- [67] Bruno Tertrais. “The Changing Nature of Military Alliances”. In: *Washington Quarterly* 27.2 (2004), pp. 135–150.
- [68] The People’s Bank of China. *2021 RMB Internationalization Report*. Tech. rep. Beijing: The People’s Bank of China, 2021, p. 81.
- [69] The World Bank. “Multipolarity: The New Global Economy”. In: *Global Development Horizons 2011* (2011).
- [70] United Nations Conference on Trade and Development. *UNCTADStat*. Geneva, 2017. URL: <http://unctadstat.unctad.org/>.

- [71] United States Department of Defense. *Base Structure Report - Fiscal Year 2017*. Washington, 2017.
- [72] United States Energy Information Administration. *International*. 2017. URL: <https://www.eia.gov/beta/international/>.
- [73] United States Navy. *U.S. Navy Ships*. 2018. URL: [http://www.navy.mil/navydata/our\\_ships.asp](http://www.navy.mil/navydata/our_ships.asp) (visited on 08/20/2018).
- [74] Abigail Vaughn. “Ties That Bind: The Geopolitics of Bilateral Currency Swaps”. The Political Economy of International Organization Annual Conference. Feb. 2020.
- [75] Stephen Walt. *The Origins of Alliances*. Ithaca: Cornell University Press, 1987.
- [76] 王缉思 [Wang Jisi]. “‘西进’: 中国地缘战略的再平衡[‘Go West’: China’s Geostrategic Rebalance]”. In: 国际战略研究简报[*International and Strategic Studies Report*] 73 (2012).
- [77] Thomas Wilkins. “Middle Power Hedging in the Era of Security/Economic Disconnect: Australia, Japan, and the ‘Special Strategic Partnership’.” In: *International Relations of the Asia-Pacific* 23.1 (Jan. 2023), pp. 93–127. ISSN: 1470482X.
- [78] World Bank. *World Development Indicators*. 2023. URL: <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators>.
- [79] Mike Yeo. *How a New Vietnam-Indonesia Deal Will Affect South China Sea Disputes*. <https://www.defensenews.com/smr/defending-the-pacific/2023/02/13/how-a-new-vietnam-indonesia-deal-will-affect-south-china-sea-disputes/>. Feb. 2023. (Visited on 06/28/2023).
- [80] Fan Zhang et al. “The Effect of RMB Internationalization on Belt and Road Initiative: Evidence from Bilateral Swap Agreements”. In: *Emerging Markets Finance and Trade* 53.12 (Oct. 2017), pp. 2845–2857. DOI: [10.1080/1540496x.2017.1382346](https://doi.org/10.1080/1540496x.2017.1382346).
- [81] Liqing Zhang and Kunyu Tao. “The Benefits and Costs of Renminbi Internationalization”. In: *Renminbi internationalization: achievements, prospects and challenges*. Ed. by Barry Eichengreen and Masahiro Kawai. Tokyo and Washington: Asian Development Bank Institute and Brookings Institution Press, 2015, pp. 348–375.



- [82] Hubert Zimmermann. *Money and Security : Troops, Monetary Policy, and West Germany's Relations with the United States and Britain, 1950-1971*. Publications of the German Historical Institute. Cambridge: Cambridge University Press, 2002. ISBN: 978-0-511-15573-4.
- [83] Yizheng Zou. "China and Indonesia's Responses to Maritime Disputes in the South China Sea: Forming a Tacit Understanding on Security". In: *Marine Policy* 149 (Mar. 2023), p. 105502. ISSN: 0308-597X. DOI: [10.1016/j.marpol.2023.105502](https://doi.org/10.1016/j.marpol.2023.105502).