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THREE PAPERS ON THE POLITICS OF

FINANCIAL COOPERATION AND STATECRAFT

by

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THREE PAPERS ON THE POLITICS OF FINANCIAL COOPERATION AND STATECRAFT

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ABSTRACT

Financial globalization has increased interdependence among financial markets in different regions, requiring new frameworks of analysis of the politics of interstate relations to fully understand global financial markets. The three papers in this dissertation manuscript address this demand by formulating multiple hypotheses on what drives financial cooperation between states, how states use asymmetries in interdependence for statecraft, and how monetary policies of one economy can influence the politics of others. The first paper argues that financial cooperation in the international monetary system has a hub-and-spokes structure, with the United States as the hub economy. It demonstrates that this structure affects other economies' motivation to engage in regional financial cooperation. The second paper addresses how volatility in the Fed's balance sheet affects the level of support for incumbent regimes in other countries. It finds that the effects differ significantly between democracies and autocracies for those with higher reliance on the global financial market. The third paper builds on theories of middle power behavior and emerging economy financial statecraft to develop a theory of middle power financial statecraft and applies it to South Korea.

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LIST OF ABBREVIATIONS

AFC ....Asian Financial Crisis

AMRO..ASEAN+3 Macroeconomic Research Office

AMU .... Asian Monetary Unit

ASEAN ....Association of Southeast Asian Nations

BIS .... Bank of International Settlements

BOK ....Bank of Korea

BRICS ....Brazil, Russia, India, China, South Africa

BSA ....Bilateral Swap Arrangement

CMI ....Chiang Mai Initiative

CMIM .... Chiang Mai Initiative Multilateralism

CMIM-PL ....Chiang Mai Initiative Multilateralism Precautionary Line

COFER...Currency Composition of Official Exchange Reserves

CPI ....Consumer Price Index

EME ....Emerging Market Economy

ESM ....European Stability Mechanism

EU ....European Union

FDI ....Foreign Direct Investment

Fed...The US Federal Reserves

FLAR ....Latin American Reserve Fund

FTA ....Free Trade Agreement

GDP...Gross Domestic Product

THE POLITICAL REPERCUSSIONS OF INCLUSION AND EXCLUSION IN THE FEDERAL RESERVE CURRENCY SWAP LINE NETWORK

Abstract

Financial cooperation to enhance financial resilience has seen a significant increase in numbers, especially since the Global Financial Crisis. This paper finds that the Fed's selective extension of dollar BSAs differently influences the motivation of those excluded and included in the Fed's swap network to engage in financial cooperation operations. This is because the dollar is a dominant international currency that is most demanded when market uncertainties rise. Hence, access to Fed BSAs reduces the relative economic value of other financial arrangements for those that have access and increases the motivation to engage in financial cooperation operations to reduce dollar reliance for those that do not have access. This paper first presents evidence for the dominant position of the dollar during financial crises by quantitatively comparing the effectiveness of other crisis-lending mechanisms to that of the Fed's swap arrangements in reducing capital outflow. It finds that only the latter is effective in countering short-term capital outflows. Second, it conducts a detailed qualitative analysis of the policy responses of economies excluded from and included in the Fed's swap network. It finds that those excluded have increased motivations to engage in financial cooperation as they seek alternatives to the dollar to protect their capital markets and policy autonomy. On the other hand, inclusion has mixed effects on financial cooperation depending on the duration and volume of the Fed's BSAs.

Introduction

The dollar carries a paramount position as a medium currency for trade, investment, and reserves. This hegemonic position of the dollar, however, exposes economies that do not enjoy stable access to the dollar to constant dollar liquidity constraints. (Rey 2015) This is because the Fed, the issuer of the dollar, is not a global central bank that serves as the lender of last resort to rescue every distressed market. Hence, an economy's degree of access to the dollar, either through accumulating dollar reserves or establishing dollar-denominated BSAs, is critical to maintaining financial resilience against capital volatility. The Fed, however, has been selectively serving as a lender of last resort to a limited group of central banks. Existing studies have attempted to identify the reasons behind the Fed's choices, with some arguing that the choices are largely based on the recipient economy's systematic importance to the U.S. economy (Broz 2015) and others arguing that there were also political intentions behind the choices (Sahasrabuddhe 2019). However, the purpose of this paper is not to identify the reasons behind the Fed's choices, but to examine their repercussions. The dollar's dominance and influence in the international monetary system are clear, and the policy choices of the currency's issuer ought to have multiple political and economic consequences for the world economy. Against this backdrop, this paper argues that the Fed's selective extension of BSAs influences the financial cooperation operations of those excluded from the Fed's currency swap network and those included differently.[1]

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[1] The IMF, regional financial arrangements, and other economies such as Japan and India have established dollar credit lines, but this paper demonstrates that only Fed swap lines have been effective in countering short term capital outflow, a prime indicator for financial stability against financial crises.

First, as existing studies have found, countries excluded from the Fed's dollar liquidity swap line network become more dissatisfied with the status quo of the international monetary system and therefore engage in financial cooperation arrangements with other economies that may alter the system. (Kirshner 1999; Steil & Litan 2006; Andrews 2006; Halabi 2008; Grimes 2011; Armjio & Katada 2015; Cohen 2018; Farrell & Newman 2019). Second, inclusion in the Fed's network reduces the economic value of engaging in alternative financial arrangements. This does not imply that BSAs or RFAs lose their value for economies with Fed swap access, as they can serve as an additional layer of safety and can also be used for settling trade payments. Rather, it indicates that the high level of security provided by access to Fed BSAs renders alternative cooperative arrangements less critical to financial resilience, and therefore creates room for political maneuvering when cooperating with other economies. This may lead to increased proactiveness in signing BSAs as an implicit creditor for political purposes or in contrast, decrease a country's motivation to continue or establish new arrangements if the political cost of doing so is high.

For instance, if country A had been cooperating with country B despite pre-existing political conflicts for financial security, then country A's access to Fed BSAs would decrease its motivation to continue its cooperation with country B as the political cost of cooperating may become greater than the economic cost of discontinuation. This is because, as we demonstrate in this paper, Fed BSAs are the most, if not only, effective option in countering short-term capital outflows against financial cycles. Hence, cooperation with other economies serves as an additional option for strengthening

financial security, but not critical to achieving the objective. In this respect, financial cooperation in the international monetary system resembles a hub-and-spokes US-led alliance structure in the Asia-Pacific where the spokes' alliance relationship with the U.S., the most significant provider of security, carries the greatest value and alliance relationships among the spokes countries carry lower value. (Cha 2009; Izumikawa 2020)

We take a multi-method approach to find evidence for this argument. First, we conduct a two ways fixed effects panel regression on the relationship between Fed BSAs and their effectiveness in countering capital outflow, measured by annual net capital inflow, in comparison to other components of the GFSN. We find that only Fed BSAs have been effective in reducing short-term capital outflow. Second, we conduct detailed qualitative case studies on the responses of economies that have been included in and excluded from the Fed's currency swap network and find strong evidence for their responses' close alignment with this paper's arguments.

This paper contributes to two strands of existing literature. First, it contributes to the literature on financial cooperation. Existing studies have focused on the hierarchical structure of the international monetary system, where the dollar is placed at the apex, and the gaps of the GFSN created by such a structure as the primary motivating factor for financial cooperation among countries. (Amyx 2005; Ocampo 2006; Chey 2009; McDowell 2019, among others) However, we find that financial cooperation in the international monetary system rather resembles a networked hub-and-spokes structure, where the spoke country's relationship with the hub affects its relationship with other countries in the system.

Second, this finding contributes to the financial statecraft literature. Financial statecraft refers to "the intentional use, by national governments, of a country's monetary or financial capabilities or conditions for the purpose of achieving ongoing foreign policy goals, whether political, economic, or financial." (Armijo & Katada 2015, p.43) In explaining why states engage in financial statecraft, existing studies have focused on the dollar-denominated structure of the international monetary system that under-privileges certain states or the fear of loss of influence as the major motivating factors. In other words, studies have focused on how deprivation or the fear of deprivation motivates financial statecraft. (Steil & Litan 2006; Andrews 2006; Halabi 2008; Grimes 2011; Armjio & Katada 2015; Cohen 2018; Farrell & Newman 2019) We demonstrate, however, that abundance, or privilege provided by the hub country under the networked hub-and-spokes structure of the international monetary system can also induce states to engage in financial statecraft.

This paper proceeds in the following order. First, we conduct a detailed review of the identified strands of literature and demonstrate this study's contributions. Second, we clarify this paper's theoretical framework. Third, we identify this paper's empirical strategy and methodology. Fourth, we conduct a quantitative analysis of the effectiveness of Fed BSAs in countering capital outflow in comparison to other major components of the GFSN and find that only Fed BSAs have been effective. Fifth, we conduct detailed case studies on the responses of economies included in and excluded from the Fed's currency swap network and find robust support for this paper's argument. Lastly, we identify the policy implications of our findings and end with concluding remarks.

Theoretical Contributions

Existing studies indicate that the international monetary system has a hierarchical structure, where hierarchy is determined by a country's level of access to the dollar. However, since the Fed is not a global central bank, economies seek financial cooperation to access the dollar and thicken their financial safety nets through bilateral or regional financial cooperation. (Ocampo 2006; Amyx 2005; Chey 2009; Mehrling 2013; among others) Under this hierarchical system, the Fed is naturally positioned at the apex, with the five central banks with permanent and unlimited dollar BSAs with the Fed placed at the second level of the hierarchy. (Mehrling 2013) While some studies are not explicit about this hierarchical structure, they also differentiate 'key currencies' from currencies issued by peripheral economies. (Kindleberger 1983; Ito & McCauley 2019)

This perspective on the international monetary system explains the general mechanism behind why states seek financial cooperation. It does not, however, tell the full story. The GFSN carries a network structure, where for instance, country A's cooperation with country B affects country A's motivation to cooperate with country C. This is because countries have BSAs and RFAs with multiple countries, and the importance of each arrangement differs depending on the magnitude of bilateral trade, currency denomination, and more. Figure 1 visualizes the global network of BSAs, where permanent and unlimited BSAs (edges) are highlighted. Node size is determined by the number of BSAs a country has signed with another, with permanent BSAs carrying more weight. Edge size is also dichotomously classified, with non-permanent BSAs carrying a weight of 1 and permanent BSAs carrying a weight of 10.

Figure 1-1. The global network of BSAs
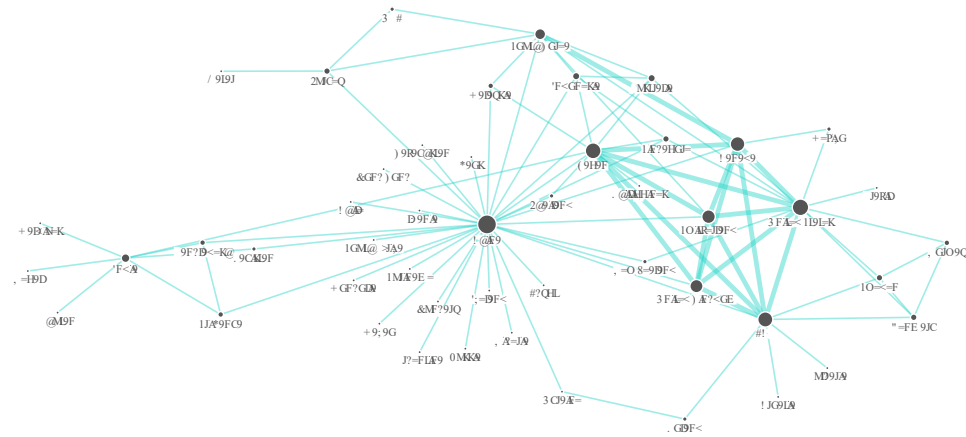
Source: Author

Figure 1's visualization of the network of BSAs in the international monetary system demonstrates the interconnected nature of BSAs. This networked nature of the BSAs carries important implications for how countries choose to establish or continue financial cooperation with other countries. If we assume that the international monetary system is hierarchical, as previous studies have argued, then a swap line with the Fed must have greater economic value than other arrangements. This discrepancy in value among the arrangements effectively implies that one arrangement can affect the economic value of establishing or continuing another arrangement. In other words, if sufficient financial security is secured through a dollar swap line with the Fed, then alternative arrangements with other economies may relatively lose economic value. This may lead to the

embedding of non-economic considerations when cooperating with other economies. Similarly, countries that are excluded from the Fed's swap line network would more proactively seek financial cooperation with other economies to thicken their financial safety net.[2] This connection among the arrangements, therefore, demonstrates that there is a network of financial cooperation in the international monetary system.

This finding also makes important contributions to the financial statecraft literature. Financial statecraft refers to efforts by states that seek to achieve foreign policy ends through financial means. (Steil & Litan 2006; Andrews 2006; Halabi 2008; Grimes 2011; Armjio & Katada 2015; Cohen 2018; Farrell & Newman 2019) And categorizing financial cooperation within the international monetary system as having a networked hub-and-spokes structure contributes to the literature by adding another dimension to explain what *motivates* states to practice financial statecraft.

Statecraft has been generally understood to be a means of coercing a target state for policy ends. (Steil & Litan 2006; Andrews 2006; Halabi 2008) More recent studies on financial statecraft argue that the target can also be the international monetary system itself. (Katada et al. 2017; Armjio & Katada 2015) These studies argue that states practice a defensive form of statecraft to protect their financial markets by either attempting to alter the system's structure or substantially thickening their financial safety net to prepare against potential dollar shortages. Hence, states are motivated to practice financial

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[2] Economies with financial security concerns become more proactive in strengthening their financial safety net independently, such as through foreign exchange reserve accumulation and capital controls (Prates & Fritz 2016; Davis et al. 2021). However, this paper focuses on financial cooperation specifically, and the impact of the Fed's swap lines on the motivation to engage or disengage in financial cooperation.

statecraft either based on their political relations with the target state or their
underprivileged status under the incumbent system. In other words, deprivation, or fear of
deprivation such as balance of payment crises, currency crises, and more, are the main
motivating factors behind financial statecraft.

This study finds that states are motivated to practice financial statecraft also by
their relative privilege under the international monetary system. Under a networked hub-
and-spokes structure, a relationship with one country affects another. Hence, enhanced
financial security from access to dollar BSAs with the Fed reduces the relative economic
value of alternative arrangements and creates space for political interests to come to the
fore when continuing or establishing financial cooperation operations. This may either
increase the motivation of the recipient economy to cooperate as a way of expanding its
influence or reduce its motivation when the political cost of cooperating becomes too
high. For instance, if there are extant political cleavages between countries A and B
which already have established BSAs, then country A's access to dollar BSAs from the
Fed may decrease the relative economic value of the arrangement, potentially making the
political cost of continuing the arrangement greater than its economic value. Hence,
enhancements in financial security may in turn unveil political cleavages. The following
section clarifies the theoretical framework of this argument.

The Networked Hub-and-Spokes Structure of Financial Cooperation in the International Monetary System

This paper argues that financial cooperation in the international monetary system has a
network structure, where one relationship affects another. And it argues that this structure

is analogous to the U.S.-led hub-and-spokes alliance system in the Asia-Pacific.

Izumikawa (2020) finds that because the U.S. is the absolute security guarantor in the

region, a more intimate relationship with the U.S., the hub, undermines the U.S. allies'

motivation to cooperate amongst themselves as sufficient security is provided by a

stronger alliance relationship with the U.S. alone. Figure 2 visualizes this argument.

Figure 1-2. Inclusion and exclusion in the Fed's swap line network[3]

Both A & B have access to swap lines with the hub

Both A & B do not have access to swap lines with the hub

Hub

Hub

(1)

(2)

Country A ⟷ **Country B**

Country A ⟷ **Country B**

Only B has access to swap lines with the hub

Hub

(3)

Country A ⟷ **Country B**
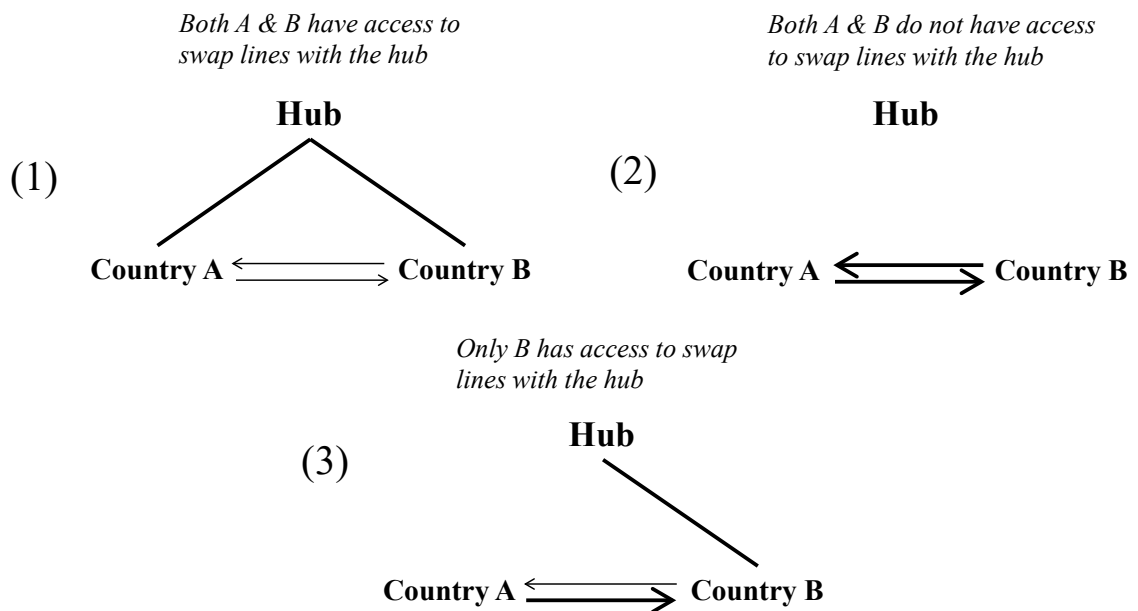
Source: Author, adoption from Izumikawa (2020)

The first sub-figure demonstrates a situation where both A and B have access to a swap

line with the hub. In this case, both countries A and B would see less economic value in

signing or continuing financial arrangements with one another. In sub-figure two, on the

other hand, neither A nor B has access to BSAs with the hub, increasing the economic

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[3] The weight of each connection demonstrates the level of dependence country A or B has on each other or the hub. The connections do not show the level of dependence the hub has on countries A and B.

value of financial cooperation for both countries. Finally, the third case demonstrates a

situation where only country B has access to BSAs with the hub. This would create an

asymmetry of reliance on financial cooperation between country A and B because the

value of a swap line with country A from B's perspective would decrease, as its financial

security has been secured.

Adopting Izumikawa's model to explain financial cooperation in the

international monetary system attaches the following implications to recent Fed

operations. First, inclusion in the Fed's BSA network either completely, or significantly

enhances the financial security of the recipient economy. This meaningfully impacts the

motivation to engage in financial cooperation as the relative economic value of

alternative financial arrangements decreases and leads to power asymmetries among

economies. For instance, for country B in case 3 of Fig. 2, its financial arrangement with

Country A is relatively less important for Country B than it is for Country A. This leads

to a power asymmetry between Country A and B and creates room for statecraft. When

this happens, Country B may become reluctant to establish or continue swap

arrangements with Country A if the political cost is too high (due to political

disagreements),[4] or if establishing a new arrangement with Country A is too

economically risky.

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[4] For instance, as in case 1 in Figure 2, assume that two countries with strong political cleavages had signed a bilateral swap arrangement out of economic need, and the Fed later decides to extend swap lines to both countries. When this happens, the two countries' existing political cleavages will be brought to the fore as there is weakened economic reason to continue their cooperation. The existing non-Fed swap arrangement still carries economic value as a source of hedging against insurmountable external drains. However, it is also true that its value relatively decreases when they gain access to Fed swap lines. When this happens,

The latter scenario, however, is less likely for those with unlimited and permanent swap arrangements with the Fed since the risk of providing dollar liquidity to other economies significantly reduces. This is different, however, for those with temporary, and limited access to the Fed's BSAs. For them, financial security is significantly enhanced but continues to be a concern. Hence, they continue to be reluctant to engage in financial cooperation as a creditor due to unresolved concerns on financial security and have reduced incentives to continue other arrangements if the cost of continuation is too high since the relative economic value of alternative financial arrangements decreased by having access to Fed BSAs.

Second, when both countries are excluded from the Fed's swap line network and their foreign exchange reserves volume is not enough to make them self-sufficient, as the second subfigure of Figure 2 demonstrates, then their motivation to cooperate increases. Those that are self-sufficient, such as China, on the other hand, may seek to lower their dependence on the dollar due to policy independence concerns by offering credit lines to other economies in local currencies to reduce the U.S.e of the dollar in bilateral trade or investments. (McDowell 2019) This offers additional opportunities for those looking to thicken their financial safety nets to engage in financial cooperation, and overall increases the number of financial cooperation.

Lastly, relying on bilateral channels to selectively supply liquidity to certain financial markets asymmetrically enhances the financial security of a few countries over

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political interests may overshadow economic interests. We explain and find evidence for this case further in the following sections.

others. If only one country is allowed access to Fed BSAs, then the economic weight of the existing financial arrangement will now be different for the two countries, where the country with higher financial security and lower vulnerability values the arrangement less than its counterpart. This creates a dependence asymmetry, creating room for statecraft to play in.

This theoretical framework makes an important contribution to existing literature. Existing studies find that the reluctance of the Fed (and inadequate responses from the IMF) in stepping up as the lender of last resort has led to the consecutive establishment of regional and bilateral financial cooperation efforts, thereby identifying the causal link between Fed action and financial cooperation. (Kindleberger 1983; Murau et al. 2020) They do not, however, sufficiently examine how the Fed's selective contribution to the GFSN affects financial cooperation despite the proven existence of the causal link between the two variables. This study fills this gap by focusing on how the Fed's position in the international monetary system and its relationship with other central banks carry important implications for the sustainability of financial cooperation.

Data, Methodology, and Empirical Strategy

This paper makes two arguments. First, dollar BSAs from the Fed are the only effective component of the GFSN in reducing short-term capital outflow. Second, selective access to Fed BSAs creates different political repercussions for those that are included and excluded from the Fed's swap line network.

Data Collection Method

To find evidence for the first argument, we first compile a dataset that combines data collected from central banks, official press accounts, the IMF, and websites of RFAs to create a panel dataset on every country's instance of access to each component of the GFSN from 2003 to 2021. We then merge this dataset with another dataset purchased from the Global Economy that includes key economic variables that will be used as control variables and the dependent variable to measure how access to each component of the GFSN affects the net capital flow, of each economy. We focus on net capital flow as it is one of the most effective variables for assessing an economy's capital volatility and trust in its capital market. Excessive capital outflow would lead to abrupt depreciation in a currency's exchange rate and lead to double mismatches. (Bacchetta & van Wincoop 1998) The focus of building the GFSN is on stopping capital outflow and bringing confidence back to markets. Hence, observing the different components of the GFSN's ability to manage capital flows is the best measurement for assessing their effectiveness.

The GFSN consists of the IMF, the network of BSAs among economies, and RFAs. (Gallagher et al. 2019) When a country draws credit from the IMF, takes part in establishing an RFA, or draws from its liquidity pool, the country is clearly a recipient. However, in BSAs, the recipient is not always clear. This is because certain currencies are in more demand than others and the most demanded currency is the dollar. Hence, it is important to differentiate the recipients and creditors in BSAs to accurately measure the effect of BSAs on stopping capital outflow.

This said the GFSN dataset that we compiled consists of the following 5 variables.

Although Fed BSAs are essentially BSAs, Fed BSAs are included as a separate independent variable for the purpose of this paper.

1. Whether country n signs a new swap line with the Fed, or carries on/expands an existing swap line with the Fed in year t[5]

2. Whether country n signs a new BSA, or carries on/expands an existing BSA as a *recipient* in year t

3. Whether country n signs a new BSA, or carries on/expands an existing BSA as a *creditor* or for *mutual gains* in year t

4. Whether country n newly signs on to an RFA or taps on RFA reserves in year t

5. Whether country n accesses IMF credit in year t

All five variables are coded as binary dummy variables. For BSAs, if a country signs a new BSA or continues an existing BSA (either as a recipient or creditor, coded separately) in a given year, then it is coded 1. If not, it is coded 0. The same has been done for Fed BSAs. For RFAs, if a country joins an RFA or if the country receives liquidity support from the RFA's reserves in a given year, then it is coded 1. If not, 0.[6] This is the same for IMF credit. If a country taps on IMF credit in a given year, then it is coded 1. If not, 0. The period of observation is from 2000 to 2021.

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[5] We only count 'core' member states of the European Central Bank to be direct recipients of Fed swap lines, which include the following economies: Austria, Belgium, Germany, France, Italy, Netherlands. This classification is based on Macchiraelli & Campos (2018) and De Grauwe & Ji (2018)

[6] RFAs analysed for this regression analysis include the CMIM, European Stability Mechanism, Latin American Reserve Fund, and the Contingency Reserve Arrangement. The swap arrangements under the South Asian Association for Regional Cooperation (SAARC) were counted as BSAs since the only creditor is India.

We differentiate between creditors and recipients in a BSA based on the method used by Perks et al. (2021). As aforementioned, there is an implicit recipient country in most BSAs. Technically, both countries of a BSA arrangement are recipients but some currencies are in much more demand than others, especially against financial crises. If only one side of the BSA is a reserve currency issuer, for instance, then the other country is a recipient country. Hence, for Perks et al. (2021) what deciphers whether an economy is a recipient or creditor country is based on whether the country's currency is a reserve currency issuer.

We differ from Perks et al. (2021), however in how we code the following cases. When BSAs involve two reserve currency-issuing countries, the country with the stronger reserve currency based on IMF COFER data is the creditor, and the other is the recipient. However, there are also cases where both signees of a BSA are non-reserve currency issuers. In this case, the recipient country is decided by the BIS foreign exchange turnover ranking (BIS 2022) which shows which currency is more frequently traded in financial markets. If the currency is traded less, then the issuing country is the recipient country. We differentiate recipients from creditors since it allows us to observe whether BSAs are effective in countering short-term capital outflow. If the BSAs of creditors and recipients are coded together as a single variable, the results will not reflect the purpose of the regression since the purpose of the BSAs differs. We organize this more intuitively in the following table.

Table 1-1. Classification of BSAs

Case	Method	Data Source
RCI-RCI	Recipient country is decided depending on who issues the more internationally preferred currency	IMF COFER data
RCI-NRCI	NRCI is the recipient country	
NRCI-NRCI	Recipient country decided depending on BIS foreign exchange turnover ranking	BIS foreign exchange turnover ranking

Note: Reserve currency issuer (RCI), non-reserve currency issuer (NRCI)

Source: Adoption from Perks et al. (2021), Author

Empirical Strategy

Based on the data that we have collected we estimate the effects of each component of

the GFSN on the net portfolio equity inflow of economies from 2000 to 2021. We use net

portfolio equity inflow as a parameter for tracking capital in/outflows from local markets.

The variable has been used frequently in existing studies to measure the level of foreign

investors' trust in local markets since it is highly sensitive to global capital volatility

levels (Lipsey 2001; Fratzscher 2012). Hence, we estimate the effect of GFSN

components on capital in/outflow trends using this variable in local markets through the

following equation:

$$NCI_{n,t} = \beta_0 + \beta_1 GFSN_{n,t-1} + \beta_2 ECV_{n,t} + \delta_n + \delta_t + \varepsilon_{n,t}$$

The equation is estimated based on a country-year level panel data structure, where $NCI_{n,t}$, or net portfolio equity inflow in USD for country n in year t indicates the main dependent variable for the equation. $GFSN_{n,t-1}$, indicates the five independent variables enumerated above where we observe country n's access to each component of the GFSN in year t. We lag t by 1 year, as we expect that it would take time for the effect of accessing the components of the GFSN on net capital inflow to take effect.

$ECV_{n,t}$ is the set of economic control variables for country n in year t. We divide the economic control variables into two categories, partially drawing on the empirical strategy of Perks et al. (2021). The first category includes the external vulnerability variables, which include 1) external debt (% of GDP), 2) current account balance (% of GDP), 3) % of foreign reserves including gold in terms of gross GDP, both in billion USD 4) % change in annual nominal exchange rate, 5) Stock market capitalization as % of GDP as a proxy for capital account openness. The second category includes the domestic variables which include 1) real GDP growth (%), 2) CPI inflation rate (%), and 3) government debt as % of GDP. Controlling for both domestic and external sources of vulnerabilities allows the model to account for other economic factors of country n that may be affecting the net capital inflow levels of an economy.

The equation employs a two-ways fixed effects panel regression model for estimation. δ_n and δ_t represent the country n and year t fixed effects. By accounting for country and year-fixed effects, we control for other unobserved time-variant factors such as crises, financial cycles, and more. $\varepsilon_{n,t}$ is the country-level error term. Controlling for these fixed effects allows us to account for the potential bias that some BSAs, especially

Fed BSAs, may be directed toward economies that were more likely to recover quickly from financial crises regardless of the Fed's BSAs. The key identifying assumption of our empirical strategy is that when foreign and external vulnerabilities, along with country and year fixed effects are controlled for, only Fed BSAs will be effective in countering short-term capital outflow in comparison to other components of the GFSN. That said, a positive value of β_1, our main coefficient, indicates an increase in capital inflow as a result of establishing, continuing, or accessing the components of the GFSN. A negative value of β_1, on the other hand, would imply that Fed BSAs decrease capital inflow as a result of accessing the GFSN component.

Second, based on the empirical results gained from equation 1 which proves that only Fed BSAs are effective in increasing capital inflows, the key concern during financial crises, we embark on three cases studies that demonstrate the political impact of inclusion in and exclusion from the Fed's swap line network. Having access to the Fed BSAs, whether temporary or permanent, indicates that the recipient country will have a significantly enhanced level of financial security. Even temporary BSAs significantly enhance the financial security of recipients as the market expects the Fed to extend BSAs to the recipient economy again against excessive levels of capital volatility. This expectation has proven to be true during the pandemic crisis. (Bahaj & Reis 2020; Yun 2021) By observing financial cooperation operations of economies excluded/included in the Fed's swap network, we find through qualitative analysis that exclusion from the Fed's swap network leads to increased motivation to look for alternative currencies to settle trade and investments, thereby potentially undermining the dominance of the dollar

in the longer run. Inclusion, on the other hand, leads to mixed results as it both increases and undermines an economy's willingness to engage in financial cooperation.

Empirical Evidence: The Particular Effectiveness of Fed BSAs in Countering Short-term Capital Outflows

Table 1 shows the baseline results for equation 1. The results demonstrate that only Fed BSAs are the only effective source of liquidity that is strongly correlated with capital in/outflows. IMF lending also increases capital inflows but is not statistically significant. RFAs and BSAs, both as recipient and creditor do not have a statistically significant impact on net capital inflows. This result is consistent with Perks et al. (2021) that also find that local currency-denominated BSAs are mainly there to settle bilateral trade, not as a crisis response mechanism. What we find in addition, however, is that even loans from RFAs and the IMF do not have a significant impact in countering short-term capital outflow. These results are robust against a mix of controls on multiple economic variables and country-year fixed effects.

Table 1-2. Two ways fixed effects panel regression on the differing impact of credit lines on net portfolio equity inflow (2003~2021)

	Net portfolio equity inflows in USD				
	(1)	(2)	(3)	(4)	(5)
Independent variables					
Lag (t-1) of Federal Reserve BSAs	11753.70 (1648.60) ***				
Lag (t-1) of IMF credit access		18.481 (256.37)			

	(1)	(2)	(3)	(4)	(5)
Lag (t-1) of RFA credit access			-575.01 (455.43)		
Lag (t-1) of BSA lines as recipient				-539.28 (493.67)	
Lag (t-1) of BSA lines as creditor					249.53 (2178.97)
Economic control variables					
Current account balance (% of GDP)	-5.69 (12.50)	-6.11 (12.84)	-6.03 (12.82)	-6.18 (12.83)	-6.11 (12.84)
Foreign exchange reserves as % of GDP	-520.05 (1607.05)	-937.64 (1649.72)	-931.97 (1647.71)	-991.25 (1648.89)	-930.09 (1649.54)
Annual nominal exchange rate (USD/local currency)	-0.20 (0.24)	-0.16 (0.25)	-0.18 (0.25)	-0.17 (0.25)	-0.17 (0.25)
External debt (% of GDP)	8.78 (6.89)	9.00 (7.08)	8.54 (7.08)	8.77 (7.08)	8.97 (7.08)
GDP per capita in USD	-0.08 (0.10)	-0.10 (0.10)	-0.02 (0.10)	-0.02 (0.10)	-0.02 (0.10)
CPI inflation rate (%)	35.04 (23.22)	31.76 (23.84)	34.66 (23.93)	32.08 (23.82)	31.63 (23.84)
Fiscal debt (% of GDP)	-9.25 (7.08)	-9.70 (7.27)	-9.18 (7.27)	-9.45 (7.27)	-9.71 (7.27)
R^2	0.06	0.01	0.01	0.01	0.01
Adj. R^2	-0.052	-0.11	-0.11	-0.11	-0.11
Num. obs.	1042	1042	1042	1042	1042
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes
Num. countries	84	84	84	84	84

***$p < 0.001$; **$p < 0.01$; *$p < 0.05$; '$p < 0.1$

The results that we observe in Table 1 can be explained by dollar dominance. Trade credit often consists of short-term external debt. Such debt may be rolled over during non-crisis times, but in crisis times, settlement constraints really take a toll. Hence, if there is a bias in the currency denomination of trade financing, the demand for the

dominant currency will increase during crises as creditors refuse to roll over debt to manage risk. And as Figure 3-2 demonstrates, over 80% of total trade financing has been denominated in the dollar. This preference for the dollar is also represented in Figure 1-3, where again, most countries prefer to hold dollar reserves.

Figure 1-3. Use of major currencies as reserves and trade 2017-2021
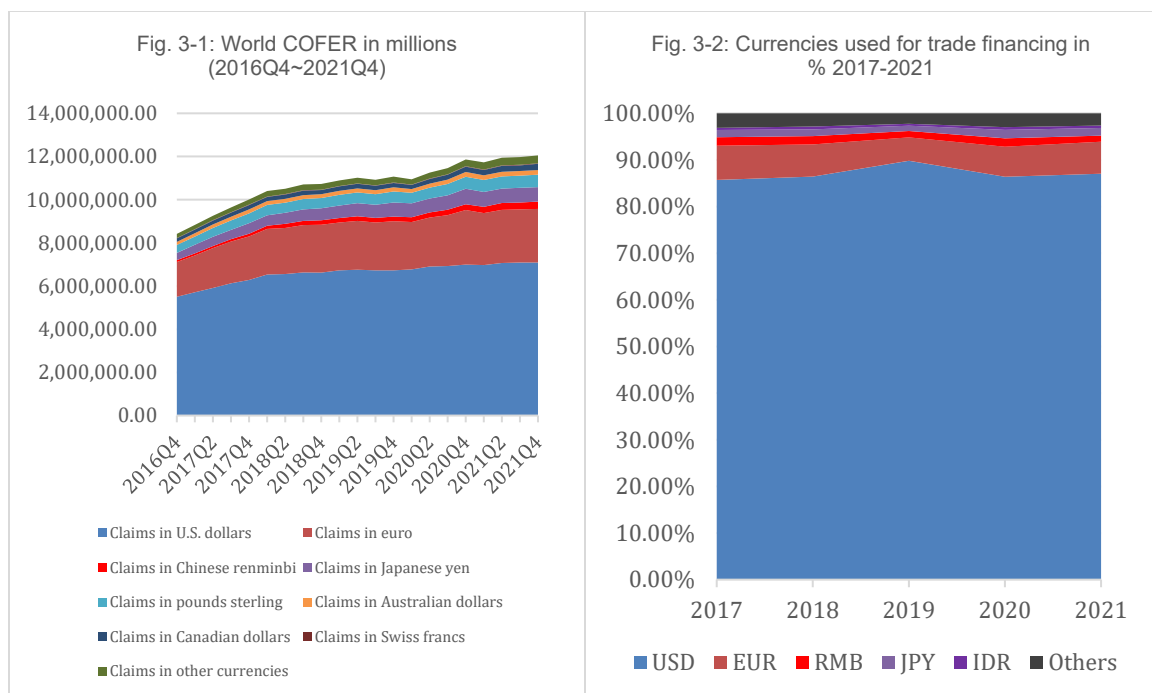
Source: IMF, SWIFT RMB tracker, author compilation

This explains the results observed in Table 1. Most BSAs are denominated in local currencies. IMF loans are provided in the dollar, but they come with conditionalities attached. Furthermore, the stigmatizing effect of accessing IMF loans sends adverse signals to the market. (Ito 2012; Andone & Scheubel 2019) RFAs are often denominated in the dollar, but apart from the ESM most RFAs are limited in size and the second

largest RFA, the CMIM has never been tested.[7] Hence, dollar dominance, and the Fed's selective BSAs privilege those included in the network.

The effect of dollar dominance can be also seen in the following regression, where we test the effect of dollar denominated BSAs on counter capital outflows for the recipients of non-Fed currency BSAs. We do this by creating a new dataset that excludes economies that have been recipients of both non-Fed and Fed BSAs.[8] This is to observe specifically whether dollar BSAs, regardless of whether they are directly from the Fed, have a different effect on countering capital outflows from local currency denominated BSAs for recipient economies. Such lines mainly include dollar BSAs provided by Japan and India. We do this by creating a separate variable that marks whether the swap line is dollar denominated or not. Those that are dollar denominated are marked with 1, and those that are not, with 0. We then interact this variable with the variable that tracks whether a country has established or continued a swap arrangement as a recipient to see whether having a dollar denominated swap line creates a difference in net capital inflow levels. The economic control variables and empirical strategy are otherwise identical to the main regression analysis. The formula used for this test is as follows.

$$NCI_{n,t} = \beta_0 + \beta_1 reciswap_{n,t-1} + \beta_2 reciswap_{n,t-1} * dollar_{n,t-1} + \beta_2 ECV_{n,t} + \delta_n + \delta_t + \varepsilon_{n,t}$$

Figure 4 shows the results of this analysis. It demonstrates that when the recipients of Fed BSAs are excluded from the dataset, establishing or continuing a swap arrangement

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[7] Partially due to the fact that the CMIM is also tightly linked to IMF conditionalities.
[8] The list of excluded economies can be found in Table 2

exacerbates capital outflow. This does not mean that BSAs have a negative effect on foreign investors' perception of local markets but rather means that local currency denominated BSAs overall have little impact in improving markets since currency swaps are usually expanded or newly signed when market credibility is low due to financial crises. On the other hand, although less statistically significant, having a dollar denominated swap line increases net capital inflow, demonstrating that dollar BSAs, even if they are not directly from the Fed have a positive effect in countering capital outflow.

Figure 1-4. The effect of local currency and dollar denominated BSAs on capital inflow levels (excluding Fed BSAs)
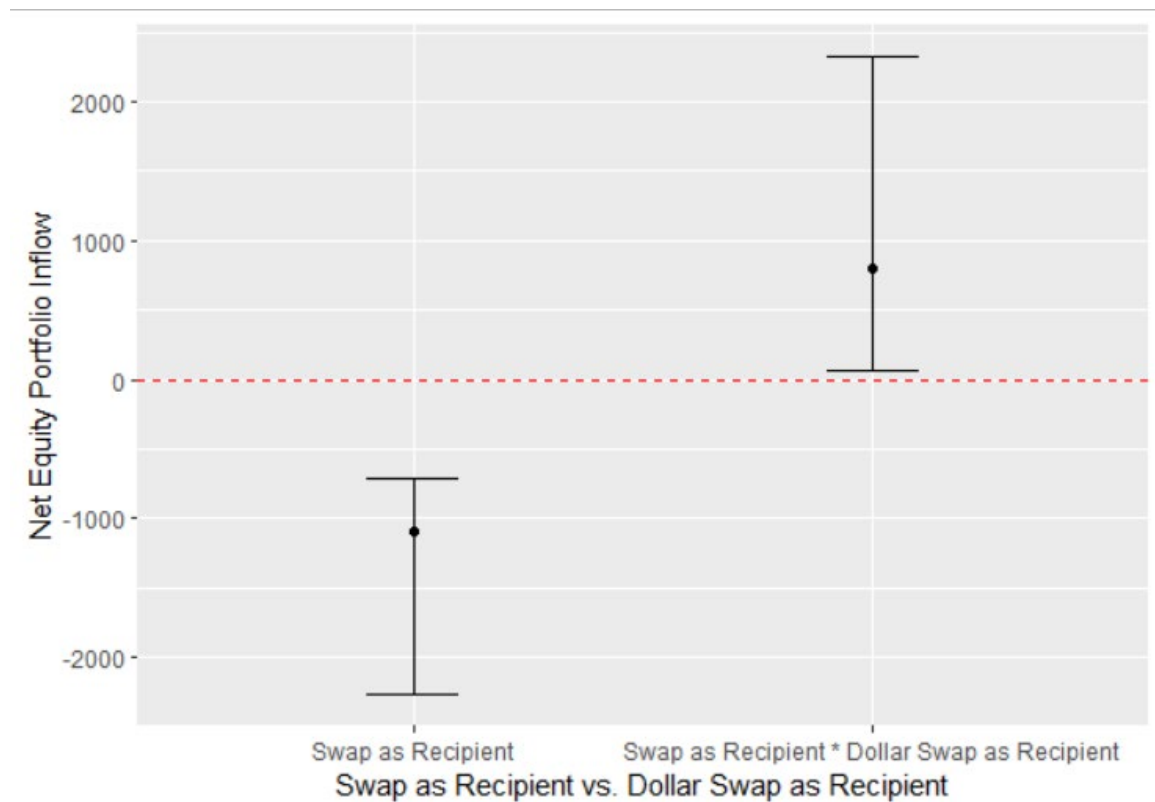
Empirical Evidence: The Political Repercussions of Exclusion and Inclusion in the

Fed's BSA Network

This section conducts a detailed analysis of how states have responded to the Fed's

selective contribution to the GFSN. Before moving on, however, we justify our case

selections by identifying the scope conditions that determine for which countries Fed

BSAs are effective in influencing policy choices.

First, Fed BSAs will not have a significant impact on securing financial security

if the country already carries a sufficient capacity to counter capital outflows

independently. These countries include those with a very closed economy or countries

that have a massive foreign exchange reserve. There are extreme examples of a closed

economy, such as North Korea, but we don't consider these economies in our analysis

since they are outliers. Freer movement of cross-border capital and goods from

globalization incorporates every country engaging in international trade and investments

into the international monetary system. (Tobin 2000) The level of exposure to external

capital volatility differs depending on the level of the economy's capital account

openness, current account balance, and more, but the structure of the international

monetary system still impacts policy choices at any level. This is because the dollar is the

dominant currency in settling cross-border trade and investments. Hence, although closed

economies are likely to be less affected by the absence/presence of a Fed swap line,

enhanced access to the dollar is important to them as well.

Another group of countries that receive a less significant impact is those that

have a massive level of foreign exchange reserves, enough to independently counter

capital outflows. The most prominent example is China. As Figure 5 demonstrates, China by far has the largest volume of foreign exchange reserves. Together with its continued use of capital flow measures, this allows China to defend its capital market without any help from the Fed. China's self-sufficiency and in contrast, the continued demand for the dollar by economies excluded from the Fed's swap network carry important implications for the sustainability of dollar dominance, as we demonstrate in this section.

Figure 1-5. Top 10 economies with the highest volume of foreign exchange reserves in million current USD (2022)
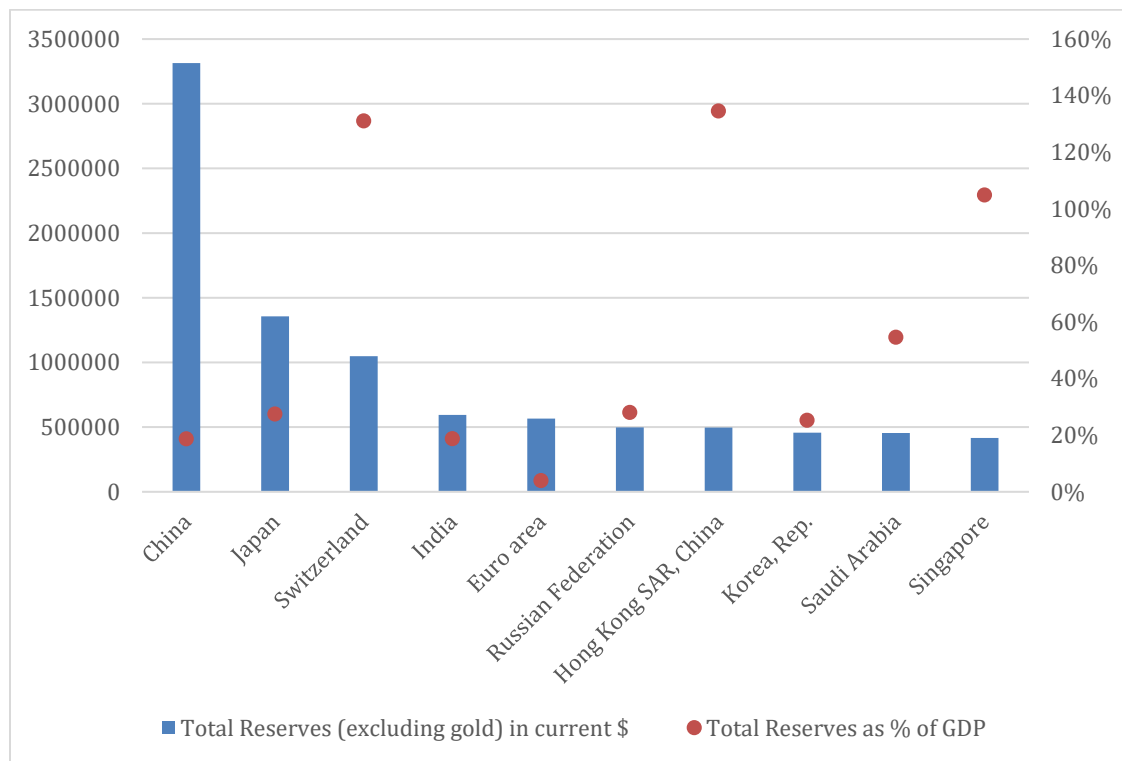
Source: World Bank, Author compilation

Japan and other major advanced economies also hold a high level of foreign exchange reserves. Especially, Japan alone has a higher volume of foreign exchange reserves than

the entire Eurozone combined. This implies that for many of the top 10 economies with the highest foreign exchange reserves, Fed BSAs may not have a significant impact. However, Figure 5 demonstrates that this has not been the case for most of these economies. Most of these economies have been strongly reliant on Fed BSAs to access the dollar since 2010.

For instance, the amount of yen swapped for the dollar through the Fed BSAs over the past 13 years is nearly half of Japan's total foreign exchange reserves. While this shows that Japan is indeed capable of defending its own financial security, it also shows that having access to Fed BSAs gives Japan a significantly larger policy space to engage in financial cooperation as a creditor with less risk, or even increase dollar-denominated debt. This is because having this additional option allows Japan to use Fed BSAs to access the dollar without draining its own foreign exchange reserves. This is even more true for the European Central Bank, which has a lower volume of foreign exchange reserves than Japan but higher total use of Fed BSAs. This indicates that Fed BSAs also have a significant impact on the policy choices of economies that have a sufficient level of foreign exchange reserves. This, of course, cannot be said to be true for China since it has not been tested – China is excluded from the Fed's swap network.

Figure 1-6. Cumulative use of Fed BSAs per central bank in million USD (2010-2023)
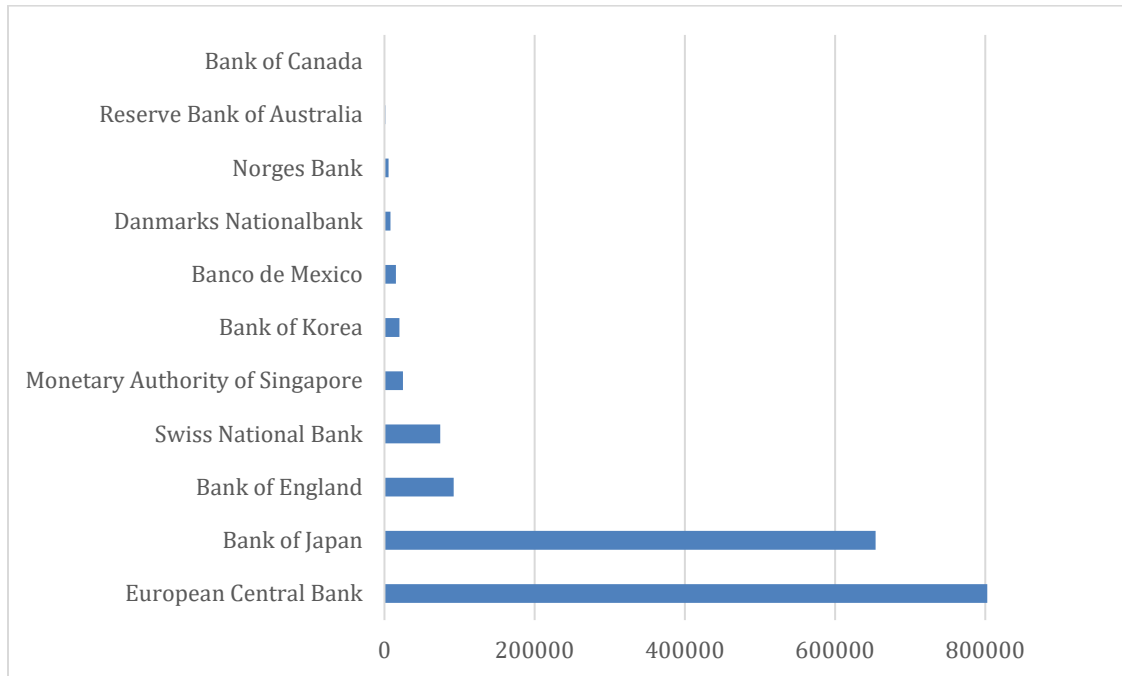
Hence, Fed BSAs have an important impact on the policy choices of nearly every economy except for extremely closed economies. Again, this condition does not hold for China, but as we demonstrate in this section, the Fed's selective engagement with the GFSN and China's more generous provision of RMB liquidity contributes to RMB internationalization in the long term as the 'excluded' economies seek to reduce their reliance on the dollar. In this regard, Fed BSAs also have an indirect effect on China's policy outcomes. The findings of this section's case studies, therefore, have international implications beyond the cases that we focus on.

Given the importance of Fed BSAs to the policy choices of countries that are part of the international monetary system, this section conducts detailed case studies on some

of the policy choices of the included and excluded economies that cannot be explained under the existing perception of the international monetary system as having a hierarchical structure. We first demonstrate how exclusion increases motivations for financial cooperation as the excluded countries seek to reduce their reliance on the dollar. Second, we demonstrate how inclusion both reduces and increases motivation for financial cooperation as political considerations, rather than economic considerations come to the fore by examining cases 1 and 3 in Figure 2.

Exclusion – China as the New Hub?

Exclusion from the Fed's swap network motivates economies to more proactively engage in financial cooperation to enhance their financial security. This happens either in the form of reducing their reliance on the dollar by looking for alternative currencies to settle trade or increasing their access to the dollar. RFAs or BSAs denominated in the dollar pertain to the latter, while local currency-denominated BSAs and the creation of regional currencies pertain to the former.

Financial cooperation between the excluded economies can be important in settling bilateral trade, and a swap arrangement with every trading partner may be effective in enhancing financial security since trade can be settled using local currencies for all trade relationships. An easier route, however, is to establish a BSA with a potential creditor that can directly establish a dollar-denominated swap line, which will be useful for settling trade or investments with any partner. Another option is to additionally sign a local currency-denominated swap line only with major trading partners and settle trade with the dollar for other trade routes. This implies that the demand for financial

cooperation among the excluded economies exists, as case 2 in Figure 2 demonstrates, but if creditor countries are willing to extend dollar or local currency-denominated BSAs, then financial cooperation between the excluded economies loses relative value.[9]

And this has indeed been the case for financial cooperation in the GFSN. As Figure 1 demonstrates, financial cooperation is centered around a few creditor economies such as China which is a major trading partner for all its swap line partners, or Japan which has been extending dollar-denominated BSAs to regional economies, with recipient economies rarely establishing BSAs between themselves. The dollar BSAs contribute to perpetuating dollar dominance since they do not reduce an economy's reliance on the dollar for settling trade and investments. This is the same for dollar-denominated RFAs such as the CMIM or FLAR. Most local currency-denominated BSAs also do not significantly undermine dollar dominance either since they are most effective in settling bilateral trade.[10] Such BSAs have less value, therefore, as a financial safety net. Nonetheless, China's BSAs pose a potential challenge to the persistence of dollar hegemony due to its magnitude in international trade and investments and its stronger willingness to extend RMB liquidity to its major trading partners compared to the U.S. and the Fed.

China does not need the Fed's BSAs to defend its capital market. It has the highest foreign exchange reserves in the world and has stable access to the dollar based

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[9] Explanations on why creditor countries are willing to serve as creditors will be made the next subsection.
[10] Currencies can be exchanged again for the dollar at the foreign exchange market after activating a local currency denominated swap line but doing so does not reduce the country's reliance on the dollar since the ultimate objective of the swap line is to gain access to the dollar. (Mehrling 2015)

on its continued trade surplus with the U.S. But this does not imply that China is not reliant on the dollar. China is still reliant on the dollar as a settlement medium. Despite China's massive foreign exchange reserves, having to rely on the dollar to settle trade with other countries potentially undermines its policy autonomy. This is seen in how the dollar was weaponized to sanction Russia on its invasion of Ukraine recently and in the past against Cuba and North Korea. (Sen 2019; McDowell 2023)

This motivates China to push forward its own currency as an international trade medium both as a way of defending its policy autonomy and expanding its influence. (McDowell 2019) Although the effect of this push is yet to be seen as Figure 3 shows, China's willingness to internationalize its currency provides alternative options to economies that are excluded from the Fed's swap network. As Figure 7 demonstrates, China's willingness to provide RMB liquidity has allowed China to create a separate network of BSAs where many of China's partners have only China as their swap line partner.

Figure 1-7. China's BSAs (2021)[11]

Fig. 7-1: Global network of BSAs   Fig.7-2: China's BSA network
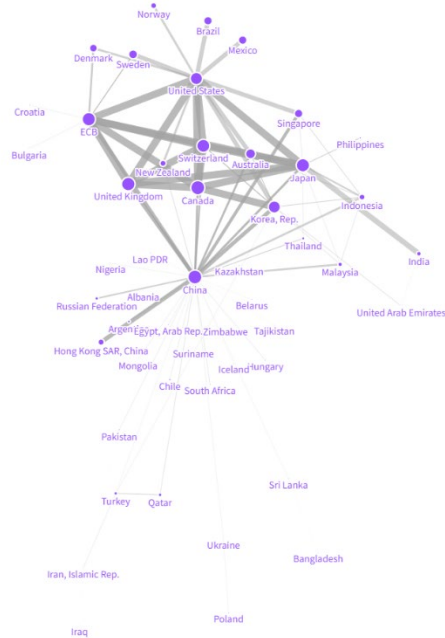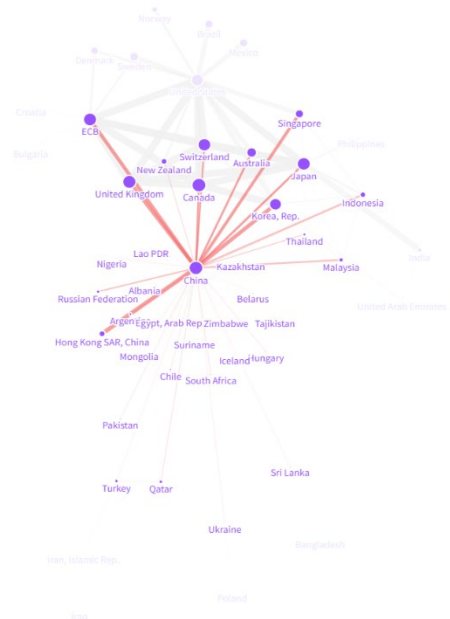
Source: Author

In other words, the Fed's selective intervention in the GFSN and the dollar's continued dominance in the international monetary system drive 'excluded' economies to search for ways to reduce their reliance on the dollar.[12] And China's higher willingness to extend RMB liquidity to other economies in contrast makes the RMB an attractive alternative medium for settling trade and investments. Hence, the Fed's selective swap arrangements potentially challenge the dollar's continued dominance.

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[11] Edge thickness is determined by the volume of each BSA, with permanent and unlimited swap lines having a volume of 100 billion USD for presentational purposes.

[12] The largest swap lines that China has established are with the recipients of Fed swap lines. However, the paper's aim is not to identify the motivation behind China's policy choices but rather to examine the political ramifications of China's extensive network of swap arrangements on other economies as the relative abundance of China's RMB swap lines allows those excluded from the Fed's swap line network to settle trade and investments in alternative currencies.

This effect is only possible if the RMB can be used directly to settle trade. If, for instance, countries activate RMB-denominated BSAs to gain access to RMB liquidity and then change the RMB for the dollar in the foreign exchange market, then the demand for the dollar will not decrease. However, if the RMB can be used to settle trade or investments directly, then the Fed's reluctance to serve as a global lender of last resort may be detrimental to the persistence of dollar dominance in the long term. This potential is demonstrated in the current account balance trends of some of the major trading partners of the U.S. and China in Asia.

Figure 1-8. Trade balance of South and Southeast Asian economies with major trading partners from 2001 to 2021[13]

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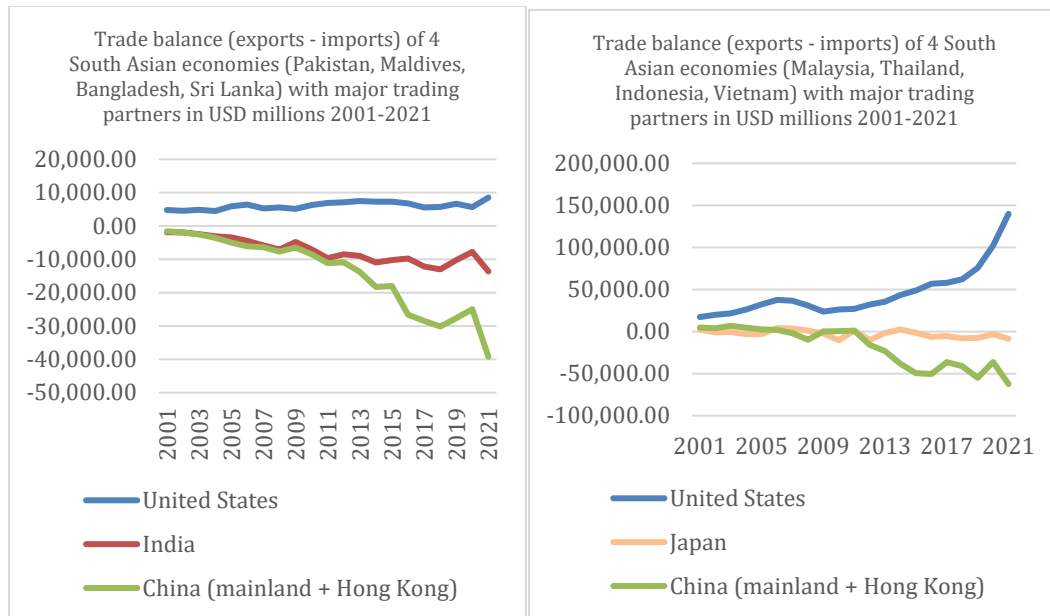
[13] The data for Fig.7 has been calculated based on the IMF's dyadic data on global bilateral trade. Import values were subtracted from the export values for 4 major countries from each region (South and Southeast Asia) to calculate the aggregate trade balance between the regional economies and India, the U.S. and China for South Asian countries and Japan, the U.S. and China for Southeast Asian countries.

Source: IMF, Author compilation

Figure 8 demonstrates that major South and Southeast Asian economies have been

consistently recording trade surplus with the U.S. while their trade deficits in trading with

China have significantly increased. This indicates that these economies have been

becoming increasingly indebted to China, paying off Chinese debt with the surplus from

trade with the U.S. While, as Figure 3 demonstrates, most trade with China is also settled

in the dollar, if China allows for RMB settlements then China's trading partners can use

the RMB to directly settle trade. And in fact, recent reports also indicate that China's

BSAs are being increasingly used as a debt financing mechanism.[14]

Hence, increasing levels of debt to China, higher availability of the RMB due to

the more extensive network of China's BSAs, and the Fed's relative reluctance to extend

dollar liquidity can make the RMB a more attractive trade and investment-settling

medium for economies excluded from the Fed's swap line network. In this respect,

exclusion from the Fed's swap network overall increases the motivation to engage in

financial cooperation operations as those excluded seek alternative trade and investment

medium currencies and potentially challenge dollar dominance.[15]

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[14] The Wall Street Journal, December 11, 2022.
[15] The latter's potential depends on how liquid the RMB market becomes, given that unlike the dollar, the RMB is mostly available directly through the People's Bank of China due to the much smaller scale of offshore RMB markets. However, the increasing trade deficits in trading with China, and China's more generous approach to providing RMB liquidity contributes to partially weakening the current absolute dominance of the dollar. Furthermore, for China, if most of its external trade and investments can be made with its own currency as a result, then at least the political influence of the dollar, as seen in the sanctions imposed on Russia against the Ukrainian crisis, can be reduced for China, allowing it to hedge against the potential impact of dollar weaponization.

Inclusion: Enhancing or Undermining Financial Cooperation?

Inclusion in the Fed's swap line network, on the other hand, has mixed implications for financial cooperation. As the regression results in Table 1 demonstrate, only the Fed's BSAs are effective in countering short-term capital outflows. This indicates that the relationship with the Fed is one of the most important sources of financial security for economies included in the Fed's swap network. The importance of Fed BSAs differs depending on each country's independent capacity to counter capital outflows. However, as Japan's case demonstrates, even when an economy carries such a capacity, Fed BSAs still have a significant additive effect as they allow the economy to manage its capital market without draining its own foreign exchange reserves. In this respect, Fed BSAs are the most important *external* source of financial security for every 'included' economy.

Strengthened financial security and increased policy space from inclusion in the Fed's swap network reduce the relative importance of financial cooperation with other economies. This is not to argue that, for instance, Japan's dollar-denominated BSAs have no economic value for Japan. The financial stability of regional economies has clear positive economic effects, as it protects the investments of Japanese investors in those economies. Instead, this indicates that having permanent, unlimited access to the dollar allows for financial cooperation operations that go beyond simply protecting the domestic financial market. This is because extending dollar BSAs to other economies will be able to have only a minimal impact on Japan's dollar access. In other words, Japan can extend dollar BSAs to other economies because it 'can'. Permanent access to Fed BSAs,

therefore, allows the 'included' economies to be more proactive in pursuing financial cooperation as creditors.

This effect, however, differs depending on the duration and limit of the Fed's BSAs. For those that have had ad hoc and limited access to the Fed's BSAs over the Global Financial Crisis and the COVID-19 crisis, as Table 2 shows, the relative economic value of other financial cooperation operations decreases, but they maintain a higher level of importance for them than for those with permanent and unlimited access. This is because the stickiness of BSAs as Perks et al. (2021) demonstrate, creates an expectation that the Fed will again extend BSAs for previous partners against crises but the remaining uncertainty and limits in the arrangement make financial cooperation with other economies still relatively important. However, in general, being included in the Fed's swap network decreases the relative economic value of financial cooperation with other economies for both those with permanent and ad hoc access.

Table 1-3. The Fed's BSAs

	COVID-19 Pandemic			Global Financial Crisis	
	Ceiling	Outstanding		Ceiling	Outstanding
		May 27, 2020 (peak)	End-2020		End-Dec 2008 (peak)
Total		**449**	**18**		**583**
Permanent and Unlimited		**403**	**14**		**501**
Japan	Unlimited	226	0	Unlimited	138
ECB	Unlimited	143	4	Unlimited	302
UK	Unlimited	23	0	Unlimited	34
Switzerland	Unlimited	10	10	Unlimited	27
Canada	Unlimited	0	0	Unlimited	0

Temporary	450	46	4	225	81
Australia	60	1	0	30	23
Denmark	30	4	0.4	15	15
Korea	60	19	0	30	10
New Zealand	30	0	0	15	0
Norway	30	5	0	15	8
Singapore	60	10	2	30	0
Sweden	60	0	0	30	25
Brazil	60	0	0	30	0
Mexico	60	7	1	30	0

Source: Perks et al., Fed

This has mixed implications for financial cooperation in the international monetary system. First, as already mentioned, those with permanent access to the Fed's BSAs can have increased motivation to engage in financial cooperation due to the reduced risks of being a creditor to other economies. This is evidenced in Japan's dollar-denominated swap arrangements (including the 65 billion dollar swap line with India) and Canada's permanent and unlimited swap arrangement in local currencies with South Korea, among others. However, those with ad hoc access end up having overall decreased motivation to participate in financial cooperation with other economies.

This is because while financial cooperation still carries significant value for these economies, its relative economic value decreases since dollar BSAs are the most if not only effective way to counter short-term capital outflow. While this is the same for those with permanent access, for those with ad hoc access, the dollar BSAs are unstable and limited. Hence, engaging in financial cooperation operations as a creditor continues to be risky. Lee et al. (2023) find evidence for this phenomenon in their analysis. The authors find that since South Korea has gained ad hoc access to the Fed BSAs, it has become

reluctant to actively engage in the CMIM as it used to and that its bilateral financial cooperations are signed with only economies that Korea has trade deficits. This is also demonstrated in the financial cooperation behaviors of other economies with ad hoc access to the Fed's BSAs. For instance, most of Australia's swap arrangements are with economies that are included in the Fed swap network and China. The only partner country that does not fit into this category is Indonesia, but Australia has trade deficits with Indonesia. This indicates that Australia, like South Korea, is reluctant to engage in financial cooperation as a creditor.

The decreased economic importance of financial cooperation with other economies also contributes to disbanding existing operations when the political cost of maintaining the cooperation becomes larger than its economic value. We find evidence for this argument in how Japan and South Korea's BSA failed to continue shortly after South Korea gained ad hoc access to the Fed's swap line. Historical disputes between South Korea and Japan have made cooperation in security matters difficult for the two countries, but they have had a long history of financial cooperation since the Asian Financial Crisis of 1997. Japan offered a temporary swap line to South Korea during the crisis, and the swap line was regularized under the CMI. As the CMI gradually went through a process of multilateralization[16], a separate swap arrangement between the two countries outside of the CMI was signed in 2005. This arrangement was regularly rolled over up until the Global Financial Crisis, and while historical animosities between the

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[16] Separate BSAs under the CMI went through a process of multilateralization, where the individual arrangements were eventually put under a single arrangement.

two countries were still there, political tensions between the two countries did not affect their financial cooperation.[17] (Lee 2015; KITA 2023)

This relationship changed, however, as South Korea gained access to the Fed's swap line during the Global Financial Crisis. The Fed was at first reluctant in offering a swap line to South Korea and instead proposed a repo operation, but its stance quickly changed and by the end of October 2008, the Fed decided to extend a 30 billion dollar swap to South Korea. With access to the Fed's swap line, other financial arrangements became beneficial, but not essential. This can be seen in how South Korea dealt with arrangements with other economies. South Korea first rejected Japan's three-time offer to expand existing BSAs until Japan offered a larger swap volume. Then it convinced China that expanding currency swap volumes with Korea can help the RMB achieve a key currency status, leading to a local currency swap arrangement between the two countries. According to President Lee's memoir, this alarmed Japan as it wanted to contain the RMB's rising influence in the East Asian region, and induced Japan to expand its swap line volume with South Korea to levels preferred by South Korea. (Lee 2015)

This renewed arrangement was eventually short-lived, however, as the relative importance of the Japan-Korea swap arrangement decreased. Financial cooperation between the two countries was previously seen separately from their political disagreements, but soon after the Global Financial Crisis, the swap arrangement became a political issue. Increasing political tensions between the two countries since President Lee's visit to a disputed island eventually discontinued the swap arrangements, which at

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[17] *Yonhap,* 2023.03.17

their peak after the Global Financial Crisis reached a total sum of almost 70 billion

dollars. Increasing political tensions between the two countries made Japan reluctant to

continue the financial arrangements and South Korea less enthusiastic about continuing

them. The Ministry of Economy and Finance, for instance, perceived its swap

arrangements with Japan as non-essential and South Korea to have a sufficient volume of

reserves and other swap arrangements and let the arrangements with Japan lapse out in

2015.[18]

Securing additional sources of foreign exchange continued to be important for

South Korea since it only had ad hoc access to Fed BSAs, however, and this can be

evidenced in how South Korea continued to expand its swap arrangement with China and

central banks with permanent access to Fed BSAs (Bank of Canada, Swiss National

Bank).[19] Hence, the discontinuation of financial cooperation with Japan demonstrates that

additional swap arrangements continued to be important even after the Fed extended

BSAs to South Korea, but that their relative importance decreased so that continuing

financial cooperation with Japan became more costly than the economic benefits it could

provide. For instance, when South Korea asked for a revival of the swap arrangements in

2016[20] and Japan declined the request due to disagreements on comfort women issues,

the South Korean government perceived the political costs of compromising to be greater

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[18] *Donga Ilbo,* 2015.02.16, *Yonhap Infomax,* 2020.03.20

[19] South Korea also have had swap arrangements with Southeast Asian economies, but they were all countries that South Korea had a trade deficit with. (Lee et al. 2023)

[20] This was due to rising market uncertainties from Fed interest hikes and Brexit.

than the economic costs of not having a swap arrangement with Japan, and no further negotiations were made.[21]

The cases we present in this section serve as evidence for the hub-and-spokes structure of financial cooperation in the international monetary system. Relationship with the 'hub' central bank is the most essential in protecting capital markets against crises, and being included in the Fed's swap network changes the behaviors of recipient economies in important ways. Those with permanent access become more willing to serve as a creditor since unlimited access to the dollar significantly reduces the risks of being a creditor. For those with ad hoc access, however, the motivation to engage in financial cooperation as a creditor does not change but the relative importance of other financial cooperation operations decreases as the prospect of gaining dollar access in times of crises reduces the relative importance of other operations. This potentially brings political interests to the fore when continuing or establishing new financial arrangements, and discourages financial cooperation as demonstrated by the Japan-Korea case.

These cases also serve as evidence of how states are motivated to practice financial statecraft not only out of fear of deprivation but also due to abundance. As the South Korean case demonstrates, access to Fed BSAs significantly increased South Korea's bargaining power when negotiating swap arrangements with China and Japan since the relative importance of those arrangements decreased. This allowed it to maximize its gains as China and Japan competed for influence. Abundance also induces economies to be more proactive in serving as creditors as doing so carries much less risk.

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[21] Chosun Ilbo, 2020.03.21

For instance, Chey (2018) argues that Japan's dollar BSAs have been part of its 'reactive' financial statecraft against the RMB's rise, but these arrangements have essentially been possible because Japan is simply capable of being a dollar creditor. This allows Japan to extend dollar BSAs with a larger number of economies, and the resulting asymmetry of dependence on its currency swap partners can even be used as a means of financial coercion as seen in the Japan-Korea disputes, albeit ineffective due to South Korea's decreased dependence on Japan. This is evidence that abundance in addition to fear of deprivation motivates economies to practice financial statecraft.

Potential Policy Implications on the Dollar Hegemony

This paper argues that the Fed's selective engagement in the GFSN both enhances and undermines financial cooperation. This finding carries meaningful implications for recent policy discussions on the GFSN and its future development. Drawing on past crisis responses, studies have argued that the IMF's lending capacity needs to be significantly upscaled. (Gallagher et al. 2020; Stubbs et al. 2021; Scheubel & Stracca 2016) This is because of the universal accessibility of IMF credit compared to the selective availability of bilateral currency swaps from the Fed. Gallagher et al. (2020) argue, therefore, that Fed BSAs are useful for maintaining the 'dollar system' but not in providing crisis support to developing economies as only a few of them have direct access to the Fed's dollar swap line.

The findings of this paper imply, however, that the selective nature of Fed BSAs may induce other economies to search for alternative currencies for trade and investments. The U.S. would most likely wish to maintain its dollar hegemony, and

existing research demonstrates that the Fed's reliance on bilateral channels helps fulfill this desire. (Gallagher et al. 2020) Nevertheless, the Fed's current mode of contribution to the GFSN increases the motivation of both the countries that are underprivileged to challenge the dollar, whether intended or not. Those underprivileged have increased motivation to defend their policy autonomy or to simply protect their capital markets from excessive capital outflows, which may challenge the incumbent system. Hence, in the long run, the selective nature of the Fed's currency swap policy undermines the sustainability of the current dollar hegemony. This does not mean, however, that the dollar's dominance will be challenged significantly in the short term. What makes the dollar attractive as a settlement medium is its liquid market and that it is unmatched by any alternative currency. Instead, what this paper seeks to argue is that the Fed's selective extension of swap arrangements creates discontent with the current system for those excluded and may *relatively* undermine the dollar's dominance in the long run.

To maintain the current level of dominance, the needs of the underprivileged markets need to be fulfilled. Again, a potential solution would be to enhance the IMF as existing studies argue, to upscale its capacity so that developing economies can reliably look to the IMF for support against financial crises. The Fed can also continue its central bank swap line operations, but this should be on the premise that the needs of developing economies are sufficiently met so that power asymmetries are not intensified within the international monetary system.

Conclusion

This paper argues that the Fed's selective extension of BSAs influences the financial

cooperation operations of other economies. This is because the dollar carries a dominant

position in the international monetary system and in protecting capital markets during

financial crises. To support this argument, this paper first presents quantitative evidence

that only the Fed's BSAs are effective in countering short-term capital outflow compared

to other components of the GFSN. Then it argues that such dollar dominance creates a

networked hub-and-spokes structure of financial cooperation by conducting a detailed

qualitative analysis of the behaviors of those included in and excluded from the Fed's

currency swap network. It finds that those excluded have increased motivation to engage

in financial cooperation as they seek ways to reduce their reliance on the dollar or

increase their access to the dollar. For those excluded, on the other hand, we find that

enhanced financial security from access to dollar BSAs with the Fed reduces the relative

economic value of alternative arrangements. This either increases the motivation of the

recipient economy to serve as a creditor due to the reduced risks in serving as a creditor

or reduces its motivation when the political cost of cooperating becomes too high.

These findings make important theoretical contributions to the existing literature.

Existing studies argue that the international monetary system has a hierarchical structure,

but the structural characteristics of a hierarchy do not fully explain why states engage in

financial cooperation. By demonstrating how financial cooperation in the international

monetary system has a networked hub-and-spokes structure, we offer a theoretical

framework for explaining the motivations behind financial cooperation. We also

contribute to the financial statecraft literature by arguing that statecraft is motivated not only by the fear of deprivation but also by abundance. Being included in the Fed's currency swap network decreases the relative economic value of alternative arrangements, and brings political interests to the fore, creating extra room for statecraft to play in.

THE POLITICAL SPILLOVERS OF MONETARY POLICY

Abstract

Monetary policies of the United States have increasingly become more proactive and substantive. Existing scholarship finds that U.S. monetary policies have had clear economic spillover effects on financial markets across borders, given the dollar's central position in the international monetary system. We argue that the U.S. monetary policies also instigate *political spillovers* to economies that are more dependent on the global capital market. Support for political regimes often depends on the economic performance of the incumbent regime, especially for autocracies, as existing studies have shown. Hence, negative spillovers from the monetary policies of core economies can also influence the internal politics of peripheral economies. By focusing on annual deviations of the Fed's balance sheet volume and their relationship to support for incumbent regimes, we find that increased volatility in the Fed's balance sheets significantly decreases support for the incumbent political regime in autocracies with higher financial dependence on the global capital market, but does not meaningfully influence regime support in democracies with even higher financial dependence. We explain this varied impact by conducting a series of mechanism tests on the influence of the Fed's balance sheet volatility on multiple economic parameters.

Introduction

Repeated instances of financial crises, supply chain disruptions, and deepening financial globalization have substantially increased the volatility of financial markets. The central banks of advanced economies have implemented innovative monetary policies against the widening fluctuations of the financial cycle. Until the emergence of inflation and a new global tightening cycle from 2021, expanding balance sheets and lowering interest rates against recessionary pressure, or quantitative easing, had become the new norm for central bank operations. Accordingly, numerous studies in the economics literature have examined the economic impact of such market-interventionist operations both within and across borders. (Chen et al. 2011; Lavigne et al. 2014; Koijen et al. 2017) The political economy literature, on the other hand, has focused on the contributing factors that allow for or lead to the implementation of monetary policies. (Bordo et al. 2003; Chappell et al. 2008; Mehrling 2013; Goodhart 2014; Braun 2016; Dickens 2016; Magone et al. 2016; Vermeiren 2017)[22] A branch of these studies has focused on the uneven systematical privilege allowed to the issuers of major currencies, or the core economies,[23] in exercising more robust monetary policies, potentially at the expense of other economies. (Vermeiren

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[22] Chappell et al. 2008; Goodhart 2014; Dickens 2016; Vermeiren 2017, among others, focus on the domestic/international contributing factors to the making of monetary policies. Mehrling 2013; Bordo et al. 2003; Magone et al. 2016; Braun 2016, among others review the impact of the international/regional monetary system on the monetary policy capacities of peripheral economies.

[23] We employ the classification by Mehrling 2015 in identifying the major currency issuers, which will be analogously used in this paper as the 'core economies'. Namely, they include the U.S. Federal Reserve and the central banks that have an established permanent currency swap line with it: the Bank of Japan, the Bank of England, the Swiss Bank, the European Central Bank, and the Bank of Canada

2014; Mehrling 2015; Rey 2015; Caraveli 2016)[24] These studies find that the uneven power relations among economies under the international monetary system allow a certain group of central banks to exercise a distinctly higher level of influence in the global financial market. The literature also examines in depth the internal political underpinnings of monetary policies, pointing to domestic institutional factors that contribute to monetary policymaking. (Woolley 1994; Lohmann 1998; Chang 2003; Ehrmann & Fratzscher 2011) However, there is a lack of research that focuses on the potential cross-border *political* impact of a core economy's monetary policies on others. This is an important issue to highlight, because if domestic politics can affect the monetary policies of central banks, then the outcome of the policies may also have political impact across borders, especially if the affected economy is more dependent on the global capital market. (Bergsten 1996; Alesina & Stella 2010; Ehrmann & Fratzscher 2011) Testing this potential is the underlining focus of this paper.

For this purpose, we focus on the monetary policies of the Fed to argue that the monetary policies of the United States, or more specifically volatility of its balance sheet,[25] would decrease support for the incumbent regime in autocracies but have no significant impact on democracies, as we expect volatile monetary loosening and tightening policies to negatively affect the economies of others. We make this argument based on the following four reasons.

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[24] These authors, among others, point to how the structure of power relations within the European Monetary Union and the international monetary system impact the monetary policy capacities of the peripheral economies under each (or both) system.

[25] Basing off from what constitutes a monetary policy by a central bank, Friedman 2000

First, we focus on the Fed's policies, since the volatility of the Fed's balance sheet has been directly linked to creating economic spillovers to emerging markets. For instance, Apostolou and & Beirne find that Fed's balance sheet volatility negatively affects the stock markets of EMEs, but overall has a positive impact on their bond markets. (Apostolou & Beirne 2017, 2019) Anaya et al. also find a clear impact of the changes in the Fed's balance sheet volumes on the capital flow patterns of EMEs. (Anaya et al. 2017) These studies demonstrate that the fluctuations in the Fed's balance sheets are an effective proxy for predicting global financial volatility levels as they also closely mirror VIX.[26] Changes in the Fed's balance sheet, therefore, are indicative of changes in global financial volatility levels. This said the Fed's monetary policies are closely linked to the general economic performance of the global economy.

Second, the United States is a democracy, along with other key currency issuers,[27] and we expect its monetary policies to be relatively more favorable, or less harmful, to other democracies based on the preferential economic relationship among democracies.[28] This is because a tighter economic relationship indicates that the U.S. will have a higher level of financial exposure to the country, and the U.S. will 'selectively' extend swap arrangements to bail out such economies, as seen in the past financial crises.[29] Third, given

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[26] See Anaya et al. 2017 on the relationship between the Fed's balance sheet fluctuations and VIX. This doesn't mean, however, that the Fed sheet fluctuations follow exactly the VIX trends. Furthermore, the purpose of this paper is to observe how changes in the Fed's balance sheet as a result of its monetary policies have political impact on the domestic politics of other economies, and not to observe how global economic trends affects them. Hence, we use Fed balance sheet volatility levels for analysis.
[27] See footnote 3
[28] See Mansfield et al. 2000, 2002 for how democracies share more preferential economic relationships among each other.
[29] See Liu et al. 2001 on relationship between FDI and trade

the dollar-based structure of the international monetary system, we expect the U.S.'s monetary policies to have a considerable impact on other economies, especially if those economies have higher financial dependence on the global capital market. (Carp 2015 and Reinhart et al. 2016) [30] Finally, based on existing scholarship that finds strong support for the strong causal relationship between economic performance and regime stability, especially in autocracies, we argue that the varying impact of monetary policies on developing economies based on regime type would change the level of support for the incumbent political system for autocracies but would not significantly impact democracies as they are overall positively affected. (White 1986; Wong & Huang 2010; Andersen et al. 2014) [31]

We use the IVS, which asks respondents in 115 countries and territories from 1981 to 2021 about their preferred form of leadership by asking their preference for three types of leadership in autocratic governments (expert rule, army rule, strong leader) along with an additional question which asks whether the respondents support democratic systems, to measure the changing level of support for autocracies and democracies. Countries are categorized as autocracies and democracies based on the Polity V Individual Country Regime Trends. [32,33] We focus on the period from 2002 to 2020 since the Fed began its more proactive and direct engagement in the financial market, represented by quantitative easing, starting from the Global Financial Crisis of 2008. Starting our observation from

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[30] See for how higher external financial dependence exposes economies to the global financial cycle

[31] These authors, among others find that stronger economic performance significantly contributes to regime stability.

[32] For more information on the IVS survey see EVS 2021; Haerpfer et al. 2021

[33] For more information on the Polity V data, see https://www.systemicpeace.org/inscrdata.html.

2002 allows us to not only observe differences before and after the Fed began to proactively employ quantitative easing policies, but also to focus our analysis on a period after China joined the WTO. This allows us to avoid any confounding interruptions that these events may have generated in the world trade and financial market. In addition, ending with 2020 can help us to circumvent the impacts of the COVID-19 pandemic on the global economy.

Our analysis using these datasets finds strong support for our argument. The Fed's balance sheet volatility decreases support for the incumbent political system in autocracies but does not significantly affect that of democracies. Then we explain this varying effect by conducting a series of mechanism tests on the impact of the Fed's balance sheet volatility on economic growth rates, inflation rates, and stock price volatility in autocracies and democracies. These tests coherently demonstrate that the Fed's balance sheet volatility negatively affects the economy of autocracies but has an insignificant effect on that of democracies. These findings are robust to a variety of controls and model specifications.

Our analysis contributes to the following two fronts of the political economy literature. First, we present quantitative empirical evidence on how U.S. monetary policy has political impact on domestic politics, beyond the foreign policy dimension. Second, we contribute to the existing scholarship's understanding of the relationship between democracy and economic performance. Our findings indicate that beyond the inherent qualities of democracies that arguably allow for (or hinder) better economic performance, *external shocks*, or in this case the monetary policies of the core economies may preferentially favor democracies. Hence, democracies economically benefit under the

imbalance of the international monetary system, where its core economies wholly consist of democracies. [34,35,36] The following section discusses in further detail how these findings contribute to the existing literature in detail.

Theoretical Contributions

We make theoretical contributions to the following established strands of scholarship. The first is on the studies that examine the political repercussions of monetary policies across borders. Second, we contribute to the literature that examines the relationship between democracies and economic performance. This section makes an in-depth discussion of these studies and clarifies our contribution to each literature.

Studies that examine the political economy of monetary policies have mostly focused on what contributes to internal monetary policymaking. (Woolley 1994; Lohmann 1998; Ehrmann & Fratzscher 2011; Bergsten 2017) On the other hand, recent studies have been increasingly examining how the monetary policies of one state may influence the foreign policies of other states, as countries use monetary policies as a means of statecraft. Steil & Litan term such practices as 'financial statecraft', where states seek to achieve foreign policy ends through financial means. (Steil & Litan 2008) For instance, McDowell examines how China is using its financial leverage over Southeast Asian economies to prevent their over-alignment with the U.S., especially in the South China Sea disputes. (McDowell 2019) Chey also frames Japan's monetary policies as part of a 'reactive'

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[34] See Collier & Levitsky 1997 on the qualities of democratic governance.
[35] Again, see footnote 3 for the classification of core economies.
[36] On the hierarchy of the international monetary system, see Mehrling 2017.

foreign policy against the rising influence of China. (Chey 2018) Hence, these studies make an important contribution to understanding the political impact of monetary policies at the foreign policy dimension. (Steil & Litan 2008; Armijo & Katada 2014; Katada et al. 2017; Chey 2018; Mcdowell 2019)

We move this strand of literature forward by making the following two contributions. We demonstrate that the monetary policies of one state can also directly influence the *internal* politics of other states by observing the changes in support for the incumbent political system in autocracies and democracies against U.S. monetary policies. Through this, we investigate the political impact of monetary policies *beyond* the foreign policy dimension. Then we present quantitative evidence for this argument by demonstrating how the monetary policies of the Fed differently influence the economies of autocracies and democracies. This contributes to advancing the financial statecraft literature since the impact of monetary policies has been primarily discussed in the foreign policy dimension.[37] This paper does not, however, explore why U.S. monetary policies have such impact. We run several mechanism tests that test changes in the Fed balance sheet's volatility on economic variables to explain the baseline regression analysis, but these results do not explain why U.S. monetary policies favorably affect democratic economies. We offer a potential explanation, by pointing out that the Fed only selectively extends dollar liquidity lines to democracies, with the exception of Singapore. And since liquidity access and capital flow volatility are closely linked, this may explain why U.S.

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[37] See footnote 20

monetary policies favor the economies of democracies over autocracies. (Goldfajn & Valdes 1997)

However, further research needs to be conducted on why the Fed makes such choices, and how such choices directly relate to economic performance. Indeed, the Fed may be extending its BSAs out of purely economic reasons (i.e. level of financial exposure) as Broz finds. (Broz 2015) The political intentions behind Fed BSAs, on the other hand, have also been noted by Sahasrabuddhe. (Sahasrabuddhe 2019) The purpose of this paper, however, is not to assess what deciphers the Fed's decisions but rather to hold the Fed policy choices as a constant and analyze its political repercussions. And by analyzing the effect of Fed balance sheet volatility on the domestic politics of autocracies and democracies, we prove that the political impact of monetary policies goes beyond the foreign policy dimension.

This finding is also important to understand the contributing factors to political legitimacy. Many studies that investigate this question have treated economic performance as a dependent variable to argue that a good economy is crucial for securing political legitimacy, especially for autocracies. (Cheibub et al. 1996; Quinn & Woolley 2001; Yap 2012; Cordero & Simon 2015; Quaranta & Martini 2017) Some studies have focused on critical junctures to economic performance, such as regional or global economic crises, and have investigated their impact on the level of support for incumbent political systems. (Finkel et al. 1989; Graham & Sukhtankar 2004; Remmer 2011; Cordero & Simon 2015; Hernandez & Kriesi 2016) Nevertheless, these studies do not examine how certain policy

choices of a foreign country can directly impact the internal politics of affected states. Again, this is an important gap, since given the disproportionate influence of the dollar in the international monetary system and accelerating financial globalization, the policy choices of the U.S. can influence the economic performance levels of other economies and therefore, their internal politics. (Reinhart et al. 2016) By identifying the political spillovers of monetary policies in the United States, we fill this gap by directly identifying the causal link between U.S. monetary policies and their impact on support for the incumbent regime in autocracies and democracies.

Our second contribution comes from identifying the role of external policy shocks in explaining the relationship between democracies and economic performance. Scholars have long debated whether certain qualities of democracies either hinder or support economic growth.[38] While this paper does not directly engage with this debate, as we do not argue that democracy facilitates aggregate economic growth, our mechanism tests demonstrate that policy spillovers from the Fed, which de facto moves financial markets, can relatively disadvantage the economies of autocracies over democracies. (Miranda-

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[38] Some argue that the political institutions that often uniquely exist in democracies arguably allow for a better rule of law, property rights, and surveillance over corruption that serve as the seeding ground for economic growth. Leblang 1996; Rivera-Batiz 2002; Feng 2003; Heo & Tan 2001, among others. Others argue for a conditional perspective on the relationship. Hoffman 1983; Krieckhaus 2006; Doucouliagos & Ulubasoglu 2008. Krieckhaus, for instance, argues that the impact of political democracy on economic growth should be understood from a regional perspective, where the role of democracy as a mechanism for growth responds differently to each region/country's social, historical or cultural context. Krieckhaus 2006. Hoffman makes a similar argument, asserting that the effect of democracy on economic growth should be considered together with other factors such as the level of state interference. (Hoffman 1983) On the other end of the spectrum, studies have also consistently argued that the institutional qualities of democracies have no effect or may actually negatively affect economic growth rates. De Haan & Siermann 1996; Drury et al. 2006; Lipscy 2017. Given the wide-ranging assertions on how democracy affects growth, no clear consensus has been reached on the relationship in the past, Przeworski & Limongi 1993 and the present. Ghardallou & Sridi 2020

Agrippino & Rey 2021)[39] We find that higher volatility in U.S. monetary policies negatively impacts the economic growth rate of autocracies while it positively effects that of democracies with higher financial dependence on the global capital market. This finding is coherently replicated in the stock market volatility and inflation rates of autocracies and democracies.

Data, Measurement, and Empirical Strategy

To find evidence for our contributions, we first investigate how changing levels of the Fed's balance sheet volatility affect the level of individual support for the following political systems: democracy, and three forms of authoritarian rule – army rule, expert rule, and personal rule without horizontal and vertical accountability. Second, we conduct a series of mechanism tests to explain our findings in the main regression analysis, where we investigate the varying impact of the Fed's balance sheet volatility on the economic growth rates, inflation rates, and stock market volatility of autocracies and democracies.

First, to examine the effects of Fed balance sheet volatility on popular support at the individual level for different political systems, we employ an empirical strategy that *resembles* a difference-in-difference design as it is based on repeated waves of cross-country individual-level datasets of IVS in which individual observations were not repeatedly sampled over time in the same country. Second, we employ a difference-in-difference design with a global panel dataset of economic and political variables to

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[39] See Miranda-Agrippino & Rey 2021 on how the core economies move the global cycle and how the peripheral economies are exposed to the financial volatilities resulting from the cycle.

determine the same variable's effect on key economic parameters of autocracies and democracies as our mechanism test. The following subsection justifies our sample selection and explains our variables and measurements. The second subsection introduces our empirical strategy in detail.

Data and Measurement

We test our argument using the following sets of data: the annual Fed balance sheet data, IVS, Polity V, and purchased economic data from The Global Economy.[40] First, for the Fed balance sheets data, we use *standardized absolute deviations from the linear time trend of the Fed balance sheet volume* as a proxy for global financial volatility and the volatility of the U.S.'s monetary policies.[41] This is a time-series variable that varies over time but is invariable for all the countries

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[40] Fed balance sheet data can be found in Fed 2022b. IVS data in Haerpfer et al. 2021. Polity V in Marshall et al. 2016. Economic data from The Global Economy 2022.

[41] First, we detrend the U.S. balance-sheet volume. Specifically, we fit a linear time trend for the U.S. Federal Reserve balance-sheet volumes over the sample period (from year 2022 to year 2020) by regressing the balance-sheet volume values on a linear trend in calendar years, and then obtain the residuals from such a regression as our measure of the annual deviations (including positive and negative deviations) from such a linear time trend. Second, we calculate the absolute deviation by taking the absolute values of all annual deviations. Finally, we get a standardized absolute deviation from the linear time trend of the U.S. Federal Reserve balance-sheet volumes by dividing the difference between such absolute deviation and its sample-period minimum value by the difference between its sample-period maximum and minimum values.

Figure 2-1. The U.S. balance sheet volumes, 2002-2020
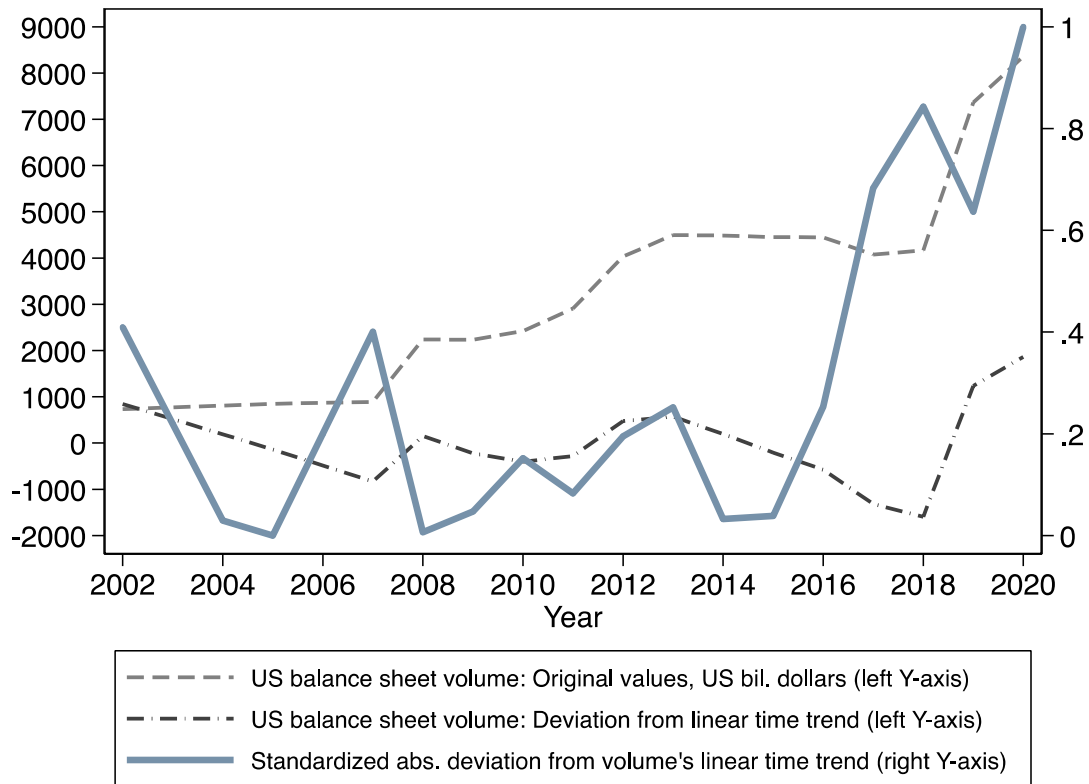
Source: Federal Reserve, Calculation by authors

in the same year. We use Fed balance sheets as a proxy for the two indicators since volatility in the Fed balance sheet volumes has been closely linked to global financial volatility levels. (Anaya et al. 2017)[42] And the Fed's balance sheet is an indicator of the Fed's monetary policy volatility as it indirectly shows the flow of new money into the market and also closely tracks the policy rate trends of the Fed. (Greenwood et al. 2016) In this respect, the balance sheet fluctuations of the Fed are an effective proxy for observing

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[42] See Anaya et al. 2017 on the relationship between the Fed's balance sheet fluctuations and VIX

both changes in global financial volatility and the monetary policy of the U.S. (Bomfim 2003; Ehrmann & Fratzscher 2003; Gospodinov & Jamali 2015; Apostolou & Beirne 2019) Specifically, we focus on the policy period from 2002 to 2020.

Figure 1 visualizes three time series: the original values of US balance sheet volumes, its annual deviations from its linear time trend, and standardized absolute deviation from its linear time trend. Methodologically, we use standardized absolute deviations from the U.S. balance-sheet volume's linear time trend for our analysis to focus our results on the effect of volatility, instead of the effect of the long-term growth trend of the U.S. balance-sheet volumes, on our outcome variables.

Second, we use average FDI inflows as a share of GDP, taking the average over years for each country in our sample, varying across different countries but time-invariant, as a proxy for measuring each country's level of dependence on the external financial market. This is a cross-section variable that varies across different countries but is time-invariant over the years. We use FDI for this purpose as although the majority of FDI consists of longer-term investments, FDI is an effective measurement for gauging the level of a country's openness and exposure to foreign capital. (Liargovas & Skandalis 2012; Agosin & Machado 2007; Tan et al. 2019) Furthermore, the level of exposure to FDI has been consistently linked to affect a wide range of policy areas. (Corcoran & Gillanders 2015; Dutta & Roy 2009) Hence, FDI is an effective proxy for measuring an economy's general exposure to capital flows as it is the most dominant source of capital flow for many economies and hence a more reasonable measure of long-term propensity of financial

dependence. (Albuquerque 2003) Moreover, FDIs often do not consist of 'hot money' and therefore not necessarily linked to global financial volatility. (Albuquerque 2003; Chari & Kehoe 2003) Such weak linkage of FDI to short-term global financial volatility enables the country-specific average of FDI levels to capture variations that are separate from global financial volatility, proxied by our U.S. monetary policy volatility measurement. Figure 2 visualizes each country's FDI share as a percentage of its GDP on a world map.

Figure 2-2: A world map of financial dependence, measured by average of FDI's GDP share %

Financial Dependence (Average FDI Share of GDP, %)
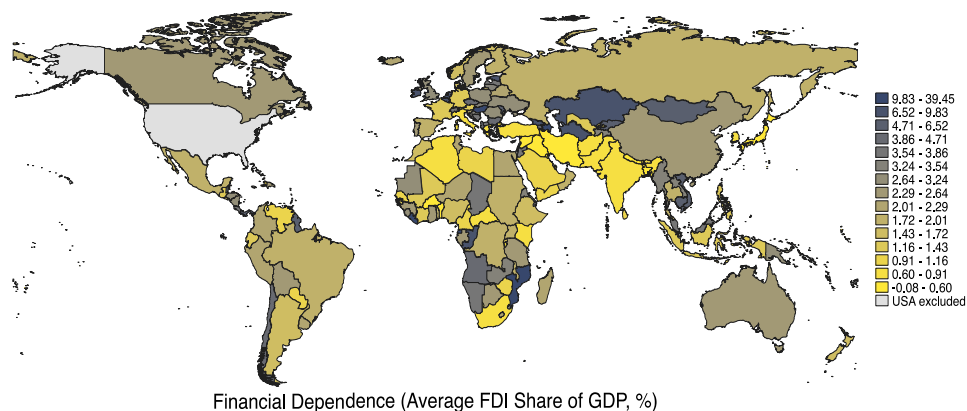
Source: The Global Economy, Calculations by authors

Third, to identify different regime types (democracy and autocracy), we use the Polity2 indicator from the Polity V dataset. This indicator is a composite measure of political institutions across countries and over years, comprehensively considering constraints on chief executives, institutionalization of political participation, competition and openness of the recruitment of chief executives. It ranges from -10 (extreme autocracy) to +10 (extreme

democracy).[43] We impose a cutoff line at +6.[44] That is, every country-year that features a polity score higher than or equal to 6 is classified as democracy while those below this line are all classified as autocracy.

Fourth, to measure individual-level support for different political systems, we use individual survey data from eleven survey waves of the IVS (Integrated Value Surveys), which integrates the European Values Study and the World Value Survey. (EVS 2021; Haerpfer et al. 2021) The original database provides nationally representative surveys with a structure of repeated cross-sections in different waves from 113 countries, covering around 540,000 respondents between 1981 and 2020. Interviews are conducted in the local languages and questions are designed to assess respondents' attitudes on a range of issues, including attitudes toward different forms of government. To match our U.S. policy measures, we only use the periods from year 2002 to year 2020 and exclude the U.S., resulting in about 380,000 respondents across 97 countries, covering both democracies and autocracies.

From the IVS database, we use individual assessments which ask respondents their thoughts on how well different types of political systems would work for their countries to measure their level of support for different forms of political systems. The choices presented to the respondents are: (1) *Having a democratic political system*, (2) *Having a*

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[43] For more information on the Polity V data, see https://www.systemicpeace.org/inscrdata.html.
[44] Deciding where to place the 'cutoff line' for dichotomizing democracies and autocracies has been rather arbitrary in existing literature as Bogaards 2012 finds. The same paper, however, finds that most studies use the +6 to 7 threshold for dichotomization. We follow this convention. See Howard & Roessler 2006 or Henisz & Mansfield 2006, among others as examples.

strong leader who does not have to bother with parliament and elections, (3) *Having the army rule*, and (4) *Having experts, not government, make decisions according to what they think is best for the country*. These indicators measure public support for different regimes, or different basic rules and principals by which authorities are organized and wielded in a state. (Easton 1965, 1975) The first choice captures the respondents' preference for democratic systems, while the latter three capture the respondents' preference for different forms of authoritarian regimes –personal rule, expert rule, and army rule.[45] Thus, we include explicit support for different regimes, each of which could be compared in preferences to alternatives. (Classen 2020) We normalize the respondents' responses so that higher values indicate higher support for specific political systems. Hence, each indicator has a 4-point scale, with 1 indicating "*very bad*", 2 "*bad*", 3 "*good*", and 4 "*very good*".[46] Instead of using national-level aggregate measures of regime support (as Classen (2020) did in his works), using individual-level measures of regime support as dependent variables enables us to control for some individual characteristics including age and birth cohort fixed effects.

Finally, we form our analyzed dataset as follows. First, we merge the sample of cross-country-time-series panel datasets for all used economic and political variables (the

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[45] The respondents' evaluation of "*Having a strong leader who does not have to bother with parliament and elections*" is a proxy for popular support for personalistic rule, while those about army rule and expert rule indicate popular support for a form of autocratic government defined by O'Donnell (1973) as "bureaucratic authoritarianism", characterized by a military government in which technocrats make policies and get support from the military elites to maintain the political order, and the popular sector is excluded in policy-making.
[46] We follow Acemoglu et al. (2021) to construct these indicators based on the original variables in IVS database.

annual Fed balance sheets, Polity V, and purchased economic data from The Global Economy) for every country (excluding the U.S.). Second, we match the IVS country-year-individual-level sample of 97 countries in the period from 2002 through 2020 to the already merged panel dataset of economic and political variables and use the resulting multi-level country-year-individual data to examine the effect of Fed balance sheet volatility on popular support for different political systems. We then only use the merged cross-country-time-series panel dataset to also conduct a series of mechanism tests to explain the results obtained from the main regression analysis.

Empirical Strategy

We estimate the effects of Fed balance-sheet volume volatility on individual-level popular support for different political systems through the following equation:

$$S_{i,n,t,w} = \alpha(Fin\_Dep_n \times Vol\_USBS_t) + \gamma' X_{i,n,t,w} + \epsilon_{i,n,t,w} \qquad (1)$$

Equation (1) is estimated based on the country-year-individual multi-level data structure, where $S_{i,n,t,w}$ indicates four dependent variables used for Equation (1): individual-level popular support for a strong leader (personal rule), an expert rule, an army rule, and a democratic system for individual i living in country n in year t, based on the survey wave w. In addition, we examine individual-level confidence in the incumbent government as a supplementary outcome. *Fin_Dep$_n$* is the financial dependence of country n, measured as the average value of FDI as shares of GDP for country n over the sample period from year 2002 to year 2020. *Vol_USBS$_t$* is the time-series volatility (standardized absolute deviations from the linear calendar-year trend) of the U.S. balance-sheet volumes,

the proxy for measuring U.S. monetary policy and global financial volatility at large. X is a vector of covariates and fixed effects, including country fixed effects, year fixed effects, age group fixed effects, birthyear-cohort fixed effects, and wave-of-survey fixed effects, gender fixed effect and dummies of categories identifying the size of the city of residence, as well as the logarithm of real GDP per capita. $\epsilon_{i,n,t,w}$ is the individual-level error term.[47]

Equation (1) resembles a generalized difference-in-difference (DiD) strategy. Our estimate of coefficient α on the interaction term ($Fin\_Dep_n \times Vol\_USBS_t$) compares the political opinions of individual citizens in a particular age group in one country to those of individuals from the same age group in other countries (with a different level of financial dependence), to those of other age groups in the same country, and to the same birthyear cohort over time as its own experience of global financial volatility, or U.S. monetary policy spillovers, evolves. Also, we exclude the effects of financial-market shocks that are only limited to specific subregions in the world.

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[47] Country fixed effects capture all the observable and unobservable time-invariant confounding factors such as culture, social norms, climatic and geographic conditions, etc. Year fixed effects capture all the time-variant common factors to all the countries, such as global business cycles and financial shocks. Birthyear-cohort fixed effects reflect common factors specific to a cohort born in specific calendar years, such as common experience that individuals born in the specific calendar year share across countries, for example, some common social and economic conditions that "baby-boomers" experienced. Age group fixed effects capture age-specific factors of individuals across different countries, calendar years, and birthyear cohorts, such as cognitive ability and ideological preferences that might naturally shift when individuals age. Wave-of-survey fixed effects absorb potential influences of specific wave of survey upon respondents. Gender fixed effects control for all the impacts arising from gender characteristics. The set of dummies of city or town sizes where respondents lived probably capture the impacts of urban or rural living environment. The log of GDP per capita controls for economic development of individuals' countries. We do not control for individual education level because this variable contains a substantial number of missing values that consist of 23.7% of full sample. Controlling for such a variable might render our regressions prone to sample selection issues as we cannot use observations for which it has missing values. Alternatively, we check the robustness of our results by controlling for individual income status, and the results are robust.

The key identifying assumption for our empirical strategy is that absent differences in exposure to global financial volatility and differences in their country's financial dependence, individuals in the same age groups across countries would have similar trends over time in terms of their support for the identified political systems. Hence, this is an empirical strategy that "resembles" a generalized DiD, but is based on a data structure that pools multiple cross-sections of individuals over years, instead of a panel data structure. (Acemoglu et al. 2021) Accordingly, we use two-way clustering standard errors which are clustered at the country-year level for the inferences with Equation (1), considering the correlation across different individuals within the same country or in the same year. We do this because, for instance, within the same country or in the same year, individuals might be more likely to have similar political opinions and values. Using conventional standard errors thus generates biased inferences with the uncertainties of our estimates.

Second, in our mechanism tests, we use the following equation to estimate the effects of the volatility of Fed balance-sheet volumes on various economic conditions as mechanism channels through which our estimation in Equation (1) takes effects:

$$Y_{n,t} = \beta(Fin\_Dep_n \times Vol\_USBS_t) + \gamma'X_{n,t} + \varepsilon_{n,t} \qquad (2)$$

Equation (2) is a country-year level regression as it is based on our merged country-year panel dataset of economic and political variables. $Y_{n,t}$ indicates the dependent variables used for Equation (2) in our mechanism tests: the growth rates of GDP per capita (measuring economic growth), the growth rates of aggregate GDP (measuring the growth in the size of the economy), the dummies of super high and super low inflations (measuring

the stability of market prices), and the index of stock market volatility (measuring local financial market volatility) for country n in year t. $\varepsilon_{n,t}$ is the country-year-level error term. The standard errors are clustered at the country level for inferences, making them robust to any autocorrelation in related economic conditions between different years for the same country.

Our estimate of its coefficient β compares the economic conditions in countries with relatively high financial dependency to periphery countries with relatively low financial dependency, in years of high global financial volatility (high volatility of the U.S. balance-sheet volumes) relative to years of low global financial volatility (low volatility of the U.S. balance-sheet volumes).[48] Through this interaction term, we are able to capture how the economic conditions of these countries are varyingly affected by U.S. monetary policy based on their level of external financial dependence. We construct this term based on existing studies that find a clear link between the level of external financial dependence and exposure to global financial cycles. (Rajan & Zingales 1996; Cetorelli & Gambera 2001; Fisman & Love 2007; Kroszner et al. 2007; De Medeiros 2008; Reinhart et al. 2016)[49]

The advantage of our estimation strategy, inclusive of that involved in both Equation (1) and Equation (2), is that we are able to position the Fed's monetary policy as

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[48] One constitutive term *Fin_Dep$_n$* is absorbed by the country fixed effects, and another constitutive term *Vol_USBS$_t$* is absorbed by the year fixed effects respectively.

[49] On how external financial dependence and growth are linked, see Rajan & Zingales 1996; Fisman & Love 2007; Cetorelli & Gambera 2001, among others. See Kroszner, Laeven, and Klingebiel 2007; Reinhart, Reinhart, and Trebesch 2016; De Medeiros 2008, among others for the link between external financial dependence and exposure to the global cycle.

an exogenous factor to other economies. Through this, we can maintain the condition that U.S. monetary policy is affected mostly by the domestic conditions of the U.S. economy, rather than the local politics of all the other countries. Hence, our estimation strategy can avoid the problem of converse causality. (Kazumasa Iwata & Shinji Takenaka 2012; Koijen et al. 2017) Moreover, our empirical strategy allows us to capture the international impact of the U.S. monetary policies by allowing the effects of global financial volatility (proxied by changes in Fed policies) to vary across other economies with varying levels of external financial dependence.

Empirical Results

We hypothesize that volatility in the Fed's balance sheets would have a negative impact on the level of political support for incumbent regimes in autocracies but have no significant impact on that of democracies that have higher financial dependence on the global capital market. Tables 1-3, which demonstrate opinion outcomes at the individual level based on equation 1, confirm our hypothesis. Table 1 is a full sample result of our analysis. At the full sample level, which includes both autocracies and democracies, an increase in the volatility levels of the Fed's balance sheets led to an overall decrease in support for army rule for countries with higher financial dependence. This demonstrates that even at the full sample level, support for autocratic regimes decreased against increasing volatility in the Fed's balance sheet volumes. Tables 2-3 demonstrate this effect more clearly by running separate analyses per democracies and autocracies subsamples.

Table 2-1. Full sample opinion outcomes at the individual level (IVS survey data)

	(1) Support for a democratic system:	(2) Support for a strong leader:	(3) Support for expert rule:	(4) Support for army rule:
	Full Sample	Full Sample	Full Sample	Full Sample
Fin_Dep ×Vol_USBS	0.0030	0.0022	0.0017	-0.0143*
	(0.0065)	(0.0131)	(0.0094)	(0.0074)
Logged real GDP	-0.0274	0.0839	0.0748	0.0640
(*per capita*)	(0.0866)	(0.1757)	(0.1814)	(0.1929)
Observations	325,923	321,927	316,268	317,483
R^2	0.092	0.187	0.101	0.228
Country FEs	Y	Y	Y	Y
Year FEs	Y	Y	Y	Y
Cohort FEs	Y	Y	Y	Y
Age FEs	Y	Y	Y	Y
Wave/Survey FEs	Y	Y	Y	Y
Number of countries	97	97	97	97

Table 2 demonstrates that increases in the Fed's balance sheet volatility significantly reduce citizens' support for the incumbent regime in autocracies with higher financial dependence on the global capital market as seen in the negative effects for expert rule and army rule, two proxies for a country's support for a government form characterized by O'Donnell's "bureaucratic authoritarianism," which is governed by technocrats who are supported by military regimes. On the other hand, the regression results show that support for democratic systems in autocracies increases for those with higher dependence on the global capital market. This finding is in strong alignment with our hypothesis. We have expected that the U.S.'s monetary policies will instigate higher levels of negative economic spillovers to autocracies compared to democracies since democracies are more closely interconnected in terms of trade and finance. And we anticipated such negative spillovers to have a direct impact on the internal politics of affected states, especially on autocracies given that the legitimacy of autocratic political systems has been considered to be more

contingent on economic performance compared to democratic systems. The regression results in table 1 confirm this hypothesis and identify a direct causal link between external monetary policies and the internal politics of autocracies.

Table 2-2. Opinion outcomes at the individual level for autocracies

	(1) Support for a democratic system:	(2) Support for a strong leader:	(3) Support for expert rule:	(4) Support for army rule:
	Autocracies	Autocracies	Autocracies	Autocracies
Fin_Dep ×Vol_USBS	0.0312*	0.0176	-0.0375**	-0.0256**
	(0.0156)	(0.0418)	(0.0134)	(0.0108)
Logged real GDP	0.5193***	-0.8583***	0.1537	0.5186**
(*per capita*)	(0.1495)	(0.2579)	(0.2248)	(0.1988)
Observations	80,920	79,847	78,123	74,016
R^2	0.099	0.166	0.072	0.139
Country FEs	Y	Y	Y	Y
Year FEs	Y	Y	Y	Y
Cohort FEs	Y	Y	Y	Y
Age FEs	Y	Y	Y	Y
Wave/Survey FEs	Y	Y	Y	Y
Number of countries	31	31	31	30

Table 3 demonstrates, on the other hand, that support for the incumbent regime in democracies is largely unaffected. We have expected that volatility in the Fed's balance sheet volumes will have a net positive, or neutral effect on democracies since we expected that the Fed's balance sheet volatility levels will have a less negative economic impact on democracies. While explaining why we made such expectations is not the main purpose of this paper, there are some potential explanations that demand further research. For instance, the Fed has been extending dollar liquidity BSAs primarily to democracies, with the exception of Singapore. These selective liquidity lines of the Fed have been found to be

capable of partially offsetting (Perks et al. 2021) the negative spillovers coming from volatility in the Fed's balance sheets, which is closely related to capital volatility levels. (Anaya et al. 2017) This, however, is only a partial explanation for why we may be observing these varied results between democracies and autocracies. After all, most democracies are not recipients of Fed BSAs. Other country-specific factors such as the quality of FDI flows (i.e. whether it is resource extractive or compliant with sustainable development principles) may be playing a role here. Although we control for country and year specific fixed effects to account for such unobserved specificities, further research will need to be conducted in order to fully understand why Fed balance sheet volatility levels have different economic impact per regime type as we demonstrate in our mechanism tests.

Table 2-3. Opinion outcomes at the individual level for democracies

	(1) Support for a democratic system:	(2) Support for a strong leader:	(3) Support for expert rule:	(4) Support for army rule:
	Democracies	Democracies	Democracies	Democracies
Fin_Dep ×**Vol_USBS**	-0.0028	-0.0016	0.0073	-0.0051
	(0.0076)	(0.0145)	(0.0050)	(0.0071)
Logged real GDP	-0.0544	0.1787	0.1832	-0.1850
(***per capita***)	(0.1046)	(0.2424)	(0.1990)	(0.2283)
Observations	245,000	242,077	238,141	243,464
R²	0.096	0.201	0.121	0.241
Country FEs	Y	Y	Y	Y
Year FEs	Y	Y	Y	Y
Cohort FEs	Y	Y	Y	Y
Age FEs	Y	Y	Y	Y
Wave/Survey FEs	Y	Y	Y	Y
Number of countries	80	80	80	80

Table 4 reconfirms our hypothesis by demonstrating the effect of the Fed's balance sheet volatility on the overall confidence in the incumbent government in autocracies and democracies that have relatively higher financial dependence on the global capital market. Similar to the results in table 1, full sample results do not carry statistical significance, but subsample results demonstrate clear differences. The Fed's balance sheet volatility leads to a significant decrease in the confidence in government in autocracies for autocracies but has no impact on democracies that have higher financial dependence on the global capital market.

Table 2-4. Opinion outcomes on confidence in government

	(1)	(2)	(3)
		Confidence in Government	
	Full Sample	**Autocracies**	**Democracies**
Fin_Dep ×Vol_USBS	0.0006	-0.0346**	-0.0021
	(0.0078)	(0.0155)	(0.0102)
Logged real GDP	-0.4970**	-0.9922***	-0.2814
(*per capita*)	(0.1739)	(0.1850)	(0.2011)
Observations	333,760	79,359	254,398
R²	0.172	0.233	0.135
Country FEs	Y	Y	Y
Year FEs	Y	Y	Y
Cohort FEs	Y	Y	Y
Age FEs	Y	Y	Y
Wave/Survey FEs	Y	Y	Y
Number of countries	98	32	80

Our findings carry significant implications to the literature that studies the spillovers of monetary policies of advanced, or core economies. We find that the U.S.'s monetary policies also have *political* spillovers that differently influence the *internal* politics of

autocracies and democracies. Hence, we advance the strand of literature that focuses on the impact of U.S. monetary policies on the foreign policy dimension of targeted states and find that they also impact the internal politics of affected states. (Steil & Litan 2008; Armijo & Katada 2015; Katada et al. 2017; Chey 2018; Mcdowell 2019) Furthermore, our analysis indicates that citizens in autocracies that have higher financial dependence on the global capital market, and therefore are more exposed to capital volatility, lose confidence in the incumbent political system against increased volatility in the Fed's balance sheet volumes while democracies remain largely unaffected. The subsequent section suggests potential explanations for the main regression results of this section through mechanism tests.

Mechanism Tests

Tables 1-4 demonstrate how the Fed's balance sheet volatility, or external policy shocks, influences the level of political support for incumbent political systems in other countries. We draw on existing studies that identify a causal relationship between economic performance and political support to explain why we observe such results. (White 1986; Wong & Huang 2010; Andersen et al. 2014) We hypothesize that political support for the incumbent regime in autocracies that have higher financial dependence decreases against increasing balance sheet volatility of the Fed, but that it does not have a significant impact on that of democracies since the Fed's monetary policies disproportionately instigate negative influence on critical economic parameters of autocracies. Tables 5-7 confirm this hypothesis. This may be due to the structural difference between autocracies and democracies, differences in policies, institutions, and more. (Wurster 2013; Pond 2018; Gokmen et al. 2021) However, again, finding out why we observe these different results is

not the main aim of this paper. Rather, this paper assesses whether the monetary policies of the Fed, proxied by Fed balance sheet volatility, have political impact on the domestic politics of other economies. The tests run in this section, therefore, are mechanism tests to the results observed in Tables 1-4.

For that purpose, we examine how Fed balance sheet volatility affects economic growth, inflation rates, and stock market price volatility of autocracies and democracies differently because first, economic growth rate is the best aggregate indicator for the economic performance levels of an economy. Inflation rates, on the other hand, are the prime concern for most central banks and extreme inflation rates on either side of the spectrum have been commonly related to policy failures and therefore directly related to the political support levels for governments. (Jones 2009) Furthermore, economic spillovers from the monetary policies of major advanced economies have been commonly linked to inflation rates and capital volatility in other economies. (Vermeiren 2014; Mehrling 2015; Rey 2015; Caraveli 2016) Observing the Fed's balance sheet volatility's effect on inflation rates and stock market price volatility per democracy and autocracy, therefore, can explain the mechanisms behind the results we observe in our main regression analyses.

This said, table 5 first examines how the Fed's balance sheet volatility influences economic development, measured by growth rates of real GDP per capita, and growth of economic size, measured by growth rates of real aggregate GDP. We find that autocracies that have relatively higher financial dependence experience slower growth in economic

development and economic size in years of relatively more volatile U.S. monetary policy.

Democracies with higher financial dependence, on the other hand, are positively affected,

albeit minimally, in terms of their aggregate economic growth rate. Their GDP per capita

growth rates, however, are not affected. This finding coherently explains the results we

observe in tables 1-4, as economic performance is a strong explanatory variable for

political support.

Table 2-5. How U.S. monetary policies influence growth rates of real GDP per capita and

growth rates of real aggregate GDP

aggregate GDP	(1) Growth rate of real GDP per capita	(2)	(3)	(4) Growth rate of real	(5)	(6)
	Full Sample	Autocracies	Democracie s	Full Sample	Autocracies	Democracie s
Fin_Dep × Lag Vol_USBS	-0.0008	-0.0053*	0.0002	-0.0005	-0.0054*	0.0007*
	(0.0007)	(0.0029)	(0.0004)	(0.0009)	(0.0030)	(0.0004)
Lag Logged real GDP	-0.0823***	-0.1071***	-0.0846***	-0.0681***	-0.0940**	-0.0737***
(*per capita*)	(0.0207)	(0.0382)	(0.0189)	(0.0218)	(0.0404)	(0.0199)
Observations	3,137	1,191	1,940	3,142	1,191	1,947
R^2	0.331	0.246	0.497	0.270	0.197	0.345
Country FEs	Y	Y	Y	Y	Y	Y
Year FEs	Y	Y	Y	Y	Y	Y
Number of countries	176	86	171	176	86	173

Second, table 6 investigates its influence on inflation rates. Existing studies find that

inflation rates have a strong correlation with political instability and support for political

systems. (Paldam 1987; Kirshner 2001; Aisen & Veiga 2008) While a modest level of

inflation may be a positive signal for the economy, hyperinflation or excessive deflation

often indicates a failing economy. (Amano et al. 2020) Hence, in table 6 we create two dummy variables that capture whether an economy is experiencing super high or low inflation rates.[50] We find that increases in the Fed's balance sheet volatility do not lead to super low inflation rates, but that they lead to super high inflation rates in autocracies while they do not affect democracies with higher financial dependence. This coherently demonstrates that the spillovers from the Fed's balance sheet volatility adversely impact the economic performance of autocracies and thereby their regime legitimacy.

Table 2-6. How U.S. monetary policies influence super high and super low inflation

	(1)	(2)	(3)	(4)	(5)	(6)
	Super Low Inflation Dummy			Super High Inflation Dummy		
	Full Sample	Autocracies	Democracies	Full Sample	Autocracies	Democracies
Fin_Dep × Lag Vol_USBS	-0.0047	-0.0119	-0.0006	0.0036	0.0146**	0.0018
	(0.0044)	(0.0128)	(0.0040)	(0.0042)	(0.0068)	(0.0037)
Lag Logged real GDP	-0.2284***	-0.0366	-0.2846***	-0.0029	0.0087	-0.0218
(*per capita*)	(0.0640)	(0.0952)	(0.1019)	(0.0550)	(0.0839)	(0.0996)
Observations	2,959	1,116	1,829	2,959	1,116	1,829
R^2	0.176	0.113	0.295	0.287	0.274	0.343
Country FEs	Y	Y	Y	Y	Y	Y
Year FEs	Y	Y	Y	Y	Y	Y
Number of countries	171	82	153	171	82	153

[50] Super high inflation is defined as 1 if the inflation rate is greater than or equal to one standard deviation above the mean of the full-sample inflation and 0 otherwise, and super low inflation is defined as 1 if the inflation rate is less than or equal to one standard deviation below the mean of the full-sample inflation and 0 otherwise.

We reconfirm our findings in tables 5 and 6 by investigating how the Fed's balance sheet volatility influences stock market price volatility. Higher volatility in stock market prices is a useful indicator of higher economic uncertainty as stock market prices are often driven by global capital flows. Volatile capital flows have been strongly linked to causing negative effects on economic growth that have higher financial openness. (Carp 2014) This said volatility in stock market prices is directly linked to economic uncertainty and growth. In this respect, table 7 coherently demonstrates the disproportionately adverse impact of U.S. monetary policies on the economy of autocracies with higher dependence on the global capital market. It demonstrates that while at the full sample level, the effects are not significant, at the subsample level, volatility in U.S. monetary policies significantly increases stock market price volatility for autocracies while they do not affect democracies.

Table 2-7. How U.S. monetary policies influence stock market price volatility

	(1)	(2)	(3)
		Stock Market Price Volatility	
	Full Sample	**Autocracies**	**Democracies**
Fin_Dep × Lag Vol_USBS	0.1333	1.4612*	0.0088
	(0.1443)	(0.8103)	(0.1190)
Lag Logged real GDP	-18.1751*	-0.7806	-32.7698*
(*per capita*)	(10.4687)	(5.5227)	(16.9012)
Observations	1,195	350	842
R-squared	0.580	0.700	0.573
Country FEs	Y	Y	Y
Year FEs	Y	Y	Y
Number of countries	86	29	63

Potential Explanations for Mechanism Test Results

These mechanism tests coherently explain why increases in the Fed's balance sheet volatility differently influence the level of support for incumbent regimes in autocracies and democracies. What, however, explains the different impacts of U.S. monetary policies on the economic performance of autocracies and democracies? While explaining this difference is not the focus of this paper, we suggest that one of the reasons behind the different impact of the U.S.'s monetary policies on key economic parameters of autocracies and democracies may be the result of the Fed's selective extension of dollar BSAs.

As table 8 demonstrates, only one country out of the 14 recipients of the Fed's dollar liquidity was autocratic. This indicates that democracies were better equipped in responding to capital flow volatility and ensuing liquidity crunches, ultimately contributing to better economic performance against the potentially negative spillovers from the U.S.'s monetary policies compared to autocracies. While we need more data observations through a longer period of time to confirm this hypothesis, given the small number of countries that had been granted access to Fed BSAs, the table below serves as a potentially useful explanation for why the volatility of the Fed's monetary policy favored the economic performance of democracies over autocracies.

Table 2-8. The Fed's BSAs during the 2021 COVID-19 crisis

Country	Limit in USD	Duration	Democratic
Japan	Unlimited	Permanent	Yes
Canada	Unlimited	Permanent	Yes

England	Unlimited	Permanent	Yes
Europe	Unlimited	Permanent	Yes
Switzerland	Unlimited	Permanent	Yes
Australia	60 billion	Temporary	Yes
Brazil	60 billion	Temporary	Yes
Mexico	60 billion	Temporary	Yes
Singapore	60 billion	Temporary	No
South Korea	60 billion	Temporary	Yes
Sweden	60 billion	Temporary	Yes
Denmark	30 billion	Temporary	Yes
New Zealand	30 billion	Temporary	Yes
Norway	30 billion	Temporary	Yes

Source: Fed, Author compilation

Numerous studies have examined why the Fed made such choices in deciding their swap line partners. Broz (2015), for instance, argues that partners were chosen mainly based on the economy's level of systematic importance to the U.S. Sahasrabuddhe, on the other hand, argues that political considerations also played a significant role in the decision-making process. (Sahasrabuddhe 2019) While these are important discussions, this paper does not seek to discuss the reasons for the Fed's decisions. The purpose of this paper is to identify the *repercussions* of the decisions. The Fed's selective extension of dollar BSAs is one potential explanation. Other factors such as the quality of FDI flows, since we use FDI flows as a proxy for financial openness, may be contributing to the varied results we observe in the mechanism tests. For instance, it may be that FDI flows to democracies may

be less predatory, while those to autocracies are more resource extractive.[51] Future research, therefore, should focus on why we observe varied results per different regime types.

Conclusion

Existing studies that investigate the spillover impact of monetary policies of core economies, or those of the U.S., have focused on their economic impact. (Chen et al. 2011; Lavigne et al. 2014; Koijen et al. 2017) We find, however, that such policies also have political spillovers. We base our argument on existing evidence of how countries have used monetary policies for political purposes in both advanced and developing economies. (Andrews 2006; Steil & Litan 2008; Armjio & Katada 2015; Katada et al. 2017; Chey 2018; Cohen 2018; Mcdowell 2019) This is an important issue to highlight, because if the monetary policies of central banks are partially political, then the outcome of these policies may also have political impact across borders, especially if the affected country has a higher level of dependence on the global capital market.

We find evidence for this hypothesis by first focusing on how monetary policies of the U.S. influence the internal politics of other economies to find that increases in the Fed's balance sheet volatility significantly decrease support for the incumbent regime in autocracies but do not affect that of democracies with higher financial dependence. We then explain our findings by conducting a series of mechanism tests. We find that the different impact of U.S. monetary policies on regime support is due to the different impacts

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[51] Escribà-Folch 2016, for instance, argues that FDI flows enhances the stability of autocracies especially when they are resource extractive.

of the policies on the economic performance of democracies and autocracies. By investigating how the Fed's balance sheet volatility influences economic growth, inflation rate, and stock market price volatility, we find that increases in balance sheet volatility negatively affect the economy of autocracies while it has negligible impact on democracies with higher financial dependence. And since economic performance is closely linked to political stability, especially in autocracies according to existing studies, these mechanism tests explain the statistics observed in our main regression analyses.

Our findings make the following theoretical contributions. First, we identify a direct causal link between monetary policies implemented by core economies, or the U.S., and the internal politics of countries that are more reliant on the global capital market. This demonstrates that financial globalization does not only carry economic implications but also political implications. This finding also expands the financial statecraft literature's focus on the impact of monetary policies on the foreign policy dimension as it demonstrates how monetary policies can have a direct impact on domestic politics as well. Second, we demonstrate that certain external policy shocks, in this case, the U.S.'s monetary policies, favor the economic performance of democracies over autocracies. This adds a new perspective to existing studies that focus on the internal qualities of democracies to explain their relationship to economic performance.

THE MIDDLE POWER'S FINANCIAL STATECRAFT: ASSESSING SOUTH KOREA'S STRATEGIC INVOLVEMENT IN REGIONAL FINANCIAL COOPERATION

Abstract

In recent years, the financial statecraft literature has expanded from a focus on great powers to encompass the behavior of emerging powers. Recent analyses emphasize emerging powers' deployment of defensive statecraft to reduce their vulnerability within the international monetary system. While offering an important corrective, these studies do not yet adequately address the full variety of the emerging powers' motivations for various strategies of financial statecraft. For instance, why do India and South Korea, both categorized as emerging powers in the financial statecraft literature, differ in their level of contribution to the regional financial safety net, with India being far more engaged? To answer this question, this paper argues that the behavioral characteristics attached to states based on their relative power to their neighbors provide a power explanation for why certain states choose certain financial statecraft strategies over others. To demonstrate the utility of this approach, we examine South Korea's financial statecraft in the Asia-Pacific region. South Korea has been commonly categorized as a middle power based on its relative power in its region, and this article finds that the behavioral characteristics attached to middle powers effectively explain its patterns of bilateral and regional cooperation in the monetary sphere.

Introduction

Since the publication of Armijo and Katada's (2014, 2015) pioneering studies of the financial statecraft of emerging powers, there has been growing attention to the ways in which non-traditional financial powers have sought to exercise power internationally. Financial statecraft refers to "the intentional use, by national governments, of a country's monetary or financial capabilities or conditions for the purpose of achieving ongoing foreign policy goals, whether political, economic, or financial." (Armijo & Katada 2015, p.43) Prior studies of financial statecraft had focused on the actions of the leading powers of the postwar era, including the United States, Europe, and Japan. With the relative decline of the economic and financial dominance of these countries, the importance of studying the financial statecraft of the rest of the world is apparent. Reasonably enough, much of the work on financial statecraft by non-traditional powers has focused on major rising powers, including China, India, and Brazil. Nonetheless, broadly categorizing these newly rising powers as emerging powers does not adequately explain the varieties of financial statecraft strategies employed by them. Understanding the motivation behind financial statecraft was not an issue when the financial statecraft literature was limited to mainly discussing the interaction between great powers, since the behavioral characteristics of great powers have been able to explain why these states act in the way they do. (Wu & De Wei 2014; McDowell 2019; Lim et al. 2020) Yet the categorization of emerging powers encompasses a much wider variety of countries that are different in terms of both material and relative power. The strategical considerations that each country must make when engaging in financial statecraft ought to differ accordingly. For

instance, why did India and Brazil choose to challenge the imbalance of the international

monetary system, as Katada et al. (2017) argue, while South Korea has not, even though

all three are disadvantaged by the global dollar system and are middle powers at the

global level? This paper clarifies this ambiguity by arguing that emerging powers practice

financial statecraft based on their level of relative and material power and capacities in

their respective regions—i.e., regional hierarchies matter. As great powers within their

regions, India and Brazil have the capacity and ambition to seek to lead regional

initiatives, whereas Korea is as much a middle power within its region as it is globally.

Accordingly, in this paper, we elaborate on a model of middle power financial statecraft.

We incorporate insights from the literatures on both middle powers and emerging power

financial statecraft to build a coherent picture of middle power financial statecraft, and

illustrate it with examples from South Korea (hereinafter, Korea), a regional middle

power in East Asia. Unlike great powers or rising great powers, middle powers are not in

a position either to enforce existing rules and organizations or to create new ones. They

are constrained to operate within systems established and led by larger powers. Crucially,

however, they may be in a position to improve their own positions within those systems

and even to shape the systems and organizations advocated by larger powers at key

moments. We find evidence for Korea's middle power financial statecraft by finding

evidence for its contrasting approach to financial statecraft in bilateral and multilateral

channels. South Korea has been noticeably reticent in expanding its influence through

bilateral channels, as we observe in its approach to bilateral swap arrangements (BSAs).

In contrast, Korea has been proactive in expanding its influence through multilateral

channels as we find in its engagement with the establishment and operation of the Chiang Mai Initiative Multilateralism (CMIM), East Asia's $240 billion regional financial arrangement (RFA). Korea has played a critical role as a mediator and at times as a leader in advancing the RFA. We find evidence for this argument based on in-depth interviews with Korean policy executives and elites, along with policy reports in the local language, to show that Korea not only sought to thicken its financial safety net through the CMIM but also sought to maximize its political influence within the multilateral platform to ultimately increase its currency's influence in the region. And again, in contrast, we find that Korea's proactiveness in expanding its influence through multilateral financial cooperation has not extended to bilateral financial cooperation. Both sets of behavior are characteristic of a middle power's behavior. Incorporating the findings of the middle power literature increases the explanatory power of theorizing on the financial statecraft of emerging powers, clarifying why and how states engage in financial statecraft. The paper proceeds as follows: First, we conduct a more detailed review of the literature on the financial statecraft of emerging powers to specifically identify its gaps and this paper's contributions. Second, we identify the defining characteristics of a middle power based on existing literature and demonstrate how Korea operates as a middle power not only in trade and security issues but also in the international monetary system. Third, we highlight Korea's passive attitude in advancing its financial influence in the region through bilateral channels, which is also characteristic of middle power behavior. Fourth, based on in-depth interviews and public accounts of Korea's involvement in and perception of the CMIM, we find strong evidence of Korea's proactive involvement in

advancing its interests in the multilateral platform, a defining characteristic of middle power behavior. Through this, we demonstrate how Korea's relative power in the region, or its positioning as a regional middle power strongly determines its engagement in regional financial cooperation. Finally, we identify caveats, suggestions for future research, and implications of the study.

The Financial Statecraft of Emerging Powers

Globalization has accelerated the build-up of complex interdependence in trade and finance among economies. Interdependence, however, often comes in asymmetric forms (Keohane & Nye 1973), allowing certain states to have larger economic influence over others. Capable states have proactively exploited this leverage to practice economic statecraft, generally defined by a state's use of instruments in the economic dimension such as imposing economic sanctions, trade barriers, and more to achieve foreign policy ends. (Baldwin 1989; Kirshner 1998; Blanchard & Ripsman 2015; Farrell & Newman 2019) Traditional studies of economic statecraft mostly focused on trade and other sanctions that had quantifiable impacts on the real economy and less on the financial dimension. (Hirschman 1980; Baldwin 1985; Steil & Litan 2008) Nevertheless, power asymmetries are at least as visible in financial dimensions as in trade (Eichengreen 1987; Mehrling 2013), creating room for the implementation of a wide variety of statecraft strategies that deserve a separate focus from those that affect the real economy.

Hence, studies have increasingly sought to separately identify the ways through which states convert their power advantages via the international monetary system. (Kirshner 1998; Steil & Litan 2006; Andrews 2006; Halabi 2008; Grimes 2011; Armjio

& Katada 2015; Cohen 2018; Farrell & Newman 2019) Steil & Litan (2006) identify such state behaviors as 'financial' statecraft, which exists as a subset of economic statecraft, where states seek to achieve foreign policy ends through financial means.

Since statecraft was conventionally understood to be a means of coercing a target state for policy ends, however, earlier studies generally considered only a hegemon or major powers that held significant levels of financial influence over others as being capable of practicing financial statecraft. (Steil & Litan 2006; Andrews 2006; Halabi 2008) Armjio & Katada (2015) offer an important corrective to this assumption, arguing that financial statecraft should refer not only to such offensive actions but also include defensive actions that are employed to reduce states' vulnerability to the offensive financial statecraft of other major states or even to aspects of the international monetary system itself that may jeopardize their policy autonomy. Numerous recent papers have therefore argued for an expanded view on financial statecraft and the states that practice it, shedding new analytical light onto the policies employed by emerging and developing economies as well as those of global powers. (Armjio & Katada 2015; Katada et al. 2017; Chey 2019; Obydenkova 2020)

While these works provide much needed insight in explaining the policy choices of emerging and developing economies through the lens of financial statecraft, they do not fully account for the variety of financial statecraft strategies employed by the states. In particular, they do not sufficiently address the strategies of non-great powers seeking to employ financial statecraft. This is a theoretically important gap: while traditional accounts of financial statecraft often speak directly to the literature on great power

struggle and how it motivates the strategic choices of great powers, middle and/or regional powers are also agents under the expanded definition of financial statecraft, albeit with limited capacities.

Making this connection is empirically important, as existing studies do not provide sufficient explanations for why economies choose one strategy over others under similar circumstantial challenges. For instance, in Katada et al.'s pioneering work on emerging power financial statecraft (2014, 2015), the authors argue that the collective financial statecraft strategies employed by the BRICS economies are the result of their dissatisfaction with imbalances in the international monetary system. Given the power constraints they face when acting individually, Katada et al. (2017) argue that the BRICS economies opted for collective action in seeking to alter the existing system to their favor. This is a convincing argument. However, it does not explain why other emerging economies that are similarly disadvantaged by the imbalance of the international monetary system have not consistently opted for similar policies.

To answer this puzzle, we argue that looking at states' power within the global system is insufficient; rather, their power relative to other neighboring states is a strong determinant of the strategic choices they make in financial statecraft. States that can be categorized as middle powers at the global level may or may not be leading regional powers, and we argue that this distinction can also shape their motivations and strategies in financial statecraft. This comports with the findings of numerous studies that the relative power of a state, in addition to its overall material power, is a strong determinant of its policy choices in multiple dimensions. (Cooper et al. 1994; Nolte 2010; Layne

2012; Teo 2017; among many others) For instance, although Brazil or South Africa have similar or smaller economic and military capacities to those of Korea, Australia, Canada, or Indonesia, they are classified as regional powers due to their relative preponderance within their respective regions. Regional powers demonstrate distinct differences in their foreign policy choices from other middle powers, marked by stronger motivation to shape the regional security and economic agenda by directly expanding their influence over states within their sphere of influence. (de Lima & Hirst 2006; Flemes 2007; Prys 2014) It makes sense that this would hold for financial statecraft as well. Thus, India, Brazil, and South Africa, classified as regional powers, chose to pursue a more offensive financial statecraft strategy of challenging the system, while Korea, classified as a middle power even within its region, opted for more defensive means to protect its autonomy even though it too is disadvantaged by the global dollar system. Integrating the insights of studies of the behavior of regional or middle powers into the literature on financial statecraft can explain why countries choose specific strategies among the identified 'varieties of financial statecraft'. (Katada et al. 2017)

Distinguishing between regional powers and regional middle powers is both theoretically and empirically useful. While the category of 'emerging powers' potentially includes dozens of states, the spectrum of capacity among the states is strikingly wide. For instance, both China and Indonesia are categorized as emerging powers in the system by Armijo & Katada (2015), but there is a clear disparity between the two powers in terms of material and relative capacity. Since strategic options are constrained by capabilities, the behavior of leading and middle powers should differ.

The issue of what constitutes an emerging power is less problematic in studies that focus solely on the financial statecraft of China, whose strategic motivations have been clearly linked to hegemonic struggles or great power contests, given China's position as a potential challenger to the international monetary system and dollar hegemony. (Wu & De Wei 2014; McDowell 2019; Lim et al. 2020) The same applies to studies on Japan's financial statecraft—both toward the U.S. and the international monetary system, where its defensive financial statecraft reflected its global middle power status (Grimes 2013), and toward China, where it has acted as an incumbent power that is answering to the challenges posed by its rising neighbor and rival. (Grimes 2009, Katada & Sohn 2014; Mattlin & Gaens 2018; Chey 2018)

However, the term "emerging powers" is also used in reference to states with less influence, raising the question of how such power discrepancies lead to different financial statecraft strategies. The growing number of studies that assess the financial statecraft of the BRICS economies (Armijo & Roberts 2014; Katada et al. 2017; Roberts et al. 2018; Grabel 2019) do not provide a compelling explanation of why these economies (with the exception of China, which is aspiring to be a peer challenger to the United States) have chosen a more offensive policy trajectory compared to other countries that face similar challenges and limited material capacity such as Korea. In other words, while the current literature on financial statecraft demonstrates that a wide variety of states are active users of financial statecraft, it does not sufficiently address how the resulting wider variety maps onto differing strategies. In this paper, we argue that states' status as middle or regional powers helps to explain the range of options available to them, as well as their

motivations. We find strong evidence for this assertion, affirming the effect of relative power as well as material capabilities as a strong determinant of policy choices even in the financial dimension.

The Behavioral Characteristics of Middle Powers and Korea

The contribution of this paper lies in not expanding our understanding of middle power behavior, but rather in improving our understanding of why certain emerging powers are motivated to engage in certain financial statecraft behavior. In other words, by incorporating the findings from the middle power diplomacy literature, we seek to improve the explanatory power of the literature on financial statecraft of emerging powers. Hence, the discussion of middle powers in this section is aimed at outlining the behavioral characteristics of middle powers based on existing studies and testing their usefulness in explaining the financial statecraft of a subset of emerging powers in the later sections.

A key insight of the middle power diplomacy literature is that middle powers are constrained by the rules and institutions in which they operate. For the most part, they must seek particularistic advantage within those institutions. Occasionally, they may be able to shape or alter the rules, but they can do so only in cooperation with other states—whether siding with a great power, leading a coalition of middle and/or lesser powers, or mediating between two great powers or coalitions. Thus, middle power financial statecraft is defensive in nature, prefers multilateral action over bilateral influence, and emphasizes coalition-building and mediation rather than leverage.

Categorizing states into groups characterized by a set of common behavioral

qualities has been common practice in the study of international relations, as it establishes

an analytical framework that can help empirically identify certain qualities of states that

lead to a set of policy choices. (Rousseau & Garcia-Retamero 2007; Lake 2009) This

endeavor, however, has also been challenging and contested as countless factors

determine how states behave. This has especially been so in defining what constitutes

middle powers, given their ambiguous position between great powers and smaller

powers. (Robertson 2017) Still, scholars have repeatedly found evidence for

commonalities among a group of states that share certain qualities, including a plethora of

works that assess the role and behavior of middle powers on the international stage.

(Chapnick 1999; Jordaan 2003; Ungerer 2007; Karim 2018, among others)

Studies classify states as middle powers based on three factors. (Soward 1965;

Cooper et al. 1994; Beeson & Higgott 2013; Teo 2017) The first, or the positional factor

focuses mainly on material capacities, such as economic size, territorial size, population,

and military capacities. (Emmers & Teo 2014; Gilley & O'Neil 2014) While this

quantitative approach allows for a rough first cut for identifying middle powers, it offers

only limited insights into how the states are actually behaving on the international stage.

Hence, material capacity should be only one of the independent variables that determine

how a state behaves. Cooper et al. (1994) focus on two other factors: the material

capacity of a state relative to its geographical neighbors and normative qualities of states

such as culture, ideology, or the path dependency of past policy trajectories that affect

current policy choices. This is where regional powers differ from middle powers within

the broader category of emerging powers. While from a material capacity perspective, a regional power may potentially be less capable in global terms than a middle power, its relative strength in its regional landscape can lead to more proactive, or even aggressive, policies to shape regional power dynamics and policy agenda in its favor. (Prys 2014) In this respect, middle powers can be classified as states that are located between great powers in terms of their material power, geographical location, and political or ideological systems. (Beeson & Higgott 2014) In general, such a positioning defines middle powers as holding enough power to secure their autonomy and exercise influence while still being limited by their weak power relative to their geographical neighbors.

Studies have found that such a power positioning leads to certain consistent characteristics of middle powers. First, the areas where middle powers demonstrate strength often consist of non-traditional security issue areas such as technology standards or other areas of soft power where they can take intellectual leadership. (Behringer 2013; Cooper et al. 1994) Middle powers can only exercise effective leadership in limited issue areas on the international stage, as stronger powers already occupy the leadership position in areas that directly relate to material capacity. This creates an incentive for middle powers to seek leadership in 'niche' areas. (Cooper 1997; Behringer 2013; Robertson 2017) Second, middle powers depend heavily on multilateral platforms and processes to achieve foreign policy ends. (Behringer 2013; Nossal & Stubbs 1997) This is because, while middle powers wield a sufficient level of power to protect their autonomy, their individual influence on the region or the international system is limited. As a result, middle powers favor multilateral processes. Multilateral processes and agreements not

only have the benefit of binding great powers; they also offer venues where middle

powers can use diplomacy and soft power tactics, in which they may hold comparative

advantages, to shape favorable outcomes by building coalitions of support with other

middle and lesser powers or play a mediating role between great powers. Hence, given

the limitations in both relative and material capacity, middle powers rely on diplomacy,

coalition building, and soft power to advance their interests, seeking to take leadership

only in niche policy areas.

Based on Korea's relative and material power, multiple studies have characterized

it as a middle power at the global level. (Robertson 2007; Shin 2015; Karim 2018) Korea

is also a middle power within East Asia. In its economic and political capabilities, Korea

is placed between China and Japan, the two great powers in the region, on the one hand,

and the smaller economies in Southeast Asia on the other. Behaviorally, Korea has

demonstrated a clear preference for multilateral processes where possible in advancing its

foreign policy interests and a demonstrated motivation to take intellectual leadership in

the region as a bridge between developing and advanced economies. (Bretford et al.

2015)

This is not to say that middle powers only pursue multilateral processes. Korea

has repeatedly demonstrated acted as a middle power in other policy areas such as trade

(Teo, 2017; Sohn, 2019) and security (Lee, 2019; Lee, 2021; Abbondanza, 2022). Yet its

specific methods of advancing its policy interests have varied widely. For instance, as

Sohn (2019) argues, Korea's non-participation in the TPP was a strategic decision as a

middle power to accommodate China's demands since Korea is highly dependent on

trade with China and participating in a multilateral trade agreement that excluded China could expose it to considerable bilateral pressure, both economically and politically. Policymakers saw that bilateral processes may be more effective in advancing Korea's economic and political interests, especially given that Korea had signed bilateral free trade agreements with most of the member states of the TPP. (*Ibid*) Indeed, Korea's active pursuit of bilateral FTAs over the last two decades has been a defensive supplement to multilateral trade agreements, with Korea seeking both to lock in access to powerful partners like the United States and European Union and to ensure that its firms would not be disadvantaged relative to U.S., EU, and Japanese competitors in third countries. In other words, proactive participation in multilateral processes does not define whether a country is acting like a middle power; rather, multilateral platforms can often serve as an effective venue for middle powers to most effectively exercise their comparative advantages.

Hence, middle powers are constrained by rules and institutions in which they operate. For the most part, they must seek particularistic advantage within those institutions. Occasionally, they may be able to shape or alter the rules, but they can do so only in cooperation with other states—whether siding with a great power, leading a coalition of middle and/or lesser powers, or mediating between two great powers or coalitions. Thus, middle power financial statecraft is defensive in nature, prefers multilateral action over bilateral influence, and emphasizes coalition-building and mediation rather than leverage.

We find that Korea's policy initiatives in the financial dimension are also in clear alignment with these expectations of middle power behavior. In particular, Korea has avoided advancing its financial interests through bilateral channels; instead, it has demonstrated a clear preference for multilateral processes and niche policy areas, where it holds advantages as a middle power.

Korea's Contrasting Financial Statecraft in Bilateral and Multilateral Processes

As Armijo & Katada (2015) argue, financial statecraft comes in both offensive and defensive forms. An offensive financial statecraft strategy is coercive and is aimed at using the agent's financial influence over the target state to induce compliance or at changing the international monetary system to advance its own interests. Naturally, only states with considerable financial influence over the target state or power in the global system are expected to be able to implement such a strategy. On the other hand, defensive financial statecraft seeks to prevent such maneuvers by thickening the agent state's financial safety net or reducing its dependence on the target state or the international monetary system itself.

A middle power's financial statecraft is defensive in nature. As existing studies on financial statecraft implicitly demonstrate, however, there are gradations to defensive financial statecraft strategies. For instance, Katada et al. (2017) argue that BRICS member states took collective action to protect their financial markets from the dollar dominance of the international monetary system. The authors categorize their policy choice as defensive financial statecraft even though they challenged the status quo of the international monetary system since the purpose of their challenge was defensive. In this

respect, the financial statecraft of the BRICS economies is still defensive, but a more proactive way of achieving policy aims. BSAs that can be drawn on in a crisis (particularly dollar swaps) can also be seen as proactive in this sense, as they make the target state more dependent on the agent state.

On the other hand, more passive strategies involve endeavors that seek to enhance financial security without changing the status quo of the regional, or international monetary system. Such passive strategies would involve, among others, the accumulation of foreign reserves or circumventing reliance on the dollar by establishing local-currency BSAs for the purpose of settling trade balances in local currencies. These strategies thicken the agent state's financial safety net as they prepare the state's financial market against excessive external drains and dollar shortages but do not attempt to expand its financial influence, unlike the strategies employed by the BRICS economies. Hence 'passive' and 'proactive' defensive financial statecraft strategies share the same policy aims but differ in terms of whether they challenge the status quo of the existing system.

This section assesses the financial statecraft of Korea in the East Asian region to find that Korea has been attempting to defend its financial security by way of expansion of influence in multilateral platforms. Yet in stark contrast, Korea has clearly demonstrated a passive attitude to defend its financial security in bilateral processes. We find that this contrast serves as strong evidence for how the behavioral characteristics of middle powers can explain the strategic motivations behind the financial statecraft of non-great powers.

Korea's 'Passive' Defensive Financial Statecraft in Bilateral Processes

Korea has been noticeably reticent in implementing a more proactive defensive financial statecraft strategy in bilateral channels. This is surprising, as even when compared to the BRICS economies that have been implementing a more proactive strategy, Korea's financial safety net has been very robust after the traumatic experience of the Asian Financial Crisis. As figure 1 demonstrates, Korea's foreign exchange reserve volumes are at par with other BRICS economies. Korea has also been allowed ad hoc access to the Fed's dollar liquidity lines in past financial crises, which successfully protected Korea's capital markets by bringing confidence back to its market. This has afforded Korea a relatively high degree of protection from currency crises, which in principle should allow it to offer help to more vulnerable trading partners, increasing its political influence as well as supporting its economic interests. In other words, given Korea's robust financial security with its massive foreign reserves and backstop assurance from the Fed against crises, it is natural to anticipate more proactive defensive financial statecraft strategies from Korea in the region, especially considering the behaviors of BRICS economies.

Figure 3-1. Korea's foreign exchange reserves volume including gold in comparison to BRICS economies excluding China in billion USD (1999-2020)
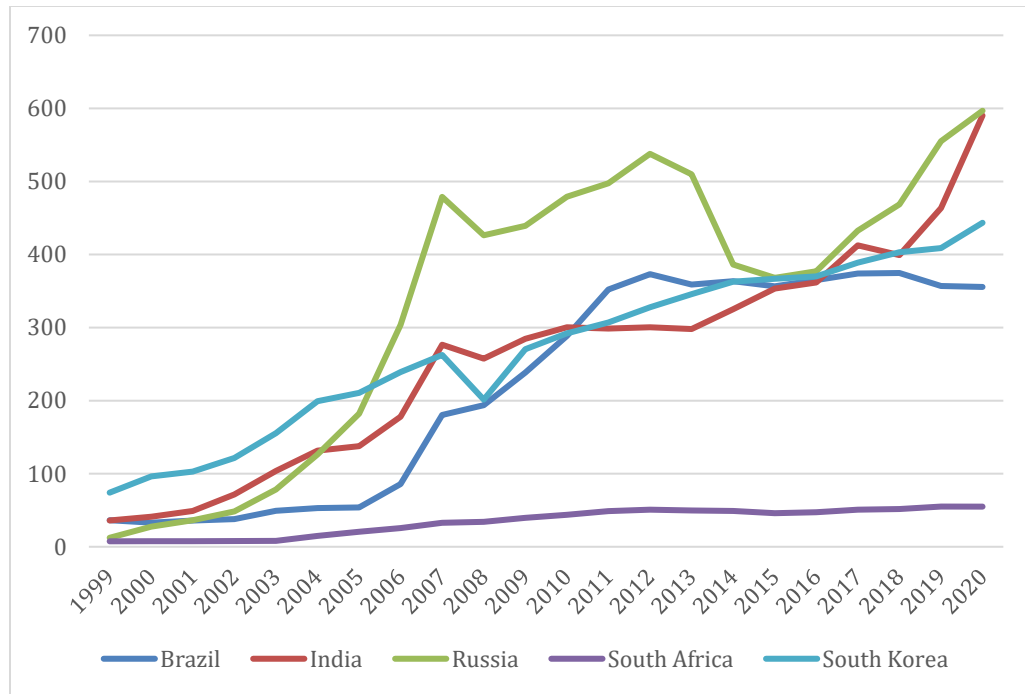
Source: The Global Economy, author compilation

Nevertheless, again, Korea has been markedly reticent in implementing more proactive policies that would not only thicken its financial safety net but also expand its financial influence in the region in its bilateral channels. We point to two BSAs that Korea signed with its regional neighbors as evidence of this puzzling passivity: Korea's BSAs with Indonesia and Malaysia. We focus on BSAs as they have become an increasingly common tool of financial statecraft, making them a suitable instrument for assessing a state's financial statecraft strategies. (McDowell 2019) BSAs denominated in local currencies can promote trade settlements to be made in local currencies and potentially reduce the foreign exchange risks coming from using the dollar as a trade medium. A country that is recording chronic trade deficits with a given trading partner may therefore benefit from establishing a BSA with the trading partner as increased settlements through

local currencies can allow obligations to be paid in the country's own currency instead of the dollar. However, they are unlikely to put either country in the position of having to risk BSA funds in a bailout, since none of the local currencies involved would be financially useful in a crisis; rather, the BSAs would be most useful in preventing bilateral trade disruptions. All of this points to more passive use of BSAs for defensive financial statecraft.

A more proactive use of BSAs, on the other hand, would involve arrangements where a state signs arrangements to enhance the financial security of partner states, which would in turn enhance its own financial security. Such a strategy would also ultimately involve the expansion of the agent state's financial influence, as in the BRICS economies' strategies (Katada et al. 2017), as those enjoying enhanced protection would become more financially reliant on the agent state, making it a proactive tool of financial statecraft. Japan's network of dollar-denominated BSAs with Southeast Asian economies and India's dollar-denominated BSAs with the SAARC are some of the examples of such proactive defensive financial statecraft. Given the intimate economic and financial relations each country shares with its regional partners, insuring their financial markets against crises through providing dollar credit lines essentially also protects Japan and India's own financial markets. This is evidently a step beyond passively protecting its own financial markets as it thickens financial security through the expansion of influence.

Korea's BSA activity in the Asia-Pacific region may appear to indicate that Korea has been implementing such proactive defensive financial statecraft strategies. As aforementioned, Korea already has established a robust financial safety net. It has also

concluded a local currency denominated BSA with Malaysia equivalent to 4.7 billion

dollars and a 10 billion dollar-equivalent BSA with Indonesia. At first glance, this seems

to suggest that Korea is employing a proactive strategy similar to those of India or Japan.

However, while these numbers may seem significant given Korea's relative economic

size to its neighbors as Table 1 indicates, a closer look at Korea's BSAs with these

countries demonstrates that Korea's BSAs have been driven by inward-looking, passively

defensive intentions.

**Table 3-1.** China, Japan, Korea BSAs with ASEAN countries (in billion USD) as of 2020

	China	Japan	South Korea	Total
Indonesia	15	22.8	10	47.8
Malaysia	26.2	10.5	4.7	41.4
Thailand	10.8	3		13.8
Singapore	44.1	7.7		51.8
Philippines	2	12		14
Total	98.1	56	14.7	168.8

Source: BOJ, BOK, Xinhua.net, author compilation

As Figure 2 demonstrates, Indonesia and Malaysia have been the only trading partners

with which Korea has been recording a chronic trade deficit among the major ASEAN

member states with convertible currencies. BSAs with these economies reduce the risk to

Korea of being unable to secure essential commodities if it runs short of dollars. In other

words, Korea's BSAs with its Southeast Asian partners were primarily aimed at

thickening its own financial safety net, rather than increasing its financial influence in the

region. Such tendencies are more clearly demonstrated in how the BSA negotiations were commenced. Indonesia was first to request a swap line in 2013 to Korea but Indonesia's initial request was that the swap line be doubly denominated in the dollar following the model of the BSAs that it had signed with Japan. However, despite Korea's apparently robust financial safety net, Korean policymakers showed little interest in expanding its financial influence on Indonesia through this opportunity. (Jeon 2013) Rather, as reports on Korea's BSAs with Indonesia and Malaysia demonstrate, Korea instead saw the request as an opportunity to thicken its financial safety net by potentially allowing its trade deficits with the two countries to be paid back in its own currency. (Heo 2013)

Figure 3-2. Korea's balance of payments with ASEAN-5 in 1,000 USD (2012-2021)
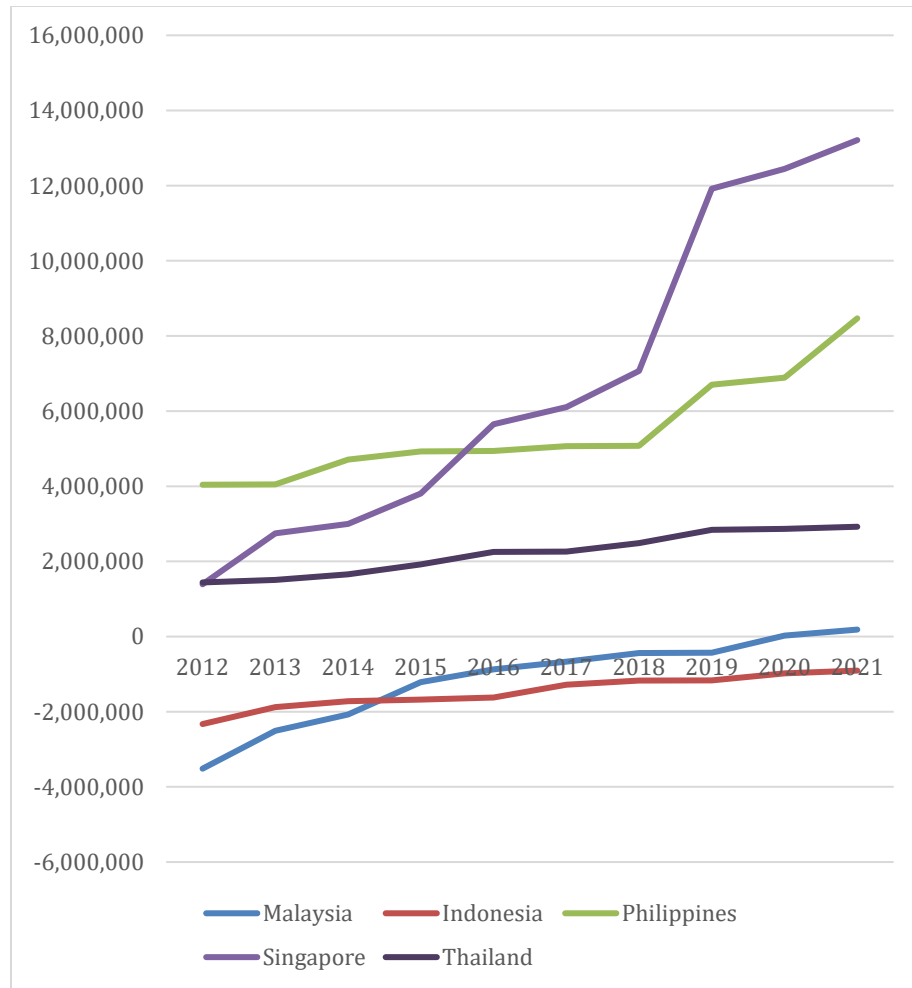
Source: KOSIS, author compilation

Such reticence in expanding its influence and taking regional leadership through bilateral

channels can be explained by Korea's limitations in material capacity relative to its

neighbors. As Table 1 demonstrates, Japan has already taken the role of the regional

lender of last resort as it extended dollar-yen denominated BSAs to half of ASEAN

member states, and China's regional trade volumes are too robust to allow space for the

Korean currency to meaningfully expand its presence in the region through BSAs.

Bilateral processes, therefore, were not an attractive channel to expand Korea's financial influence in the region.

The following section demonstrates, however, that in striking contrast to Korea's reticence in exercising and expanding its material influence through bilateral channels, Korea has clearly demonstrated an eagerness to expand its influence in multilateral processes and has played a critical role in providing intellectual and technical leadership in developing the region's RFA, the CMIM. This allowed it to secure voting rights and borrowing privileges that well exceed its relative economic weight among members, as described below. Such a preference for multilateral processes is in clear alignment with the expected behavior of a middle power. In other words, Korea's relative reticence in expanding its influence through bilateral channels compared to its BRICS counterparts can be explained by Korea's status as not being a preponderant power in the region. Its financial statecraft strategies follow the behavioral characteristics of a middle power, which are marked by a preference for multilateral processes, niche diplomacy, and a tendency to avoid direct competition for stronger material influence. The following section finds further empirical backing for these conjectures by drawing on primary evidence from in-depth interviews with Korean policy elites and executives to explain Korea's involvement in the developmental process of the CMIM and its current role.

Korea's Proactive Engagement in Multilateral Processes

The AFC of 1997-98 called into doubt the IMF's capacity and fitness to act as the lender of last resort against a rapidly globalizing international financial system. Two years later, the finance ministers of the ASEAN+3[52] economies reached an agreement in Chiang Mai, Thailand to establish a network of BSAs among the members to provide emergency liquidity to economies under financial distress in what was called the CMI. (Henning 2002)

Although heralded as a major regional initiative, CMI had a number of features that led to questions about its usefulness. First, BSAs were bilaterally negotiated and not standardized. This not only meant that they formed more of a patchwork than a uniform safety net, but also that it took considerable time to negotiate all the BSAs. The same was true when ASEAN+3 finance ministers agreed to double the size of the arrangement in 2005. (Grimes 2009) Indeed, the network of BSAs had not actually been completed by the time the members agreed to "multilateralize" it in 2009. China especially lagged behind in finalizing its BSAs with other member states, which was a serious flaw in that it (along with Japan) was expected to be one of the two largest providers of funds. (Kawai 2015) CMI was also closely tied to the IMF through both the IMF link,[53] which effectively delegated key decisions about disbursement to the IMF, and its reliance on the IMF for support in the disbursement process and ex post management of the loans. This

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[52] Association of Southeast Nations plus China, Japan, and Korea

[53] The IMF link stipulated that only a small portion of funds (initially 10%, rising to 20% in 2005) could be mobilized unless a liquidity provision was done in coordination with the IMF, effectively tying use of CMI to an IMF bailout. For East Asian economies still traumatized by the 1997-98 financial crisis and resulting IMF packages, this made CMI politically unpalatable.

IMF link in particular was of concern to CMI members, several of which had suffered under stringent IMF programs following the AFC.

To account for such concerns, a task force to push for the multilateralization of the BSA network was established in 2007, and an agreement to multilateralize the CMI was eventually reached in 2009 along with plans to establish a separate surveillance unit that would help de-link the newly established RFA further from the IMF. (Grimes 2011) The agreement significantly increased the funds available (from $80 billion to $120 billion; this was later doubled) and reduced the IMF link. At least as important for Korea, it also created a weighted contribution and voting system in which Korea locked in access to up to $19.2 billion (later raised to $38.4) and 14.77% voting share, as well as a new Precautionary Line that enabled the provision of funds without stringent conditionality. The new CMIM made more funds available to Korea at more favorable terms, while also making Korea an important swing vote in funding decisions, giving it structural power within the initiative.

In contrast to its reticent financial statecraft in bilateral channels, as demonstrated in the previous section, Korea played a key role in improving and leading the development of this regional cooperative effort. Korea had been the first to finalize all of its BSAs with members of the ASEAN+3 under the original CMI (see Kawai 2015) and it played a pivotal role in establishing and guiding the task force to multilateralize the CMI into a quota-based RFA. (Ferrier 2019) Building a functional RFA was an important focus of Korea's financial statecraft after 1997. Interviews with Korean officials make clear that, from the outset, the government saw diplomatic as well as economic security

opportunities in the region's first formal financial cooperation initiative, Korea worked hard to expand its influence in this niche area through diplomacy and intellectual leadership.[54]

Interviews with BOK officials and Yoon Deokryong of the Ministry of Economy and Finance prove a coherent picture of Korea's objectives in CMI and CMIM. First, and rather straightforwardly, Korea sought to bolster its access to foreign reserves as a follow-up measure against the financial crisis the country had just experienced. Another, more important source of motivation for these policymakers, however, came from Korea's perception of the CMI as a potential platform to expand its currency's influence in the region. Yoon, being one of the key Korean policymakers at the time of the CMI's inauguration, envisioned that the CMI should go beyond its role as an emergency liquidity pool, to later be developed into a regional currency basket.

The creation of a regional currency was expected to further encourage settlements to be made in local currencies as it would be representative of a combination of currencies, which policymakers expected to increase exchange rate stability and increase the role of the won in external transactions.[55] The hope was that Korea would be able to

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[54] This section draws heavily on in-depth interviews conducted with Yoon Deokryong, a former policy advisor to the vice minister of the Korean Ministry of Economy and Finance, BOK financial cooperation department team, and two policy executives from the Korean National Research Council (NRC) in the summer of 2021. The interview with Yoon was aimed at identifying Korea's initial intentions in participating in the CMI as Yoon was a direct participant in devising Korea's policy for arrangement in the early 2000s. Interviews with the BOK were mainly aimed at understanding Korea's current perceptions on the now multilateralized CMI, along with how the bank officially perceived the CMI at the time of its inauguration. Finally, interviews with NRC executives sought to gain a general understanding on Korea's motivation behind its extensive technical cooperation with the financial arrangement and its surveillance institution.

[55] A similar logic inspired Japanese policy makers who had advocated a regional currency basket and regional settlement as part of a strategy to make the yen the dominant regional currency. (Grimes 2009, ch. 4)

reduce its chronic reliance on the dollar and exposure to capital flight. Like other emerging economies that have similar material power and positive political relationships with the U.S., Korea's defensive financial statecraft is essentially targeted at protecting its financial markets from the imbalanced structure of the international monetary system. (Mehrling 2017) As a middle power with a currency that was not used internationally, its ability to protect its markets through its own efforts was limited; thus, it focused on multilateral regional actions through CMI. Although Korea had similar, or even stronger financial fundamentals compared to regional powers with similar material power elsewhere in the world, Korea's defensive financial statecraft strategy has involved a strong preference for multilateral processes and reticence in directly competing for material influence—in contrast, for example, to India, which has sought to increase its neighbors' dependence on it by extending dollar BSAs to every South Asian economy.

Korea's proactiveness in this multilateral process could also be seen from the outset, in the speed with which Korea finalized its BSAs under the CMI. Prior to the CMI's multilateralization, Korea was able to sign off the largest volume ($23.5 billion) of BSAs, even compared to China ($7 billion) and Japan ($15.5 billion). (Kawai 2015, Table 1) Korea also signed substantial local-currency BSAs with China and Japan in 2005, although the BSA with Japan was subsequently allowed to lapse. Naturally, the CMI's expansions came incrementally, and Korean policymakers anticipated that being the first country to finalize the BSA signings would allow it at least momentarily to take a leadership position in designing the future development of the initiative.

Yoon states that this proved to be true and that the task force to plan for CMI's multilateralization process was established under Korea's intellectual leadership. (Ferrier 2019) Korea's strong preference for multilateral processes in advancing its foreign policy interests paid off, allowing it to secure a significantly greater role in the CMI's multilateralization process than the size of its economy and foreign exchange reserves would suggest. This approach constitutes a form of 'niche diplomacy.' (Cooper 1997) In particular, Korea was able to take advantage of its middle power status and multilateral strategy to fill a leadership vacuum left open by the power contest between Japan and China (Grimes 2015), leading to advantageous results, including a larger-than-expected voting share and access to funds. This was widely reported in the Korean press at the time as a victory for its financial diplomacy.

Yoon recalled that Korea's task force proposal, which sought to transform the CMI into a quota system, was also part of Korea's intentions to develop the CMI into a currency basket in the future. Such intentions can also be evidenced in the CMIM's structural design, where the voting powers of the RFA's member states are determined primarily by the size of their contribution. Korean policy makers anticipated that negotiating a larger contribution could lead not only to better representation in decisionmaking within the CMIM but also to a larger share for the Korean Won in an eventual currency basket, which could help to cushion the economy from currency fluctuations.

Based on such intentions, Korea was able to break through the political deadlock between China and Japan (Pitakdumrongkit 2015; Grimes 2015; Ferrier 2019) by

forming a consensus to grant China and Japan equal levels of contribution and voting power, while securing for itself a contribution equal to half of theirs, which was significantly larger than its economic presence in the region. (see AMRO 2021) Korea also took account of the interests of the ASEAN member states, which were the most likely borrowers from CMIM, and which wanted to have a larger voice in how funds would be disbursed. The final compromise gave ASEAN as a bloc 28.41% voting power while only contributing 20% of committed funds. Korea effectively exploited its middle power position in the multilateral process to build consensus and secure important policy goals.

Korea also had an integral role in establishing the precautionary line for the CMIM (CMIM-PL), the need for which was made clear by Korea's dependence in the fall of 2008 on a dollar swap line with the Fed to maintain dollar liquidity and prevent a possible currency crisis. (Yoon et al. 2020) The precautionary line is designed to avoid strict IMF conditionality on the disbursement of CMIM funds, although there remain questions as to the circumstances under which it could be used. CMIM-PL has been seen by analysts to be a tool of liquidity management that would primarily affect Korea, insofar as other member states would be unlikely to qualify for it. (Grimes 2015) By pursuing its financial statecraft through a multilateral venue, Korea was able to build influence and structural power in a way that was impossible through bilateral means. Unlike Korea's inward-looking, defensive policies in terms of regional BSAs in the region, its policies towards the CMIM clearly go beyond passively thickening its financial safety net to proactively shaping its regional economic environment.

Interviews affirm this perspective. The BOK executives valued the CMIM as a potential source of emergency credit, but emphasized that the bank primarily sees the CMIM as a channel for advancing regional cooperation. And in fact, the CMIM is currently managed by the BOK's international cooperation department rather than by the departments that manage external volatility and the bank's liquidity portfolio, as might be expected if CMIM were seen primarily as a crucial source of emergency liquidity. Similarly, Yoon stressed that Korean policymakers do not see the CMIM as an attractive reserve asset, given Korea's economic size and the limited amount of credit it can draw from the reserve pool, along with the complicated disbursement process and potential for sparking speculative attacks on the currency. In his view, the CMIM is truly a last resort against liquidity crises, rather than a credit line that can be drawn as needed.

This perspective is further supported by interviews with executives in the international cooperation department of the NRC, a national peak association that oversees the majority of Korea's official technical assistance programs. The NRC devoted considerable material efforts through KIEP, an affiliated organization of the NRC, to regularly deliver technical assistance to the task forces established to multilateralize the CMI and build a separate surveillance unit for the RFA. KIEP continues to work in partnership with the CMIM and its supporting surveillance unit (AMRO), sharing data and technical knowhow. By providing data and intellectual support to these under-resourced organizations, Korea has been able to leverage its expertise and resources to influence regional cooperation.

Hence, while Korea's integral role in establishing CMIM-PL (Yoon et al. 2020) demonstrates that Korea also had inward-looking intentions in engaging with the CMIM, our interviews reveal that Korea has primarily perceived the CMIM to be a channel for regional cooperation and thus as a venue to expand its regional influence, rather than a key component of its financial safety net. Again, the emphasis on multilateral processes as a channel for financial statecraft marks a contrast strikingly with its apparent reticence in bilateral channels and with the policy responses of regional powers elsewhere that have similar material capacity.

Questioning the Sustainability of Korea's Financial Statecraft

Despite its successes in shaping the establishment of CMIM and AMRO, however, Korea's intellectual leadership has been less apparent in the ensuing years. Korea was able to momentarily fill in the leadership vacuum created by the political deadlock between China and Japan in designing the CMI as the unconsolidated structure of the CMI allowed Korea to momentarily occupy the leadership position by acting as a mediator among competing interests and steer decisions its favor. However, since the CMI multilateralized, such policy space seems to have greatly diminished under the continued political rivalry between Japan and China, as the structuralized design of the CMIM is now effectively locked in place. In other words, the CMIM is no longer a niche policy area that Korea can further exploit as a regional middle power.

Reflecting Korea's diminished ability to use its middle power position in regional multilateral cooperation to advance its interests, the CMIM agenda has largely moved away from matters of particular interest to Korea toward those of China and Japan. The

2021 agreement to allow the use of local currencies instead of dollars, for example, has been a long-term goal of China, apparently in support of its broader RMB internationalization efforts. Similarly, Chinese resistance has slowed further delinking from the IMF, despite strong support from other participants. Japan has also exerted leadership, in particular in efforts to support the institutionalization and professionalization of AMRO.

Having lost its structural advantage in mediating between countries and blocs within the ASEAN+3, Korea has also relinquished much of its intellectual leadership to Japan, which has been increasing its enthusiasm for CMIM. For example, according to Yoon's accounts, although the idea of transforming the CMI into a regional currency basket was first officially proposed by Korea, Japan has more recently been leading the intellectual discourse on this agenda.[56] While Japan's structural power in regional finance continues to exceed that of China in some respects due to the global role of the yen, its open capital markets, and its more established role in global financial bodies ranging from the IMF to the Financial Stability Board, its relative economic size has declined to the point that the yen too is now overrepresented in the CMIM. Transforming the CMIM into a currency basket under the current quota structure would allow the Japanese yen to be overrepresented relative to the Chinese currency (assuming that a currency basket would be weighted by GDP or trade share without consideration to convertibility or

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[56] Yoon's version contrasts with the accounts of Japanese officials and economists, who trace the idea back to the work of Japanese economists in the late 1990s. See Grimes 2009, ch. 4.

global usage), thanks to China's much more rapid economic growth than Japan's since CMIM's establishment.

Evidence of Japan's enthusiasm for the establishment of a regional currency goes back to the 1990s. (Kwon 2001; Grimes 2009, ch. 4) As one example, the Japanese Research Institute of Economy, Trade & Industry (attached to the Ministry of Economy, Trade & Industry) has been regularly publishing monthly data since 2005 on the projected value of a regional currency basket, identified as the AMU, which currently reflects the country-weights of the CMIM. (RIETI 2021) BOK officials note that Korea, in contrast, has chosen not to publish its own preferred currency basket values. Yoon also noted a strong interest in this agenda from Japan in his encounters with Japanese officials as a policy advisor compared to Korean officials.

Although Korea's ability to leverage its position within the CMIM regime has narrowed significantly, its early investment in multilateral financial statecraft continues to pay off, as Korea has already secured a significant representation within the CMIM and helped to put in place the CMIM-PL. Moreover, Japan's preferences in terms of CMIM, AMRO, and AMU currently parallel those of Korea, and Korea's support will be crucial in moving those ideas forward. As long as Korea is able to place itself as a potential mediator between Japanese and Chinese interests, the opportunities to advance its interest through multilateral financial statecraft in CMIM go well beyond the level that its material power might suggest.

Conclusion

This paper investigates the way in which regional positioning, rather than just material power, shapes the motivations and financial statecraft of non-great powers, a factor that has not been emphasized in existing studies. While the literature on financial statecraft has begun to broaden its perspective by analyzing the financial statecraft of less capable states (Armijo & Katada 2014, 2015), studies on why these states make the choices they do have mostly focused on circumstantial motivations (Katada et al. 2017), reducing their effectiveness in explaining why states make different choices despite similar circumstantial endowments. This contrasts with the traditional perspective on statecraft which mainly focuses on great powers, where corresponding studies have often spoken directly to the literature on great power struggle and how it motivates the strategic choices of major powers. (Grimes 2011, 2015; Chey 2017; Cohen 2018)

To fill this gap in the financial statecraft literature, this paper focuses on the important case of Korea's financial statecraft in the Asia-Pacific region, which has mostly been overlooked in that literature. It argues that Korea's positioning as a middle power in the region has strongly affected its policy choices in the financial dimension, leading to very different strategies from states with similar material capacities in other regions, such as India, Brazil, South Africa, and Canada. Korea's position as a regional middle power alters its options for financial statecraft in ways that parallel the predictions of the middle power literature in other issue areas.

In building this argument, we first observe Korea's relative reticence in expanding its financial influence through bilateral channels. In contrast, we demonstrate that Korea

has been quite proactive in pursuing the goals of financial statecraft through multilateral

processes. Interviews with Korean policy policymakers and officials confirm that the

emphasis on multilateral mechanisms has been a conscious strategy. This finding carries

both theoretical and empirical significance in that it offers a theoretical framework to

explain the motivations behind the financial statecraft of lesser powers and advances our

understanding of Korea's financial statecraft, which has been critically understudied

compared to Korea's economic magnitude.

More specifically, the paper contributes to three literatures. First, authors such as

Armijo and Katada (2014, 2015) have broadened our understanding of financial statecraft

by extending it to emerging powers and creating a set of analytical categories that capture

the actions of states that are not great powers. We add to this literature by underscoring

the importance of relative regional power as well as overall material capabilities. Second,

we extend the growing literature on middle power diplomacy to the financial realm.

Finally, this work starts to fill in a major gap in the literature on Korean foreign economic

policy, which has so far focused on trade, investment, and development aid. Financial

statecraft has actually been quite important to Korea's external economic policy profile

and deserves further study.

APPENDIX 1

Here I quantitatively test the effects of being included or excluded from the Fed's BSA network. First, I run a binomial logit two-ways fixed effects regression to assess the impact of having access to Fed BSAs on the motivation to access other GFSN components based on the following formula. I use this specific empirical strategy since both the dependent and the independent variables are binomial, and there are clear country-year fixed effects that may skew the regression results. ECV stands for the same economic control variables that were used for the main regression analysis.

$$GFSN_{n,t} = \beta_0 + \beta_1 Fedswap_{n,t} + \beta_2 ECV_{n,t} + \delta_n + \delta_t + \varepsilon_{n,t}$$

The results of the regression analysis are demonstrated in the figure below. Having access to Fed BSAs significantly increases the recipients' motivations to engage in financial cooperation as a creditor but has not significant results for other GFSN components. However, the motivation to engage in BSAs with China decreases, as expected in the qualitative analysis, where having no access to the Fed BSAs increases the motivation to search for alternative financial cooperation efforts to reduce their reliance on the dollar. Nonetheless, the results are statistically insignificant. The results for accessing IMF or RFA credit can be explained by the fact that RFA and IMF credit are based on membership, disbursed based on ex ante and ex post surveillance, and most importantly mostly denominated in the dollar. Accessing RFA or IMF credit resolves dollar liquidity concerns by using the dollar, and are therefore fundamentally different from China BSAs.

This explains the difference in the direction of the impact of inclusion/exclusion in the Fed's BSA network.

Figure A-1. The effect of Fed BSAs on financial cooperation
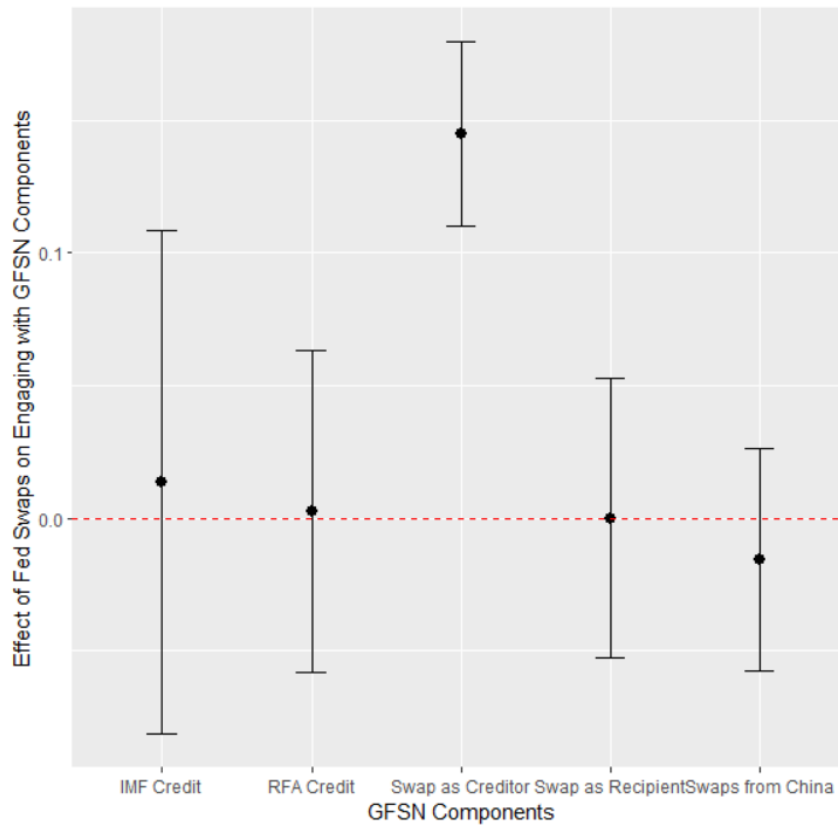
Another important point to note from this analysis is that having access to Fed BSAs increases the recipients' motivation to be a BSA creditor but does not have a significant impact on engaging in BSAs as a recipient. This result is in line with the findings of the case studies, where I argue that the effect of inclusion in the Fed's BSA network differs depending on the quality of the arrangement. If a country has a permanent and unlimited access to the Fed's dollar BSA, then it significantly decreases the risk of being a lender. However, if it is only temporary and limited, then although the country's financial security is confirmed, it still carries risk of becoming a significant lender. That said, the

motivation to be a recipient in a BSA decreases for both, but more for those with

permanent access, and the motivation to become a creditor stays the same for those with

temporary access but increases for those with permanent access.

I quantitatively test these assumptions in the following regression analyses. First, I

categorize Fed BSAs as either permanent or temporary and run an ordinary least squares

regression to test the interaction effect of this variable based on the following formula.

$$GFSN_{n,t} = \beta_0 + \beta_1 Fedswap_{n,t} + \beta_1 Fedswap_{n,t} * Permanent_{n,t} + \beta_2 ECV_{n,t}$$

Figure A-2. The effect of Fed BSAs on financial cooperation based on the quality of the
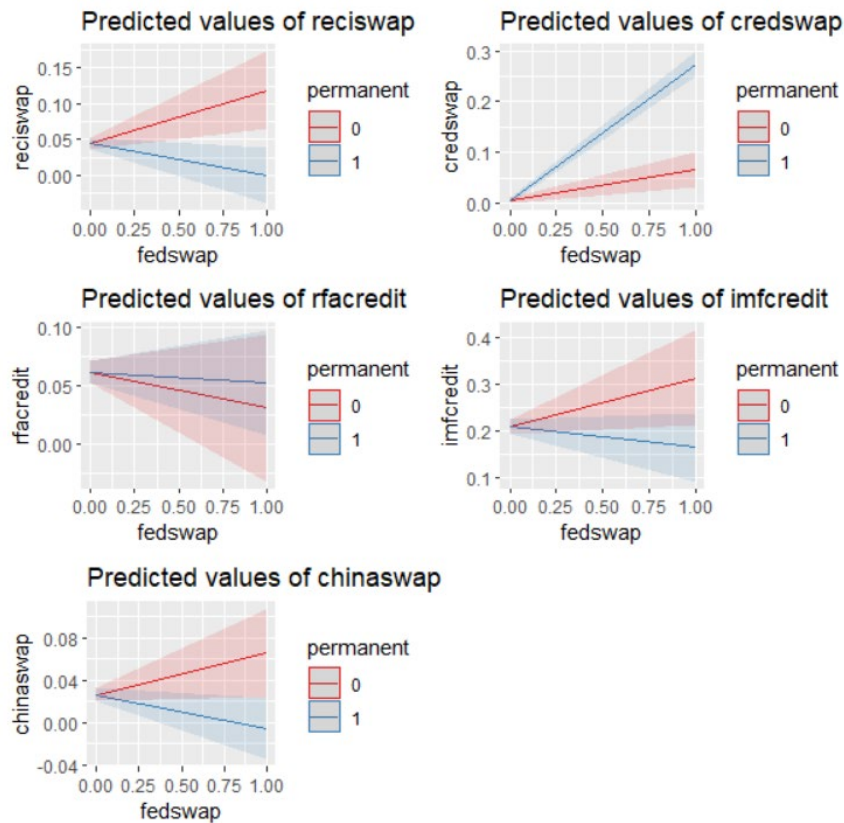
arrangement

Note: 0 = temporary and limited access to Fed BSAs, 1 = permanent and unlimited access to Fed BSAs

As this figure demonstrates, the effect of having access to Fed BSAs on other GFSN components differ widely depending on the quality of the arrangement. The motivation to serve as a creditor significantly increases for those with permanent access while the motivation to be a recipient decreases more for those with permanent access. The results for accessing RFA or IMF credit stays the same, but the motivation to engage in BSAs with China also differ, with those with temporary access more likely to have a BSA with China.

I test the feasibility of this analysis by accounting for country-year fixed effects, and running a binomial logit two ways fixed effects regression analysis using the same interaction term.

$$GFSN_{n,t} = \beta_0 + \beta_1 Fedswap_{n,t} + \beta_1 Fedswap_{n,t} * Permanent_{n,t} + \beta_2 ECV_{n,t} + \delta_n + \delta_t + \varepsilon_{n,t}$$

The following table demonstrates that the results demonstrated in the figure above are robust. Having permanent and unlimited access to Fed BSAs is what increases the recipients' motivation to engage in BSAs as creditors to others. Once the effect of the interaction term is separated, as this table shows, Fed BSAs do not influence the motivation to become a creditor.

Table A-1. The effect of permanent and unlimited Fed BSAs on financial cooperation

	Dependent variable:				
	imfcredit	rfacredit	credswap	reciswap	chinaswap
	(1)	(2)	(3)	(4)	(5)
fedswap	−0.00004	−0.012	0.037	0.026	0.011
	(0.065)	(0.042)	(0.024)	(0.036)	(0.029)

fedswap:perm	**0.037**	**0.012***	**0.206****	**−0.045**	**−0.046**
	(0.084)	**(0.054)**	**(0.031)**	**(0.047)**	**(0.037)**
fxgdp	0.041	−0.040	0.0001	−0.035	0.016
	(0.090)	(0.057)	(0.033)	(0.050)	(0.040)
excrate	0.00001	−0.00002	−0.00000	−0.00001	0.00001
	(0.00002)	(0.00001)	(0.00001)	(0.00001)	(0.00001)
gdppercap	−0.00000	−0.00000	0.00000	0.00000	0.00000
	0.00000	0.00000	0.00000	0.00000	0.00000
cpinf	0.004**	0.001	−0.0003	0.001	0.001
	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)
fiscaldebt	0.00004	0.001***	0.00004	−0.00003	0.0001
	(0.0003)	(0.0002)	(0.0001)	(0.0002)	(0.0001)
bop	0.001	0.0002	0.0001	0.0001	0.0001
	(0.001)	(0.001)	(0.0004)	(0.001)	(0.0004)
Observations	2,498	2,498	2,498	2,498	2,498
R^2	0.004	0.011	0.051	0.002	0.002
Adjusted R^2	−0.075	−0.068	−0.024	−0.077	−0.077
F Statistic (df = 8; 2314)	1.160	3.113***	15.483***	0.644	0.693
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes

The same results can be seen when we observe the impact of having limited and temporary access to Fed BSAs separately. This decreases the motivation to engage in BSAs as a creditor.

Table A-2. The effect of temporary and limited Fed BSAs on financial cooperation

	Dependent variable:				
	imfcredit	rfacredit	credswap	reciswap	chinaswap
	(1)	(2)	(3)	(4)	(5)
fedswap	**0.037**	**0.0003**	**0.243*****	**−0.019**	**−0.035**
	(0.062)	**(0.040)**	**(0.023)**	**(0.035)**	**(0.028)**
fedswap:temp	**−0.037**	**−0.012**	**−0.206*****	**0.045**	**0.046**
	(0.084)	**(0.054)**	**(0.031)**	**(0.047)**	**(0.037)**
fxgdp	0.041	−0.040	0.0001	−0.035	0.016
	(0.090)	(0.057)	(0.033)	(0.050)	(0.040)
excrate	0.00001	−0.00002	−0.00000	−0.00001	0.00001
	(0.00002)	(0.00001)	(0.00001)	(0.00001)	(0.00001)
gdppercap	−0.00000	−0.00000	0.00000	0.00000	0.00000
	0.00000	0.00000	0.00000	0.00000	0.00000
cpinf	0.004**	0.001	−0.0003	0.001	0.001
	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)
fiscaldebt	0.00004	0.001***	0.00004	−0.00003	0.0001
	(0.0003)	(0.0002)	(0.0001)	(0.0002)	(0.0001)
bop	0.001	0.0002	0.0001	0.0001	0.0001
	(0.001)	(0.001)	(0.0004)	(0.001)	(0.0004)
Observations	2,498	2,498	2,498	2,498	2,498

R^2	0.004	0.011	0.051	0.002	0.002
Adjusted R^2	−0.07	−0.06	−0.024	−0.07	−0.077
F Statistic (df = 8; 2314)	5 1.160	8 3.113***	15.483***	7 0.644	0.693
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes

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CURRICULUM VITAE

EDUCATION	**Boston University,** Boston,USA	2019 – 2023

Ph.D. in Political Science
Dissertation: Three Papers on the Politics of Financial Cooperation and Statecraft

Peking University, Beijing, China   2017 – 2019
M.A. in International Relations

Waseda University, Tokyo, Japan   2011 – 2017
B.A. in Economics

PUBLICATIONS   Peer Reviewed Journals

- (Revise & Resubmit) Lead author for "The Middle Power's Financial Statecraft: Assessing South Korea's Strategic Involvement in Regional Financial Cooperation" with William W. Grimes and William N. Kring, *at Journal of East Asian Studies*

- (Revise & Resubmit) Second author for "Financial Cooperation in the Asia-Pacific as Regime Complex: Explaining Patterns of Coverage, Membership, and Rules" with William W. Grimes, and William N. Kring *at International Relations of the Asia-Pacific*

- Lead author for "Manifesting the embedded developmental state: The Role of South Korea's National Pension Service in Financial Crisis" with William W. Grimes *Review of International Political Economy (RIPE).* Online First (2022). doi:10.1080/09692290.2022.2136733.

- "Riding the Tide: Assessing South Korea's Hedging Strategy Through Regional Security Initiatives." *The Pacific Review.* Online First (2021). doi:10.1080/09512748.2021.1977685.

- "Economic Interdependence and Peace: A Case Comparison Between the US−China and US−Japan Trade Disputes." *East Asia: an International Quarterly* 35, no.3 (2018): 215 − 32. doi:10.1007/s12140-018-9298-1.

- "What Brought Them Together? Comparative Analysis of the Normalization Processes of North Korea-Japan and South Korea-Japan." *The Korean Journal of International Studies* 16, no.3 (2018): 411 – 33. doi: 10.14731/kjis.2018.12.16.3.411

Policy Papers

- Lead author for "Assessing South Korea's Role in Promoting ESG Investing in the Asia-Pacific." *Korea Economic Institute of America* (2021). https://keia.org/wp-content/uploads/2021/06/KE   with William W. Grimes

Book Chapters

- (Forthcoming) Lead author for "Regional Financial Cooperation and Regional Financial Arrangements" with William N. Kring at *Edward Elgar Handbook on Regional Cooperation and Integration*

Book Reviews

- "Shuang Chen. State-Sponsored Inequality: The Banner System and Social Stratification in Northeast China." *Asian Affairs* 49, no. 3 (2018): 563-65. doi:10.1080/03068374.2018.1487730

- "Jing Xu. The Good Child: Moral Development in a Chinese Preschool." *Asian Affairs* 49, no. 4 (2018): 725-27. doi:10.1080/03068374.2018.1521176.

- "North Korea in Transition: Politics, Economy, and Society." *North Korean Review* 14, no. 2 (2018): 114. https://search.proquest.com/docview/2161594989?accountid=13151.

Op-eds/Blogs

- "The Irony of Abundance? Resolving the Continued Neglect of the Chiang Mai Initiative Multilateralization" *Global Development Policy Center*. October 7th, 2021.

- "Debt Relief for Middle-Income Countries: Can the International Community Meet the Moment?" *Global Development Policy Center.* June 2, 2021.

- "What the Arrival of North Korea's 'Special Train' in Beijing Means." *The Diplomat.* March 28, 2018.

- "The Deeper Meaning of South Korea's Constitutional Debate." *The Diplomat.* March 21, 2018.

- "Japan's North Korean Diaspora." *The Diplomat.* January 06, 2018.

- "Normalization Negotiations between North Korea and Japan Revisited" *E-International Relations.* April 04, 2018.

- "The Survival of the US-Japan, US-ROK Alliance under a potential peace treaty" with Kentaro Sakamoto, *E-International Relations.* June 16, 2018.

WORK IN PROGRESS

Work in Progress

- Co-first author for "The Political Spillovers of Monetary Policy" with Bo Feng

- "The Political Repercussions of Inclusion and Exclusion in the Federal Reserve Currency Swap Line Network on Financial Cooperation"

- Lead author for "Regional Approaches to Financial Statecraft: Japan and India in the Face of Rising China" with Saori N. Katada, *special issue for Business & Politics (special issue proposal accepted, and pending submission)*

- Lead author for "Shaping Financial Markets in Asia: Geoeconomics of Regional Foreign Aid by Japan and South Korea" with Saori N. Katada, *special issue for International Affairs (special issue proposal accepted, and pending submission)*

- Lead author for "China and the International Economic Order: an Empirical-based Approach" with William N. Kring, Kevin P. Gallagher and Gregory T. Chin, *for submission as review paper to RIPE*

- Lead author for "From Contest to Convergence: Why Regional Challengers End Up Resembling Incumbent Institutions" with William W. Grimes

- Lead author for "Nested Outgrowth: Complementing Regional Surveillance Under Limited Capacity" with William W. Grimes and William N. Kring

- Lead author for "The Transferability of Alliance Asymmetry" with Florian Bodamer

- "Legitimate Containment: How the ROK-US Reciprocal Defense Procurement can legitimately balance China's military influence in the South China Sea" *contracted for Issues & Insights* of the *Pacific Forum*

- "White Knight or Trojan Horse? Social bond market expansion and widening global imbalances" with William W. Grimes

- "Centralized decentralization: Institutional explanations for South Korea's environmental policy planning and implementation divide"

- "State Corporatism, Social Bonds, and Normative Shifts in East Asia: South Korea, Japan, Taiwan"

CONFERENCE PRESENTATIONS

Book Manuscripts in Preparation

- Co-author for "Financial Innovation in Post-Developmentalist East Asia: Institutions, Interests, and Ideas" *with William W. Grimes*

International Studies Association 2023
From Contest to Convergence: Why Regional Challengers End Up Resembling Incumbent Institutions *with William W. Grimes*

International Studies Association 2023
Developmental State Meets Financial Market Development in East Asia *with William W. Grimes*

International Studies Association 2022
Nested Outgrowth: Complementing Regional Surveillance Under Limited Capacity *with William W. Grimes*

International Studies Association 2022
Alliance commitments and the Strategic Defense Initiative: How allies in different alliance systems respond to excessive joint-commitment requests from the strongest ally *with Florian Bodamer*

Midwest Political Science Association 2022
The Political Spillovers of Monetary Policy *with Bo Feng*

Midwest Political Science Association 2021
The ASEAN Plus Security Platform as a Hedging Platform: Korea's Deferral to the Free and Open Indo-Pacific (FOIP) Strategy and its Passive Hedging Strategy

TEACHING EXPERIENCE

Boston University
Fall 2022
Lecturer for *Contemporary East Asian Economics EC368*

Boston University
Summer 2022
Lecturer for *Introduction to International Relations IR271*

Boston University
Fall 2022
Grading Assistant for *Comparative Public Policy PO324*

Boston University   Fall 2019, 2020, 2021
Grading Assistant for *Contemporary East Asian Economics EC368*

Boston University
Spring 2021
Teaching Fellow for *Introduction to International Relations IR271*, Spring 2021

Far East University (South Korea)
Fall 2020
Lecturer for *International Development Finance Organizations and South Korea*,

RESEARCH EXPERIENCE

Global Development Policy Center   Fall 2021 - Present
Global Economic Governance Initiative (GEGI) Predoctoral Research Fellow

Boston University   Oct. 2021 – Dec. 2021
Research Assistant for Professor Rosella Cappella

Global Development Policy Center
Summer 2021
Summer in the Field Fellow

Global Development Policy Center   Sept. 2019 – May 2021
GEGI Research Assistant

WORK EXPERIENCE

Academy of Korean Studies   April 2019 – August 2019
Editorial Assistant
Editorial assistant for Korea Journal and Review of Korean Studies (edited Korea Journal, Vol.59 No.2 and Review of Korean Studies Vol. 22 No.1)

FELLOWSHIPS AND HONORS

Global Development Policy Center GEGI Predoctoral Research Fellowship (2023)

Pacific Forum ROK-US Next-Generation Leaders Initiative Fellow (Summer 2022)
Boston University Senior Teaching Fellowship (Fall 2022)
Boston University Senior Teaching Fellowship (Summer 2022)
Global Development Policy Center GEGI Predoctoral Research Fellowship (2021-2022)
Boston University Teaching Fellowship (Spring 2021)
Global Development Policy Center Summer in the Field Fellowship (Summer 2021)
Boston University Graduate Research Abroad Fellowship (GRAF) (Summer 2021)
Boston University Non-Service Fellowship (2019-2020)
Korea Institute of International Economic Policy - Korea University Southeast Asia Economic Essay Contest, Outstanding Essay Prize for "Coping with Financial Crises at the Periphery: Explaining ASEANs Resilience against the COVID-19 Crisis" (2020)
Korea Institute for Defense Analysis Academic Essay Contest for Defense Research, Outstanding Essay Prize for "The ASEAN Plus Security Platform as a Hedging Platform: Korea's Deferral to the Free and Open Indo-Pacific (FOIP) Strategy and its Passive Hedging Strategy" (2020)
Future Consensus Institute Outstanding Future Policy Proposal Award (2020)
Waseda University JASSO Scholarship (2011 - 2012)

GRANTS

Association for Asian Studies (AAS) Northeast Asia Council Korea Grant (#1452565)
Principal investigator
"ESG Bond Market Development and State Corporatism: The Institutional Legacies of South Korea's Social Bond Market Development." $3,000 grant awarded for fieldwork research in South Korea

Academy of Korean Studies (AKS-2021-R-083)
Co-researcher
"Coalition building and identity setting: the middle power's financial statecraft strategies and South Korea." $29,268 grant awarded for completing research with William W. Grimes (Principal Investigator) and William N. Kring (Co-researcher) (2021). *Initiated the proposal to apply for the grant and is also the lead author for the resulting research output*

ACADEMIC SERVICE	**Invited Speaker** for Boston University *Globalization, Development, Governance IR789* **Invited Speaker** for Boston University *Contemporary East Asian Economics EC368* **Discussant** for 2021 Midwest Political Science Association: *International Cooperation in Development Finance and Foreign Aid* **Reviewer** for *Journal of Industry, Competition and Trade* **Reviewer** for *East Asia: an International Quarterly* **Reviewer** for *Asian Journal of Political Science*

LANGUAGES AND SKILLS	**Languages** Korean(Native) English(Near-Native, TOEFL iBT 115) Chinese(Fluent, New HSK Level 6, highest level) Japanese(Fluent, JLPT N1, highest level) **Computer Skills** MS Office, Latex, R, Adobe Suite

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