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Lost in internationalization: Rise of the Renminbi, Macroprudential Policy, and Global Impacts

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ABSTRACT

The internationalization of China's Renminbi will be a game changer to the global finance and politics, and its success thus far has been evidenced by the International Monetary Fund (IMF)'s recent move to include the currency in its SDR basket. This scheme provides a unique opportunity to reflect on the very nature of law and finance and calls into question the conventional understanding of how financial institutions function: Why has authoritarian China, with its peculiar market settings, been able to make rapid progress in internationalizing its currency? This article applies the theory of macroprudential policy to examine the scheme's viability, timeline, and impacts. It argues that currency internationalization does not only depend on market forces but also requires strong state-led actions at critical junctures to reset the institutional equilibrium. China has taken advantage of its extra-large economy by carrying out fragmented but coherent institutional engineering, and adopting an institutional bridging approach for amplifying the effects. However, systemic risks inherent in China's banking system have been triggered by the project's international success due to its aggressive timeline and procyclical nature. In this regard, this scheme has wrongly pitched itself as an international project rather a domestic one. As a responsible issuer of a major international currency, China has to re-align the project to focus on domestic institutions macroprudentially, with special caution paid to any attempt to pursue the prestige normally conferred upon such issuers, including extraterritoriality and export of institutional designs overseas.

I. INTRODUCTION

The internationalization of the Renminbi (RMB) is a game changer that could revolutionize the world of finance, global regulatory regimes, and legal practices. For China, the advantages of the RMB internationalization scheme (the Scheme), which aims to enable the RMB to be widely used as an international settlement, investment,

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and reserve currency, are perceived to be immense. China called for the United States dollars (USD) to be replaced by a new international currency shortly after the 2008 Global Financial Crisis occurred.[1] From a historical perspective, the transition to a high-growth economy requires exogenous 'accidents and good fortunes' that can reset institutional equilibrium at a lower level of growth.[2] The governor of China's central bank echoed this sentiment: 'The internationalization of the RMB requires luck and opportunity, and the 2008 Global Financial Crisis is just that.'[3]

Economically, the acceptance of RMB as settlement currency can reduce currency exchange rate risks for Chinese firms. Fiscally, it relieves China from the pressure of having to maintain large quantities of USD in its foreign reserves, which renders China vulnerable to shifts in the US monetary policy. Politically, RMB internationalization strengthens China's benefits from economic integration and enhances its economic power on the global stage. International market players would not only fall within the RMB's dominion, but also China's extraterritorial regulations for financial activities based on the RMB. However, the legal literature discussing this fundamental, institutional, and revisionist response from China to the current global financial order is surprisingly scant.[4]

Establishing the RMB as a settlement and investment currency would be a relatively easier process than making it an international reserve currency. Trade settlement is based on contractual arrangements allocating currency fluctuation risks and administrative costs between the parties, while investments are determined by the profitability of financial products denominated in the currency at issue. RMB trade settlements have soared since 2009 due to China's growing economy and the increase in the purchasing and bargaining power of Chinese firms. RMB-related financial products have also become popular, especially in regions where offshore RMB reserve is abundant, and RMB-denominated bond offerings have dominated Asian capital markets since the early 2010s.[5]

1 Andrew Batson, 'China Takes Aim at Dollar', *Wall Street Journal*, 24 March 2009, https://www.wsj.com/articles/SB123780272456212885 (visited 20 August 2017). In fact, Beijing began to internationalize the RMB as early as the mid-2000s, but the process was slow then, with limited outcomes, and could be treated as part of overall monetary and financial reforms at the time. See Ulrich Volz, 'All Politics is Local: The Renminbi's Prospects as a Future Global Currency', in Leslie Armijo and Saori Katada (eds), *The Financial Statecraft of Emerging Powers: Shield and Sword in Asia and Latin America* (London: Palgrave Macmillan UK, 2014) 103–37.

2 Gary S. Becker, Kevin M. Murphy, and Robert Tamura, 'Human Capital, Fertility, and Economic Growth', 98 Journal of Political Economy 12 (1990), at 14.

3 'Timing and Pace of RMB Internationalization Was Not Manually Set (人民币国际化不事先安排速度节奏时点)', *Caixin* (财新网), 11 March 2014, http://finance.caixin.com/2014-03-11/100649710.html (visited 20 July 2017).

4 To the author's knowledge, there are only three legal articles in the English literature thus far exploring relevant issues of the Scheme: Chris Brummer, 'The Renminbi and Systemic Risk', 20 (3) Journal of International Economic Law 447 (2017); Weitseng Chen, 'China's Long March to Dismantling the Financial Great Wall: Renminbi's Internationalization, Systemic Risks and Macroprudential Regulations', in Anita Anand (ed.), *Systemic Risk, Institutional Design, and the Regulation of Financial Markets* (New York: Oxford University Press, 2016) 143–74; and Terry E. Chang, 'Slow Avalanche: Internationalizing the Renminbi and Liberalizing China's Capital Account', 25 Columbia Journal of Asian Law 62 (2012).

5 RMB-related financial products include, for example, time deposits with high interest rates, interest rate swaps, and options tied with RMB exchange rates. Compared to normal deposit services, these financial products offer better investment opportunities for holders of the RMB in these offshore markets.

However, making the RMB a reserve currency appears to be a more daunting task, since it depends on regulatory configurations, intergovernmental collaboration, and global political economy. The prevailing literature on international reserve currency emphasizes the importance of capitalist market institutions, as well as an accountable and stable polity for any country that aims to internationalize its currency. Most commentators are skeptical about the viability of the Scheme because China's economy and political systems do not fit these criteria.[6] However, the Scheme appears to have defied expectations with its unorthodox achievements over the past few years. For example, the International Monetary Fund (IMF) officially included the RMB in its Special Drawing Rights (SDR) basket in October 2016 together with the USD, euro, Japanese yen, and pound sterling. The success of the Scheme calls this conventional wisdom into question: why has authoritarian China, with its peculiar market settings such as capital controls, financial repression, and state-owned banking system, been able to make enormous progress in its internationalization of the RMB? By observing how the world's second largest economy has boldly reconfigured its state capitalism, the Scheme provides a unique opportunity to reflect on the conventional understanding of financial institutions and the prevailing regulatory paradigm.

This article aims to address three questions from a legal, institutional perspective. First, how can we explain the rapid progress of the RMB Scheme? Secondly, can we expect the Scheme to succeed in making the RMB a leading international reserve currency according to the timeline set by Beijing? Lastly, what responsibilities should China bear as an issuer of international reserve currency? This article proceeds in accordance with the order of the three questions. Section II explains the Scheme's success by evaluating China's strategy against the prevailing literature. Section III then considers Beijing's aggressive timetable for the Scheme. Section IV discusses China's responsibilities along the rise of the RMB in global finance. Section V concludes.

II. AGAINST THE ODDS—CHINA'S STRATEGY FOR INTERNATIONALIZATION OF THE RMB

The internationalization of a currency reflects the relationship between financial law and political economy. In light of the massive bailout and nationalization of private firms during the 2008 Global Financial Crisis, the prevailing wisdom is that that state intervention is built into financial systems, which are neither public nor private, but a distinctive hybrid of state and market.[7] Accordingly, the Scheme presents a situation in which the state plays multiple roles in the market simultaneously: as 'market preservers', 'market makers' (i.e. *creating* new markets by assuming the risks and costs that private actors are unable or unwilling to bear), 'market movers' (i.e. *guiding* private

6 For example, Eswar Prasad suggests that 'the limited financial market development and structure of political and legal institutions in China make it unlikely that the RMB will become a major reserve asset that other countries turn to for safekeeping of the bulk of their reserve funds'. Eswar S. Prasad, *The Dollar Trap: How the US Dollar Tightened Its Grip on Global Finance* (Princeton, NJ: Princeton University Press, 2014).

7 Katharina Pistor, 'A Legal Theory of Finance', 41 Journal of Comparative Economics 315 (2013), at 322; Perry Mehrling, 'Essential Hybridity: A Money View of FX', 41 Journal of Comparative Economics 355 (2013); Robert C. Hockett and Saule T. Omarova, '"Private" Means to "Public" Ends: Governments as Market Actors', 15 Theoretical Inquiries in Law 53 (2014); Dan Awrey, 'Law and Finance in the Chinese Shadow Banking System', 48 Cornell International Law Journal Online 1 (2015), at 16–17.

markets by altering price signals to counteract market tendencies) and 'market levers' (i.e. *magnifying* private markets and boosting their potential to produce public benefits).[8] Currency internationalization does not only depend on market forces and strong demand for the currency in question, but also requires strong state-led actions at critical junctures to rebalance the existing institutional equilibrium.

Since it launched the Scheme in the early 2010s, Beijing has demonstrated its strong political commitment to the Scheme by reconfiguring its economic structure in what is called 'state capitalism'. Several new international financial institutions and initiatives to facilitate the implementation of the Scheme have been launched. These include the Asian Infrastructure Investment Bank (AIIB), the BRICS Development Bank,[9] and the 'One Belt, One Road' Initiative. The People's Bank of China (PBC), China's central bank, is also willing to trade its strong grip on foreign exchange rates for the better capital flows necessary for the success of the Scheme.[10] A PBC official noted that the PBC's policy choices have been made under the classical macroeconomics notion of the 'impossible trinity',[11] a trilemma which suggests that every central bank can only choose two of the three policy options to implement simultaneously: fixed exchange rate, free capital flow, and independent monetary policy.[12] The PBC has elected for the latter two and is willing to let go of the first.[13] The consequences of these sophisticated policy considerations have been tremendous. Christine Lagarde, the IMF's managing director, stated that their decision to include the RMB in the SDR basket was made on the basis that the RMB is 'widely used' and 'freely usable', which constitutes two major criteria for the inclusion of any currency in the SDR basket.[14]

The remarkable success of the Scheme thus far has challenged several orthodoxies about currency internationalization. The IMF's decision is an important milestone for the Scheme. Yet, the RMB is 'freely usable' but not 'fully convertible', thus allegedly subject to exchange rate manipulation from time to time, and remains under the political control of the mighty Chinese Communist Party which has vowed to

8 Robert C. Hockett and Saule T. Omarova, 'Public Actors in Private Markets: Toward a Developmental Finance State', 93 Washington University Law Review 103 (2015), at 122–34.

9 It is also called the 'New Development Bank', which was established by the BRICS states—Brazil, Russia, India, China, and South Africa.

10 China officially ended its peg to the USD in 2005, but it still closely manages the RMB's exchange rate by persistently intervening in foreign exchange markets and through capital controls on capital movements and currency holdings. Recently, PBC began to show further willingness to loosen its grip over the RMB exchange rate. See Jeffrey S. Beckington and Matthew R. Amon, 'Competitive Currency Depreciation: The Need for a More Effective International Legal Regime', 10 Journal of International Business & Law 209 (2011).

11 Interview, Beijing, 27 June 2013.

12 For a further discussion, see Robert A. Mundell, 'Capital Mobility and Stabilization Policy under Fixed and Flexible Exchange Rates', 29 The Canadian Journal of Economics and Political Science 475 (1963).

13 Interview, above n 11.

14 This statement is not entirely uncontroversial. Critics argue that Beijing still manipulates Chinese yuan and that the IMF should not have endorsed Beijing by acknowledging RMB as 'freely usable' currency and redefining the criteria of this threshold. Shawn Donnan, 'IMF Staff Say Renminbi Should Join Elite SDR Basket of Currencies', *Financial Times*, 13 November 2015, http://www.ft.com/intl/cms/s/0/f3c0948e-8a57-11e5-9f8c-a8d619fa707c.html#axzz3rk9JtcSe (visited 5 August 2017); Dean Baker, 'The Price of China's Yuan Manipulation: American Jobs', *The Guardian*, 5 June 2015, https://www.theguardian.com/world/2015/jun/06/china-yuan-us-economy-trade-deficit (visited 8 August 2017).

resist the influence of the 'hostile western forces'.[15] This section analyzes China's approaches for internationalizing the RMB by examining the unorthodox progress of the Scheme against varying theories about the institutional conditions necessary for internationalization of a currency.

A. Main obstacles

The main obstacles to the Scheme lie at home rather than abroad, although the Chinese general public often consider oppositely. Any international reserve currency requires full convertibility. Yet, strict capital controls, a characteristic of China's banking and financial systems, would render full convertibility impossible.[16] Although capital controls have constrained free capital flow and limited firms' investment opportunities, it serves as a financial firewall between international financial markets and China's domestic markets. China's tight capital controls enabled its economy to survive the 1997 Asian Financial Crisis and the 2008 Global Financial Crisis—and even turned the latter to its advantage.[17] To internationalize the RMB, China would have to lift this financial firewall to introduce full convertibility. According to the original timetable, it was set to be the year 2020.[18] Unfortunately, the liberalization of capital accounts is not without its dangers. This is arguably the most important challenge for the Scheme.

Historically, premature lifting of capital controls has had catastrophic effects on emerging markets.[19] Capital account liberalization would subject domestic markets to volatile global economy and speculative attacks.[20] Foreign capital, including hot money, could flow freely into the country at issue, and domestic capital could flow out easily as well.[21] While a sudden inflow of speculative money may create investment bubbles in the absence of deep capital markets, capital flights may lead to a domestic credit crunch.[22] During a series of crises in Europe (e.g. Iceland, Ireland, and

15 See Jamil Anderlini, 'China Takes a Gamble in Scapegoating the West', *Financial Times*, 11 August 2016, https://www.ft.com/content/27a0591e-5e2a-11e6-bb77-a121aa8abd95 (visited 10 August 2017).

16 Capital controls describe a range of policies designed to regulate international capital flows. Examples include limits of the amount of foreign capital to be invested in particular sectors or assets, minimum stay requirements on foreign capital, restriction on capital outflows, or restriction on access to the domestic or foreign currencies or foreign bank accounts. Ilene Grabel, 'Not Your Grandfather's IMF: Global Crisis, "Productive Incoherence" and Developmental Policy Space', 35 Cambridge Journal of Economics 805 (2011), at 812.

17 Terence C. Halliday and Bruce G. Carruthers, *Bankrupt: Global Lawmaking and Systemic Financial Crisis* (Stanford, CA: Stanford University Press, 2009) 247.

18 Enda Curran, 'For China, the End of the Beginning on Road to a Global Currency', *Bloomberg*, 4 December 2015, http://www.bloomberg.com/news/articles/2015-12-03/for-china-the-end-of-the-beginning-on-road-to-a-global-currency (visited 20 August 2017); Ronald McKinnon and Gunther Schnabl, 'China's Exchange Rate and Financial Repression: The Conflicted Emergence of the RMB as an International Currency', 22 China & World Economy 1 (2014).

19 See e.g. Ross P. Buckley, Douglas W. Arner, and Michael Panton, 'Financial Innovation in East Asia', 37 Seattle University Law Review 307 (2014), at 314.

20 See Eswar Prasad and Raghuram G Rajan, 'A Pragmatic Approach to Capital Account Liberalization', 22 Journal of Economic Perspectives 149 (2008), at 154.

21 Chang, above n 4, at 75.

22 Empirical studies have unveiled the relationship between capital controls and capital flights. Seeraj Mohammed and Kade Finnoff discovered that, in countries including South Africa, Chile, Turkey, Brazil, and Thailand, the loosening of capital controls has given wealth holders more opportunities for flight.

Greece) following the 2008 Global Financial Crisis, free capital flow led to asset bubbles in emerging markets and allowed speculative investors to quickly pull their money out before bubbles burst.[23] The IMF and the World Bank, once the champions of capital account liberalization, have since suggested that a certain level of capital controls may be desirable.[24]

China's uneven market development could amplify potential risks from lifting capital controls. For one, capital controls will expose domestic financial institutions to fierce competition with foreign capital. After years of protection, the capacity of China's state-owned banks varies. Banks in major cities may be better equipped than those in peripheral cities in their capacity to evaluate borrowers' creditworthiness, assess their own risk exposure, and develop diverse and competitive revenue sources. Cities such as Beijing and Shanghai, where firms and individuals are used to competitive market practices, may benefit from the open policies brought by the Scheme, but the peripheral provinces may not. Similarly, more sophisticated state-owned enterprises (SOEs) and large private firms may benefit from the scheme, but small- and mid-sized companies that focus on domestic rather than export markets might not.

Complications may also arise from domestic political struggles. Governmental agencies aligned with SOEs, such as the State-owned Assets Supervision and Administration Commission (SASAC), the National Development and Reform Commission (NDRC) and the Ministry of Finance (MOF), have apparently been less cooperative and more skeptical about the Scheme because deregulation and liberalization would reduce their authority within China's bureaucratic system.[25] After all, institutional structures are self-reinforcing and would promote path dependence as expectations and preferences solidify around the status quo.[26] Unequal

However, that does not mean that capital controls are an effective tool for controlling capital outflows because the effectiveness depends on a country's overall economic conditions and institutional capacity. Some studies show that capital controls in fact increased capital flights in several cases, such as in Argentina, Peru, and Mexico after Latin America's debt crisis in the 1980s.

See Gerald Epstein, 'Capital Flight and Capital Controls in Developing Countries: An Introduction', in Gerald Epstein (ed.), *Capital Flight and Capital Controls in Developing Countries* (Cheltenham: Edward Elgar Publishing Limited, 2005) 1–14; Duncan Alford, 'Nigerian Banking Reform: Recent Action and Future Prospects', 25 Journal of International Banking Law & Regulation 337 (2010), at 345–43; Sebastian Edwards, 'How Effective are Capital Controls?', 13 Journal of Economic Perspectives 65 (1999) at 68–70.

23 The Economist, 'Just in Case: Capital Controls are Back as Part of Many Countries' Financial Armoury', *The Economist*, 12 October 2013, https://www.economist.com/news/special-report/21587383-capital-controls-are-back-part-many-countries-financial-armoury-just-case (visited 1 August 2017).

24 Philip J. MacFarlane, 'The IMF's Reassessment of Capital Controls after the 2008 Financial Crisis: Heresy or Orthodoxy?', 19 UCLA Journal of International Law and Foreign Affairs 167 (2015), at 168; Ulrich Volz, 'RMB Internationalization and Currency Cooperation in East Asia', in Frank Rövekamp and Hanns Günther Hilpert (eds), *Currency Cooperation in East Asia* (Cham: Springer International Publishing AG, 2014) 57–82.

25 Injoo Sohn (孫仁柱), 'The Future of the Internationalization of the RMB: A Geopolitical Perspective (人民币国际化的未来–基于地缘政治视角的分析)', *China's Economy Report* (中国经济报告) no.1', 2016, https://read01.com/My5aam.html (visited 21 August 2017); Volz, ibid, at 72. See also, Victor C. Shin, *Factions and Finance in China: Elite Conflict and Inflation* (Cambridge: Cambridge University Press, 2008) at 58–63.

26 Mariana Prado and Michael Trebilcock, 'Path Dependence, Development, and the Dynamics of Institutional Reform', 59 University of Toronto Law Journal 342 (2009), at 351.

economic consequences and political backlash from the losers may distort law enforcement and the implementation of the Scheme. In fact, fierce political backlash recently happened within the Chinese Communist Party and some members called for the resignation of the then Governor of the PBC, who was in charge of the Scheme.[27]

As such, rather than focusing on the progress of the Scheme in the global arena, Beijing needs to focus domestically on overhauling its banking and financial systems before exposing these domestic institutions to fiercer competition and larger market risks as a result of RMB's full convertibility. However, conventional theories have raised various doubts as to whether China is able to carry out such prerequisite reforms for the Scheme.

B. Conventional theories

The RMB's rapid ascendance to the status of a global reserve currency may seem strange when considered against the existing literature about international currency. There are two main strands of literature; each focuses on a different cluster of institutions as prerequisites for any currency aiming to attain international reserve currency status. These theories emphasize the importance of accountability, transparency, and market institutions, thereby casting varying levels of doubt about the prospect of the Scheme.

The first strand of literature emphasizes that only countries with advanced capitalist economies can make their currency international reserve currency. Full currency convertibility and deep capital markets are crucial prerequisites for currency internationalization.[28] The former allows both foreign and domestic investors to freely convert currency, whereas the latter helps channel capital inflow into various investment markets rather than speculative areas. Both prerequisites rest on institutions that are only available in a mature capitalist economy, including market transparency, a solid financial sector, good corporate governance, and effective law enforcement.[29]

From this perspective, China has made rapid progress, but remains behind other major economies. Numerous problems have been documented, including the lack of integrated market supervision, poor credit ratings, prevailing insider trading, and lax enforcement of corporate governance rules.[30] According to this market-centric thesis, unless China streamlines its state–private relationship, strengthens its banking sector, and improves its corporate and capital market regulations, the premature introduction of full currency convertibility for the sake of the Scheme would

27 'Responsible for Financial Turbulence, Zhou Xiaochuan Was Asked to Resign as the Governor of the Central Bank (因金融乱象党内被问责, 周小川将去职央行行长)', *Bowen Press* (博闻社), 23 March 2017, http://bowenpress.com/news/bowen_166092.html (visited 6 May 2017).

28 Volz, above n 24, at 70–71; Prasad, above n 6. For a general discussion about the positive effects of capital account liberalization, see e.g. Dennis P. Quinn and A. Maria Toyoda, 'Does Capital Account Liberalization Lead to Growth?', 21 Review of Financial Studies 1043 (2008).

29 For a literature review, see e.g. Tung Chen-yuan, Guo-Chen Wang, and Jason Yeh, 'Renminbi Internationalization: Progress, Prospect and Comparison', 20 China & World Economy 63 (2012) at 65–66.

30 See e.g. Brummer, above n 4, at 483–88; Li-Wen Lin and Curtis J. Milhaupt, 'We Are the (National) Champions: Understanding the Mechanisms of State Capitalism in China', 65 Stanford Law Review 697 (2013); Donald Clarke, 'Law Without Order in Chinese Corporate Governance Institutions', 30 Northwestern Journal of International Law and Business 131 (2010).

eventually harm China's economy due to the increase in risk exposure and regulatory arbitrage.

The second strand of theories focuses on political stability and accountability as an indicator of the country's monetary system, fiscal and budget regulations, state–private sector relationship, and overall political economy.[31] As this polity-centric thesis suggests, international investors would not pour their assets into a currency that is vulnerable to political pressure and financial manipulation. Such vulnerabilities would become a pressing concern during an economic crisis in a nondemocratic country whose legitimacy relies on economic performance rather than political accountability, potentially forcing the state to rescue its economy at the expense of foreign investors. Since the early nineteenth century, the leading international currencies (i.e. British pound, the USD, Japanese yen, Swiss Franc, euro) have been issued by democratic countries that have built a durable political climate, where there are constraints on the executive, and creditors are well-represented.[32] This polity-centric theory does not require China to become a democracy, but it does suggest that significant political reforms to introduce more transparency and accountability are necessary for the Scheme to succeed.

Both market- and polity-centric theories are skeptical about the Scheme and suggest that the RMB is unlikely to become a prominent reserve currency, at least not in the near future.[33] However, China, an authoritarian country without sound market institutions, seems to have succeeded against the odds and achieved tremendous progress in internationalizing the RMB thus far. This article in the following two sections suggests that two factors, one endogenous (i.e. the large-scale economy) and the other exogenous (i.e. modern financial engineering such as currency swap agreements), are absent from current analyses—but explain the Scheme's unexpected success.

C. Leveraging China's large-scale market and institutional bridging

There has been little discussion of an endogenous factor critical to China's economic development—its extraordinarily large-scale economy. The size of an economy is usually depicted as an indicator of varying determinants for a prominent reserve currency, rather than a determinant in its own right.[34] This probably reflects the reality of the financial world to date: while the USA, Japan and the European Union

31 Various strands of economics literature have empirically demonstrated a positive correlation, albeit not conclusive yet, between democratic polity and sound financial markets including government bonds, stock market capitalization, bank credit to the private sector, and debt contract enforcement, whose existence are prerequisites for reserve currency status. One such mechanism is the threat of adverse electoral consequences that prevent elected governments from acting opportunistically. For a literature review, see Barry Eichengreen, 'Number One Country, Number One Currency?', 36 The World Economy 363 (2013), at 369–71. For a Chinese perspective, see e.g. Benjamin J. Cohen, *Currency Power: Understanding Monetary Rivalry* (Princeton, NJ: Princeton University Press, 2015).

32 Ibid.

33 E.g. Cohen, above n 31, at 215; Prasad, above n 6.

34 E.g. Kiminori Matsuyama, Nobuhiro Kiyotaki, and Akihiko Matsui, 'Toward a Theory of International Currency', 60 Review of Economic Studies 283 (1993); Benjamin J. Cohen, *Life at the Top: International Currencies in the Twenty-First Century (Essays in International Economics No. 221)* (Princeton, NJ: Princeton University, 2000) 5–6; Barry Eichengreen and Marc Flandreau, 'The Federal Reserve, the Bank of England, and the Rise of the Dollar as an International Currency (1914–1939)', 23 Open Economies Review 57 (2011), at 77.

have immense markets that are vital for maintaining the USD, yen, and euro, the Swiss Franc is a prominent reserve currency issued by a small economy with less than half of the population of Shanghai alone.

China's massive markets have played a critical role in the Scheme's unorthodox achievements. A large-scale domestic market generally promises better currency liquidity, which is necessary for any international reserve currency.[35] As a rule of thumb, the larger the market is, the more liquid a currency is. That said, China's heterogenic large-scale economy is a poor fit for any standardized, unitary approach.[36] This has compelled Beijing to impart novel and pragmatic approaches to coping with its highly fragmented and unevenly developed economy. The internationalization of the RMB provides a perfect opportunity to observe how China's home-ground size advantage plays out in the process of formulating and implementing specific policies.

For example, due to long-lasting capital controls through which Beijing segregates markets to better control capital flow, the RMB's liquidity has been fragmented between onshore and offshore markets, as well as among multiple offshore RMB centers.[37] Commentators argue that liquidity fragmentation complicates RMB settlement procedure and increases the cost of switching to the new RMB settlement platform.[38] For example, while USD-based payments are routed to New York to be settled in seconds, RMB payments made in London to Hong Kong have to be cleared in both places according to their respective procedures. This process may take hours or even days and would increase risk exposure and impede currency liquidity.[39] However, this fragmentation does not seem to be detrimental.

China's liquidity fragmentation is generally manageable and could be addressed through financial technologies providing solutions for cross-process coordination. In October 2015, China launched the China International Payment System (CIPS) to mimic the Clearing House Interbank Payments System (CHIPS) at New York as a one-stop, cross-border, inter-bank settlement platform. Within less than two years, nearly 300 financial institutions have participated in CIPS.[40] CIPS has also partnered with the Society for Worldwide Interbank Financial Telecommunications (SWIFT), the banking consortium that facilitates trillions of dollars in international transactions on a daily basis. CIPS thus bridges liquidity at each of the hubs and settlement centers, which would ultimately unleash China's advantage in RMB liquidity, both onshore and

35 Matsuyama , Kiyotaki, and Matsui, above n 34.

36 Michael Dowdle, 'China's Present as the World's Future: China and "Rule of Law" in a Post-Fordist World', in Leigh K. Jenco (ed.), *Chinese Thought as Global Theory* (Albany: State University of New York Press, 2016).

37 Chang, above n 4, at 78.

38 Ibid, at 77; Brummer, above n 4, at 479–83.

39 'RMB Hubs as the Best Choice for Now', *Treasury Today*, July 2015, http://treasurytoday.com/2015/07/rmb-hubs-the-best-choice-for-now-ttti (visited 21 August 2017). For a detailed description about the cross-border RMB payment process, see 'CIPS and SWIFT: The Payment Partnership', *Treasury Today*, May 2016, http://treasurytoday.com/2016/05/cips-and-swift-the-payments-partnership-ttti (visited 21 August 2017).

40 As of March 2017, CIPS has a total of 28 direct participants, which has a direct account in CIPS, and 553 indirect participants, which link with CIPS through intermediary banks (including 396 in Asia, 78 in Europe, 22 in North America, 15 in Oceania, 16 in South America, and 26 in Africa). See CIPS, http://www.cips.com.cn/cipsen/index.html (visited 21 August 2017).

offshore. As such, China's extremely large domestic market and its combined liquidity can offset the RMB settlement costs across fragmented markets.

China has further engaged in an *institutional bridging* approach to amplify the size advantage of its large but fragmented markets. This approach aims to link regional markets with their counterparts within or outside the country to create significant aggregated effects. This bridging strategy is markedly different from a universal deregulation of financial systems and liberalization of capital accounts, but results in similar outcomes in terms of liquidity enhancement. In addition to CIPS, other examples include the Shanghai-Hong Kong Stock Connect launched in November 2014, which allows domestic Chinese investors in Shanghai Stock Exchange and international investors in Hong Kong Stock Exchange to trade and settle shares in each other's market.[41] In December 2016, the Shenzhen-Hong Kong Stock Connect was also launched, with China-Hong Kong Bond Connect launched in 2017.[42] In the future, China may then proceed to link these markets to Singapore, and from there to the Association of South East Asian Nations (ASEAN) markets in the south, as well as to the Taiwan Stock Exchange in the east.

Another case in point is the Renminbi Qualified Foreign Institutional Investors (RQFII) program. The RQFII allows foreign institutional investors to invest offshore RMB directly in Chinese onshore markets and repatriate their investments in either RMB or other foreign currencies.[43] In this way, the RQFII is a crucial bridging mechanism that aims to recycle offshore RMB back to China to stimulate economic growth. Similar programs catering to varying groups of investors include the Qualified Domestic Institutional Investors (QDII) and Qualified Foreign Institutional Investors (QFII).[44] By controlling capital flows in and out of China, these specialized programs function as carefully constructed passages through China's 'great wall' of capital controls that connect onshore and offshore markets. After all, institutional bridging can only be effective in a large economy like China's, where the outcomes, however controlled, can nonetheless create significant economies of scale.

China's extra-large markets also enable the Chinese government to conduct large-scale institutional experiments. To create a basic infrastructure for facilitating and regulating RMB flows, China needs to streamline its highly regulated and subsidy-dependent banking system, which comes with its own set of dangers given that many interest groups would be affected.[45] The PBC's solution is to create

41 In theory, China has a number of models to choose from for bridging domestic and foreign stock exchanges, including secondary listing, cross listing, and a national security market model used by US regulators to link the European and the US markets. China's regulators chose the most aggressive model: a direct link between China and offshore markets. David C. Donald, 'Bridging Finance Without Fragmentation: A Comparative Look at Market Connectivity in the U.S., Europe and Asia', 16 European Business Organization Law Review 173 (2015), at 176–82.

42 Jennifer Hughes and Gabriel Wildau, 'China-Hong Kong Bond Connect Link to Open by Year-end', *Financial Times*, 15 March 2017, https://www.ft.com/content/26090bec-093c-11e7-97d1-5e720a26771b (visited 21 August 2017).

43 Brummer, above n 4, at 469.

44 While QDII allows selected Chinese investors to invest outside of China, QFII permits foreign institutional investors to invest in China's domestic markets by using foreign currency.

45 See the discussion in Section II (A).

multiple free trade zones to experiment with the liberalized banking and financial environments necessary for the Scheme. The Shanghai Free Trade Zone (SFTZ) is a good example of this. Established in 2013, the SFTZ has experimented with various forms of deregulation, the most important being the lifting of capital controls and privatization of the banking sector.[46] Private banks have been allowed to incorporate in the SFTZ, and foreign banks are permitted to provide full services within the zone.[47] Residents in the SFTZ are also permitted to borrow the RMB overseas from offshore financial institutions, but can only use such RMB loans within the SFTZ.[48] The SFTZ serves as a safe 'sandbox' environment that can contain any potential risks from these unprecedented deregulations of China's financial sector. Measures with a proven track record in the SFTZ have been subsequently implemented nationwide.[49]

Due to its large domestic market, China's institutional experiments are not only wide but also pluralist, including one characteristic of 'pluralist capitalism'. The SFTZ is modeled on Singapore's state capitalism model, where the state leads the market by operating in a fairly free and competitive manner. The other leading RMB zone—'Qianhai Pilot Zone'—mimics Hong Kong, a classic *laissez-faire* economy.[50] With both models of capitalist economy in place, Beijing has not been shy about its ambition to attract Singaporean firms and investors to the SFTZ, and have SFTZ to compete with (if not replace) Singapore. The same is true of the Qianhai Pilot Zone, which has been designed to attract capital and talents from neighboring Hong Kong.[51]

46 For example, the opening of free trade accounts has been allowed within the zone not only for banks but also for non-bank financial institutions. Residents, individuals, and corporate entities alike can apply for resident accounts that allow them to freely wire capital in and out without approval in advance. Accordingly, enforcement of anti-money-laundering regulations has been strengthened within the zone to prevent speculators from abusing the free movement of capital. Interview, Shanghai, 22 November 2014. See also Brummer, above n 4, at 470; Zheng Wan et al., 'Policy and Politics behind Shanghai's Free Trade Zone Program', 34 Journal of Transport Geography 1 (2014).

47 For example, Development Bank of Singapore established its China branch in SFTZ in 2013. In 2014, Cathay United Bank, another foreign bank from Taiwan, also incorporated its local branch office, which is not subject to any limit on foreign exchange or the uses of the capital that it lends for cross-border trading purposes within the SFTZ.

48 'Policies about Chinese Banks in Free Trade Zones (中国银行自贸区政策: 12 个问答)', *Free Trade Zone* (自贸区通訊社), 8 August 2014, http://www.ftzsino.com/cn/policy/20140818/MTQWODM0NJEXMDY.html (visited 3 April 2017).

49 China has been expanding its experiments nationwide rapidly: additional thirty-plus special economic zones have been designated to follow the SFTZ and carry out the Scheme. Betty Tam and Frank Qi, 'SAFE Circular 36: Liberalizing Capital Account Settlement for FIEs', *Mayer Brown LLP*, 5 August 2017, http://www.lexology.com/library/detail.aspx?g=df6e6540-7c1a-4413-9f5f-0dcc1932f317 (visited 1 June 2017).

50 Weitseng Chen, 'Size Matters? Renminbi Internationalization and the Beijing Consensus', in Weitseng Chen (ed.), *The Beijing Consensus? How China Has Changed Western Ideas of Law and Economic Development* (Cambridge, UK: Cambridge University Press, 2017) 144–75.

51 Ibid. In 2013, a group of 15 banks were allowed to extend commercial RMB loans to Qianhai-based onshore PRC entities, opening the door for offshore participation in China's domestic lending market for the first time since PRC was founded in 1949. HSBC, 'Qianhai Taking RMB Internationalization to the Next Level', *New Zealand China Trade Association*, 31 January 2013. http://www.nzcta.co.nz/chinanow-commentary/1555/qianhai-taking-rmb-internationalisation-to-the-next-level/ (visited 21 May 2017).

In short, China possesses the free market institutions emphasized in the prevailing literature at the regional level and within its pilot free trade zones, although these institutions may not presently exist at the national level. While such institutions might be limited to designated areas, China's bridging approach helps leverage its enormous market to cope with important issues, including the RMB's fragmented liquidity under current capital controls.

D. Bilateral currency swap agreements

No currency can become a widely used international reserve currency without being fully convertible. While the IMF has recognized the RMB as 'freely usable', the RMB is not yet 'fully convertible'. To overcome this obstacle while keeping preexisting capital controls in place, China has deployed an innovative strategy based on soft law and a network of bilateral agreements that connect onshore and offshore markets. This has come in the form of currency swaps, a mechanic of financial engineering that has existed in the financial world for decades.

Inspired by the Federal Reserve's (Fed) use of bilateral swaps to rescue the global financial system during the 2008 Global Financial Crisis,[52] China has created an intensive, global network of RMB swap lines to implement the Scheme soon thereafter. As of the end of 2016, 32 countries have reached a swap agreement with the PBC. Under the swap structure, a foreign central bank can opt for a swap of its currency with the RMB offered by the PBC under mutually agreed terms, amounts, and a timeline to swap back. Functionally, the swap agreement serves as a mechanism for providing RMB liquidity outside of China.[53] This bilateral swap framework provides a controllable, *ad hoc* channel to increase the RMB liquidity in designated foreign countries—a more palatable option than lifting capital controls altogether. Foreign entities may acquire the swapped RMB from the central bank of the country where they are located for settling international transactions purchasing RMB-denominated financial products, while foreign central banks may also use the RMB obtained to stabilize their currencies or boost foreign reserve.[54]

Although China borrowed the notion of credit swaps from the Fed, it has applied it in a very different way.[55] The swap agreements between foreign countries and the Fed as the lender of last resort resemble an insurance arrangement against the risks of

52 The Fed created emergency credit lines with fourteen central banks of leading economies, providing nearly $600 billion in financing to economies starved of USD, in an effort to prevent credit freezes in foreign banks holding large amounts of dollar assets. This measure successfully prevented a 'domino effect' in the international money markets and re-assured the status of the USD as a global reserve currency. Daniel McDowell, 'The U.S. as "Sovereign International Last-resort Lender": The Fed's Currency Swap Program during the Great Panic of 2007–09', 17 New Political Economy 157 (2012); Timothy F. Geithner, 'Are We Safe Yet? How to Manage Financial Crises', 96 (1) Foreign Affairs 54 (2017).

53 Volz, above n 24.

54 Steven Liao and Daniel McDowell, 'Redback Rising: China's Bilateral Swap Agreements and Renminbi Internationalization', 59 International Studies Quarterly 1 (2015).

55 Brummer, above n 4, at 476; Aravind Yelery, 'China's Bilateral Currency Swap Agreements: Recent Trends', 52 (2) China Report 138; 'Central Banks' Currency Swaps (央行貨幣互換)', *Bank of China* (中国银行), 3 April 2013, http://www.boc.cn/big5/aboutboc/ab8/201304/t20130403_2217711.html (visited 21 May 2017).

liquidity crunch of the USD in foreign countries.[56] China's swap agreements, by comparison, operate more like a line of credit under RMB-denominated loan facilities, through which China allows foreign central banks to access the RMB credit. Such currency swaps bear a striking similarity to old-fashioned strategies used by international investors to circumvent capital controls on international capital flows imposed after World War II.[57]

Overall, as compared to swap agreements used by the Fed, the IMF, and other transnational programs such as the Chiang Mai Initiative,[58] China's swap agreements differ in several distinctive ways: (i) they are not crisis-oriented[59]; (ii) they are not linked with the IMF's conditionality[60]; and (3) they de-dollarize commonly accepted swap structures and occur only directly between the RMB and local currencies.[61] Notably, crisis-related swap lines mainly act as a safety net to avoid volatility and are rarely activated.[62] They are also usually conditioned upon the acceptance of conditionality, which are linked with the IMF in one way or another due to the IMF's capacity for economic surveillance. In comparison, RMB swaps take place on regular basis under the terms agreed between China and its counterparty rather than the IMF's conditionality. They do not piggyback on the IMF's regional surveillance and are therefore not linked with the IMF's conditionality.[63]

In fact, RMB swaps serve more wide-ranging objectives as opposed to other existing swap arrangements. They not only help with dealing with financial stress in countries involved but, more importantly, promote trade and investment in RMB as well.[64] While China's swap agreement with South Korea aims to strengthen the credit ability of Korean firms in China that need to borrow locally, China's agreement with Hong Kong is intended to increase liquidity of the RMB in its global hub of offshore

56 Dan Awrey, 'The International Money Problem', University of Oxford Working Paper, 18 January 2017 (on file with the author).

57 Perry Mehrling, *The New Lombard Street: How the Fed Became the Dealer of Last Resort* (Princeton, NJ: Princeton University Press, 2010) 71–72.

58 McDowell, above n 52, at 163–64.

59 Chris Brummer, *Minilateralism: How Trade Alliances, Soft Law and Financial Engineering are Redefining Economic Statecraft* (New York: Cambridge University Press, 2014), at 157; Nasser Saidi, Aathira Prasad, and Sara Salomoni, *The Redback Cometh: Renminbi Internationalization and What To Do about It*, Dubai International Financial Centre Economic Note No. 18 (2011), at 14–15.

60 Yelery, above n 55, at 144; Randall Henning, 'Future of the Chiang Mai Initiative: An Asian Monetary Fund?', Peterson Institute for International Economics Policy Brief No. PB09-05 2009, 3 and 8; 'Chiang Mai Initiative as the Foundation of Financial Stability in East Asia', *ASEAN*, 2012, http://www.asean.org/uploads/2012/10/17902.pdf (visited 6 April 2017); Brummer, above n 59, at 149.

61 As Perry Mehrling argues, the global financial world is a hierarchy with two layers. The dollar has been treated as money while all non-dollar currencies as forms of credit, as implicit if not explicit promises to pay dollars. As of 2016, China has not signed a single dollar swap agreement with any of its trade partners. The de-dollarization manifested in China's swap agreements indicates China's objective to revise the current hierarchy in the international monetary system. Mehrling, above n 7, at 361; Yelery, above n 55, at 142.

62 For example, the Chiang Mai Initiative, created after 1997 Asian Financial Crisis, has not been activated yet. Henning, above n 60, at 4.

63 Masahiro Kawai, 'From the Chiang Mai Initiative to an Asian Monetary Fund', ADBI Working Paper No. 527, 2015; Henning, above n 60; William W. Grimes, 'The Asian Monetary Fund Reborn? Implications of Chiang Mai Initiative Multilateralization', 11 Asia Policy 79 (2011), at 97.

64 William A. Allen, *International Liquidity and the Financial Crisis* (London: Routledge, 2013) 94.

RMB-denominated bonds.[65] China's agreement with Argentina aims to promote the RMB as the payment and settlement currency for trades between China and Argentina.[66] The varying aims of these arrangements are also reflected in the fact that all RMB swaps have longer terms (e.g. three years) than swaps set up by other central banks to merely address market liquidity strains (e.g. thirty days).[67]

Argentina's recent exercise of the swap option revealed the influence of the RMB swaps. Argentina has been short of USD to service foreign debt and to stabilize the Argentine Peso due to its credit defaults and resulting difficulties in obtaining USD from the global finance market. The government has solved this by utilizing its RMB swap accord and immediately converting the resulting RMB to USD.[68] Here, the swap functions like a loan facility and the swapped currency itself (i.e. Argentine Peso) serves as a collateral for the PBC. As Argentina needs to return the same amount of the RMB within an agreed term, it has to accumulate sufficient RMB. This brings the spillover effects of RMB swaps into play: Argentina would need to invite Chinese investments, urge Argentine firms to accept the RMB as payment for foreign trades, and increase trade with China. This not only advances RMB internationalization, but also gives Chinese firms a competitive advantage in Argentina.

The functionality of the RMB swaps demonstrates the wisdom of the PBC's decision to use currency swaps as a strategic tool for implementing the Scheme. With capital controls functioning as an ultimate financial 'firewall', the swap mechanism can bypass capital controls in a controlled manner, as the PBC still has the final say as to whether to execute a swap requested by foreign central banks. Furthermore, in tandem with the increasing use of the RMB worldwide, RMB swap lines can also support the RMB exchange rate and shield the RMB against speculation and other market pressures by adjusting the RMB liquidity.[69] In this way, China's swap strategy resonates with Chris Brummer's proposal—'minilateralism' as opposed to conventional 'multilateralism'.[70] Swap agreements enable China to create an intensive network of bilateral arrangements based on informal collaboration without any explicitly binding international legal obligation, which could be understood as a 'soft law' alternative to the traditional 'hard law' commitments resulting from international treaties, rules, or formation of formal organizations. China's strategic application of swap agreements provides an institutional bypass for internationalizing the RMB without

65 'The Intensive Signing of Currency Swap Agreements Indicate the Milestone of the Internationalization of the RMB (频签货币互换协议, 人民币国际化迈出关键一步)', *PRC Ministry of Finance* (中华人民共和国财政部), *Press Release*, 2 April 2009, http://www.mof.gov.cn/zhengwuxinxi/caijingshidian/xinhuanet/200904/t20090402_129098.htm (visited 4 May 2017).

66 Ibid.

67 Allen, above n 64, at 94–95.

68 Charlie Devereux, 'Argentina Said to Secure $400 Million More in China FX Swap', *Bloomberg*, 13 January 2015, https://www.bloomberg.com/news/articles/2015-01-12/argentina-said-to-secure-400-million-more-in-china-fx-swap (visited 21 August 2017); Taos Turner, 'Argentina's Reserves Get Another Boost from China', *Wall Street Journal*, 18 November 2014, http://www.wsj.com/articles/argentinas-reserves-get-another-boost-from-china-1416341836 (visited 21 June 2017).

69 For a general discussion on the function of currency swap lines, see Allen, above n 64, at 85–86; Charles A. Coombs, *The Arena of International Finance* (New York: John Wiley & Sons, 1976).

70 Brummer, above n 59, at 157.

fully lifting capital controls.[71] In the foreseeable future, swap agreements are likely to play an increasingly vital role in facilitating RMB circulation offshore before the RMB is made fully convertible.

III. TIMELINE: RMB INTERNATIONALIZATION AND MACROPRUDENTIAL POLICY

The timeline for the internationalization of the RMB has been fiercely debated ever since the Scheme was launched. Beijing once released an ambitious timetable: to make the RMB fully convertible by 2020 and complete the Scheme by mid-2020s.[72] China's financial savvy with regards to the global capital market games seemed to support Beijing's confidence in the initial timetable.[73] However, some seasoned development economists outside China urged Beijing not to pursue an ambitious timetable that could potentially disrupt the proper sequence of financial reforms.[74] Such views were not taken seriously at the time. By 2011, according to an influential advisor to the PBC, the Scheme had assumed a formidable place 'at the heart of China's financial strategy'.[75] Market forces continued to drive the implementation of the Scheme as international investors and bankers complained about the slow pace of reformed and called for faster implementation.[76]

However, a series of recent shocks in China's stock and foreign exchange markets has alarmed Beijing. In the summer of 2015, China faced the largest stock market crash since 1990s, with the Shanghai Composite Index losing almost 40% of the value in just a few weeks. The market crash led to an unexpected freefall in the RMB exchange rate and a shocking drop in foreign reserve due to the PBC's desperate intervention to save the RMB. Beijing took all possible measures to stop the crisis, with the PBC injecting massive amounts of capital to bolster the market, and the China Securities Regulatory Commission (CSRC) suspending stock trading to slow the crash.[77] Social unrest and political struggles also occurred as rumors about party

71 SIBOS, 'Big Issue Debate - Renminbi: The Real Game Changer', *Swift International Banking Operations Seminar, Singapore Conference*, 12 October 2015, https://www.youtube.com/watch?v=2Y53CIAVpCU (visited 21 July 2017).

72 The PBC Press Release, 'Conditions for Acceleration of the Capital Account Liberalization in Our Country Have Been Met (我国加快资本账户开放条件基本成熟)', China Securities Journal (中国证券报), 23 February 2012, http://www.cs.com.cn/xwzx/07/201202/t20120223_3253890.html (visited 21 August 2017); 'China and the World Bank: 2030 Vision', *The Economist*, 28 February 2012, http://www.economist.com/blogs/analects/2012/02/china-and-world-bank (visited 21 August 2017); 'Dai Xianglong (戴相龙), 'It Takes Approximately Fifteen to Twenty Years to Internationalize the RMB (人民币国际化需 15 到 20 年)', *Xinhua News* (新华社新闻), 18 April 2011, http://news.xinhuanet.com/fortune/2011-04/18/c_121315511.htm (visited 6 August 2017).

73 Weitseng Chen, 'Institutional Arbitrage: China's Economic Power Projection and International Capital Markets', 26 Columbia Journal of Asian Law 347 (2013).

74 McKinnon and Schnabl, above n 18; Robert McCauley, 'Renminbi Internationalization and China's Financial Development', 11 Journal of Chinese Economic and Business Studies 101 (2013); Ronald McKinnon, *The Order of Economic Liberalization* (Baltimore: Johns Hopkins University Press, 1993).

75 Cohen, above n 31, at 217.

76 See e.g. Wendy Wu, 'Shanghai FTZ's Third Anniversary Nothing to Celebrate Given Slow Progress on Financial Reform', *South China Morning Post*, 28 September 2016, http://www.scmp.com/business/china-business/article/2023344/shanghai-ftzs-third-anniversary-nothing-celebrate-given-slow (visited 21 August 2017).

77 China injected almost $235 billion RMB to buy shares and to bolster prices. Edward Wong, Neil Gough, and Alexandra Stevenson, 'China's Response to Stock Plunge Rattles Traders', *New York Times*, 9

factional conflicts spread through the Internet; desperate investors even committed suicide.[78] Some blamed the Scheme and called for the resignation of Zhou Xiaochuan, the architect of the Scheme and the then Governor of the PBC.[79] Despite the Scheme's swift success overseas, it has been confronted with more challenges at home, where the RMB remains subject to volatile fluctuation from varying political and economic factors.

These shocks called into question the RMB's purported progress toward a safe haven currency. Policy makers realized the importance of recalibrating the timeline and regaining control over deregulation. A senior manager of the Industrial and Commercial Bank of China (ICBC), the largest state-owned bank in China, remarked that: 'It is the Chinese government that should decide the pace of RMB convertibility—not HSBC, not foreigners, not Obama! Everything should be controllable, or we don't do it!'[80] This appears to be a move in the right direction, but the key question is whether this will be sufficient.

Arguably, Beijing made the mistake of pitching the Scheme as an international project instead of a domestic project. The Scheme cannot succeed without improving the capacity of China's domestic financial institutions. Beijing's overemphasis on the Scheme's global outcomes has distorted the sequence of necessary reforms at home, and is likely to destabilize China's banking and financial sectors, where systemic risks exist. This section does not propose an alternative timetable for the Scheme, but instead suggests the key factors that the timetable failed to take into consideration—namely, macroprudential policy. In fact, the Scheme is designed in a fashion that directly contradicts macroprudential policy.

A. From microprudential to macroprudential policies

What we witnessed in China's 2015/16 crisis clearly reflects the nature of systemic risks—a crash in a single stock market across China's financial market, debt problems that led to an equity market crisis, and the liquidity freeze in the Chinese banking system which plunged the RMB into freefall in the exchange markets.[81] Some commentators blamed the overheating economy caused by the PBC's RMB 4 trillion (around 586 billion USD) stimulus package, while others blamed the Scheme for prematurely loosening-up capital controls and exposing Chinese markets to hot money and international speculative attacks.[82] Both viewpoints echo macroprudential policy.

Macroprudential policy has been the focus of financial regulation discourse in the aftermath of the 2008 Global Financial Crisis. For decades, microprudential

September 2015, http://www.nytimes.com/2015/09/10/world/asia/in-china-a-forceful-crackdown-in-response-to-stock-market-crisis.html?_r=0 (visited 1 June 2017).

78 Samuel Shen and Pete Sweeney, 'China Stocks Slide as Crackdown on Speculators Spreads, Lose 11 Percent in August', *Reuters*, 31 August 2015, http://www.reuters.com/article/2015/08/31/us-markets-hongkong-china-stocks-open-idUSKCN0R003F20150831 (visited 16 August 2017).

79 See above n 27.

80 SIBOS, above n 71.

81 As a matter of fact, the author warned such turbulence in a working paper presented in Hong Kong and Singapore several months before the market turmoil. For the working paper later published, see Chen, above n 50.

82 'The Timetable for the Internationalization of the RMB is to Be Postponed to 2020 (人民币国际化时间表将推后至 2020 年)', Phoenix New Media (凤凰网), 8 August 2014, http://finance.ifeng.com/a/20140808/12886960_0.shtml (visited 2 May 2017).

regulation served as the paradigm for financial regulation. It focuses on functionalities of individual institutions and markets that constitute the financial architecture, including principal functions such as capital provision, risk management, or information processing.[83] Microprudential policy generally relies on the 'let-the-market-do-the-work' regulatory paradigm, and presumes that financial institutions know where their risks lie, and how to mitigate their risk exposure more effectively than regulators.[84] It is less concerned with the interconnectedness between varying markets and institutions and the transmission of risks across sectors and markets.

In comparison, macroprudential policy is concerned with systemic risks—risks that derive from the interconnectedness between institutions and may bring down an entire financial system. Systemic risks are difficult to be identified and should not be understood as the sum of the risks posed by individual financial institutions.[85] Contagion happens when, for example, Bank A's default on loans borrowed from Bank B eventually affects healthy Bank C that holds debts issued by Bank B, regardless of Bank C's actual performance.[86] This is because of panic sale by the investors of Bank C, who begin to believe that Bank C's financials would be adversely affected by Bank B's loss.[87] Furthermore, the contemporary banking industry is inextricably interconnected and constantly changing; therefore, financial regulations would lag behind financial reality and thus spur regulatory arbitrage that increases systemic risks.[88] As systemic risks appear to be inevitable, macroprudential policy aims to preserve the financial system as a whole by limiting the triggers of systemic risks, breaking the transmission of resulting systemic shocks, and restraining their impact on the financial system.[89]

However, complications may arise from the different nature and direction of these two strands of regulatory thinking. Regulations designed based on microprudential policy to address financial risks may paradoxically exacerbate systemic risks from

83 Steven L. Schwarcz, 'Regulating Financial Change: A Functional Approach', 100 Minnesota Law Review 1441 (2015), at 1450–51.

84 Microprudential policy therefore operates together with other procyclical policies including deregulation and other various 'light touch' regulation to facilitate market transactions. Patricia A. McCoy, 'Countercyclical Regulation and Its Challenges', 47 Arizona State Law Journal 1181 (2015), at 1184.

85 Anita Anand, Michael J. Trebilcock, and Michael Rosenstock, *Institutional Design and the New Systemic Risk in Banking Crises*, in Anand (ed.), above n 4, at 1; Robert Hockett, 'Macroprudential Turn: From Institutional Safety and Soundness to Systematic Financial Stability in Financial Supervision', 9 Virginia Law & Business Review 201 (2014), at 207.

86 Hockett, ibid, at 210; Eric A. Posner, 'How Do Bank Regulators Determine Capital-Adequacy Requirements?', 82 University of Chicago Law Review 1853 (2015), at 1860.

87 Hockett, ibid, at 208; Dan Awrey, *The Institutional Structure of Financial Regulation*, in Anand (ed.), above n 4, at 91.

88 Steven L. Schwarcz, *Perspectives on Regulating Systemic Risk*, in Anand (ed.), above n 4, at 40–41; Awrey, ibid, at 71.

89 Shifting the regulatory focus to systemic risks has produced rich policy implications. For example, we may want to revisit fundamental corporate law principles to strike a better balance between encouraging capital investment and limiting excessive corporate risk-taking (e.g. to develop the concept of public governance duty to be imposed to mangers of a systemically important firm, or to narrow limited liability protection for owners and managers of shadow banking firms). More radically, Adam Levitin argues for depriving the lending function from banks entirely and making them offer services of safekeeping of deposits only, thereby fundamentally addressing systemic risks inherent in the modern banking system. Pistor, above n 7; Steven L. Schwarcz, 'Misalignment: Corporate Risk-Taking and Public Duty', 1 Notre Dame Law Review 92 (2016); Steven L. Schwarcz, 'Ring-fencing', 87 Southern California Law Review 69 (2016); Adam J. Levitin, 'Safe Banking: Finance and Democracy', 83 University of Chicago Law Review 1 (2016).

a macroprudential point of view.[90] The most infamous example of such unintended consequences is the risk-weighted requirements under Basel II influenced by microprudential policy. These requirements gave rise to banks' widespread use of financial engineering to reduce nominal risk, thereby resulting in loans and capital treatment that failed to accurately reflect the institutions' risk exposure to the underlying assets.[91] Maintaining financial stability thus requires a coordinated approach—regulators of financial stability should not only be involved in the design of microprudential regulation, but integrated micro-level information collected by regulators should also be shared at the domestic and international level for the purpose of macroprudential policy.[92]

B. Systemic risks and RMB internationalization

Both paradigms of prudential policy thinking are crucial for the internationalization of the RMB in that financial stability, the ultimate objective of both, is a prerequisite for any international currency. Considering the systemic shocks that the Scheme has encountered, however, macroprudential policy is arguably more critical at the moment. Against this backdrop, the timeline of the Scheme needs to be evaluated against not just microprudential policy, but also the macroprudential point of view in terms of the country's capacity to prevent systemic shocks. Unfortunately, the current Scheme focuses on the former rather than the latter, and its timeline fails to incorporate the macroprudential perspective.

China has made great strides in reforming its banking sector and restructuring SOEs, the main clients of Chinese banks, but largely along the lines of conventional microprudential policy concerning corporate governance, disclosure systems, and credit rating and enhancement, among others.[93] By contrast, macroprudential policy considerations put greater emphasis on systemic risks, which could require the Scheme as well as its timeline for implementation to be reconfigured. For example, it might not be prudent for China, in pursuit of the Scheme's overseas success, to lift capital controls at such a fast pace before its domestic institutions are ready. Also, given the importance of reducing the number of 'too-big-to-fail' systemically important firms, Beijing needs to be careful when encouraging its 'national champion' SOEs to expand overseas and work hand in hand with the Scheme.[94] In light of recent literature suggesting that central banks should move away from a 'lender of last

90 Awrey, above n 87, at 91.

91 Ibid, at 73; David Jones, 'Emerging Problems with the Basel Capital Accord: Regulatory Capital Arbitrage and Related Issues', 24 Journal of Banking & Finance 35 (2000).

92 Daniel Heath, 'International Coordination of Macroprudential and Monetary Policy', 45 Georgetown Journal of International Law 1093 (2013); Rolf Weber et al., 'Addressing Systemic Risk: Financial Regulatory Design', 49 Texas International Law Journal 149 (2014), at 179–84; Awrey, above n 87, at 92; Anand, Trebilcock, and Rosenstock, above n 85; Douglas W. Arner, Michael A. Panton, and Paul Lejot, 'Central Banks and Central Bank Cooperation in the Global Financial System', 23 Pacific McGeorge Global Business & Development Law Journal 1 (2010).

93 For example, the overarching idea of China's securities market reforms lies in the disclosure-based regulatory regime, which presumes that investors know their risks and know how to manage their risk exposures better than the regulators. See e.g. Yingmao Tang, *The China Model for Securities Law*, in Chen (ed.), above n 50.

94 Ibid, at 58–59.

resort' approach to an insurance scheme by requiring a premium from systemically important firms,[95] the PBC needs to reconsider its policy to continue providing free subsidies for China's SOEs and banks. By the same token, China needs to adjust the procyclical nature of the Scheme that aims to mainly attract more foreign direct investment (FDI) to support its economic growth. More specifically, in the field of securities regulations, China's potential move from a merit-based toward a disclosure-based regulatory regime, which has been recommended by reform-minded scholars based on microprudential policy,[96] might result in a flood of securities offerings that could worsen China's overheated securities market.

The forgoing considerations are not only concerned with the nature of the Scheme, but also the order of priority among varying policy initiatives. China has in fact applied certain macroprudential policy tools to its overall banking and finance reforms,[97] but the lack of similar considerations in the Scheme would seriously compromise the efficacy of preexisting macroprudential initiatives. In the following subsections, this article discusses three problematic aspects regarding the current timetable: (C) capital controls and (D) procyclicality, followed by (E) a case study of China's shadow banking.

C. Premature lifting of capital controls

When the Scheme was announced, a JP Morgan senior manager remarked privately that 'it is impossible for the RMB to become an international reserve currency for one simple reason—China will not give up its control over its economy'.[98] As it turned out in the following years, he was wrong. Beijing appeared to be willing to push the RMB to the pinnacle as soon as possible, at the expense of subjecting its economy to global market forces by quickly lifting capital controls. However, quick returns come with high risks.

The Scheme's aim to make the RMB fully convertible by 2020 raises concerns from a macroprudential perspective. As suggested, the timeline of the Scheme should have developed along the lines of identifying the proper sequence of domestic banking reforms, necessary for transforming China's banking system into one capable of supporting the fully convertibility of the RMB. China has relied on 'financial repression' to extract savings from private sectors and then allocate cheap capital to strategic industries, as was the case in several other successful economies in Asia.[99]

95 Ibid, at 46; Awrey, above n 56.

96 Tang, above n 93.

97 Liu Zhiyang (刘志洋), 'Monetary Policy and Financial Stability: A Macroprudential Perspective (论货币政策与金融体系稳定–宏观审慎视角)', 3 Wuhan Finance (武汉金融) 31 (2017); Guo Jianwe (郭建伟), 'Study on the Macroprudential Regulation and Coordination Regarding China's Cross-border Capital Flow (中国跨境资金流动的宏观审慎调控手段及其协调配合研究)', 11 Journal of Financial Development Research (金融发展研究) 26 (2017); Li Chunlei (李春雷) and Zhou Wenqing (周文青), 'Macroprudential Policy and the Transition of Banking System (宏观审慎监管与银行转型)', 23 Chinese Finance (中国金融) 41 (2016).

98 Interview, Hong Kong, 20 June 2013. This manager was in charge of the bank's investment portfolio in China.

99 See generally Ronald McKinnon, *Money and Capital in Economic Development* (Washington, DC: The Brookings Institution, 2010); Edward Stone Shaw, *Financial Deepening in Economic Development* (New York: Oxford University Press, 1973).

The flip side of financial repression is the application of capital controls, which prevent capital from flowing out of the monetary pool to be extracted by the state.

The failure to correctly identifying the necessary sequence of reforms to remove this 'financial repression' can trigger systemic risks, as evidenced by the financial turmoil in Latin America in the 1980s, including Chile, Argentina and Uruguay, where their currencies went into free fall after a floating exchange rate was introduced. The Scheme aims to aggressively boost the liquidity of the RMB by introducing several measures that would reconfigure the core of China's state capitalism. Most of these policies are concerned with the lifting of capital controls under the fast timeline, including liberalization of the RMB's exchange rate and state-owned banks' lending and savings rates. In fact, development economists have proposed a set of policy suggestions regarding the sequence of liberalization of capital controls and state banking systems in countries subject to financial repression.

Based on studies of developmental states, Ronald McKinnon has suggested that prudential *fiscal controls* should be introduced first to prevent the need for the government to cover deficits by increasing money supply. This is followed by *domestic* financial liberalization, which should begin with the liberalization of interest rates and end with the privatization of state-owned banks.[100] The privatization of banks comes later because market mechanisms should be introduced incrementally as state-owned banks need time to adjust to a competitive market. After domestic financial liberalization, the next step is to liberalize regulations targeting *external and foreign* sectors. Examples include the lifting of foreign exchange controls and import or export restrictions.[101] Finally, the *capital account* can be made fully convertible. Furthermore, the order of capital account liberalization should be as follows: capital inflow should be liberalized before capital outflow; long-term capital before short-term capital; direct investment prior to indirect investment; and capital of institutional investors before individuals. During the process, the government needs to use capital controls wisely but cannot depend on capital controls to compensate for poor economic management.[102] Several East Asian states largely followed this path to transform their financial system that were subject to financial repression.[103] One often cited example is Taiwan, which spent approximately fifteen years to complete this process for its banking sector—which was much smaller than China's.[104]

The Scheme has accelerated, if not distorted, this proposed policy sequence. For one, fiscal controls in China remain problematic due to the stimulus package

100 McKinnon, above n 74.

101 Ibid.

102 Capital control works best when a country has strong macroeconomic fundamentals which require good economic management. Jonathan D. Ostry et al., 'Capital Inflows: The Role of Controls', *IMF Staff Position Note SPN/10.04*, 2010, https://www.imf.org/external/pubs/ft/spn/2010/spn1004.pdf (visited 1 August 2017); MacFarlane, above n 24, at 209.

103 Cheng-Ming Hsu (許振明), 'Financial Liberalization, Internationalization and Supervision (由金融自由化與國際化的過程談金融監理)', *National Policy Foundation (國家政策研究基金會) Policy Report No. 090-039*, 2001, http://old.npf.org.tw/PUBLICATION/FM/090/FM-R-090-039.htm (visited 1 August 2017).

104 Weitseng Chen, 'Regulating Internationalization of Currency: Experiences in Asia', in Jiaxiang Hu, Matthias Vanhullebusch, and Andrew Harding (eds), *Finance, Rule of Law and Development in Asia: Perspectives from Singapore, Hong Kong and Shanghai* (Boston, MA: Brill Publishers, 2016) 106, 123–28.

introduced in 2008, which has led to an apprehensive amount of governmental debts at the regional level.[105] Cash-rich SOEs and firms, as well as corrupt officials, drew cheap cash acquired domestically by taking advantage of capital flow liberalization. Consequently, capital account liberalization has led to an unprecedented amount of capital flight, which hit a record high at the end of 2016, as well as unexpected RMB depreciation over the course of 2015 and 2016.[106] This in turn created a credit crunch in domestic markets, leading to the burst of China's property bubble, as demonstrated by the numerous suspended real estate development projects across the country.[107] At the same time, mechanisms for hedging against counterparty's credit risks such as derivatives are rare and limited.[108] Furthermore, China's regulators failed to coordinate their activities effectively to address China's systemic issues. After 2015 stock market crisis, the chairman of the CSRC has been dismissed for alleged corruption, together with several top officials of other regulatory bodies removed for similar causes, including the Deputy Chairman of CSRC, the Chairman of China Insurance Regulatory Commission (CIRC) and four officials of China Banking Regulatory Commission (CBRC).[109] Notably, CSRC, CIRC, and CBRC are the three highest regulatory bodies of China's capital markets, financial, and insurance sectors.

D. Procyclicality of the RMB internationalization

A major difference between microprudential and macroprudential thinking is that the former is *procyclical* while the latter is *countercyclical*. *Procyclicality* refers to the availability of cheap capital and loosely valued collateral in a booming economy, which encourages borrowers to borrow more from financial institutions. Financial institutions may in turn resort to credit default swaps to hedge against any increase in risks of default and thus assume that it is safe to lend more, thereby further fueling the economy that is booming and probably already over-heating. This feedback loop continues until the bubble bursts.[110]

In comparison, macroprudential policy differs in that it is *countercyclical* and works by restraining borrowing especially when a procyclical build-up is occurring in a booming economy. Its emphasis is put on bad times when banks would find

105 Mengzhong Zhang and Youwei Qi, 'Grand Strategies for Dealing with Chinese Local Government Debts', 5 Management Studies 91 (2017); Wang Ting-ting (王婷婷) and Fan Wei-guo (范卫国), 'Debt Management from the Perspective of Fiscal Responsibility: Experience from Outside and China's Choice of Model (财政责任视角下的地方债务治理：域外经验与中国路径)', 6 Reform of Economic System (经济体制改革) 161 (2016); Xun Wu, 'China's Growing Local Government Debt Levels', Policy Brief of MIT Center for Finance and Policy, January 2016, http://gcfp.mit.edu/wp-content/uploads/2013/08/China-Local-Govt-Debt-CFP-policy-brief-final.pdf (visited 1 August 2017).

106 Sujata Rao, 'China Net 2016 Outflows at Record $725 Billion: IIF', *Reuters*, 2 February 2017, http://mobile.reuters.com/article/idUSKBN15H1FL (visited 3 August 2017).

107 See Richard Gray, 'China's Zombie Factories and Unborn Cities', *BBC*, 23 February 2017, http://www.bbc.com/future/story/20170223-chinas-zombie-factories-and-unborn-cities (visited 3 August 2017).

108 Brummer, above n 4, at 485–86; Anand, Trebilcock, and Rosenstock, above n 85, at 6.

109 See Dominique Patton, 'China Securities Firm Chief Dismissed over Graft Allegations', *Reuters*, 17 June 2015, http://www.reuters.com/article/us-china-corruption-companies-idUSKBN0OX1J120150617 (visited 9 August 2017).

110 Hockett, above n 85, at 213–14, 218. Jeffery Atik asserts that such financial engineering engenders nothing more than a 'false sense of security'. Jeffery Atik, 'Basel II: A Post-crisis Post-mortem', 19 Transnational Law & Contemporary Problems 731 (2011), at 749.

themselves exposed to poorly covered defaults owing to suddenly falling prices of assets and collaterals and, therefore, might be forced to reduce the book values of their assets to cover their sudden loss, and have difficulty in seeking fresh capital infusion due to credit crunch across markets. As the number of distressed banks rises, the less capital they can lend to needy companies, thereby amplifying the downward cycle.

The fact that the Scheme focuses on aiming to expand its international acceptance demonstrates its procyclical nature, which runs counter to the countercyclical nature that macroprudential policy emphasizes. In fact, the design of the Scheme is procyclical by nature. One of the overarching ideas underlying the Scheme is to increase the RMB's offshore reserve for investment purpose, and to recycle offshore RMB back to domestic markets to stimulate the economy. According to a senior attorney once involved in the formation of the Scheme, 'without recycling the offshore RMB back to China for investment, the RMB internationalization is meaningless'.[111]

Moreover, the Scheme's impressive achievements overseas are partially attributable to the PBC's procyclical, expansionary monetary policy after the 2008 Global Financial Crisis. Beijing's stimulus package greatly supported trade and investment by Chinese firms, both domestically and internationally, which in turn increased acceptance of the RMB worldwide as a settlement and investment currency. The stimulus package is widely perceived as the main cause of the quick increase in local government and SOE debts.[112] Chinese regulators have moved to restrict procyclical build-ups in areas such as foreign mergers and acquisition by Chinese firms.[113] China also amended its Budget Law in 2014 and issued a crucial policy guideline known as 'Document 43' to improve fiscal discipline and restrain off-budget debt of local governments such as bonds issued through special financing vehicles.[114] However, Beijing's concerns about such procyclicality build-ups do not seem to have been translated into the design of the Scheme.

The political agenda behind the Scheme has naturally led to an expedited timetable, with a focus on the international progress rather than domestic reforms. The Scheme is designed to be procyclical and its implementation also goes in parallel with procyclical market and institutional reforms. Skeptics against the Scheme have also demonstrated the path dependence of various procyclical policies, from

111 Interview, Singapore, 28 April 2016. Before capital flights became a serious issue due to lifting of capital controls, commentators in China usually focused on how capital account liberalization could bring in foreign capital to boost a slowing economy. See e.g. Sun Tao (孫濤) and Pu Shi (朴實), 'What Has Accounted for China's Stock Market Boom (股市源何狂飆)', *China Reform* (中國改革), *Caixin*, June 2015.

112 Minxin Pei, 'Are Chinese Banks Hiding "The Mother of All Debt Bombs"?', *The Diplomat*, 10 September 2012, http://thediplomat.com/2012/09/are-chinese-banks-hiding-the-mother-of-all-debt-bombs/ (visited 3 August 2017).

113 Claire Jones, Javier Espinoza, and Tom Hancock, 'Overseas Chinese Acquisitions Worth $75bn Cancelled Last Year', *Financial Times*, 6 February 2017, https://www.ft.com/content/b0ff426c-eabe-11e6-930f-061b01e23655 (visited 10 February 2017); Keith Bradsher, 'China Tightens Controls on Overseas Use of its Currency', *New York Times*, 30 November 2016, https://cn.nytimes.com/business/20161130/china-tightens-controls-on-overseas-use-of-its-currency/en-us/ (visited 4 August 2017).

114 Wang and Fan, above n 105.

which they had benefited and therefore worried that the Scheme would reduce such benefits or weaken their authority based on such procyclical policies (see Section II (A)).

Fortunately, Beijing seems to have learned a hard lesson from the 2015/16 stock crises and has reportedly slowed down the implementation of the Scheme in early 2017. The PBC has rightly recalibrated the liberalization of capital accounts and re-tightened up capital controls in early 2017 in certain areas (e.g. acquisition of foreign company assets and participation in real estate markets overseas) to stop capital flights.[115] But it remains to be seen if a macroprudential perspective will be incorporated into the Scheme. The next section offers a case study of the systemic risks hidden in China's shadow banking system.

E. Systemic risks in context: shadow banking

Systemic risks increase with the complexity and interconnectedness of firms and markets. We should therefore consider not only the *causes* of systemic risks, but also the *transmission mechanisms* of the adverse effects in a complex financial system.[116] Transmission mechanisms are most likely related to liquidity, leverage, losses, and the level of their linkages through the structures of firms, deals, and financial markets.[117] Here, a complication comes from the expanding shadow banking sector, which creates bank-like risks (e.g. maturity mismatch) resulting from their bank-like behavior.[118] In fact, the shadow bank maturity mismatch was at the core of 2008 Global Financial Crisis.[119] As such, this section offers a case study that reveals the systemic risks and their transmission mechanisms in the context of Chinese shadow banking.

Shadow banking, defined as 'credit intermediation involving entities and activities outside the regular banking system',[120] is a product of China's successful economic transition. According to an investigation report issued by the Brookings Institution, the size of China's shadow banking industry is estimated to be approximately RMB 25 trillion as of the end of 2013, or about 43% of China's

115 Charles Clover and Don Weinland, 'China Capital Controls Help Slow Cash Outflows', *Financial Times*, 8 January 2017, https://www.ft.com/content/02ab9faa-d595-11e6-944b-e7eb37a6aa8e (visited 5 August 2017); Neil Gough and Cao Li, 'China's New Limits on Money Outflows Hit a Would-Be Paradise', *New York Times*, 27 March 2017, http://cn.nytimes.com/business/20170327/china-money-outflows-country-garden/en-us/ (visited 4 August 2017).

116 Awrey, above n 87, at 66; Schwarcz, above n 83, at 1481; Hockett, above n 85, at 212.

117 See Monica Billio et al., 'Econometric Measures of Connectedness and Systemic Risk in the Finance and Insurance Sectors', 104 Journal of Financial Economics 535 (2012); Awrey, above n 87, at 64.

118 Emilios Avgouleas, 'Regulating Financial Innovation', in Niamh Moloney, Eilís Ferran, and Jennifer Payne (eds), *The Oxford Handbook of Financial Regulation* (Oxford, UK: Oxford University Press, 2015) 659–64; Weber et al., above n 92, at 171–74; Kristin N. Johnson, 'Macroprudential Regulation: A Sustainable Approach to Regulating Financial Markets', 3 University of Illinois Law Review 881 (2013), at 905.

119 Schwarcz, above n 83, at 1471–73; Daniel Covitz, Nellie Liang and Gustavo A. Suarez, 'The Evolution of a Financial Crisis: Collapse of the Asset-Backed Commercial Paper Market', 68 Journal of Finance 815 (2013); Gary Gorton and Andrew Metrick, 'Regulating the Shadow Banking System', Brookings Papers on Economic Activity No. 2 (2010) 261.

120 'Global Shadow Banking Monitoring Report 2014', *The Financial Stability Board*, 4 November 2014, http://www.financialstabilityboard.org/2014/11/global-shadow-banking-monitoring-report-2014/ (visited 5 August 2017).

GDP.[121] Shadow banking in China, as with many other economies, functionally plays a positive role in facilitating credit distribution as it provides credit for persons who otherwise would not be able to do so in formal banking markets.[122] Shadow banks bear and then allocate risks; but unlike formal banks, they do not enjoy the privilege of being supported by the government through deposit insurance or other mechanisms to prevent financial meltdown.

Great systemic risks exist in China's banking system owing to the interconnection between formal and shadow banks, and such risks would be amplified by financial innovation that allows shadow banks to reach massive amounts of investors, creating bank-like risks.[123] In fact, China's cash-rich SOEs dominate the shadow banking market today.[124] Large SOEs have been directly involved in lending business through their financial arms in shadow banking markets.[125] Local governments have been involved through their special financing vehicles, with which they raised and bundled bank loans and other forms of financing by using budgetary and off-budget revenues as equity and as collateral (such as revenues from land sale or state-owned land as collateral).[126] The blurred boundaries between SOEs and local governments mean that governments also act as shadow lenders.

The key transmission mechanisms lie in the interconnection and interdependence between China's formal banks, SOEs, and the capital-hungry private sector under the financial repression. A typical deal structure can illustrate the structure of shadow banking in China. A shadow bank, usually affiliated with SOEs and banks, may securitize its affiliates' loan credits and issue debt securities underlying an isolated pool of such credits to be sold to investors. Such kind of securitization is a substitute for traditional banking in that it provides financing for borrowers by re-lending the funds provided by the investors of the debt securities. In China, the sale process could involve an underwriting procedure similar to market practices seen in normal capital market deals. Formal state banks may be involved as an underwriter.[127] In this way, it

121 Douglas Elliott, Arthur Kroeber, and Yu Qiao, 'Shadow Banking in China: A Primer', Economic Studies at Brookings, March 2015, https://www.brookings.edu/wp-content/uploads/2016/06/shadow_banking_china_elliott_kroeber_yu.pdf (visited 6 August 2017).

122 Shadow banks once played an important role in promoting growth in high-growth jurisdictions such as Hong Kong, Singapore, Korea and Taiwan. Buckley, Arner, and Panton, above n 19, at 341; Steven L. Schwarcz, 'Shadow Banking, Financial Risk, and Regulation in China and other Developing Countries', The Global Economic Governance Program, University of Oxford, Working Paper No. 2013/83, 2013.

123 Weber et al., above n 92.

124 It has been reported that 90% of lenders in this shadow industry are cash-rich SOEs, many of which have finance arms in their business in the form of finance and trust companies. Shen Wei, 'Shadow Banking System in China: Origin, Uniqueness, and Governmental Responses', 1 Journal of International Banking Law and Regulation 20 (2013).

125 Brooke Masters, Henny Sender, and Dan McCrum, 'Shadow Banks Move in amid Regulatory Push', *Financial Times*, 9 September 2011; Henny Sender, 'China Groups Fuel Shadow Banking', *Financial Times*, 7 September 2011.

126 Christine Wong, 'Paying for Urbanization: Challenges for China's Municipal Finance in the 21st Century', in Roy Bahl, Johannes F. Linn, and Deborah L. Wetzel (eds), *Financing Metropolitan Governments in Developing Countries* (Cambridge, MA: Lincoln Institute Press, 2013) 273–308; Kai Yuen Tsui, 'China's Infrastructure Investment Boom and Local Debt Crisis', 52 Eurasian Geography and Economics 686 (2011), at 691.

127 Chen, above n 4.

is difficult for lay investors to understand the differences between financial products offered by formal banks, on the one hand, and shadow banks, on the other, as they are all sold by reputable state-owned banks.[128] Bank-like systemic risks are created as a result.

In such transaction structures, cross-guarantees are usually involved between SOEs, local governments, affiliated trust companies, and the shadow bank units.[129] Consequently, this business model is no longer the one used by simple mom-and-pop businesses. We are starting to see complex transaction structures involving securitization that can promote procyclicality and regulatory arbitrage.[130] One recent example is the 2017 debt crisis in Zouping, a fast booming city where some of China's largest private firms are located. Due to the cross-guarantee between local firms, banks, and governmental agencies provided for one another's borrowings, a single local company's liquidity crunch rippled across the entire city due to cross-defaults triggered. This typical systemic crisis resulted in a desperate takeover of the firm after the central government intervened.[131] The conventional view that recognizes the positive function of shadow banking more or less presumes a clear distinction between formal and shadow banking; however, this is no longer true in China.

Information technology has also revolutionized the shadow banking industry in China, which has become a globally leading player of the e-payment and e-settlement markets. Peer-to-peer lending has enabled shadow banking institutions to reach a very large number of users in a short period of time.[132] Alibaba.com, the Chinese online retailer giant, launched in 2013 Yu'e Bao (or, Leftover Treasure) that offered online savings and lending services with an interest rate double that offered at formal banks. In early 2017, Yu'e Bao, a shadow bank by nature, has overtaken JP Morgan's US government money market fund and has become the largest money-market fund in the world.[133]

Moreover, the thriving shadow banking industry in China is also associated with capital controls, in that capital controls limit the investment opportunity and therefore incentivize capital-rich entities to invest in shadow banking industry. As such, prematurely lifting capital controls would trigger capital flight and drain liquidity from the

128 For example, a bond default happened in March 2014 to a solar panel manufacturer Chaori, whose bonds were underwritten by the ICBC, China's largest bank. Investors protested and required bailout as many purchased the bonds mainly because the ICBC endorsed the sale.

129 Chen, above n 4; Viral V. Acharya, 'Governments as Shadow Banks: The Looming Threat to Financial Stability', 90 Texas Law Review 1745 (2011).

130 The Financial Stability Board (FSB), 'Strengthening Oversight and Regulation of Shadow Banking: A Policy Framework for Strengthening Oversight and Regulation of Shadow Banking Entities', *The FSB Policy Document,* 2013, at 17 and 22, http://www.fsb.org/wp-content/uploads/r_130829c.pdf (visited 6 May 2017).

131 'Qixing's Debt Default Concerned the Authorities; Taskforce was Urgently Sent by the National Development and Reform Commission to Shandong Zouping (齐星债务危机引发高层关注, 发改委派工作组急赴山东邹平)', *Sina Finance* (新浪财经), 1 April 2017, http://finance.sina.com.cn/stock/s/2017-04-01/doc-ifycwunr8526349.shtml (visited 7 June 2017).

132 William S. Warren, 'The Frontiers of Peer-to-Peer Lending: Thinking about a New Regulatory Approach', 14 Duke Law & Technology Review 298 (2016); Schwarcz, above n 122, at 4.

133 Louise Lucas, 'Chinese Money Market Fund Becomes World's Biggest', *Financial Times*, 27 April 2017, https://www.ft.com/content/28d4e100-2a6d-11e7-bc4b-5528796fe35c?mhq5j=e3 (visited 8 August 2017).

shadow banking sector. This was precisely the case in 2015 and 2016 when capital flights reached a record high following the rapid implementation of the Scheme.

Unfortunately, untangling the relationship between SOEs, state-owned banks, local governments, and shadow banks will be difficult. A quick and outright demolishment of this informal market may immediately trigger a credit crunch. However, slowly dismantling this state of affairs may also ignite a crisis from accumulated systemic risks. Any solution must not only take into account institutional architecture, but also the overall political economy and industrial policies. In other words, it requires the timeline of the Scheme to be determined macroprudentially based on the sequence and progress of various domestic reforms, instead of merely aiming for overseas success.

IV. CHINA'S RESPONSIBILITY IN RELATION TO ISSUING INTERNATIONAL RESERVE CURRENCY

The rapid progress of the Scheme can be partially attributed to the global frustration with the dominance of the USD. The 2008 Global Financial Crisis has illuminated the potential for foreign countries to be trapped by the institutional flaws and systemic risks originating from the USA due to the USD's monopoly. During the crisis, as the USD remained the safest means of hedging risk and storing values, foreign investors were forced to increase their USD holdings, thereby subjecting the value of their assets to the US's expansionary monetary policy and depreciation of the USD at the time.[134] As a result, many countries such as India, France, and Russia began to seriously consider the RMB as a possible alternative to the greenback.[135]

The other source of discontent with the USD's dominance is the US's extraterritorial jurisdiction over foreign financial institutions, which is based on the USD's centrality in the global financial network. Standard Chartered Bank, HSBC, and BNP Paribas are a few of the foreign institutions that have recently been sanctioned by US authorities for allegedly providing dollar-based financial services to clients blacklisted by the US.[136] This has infuriated central and private bankers, as well as politicians in the foreign countries.[137] Similarly, after Russia's invasion of Crimea and the subsequent destabilization of Ukraine, the US Department of Treasury imposed sanctions in 2014 prohibiting US persons from providing financing to several major Russian companies, limiting their access to the USD-based capital markets.[138] Such sanctions

134 Eswar Prasad, 'The Dollar Trap', 91 Harvard Business Review 40 (2013).

135 See e.g. G. Padmanabhan, 'Evolving Regulations and Emerging Market Challenges—the Indian Context', 7 Macroeconomics and Finance in Emerging Market Economies 195 (2014).

136 Sanctions include fine as well as suspension of the banks' authority to transact in the USD and perform dollar-clearing functions. Devlin Barrett , Christopher M. Matthews, and Andrew R. Johnson, 'BNP Paribas Draws Record Fine for "Tour de Fraud"', *Wall Street Journal*, 30 June 2014, http://online.wsj.com/articles/bnp-agrees-to-pay-over-8-8-billion-to-settle-sanctions-probe-1404160117 (visited 9 July 2017).

137 Fabio Benedetti-Valentini and Vidya Root, 'France Slams U.S. over $10 Billion BNP Fine as Obama Heads to Paris, *Bloomberg*, 4 June 2014, http://www.bloomberg.com/news/2014-06-03/fabius-says-10-billion-u-s-fine-for-bnp-not-reasonable.html (visited 1 August 2017); Geoff Dyer, 'BNP Paribas' Record Fine Highlights Double-Edged Sword for U.S.', *Financial Times*, 2 July 2014, https://www.ft.com/content/6ef03624-01a5-11e4-bb71-00144feab7de?mhq5j=e3 (visited 9 July 2017).

138 US Department of State, 'Announcement of Treasury Sanctions on Entities Within the Financial Services and Energy Sectors of Russia, Against Arms or Related Materiel Entities, and Those

caused the value of the ruble to plunge, and exerted liquidity pressure on the sanctioned entities.[139] In response, Russia tried to circumvent the sanctions by encouraging more Russian companies to use the RMB and, consequently, the yuan-ruble trade on the Moscow Exchange jumped 10-fold in the same year.[140]

Ironically, the RMB's international success can be attributed to the global discontent with the USD, even though Beijing intended for the Scheme to enable the RMB to become as prestigious as the USD. Against this backdrop, China needs to consider its duties in the long run amid the ascendance of the RMB, or a backlash against the RMB might occur—as has been the case with the USD. This section discusses China's responsibilities along the lines of the forgoing two sources of discontent with the USD's dominance: (A) macroprudential responsibility and (B) extraterritoriality.

A. Macroprudential responsibility

Issuers of international currency should be obliged to bear higher macroprudential responsibility and obligation in light of the prestige conferred upon them. International finance is legally constructed through numerous contractual relationships surrounding key market players. However, as demonstrated by the 2008 Global Financial Crisis, the stringent enforcement of all such legal commitments without heed of such changes in circumstances would inevitably bring down the financial system.[141] In response to this paradox, the legal enforcement of these obligations is likely to be relaxed or suspended during crises. To make matters worse, the law tends to be applied in a more elastic fashion at the apex of the financial system, rather than its periphery. Surviving a financial crisis therefore depends on how close a country is to the apex.[142] It does not surprise that the USA was granted a great deal of discretion during the 2008 Global Financial Crisis, in that it took a relaxed approach to legal enforcement and bailed out selected countries and entities. Hence, it is also fair that any state issuing high-powered currency should accordingly bear a higher responsibility towards the financial system.

As analyzed in Section III (D), the nature of the RMB Scheme is procyclical and is at odds with the countercyclical nature of macroprudential thinking. One recent case in point is the AIIB that aims to fill in the capital gap between what the developing countries need and what the current system (e.g. the World Bank) can offer. The AIIB emphasizes the doctrine of non-interference as opposed to the doctrine of conditionality held by existing international development banks. The practice of conditionality has been criticized as a policy/political tool used by international organizations to reshape the governance of recipient countries.[143] However, the fact that the AIIB has chosen

Undermining Ukraine's Sovereignty', 16 July 2014, https://www.treasury.gov/press-center/press-releases/Pages/jl2572.aspx (visited 10 August 2017).

139 Kathrin Hille and Roman Olearchyk, 'Plunging Rouble Raises Spectre of Fresh Financial Crisis for Russia', *Financial Times*, 7 November 2014, http://www.ft.com/intl/cms/s/0/6c059328-666d-11e4-9c0c-00144feabdc0.html#axzz3vbsuscAE (visited 11 August 2017).

140 'Russia Turns to RMB to Thwart Western Sanctions', *China Daily*, 14 November 2014, http://www.china.org.cn/business/2014-09/25/content_33609143.htm (visited 11 June 2017).

141 Pistor, above n 7, at 320; Awrey, above n 7, at 17–19.

142 Pistor, ibid, at 319.

143 For instance, the USA and the IMF have been heavily criticized for their conditional bailout package to Indonesia during the 1997 Asian Financial Crisis, where Indonesia was required to radically amend its insolvency laws to favor US investment and, additionally, introduce widespread democratic reforms. Stacey Steele, 'The New Law on Bankruptcy in Indonesia: Towards a Modern Corporate Bankruptcy

to do the exact opposite should be a cause for concern as well.[144] The AIIB aims to facilitate the business transactions with locals, and cut red tape by introducing a simpler due diligence and lax risk assessment system for projects.[145] Under its articles of association, the AIIB is permitted to lend money to other countries for carrying out projects that will be implemented by Chinese SOEs or for the purchase of Chinese goods and services.[146] In this way it helps to absorb some of the excess capacity that Chinese SOEs are experiencing.[147] This structure resembles the functionality of RMB swap agreements in its operation—increase in capital flow overseas should eventually lead to an increase in trade with China.

Against this backdrop, capital injections through the AIIB are able to prolong China's procyclical tendency at home, and thus institutionalize China's procyclical development model abroad. In the face of the USA boycott against its establishment and varying international pressure, the AIIB eventually chose the USD as its official currency, but in practice, approximately thirty percent of its loans at the moment are made in the RMB.[148] Together with the AIIB, China Development Bank and Export–Import Bank of China, two major policy banks, have also begun providing RMB-denominated loans and issuing RMB-denominated bonds overseas.[149] Other relevant initiatives are on track to export the fixed-asset investment trend to the region. In the case of the 'One Belt, One Road' initiative, China has approximately provided USD 425.4 billion of loans as of the end of 2016 for projects in participating countries to cover infrastructure and industrial capacity.[150] This has been done through RMB loans provided by Chinese banks, which have recently established 62 branches in these countries as of 2016.[151] With wider channels for supplying loans overseas and recycling capital back to domestic markets, a larger procyclical feedback loop is likely to be created, with more market players from offshore markets and increased credit available for borrowing. This feedback loop, as in the domestic context, will facilitate procyclicality until the tide turns.

Regime?', 23 Melbourne University Law Review 144 (1999). See generally, Joseph P. Stiglitz, *Globalization and its Discontents* (New York: Norton, 2002).

144 Despite China's disfavor about conditionality, AIIB could serve as a platform for promoting China's version of governance structure via conditionality practice.

145 Koh Gui Qing, 'China's AIIB to Offer Loans with Fewer Strings Attached', *Reuters*, 1 September 2015, http://www.reuters.com/article/us-aiib-china-loans-idUSKCN0R14UB20150901 (visited 11 August 2017).

146 The AIIB's articles of association indicate that it may allow a broader range of private sector actors to be involved in the delivery of AIIB projects and open bidding for procurement to all, unlike the ADB that restricts contracts to member countries. See Daniel C. K. Chow, 'Why China Established the Asia Infrastructure Investment Bank', 49 Journal of Transnational Law 1255 (2016), at 1264; Gregory T. Chin, *Asian Infrastructure Investment Bank: Governance Innovation and Prospects*, 22 Global Governance 11 (2016), at 21.

147 Chow, above n 146, at 1264; Xinhua, 'China Ahead of Schedule in Phasing Out Excess Capacity', *China Daily*, 25 November 2016, http://www.chinadaily.com.cn/business/2016-11/25/content_27480946.htm (visited 12 August 2017).

148 Interview at ADB, Manila, The Philippines, 17 May 2017.

149 For example, in December 2016, China Ex-Im Bank for the first time issued RMB 1 billion worth of green bonds.

150 'Five Banks Loaned for the Belt and Road Initiative for More Than RMB$3 Trillion (五行"帶路"貸款超 3 萬億)', Wen Hui News (文匯報), 12 May 2017, http://paper.wenweipo.com/2017/05/12/YO1705120006.htm (visited 13 August 2017).

151 Zhang Zhengfu, 'Belt and Road to Rebalance Global Economy', *Straits Times*, 15 May 2017, A16; Chong Koh Ping, 'China Pledges S$174b for Mega Silk Road Project', *Straits Times*, 15 May 2017, A1.

That said, the introduction of countercyclical measures is politically difficult and economically risky in China.[152] The procyclicality of the Scheme, as well as the AIIB, understandably serves to promote China's growth. However, macroprudential policy works by restraining credit available for borrowing and thus may ignite liquidity pressure on SOEs, banks, and local governments that have soft budget constraints and depend on government subsidies. Furthermore, any reform of soft budget constraints is plagued with credibility issues—regulators who vow to cut off governmental subsidies often fail to take a firm stance on this issue in practice.[153] These obstacles resonate with the dilemma of macroprudential reforms: on one hand, if reforms are too rapid, they may create a maturity mismatch and ignite systemic risks; on the other, if they are executed too slowly, the accumulation of systemic risk is equally dangerous.

This dilemma has come to the forefront in recent years. For example, local debts have become a pressing issue especially after the 2008 Global Financial Crisis following Beijing's stimulus package.[154] Given the low borrowing costs, local governments and SOEs have relied on debt financing and refinancing,[155] which is arguably less stable than equity financing because creditors, unlike shareholders, can extract repayment irrespective of the firms' actual earning and financial status.[156] As of late 2016, China accounts for more than half of Asia's high-yield bond universe, most of which are for the purpose of debt refinancing.[157] Being aware of the potential risks of local debts, the PBC refused several times to provide bailouts for firms in distress, but eventually yielded to public pressure to intervene.

In the light of the difficulty of implementing market reforms, it is urgent for China to ponder its macroprudential responsibility as an issuer of global currency. The world has sensed the potential wide-spreading turbulence as a result of the RMB's rising status. During the panic caused by China's 2015 stock market crash and resulting RMB depreciation, the governor of Japan's central bank governor

152 In general, the attitudes of the wider public, politicians, and industrial players toward the macroprudential tools are limitedly unknown. As Lopez, Markwardt, and Savard suggest, assessing how the macroprudential policy frameworks will interact with the wider political process requires further studies. This concerns the implementation and efficacy of macroprudential policy. See Claude Lopez, Donald Markwardt, and Keith Savard, 'Macroprudential Policy: What Does It Really Mean', 34 Banking & Financial Services Policy Report 1 (2015), at 9; See also McCoy, above n 84, at 1225.

153 Janos Kornai, Eric Maskin, and Gérard Roland, 'Understanding the Soft Budget Constraint', 41 Journal of Economic Literature 1095 (2003), at 1130.

154 Between 2004 and 2014, local debts increased approximately 10-fold. See above n 105.

155 Huge amounts of local debts, accumulated especially after 2008, have been reported as the most serious fiscal issue in China. A feedback loop exists in that the stimulus package increases the RMB supply, giving rise to increase in local debts, which cause the local governments demand for more RMB to repay the debts. Such pressure, in turn, makes the central government to further increase the RMB supply. In 2015, China has initiated the debt-for-bond schemes and required local governments to issue bonds in order to convert their debts into bonds, which have better liquidity.

156 Hyman P. Minsky, *Stabilizing an Unstable Economy* (New Haven, CT: Yale University Press, 1986); Katharina Pistor, 'Who Tolls the Bells for Firms-Tales from Transition Economies', 46 Columbia Journal of Transnational Law 612 (2008); Pistor, above n 7, at 323.

157 Umesh Desai, 'Chinese Firms Dive Back into Dollar Bonds to Refinance Debt', *Reuters*, 2 September 2016, http://www.reuters.com/article/china-debt-highyield-idUSL3N1BC2QW (visited 14 August 2017).

suggested that China tighten capital controls in order to stop massive capital flights and stabilize its currency—a move that would necessarily reverse the course of the RMB's internationalization.[158] Understandably, Beijing declined to follow this advice, until after the PBC had failed to remedy the situation one year later.[159]

As a matter of fact, the Scheme, as well as the AIIB, have the potential to transform the current agenda into one that introduces macroprudential policies both at home and abroad. Establishing a transnational crisis resolution mechanism in the midst of crisis is not easy.[160] There exists an urgent need for such a mechanism as the regional monetary and financial cooperation in Asia remains at the initial stage. China may engage in this crucial task to establish an effective macroprudential supervisory framework. For example, the AIIB could play a positive role in facilitating regional development while improving financial stability. The AIIB can strengthen its regional surveillance capacity to address investment bubbles when they appear, and can also make a good use of its roles as a seller, buyer, guarantor, or insurance provider in the global financial system to stabilize the regional economy.

The global discontent with the USD's dominance demonstrates that the problem did not lie with the USD itself, but the use of any national currency as a reserve currency.[161] In this regard, the AIIB could help to diversify the global investment portfolio. Given that its financial status is backed by Member States, the AIIB has the capacity to issue low-risk bonds, which would be attractive to institutional investors who view the AIIB bonds as an alternative to US Treasury bonds.[162] The AIIB may also run or sponsor (e.g. by lending or providing guarantees) one or more specialized funds similar to private equity funds, that invest in profitable projects in the region, thereby channeling yield-hungry capital away from complex, high-risk financial instruments.[163] Eventually, if these bonds are denominated in RMB and widely circulated in a secondary market, they would diffuse the risk resulting from the

158 This suggestion would arguably undermine the basis of the IMF's decision to include the RMB in the SDR basket—'freely usable'. However, IMF did not reject this suggestion. Chris Giles, 'Kuroda Calls for China to Tighten Capital Controls', *Financial Times*, 23 January 2016, http://www.ft.com/intl/cms/s/0/03395bdc-c1c4-11e5-808f-8231cd71622e.html#axzz3yJWfT4bg (visited 10 August 2017).

159 In 2017, as an architect of the Scheme, the economist Yu Yong-Ding stated, 'Capital controls contradict our commitment to make the RMB "freely usable", but considering the current situation in China, we have no other option but to strengthen capital controls.' As a result, outbound FDI slumped 49% in the first quarter of 2017, compared with the same period a year earlier, and therefore impacted foreign markets. It has been reported that PBC started loosening the capital controls again in April 2017 after capital account outflow became stable. Yu Yong-Ding (余永定), '2017 as a Year of Risk, But Do Not Be Too Pessimistic (2017 年是风险年, 但也不必过于悲观)', *Financial Times (Chinese version)*, 18 January 2017, http://www.ftchinese.com/story/001071021?full=y (visited 10 August 2017). Gabriel Wildau and Tom Mitchell, 'China Lifts Renminbi Capital Controls as Outflows Pressure Eases', *Financial Times*, 19 April 2017, https://www.ft.com/content/519b02cc-24e6-11e7-8691-d5f7e0cd0a16 (visited 11 August 2017).

160 Ulrich Volz, 'Lessons of the European Crisis for Regional Monetary and Financial Integration in East Asia', 11 Asia-Europe Journal 355 (2013), at 369.

161 Emily Merki, 'Why the Dollar Should No Longer Be the World Reserve Currency: Solving Global Account Imbalances through Structural Reform', 46 Georgetown Journal of International Law 1245 (2014), at 1263.

162 These ideas are discussed by Hockett and Omarova in the context of proposing to create a National Infrastructure Bank in the USA. Hockett and Omarova, above n 8, at 123.

163 Ibid, at 125.

concentration of USD-denominated asset investment, thereby accommodating the demand from global investors for diverse markets to better hedge against currency risk.

B. Extraterritoriality

The current success of the Scheme has partially resulted from the global discontent about the US's extraterritoriality based on the dominance of the USD. Regardless of nationality and geographic location, the USA has jurisdiction over foreign individuals and firms that are involved in activities related to US interests, including USD-denominated transactions (e.g. USD clearing services), businesses involving Americans (e.g. transactions potentially affecting the rights of American shareholders), or activities with an effect on the US markets (e.g. to sell securities to American buyers). China's assessment of the potential power of the Scheme is arguably accurate, given that the dominance of the USD laid the foundation for the US's extraterritorial reach that constitutes its 'smart power'.

Extraterritoriality is policy- and politics-driven. The USA originally adopted the position of absolute territorialism until a radical shift towards extraterritorialism after World War II.[164] Thereafter, the USA continued to expand its reach beyond its borders, and Congress was not shy about its desire to exert influence over a wide range of issues.[165] By re-defining 'nationality' and 'territoriality', extraterritoriality aims to protect American citizens and markets while serving as an effective means of shaping the global economic and political order. Naturally, China would acquire similar extraterritorial clout with the RMB's rising international status.

Recent years have seen Chinese authorities quickly asserting jurisdiction over foreign firms in the areas of securities regulations, anti-trust, anti-corruption, intellectual property litigation, and national security review. Chinese regulators require non-PRC firms and citizens engaging in conduct affecting PRC to comply with PRC laws, regardless of their geographic location. At the moment, extraterritorial jurisdiction in most cases is asserted based on China's clout over foreign firms' interests in Chinese consumer markets rather than the mere need for access to Chinese RMB.[166] In the near future, China's extraterritorial reach may well rival the USA. For example, a British firm issuing RMB-denominated bonds to be listed in Singapore Exchange could be required to submit a prospectus to Chinese regulators for approval in accordance to Chinese securities regulations, and to bear an

164 Anne-Marie Slaughter and David T. Zaring, 'Extraterritoriality and Discovery', in Teo Keang Sood (ed.), 'Current Legal Issues in International Commercial Litigation' (Singapore: Faculty of Law, National University of Singapore, 1997) 72–102.

165 These issues range from national criminal statutes (e.g. to curb corruption), globally agreed prohibitions (e.g. to protect human rights), to foreign policies (e.g. to impose economic sanctions). After the September 11 attack in 2001, this extraterritorial regime was further expanded in areas of securities regulations, anti-fraud regulations, anti-money laundering, anti-terrorist finance, antitrust, and anti-corruption regulations. Alex Lakatos and Jan Blochliger, 'The Extraterritorial Reach of U.S. Anti-Terrorist Finance Laws', 2009, https://www.mayerbrown.com/files/Publication/bc828278-4516-41ea-bc07-5cbcf909be56/Presentation/PublicationAttachment/6746390a-c4f7-46fe-afb3-0a9b3cc7cccb/05_Lakatos_Bloechliger.pdf (visited 14 August 2017).

166 For example, PRC Commerce Department has extended wide jurisdictions under PRC Anti-Monopoly Law over foreign merger and acquisition cases that may give to concentration effect in Chinese markets. PRC Anti-Monopoly Law, Articles 20 and 21.

ongoing disclosure obligation to Beijing with respect to material corporate information.[167]

As the RMB internationalization proceeds, various new infrastructures would naturally impose compliance requirements on financial institutions and individuals extraterritorially. For example, to access and link with CIPS, China's new cross-border inter-bank RMB payment platform, global banks have expressed concern about having to invest heavily in adapting compliance and operating procedures to support the new format.[168] Roughly 300 banks participating in CIPS have undertaken to be subject to PRC jurisdiction with respect to any RMB clearing matter under CIPS and to solve any dispute at the People's Courts of China or the China International Business and Trade Arbitration Commission.[169] There are also broader issues of privacy protection and regulation, especially with regards to data collected on financial transactions engaged under CIPS. SWIFT, CIPS's global counterpart and competitor, once allowed the US National Security Agency to access data on trillions in transfers among nearly 8,000 financial institutions on a daily basis.[170]

Whether China will pursue extraterritoriality seems to be a foregone conclusion. Given that the USA has used economic and financial clout to further its national interests, it is unrealistic to expect China to behave otherwise. For now, China could have two potential moves: the first option is 'anti-extraterritoriality'—to challenge the US's extraterritoriality by creating jurisdictional conflicts. The second option is to create China's own extraterritoriality coexisting (if not replacing) that of the USA. As discussed in the next sections, the former has taken place, while the latter remains to be observed.

1. *Anti-extraterritoriality of the USA*

To counter the US's extraterritorial reach, China has demonstrated its intention to reject the extraterritorial jurisdiction of US regulators'. One case in point is a three-year long jurisdictional dispute between US Security Exchange Commission (SEC) and China's CSRC. In 2012, when the SEC required Chinese accounting firms franchised with the Big Four (i.e. Deloitte, PricewaterhouseCoopers, Ernst & Young and KPMG) to submit audit-work papers about their Chinese clients under SEC's investigation, Chinese auditors refused on the ground of compliance with PRC Secrecy Law.[171] Another example is the draft of PRC Foreign Investment Act announced in 2015, which unveils newly proposed legal mechanisms that would fuel jurisdiction

167 This is in line with the current international regulatory framework for capital market transactions involving foreign entities to issue USD-denominated securities. China may replicate this extraterritorial framework by replacing USD in this structure with the RMB, with the rest unchanged.

168 Don Weinland, 'China's Global Payment System CIPs Too Costly for Most Banks - for Now', *South China Morning Post*, 17 October 2015, http://www.scmp.com/business/banking-finance/article/1868749/chinas-global-payment-system-cips-too-costly-most-banks-now (visited 15 August 2017).

169 The CIPS, 'Agreement of Participants of CIPS (人民币跨境支付系统参与者服务协议)', Articles 17 and 18, http://www.cips.com.cn/cips/_2668/_2740/index.html (visited 15 August 2017).

170 Scott Shane, 'Damage Study Urged on Surveillance Reports', *New York Times*, 28 June 2006, http://www.nytimes.com/2006/06/28/world/europe/28secure.html (visited 18 August 2017).

171 This case ended up with monetary settlement in order to avoid a temporary suspension of the Chinese firms' right to audit US-traded firms—this would affect both Chinese companies and US multinationals with significant operations in China. Michael Rapoport, 'SEC, Big Four Accounting Firms in China Settle Dispute', *Wall Street Journal*, 6 February 2015, http://www.wsj.com/articles/sec-big-four-accounting-firms-in-china-settle-dispute-1423237083 (visited 18 August 2017).

disputes. The draft is modeled on the US regulations concerning foreign investments, imposing jurisdiction over foreign investors that are connected with Chinese companies through shareholding relationship.[172]

Historically, China is not alone in standing against US extraterritoriality. Canada, for example, together with several EU states once vigorously protested the passage of the Helms-Burton Act (1996) which deters foreign countries from trading with Cuba.[173] Canada threatened with fines and imprisonment any manager and employee of Canadian companies that complied with the US's extraterritorial measure.[174] Likely, China will be the strongest protestor and in fact has been able to bypass US extraterritoriality by working with foreign firms in regional markets through RMB platforms, which would impose lower compliance costs than those under dollar-asset platforms.[175]

2. *Replacing extraterritoriality*

By contrast, China may be more cautious about replacing existing extraterritorial regimes, possibly because Chinese firms are probably the largest beneficiaries of the current globalized financial markets, which largely rely on US regulations that apply extraterritorially.[176] Current extraterritorial settings are beneficial for Chinese firms in economic terms, as China has yet to establish sound regulatory standards for the governance of markets and individual firms. Through IPOs and other types of cross-border offerings, Chinese firms may compensate for China's regulatory deficits by subjecting themselves to more stringent foreign regulations, such as listing rules of reputable stock exchanges and regulations in other major jurisdictions. This 'bonding effect' partially explains why Chinese firms have been so successful in global capital markets despite the regulatory deficits at home.[177] It is unclear if China's move to

172 This review mechanism can be viewed as an institutional response to the CFIUS review through which the US government vetoed two transactions (and the only two since CFIUS was created), both involving Chinese investments. For a further discussion, see Weitseng Chen, 'Screening the Dragon's Gift: National Security Review of China's Outbound Investment', in John Garrick and Yan Bennett (eds), *China's Socialist Rule of Law: Reforms Under Xi Jinping* (New York: Routledge, 2016) 197–207.

173 Steven E. Hendrix, 'Tensions in Cuban Property Law', 20 Hastings International and Comparative Law Review 31 (1996), at 84–85.

174 Slaughter and Zaring, above n 164, at 92.

175 In 2017, Russia became the first country to issue RMB-denominated sovereign bonds. Prior to this milestone, the yuan-ruble trade on the Moscow Exchange jumped 10-fold in 2014 alone after the US sanctions against Russia firms were put in place. The sanctions ban certain Russian firms from raising debts in dollar-dominant capital markets, thereby creating tremendous liquidity pressure on these firms. Paolo Danese, 'Russia Ready for Renminbi Bond, Says Central Bank', 27 March 2017, http://www.globalcapital.com/article/b129f76r71j168/russia-ready-for-renminbi-bond-says-central-bank (visited 15 August 2017); 'Russia Turns to RMB to Thwart Western Sanctions', *China Daily*, 14 November 2014, http://www.china.org.cn/business/2014-09/25/content_33609143.htm (visited 15 August 2017).

176 Damian Tobin and Laixiang Sun, 'International Listing as a Means to Mobilize the Benefits of Financial Globalization: Micro-Level Evidence from China', 37 World Development 825 (2009), at 831; Chen, above n 73, at 347; Yang Yao and Linda Yueh, 'Law, Finance, and Economic Growth in China: An Introduction', 37 World Development 753 (2009), at 758.

177 For a theoretical discussion on the bonding effect in general, see John Coffee, 'Racing Towards the Top', 102 Columbia Law Review 1757 (2002). For a discussion in China's context, see Chen, above n 73.

replace US extraterritoriality with China's own regulations would serve China's best interests at the moment.

Therefore, China has good reasons to act prudently. For one, extraterritoriality is not a mere tool for power projection; rather, it is also a choice of regulatory model. Critiques of extraterritoriality point to its monopolistic status that would disincentivize the dominant jurisdiction to continue improving its regulations and reduce competitions between global markets.[178] Extraterritorial securities regulations would also increase foreign investors' compliance costs, and therefore impede capital mobility if such costs drive foreign investors away. Moreover, protecting national investors through monopolistic extraterritoriality also excludes market mechanisms where risks are reasonably distributed among stakeholders by a pricing mechanism that offers a risk premium for investors who are willing to buy securities of companies subject to lower regulatory standards (i.e. non-US regulations).[179]

In addition, extraterritoriality imposes great enforcement burdens on courts and regulators, which China's institutions are ill-equipped to deal with.[180] The intangibility of currency-related products and financial services would also complicate legal enforcement because the purchase and sale of these products and services are almost always cross-border in nature. Under a conduct-based regulatory regime, foreign entities that transact through local agents, exchanges, bank accounts or clearing systems may be subject to domestic regulations even if their activities are undertaken offshore.[181] A broader jurisdiction can also be claimed under an effect-based regulatory regime provided the activities of foreign entities have effects on the country's nationals or markets.[182] These complications could easily lead to excessive, if not arbitrary, assertion of jurisdiction, and result in jurisdictional disputes.

It is therefore not in China's best interests to replace the existing US extraterritorial regime. Rather, China needs to think about its extraterritoriality strategy through the lens of macroprudential policy as well.

178 Some empirical studies also show the concerns about race to the bottom as a result of the implementation of investor-choice model. For a detailed discussion, see e.g. Howell E. Jackson and Eric J. Pan, 'Regulatory Competition in International Securities Markets: Evidence from Europe-Part II', 3 Virginia Law & Business Review 207 (2008). See also Brummer, above n 4.

179 Stephen J. Choi and Andrew T. Guzman, 'The Dangerous Extraterritoriality of American Securities Law', 17 Northwestern Journal of International Law and Business 207 (1996), at 220–21. See also Howell E. Jackson, 'Substituted Compliance', 1 Journal of Financial Regulation and Compliance 169 (2015).

180 In the USA, the judiciary has developed a complex system of rules for enforcing the laws that use the terms such as 'interstate commerce' or 'direct selling effort' for extending the extraterritorial reach of the US jurisdiction over certain types of conducts. It is also extremely complicated to determine what actions should be counted as 'conduct' at issue. Varying judicial tests have been developed, based on subject matters (e.g. corruption), types of conducts (e.g. dollar clearing or other relevant financial services for blacklisted customers), effect of conducts (e.g. whether overseas conducts would seriously affect domestic markets), locations of conducts (e.g. within the U.S. or not), country-centric lists (e.g. countries being sanctioned), or individual-centric lists (e.g. terrorists or some Russian tycoons and their agents). For a detailed discussion, see Choi and Guzman, ibid, at 216–19.

181 Stephen Kim Park, 'Guarding the Guardians: The Case for Regulating State-Owned Financial Entities in Global Finance', 16 University of Pennsylvania Journal of Business Law 739 (2014), at 753.

182 Ibid, at 752.

3. *Extraterritoriality for macroprudential policy*

Although this may be perceived as imperial in nature, extraterritoriality in reality may have a mixed role in dealing with macroprudential risks. It may function as a platform of governmental communication, provided the countries involved trust each other.[183] Hegemonic powers, regional or global, are more likely to be able to create a focal point of cooperation between countries,[184] which is necessary for mitigating macroprudential risks. In today's highly interconnected economic world, both 'nationality' and 'territoriality' are likely to be fundamentally re-defined for regulatory purposes.[185] Communication between governments is crucial for reaching the new institutional equilibrium. In this regard, China's challenges against the US extraterritoriality are part of the ongoing process.

However, extraterritoriality would spur confrontation as it often allows hegemonic powers to implement foreign policy and expand economic clout over foreign countries. With respect to the internationalization of the RMB, we are likely to expect more confrontation than collaboration in the near future, at least in the short term. Some confrontation concerning technicalities is inevitable, such as jurisdiction over foreign entities utilizing CIRC, the new RMB settlement platform. This type of issues could be solved through better integration and adoption of the best market practices. In terms of macroprudential policy, this process may serve a positive role in that it could help to streamline legal procedure and identify loop holes that could produce systemic risks. However, other assertion of extraterritoriality driven by mere political and economic calculation would politicize the transnational legal regime and spur regulatory arbitrage. The resulting disputes are unlikely to be resolved easily unless through diplomacy and negotiation.

This global aspiration for currency diversity accounts for the quick success of the RMB Scheme to date. Such success would be sustainable only if China is aware of and bear its macroprudential responsibility. In the near future, a full-fledged extraterritoriality would do more harm than good to China given its institutional weakness. If the ascendance of the RMB gives rise to another layer of hegemonic extraterritoriality, backlash against the RMB may occur, exactly like that against the dollar dominance to date.

V. CONCLUSION

Since its launch in the early 2010s, the Scheme has made impressive strides internationally, as evidenced by the IMF's recent move to include the RMB in its SDR basket. A currency is likely to find it relatively easy to achieve a status as an international settlement and investment currency, provided a strong market demand for the currency at issue exists. Contractual agreements would do most of the work for the currency, without the need to go through a fundamental overhaul of the financial infrastructure of the country issuing the currency. However, it is a different story when a currency seeks to become an international reserve currency, and a safe haven

183 Slaughter and Zaring, above n 164.

184 Brummer, above n 59, at 10–11.

185 As Brummer suggested, 'Territoriality can be understood as a means of not only controlling local geographic spaces and markets, but also of projecting economic regulatory power abroad.' Brummer, ibid, at 23.

for market players to hedge against varying market risks. The role of state matters,[186] in that the currency would depend on not only market forces but also sophisticated financial infrastructure, sound market institutions, efficient governance and political stability—and a measure of luck to boot.

Beijing has utilized the advantages conferred by its large domestic market to advance the Scheme, and applied the approach of institutional bridging to link its fragmented markets, which would otherwise be too small to acquire economies of scale. RMB swap agreements, which de-dollarize and delink with the IMF's conditionality and regional surveillance, play a crucial role in implementing the Scheme to connect onshore and offshore markets separated by China's long-lasting capital controls. Overall, although sound market institutions do not appear at the national level, many of them have begun to emerge and functioned at the regional levels, including within the special economic zones designated for the Scheme. As a result, unlike what the prevailing literature would predict, the RMB has beaten the odds and risen quickly to one of the five major currencies in only a few years.

That said, the timeline that Beijing set for the Scheme is overly aggressive and, therefore, dangerous from a macroprudential perspective. This article argues that Beijing has wrongly pitched internationalization of the RMB as an international project; rather, it should have been a domestic one. The Scheme would not succeed without improving the capacity of China's domestic financial institutions. Overemphasis on the Scheme's global outcomes has distorted the sequence of necessary reforms at home and is likely to destabilize China's banking and financial sectors. Looking into the causes and risk transmission mechanisms of the 2015/16 stock market crash and RMB exchange rate crisis, one can find that China's experience was triggered by the typical materialization of systemic risks followed by contagion effects. The current timeline of the Scheme fails to incorporate macroprudential policy and to make matters worse, the design of the Scheme in many regards is contrary to macroprudential thinking. This explains the Scheme's achievements overseas and turbulence caused at home.

Along with RMB's rise in its global ranking, China will be expected to bear more obligations on a par with the prestige that it will enjoy. Extraterritoriality, which has aroused global discontent about the USD's dominance, would be a source of controversy for years to come. China is on track to pursue extraterritoriality over foreign entities involved in future RMB businesses. It is unthinkable why China would not do so, but it has to accordingly bear the corresponding responsibilities. As such, macroprudential responsibility should be one of the focal points. If the Scheme could be re-aligned to focus on domestic institutions and macroprudential policies, this could inject a fresh dynamic into China's ongoing banking reforms and help to break through its reform path dependence, thereby making China a responsible issuer of a major international reserve currency.

186 Awrey, above n 7; Pistor, above n 7; Hockett and Omarova, above n 8.