

The Renminbi and Systemic Risk

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ABSTRACT

The internationalization of China's currency, the renminbi (RMB), is arising in ways that depart considerably from historical precedent and what 'law and macroeconomic' theory would predict. Instead of waiting for international markets for its currency to evolve organically, the Chinese government has undertaken a quasi-mercantilist strategy designed to promote the currency and its own national RMB-based infrastructure. This strategy has emphasized tightly managed capital account deregulation over prudential reforms and robust market supervision, and incentivizes foreign jurisdictions to compete for RMB-based transactions.

China's monetary strategy introduces novel systemic risks to the global financial system, including a potentially inadequate provision of renminbi liquidity, a regulatory race to the bottom between offshore RMB-hubs, and significant transmission belts of financial risk to even non-renminbi markets. To mitigate these risks, this Article outlines a policy recipe of stronger macroprudential oversight, transparent countercyclical capital account reforms and credible commitments to refrain from competitive currency devaluations.

I. INTRODUCTION

Few, if any developments in the next decade—whether it be the United Kingdom's Brexit from the European Union, or President Trump's trade and regulatory politics—are poised to redesign the very structure of international capital markets more than the internationalization of China's currency, the renminbi (RMB, or alternatively 'yuan' when referencing units in the currency). As China, the world's leading trading nation, attempts to evolve from an export-based to an efficient services-based economy, its government is increasing the availability of the yuan in more far-flung parts of the world. By allowing Chinese savers to invest their money overseas, and permitting US companies and other Western firms to sell stocks and bonds denominated in RMB instead of the US dollar ('dollar'), Mainland authorities hope to speed structural reforms at home and potentially rebalance the global economy. With trillions of dollars in value and market capitalization at stake, the process has already led to the adoption by the International Monetary Fund (IMF) of the RMB as one of its

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five key currencies,¹ and the launch of RMB trading hubs in Berlin, Toronto, London, Hong Kong and most recently New York (to name a few).² The Chinese Government is, in the process, redesigning how and where finance is practiced across the globe.

Although China's currency routinely garners front-page attention from the world's leading newspapers, there is a great deal of confusion about its spread across the globe. Economists have tended over the past several years to frame the internationalization of the renminbi, or 'Redback', as an emphatically market liberalizing process. This is because under normal circumstances any country's decision to make its currency more available globally necessarily involves allowing the market to decide when, how and where it is used. For China, this change would be especially noteworthy. For over a half century the government severely restricted the flow of the currency in order to restrain the investment options of domestic savers and maintain an attractive exchange rate for exports. Internationalization would presumably reverse these trends and help level the playing field. It would require releasing stocks, bonds, and derivatives denominated in renminbi to foreign investors craving to participate in China's growth, and in the process help tether the exchange rate to forces of supply and demand. China's savers, meanwhile, would be free to participate in global capital markets and put their resources to use in the USA, Europe, and beyond.

Yet the manner in which these reforms are unfolding is unique to history and departs significantly from what can be considered the dominant canon of 'law and macroeconomic' theory.³ For over a generation, scholars and market participants have argued that although sound fiscal and monetary policies are helpful, the

- 1 Keith Bradsher, 'China's Renminbi Is Approved by I.M.F. as a Main World Currency', *NY Times* (30 November 2015), http://www.nytimes.com/2015/12/01/business/international/china-renminbi-reserve-currency.html?_r=0 (visited 30 December 2016).
- 2 'Chinese Central Bank Designates Renminbi Clearing Bank in New York', *The Financial Times* (21 September 2016), <https://www.ft.com/content/40b5ea7e-7fca-11e6-8e50-8ec15fb462f4> (visited 30 December 2016); *Frankfurt wird Handelszentrum für chinesischen Yuan* [Frankfurt Will be Trading Center for Chinese Yuan], *Süddeutsche Zeitung* (22 March 2016, 4:49 PM), <http://www.sueddeutsche.de/news/politik/international-frankfurt-wird-handelszentrum-fuer-chinesischen-yuan-dpa.urn-newsml-dpa-com-20090101-140328-99-07789> (visited 30 December 2016). Randall Palmer and Euan Rocha, 'Canada to Launch Yuan Clearing Hub, Deal Imminent – Sources', *Reuters* (4 November 2014), <http://www.reuters.com/article/canada-china-yuan-idUSL1N0SU1HV20141104> (visited 30 December 2016).
- 3 This cannon, like international monetary relations, has had recurring fits and starts in American legal scholarship. According to Yale law professor Friedrich Kessler, in his half century review of Columbia law professor Arthur Nussbaum's *Money in the Law* (1939), which explored monetary law:

Because of the unparalleled relative stability of economic and monetary conditions which characterized the period ending with the World War, lawyers of the pre-War period did not regard money 'as a problem of paramount importance, but as an established fact', and did not find legal problems of money exciting enough to write about. It is, therefore, not surprising that the classic treatments on money by Savigny and Gustav Hartman (1868) had scarcely any successors on the continent nor any counterpart in the Anglo-American legal literature. It needed the great monetary disturbances which followed the World War to change this attitude. Problems of money were no longer interesting only to the economist; they became fascinating even to the lawyer.

40 Columbia Law Review 175 (1940), 175.

internationalization of a currency is only possible once domestic financial markets supporting it are deep enough and adequately regulated.⁴ Once those conditions are present, foreign investors may then have an interest in the currency if the country's economy is large enough and sufficiently integrated into the global economy.

China has undertaken steps that diverge, however, from standard policy expectations. Instead of allowing time for a robust regulatory infrastructure to mature, and for the acceptance and usage of renminbi to arise organically, the Chinese government has taken the lead in advancing—and controlling—the internationalization process. Far from reflecting a natural process of market development and growth, the export of the currency is characterized by novel market arrangements and financial alliances that not infrequently promote China's own national RMB-based infrastructure and financial institutions abroad. All along, the government's policy reforms have emphasized market access and liberalization over upgrades to prudential and supervisory oversight. Capital controls consequently continue to be an

With the establishment of the IMF several years later in 1944, a flourishing universe of articles would address Bretton Woods, and varying financial crises that would arise from time to time from countries experiencing balance of payments crises, including the Greek financial crisis. See generally John H. Williams, 'International Monetary Plans After Bretton Woods', 23 *Foreign Affairs* 38 (1944); Harry Dexter White, 'The Monetary Fund: Some Criticisms Examined', 23 *Foreign Affairs* 195 (1945); Frank Albert Knox, *International Currency Experiences: Lessons of the Inter-War Period*, League of Nations Publication Department (1944) 249; Klaus Knorr, 'The Bretton Woods Institutions in Transition' 2 *International Organization* 19 (1948); George N. Halm, 'International Measures for Full Employment', 32 *Review of Economics and Statistics* 235 (1950); John H. Williams, 'The Marshall Plan Halfway', 28 *Foreign Affairs* 463 (1950); Bernard S. Meyer, 'Recognition of Exchange Controls after the International Monetary Fund Agreement', 62 *Yale Law Journal* 867 (1952). However, relatively few scholars since the 1950's have inspected with vigor just how legal rules themselves impact how macroeconomics is practiced and mediated, and money in society generated. One explanation is that macroeconomists have not traditionally addressed the types of institutional-design issues that concern lawyers. Mark Kelman, 'Could Lawyers Stop Recessions? Speculations on Law and Macroeconomics' 45 *Stanford Law Review* 1215 (1993), 1217. Furthermore, law and money are historically specific institutions. Katerina Pistor, 'Towards a Legal Theory of Finance', 41 *Journal of Comparative Economics* 315 (2013). Thus unlike law and microeconomics, which deals with the application of theory to facts, the very bases of macroeconomics are often disputed. Bruno Meyerhof Salama, 'The Art and Law of Macroeconomics'. 74 *University of Pittsburgh Law Review* 141 (2016). Scholars have, however, ventured into policy debates focused on state interventions in currency markets (especially China's) and their implications for international law. See, e.g., Robert Staiger and Alan Sykes "'Currency Manipulation" and World Trade', 9 *World Trade Review* 583 (2010); Haneul Jung, 'Tackling Currency Manipulation with International Law: Why and How Currency Manipulation Should Be Adjudicated?', *Manchester Journal of International Economic Law* (2012). This Article takes a fundamentally different approach by considering the renminbi's internationalization in light of the control wielded by the government, and how it relates to financial regulation, international and otherwise.

- 4 Barry Eichengreen, 'The Renminbi as an International Currency', 33 *Journal of Policy Modeling* 723 (2011); Paola Subacchi, 'One Currency, Two Systems: China's Renminbi Strategy' (Chatham House, Briefing Paper IE BP 2010/01, 2010); Richard Portes and Helene Rey, 'The Emergence of the Euro as an International Currency', 13 *Economic Policy* 305 (1998); Yongding Yu, 'Revisiting the Internationalization of the Yuan', in Shao BinHong (ed.), *China in the World: The World in 2020 According to China: Chinese Foreign Policy Elites Discussing Emerging Trends in International Politics* (2014), at 231. This view has also been embraced officially by international organizations as well. See Samar Maziad et al., 'Internationalization of Emerging Market Currencies: A Balance Between Risks and Rewards', (Int'l Monetary Fund, Staff Discussion Note 17, 2011), <https://www.imf.org/external/pubs/ft/sdn/2011/sdn1117.pdf> (visited 30 December 2016) (noting the need of deep and liquid capital markets for currency internationalization).

essential ingredient of containing risks and incentivizing competition among potential hosts of renminbi markets.

China's unprecedented policy recipe generates a number of critical questions that go to the heart of cross border financial and monetary stability. Among them: Is a government-led process of currency internationalization possible, and if so, what financial risks does this present? To what extent can market liberalization safely precede regulatory reform, and are capital controls adequate substitutes for prudential safeguards? What are the risks and benefits of a system of highly managed, and at times legally distinct, pools of liquidity for cross-border finance? And closely related, what kinds of risks arise to a piecemeal capital account liberalization strategy where the issuing country is both a leading global trading nation but vulnerable to intermittent (and significant) bouts of capital flight?

This Article provides a framework for exploring these questions. It offers an institutional overview of the complex web of regulatory and market programs designed to help bolster the availability of the currency—and argues that although the liberalization of China's capital account potentially helps rebalance global growth, the government's approach towards doing so introduces novel systemic risks to cross-border finance. Firstly, the strategy adopted by China to limit the availability of the renminbi—which is itself premised on helping support the currency's appreciation—fragments the renminbi's global liquidity and generates a number of potential payment and credit risks for institutions transacting in the currency abroad. Furthermore, the country's financial system is riddled with weaknesses in accounting, auditing, credit rating agencies and even derivatives regulation that could expose its capital markets to intermittent crises as liberalization progresses. Yet incentives for reform, especially on the supervisory front, may be limited. Unlike the past where developed host markets provided incentives for emerging markets to improve their domestic rules and regulation, China's rationing of the renminbi potentially enables the very opposite outcome insofar as major financial centers compete to host RMB-based markets.

In light of these risks, this Article proposes an alternative conceptual framework for currency internationalization that leverages financial openness in ways that promote macroprudential reform alongside macroeconomic liberalization. The Article advises that the quality of China's regulatory ecosystem needs significant enhancements, and that a legal framework for exporting the currency needs to better address not only the still disjointed nature of renminbi availability, but also the challenges posed by eroding currency fundamentals.

To demonstrate, Section II provides an overview of the law and economics of currency internationalization, and examines why and under what circumstances a country might seek to internationalize its currency. Section III offers a detailed overview of just how China is undertaking the internationalization process. It examines the most critical market and regulatory innovations undertaken to 'export' the renminbi, and examines what role they play in the capital account liberalization process. Section IV lays out a conceptual blueprint of the kinds of systemic risks accompanying such approaches. In the Article's final step, Section V proposes reforms that synch macroeconomic liberalization with macroprudential regulation, lower the risk premium for foreign investors engaging in onshore investment, and provide credible

commitments to refrain from competitive devaluations of the currency in order to expand current account liquidity.

In advancing these claims, this Article makes several contributions. Firstly, it is one of the first theoretical engagements with currency internationalization in the legal literature, and reveals increasing shifts and variation in how capital account deregulation can arise.⁵ Secondly, the Article complicates (often well deserved) plaudits earned by China's financial reforms, and highlights how the very mechanisms facilitating the export of the renminbi—and the government's control and manipulation of it—enable poorly regulated instruments and institutions to endanger foreign investors and infrastructures, including those in the USA. Thirdly, and finally, the Article offers a recipe of pragmatic policy reforms for mitigating some of the shortcomings and excesses of China's currency internationalization strategy.

II. THE LAW AND ECONOMICS OF CURRENCY INTERNATIONALIZATION

A number of foundational macroeconomic principles deserve discussion in order to evaluate not only what steps China is taking to export its currency, but also to appreciate the novelty and unique challenges those steps present. Below the Article undertakes such an analysis and demonstrates the importance of policy and law in enabling the export of a currency beyond the borders of its home country.

A. What is an international currency?

Even among economists, what exactly is meant by an international currency depends on context, but the term generally refers to a currency that is used in many parts of the world and by people who may not be based in or citizens of the country that issues a currency.⁶ As a gauge for internationalization, commentators examine the extent to which foreign private market participants and other governments rely on a currency in ways that reflect the three key roles of money as a medium of exchange, unit of account, and store of value.⁷

5 Despite its heavy coverage in American and internationalization media, to my knowledge, the only US scholarship concerning renminbi internationalization is Terry Chang's insightful study, 'The International Use of Currencies: The Dollar and the Euro', 25 *Columbia Journal of Asian Law* 62 (2012). This article does not, however, tackle currency internationalization generally or the historical and practical implications of China's highly distinctive monetary approach to increasing the cross border use of the yuan. Weitseng Chen has also released an excellent article addressing the procyclicality of Chinese financial reforms. Weitseng Chen, 'China's Long March to Dismantling the Financial Great Wall: RMB Internationalization and Macroprudential Policy', in *Systemic Risk, Institutional Design, and the Regulation of Financial Markets I* (OUP, 2016), at 143–75.

6 See George S. Tavlas and IMF, 'The International Use of Currencies: The Dollar and the Euro', 35 *Finance and Development* <http://www.imf.org/external/pubs/ft/fandd/1998/06/tavlas.htm> (describing basic functions of money) (visited 30 December 2016).

7 Hongyi Chen and Wensheng Peng, 'The Potential of the Renminbi as an International Currency', in *Currency Internationalization: Global Experiences and Implications for the Renminbi* (UK: Palgrave Macmillan, 2010), at 115; Ewe-Ghee Lim, 'The Euro's Challenge to the Dollar: Different Views from Economists and Evidence from COFER (Currency Composition of Foreign Exchange Reserves) and Other Data', (Int'l Monetary Fund Working Paper No. 153, 2006); Barry Eichengreen, 'Sterling's Past, Dollar's Future: Historical Perspectives on Reserve Currency Competition' (National Bureau of Economic

The first role, that of the currency as a medium of exchange, reflects the degree to which a currency is relied on by buyers and sellers as acceptable payment for the purchase of goods, and for financial affairs.⁸ For this to occur, currencies must be both legal tender and accepted as a matter of market practice as exhibiting an exchange value for a wide range of economic transactions.

Internationalization is also measured by the degree to which a currency as a unit of account to value the goods, services, or accounting values.⁹ Notably, a currency's popularity as a means of account need not reflect the extent to which it is used as a medium of exchange. Instead, the cost of a good could be measured in one currency, though other currencies could be used to pay for it. That said, when a currency is a popular unit of account, it suggests that it operates as a reference point for international transactions, regardless of whether any particular market participants are actually holders of the currency.

The final critical query concerning a currency's function as money is whether or not it operates as a stable store of value.¹⁰ In contrast to the first criterion, which focuses on the acceptability of a currency as a means of commerce, the question of value relates to whether or not a currency can function as a reserve asset, over time. If a currency may be used as a means of exchanging value, but is not viewed as a reliable store of such, it is unlikely to enjoy high demand since the ability of an individual or company to deploy it could be limited by depreciation.

International currencies fulfill these three roles of money for private and public interests, and in different countries. Private parties use an international currency across borders for commercial transactions, reference the currency to denote the value of transactions, and keep it as savings. All of these criteria operate at the official (state) level as well. Governments use international currencies to purchase goods, as references for international transactions (like bond issuances), and when participating in foreign exchange markets. Most important, they like private parties hold currencies as reserve assets on their sovereign balance sheets.

Just how 'international' the scope of these usages are is defined, as one might suspect, by the geographic range within which they occur. At any given time a small number of currencies tend to play what can be described as a global role in the international financial system. The most international of all currencies are relied upon for commercial transactions between individuals, corporations, and states all who may not be (and usually are not) nationals of the country issuing the currency. Other currencies, by contrast, may only be used regionally, and others still only locally. Meanwhile, some currencies may frequently be used as a unit of account and centerpieces of central bank balance sheets, whereas others may have little salience outside of their own national borders or in the hands of specialized investment funds. The concept of internationalization thus reflects whether or not the currencies are used

Research Working Paper No. 11336, 2005); George S. Tavlas, 'On the International Use of Currencies: the Case of the Deutsche Mark' (Int'l Monetary Fund Working Paper No. 3, 1990).

8 Takatoshi Ito, "The Internationalization of the RMB: Opportunities and Pitfalls" (Council on Foreign Relations, CGS/IIGG Working Paper, 2011), 4, <http://www.cfr.org/china/internationalization-rmb-opportunities-pitfalls/p26287> (visited 28 September 2017).

9 Ibid, at 3.

10 Ibid, at 6.

broadly or more modestly, and as such denotes a spectrum of activity from bilateral commercial transactions to larger international banking and investment activities.

B. Why (not) internationalize a currency?

The internationalization of a currency is for the most part a market-driven phenomenon, though it relies in part on a series of policy choices by the country issuing the currency.¹¹ Perhaps none is more important than that allowing the currency to be held and used beyond its national borders. Official policy can then be executed in a variety of ways, and with the help of a myriad of regulatory tools and rules designed to calibrate the nature, speed, and volume of offshore currency transactions.¹²

1. The benefits

Several factors lead countries to increase the cross-border use of their currency. For one, to the extent to which it is successful, countries that have internationalized their currency should, all else being equal, experience cheaper borrowing costs.¹³ This is because international currencies not only serve as a means of purchasing goods, but also function as instruments of savings and liquid assets in times of trouble. International currencies are reserve assets for financial institutions and central banks, and as such have greater utility than other currencies.¹⁴ Governments that issue international currencies can as a result usually issue more debt, with lower interest rates, than those with less convertible or popular currencies. The costs of credit, as well as the penalties for deficits—both fiscal and trade—are, other things remaining constant, less.

An international currency can also provide advantages for domestic business interests in international commerce. Firms based and operating in countries with international currencies can more easily avoid foreign exchange risks, as well as the costs of converting their currency into others when transacting abroad.¹⁵ Purchasers can transact in the local currency, without having to convert their currency into that of a

11 Notably, some experts have indicated that under some conditions internationalization may arise quickly if an economy is large enough. See, e.g., Arvind Subramanian, 'Renminbi Rules: The Conditional Imminence of the Reserve Currency Transition' 13 (Peterson Institute for Economics Working Paper No. 11-14, 2011), <http://citeseerx.ist.psu.edu/viewdoc/download?sessionid=91C75E3784DF31DE01DBE8F0E99CAD63?doi=10.1.1.226.5947&rep=rep1&type=pdf> (visited 30 December 2016), (finding possible rapid transition, especially where economic size is large and given the historic importance of trade in internationalization). Most experts, however, expect internationalization to arise slowly. See Jeffrey Frankel, 'Historical Precedents for the Internationalization of the RMB', 27 *Journal of Economic Integration* 329 (2012), 352, <https://www.hks.harvard.edu/fs/jfrankel/RMBintnztjJEI2012pg329~365.pdf> (visited 30 December 2016) (noting the importance of not only GDP, but depth of capital markets). See also Daniel Drezner, 'Will Currency Follow the Flag?', 10 *International Relations of Asia Pacific* 389 (2010), 399, <http://irap.oxfordjournals.org/content/10/3/389.abstract> (visited 30 December 2016) (noting that 'even when an economic hegemon is on the decline, reserve currencies are remarkably persistent entities').

12 See Section III *above* and accompanying discussion on 'exporting' the renminbi.

13 Eswar Prasad and IMF, 'The Dollar Reigns Supreme, by Default', 51 *Finance and Development* 34 (2014), at 37, <http://www.imf.org/external/pubs/ft/fandd/2014/03/pdf/prasad.pdf> (visited 30 December 2016) (noting that in addition to the prestige conferred by this status, it also means access to cheap financing in the country's domestic currency).

14 *Ibid* (noting that even as the stock of US federal debt has been rising, foreign investors have steadily increased their share of the portion of that debt that is 'privately held').

15 Frankel, *above* n 11, at 331.

counterparty or third party when buying goods and services; likewise, sellers need not convert proceeds from sales into domestic currencies. Foreign transactions are as a result, easier, less risky, and cheaper to execute.

Lastly, internationalization can increase the size of a country's financial sector, spur improvements in a country's financial sector, and inspire fiscal discipline.¹⁶ Not only is it more likely that banking and equity markets become bigger as new entrants from abroad enter them, but also, supervision, regulation, and corporate governance may improve as foreign investors demand higher quality regulatory ecosystem that better approximates their own.¹⁷ Greater cross-border capital flows can thus help catalyze domestic financial market development. Internationalization also exposes domestic companies to more competition for capital, and more pressure to innovate and become more efficient, since domestic savers have more choices as to where to invest their money. Fiscal discipline could similarly improve as governments with international currencies more seriously commit to prudent spending and low inflation policies in order to attract and keep foreign investors who might otherwise be concerned with foreign exchange risk.¹⁸

2. *The costs*

Macroeconomists emphasize that, despite the benefits, allowing a currency to become more central to the global economy is not a decision to be taken lightly. Internationalizing a currency makes it more difficult for a country to control its monetary policy. When foreign investors can purchase and take a currency abroad, mechanisms available to the currency's home country to control inflation, and even economic growth, become less effective or more difficult to operationalize.¹⁹ This is because when capital is trapped in a country, governments can tinker with domestic regulations in ways that divert resources to preferred sectors or firms. So, for example, by capping interest rates customers receive on bank deposits, or limiting the investment opportunities of pension and insurance funds, capital remains cheap for eligible borrowers. This 'financial repression' ties savers to low return, but lowers the cost of capital for favored firms and industries.²⁰ Internationalizing currency undermines this policy tool, and by extension government control of the economy, by allowing savers to put their money in foreign institutions, which they would, insofar as they offered higher rates of return.²¹

Internationalizing a currency can also make a country's exports less, not more, competitive.²² For one, internationalizing a national currency makes it harder for its

16 Eswar S. Prasad and Raghuram G. Rajan, 'A Pragmatic Approach to Capital Account Liberalization', 22 *Journal of Economic Perspectives* 149 (2008), at 152.

17 *Ibid.*, at 153.

18 *Ibid.*

19 Liqing Zhang and Kunyu Tao, 'The Benefits and Costs of Renminbi Internationalization' (Asia Development Bank Institute, Working Paper No. 481, 2014), 16, <https://www.adb.org/sites/default/files/publication/156336/adbi-wp481.pdf> (visited 30 December 2016) (noting that a country must forgo its domestically oriented monetary policy when its capital account is liberalized).

20 Nicholas R. Lardy, 'Financial Repression in China' (Peterson Institute for International Economics, No. PB08-8, 2008), 1–2, <https://piie.com/sites/default/files/publications/pb/pb08-8.pdf> (visited 30 December 2016) (describing financial repression as a tax on households).

21 As a result, financial repression inhibits commercial banking and income growth. *Ibid.*, at 6.

22 See Frankel, above n 11, at 332–33 (noting how internationalization increases demand for currency and comprises the flip side of seignorage).

home government to manipulate its value, and if necessary devalue it in ways that can make domestic goods less expensive. Additionally, internationalizing a currency inherently increases its utility, and by extension, its market value. A currency becomes not only a means of exchange for domestic citizens, but also an instrument of value for foreigners. Thus foreigners, like domestic parties, will seek to own it. Heightened demand will increase the value of the currency, and by extension make a country's exports more expensive vis-à-vis others. Consequently, the USA largely shirked from asserting the dollar as an international currency in the 1910s and 1920s, just as Germany and Japan sought to prevent greater use of the Deutschmark and yen in the 1970s and 80s.²³

Economists and financiers note that the benefits of internationalization are generally only available once a country has attained a certain level of domestic institutional development.²⁴ Otherwise, financial openness can unleash chaos on its domestic financial markets. When a country internationalizes its currency, it in effect makes possible large and volatile swings in the movement of capital in and out of the country. As a result, it is necessary that domestic banks be extremely well regulated before the gates are opened to foreign money. Countries also need deep and liquid bond markets to provide a diversity of long-term investment opportunities denominated in the currency for absorbing and withstanding capital inflows and outflows. Otherwise, poorly regulated banks tend to put all the money into one or two sectors—usually real estate related—causing an unsustainable 'bubble' in prices that can 'pop' in ways that bring down the domestic financial system.²⁵ If a country does not enjoy one or both of these bulwarks, it may not be in its long-term interests to allow its currency to float or to export its currency to far-flung locales.²⁶

Many experts point to the 1997 Asian financial crisis as an illustration (and cautionary tale) of the systemic risks that can arise when financial openness precedes regulatory maturity. Before opening up its domestic financial markets to foreign investment, and loosening restraints on the currency, the Thai government adhered to a strict policy of financial regulation 'that limited credit expansion of commercial banks'.²⁷ But starting in the early 1990s, a new policy of financial market deregulation was introduced, and the peg of the Thai baht, the country's currency, to the US dollar was loosened.²⁸ In the wake of the reforms, capital poured into the country's stock market and local real estate, supported by debt provided by poorly regulated

23 See Sebastian Mallaby and Olin Wethington, 'The Future of the Yuan: China's Struggle to Internationalize Its Currency', 91 *Foreign Affairs* 135 (2012), at 137.

24 Prasad and Rajan, above n 16, at 154.

25 Financial innovation and liberalization must, in short, not 'cause a boom that eventually goes bust'. Depth and liquidity must as a result be sustainable in the financial market, but where it is, can be one of the most important contributing factors to internationalization. Livia Chitu et al., 'When Did the Dollar Overtake the Sterling as the Leading Currency?' (National Bureau of Economic Research, Working Paper No. 18097, 2012), 3, <http://www.nber.org/papers/w18097> (visited 30 December 2016).

26 See *Ibid.*

27 Narisa Laplamwanit, 'A Good Look at the Thai Financial Crisis in 1997-98', Columbia University (1999), http://www.columbia.edu/cu/thai/html/financial97_98.html (visited 30 December 2016).

28 *Ibid.*

domestic and foreign banks.²⁹ Eventually, however, the economy slowed, and capital inflows began to reverse themselves, at times violently, as investors retreated.

Thai monetary authorities responded to the sell-off in a number of ways, including capital controls and eventually raising interest rates. By taking such steps, which also included intervening in foreign exchange markets to support the currency, officials hoped to attract foreign investors to the country and thus rebuff capital outflows.³⁰ However, higher interest rates slowed economic growth, and the Thai government eventually exhausted much of its foreign reserves from the country's currency interventions. Ultimately, monetary authorities announced they would abandon what was left of their dollar peg and adopt a managed float instead. The baht plunged, declining 40%.³¹

The baht's devaluation ignited chaos in not only Thailand's financial markets, but also other markets throughout Southeast Asia, including Indonesia, Malaysia, and the Philippines—all countries that had also linked their currencies to the dollar in order to invite more foreign investors.³² Eventually turmoil would spread to major financial centers including Hong Kong, Korea, and Singapore. With relatively open capital accounts and capital flows, stock markets experienced historic levels of volatility and even stronger currencies began to depreciate—and investors sold off currencies, imperiling borrowers who had borrowed in foreign currencies.³³ As in Thailand, officials throughout Asia attempted to defend currencies dumped in foreign exchange markets and would exhaust their reserves and exacerbate already considerable economic recessions at home.³⁴

The renminbi was, however, a notable exception to the chaos.³⁵ In contrast to most of its neighbors, China had preserved a closed capital account, and weathered the crisis relatively unharmed.³⁶ Instead of purchasing renminbi, officials focused on purchasing US dollar denominated debt in order to preserve a peg to the greenback

29 Frederic S. Mishkin, 'Lessons From the Asian Crisis' (National Bureau of Economics Research, Working Paper No. 7102), 711, <http://pascal.iseg.utl.pt/~aafonso/eif/pdf/257.pdf> (visited 29 September 2017) (noting the inadequacy of the regulatory system in Thailand); see also Giancarlo Corsetti et al., 'What Caused the Asian Currency and Financial Crisis?', Japan and World Economics (manuscript at 7), <https://www.newyorkfed.org/medialibrary/media/research/economists/pesenti/whatjapwor.pdf> (visited 29 September 2017) (noting that the drop of the real estate and stock markets led to the emergence of wide losses and outright defaults in the corporate and financial sectors).

30 Thailand's first response was notably instituting capital controls for onshore and offshore trading of the currency; raising interest rates introduced, by contrast, the onerous risk that they could further endanger banks saddled with bad loans. Corsetti et al., above n 29, at 50.

31 Laplamwanit, above n 27.

32 Ibid.

33 Ibid.

34 The belated imposition of higher interest rates in Thailand in particular would also, notably, induce credit squeezes that increased the number of bad loans, thereby lowering confidence in the economy. Corsetti et al., above n 29, at 50.

35 See Kristin J. Forbes, 'The Microeconomic Evidence on Capital Controls: No Free Lunch' (National Bureau of Economic Research, Working Paper No. 11372, 2005), 1, <http://www.nber.org/papers/w11372> (visited 30 December 2016).

36 Hongying Wang, 'The Asian Financial Crisis and Financial Reforms in China', 12 *Pacific Review* 537, (1999), 538, <http://www.tandfonline.com/doi/pdf/10.1080/09512749908719305> (visited 30 December 2016) (noting that China suffered minimal direct effects due to the closed current account, and only experienced secondary complications that would only eventually slow the economy).

that would, among other things, artificially cheapen the yuan and proffer trade advantages for its exports. Notably, the country's interventions would only accelerate from 2003 through 2014, the “*decade of manipulation*” most pivotal for China's growth, in which China bought more than \$300 billion annually to resist the appreciation of its currency by artificially keeping the exchange rate of the dollar strong and the renminbi's exchange rate weak.³⁷ According to noted economist Fred Bergsten, China's competitive position was strengthened “by as much as 30 to 40 percent at the peak of the intervention,” and its manipulation of the currency explained most of China's large trade surpluses, which amounted to a massive 10 percent of its 2007 GDP.³⁸

Over the past decade, however, and especially since the 2008 financial crisis, China has begun to alter its monetary course, in part due to new economic necessities. With a quarter century of continuous growth behind it, officials are increasingly questioning the benefits of a policy that, in essence, involves purchasing low yield, and potentially more risky, U.S. treasury debt to finance higher interest borrowing. In particular, China's exposure to modestly depreciating dollars during the financial crisis convinced many of the country's technocrats that China should diversify out of its own dollar reserve assets and moderate the stockpiles of debt it holds from foreign governments—and foreign exchange risk³⁹—that accumulated as a result of its persistent trade surpluses.⁴⁰ Part of such diversification could come from relying on the country's own currency for cross border transactions. Many reformers are also convinced that internationalization could help usher in broader changes in the economy as well. China's economy has reached a tipping point where it is required to transition from an investment- and export-based economy to a consumer-based economy. Domestic consumers have to increasingly pick up the slack where the global economy has tapered off in order to sustain growth. Liberalizing its monetary affairs is viewed as a means of helping to transition to a services economy by potentially bolstering finance and even domestic consumer wealth.⁴¹

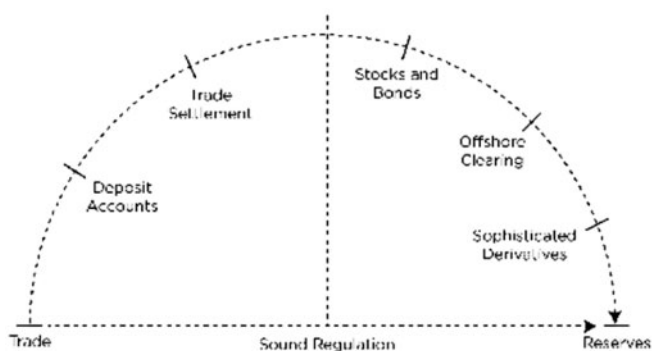
37 C. Fred Bergsten, ‘China is No Longer Manipulating Currency’, Peterson Institute for International Economics (18 November 2016, 9:45 AM), <https://piie.com/blogs/trade-investment-policy-watch/china-no-longer-manipulating-its-currency> (visited 30 December 2016). Currency manipulation is, however, a not clearly defined as a matter of international law, and the IMF's own Articles do not provide parameters other than a blunt prohibition against manipulation to gain an unfair advantage over others. Instead, Annex IV of the June 2007 decision by the IMF's Executive Board indicates that ‘manipulation’ comprises ‘policies that are targeted at –and actually affect—the level of the exchange rate’. Staiger and Sykes, above n 3 at 26.

38 Ibid.

39 In 2007, just before the financial crisis, China's current account surplus stood at nearly 10% of its GDP, and the country's foreign reserves topped \$1.5 trillion. Hongying Wang, ‘China's Long March Toward Economic Rebalancing’ (Center for International Governance Innovation, Policy Brief No. 38, 2014), 1, https://www.cigionline.org/sites/default/files/cigi_pb_38.pdf. With such massive foreign exchange exposures (visited 30 December 2016), the 2008 crisis galvanized Chinese authorities to rethink the wisdom of relying so heavily on exports (and the accumulation of dollar denominated reserves) as a growth strategy. Today reserves amount to over \$4 trillion.

40 Though the future of such surpluses remain in doubt, the IMF predicted as late as 2012 that once US growth accelerates, China's trade surplus—which has abated somewhat since the crisis—would rise and reach 4.3% of its GDP by 2017 under current trends. Ibid, at 3.

41 Allowing the RMB to trade on the open market, and on a global basis, would provide space for the currency to appreciate—and in the process increase wages that have, like exports, been artificially cheapened (suggest sharing the fact comparing the trade-weighted appreciation/depreciation rates) due to the



Source: Chris Brummer, *Renminbi Ascending* (2015)

C. The typical evolutionary path

To understand China's approach to currency internationalization, it is helpful to first examine historical paths and trajectories of global monies. Though national currencies are all very different, and their paths to global significance are rarely linear, currencies usually begin to acquire some measure of internationalization after they have achieved considerable popularity in their home countries, at which point they begin to be used cross border as a means of exchanging value between merchants. Commonly, this would arise quite literally on national borders, as sellers and buyers who work in varying jurisdictions use currencies to facilitate and settle simple commerce and trade in goods. The net balance of such trade on a national basis is what economists today call the *current account*.⁴²

Over time, and with the permission of the state, currencies assuming a more international role become more popular in larger scale transactions, and as a means of invoicing. The price of goods, in short, becomes denominated for sale in the currency, even where sold abroad. Eventually, merchants in far flung parts of the world might come to use the currency as a means of exchanging value, even where neither

RMB's peg to the dollar. As the Chinese people enjoyed more wealth, their consumption patterns would change (and increase), and shift the structure of the economy. Less debt, meanwhile, would have to be loaned out to creditor countries in foreign currencies to help them purchase (often Chinese) goods. Meanwhile, internationalizing the currency could help to allocate capital in ways that better supported both a consumer-based economy and competitive exports. Because of strict capital controls, Chinese savers have been forced either to invest in banks with capped interest rates on deposits or put their money in occasionally dodgy 'wealth management products' and privately placed debt instruments called trusts (and more derisively called 'shadow banks') that now sport over RMB 13 trillion in assets. Freeing the capital account would unlock competition and give them more choices as to how to deploy their capital at home and abroad. Domestic borrowers would have to improve rates of return—and increase opportunities in services sectors sidelined in export driven economies. This would in turn lead to more money flowing from underperforming fixed assets to more productive services, health and technology sectors—and in the process boost productivity and long term growth.

42 The current account is defined as the sum of the balance of trade (goods and services exports less imports), net income from abroad and net current transfers. 'Current Account', *Investopedia*, <http://www.investopedia.com/terms/c/currentaccount.asp> (visited 11 January 2017). Trade in goods usually the largest factor in this calculation.

the buyer nor seller may be a national of the country issuing the currency, and denominate the price of some goods in terms of the currency.

Once a currency is used for cross border trade, holders of the currency often seek to do something with it, especially when they are not immediately deploying the currency to purchase goods. In the breach, financial markets often begin to slowly open and coalesce in order to allow those who have exchanged goods or services for the currency to put it to use as savings and investment. There is in effect a gradual liberalization, either *de jure* or *de facto*, of what economists call the *capital account* as foreign currency holders begin to participate in the capital markets of the currency's issuing country, and hold financial (and real) assets.⁴³ This in turn spurs the creation of a variety of institutions, products and market intermediaries, from stocks, bonds and complex derivatives to exchanges, and broker-dealers.

The macroeconomic implications of such institutional developments are, economists predict, just as significant their transactional utility. At their best, financial markets act as a sponge for capital flows unleashed by loosened restrictions on currencies.⁴⁴ Having a large domestic stock market allows foreign investors who may be interested in investing in a country the opportunity to sink their money into not only highly speculative ventures (often in real estate), but to also participate in more varied domestic business ventures. This in turn helps prevent bubbles in local property markets and other concentrated forms of credit risk. Offshore markets, meanwhile, allow currencies be repatriated abroad, facilitating invoicing and foreign exchange, and diversify activities denominated in the currency and the degree to which investors are exposed to singular sectors and market risk.

Returning to the normally incremental nature of currency internationalization, as trade progresses, and as capital markets deepen and become more liquid, central banks begin to use the currency as a store of value.⁴⁵ That is, just as individuals and corporates use the currency as means of saving and later investment, governments, too, start to rely on a currency as a reserve asset for sovereign balance sheets. When markets freeze, or balance of payments problems arise, an international currency can then be used as a critical source of liquidity and help grease the wheels of commerce with other countries should the government's own currency lose its luster.

The two recent global currencies of the modern age offer vivid examples. The British pound sterling, the global currency of the 19th century, dominated international finance over a series of developments lasting centuries. Britain was an early adopter of the gold standard, an island trading nation, as well as a colonizing power

43 The capital account is generally defined as a metric gauging the net change in physical or financial asset ownership for a nation. Along with the current account, it comprises a country's balance of payments. 'Capital Account', *Investopedia*, <http://www.investopedia.com/terms/c/capitalaccount.asp> (visited 11 January 2017).

44 See OECD, 'Getting the Most out of international Capital Flows' (OECD Economic Department Policy Note No. 6, 2011), 3, <https://www.oecd.org/eco/public-finance/47828238.pdf> (visited 30 December 2016) (noting that countries with, among other things more open financial markets with better institutional quality tend to be more able to attract and absorb foreign and domestic capital as well as to export capital).

45 Zhang and Tao, above n 19, at 3.

and importer of raw materials.⁴⁶ Because gold was a rare and precious commodity, and of limited supply in the world, adherence to the gold standard signaled to countries a restraint in the country's fiscal affairs. As trade increased, and with a commodity currency in place, interest-bearing deposit claims denominated in the currency could be substituted for gold and even held on balance sheets of banks as reserves.⁴⁷ Industrialization would later galvanize Britain's economy, making it the world's leading trading nation and exporter of manufactured goods.⁴⁸ With London operating as the heart of what would become the world's leading empire, commercial transactions would often be denoted in the pound, and the currency generated according to one estimate upwards of 60% of the world's trade invoicing.⁴⁹ As the City of London expanded to finance transactions, the pound sterling was increasingly used as a currency of denomination for commercial transactions between non-Britain residents, and outward⁵⁰ foreign investment would increasingly be denominated in the pounds sterling.⁵¹

World War I would deal a devastating blow to the centrality of London, and by extension, the pound sterling.⁵² Hit by war spending, a sagging economy, and the rising industrialization and competitiveness of the French, German, and Americans, the pound became a less attractive instrument of savings and investment. Instead, other currencies became more alluring for private interests and central banks alike. As the war progressed, England would eventually have to abandon altogether its prized peg to gold.

After the conclusion of the hostilities, Britain recommitted to the gold standard, but its attempts to do so would ultimately fail. By the time the war had concluded, the very composition of the global economy had changed, with Britain's own in decline, and its peg was based on economic fundamentals that no longer existed.⁵³ Instead, the dollar's use would rise, reflecting the coming of age of the US economy during the interwar period and its growing gold stockpiles.

The dollar's ascent to global preeminence would, however, be the culmination of a decades-long evolution. The US economy had been larger than Britain's since the 1870s. But unlike Britain, it had only twice had a functioning central bank, and in the absence of one it was exceedingly difficult to issue popular and stable dollar-denominated securities. As a result, even when the US economy had surpassed that of British output in the 1870s, it lacked comparably deep and liquid markets.⁵⁴

Financial stability was a serious challenge as well. Throughout the 19th and early years of the 20th century, the USA became an international debtor, leaving foreign

46 Chris Brummer, *Minilateralism: How Trade Alliances, Soft Law and Financial Engineering are Redefining Economic Statecraft* (2014), 30 (describing the means by which gold standard reflected a commitment to exchange currency for gold at a certain price).

47 'The History of the World's "Reserve" Currency: From Ancient Greece To Today', *ZeroHedge* (18 May 2011, 8:33 AM), <http://www.zerohedge.com/article/history-worlds-reserve-currency-ancient-greece-today>; Brummer, *ibid.*, at 30–31 (visited 30 December 2016) (noting the processes that theoretically regulated the money supply highlighting the rise of the Sterling as a gold substitute).

48 *Ancient Greece To Today*, above n 47.

49 *Ibid.*

50 Brummer, above n 46, at 35.

51 *Ancient Greece To Today*, above n 47.

52 Brummer, above n 46, at 35.

53 *Ibid.*, at 35.

54 Frankel, above n 11, at 337.

investors wary about keeping their money in the country. And without a central bank, the USA was especially vulnerable to persistent and periodic bank panics triggered by nervous investors. No institution had a monopoly on the issuance of notes and limited federal regulation of banks existed.⁵⁵ Furthermore, there was no lender of last resort for depositors or the banks that kept their money. Instead, the market would have to put out fires on its own in times of economic stress without government support, illustrated most dramatically in 1907 when Piermont Morgan famously locked Wall Street's leaders in his study and refused to release them until they collectively agreed to save one of the largest trust companies, with over \$100 million in deposits, from insolvency.⁵⁶ But this system was inherently ad hoc, far from systemic, and heavily reliant on the availability (and personal interest) of Morgan himself.

Many of these problems would be alleviated as economic history unfolded over the next half-century. Following the great panic of 1907, Congress would initiate a study concerning the causes of the crisis that would ultimately pave the way for the creation of the Federal Reserve. Though power would remain decentralized under a number of then-autonomous regional institutions,⁵⁷ the Federal Reserve would have a monopoly over the issuance of notes, and through its involvement could help prevent their over-issue and maintain financial stability.⁵⁸ The following year, World War I would create the economic conditions for driving the dollar's expansion abroad. Large-scale wartime lending by the USA to Britain and other allies reversed what had been Britain's 19th century position as America's creditor, prompting early multinationals during the conflict and afterwards to increasingly seek dollar-based financing in New York capital markets.⁵⁹ Though the USA had allowed its currency to expand by 250%, it had seen its gold reserves more than double from its military sales and capital flight from Europe.⁶⁰ Eventually, the country's post-war expansion would run into the stock market collapse of 1929 and the Great Depression. Yet the economic carnage would, for all its tumult, help establish an institutionally sustainable basis for dollar-based financing as the scandals of the 1920s ushered in a raft of new legislation designed to improve investor protection, the safety and soundness of deposit-taking banks, and overall market integrity.⁶¹

55 The OCC had been created in 1863, which would write uniform rules that would apply to all national banks and send examiners into the banks to make sure those rules were being followed. US Dep't of Treasury, Office of the Comptroller: A Short History (2011), 1, <https://www.occ.gov/about/what-we-do/history/OCC%20history%20final.pdf> (visited 30 December 2016). The scope of federal supervision would, however, be keenly limited in the absence of what would ultimately become the Federal Reserve's monetary authority and without federally-insured deposits which would extend regulatory perimeter of federal regulation to not only federal, but also state-chartered banks. *Ibid.*

56 Liaquat Ahamed, *Lords of Finance: The Bankers Who Broke the World* (2009), at 53–54.

57 See *Ibid.*, at 56 (discussing the creation of the Federal Reserve).

58 M. Agarwal, '8 Major Functions of Central Bank – Discussed', *EconomicsDiscussion.net*, <http://www.economicsdiscussion.net/banks/central-banking/8-major-functions-of-central-bank-discussed/8375> (visited 11 January 2017).

59 See Frankel, above n 11, at 339–40.

60 Ahamed, above n 56, at 157.

61 See, e.g., Chris Brummer, 'Disruptive Technology and Securities Regulation', 84 *Fordham Law Review* 977, 982–99, <http://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?article=5158&context=flr> (visited 30 December 2016) (discussing New Deal Securities regulation).

It would not, however, be until the end of World War II that the dollar's status as the world's most important currency would be formally (if belatedly) acknowledged with the creation of the Bretton Woods system. In order to avoid the tit for tat trade protectionism and destructive currency devaluations that exacerbated the Great Depression and helped exacerbate national antagonisms that culminated in the rise of Nazism and World War II, the IMF, the World Bank, and the World Trade Organization (WTO) were established to prevent states from 'cheating' on formal international obligations to limit tariffs and prohibit the manipulation of national currencies.⁶² The backbone for this system was the currency of the USA, with international exchange rates based on par values to the dollar, which was backed by gold.⁶³ With the dollar firmly entrenched as the key reserve asset for private firms and sovereign countries alike, an offshore financial system would also emerge, with the acquiescence of the USA treasury.⁶⁴ Based in London, a new market in Eurodollar transactions would provide a critical distribution system for banks and multinationals to issue dollar denominated debt outside of the USA, enabling the processing and recycling of dollar transactions on and offshore the world over.

D. Law and policy as enabling mechanisms

Economists largely model and describe the internationalization of a currency as primarily a market-driven phenomenon. That is, internationalization has to be supported by the interest, or demand, by private actors for their commercial transactions, and, once this happens, eventually acquired by central banks for their balance sheets and sovereign economic activities. That said, even among economists, government policies—and the rule of law—still viewed as playing an important role in popularizing a currency. Indeed, the exchange rate itself comprises a space where entire national financial systems—the amalgamation of domestic markets and rules—confront one another.⁶⁵

Together, law and policy play supporting roles that range from the simple to the complex and that span financial sectors. Most fundamentally, for a currency to be used across borders for trade and investment, a government must permit it, and define how and when this can be done. Then once permission is granted, government policies can help shape how attractive a currency can be from the standpoint of individuals and firms that may hold it, and markets that may subsequently trade it. Like other assets, the value of most major currencies is driven by basic market forces of supply and demand that play themselves in international markets. If investors want to own a particular national currency—perhaps because the country backing it is a

62 Benn Steil, *The Battle of Bretton Woods*. 126 (noting how White sought to prevent disruption of foreign exchange, credit systems and trade, resulting in the creation of the IMF, World Bank and WTO); Brummer, above n 46, at 40–44 (discussing origins of the WTO and IMF).

63 See generally Andreas Lowenfeld, 'The International Monetary System: A Look Back Over Seven Decades', 13 *Journal of International Economic Law* 575 (2010) (discussing the history of the IMF and its legal scope and dictates).

64 See Yener Altunbas et al., *Syndicated Loans: A Hybrid of Relationship Lending and Publicly Traded Debt* (2006), at 21–32 (discussing overseas growth of the syndicated loan market).

65 Perry Mehrling, 'Essential Hybridity: A Money View of FX', 41 *Journal of Comparative Economics* 355 (2013), 355–63.

major exporter and people want to purchase its goods—that currency will likely appreciate relative to others, especially if there is a limited supply of it. Conversely, if people do not want to own or hold a particular currency due to its limited utility in international commerce, it will depreciate.

One essential element of a currency's popularity is, not surprisingly, the degree of comfort holders have that the government issuing it will remain fiscally responsible. Investors and savers want to know that the value of the currency will remain stable and will not be undermined by spending policies of the government. Along these lines, if a government commits to low inflationary policies and small deficits, and creates only a limited amount of new money, its currency will likely be in high demand as a safe store of value. People know that if they purchase the currency, it will retain its value and maybe even appreciate. Similarly, if a state offers creditors a high interest rates on government issued debt (denominated in the country's currency), investors will be more attracted to purchase it. To do so, some will have to acquire the necessary the cash to buy the bonds, helping to lift demand for the currency.

The converse is equally true. Profligate countries tend to see their currencies depreciate, as do those states facing banking crises that require large-scale governmental bailouts since expectations are that states will have to 'print' money in order to cover needed outlays.⁶⁶ Meanwhile, balance of payments problems can arise where such countries rely on short-term debt for financing. When a country's currency deteriorates, foreign investors are more likely to refrain from renewing or extending credit facilities that are normally rolled over, making it difficult for the country to repay creditors, especially where debts are denominated in a foreign currency.⁶⁷ In severe cases, entire banking systems can collapse.

A country's prudential rules and policies for its financial markets can often be critical as well, a point at least indirectly highlighted in the law and finance literature,⁶⁸ as are predictable rules to support the ownership, transfer, pledging, and investment of the currency. Government authorities have to be able to credibly demonstrate to foreign investors and market participants that they will have the information needed to assess the rewards, risks, and opportunities of market activities relating to the currency. Otherwise investments will not be efficient, let alone maximize investor profits.⁶⁹ Similarly, foreign financial institutions will have to have comfort in the governance and robustness of the (largely local) financial institutions that primarily transact in the currency and act as conduits of the state's monetary policy. Foreign investors must believe that transactions in the currency will be executed safely and

66 Indeed, when a central bank decides to pursue such a course of action it is buying securities that—at least to some extent—will not be repaid. This injection of liquidity into the national economy will ultimately depreciate the national currency.

67 Prasad and Rajan, above n 16, at 158.

68 The highly influential law and finance school is a 'legal approach to corporate governance' catalyzed by La Porta, Lopez-de-Silanes, Shleifer and Vishny. See Rafael La Porta et al., 'Law and Finance', 106 *Journal of Political Economy* 1113 (1998). The key argument, which has been extended to other contexts, is that law matters—and the quality of a country's law can determine key outcomes in corporate governance, and by extension, investor protection.

69 See Frederick S. Mishkin, 'Lessons from the Asian Crisis', 18 *Journal of Money and Finance* 709 (1999), 710, <http://pascal.iseg.utl.pt/~aafonso/eif/pdf/257.pdf> (visited 30 December 2016) (noting the impact of information asymmetries enable poor asset allocation and financial crises).

securely; there must also be sufficient faith that the financial system itself will not fail, and that securities relied on to diversify one's exposure to investments will not be dumped onto the open market in a disorderly manner at the first sign of turbulence, unduly destroying the value of operable firms and the wealth investors who have invested in them.⁷⁰

Finally, economic historians have observed that on the margins, the rules and policies of international institutions can be important in bolstering the popularity of a currency, and point to the IMF as a case in point. Though the organization's founders sought, as noted above, to prevent economies from competitive devaluations of their currency, American proponents hoped to additionally cement the place of the dollar as the world's indispensable currency. In 1947, Henry Dexter White, an employee of the Treasury Department and one of the architects of the Bretton Woods system, ensured as principal US negotiator that the organization's the IMF's Articles of Agreement would require Member States to maintain their currencies within a narrow band of value relative to the dollar (and gold).⁷¹ Although the dollar had already reached global dominance by the end of World War II, the Bretton Woods system formalized the dollar's status as the preeminent international currency, and created a legally enshrined demand for dollars embedded in the international monetary architecture.⁷² Its status would not be unwound until the USA abandoned the gold standard in 1973, ushering in the modern floating exchange rate system. Since then the IMF has relied on a basket of currencies, with the dollar as the anchor, to serve as its monetary references, and adopted special drawing rights as its primary unit of account.⁷³

III. HOW CHINA EXPORTS THE REDBACK

Generally speaking, the larger the economy of a country, the more its currency is used for cross-border transactions. However, in contrast to most countries, the use of the renminbi has lagged significantly behind the growth of China as both an economic power and a trading nation.⁷⁴ This historically belated uptake of the renminbi's international use is very much purposeful a purposeful one. As we have seen, the renminbi's limited availability is a direct consequence of Chinese policies that for decades manipulated its exchange rate and stymied capital account convertibility. In addition, those policies dragooned the country's underdeveloped capital markets into funneling credit to state-owned banks and aligned enterprises.⁷⁵

70 This line of thought among economists is perhaps most often associated with Paul Krugman's criticism of the Asian financial crisis. See Paul Krugman, 'What Happened to Asia', *Research Monographs in Japan-U.S. Business & Economics* 315(1999), 315-27 (noting that 'the problem began with financial intermediaries - institutions whose liabilities were perceived as having an implicit government guarantee, but were essentially unregulated and therefore subject to severe moral hazard problems').

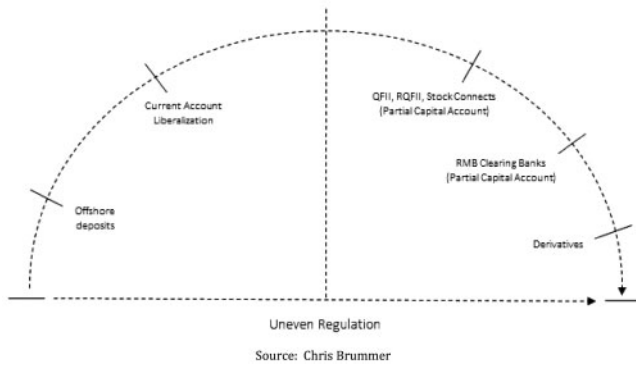
71 See Lowenfeld, above n 63, at 2-4 (discussing the history of the IMF and its legal scope and dictates).

72 See Brummer, above n 46, at 40-41.

73 See Section III.A below.

74 Steven Liao and Daniel McDowell, 'Redback Rising: China's Bilateral Swap Agreements and Renminbi Internationalization', *58 International Studies Quarterly* 1(2014), 3, http://faculty.maxwell.syr.edu/dmcdowel/ISQ_liao_mcdowell.pdf (visited 30 December 2016).

75 *Ibid.*



Over the past two decades, China has reversed its policy posture in part, and adopted a so-called dual-track reforms designed to help promote the renminbi's cross-border use. The first track comprises efforts to enhance the renminbi's presence in international trade and direct investment. The second track focuses on promoting the cross-border use of the renminbi in financial transactions, via on and offshore capital markets.⁷⁶ This Section explains how both tracks operate, and shows they depart significantly from the organic process anticipated by economists.

A. The path to current account liberalization

For over a half century, China's monetary strategy featured a relentless peg of the yuan to the dollar. By keeping the renminbi tied to the dollar at a favorable rate, and failing over time to adjust its value to account for the country's rapid improvements in productivity, China was able to keep its currency cheaper than what would have been the case in an open market environment. With a cheap currency, China's exports could then enjoy a competitive advantage over goods manufactured in other countries, including the USA. To facilitate the peg, cross-border transactions were almost entirely denominated in dollars.⁷⁷ Then China's central bank would purchase dollar surpluses in the country with yuan and then remove its repurchases

76 Liao and McDowell, above n 74, at 3.

77 Recent monetary policies by Mario Draghi, for example, have been designed to weaken the euro in order to boost the flagging competitiveness of weak Eurozone countries. See 'The Perils of a Weaker Euro', *Spiegel Online* (28 January 2015), <http://www.spiegel.de/international/business/ecb-decision-to-weaken-euro-comes-with-pluses-and-minuses-a-1015322.html> (visited 30 December 2016). Similarly, after its earlier efforts to cut interest rates had not done enough to dampen interest in the franc during the initial years of the Eurozone crisis, the Swiss Central bank had announced allow the franc to appreciate such that one franc bought fewer than 1.2 euros, which in 2015 it had to reverse course on. See Neil Irwin and Int'l N.Y. Times, 'Skyrocketing of the Franc in one Day Holds Lesson', *Questia* (17 January 2015), <https://www.questia.com/newspaper/1P2-38021352/skyrocketing-of-the-franc-in-one-day-holds-lesson> (visited 30 December 2016). Even the United States, according to Alan Greenspan, adopted a tacit 'weak dollar' policy to help shore up the global financial system. Alan Beattie, Greenspan Warns US Over Weaker Dollar, *Financial Times* (10 November 2010), <https://www.ft.com/content/b6e3d086-ed12-11df-9912-00144feab49a> (visited 30 December 2016) (noting Greenspan's view that the US is pursuing a policy of weakening its currency which is driving up exchange rates in the rest of the world).

(or ‘sterilize’ them) by selling bonds and raising reserve requirements.⁷⁸ The dollar proceeds would in turn be used to purchase foreign exchange reserves, usually US treasuries.

The Chinese government began to change its approach in the early 2000s. In 2004, the Chinese government permitted residents of Hong Kong to open offshore bank accounts. Then, in 2006, the People’s Bank of China (PBOC) released a document entitled *The Timing, Path, and Strategies of Renminbi Internationalization*, whereby top officials opined that it was time to begin the ‘inevitable’ process internationalizing the currency in order to ‘enhance China’s international status and competitiveness significantly and will increase its influence in the international economy’.⁷⁹ Plans to definitively shift policy gears would wait, however, until the 2008 financial crisis, which raised questions about the sustainability and wisdom of sterilization measures and the exposures to the dollar they made possible. In order to bail out flailing institutions like Bear Stearns, American International Group (AIG), and others, the USA was forced to take on well over \$700 billion of debt, which was subsequently followed by a \$1 trillion stimulus.⁸⁰ Officials in China immediately raised concerns that the value of the dollar might collapse, and that China, the largest US creditor, would bear the lion’s share of the losses.⁸¹ Ultimately, the value of the dollar remained relatively stable, as investors sought safe haven in the leading global currency. But the episode accelerated conversations that Chinese economists had already been having for a decade concerning diversifying away from dollar-denominated assets, and increasing the renminbi’s cross-border use in order to enjoy the privileges of issuing an international currency.

Liberalizing the current account was the first major step towards reversing China’s monetary policy, though it was not the first. In 2004, individuals were permitted to hold and manage limited renminbi savings outside the mainland in Hong Kong bank accounts subject to local rules and protections. Despite being a modest crack in restrictions on offshore capital controls, it set the stage for current account reforms four years later. Specifically, in 2008, the PBOC initiated a pilot program whereby approved companies would be allowed to use renminbi to settle trade payments with customers or producers in Hong Kong and Macau.⁸² With the reforms, a Chinese merchant operating in selected areas in the Mainland could use renminbi to pay for foreign goods with renminbi and foreign merchants in selected jurisdictions could place the proceeds in onshore or offshore accounts. Two years later, the program was extended to exporters and importers throughout China, effectively

78 James Parker, ‘The Dollar Trap: China’s Misunderstood Foreign Exchange Reserves’, *The Diplomat* (28 September 2015), <http://thediplomat.com/2012/09/the-dollar-trap-chinas-misunderstood-foreign-exchange-reserves> (visited 30 December 2016).

79 Benjamin Cohen, ‘The Yuan Tomorrow? Evaluating China’s Currency Internationalization Strategy’ 17 *New Political Economy* 362 (2012), 362.

80 For an excellent overview of each of the individual debt schemes, see David Wessel, *In Fed We Trust* (2009).

81 Arthur Kroeber, *China’s Global Currency: Lever for Financial Reform* (2013), 4, <https://www.brookings.edu/wp-content/uploads/2016/06/china-global-currency-financial-reform-kroeber.pdf> (visited 30 December 2016) (noting public statements by Chinese officials about the long-term value of the dollar).

82 See ASIFMA, *Standard Chartered & Thomson Reuters, RMB Roadmap* (2014), 8, <http://www.asifma.org/uploadedfiles/resources/rmb%20roadmap.pdf> (visited 30 December 2016).

liberalizing the country's current account—and opening the currency to virtually untrammelled use for commercial transactions.⁸³

The 2010 reforms, though limited to the current account, were from the outset poised to dramatically impact the popularity of the renminbi abroad.⁸⁴ At the time, China had already evolved into the most significant trading nation in the world by dint of its commerce with the USA and deep ties to commodity exporting countries. As a result, even modest liberalizations of China's current account would impact the status and role of the renminbi internationally.⁸⁵ By targeting the current account and international trade, authorities could also find eager stakeholders willing to take on and use the currency given its utility and value. Local Chinese could save hedging and foreign exchange transaction costs associated with commercial activities by selling goods in renminbi. Foreign companies, meanwhile, could sell goods to customers in their local currency—and in the process acquire an undervalued currency sure to appreciate domestically.⁸⁶ Not surprisingly, in little more than five years, China's foreign trade settled in renminbi grew from just three percent in 2010 to over 20% and the RMB would climb to become second most commonly used currency in the world for trade finance and documentary credit transactions.⁸⁷ And perhaps most impressive, the renminbi would become one of the top 10 currencies used in global payments, where it remains today.⁸⁸

B. Courting onshore investment

Coinciding with China's current account reforms were attempts to begin, albeit much more gingerly, liberalizing China's capital account. Capital account liberalization is, to recall, a significant aspect of currency liberalization. If a currency is to be truly global, and achieve prominence and broad usage among foreign stakeholders, it has to have some usefulness beyond mediating commercial activities. Foreigners must also be able

83 Barry Eichengreen et al., *Internationalization of the Renminbi, Pathways, Implications and Opportunities*. 14, <http://www.cifr.edu.au/assets/document/CIFR%20Internationalisation%20of%20the%20RMB%20Report%20Final%20web.pdf> (visited 30 December 2016).

84 There is, notably, an interesting literature on the sequencing of capital and current account liberalization, with most experts suggesting that the latter be initially undertaken. Barry Eichengreen, 'Sequencing RMB Internationalization' (Centre for Int'l Governance Innovation, CIGI Paper 69, 2015), 6, https://www.cigionline.org/sites/default/files/cigi_paper_no.69_web.pdf (visited 30 December 2016). However, no country opening up the current account has, as noted, been as central to the global trading economy as China.

85 China would by 2013 officially be recognized as the world's top trading nation. 'China Eclipses U.S. as Biggest Trading Nation', *Bloomberg News* (10 February 2013, 11:01 AM), <https://www.bloomberg.com/news/articles/2013-02-09/china-passes-u-s-to-become-the-world-s-biggest-trading-nation> (visited 30 December 2016).

86 Merchants could also conceivably receive discounts on purchases made in the local currency.

87 See Kathleen Walsh, *RMB Trade Invoicing: Benefits, Impediments and Tipping Points* (2014), 3, http://www.treasury.gov.au/PublicationsAndMedia/Events/2014/~/_/media/Treasury/Publications%20and%20Media/Events/2014/RMB%20Dialogue/RMB_trade_invoicing_report.ashx (visited 30 December 2016) (Chart 1 on Growth in RMB Trade Invoicing). However, this is still low compared with around 50–60% of the Eurozone's external trade settled in euro, and 30–40% in yen for Japanese trade. The Hong Kong Monetary Authority (HKMA) expects RMB settlements to reach 30% by the end of 2015.

88 See Sreeja VN, 'Yuan Overtakes Euro As Second-Most Used Currency In International Trade Settlement: SWIFT', *International Business Times* (3 December 2013, 6:11 AM), <http://www.ibtimes.com/yuan-overtakes-euro-second-most-used-currency-international-trade-settlement-swift-1492476> (visited 30 December 2016).

to deploy the currency in the home country's foreign exchange and capital markets. In this way, tools can be developed to price the currency, as well as give holders options in how they use it besides keeping the currency in a low-yielding deposit accounts. Capital markets additionally provide, as discussed above, a mechanism for helping absorbing and mediate a country's capital inflows and outflows.

Towards these ends, several regulatory programs have been developed to internationalize China's domestic capital markets. As seen below, each differs based on the part of the financial sector being opened, the ease of accessing and repatriating money, and the kinds of investors that are allowed to participate.

1. *Qualified Foreign Institutional Investors and Renminbi Qualified Foreign Institutional Investors*

Two sets of rules have been developed with the objective of enabling a broad swath of foreign investors to invest in Mainland securities and capital markets. The first is the Qualified Foreign Institutional Investors (QFII) program. QFII was established in 2002 and permits foreign investors to invest in China's domestic capital markets, investment funds and other instruments using foreign currency obtained outside of China (usually US dollars).⁸⁹

The original rules released in late 2011 required the China Securities Regulatory Commission (CSRC) to first approve an investment license for the investor. Afterwards, investors must register with the State Administration of Foreign Exchange. During this second process, a quota would be allocated based on the firm's assets under management.⁹⁰ A \$1 billion cap was imposed on investors, along with a \$20 million minimum. Once investments were made onshore, the investments are subject to a lock up period, where repatriation of the funds is prohibited.⁹¹ These rules were, however, over time relaxed significantly. The original \$1 billion upper limit on quota available to QFII were removed altogether in 2016, and lower the quota threshold from \$50 million to \$20 million.⁹² Additionally, a two-layer system for quota applications was instituted: one set of rules for base quota, ranging between \$20 million and \$5 billion, and another for quota for investment exceeding US\$5 billion.⁹³ A new lock up period for a reduced three months was also instituted.⁹⁴ Collectively, the growth of both assets under management and number of funds tied to QFII and Renminbi Qualified Foreign Institutional Investors (RQFII) program has been significant.

The second conduit for accessing China's capital markets—but oriented less towards creating a reservoir of long-term investors than internationalizing the currency writ large—is the RQFII program. Launched in 2011, RQFII awards institutional

89 Ibid.

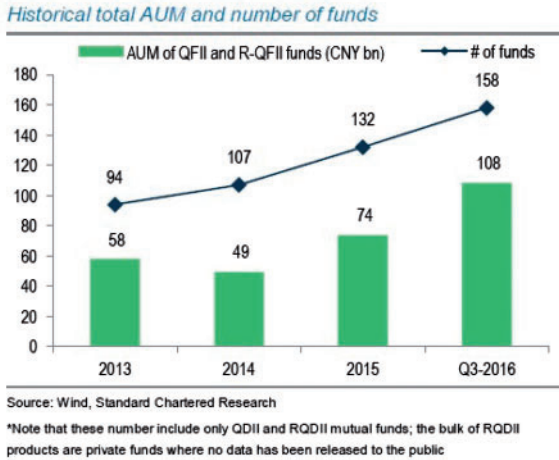
90 Karen Ip et al, 'China Relaxes QFII Control', *Lexology* (22 February 2016), <http://www.lexology.com/library/detail.aspx?g=15ccba92-f44d-4b40-b9b5-62ebef8c0e23> (visited 30 December 2016).

91 Specifically, there 'is a three year lockup period before investors can withdraw capital from the country' and withdrawals are limited to 20% of the previous year's assets under management. See Douglas Appell, 'China's Regulators Open RQFII Door Wider for Foreign Investors', *Pensions and Investments* (8 September 2016, 11:26 AM), <http://www.pionline.com/article/20160908/ONLINE/160909883/chinas-regulators-open-rqfi-door-wider-for-foreign-investors> (visited 30 December 2016).

92 Ip et al, above n 90.

93 Ibid.

94 Ibid.



investors quotas allowing them to invest offshore renminbi directly in China's domestic stock and bond markets. In contrast to original iterations of QFII, where the CSRC required investors to devote at least 50% of their capital to equities and no more than 20% to cash, the RQFII program currently imposes no such restrictions. It has also been consistently loosened such that money managers with at least \$1 trillion in assets under management are provided with an initial allotment of \$2.1 billion. In addition, there are no restrictive lock-ups for the repatriation of funds. It is thus, by comparison, a significantly more flexible scheme. Furthermore, unlike the QFII where investors must repatriate their money in the form of the currency that they used to invest, RQFII investors can repatriate their investments in either RMB or other foreign currencies. As a result, RQFII demand is by most accounts growing faster, with more than 329 billion in offshore yuan in RQFII quota having been allocated in just under 4 years.

2. Interbank investment program

Bond markets have been another sector of emphasis in China's capital account liberalization. Bond markets can be potent means of attracting foreign investors since, as long term investments, bonds match the investment horizons of many institutional investors. Furthermore, China's domestic bond markets—the third largest in the world—are extremely liquid, making it relatively easy for participants to enter into and change their positions. With this in mind, authorities began in 2010 to open the country's over-the-counter bond market to foreign investment via its interbank bond market program, mostly to central banks, clearing banks and some participants in its RMB settlement program.⁹⁵

The speed with which reforms have since then unfolded has been driven by factors beyond just internationalizing the currency. Chinese policymakers have

95 'China opens investment in the interbank bond market', *Allen & Overy*, <http://www.allenoverly.com/publications/en-gb/Pages/China-opens-investment-in-the-interbank-bond-market.aspx> (visited 30 December 2016).

increasingly sought to diversify lending away from traditional bank loans and increase the amount of direct financing via securities offerings.⁹⁶ Meanwhile, onshore bond markets usually offered lower interest rates than commercial loans, making them attractive means of lowering the cost of capital for onshore-related commercial activities.⁹⁷ Consequently, corporate bond and medium-term note issuances have grown considerably since the program was launched, just as government entities have ‘swapped’ their bank loans into bonds as part of a central government plan to restructure local debts.⁹⁸

Notably, in 2016, the rules governing the program underwent a major revision to include a broader swath of financial firms than was originally conceived, including banks, securities companies, fund management companies, insurance, pensions, and other long-term investors.⁹⁹ Restrictions on investment size and repatriation of funds were also removed.¹⁰⁰ Through these and related reforms, over-the-counter bond investors no longer have to undergo a prolonged process of applying for a license in seeking under QFII or RQFII, and they no longer need an interbank bond market qualification.¹⁰¹

3. *Cash sweeping*

A last major, but often underappreciated conduit for onshore access involves rules that permit multinational companies to ‘sweep’ cash on and offshore throughout their respective corporate organizations in order to better manage their renminbi savings and resources. Cash sweeping was first made available in free trade zones (FTZs) designed to offer a testing ground for market reforms, including those relating to the capital account.¹⁰² Under the original terms of the program, multinational companies registered in the FTZ are permitted to remit working funds across the border and thus extend RMB intercompany loans to their offshore parent companies, subsidiaries, or affiliates.¹⁰³ Since then, the PBOC has extended the program such that companies and financial institutions can transfer local currency

96 Along these lines, the Chinese government issued a policy document calling for increasing the share of direct financing in the economy and easing restrictions on bond issuance, resulting in more state owned enterprises issuing debt. Nicholas Borst, ‘China’s Bond Market: Larger, More Open, and Riskier’, *Federal Reserve Bank of San Francisco* (20 May 2016), <http://www.frbsf.org/banking/asia-program/pacific-exchange-blog/china-bond-market-growth-openness-risk> (visited 30 December 2016) (noting that China’s bond market is the third largest in the world).

97 *Ibid.*

98 *Ibid.*

99 ‘China Opens the Door to Global Investors’, *BNP Paribas* (14 June 2016), https://cib.bnpparibas.com/adapt/china-opens-the-door-to-global-investors_a-2-88.html (visited 30 December 2016).

100 Notably, reforms have also been undertaken in an effort to conform with IMF rules for including the renminbi in organization’s currency basket. Borst, above n 96.

101 Quotas are, however, applied to bonds that trade on public exchanges. That said, exchanges comprise only 4% of the onshore bond market. *Ibid.*

102 People’s Bank of China, Circular 22, Circular on Supporting the Expansion of RMB Cross-border Business in China (Shanghai) Pilot Free Trade Zone (22 February 2014); see also Standard Chartered, ‘Global Research, CNH – Liquidity Drivers and Facilities’ (2017), 4.

103 Deutsche Bank, ‘At the Centre of RMB Internationalisation: A Brief Guide to Offshore RMB’ (2014), 24, <https://www.db.com/en/media/At-the-centre-of-Renminbi-internationalisation-A-brief-guide-to-offshore-RMB.pdf> (visited 30 December 2016).

automatically across borders, regardless of whether or not they are registered or located within a free trade zone.¹⁰⁴ Pre-approvals from the PBOC and the State Administration of Foreign Exchange (SAFE) are no longer required, though there are, as in other programs, caps on total in and outflows.¹⁰⁵

Though cash sweeping has attracted less attention in the popular press than the dim sum market and RQFII programs, the introduction of pooled, cross-border renminbi flows was arguably one of the most decisive steps forward in capital account liberalization to date. Prior to the reforms, China-based companies required approval from regulator to borrow funds from overseas and a foreign investment enterprise could exhaust quotas imposed by the government as to the amount of debt it could borrow abroad (called a ‘foreign debt quota’). At that point, firms would be forced to borrow from onshore banks, where liquidity was not always stable or predictable. Today, companies can effectively compare offshore and onshore rates and remit excess liquidity via intercompany loans and transfers for operating use, where needed.¹⁰⁶ Relatedly, firms can bring money in and out of the country without some of the legacy restrictions of the RQFII and QFII programs like lock up periods.¹⁰⁷ With that said, cash pooling is, as with other onshore tools, subject to capital controls, including caps on the size of outflows enabled by banks participating in the program.¹⁰⁸

104 Finbarr Bermingham, ‘HSBC Moves on New Chinese RMB Sweeping Rules’, *Global Trade Review* (21 January 2015), <http://www.gtreview.com/news/asia/hsbc-moves-on-new-chinese-rmb-sweeping-rules> (visited 30 December 2016); see also People’s Bank of China, Circular 324, Circular Regarding Matters Relating to the Expansion of Centralized Cross-border Renminbi Operations by Multinational Corporations (1 November 2014).

105 See Shelley Liang and Myles Seto, ‘Recent Setback on the RMB Cash Pooling Business’, *Lexology* (18 February 2016), <http://www.lexology.com/library/detail.aspx?g=5df88b36-768a-4a7a-ae0c-5d8a783a737f> (visited 30 December 2016) (indicating that Circular 279 has raised the macro-prudential policy parameter used to calculate the cap on the net inflow of cross-border RMB capital from 0.1 to 0.5).

106 There is, however, a 10% of total owner’s equity limit that serves as a cap on the amount permissible to be swept onshore. Jan Jetter, ‘New RMB Cash Pool in China Regulation is a Boon for Multinationals’, *Kapron Asia* (19 November 2014), <https://www.kapronasia.com/asia-capital-markets-research/new-cross-border-rmb-cash-pool-regulation-is-a-boon-for-multinationals.html> (visited 30 December 2016).

107 Notably, the Chinese government has also introduced a pan-China program with similar aims. Under the new scheme, participating corporates belonging to the same group will have access to many of the same benefits afforded under the SFTZ. To be eligible, each onshore affiliate company will have to have been operating for at least three years in China, and each offshore firm likewise will have to have been operating overseas for the same amount of time. Furthermore, the sales turnover of the onshore participating companies should have been at least CNY 5bn the previous year, and the total sales turnover of the offshore affiliate should have been at least CNY 1bn. Kevin Lau et al, *Offshore RMB – Slowly Emerging from a Soft Patch* 10 (2014), https://research.standardchartered.com/configuration/ROW%20Documents/Offshore_RMB_%E2%80%93_Slowly_emerging_from_a_soft_patch_07_11_14_05_39.pdf (visited 30 December 2016).

108 Under the instructions given by PBOC in the meeting of 18 January 2016, for example, caps were lowered such that banks providing RMB cash pooling services for multinational corporations were instructed to limit outflows so that, at any time, there should not be any net remittance outflow of capital. In the event that there is a net outflow at the RMB cash pool, and a bank continues to effect any outbound remittance, the bank would be required to pay additional deposit reserve for 100% of the excessive amount, and face potential disqualification from providing pooling services. Liang and Seto, above n105.

C. Building an offshore renminbi infrastructure

Robust capital account liberalization by definition requires not just easing, as described in the preceding section, onshore access to renminbi financial markets for foreign stakeholders. It also entails allowing greater usage of the currency beyond China's borders. China has sought to operationalize this second objective via offshore financial markets and infrastructure designed to enable RMB-denominated investments and payment services. This section outlines the key components of the existing offshore infrastructure.

1. *The offshore dim sum bond market*

One of the first steps taken to create an offshore financial hub was the launch of the dim sum market in 2007, where commercial and government bonds are issued outside China in the international market (primarily in Hong Kong but also in other financial hubs), and denominated as offshore yuan. As a general matter, offshore bond markets for a currency are largely applauded as critical steps in its internationalization since foreign market participants can raise capital through the most popular financing practice outside of commercial loans, in a currency that speaks to the diversified interests or demands of investors. In the case of China, in particular, an offshore market holds the additional appeal of escaping restrictions on the use of proceeds that would apply to the Mainland interbank bond market, as well as lock up periods that would apply where investors seek to repatriate proceeds and profits from their investments.¹⁰⁹ And in Hong Kong, investors can enjoy loan covenants, disclosure practices and documentation for bond offerings that may not always be available in China.¹¹⁰

The dim sum market has had fits and starts reflecting the overall attractiveness of the yuan, and the relative costs of funding on and offshore.¹¹¹ Originally, the dim sum market specialized in issuances by Chinese corporates. Its initial growth was supported by increasingly large pools of renminbi liquidity located offshore in the wake of trade settlement reforms, and the liberalization of offshore bank deposits.¹¹² Growth was then given a kick start in July 2010, when the Chinese government gave foreign nonfinancial companies the right to issue RMB-denominated bonds outside

109 Though even here, rules have weakened dramatically. New FDI rules introduced in March 2012 have made it easier to issue CNH bonds and bring the proceeds onshore, as have new innovations like the cash pooling made available in the SHFTZ.

110 Yin Wong Cheung, 'The Role of Offshore Financial Centers in the Process of Renminbi Internationalization' in *The Renminbi Internationalization, Achievements, Prospects and Challenges* (2015), 216.

111 Where raisings have been cheaper offshore, the dim sum market has tended to attract many participants and interest. Where competitively bond offerings have been more expensive, onshore bond markets have tended to prosper. That said, government efforts to allow easier access to the onshore market has impacted the relative attractiveness of the two markets as well. 'Dim Sum Bond Issuers Tip Toe into Expensive Market', *Reuters* (11 May 2016), <http://www.reuters.com/article/china-bonds-offshore-idUSL3N1861AB> (visited 30 December 2016).

112 Government schemes (like the QFII program, discussed below) permitting foreign investors to directly invest onshore or repatriate profits or cash onshore were limited or not yet in existence, leaving offshore bond markets in many instances the only practical outlet for RMB-denominated investments.

of China's otherwise closed capital markets.¹¹³ In one reform, growth of renminbi issuances became a more private, as opposed to state exercise. Today, the dim sum market is for the most part dominated by small denomination, short-term issuances. Its popularity has vacillated considerably as restrictions on the interbank market have eased, and, more recently, with a deceleration in China's economic expansion. However, a number of major market participants have issued offshore securities—from the Chinese Construction Bank and state-owned enterprises like Shanghai Baosteel to foreign financial institutions and corporates like Standard Chartered Bank and Caterpillar Financial, respectively.¹¹⁴

2. Stock and bond connects

In addition to the dim sum market, China's regulators and monetary officials have sought to create mechanisms whereby the stocks sold on country's domestic stock exchanges could be accessed offshore. The means for achieving this, however, has been not so much the creation of an alternative stock exchange along the lines of the dim sum market. Instead, the government has established channels allowing bilateral investment flows into China's major domestic stock markets and Hong Kong.

The first channel to be established was the Shanghai–Hong Kong Stock Connect. This program allows global investors to buy Shanghai-listed shares via the Hong Kong market place, and for investors on the Mainland to do the same in Hong Kong.¹¹⁵ Under the terms of the program, investors can place orders via Hong Kong to trade eligible shares listed in Shanghai by routing orders through Hong Kong brokers and a securities trading service established by the Hong Kong Stock Exchange.¹¹⁶ Meanwhile, eligible investors in China will be able to place orders with the help of local brokers and a firm established by the Shanghai Stock Exchange to trade shares listed on the Hong Kong Stock Exchange. The China securities depository clearing Corporation and the Hong Kong securities clearing company clears the transactions.¹¹⁷

To expand access to RMB-denominated equity offerings beyond Shanghai and its listings of established companies, a second connect program, the Hong Kong–Shenzhen program, was launched in December 2016. Although smaller than Shanghai's stock market, the Shenzhen stock exchange is still the world's seventh

113 The first foreign multi-national company to successfully secure permission from the government and take advantage of the program was McDonald's, which raised 200 million yuan one month later. John Maxfield, 'How Dim Sum Bonds Will Change the World', *The Motley Fool* (10 February 2012), <http://www.fool.com/investing/general/2012/02/10/how-dim-sum-bonds-will-change-the-world.aspx> (visited 30 December 2016).

114 Cheung, above n 110, at 216. The Ministry of Finance has also issued longer term bonds of 30 years to set up an offshore market yield curve. *Ibid.*

115 'China in Transition: The Stock Connect', *Goldman Sachs* (December 2016), <http://www.goldmansachs.com/our-thinking/pages/stock-connect> (visited 30 December 2016). The connection will increase the supply of yuan-denominated assets that can be held by global investors as Beijing steps up the internationalization of its currency.

116 Enoch Yiu, 'Hong Kong–Shenzhen Stock Connect to Begin Trading on a Monday in November, Says Exchange Chief', *South China Morning Post* (13 October 2016, 9:03 PM), <http://www.scmp.com/business/money/markets-investing/article/2027841/hong-kong-shenzhen-stock-connect-begin-trading> (visited 30 December 2016).

117 ASIFMA, above n 82, at 24.

largest and boasts a market capitalization of \$3 trillion.¹¹⁸ Moreover, it lists many of the country's high growth technology stocks and offers an important means of diversifying foreign renminbi investments.¹¹⁹ As with the Shanghai program, cross-border trading is facilitated through brokers in Hong Kong and China (in this case Shenzhen). But the program goes further than the existing Shanghai connect by unlocking access to smaller, high growth stocks under the Small or Mid Cap Innovation Index.¹²⁰ In contrast to the Shanghai program, which prohibits buy orders once quotas have been reached, there is no total quota set for the new scheme, which means that investors on both sides can trade what amount to over 880 stocks in Shenzhen feely on each other's markets.¹²¹

China also, after prolonged consideration, extended the model of the stock connect program to bonds. In July 2017, the government announced a 'bond connect' program with Hong Kong, which works along the same conceptual lines as the Shanghai and Shenzhen facilities. Under the program, foreign pension funds, central banks and sovereign wealth funds can gain access to the country's bond market and have licenses permitting them to purchase and trade bonds issued by state owned corporations, large Chinese banks, and national and local governments. However, in contrast to the stock connects, the bond connect program only permits the flow of global investment into China from Hong Kong, and offers no commensurate facility for Chinese investors seeking to access foreign bonds in Hong Kong.¹²²

3. *Offshore clearing banks*

Finally, China has nominated several Chinese banks to act as clearing facilities for renminbi transactions abroad, and in the process help anchor offshore renminbi trading hubs. Clearing is an essential aspect of internationalizing a currency insofar as payments in the banking sector need to be supported by institutions that can assist in confirming and settling transactions as well as ensure sufficient RMB-denominated collateral is available or provided when trades are made. For China in particular, this means that there must be institutions capable of acting as conduits between offshore and onshore markets, with direct access to renminbi liquidity (often cash or government-issued debt) provided by the PBOC.

118 Dominique Fong and Gregor Hunter, '5 Things on the Shenzhen-Hong Kong Stock Connect Plan', *Wall Street Journal* (16 August 2016, 7:17 AM), <http://www.wsj.com/articles/5-things-on-the-shenzhen-hong-kong-stock-connect-plan-1471346243> (visited 30 December 2016).

119 Ibid.

120 'The Stocks That Shenzhen-Hong Kong Link Investors Can Access', *Bloomberg News* (17 August 2016, 12:00 PM), <https://www.bloomberg.com/news/articles/2016-08-17/the-stocks-that-shenzhen-hong-kong-link-investors-can-access> (visited 30 December 2016).

121 Once quotas under the program have been reached (RMB13 billion for HK-SH northbound investors and RMB 10.5 billion for southbound investors), buy orders are prohibited, and investors are only permitted to sell. Similarly, once a government-imposed limit of 10% foreign ownership of any one stock is breached, a forced sale procedure is undertaken at the end of the day. Enoch Yiu and Jennifer Li, 'Best Buys From the 880 Shenzhen Stocks Under the Connect Scheme', *South China Morning Post* (17 August 2016, 2:14 PM), <http://www.scmp.com/business/companies/article/2005096/best-buys-880-shenzhen-stocks-under-connect-scheme> (visited 30 December 2016).

122 Umesh Desai and Andrew Galbraith, 'Brisk Trade Marks Start of China, Hong Kong Bond Connect Scheme', *Reuters* (3 July 2017, 2:14 PM), <http://www.reuters.com/article/uk-hongkong-bondconnect-hsbc-idUSKBN19O032?il=0> (visited 30 December 2016).

The offshore clearing bank model was introduced in 2003, when the Bank of China Hong Kong was appointed by the PBOC as the first Clearing Bank for offshore renminbi.¹²³ Clearing was then supercharged when the Bank of China Hong Kong engaged Hong Kong Interbank Clearing Limited to develop a settlement system that operated in real time for offshore transactions. By facilitating the settlement of foreign exchange transactions in renminbi on a payment versus payment basis, transactions cleared on the island would enjoy the certainty that the final transfer of any currency would take place if a like transfer in renminbi was also taking place. Since then, other clearing banks have been established throughout Asia and Europe. A list of offshore renminbi clearing banks nominated by the PBOC, as of the end of 2016, is provided as below:

City	Bank
Hong Kong	Bank of China (Hong Kong) Limited
Macau	Bank of China Macao Branch
Taiwan	Taipei Branch of BOC
Singapore	Singapore Branch of ICBC
Seoul	Seoul Branch of BoCom
Frankfurt	Frankfurt Branch of BOC
London	China Construction Bank (London) Limited
Paris	Paris Branch of BOC
Luxemburg	Luxemburg Branch of ICBC
Doha	Doha Branch of ICBC
Toronto	Industrial and Commercial Bank of China (Canada)
Sydney	Sydney branch of BOC
Kuala Lumpur	Bank of China (Malaysia) Berhad
Bangkok	Industrial and Commercial Bank of China (Thai) Public Company Limited

Although not all clearing banks operate locally via sophisticated real-time gross settlement (RTGS) systems like the one in Hong Kong¹²⁴—and clearing banks are not technically required to clear renminbi transactions if (Western) private banks have affiliates in either Hong Kong or China¹²⁵—the nomination of a clearing bank is for most analysts highly desirable. By enjoying the presence of a state-identified clearing bank, countries hosting the bank can lay claim to having in place critical infrastructure designed to support payments in the currency. This in turn generates more credibility in the country as a renminbi trading hub, and in principle assists in

123 See *ibid.*

124 Other banks work on a delivery versus payment system.

125 Apart from directly routing yuan payments to an official offshore Clearing Bank or an onshore Agent Bank (licensed by PBOC) for clearing, offshore yuan payments initiated from any offshore commercial banks can also be routed to a correspondent bank that in turn transacts with a RMB Agent/Clearing Bank for clearing via the Chinese CNY payment system.

drawing transactions and renminbi liquidity necessary to support finance in the currency.

D. Official RMB underwriting

At the heart of currency internationalization is liquidity. That is, countries must be willing to supply sufficient liquidity to meet demand and support the commercial and financial systems tied to it. Sufficient liquidity must, in short, be available for firms to purchase goods, market participants to make investments, and central governments to hold in reserve. This in turn requires access to the currency—ideally not only among private market participants, but also for other states. With the renminbi, such institutions are arising in ways that though at times similar to the dollar, but also depart from historical precedent.

1. *Bilateral swap agreements*

Swap lines have been important instruments in the international economy for at least 30 years, especially during balance of payments crises.¹²⁶ When one country lends (or, theoretically, borrows) extensively in another's currency, its central bank can establish a swap line with that of its counterpart in order to provide the needed currency until the borrower can get its arrears in order.¹²⁷ China has, however, deployed swap lines in a different fashion than traditional practice, and instead relied on swap lines to help 'export' the renminbi and promote its internationalization.¹²⁸

Under a program launched in 2009, the PBOC has agreed to extend three-year lines of liquidity report for selected central banks, whereby creditors can keep the lines as reserves, or alternatively, draw the lines and downstream the currency to corporates and banks that may need the money.¹²⁹ In the latter case, a foreign central bank establishes facilities for trade or investment financing by offering long-term RMB-denominated loans for qualifying domestic financial institutions. In this way, offshore funding demands can be met locally.¹³⁰

Summary of bilateral swap agreements between PBOC and other monetary authorities, as of January 2017:

2. *Development loans*

Another important liquidity channel has been operationalized through international development and assistance programs. As early as 2011, the China Ex-Im Bank began to work alongside the Inter-American Development Bank to establish an RMB-based

126 One commentator estimates that swap lines have their origins in a 1922 conference in Geneva that marked the re-initiation of the gold standard. Martin Sibilleau, 'A Short History of Currency Swaps', *Mises* (5 May 2013), <https://www.mises.ca/a-short-history-of-currency-swaps/> (visited 30 December 2016).

127 Brummer, above n 46, at 146 (describing how swaps operate).

128 *Ibid.*, at 157.

129 *Ibid.*

130 China has also, notably, joined neighboring countries in launching what is today known as the Chiang Mai Initiative Multilateralization—a series of swap lines backed by foreign reserve pools of \$240 billion for countries facing balance of payments crisis. And part of its agenda has included diversifying swap lines to include the RMB.

Country	Amount (CNY bn)	Country	Amount(CNY bn)
Argentina	70	Morocco	10
Armenia	1	New Zealand	25
Australia	200	Pakistan	10
Belarus	7	Qatar	35
Canada	200	Russia	150
Chile	22	Serbia	1.5
Egypt	18	Singapore	300
England	350	South Africa	30
Europe	350	Sri Lanka	10
Hong Kong	400	Surinam	1
Hungary	10	Switzerland	150
Iceland	3.5	Tajikistan	3
Kazakhstan	7	Thailand	70
Korea	360	Turkey	12
Malaysia	180	UAE	35
Mongolia	15	Ukraine	15

fund to support investments in Latin America and the Caribbean.¹³¹ More recently, in 2014, China established alongside Brazil, Russia, India, and South Africa the New Development Bank (NDB, and initially styled the BRICS Development Bank).¹³² According to commentators, the \$50 billion of subscribed capital for the new bank aims to mobilize resources to invest in infrastructure and sustainable development projects in member countries. It also aims to do so via the use of local currencies.¹³³ In this way, the NDB not only works to incrementally decrease countries' reliance on traditional multilateral sources of assistance like the IMF, but also promote alternative currencies—and most significantly, the renminbi. Similarly, China has signed a memorandum of understanding (MoU) establishing an \$100 billion Asian Infrastructure Investment Bank which likewise supports Asian infrastructure projects—and is envisioned to not only promote closer relations in the region, but also the internationalization of the currency.¹³⁴ Questions nonetheless persist as to

131 See Paola Subacchi and Helena Huang, "The Connecting Dots of China's Renminbi Strategy: London and Hong Kong" (Chatham House, International Economic Program Paper No. IE BP 2012/02, 2012), 6, https://www.chathamhouse.org/sites/files/chathamhouse/public/Research/International%20Economics/0912bp_subacchi_huang.pdf (visited 30 December 2016).

132 See Hongying Wang, "From "Taoguang Yanghui" to "Yousuo Zuowei": China's Engagement in Financial Minilateralism" (Centre for Int'l Governance Innovation, CIGI Paper No. 52, 2014), 1, https://www.cigionline.org/sites/default/files/cigi_paper_no52.pdf (visited 30 December 2016).

133 See *ibid.*, at 3.

134 See *ibid.*, at 1–2.

the extent to which the bank will lend in RMB, and by extension advance the currency's internationalization.¹³⁵

3. IMF financing

China has also increased demand for renminbi among sovereigns by successfully petitioning the IMF to elevate the renminbi to one of its key reserve currencies. Specifically, in 2016, the yuan joined the dollar, as well as other major currencies, in the IMF's special drawing rights (SDR) basket, the mechanism that mediates loans IMF loans for recipient countries.¹³⁶ Though its inclusion did not obligate other countries to increase their stockpiles of renminbi, the IMF's adoption provided an important seal of approval for the currency as a major currency. It also obligated China to provide RMB-denominated liquidity, and to allow other central banks to 'freely use' the currency.¹³⁷ Consequently, when any IMF member borrows from the organization, it may receive renminbi for its transactions, and when it makes payments to the Fund it may be asked to make those repayments in renminbi.¹³⁸

From an operational standpoint, these developments have required China to open its domestic markets up to a broader spectrum of government and market participants in order to fulfill its new obligations. China has, perhaps most notably, had to liberalize 'access to onshore fixed income and foreign exchange markets for [the] Fund[']s 188] members and their agents'.¹³⁹ And to ensure ease of access for these members, the government has had to amend its operational and administrative arrangements with the IMF to open new onshore renminbi accounts and facilitate "any banking relationships with foreign governments that would be needed in order to transact Fund-related transactions and reserve management transactions".¹⁴⁰ Finally, China has increased the amount of transparency the government provides with regards to the amount and composition of its reserves, though some criticisms persist as to the quality of the information it provides.¹⁴¹

IV. RISK FACTORS

As the preceding examination of on and offshore infrastructure has shown, China's approach to exporting its currency veers from traditional models and expectations of

135 Ashley Kindergan, 'Here's Why Central Banks Won't Be Loading Up on China's Currency Right Away', *Business Insider* (6 December 2015, 8:58 PM), http://www.businessinsider.com/why-central-banks-wont-be-buying-yuan-yet-2015-12?pundits_only=0&get_all_comments=1&no_reply_filter=1 (visited 30 December 2016).

136 'China's Yuan Joins Elite Club of IMF Reserve Currencies', *Bloomberg* (3 October 2016, 5:56 AM), <http://www.reuters.com/article/us-china-currency-imf-idUSKCN1212WC> (visited 30 December 2016).

137 Ibid.

138 IMF, Transcript of a Conference Call on the SDR Basket (22 September 2016), <https://www.imf.org/en/News/Articles/2016/09/22/tr092216-sdr-basket-conference-call> (visited 30 December 2016) [hereinafter SDR Conference Call Transcript].

139 Ibid.

140 Ibid.

141 Critics note in particular that China is not required to report all of its reserves, only a representative share. Ian Talley, 'Is the IMF Cutting Corners for China?', *Wall Street Journal* (2 December 2015), <http://blogs.wsj.com/economics/2015/12/02/is-the-imf-cutting-corners-for-china> (visited 30 December 2016).

currency internationalization. Although current account liberalization has preceded that of the capital account, the latter has unfolded only gradually, and with surgical precision through daily cross boundary limits on capital flows, country and investor quotas, and specified conduits to the country's bond markets. Moreover, China's path to capital account liberalization relies less on organic growth than heavy state-involvement and market planning, and is supported by official underwriting of renminbi facilities with major trading partners and the promotion of at times highly bespoke China-sanctioned financial infrastructure like stock connects and clearing banks.

China's micromanagement of the capital account in part recognizes the risks of liberalizing the capital account too quickly and unleashing hot money in and out of the country's financial system. But as argued below, China's unorthodox approach nonetheless introduces a number of novel systemic risks both for China and offshore renminbi (and non-RMB) financial centers. RMB hubs fragment pools of liquidity that support internationalization, as well as the financial centers that rely on it for servicing the currency's use. Additionally, the process driving internationalization has been executed in ways that ultimately disincentivize improving financial market transparency and oversight in renminbi markets, entrenching already significant regulatory weaknesses in China's domestic financial system.

A. Fragmented RMB liquidity pools

Currency internationalization requires that a country's national money be sufficiently available to meet the practical demands of prospective users. This in turn depends in part on the degree to which domestic and international conduits supporting the currency have been successfully integrated. This section examines how China's unique currency network nonetheless at times fragments monetary liquidity along two vectors—between offshore hubs with one another and with the Mainland—and in the process introduces a range of payment and credit risks to its users.

1. *Interhub 'Offshore-Offshore' fragmentation*

Liquidity is the lifeblood of a currency's internationalization. In the case of securities markets, the availability of investments and collateral denominated in the currency grease the wheels of trading and finance, as well as increase the likelihood of its usage. The more participants that trade in a currency, the more accurate its pricing in international markets.¹⁴² It is also easier to transact: with more participants interested in a currency, it makes it easier to find someone to buy or sell the currency. Similarly, large purchases or sales of a currency are unlikely to be disruptive and create movements in the currency's price. On the other hand, where liquidity is low, even small trades can impact the price of the stock or bond (or individual yuan). Entering into and out of transactions can also be enormously difficult if there is

142 Daniel F. Spulber, Symposium, 'Solving the Circular Conundrum: Communication and Coordination in Internet Markets', 104 *Northwestern University Law Review* 537 (2010), 546 (noting that markets that enjoy more participants have better matches); see also Li Gan and Qi Li, 'Efficiency of Thin and Thick Markets' (Nat'l Bureau of Economic Research, Working Paper No. 10815, 2004), 2, <http://www.nber.org/papers/w10815> (visited 30 December 2016).

no ready market maker or counterparty due to an inadequate supply of the currency.¹⁴³

Liquidity is also necessary for payments and banking services. In order for a currency to be popular, it has to be sufficiently available to commercial, financial, and sovereign users who wish to access it. And it must be able to be deployed in enough ways, on and offshore, such that its utility creates sufficient interest for the purchase of goods and long and short-term financial instruments. For this in turn to work, a wholly interoperable currency ecosystem is useful, and in some instances, necessary for savers, commercial end users, investors and the financial service providers and infrastructures that support them. Payments must be able to be made reliably, efficiently, and through cooperative systems throughout the world.

Most dollar transactions enjoy high levels of generic currency liquidity since they are all routed to New York for processing, and because of a strong degree of interoperability of on and offshore liquidity. Each market participant can generally access the same pool of on and offshore dollar liquidity.

However, no such ecosystem currently exists for the renminbi. Instead, renminbi hubs are tied to one another in only partial and often complicated ways. Hubs also may enjoy very different quota allocations, which means that each are provided varying levels of room with which to inject renminbi into their financial systems and develop renminbi business. Financial centers and institutions have borrowing facilities of varying duration, accessible to divergent market participants and backed by differing pools of money. If quota is exhausted in one locale, you have to go elsewhere to transact (unless a central bank swap line is available and accessed), or at least to complete a transaction. Payments then have to be cleared in both the country of origin and also the country of receipt, requiring transacting parties to potentially navigate varying administrative regulations and exhaustion rates in the currency.¹⁴⁴

The clearing banks that buttress offshore hubs also have their own potential credit risks and logistical operations and thus route payments in ways clients and corporate end users may not always expect.¹⁴⁵ Indeed, every stop along a payment route can travel paths unknown to customers as banks direct payments in ways that conform with their own renminbi holdings and the protocols of facilities that process RMB transactions. In the process, they may demand of their clients more or varying information as to the purpose of payments made, along with supporting documentation.¹⁴⁶

143 Miranda Marquit, 'Investing Basics: Why Liquidity Matters', *US News* (3 December 2012, 8:36 AM), <http://money.usnews.com/money/blogs/the-smarter-mutual-fund-investor/2012/12/03/investing-basics-why-liquidity-matters> (visited 30 December 2016); see also Spulber, *ibid.*, at 539 (noting liquidity means that buyers are able to purchase financial assets and sellers are able to sell financial assets without substantial delays and transaction costs. Buyers are attracted to liquid markets not only because of the ease of purchasing financial assets, but also because they know that, if necessary, they will be able to resell the financial assets in the future).

144 'RMB Hubs are the Best Choice for Now', *Treasury Today* (July 2015), <http://treasurytoday.com/2015/07/rmb-hubs-the-best-choice-for-now-ttti> (visited 30 December 2016).

145 Deborah Mur, 'Offshore Renminbi Hubs: Challengers to Hong Kong 2', *Citibank* http://www.citibank.com/tts/sa/renminbi/docs/offshore_renminbi_hubs.pdf (visited 30 December 2016) (indicating that discussions between bank and payor necessary before payments can be effectuated).

146 *Ibid.*

Extenuated clearing potentially generates time-consuming practices that increase the chance of renminbi payments being delayed, just as transaction linkages spanning different time zones heighten risks of delayed payments. Hours of operation offer a simple, but clear example. A treasurer paying into Germany from Toronto might need to contact and access a bank during German working hours. However, payments risk being posted when clearing facilities are closed. In contrast to dollar transactions, which can settle in seconds, renminbi payments can theoretically take hours or even days, generating exposures for companies if a counterparty was to go bankrupt.¹⁴⁷

For market participants operating in this system, delays introduce a variety of risks, some more systemic than others. Most notably, the delays highlight the persistent existence of payment or ‘Herstatt’ risk—that is, risk that a counterparty might not deliver on payments after another party has paid. The default of a payor after having received value from counterparties, but before its payments to its counterparties are settled, could introduce wider risks to not only the payor’s counterparties, but also to other firms that depend on those counterparties. Delays also create less dramatic but still important operational costs like overdraft charges where corporates are fined for not having the renminbi in their accounts when they expect or need it.¹⁴⁸ RMB-based transactions thus often involve more planning, as well as strategic execution services that comply with the network of varied on- and offshore operational rules.

A range of (largely unanswered) legal questions and risks thus arise in a world of fragmented liquidity. As one commentator has summarized: ‘When can a party default on a transaction based on a lack of liquidity in the RMB market? When will a market be considered not liquid enough?’¹⁴⁹ Moreover, should, and if so, when ‘can other international currencies be used as a backup settlement currency?’¹⁵⁰ Ironically, these questions possibly become *more* rather than less pressing as the internationalization of the currency moves apace. Because of the structure and particular strategy officials have adopted, the currency’s export could conceivably stretch existing offshore liquidity, instead of add to it, since the addition of a hub does not necessarily contribute to a unitary offshore pool of liquidity, even as pools of liquidity multiply.

2. Onshore–offshore fragmentation

Challenges lie not just between offshore hubs—payment channels with the Mainland, too, are not always integrated, and may not be fully interoperable. Transactions that go onshore, where a counterparty is a Chinese person or entity, have to be cleared via domestic clearing facilities. Historically, this has meant going through the legacy China National Advanced Payment System (CNAPS), which was not integrated into messaging systems that relied solely on Western (non-Chinese)

147 ‘CIPS and SWIFT – the Payments Partnership’, *Treasury Today* (May 2016), <http://treasurytoday.com/2016/05/cips-and-swift-the-payments-partnership-ttti> (visited 30 December 2016).

148 ‘RMB Hubs are the Best Choice for Now’, above n 144.

149 Chang, above n 5, at 79.

150 Ibid.

characters and had only limited hours of operation.¹⁵¹ This in turn lengthened the number of steps required to settle payments, and by extension enabled risks that a counterparty might not deliver on payments after another party has paid.

To reduce payment problems, China in October 2015 launched the China International Payment System (CIPS), which aims to operate as a payment platform akin to the dollar-based CHIPS in the USA.¹⁵² Specifically, it offers a means whereby offshore market participants can directly clear RMB-denominated transactions in China, unlike the prior system where cross-border renminbi clearing could only be conducted through one of the clearing banks in the offshore hubs or through a correspondent bank in Mainland China. In any event, with these advances, payments made from Toronto do not necessarily have to be routed by a special clearing bank to arrive in Germany, but could go to China for clearing (assuming settlement systems operated around the clock), and thereby make settlement more predictable and efficient.¹⁵³

Still, questions persist as to the robustness of inter-hub transactions and liquidity more generally. Although the renminbi is considered one currency, it at least historically has functioned more similar to two currencies that trade at different rates.¹⁵⁴ There has on the one hand been the onshore yuan (traded under the symbol 'CNY'), and on the other the offshore renminbi (alternatively, under the designation 'CNH') based in Hong Kong.¹⁵⁵ Between the two, a difference in value has arisen, due in part to varying yields and capital account restrictions. For many years, their separation has meant that different market equilibriums have impacted their price.¹⁵⁶

This is important because for some foreign exchange conversion purposes, payments destined for China may still route through some offshore centers before sending payments to the Mainland.¹⁵⁷ Extra links to the routing process, as we saw above, increase the time for clearing and settlement and in the process potentially contribute to the Herstatt risk that CIPS itself aims to reduce.

Monetary decisions devised on the Mainland can also enhance some payment risks, which is especially relevant given the renminbi's status as a partially managed currency. Whether onshore or off, the PBOC has sought to make the yuan a stable store of value and prevent undue volatility. To achieve this end, authorities have encouraged investors and stakeholders to trade, save and invest the currency, and increasingly intervened to discourage perceptions of one-sided appreciation or depreciation. As downward pressures on the currency's value have increased, one of the PBOC's more significant approaches is to engineer (or permit) liquidity crunches in

151 For an overview of CNAPS, see 'Chinese Renminbi, Payment From and to China – Convenient and Secure', *Deutsche Bank* (September 2014), <https://www.db.com/specials/en/docs/Chinese-Renminbi-Payments.pdf> (visited 30 December 2016).

152 Michelle Chen, 'China's International Yuan Payment System Pursues World Finance', *Reuters* (8 October 2015, 4:23 AM), <http://www.reuters.com/article/china-yuan-cips-idUSL3N1281VL20151008> (visited 30 December 2016).

153 'RMB Hubs are the Best Choice for Now', above n 142.

154 Chang, above n 5, at 79. I do not include Non Deliverable Forwards as Chang does since they are derivatives instruments and not primary currencies, or for that matter, an international 'money'.

155 *Ibid.*

156 *Ibid.*

157 From private, off the record interviews with renminbi bankers.

order to drive up the currency's value.¹⁵⁸ By in effect informally instructing Chinese banks to raise their interest rates for borrowers, officials can increase the cost of borrowing, making it more expensive for short sellers to borrow the funds they need to bet against the yuan in currency markets. In that way, the currency can better maintain its value. However, higher interest rates lower RMB liquidity in the aggregate,¹⁵⁹ which has in turn led commercial borrowers to depend on more formal sources of than normally the case.¹⁶⁰

Collectively, these observations suggest that even with the operationalization of CIPS, the integration of offshore and onshore monetary ecosystems remains partial. Routing of payments even today can be at times ad hoc, and payment times and processes extensive enough to generate vectors of Herstatt risk tied to counterparty credit. Clearing banks act as important conduits for renminbi payments, but with opaque resources and liquidity backstops potentially comprise sources of risk for not only the counterparties that rely on them, but the renminbi financial system as a whole.¹⁶¹ All the while, although CIPS provides significant opportunities for greatly enhancing the efficiency of payments, liquidity management will remain problematic for some market participants—at times due to the very transmission of monetary policy effected by the PBOC.

B. A fragile monetary ecosystem

Liquidity risk is not the only source of risk tied to the renminbi. International currencies also depend on an ecosystem of effective regulatory rules, home country economics and institutions to bolster their safety, credibility, and ultimately, popularity. This section explores how these stabilizing forces are, however, either underdeveloped or under stress. Not only are the financial rules and regulations relied on to reduce financial risks often inadequate, and China's economy under duress, but the renminbi's very internationalization has also been propagated in ways that could render offshore hubs overly exposed to legal, economic, and institutional shortcomings in the Mainland.

1. Inadequate market supervision

Financial rules and regulations play an indispensable role in supporting both domestic and international currencies. As highlighted in sub-section II.D, rules promote the popularity of a currency by reducing risks of fraud and improving the quality of information available to investors. They can also enhance the reliability of the infrastructure and systems processing transactions and impact the overall efficiency and functioning of markets. As such they can provide considerable comfort to foreign investors considering deploying resources abroad and in the process influence the speed and robustness of a currencies internationalization and use. At the same time,

158 The total amount of CNH liquidity that can potentially be injected by all facilities in Hong Kong, Singapore, and Korea now stands at CNY 1tn. Standard Chartered, above n 102, at 1.

159 Larger CNH liquidity facilities are typically backed by offshore central banks' bilateral swap agreements with the PBOC. However, settlement times are longer—and the activation of activation of swap lines may require the PBOC's consent. Standard Chartered, above n 102, at 1.

160 Ibid.

161 'RMB Hubs are the Best Choice for Now', above n 142.

when foreigners regard your market oversight as weak, fewer individuals will choose to acquire, hold, or invest in a currency or instruments denominated in it.

This lesson has not been entirely lost on China's monetary authorities. In the wake of the Asian financial crisis—and prior to the opening of its capital account—China announced steps to upgrade its financial sector in order to enhance its domestic financial stability.¹⁶² Additionally, in the early 1990s, China created a national securities agency and banking authorities, nearly two decades prior to the opening of the capital account.

Nonetheless, China's regulatory reforms of its financial markets are rarely, if ever, explicitly tied to the internationalization of the currency.¹⁶³ Macroprudential reforms have never been highlighted as a means of supporting the credibility or demand for the renminbi or renminbi based products. Instead, the very notion of 'regulation' in the context of renminbi internationalization almost invariably concerns the significant measures taken to open (or close) China's capital account.¹⁶⁴

Yet academics and policymakers have long characterized China's financial market oversight as weak.¹⁶⁵ Though an extensive evaluation of the Chinese financial system is beyond the scope of this article, it is useful to provide a basic outline:

a. *Public Company Disclosures.* Perhaps most important, the Chinese financial system is widely recognized as lacking the institutions necessary to ensure high quality disclosures for companies selling stocks and other securities to the public. Securities regulators are seen as less qualified than their counterparts in the

162 Specifically, the government announced several initiatives to reform the banking system, including instructing State-owned commercial banks to make independent decisions about loans for investment projects, the adoption of higher capital standards. The government also announced plans to adopt a system of auditing, classifying loans according to their quality, and will adopt prudent accounting principles and establish provisions for bad debts. Wang, above n 36, at 541. As discussed in greater detail in this section, however, most of these reforms were not fully instituted.

163 This author has been unable to find an official statement connecting the two.

164 This dogged emphasis on the capital account over the market supervision in part has reflected what has until recently been the chronically undervalued pricing of the renminbi by the Chinese government. With government orchestrations cheapening the currency, investors made the bet that any future appreciation of the currency was larger than the risk premium associated with any less than perfect regulatory governance. A proper diversification across sectors where RMB investments were permitted could, at least in theory, protect investors from the risk of any one idiosyncratic investment. Yet these assumptions are based, at least in part, on an ability to price regulatory risk. As seen on pages 41–44, this is not necessarily the case.

165 An extensive evaluation of the Chinese financial system is beyond the scope of this article. There is, however, a burgeoning literature on Chinese corporate and financial law where such issues have been explored, including: Liu et al., *Finance in Asia: Institutions, Regulation and Policy* (Routledge Advanced Texts in Economics and Finance 2016); Brad Setser, 'The Chinese Conundrum: External Financial Strength, Domestic Financial Weakness', 52 CESifo Economic Studies 364 (2006); Nicolas Borst and Nicolas Lardy, 'Maintaining Financial Stability in the People's Republic of China during Financial Liberalization' (Peterson Institute for Int'l Economcs, Working Paper No. 15-4 (2015)); Roman Tomasic, 'Corporate Governance in Chinese-Listed Companies Going Global', 2 Chinese Journal of Comparative Law 155 (2014); Xiaohua Yang and Clyde D. Stoltenberg, 'A Review of Institutional Influences on the Rise of Made-in-China Multinationals', 9 International Journal of Emerging Markets 162 (2014).

private sector.¹⁶⁶ Meanwhile, gatekeepers key to protecting the interests of investors, like accountants and auditors, do not always abide by international accounting standards, and conflicts of interest are not uncommon.¹⁶⁷ Furthermore, checks and balances can be extremely weak.¹⁶⁸ Chinese courts only accept claims against auditors after the government has already sanctioned wrongdoers, and no case of shareholder litigation against an auditor for low audit quality has ever been successful.¹⁶⁹ As a result, investors willing to take on the exposure to the Mainland have tended to apply, at the very least, a risk premium to Chinese issuances, and continue to rely on foreign legal systems, where possible, to enforce informational rights and investor protection.¹⁷⁰

b. *Credit ratings.* China's bond markets are also hampered by defects in opacity and gatekeeping. Although China has had bond markets since the 1980s, credit ratings have, until recently, been rare, even for the offshore dim sum market.¹⁷¹ Foreign investors were consequently left with few expert third-party analyses of the risk accompanying debt issuances. Meanwhile, even today, where ratings are in principle available for many issuances, they are of limited use. For one, ratings are homogenous, and range from AAA to AA, with just four ratings available, a significant departure from international agencies like Standard & Poor's and Moody's that utilize a scale with 22 ratings.¹⁷² They also do not provide a forward-looking view for investors because they focus on issuer capitalization, and do not adopt 'expected loss' or 'probability of default' standards.¹⁷³ Many agencies have also failed to adopt clear procedures for giving ratings or exercise sufficient due diligence.¹⁷⁴

c. *Derivatives.* Investors are also left with limited means of hedging credit risk effectively. Usually, investors in Western capital markets can rely on derivatives

166 Michael Forsyth et al., 'Chinese Securities Regulator is Out, but Little May Change', *New York Times* (20 February 2015), <https://www.nytimes.com/2016/02/21/world/asia/xiao-gang-china-securities-regulatory-commission.html?mtrref=undefined&gwh=942D8B58CD6CD18E191F8F58CBF4A911&gwt=pay> (visited 30 December 2016).

167 Notably, the profession's primary regulatory body, the Chinese Institute of Certified Public accountants, is government controlled, just as are many of the country's leading businesses, creating potential conflicts of interest. Chris Brummer, *Renminbi Ascending* (2015), 28.

168 Ling Lei Liscic et al., Accounting Fraud, Auditing and the Role of Government Sanctions in China 68 *Journal of Business Research* 1186 (2014), 1186–87, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2402330 (visited 30 December 2016).

169 Ibid.

170 See Yimiao Chen et al., 'GAAP Difference or Accounting Fraud? Evidence from Chinese Reverse Mergers Delisted from U.S. Markets', 7 *Journal of Forensic and Investigative Accounting* 122 (2015), 122, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2567141 (visited 30 December 2016) (noting that in 2012, one in four federal securities class-action lawsuits filed in the U.S. involved Chinese Reverse Merge companies).

171 Credit ratings firms provide guidance for investors in corporate and government debt since they classify the relative riskiness of borrowers and their likelihood of default. Chris Brummer and Rachel Loko, 'The New Politics of Transatlantic Credit Rating Agency Regulation', in Tony Porter (ed.), *The Fate of Transnational Financial Regulation* (London: Routledge, 2013), 155.

172 Toby Yiu, 'Time to Rate China's Riskiness', *International Financial Law Review* (May 2016), at 45.

173 Ibid. The reasons stem, apparently, from longstanding assumptions of government assistance if issuers were to encounter financial stress.

174 Ibid.

to help protect them from counterparty credit risk (often indicated by the counterparty's credit ratings). By entering into contracts with other parties to make them whole in the case of a default, the risk posed by bad debt, fraud and other challenges can in some ways be minimized. Limited avenues for such self-help are available in Chinese derivatives markets, however. While China has tools for hedging interest rates, no mature infrastructure exists for credit risks. Only belatedly have authorities announced plans to introduce a credit default (CDS) swap market—largely to enhance the attractiveness of the interbank bond market—and yet key terms common in contracts enjoy only minimal standardization, limiting their usefulness to foreign investors.¹⁷⁵ Furthermore, unlike the US, which has instituted clearinghouses to process all derivatives contracts and ensure their execution, China has only begun to devise central clearing policies designed to prevent defaults on contracts from endangering the financial system.¹⁷⁶

d. *Crisis Response Mechanisms.* These challenges are all exacerbated by a relative lack of formal crisis response mechanisms in China. Bankruptcy offers little predictability for foreign investors, and the process of recovery and debt restructuring lacks transparency.¹⁷⁷ A relatively recent Enterprise Bankruptcy Law has been in force since 2007, but like many other Chinese commercial statutes, was cast at a high level, in broad principles.¹⁷⁸ Furthermore, the country lacks specialized bankruptcy courts, judges and professionals familiar with bankruptcy proceedings.¹⁷⁹ Indeed, significant uncertainty underpins commercial transactions onshore, including how foreign investors should be treated, and what priority their investments should take should bankruptcy be triggered.¹⁸⁰ There is, for example, no scale of seniority in terms of debt repayment. Moreover, recoveries are often settled through a negotiation between issuers, local governments, banks, and bond holders, and not through a transparent legal process.¹⁸¹

The cumulative regulatory risk for foreign investors—and even non-renminbi markets—is significant. To the extent more foreign investors participate in RMB-denominated markets due to China's broader financial openness, more investors will

175 Brian Yap, 'Why China Needs More Hedging Tools for Foreign Investors', *International Financial Law Review* (16 June 2016), <http://www.iflr.com/Article/3562843/Why-China-needs-more-hedging-tools-for-foreign-investors.html> (visited 30 December 2016). For a more in depth discussion, see Brummer, above n 46 at 29.

Ibid. Indeed, even in the USA, with its largely implemented reforms for clearinghouses, still faces risks of clearing risks. See Yesha Yadav, 'The Problematic Case of Clearinghouses in Complex Markets', *101 Georgetown Law Journal* 387 (2013), (arguing that clearinghouses may generate systemic risks).

176 Ibid. Indeed, even in the USA, with its largely implemented reforms for clearinghouses, still faces risks of clearing risks. See Yadav, above n 175 (arguing that clearinghouses may generate systemic risks).

177 Yiu, above n 172, at 45.

178 Ricahard C. Pedone and Henry H. Liu, *The Evolution of Chinese Bankruptcy Law: Challenges of a Growing Practice Area* (Aspatore Books, 2010), 2, http://law.okcu.edu/wp-content/uploads/2014/06/1.China_Bankruptcy_Law_Pedone.pdf (visited 30 December 2016).

179 See *ibid.*

180 'U.S. DEP't of State, Investment Climate Statement' (2014), 16, <http://www.state.gov/documents/organization/228504.pdf> (visited 30 December 2016).

181 Yiu, above n 172, at 45.

be subject to the country's institutional and regulatory frailties. Investors participating in Shanghai markets via the stock connect in Hong Kong will likely be exposed to the risk of heightened levels of fraudulent disclosures by Mainland issuers; similarly, purchasers of debt in the dim sum markets risk inaccurate or imprecise ratings, poor disclosures, or both. Derivatives transactions too will be more risky in the absence of standardized, easy-to-understand terms, and systemically upheaval becomes a risk if an underdeveloped clearinghouse is unable to back the exposures of a defaulting member. Indeed,

Yet the role of the Chinese government in the financial system remains uncertain. Although China's banking sector has been buttressed by large deposits of its savers, questions have arisen about its relationship to the country's 'shadow banking' system and the deterioration of assets on bank balance sheets.¹⁸² The posture of the government has been relatively hawkish. Although financial authorities have historically intervened to bail out flailing financial institutions and important enterprises, the government has indicated that bailouts can no longer be expected as a matter of due course. No guidance has, however, been shared as to under which circumstances the government will choose (not) to let firms fail. Instead, governmental support for flailing financial institutions has been forthcoming in some situations, and yet absent in other nearly identical situations.¹⁸³ Similar challenges lie with the activation of central bank swaps, which in some cases may require approval from the PBOC in order to be activated. With limited consistency, pricing credit and payments risk in the sector is arguably more difficult than ever.

Even under the best of times, challenges like these are resolved only slowly, and under concerted policy attention and care. Robust transparency regimes take a generation to finalize. The USA, for example, experimented with varying forms of disclosure at the state level but still required nearly 30 years to implement the New Deal legislation embodied in the 1933 and 1934 Securities Acts mandating disclosure by companies doing public securities offerings.¹⁸⁴ Similarly, US macroprudential rules, and their implementation are still being actively revised and reconsidered nine years after the greatest financial crisis in history.

China's challenges are comparatively much steeper. The country has had little experience allowing nongovernmental forces dictate price discovery and market

182 For a short report of shadow banking and the economic risk it has enabled, see Sara Hsu, 'The Rise and Fall of Shadow Banking in the U.S.', *The Diplomat* (19 November 2015), <http://thediplomat.com/2015/11/the-rise-and-fall-of-shadow-banking-in-china> (visited 30 December 2016). For a more sanguine view of shadow banking, see Steven L. Swarcz, 'Shadow Banking and Regulation in China and Other Developing Countries' (manuscript), http://scholarship.law.duke.edu/faculty_scholarship/3694 (visited 30 December 2016).

183 In the early fall of 2014, for example, China's regulators helped organize a bailout of 'Credit Equals Gold #1', an alternative investment trust product, as panic in the market arose about the viability of non-bank investments. However, officials permitted 'Credit Equals Gold #2' to effectively fail, illustrating a lack of consistency—similar to the USA in the Lehman Brothers case—as to when and under what circumstances governmental intervention and assistance will arise. 'China Credit Trust Delays Payment on \$210 Million Product', *Bloomberg News* (25 July 2014, 03:07 AM), <https://www.bloomberg.com/news/articles/2014-07-25/china-credit-trust-delays-product-payment-daily-reports> (visited 30 December 2016).

184 See Brummer, above n 61, at 972 (noting how the Securities Acts adopted a flexible framework allowing them time to mature).

outcomes, and modern capitalism dates back little more than a generation. As a result, building out basic infrastructure like a reliable and tested CDS clearinghouse or credit ratings ecosystem will be daunting, and require a long time to gather information about issuers (especially new Chinese issuers) and build up expertise rating products unable to rely on state support.¹⁸⁵ The Shanghai stock exchange, similarly, which has roots dating centuries, has only been in continuing operation since 1990, and investors are for the most part retail investors, not the institutional investors common in global financial markets. These conditions make creating a viable regime savvy enough to protect unsophisticated market participants extremely challenging. Before a rule-based system for finance can be finalized, officials have to determine the very mandate of regulators vis-à-vis investors—and under significantly changing national and global economic conditions.

2. Volatile currency fundamentals

The decades-long manipulation of the renminbi in many ways helped subsidize the weaknesses outlined above during the initial stages of the currency's internationalization. By some expert estimates, the currency had been undervalued by as much as 40% in the early 2000s due to significant intervention and sterilization efforts of the PBOC.¹⁸⁶ With so cheap, other kinds of concerns—like the country's weak regulatory environment—were overlooked in light of the beta associated with holding the currency for an eventual appreciation.

By 2015, however, China's economy slowed as wages increased and as demand for Chinese exports dropped 45% in the wake of the Great Recession.¹⁸⁷ After spending nearly 14 trillion in stimulus, which has largely been devoted to infrastructure and housing, China's GDP growth moderated to approximately 7%, the lowest in a quarter century.¹⁸⁸ And just as deflationary pressures began to rise domestically, the Federal Reserve began to plan to raise its interest rates, which would boost the dollar—and by extension, reduce the value of the yuan if traded on normal markets.

As the country's economic fundamentals worsened, the PBOC eventually cut its daily-managed reference rate by just under 2%—in effect devaluating the currency—and triggering the yuan's largest one-day drop since 1994. The unexpected shift in policy unleashed historic levels of volatility in China's (underregulated) capital markets, where the country's stockmarket endured its biggest one day fall since 2007 and state media bemoaned the day as 'Black Monday'.¹⁸⁹

185 Yiu, above n 172, at 45.

186 Wayne M. Morrison and Marc Labonte, Congressional Res. Serv., RL32165, 'China's Currency: Economic Issues and Options for U.S. Trade Policy' 3 n. 5 (2008), <https://fas.org/sgp/crs/row/RL32165.pdf> (visited 30 December 2016).

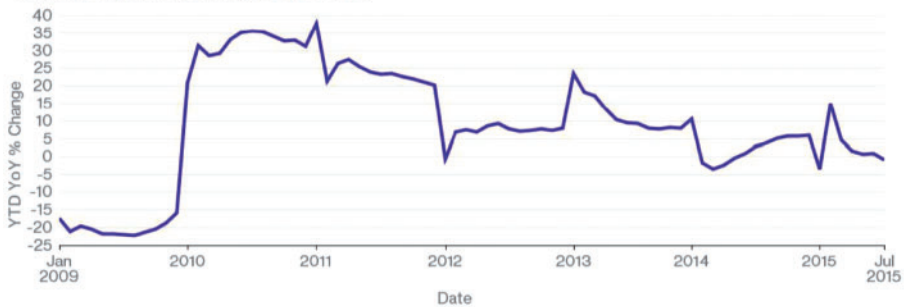
187 Yi Wen and Jing Wu, 'Withstanding Great Recession like China', (Federal Reserve Bank of St. Louis, Working Paper 007A, 2014), 1, <https://research.stlouisfed.org/wp/2014/2014-007.pdf> (visited 30 December 2016).

188 'Yuan Thing After Another', *The Economist* (13 August 2015, 1:49 PM), <http://www.economist.com/news/finance-and-economics/21661018-cheaper-yuan-and-americas-looming-rate-rise-rattle-world-economy-yuan-thing> (visited 30 December 2016).

189 'The Great Fall of China', *The Economist* (29 August 2015, 1:00 AM), <http://www.economist.com/news/leaders/21662544-fear-about-chinas-economy-can-be-overdone-investors-are-right-be-nervous-great-fall> (visited 30 December 2016).

Fall in Exports

Chinese shipments falling to 2009 level



Source: Customs General Administration

Bloomberg

The cut was understood in part as a PBOC decision allowing market forces more directly impact the value of the currency, with the convenient upside of making Chinese exports more competitive.¹⁹⁰ However, most traders and stakeholders had assumed that the currency itself would appreciate given the longstanding manipulation of the yuan. Devaluation had upset these expectations, and institutional investors (and offshore depositors) began to liquidate some of their renminbi holdings. Furthermore, widespread perceptions that Chinese authorities were commandeering market participants to staunch the flow and effectively manipulate markets, fueled further liquidations of renminbi positions and investments. In the wake of the chaos, the head of the country's securities regulator, criticized for his poor oversight of the market, was fired.¹⁹¹

By early 2017, the PBOC's policy responses had evolved and settled on three interwoven monetary, as opposed to regulatory strategies: large renminbi purchases, restrictions on capital conversions offshore, and increasing costs of shorting the currency in the foreign exchange markets.

Renminbi purchases have comprised some of the most direct measures to help buttress the currency. To help stabilize depreciation pressures, and ensure an orderly repricing of the currency, China has intervened heavily in currency markets, at times through state-owned banks, to purchase renminbi.¹⁹² Funding has come, at least in part, from dollar reserves. This has increased the availability of dollars while reducing the availability of renminbi, thus helping to shore up the exchange rate.

Monetary authorities have also worked to limit capital outflows. By the end of 2016, restrictions on programs like the cash pooling had tightened, informal controls on and scrutiny of cross-border payment methods increased, and restrictions were

190 Enda Curran, 'Why China Devalued the Yuan', *Bloomberg* (13 August 2015, 8:00 AM), <https://www.bloomberg.com/news/articles/2015-08-13/why-china-devalued-the-yuan> (visited 30 December 2016).

191 'China Removes Xiao as CSRC Head After Stock Market Meltdown', *Bloomberg* (19 February 2016, 7:47 AM), <https://www.bloomberg.com/news/articles/2016-02-19/head-of-china-s-securities-regulator-to-step-down-wsj-reports> (visited 30 December 2016).

192 Gabriel Wildau, 'China Opens New Front in War on Speculators', *Financial Times* (11 January 2016), <https://www.ft.com/content/af02419a-b819-11e5-bf7e-8a339b6f2164> (visited 30 December 2016).

imposed on financial transactions as diverse as buying insurance policies to cross-border mergers and acquisitions.¹⁹³ Additionally, key regulatory agencies issued a joint statement indicating (without issuing explicit regulations) that outbound investment deals would be subject to strict review.¹⁹⁴

Finally, the PBOC has attempted to make it more expensive for short sellers to bet against the currency. For the most part, these efforts have involved both currency interventions designed to temporarily bolster the yuan offshore and increase the costs of borrowing, as well as informal commands to Chinese banks to raise interest rates for their customers. By making it more expensive for short sellers to borrow, and occasionally raising the value of the currency—prospective short sellers will find it more difficult, and risky, to bet against the yuan, even if the long term trend points toward depreciation.¹⁹⁵

These steps can, in principle, be interpreted as having a dual policy objective. Above all, they are designed to help support the value of the currency.¹⁹⁶ By intervening, the government is able to help prevent outflows and financial instability that imperiled emerging markets during the Asian Financial Crisis. Additionally, the intervention helps support internationalization by preserving the attractiveness of holding, and even investing in the currency. By providing investors with some comfort that the PBOC is unprepared to let the currency fall further, or at least prepared to throw as many roadblocks in the way to a disorderly devaluation, the government can help sustain interest in RMB-denominated investments.

In practice, however, the strategy generates a number of challenges for internationalization, and creates new risks for the renminbi's monetary ecosystem. China experienced capital outflows of over \$1 trillion when the PBOC first devalued the yuan.¹⁹⁷ Furthermore, its reserves fell as the government liquidated its foreign exchange holdings to protect the RMB.¹⁹⁸ Since then, the currency appears to have stabilized, but economic history and economic theory suggest that eventually, in the absence of adjustment or significant growth, the country will face ever deeper challenges maintaining the strength of the yuan. Its '*upward manipulation*' could, in short, run out of steam. Another steep devaluation would then be possible—and with it more disruption in a financial system with decidedly limited coping mechanisms. This in turn would, as with the country's earlier devaluation of its currency, likely impact markets across the world, including non-renminbi markets.

193 Craig Stephen, 'China Pulls Out All the Stops to Halt Capital Outflows', *MarketWatch* (12 April 2016, 10:02 AM), <http://www.marketwatch.com/story/china-pulls-out-all-the-stops-to-halt-capital-outflows-2016-04-12> (visited 30 December 2016).

194 Don Weinland, 'China's War on Capital Flight Hits Trade', (25 January 2017).

195 'Squeezed to Life', *The Economist*, (14–20 January 2017), at 68.

196 The irony is, of course, that as a result the PBOC continues to intervene in the market—but now in order to prop the value of the RMB. Video: China is No Longer Manipulating Its Currency, *Peterson Institute for Int'l Economics* (5 January 2017), <https://piee.com/newsroom/short-videos/china-no-longer-manipulating-its-currency> (visited 30 December 2016).

197 'Goldman Warns China Outflows Rising in Both Yuan Payments, Forex', *Bloomberg News* (19 December 2016, 12:59 AM), <https://www.bloomberg.com/news/articles/2016-12-19/goldman-warns-china-outflows-rising-in-both-yuan-payments-forex> (visited 30 December 2016). These outflows have a variety of destinations, from developed countries to Africa and South America. For an overview, See David Dollar, *China as a Global Investor*.

198 *Ibid.*

Capital controls, too, come with a number of important limitations and tradeoffs. Section III explores many of the limitations in light of the institutional weaknesses pervading the renminbi system. Yet two deserve highlighting here: First, capital controls make it harder to repatriate profits and in doing so work against one of the core objectives of internationalization. Second, by capping outflows, net access to the currency is reduced offshore. Thus in the absence of offsetting policy, controls make it harder for foreign investors to hold the currency, and exacerbate the fragmentation of renminbi liquidity that has historically complicated, if not undermined, the internationalization process.

Similar critiques can be directed to measures undertaken to make short selling less profitable. Higher funding costs make borrowing not only more expensive for short sellers, but for all renminbi borrowers as well. And though this might help bolster in the short run the value of the yuan, it reduces the attractiveness of the renminbi as a financing currency, especially if funding costs are viewed as unpredictable and a matter of governmental anti-speculation policy, as opposed to economic or market fundamentals. Furthermore, higher funding costs make transactions rarer. As a result, the renminbi's offshore liquidity problems could be compounded by the interventions, however well intentioned, ironically increasing the payment and credit risks financial institutions might face when transacting in the currency.

3. *Offshore financial center competition*

Offshore financial centers provide mechanisms for internationalizing the renminbi, while at the same time limiting the scale and scope of its usage. By funneling a currency to disparate parts of the globe for use, authorities can heighten the familiarity other foreign markets may have with a currency. At the same time, by limiting access or use to these centers, and controlling the flow of the currency back onshore, internationalization can be undertaken in ways that reduce some of the risks to China's domestic economy that would otherwise accompany a full liberalization of the capital account. Thus in theory they offer operational convenience to Chinese policymakers.

Avoiding a full-scale liberalization of the capital account nonetheless involves its own potentially complicated questions relating to the very direction and structure of internationalization. Along with identifying where centers should open (and, by extension, to which countries the currency should be exported), authorities have to decide in precise terms just how the currency is to be rationed: Who gets which quotas? What financial centers should be allocated clearing banks? With which offshore exchanges should Mainland brokers be connected? And when?

These questions are extremely significant because the order, allocation and dispensation of renminbi and bespoke renminbi infrastructure can create winners and losers for those seeking to create financial centers that specialize in the currency. To understand why, it is important to recall that financial markets exhibit what economists identify as network externalities.¹⁹⁹ When market participants come to aggregate in certain markets, it becomes more difficult for newcomers to compete with those venues. This is in part because of liquidity. The aggregation of renminbi pools,

199 Dan Awrey, 'The Limits of Private Ordering Within Modern Financial Markets', 34 *Review Banking and Financial Law* 183 (2015), 186.

investors, and savers lowers the cost of doing business.²⁰⁰ It is easier to find customers, investments can be exited faster, and the risks associated with holding a currency are reduced. So once one financial center establishes credible markets in a currency, the barriers to entry for other aspiring centers are raised.

Most financial centers want the business. Active financial centers tend to elevate demand for local services, as well as goods and merchandise produced domestically. Moreover, financial centers generally attract wealthy bankers, traders, and economic infrastructure providers who help provide revenues to host countries in the form of corporate and personal taxes.²⁰¹ With China's economy poised even in a challenging global environment to around 6% a year, and the country's financial development still in its early stages, renminbi banking and financial services comprise a potentially enormous growth industry with considerable benefits for centers that can establish themselves early on as go-to places for doing business.²⁰²

As a result, competition for the facilities, quotas, and infrastructure necessary to launch competitive financial centers has been high. Germany, France, and the UK have all issued a range of high profile study groups and research streams aimed at attracting more China-related deals and RMB-denominated transactions and infrastructure.²⁰³ Similarly, Hong Kong and Singapore have embarked upon robust multisector governmental and private initiatives aimed at maintaining their dominance in renminbi finance and pushing consistently for expanded quota allocations.²⁰⁴

Meanwhile, Chinese delegations visiting the capitals of prospective financial centers have included renminbi infrastructure—from RMB swap lines to the availability of clearing banks—in trade negotiations alongside more typical and traditional topics concerning tariffs and the cross-border trade in goods and services. Trade organizations have concomitantly pressed their governments to bid for greater cooperation and participation in renminbi financial networks, just as private institutions and

200 See Ian Domowitz, 'Liquidity, Transaction Costs, and Reintermediation in Electronic Markets' (unpublished paper) (manuscript at 11),

201 City of London Corporation, 'An Indispensable Industry: Financial Services in the UK' (2013), 4, <https://www.cityoflondon.gov.uk/business/economic-research-and-information/statistics/Documents/an-indispensable-idustry.pdf> (visited 30 December 2016), (indicating that financial services in London contribute over 11% of tax revenue for the country).

202 Much of the presumed upside is additionally tied to the fact that the renminbi still assumes but a fractional share of global financial transactions, even as the economy stands as the second largest in the world.

203 See, e.g., 'Renminbi Clearing in Frankfurt', *Deutsche Bundesbank*, https://www.bundesbank.de/Redaktion/EN/Standardartikel/Tasks/Payment_systems/rmb_clearing_frankfurt.html (visited 11 January 2017); 'Competitiveness of Hong Kong in Offshore Renminbi Business', Legislative Counsel of the Special Administrative Region of China, <http://www.legco.gov.hk/research-publications/english/es-sentials-1516ise08-competitiveness-of-hong-kong-in-offshore-renminbi-business.htm> (visited 11 January 2017).

204 Ligang Song et al., *China's Domestic Transformation in a Global Context* (Acton, Australia: ANU Press 2015), 271; Yan-leung Cheung et al., *Hong Kong's Global Financial Centre and China's Development: Changing Roles and Future Prospects* (New York: Routledge, 2016); Shen Wei, 'Competing for Renminbi: Financial Centers in the Context of Renminbi Globalisation', in *Reconceptualising Global Finance and Its Regulation* (Cambridge University Press, 2016), 193; Paola Subacchi and Helena Huang, 'The Connecting Dots of China's Renminbi Strategy, London and Hong Kong' (London: Chatham House Briefing Paper, 2012/02, 2012).

financial firms have emphasized the potential advantages of RMB-based commercial transactions to their local corporates with international operations.²⁰⁵

Collectively, these developments present the conditions for not only market, but also regulatory competition aimed at attracting renminbi business. Along these lines, countries may vie for RMB infrastructure through not only lower tariffs and costs, but also by offering an attractive regulatory environment and conditions of entry for China's banks and key market participants.

Scholars view regulatory competition as potentially resulting in a race to the top or the bottom in policy outcomes. One line of reasoning holds that competition can lead to a more efficient regulatory environment for firms to the extent to which host states begin to internalize the costs of poorly conceived regulations.²⁰⁶ Under this model, regulators would have to scrutinize their rules to make sure they do not unduly burden market participants who, in this context, could establish renminbi trading hubs elsewhere. Others—likely a majority of legal academics—hold that such competition more often than not leads states to effectively bid down the cost of doing business by diluting regulations and exposing investors to varying financial risk.²⁰⁷ Thus according to this view, competition could generate 'inefficiencies in

- 205 See, e.g., Paolo Danese, 'Canada Gets Organised In Quest for Americas RMB Hub', *Global Capital* (30 October 2014), <http://www.globalcapital.com/article/nrg9r7x6vrbp/canada-gets-organised-in-quest-for-americas-rmb-hub> (visited 30 December 2016); Kevin Quinn, 'US Manufacturers Can Take Advantage of China's Growth by Using the Renminbi', *Industry Week* (10 June 2015), <http://www.industryweek.com/global-economy/us-manufacturers-can-take-advantage-chinas-growth-using-renminbi> (visited 30 December 2016); City of London and Bourse Consult, 'London: A Centre for Renminbi Business' (2012), https://www.cityoflondon.gov.uk/business/support-promotion-and-advice/promoting-the-city-internationally/china/Documents/London_A_Centre_for_RMB_business_2013.pdf (visited 30 December 2016); Paris Europlace, 'The RMB Internationalisation Paris, A Hub for Europe' (2012), http://www.paris-europlace.net/files/RMB_Paris_Strategy.pdf (visited 30 December 2016); HSBC, 'The A to Z of the RMB: How the Yuan Is Going Global' (2015), 11, 13, 16–17, http://www.weekinchina.com/wp-content/uploads/2015/07/RMB_2015.pdf (visited 30 December 2016); Crédit Agricole, 'The RMB Market in France: Becoming A Global Currency' (2013), <http://mediacommun.ca-cib.com/sitegenic/medias/DOC/611287/2013-07-renminbi-brochure-eng-2.pdf> (visited 30 December 2016); Tracy Ge and Ann Lin Khoo, 'Redback Rising: Renminbi Trade Invoicing', http://www.citibank.com/tts/sa/renminbi/docs/redback_rising.pdf (visited 18 January 2016).
- 206 Ralph K. Winter, Jr., 'State Law, Shareholder Protection, and the Theory of the Corporation', 6 *Journal of Legal Studies* 251 (1977), 255 (arguing that federalism encourages states to provide laws maximizing shareholder wealth and a race to the top); see also Daniel R. Fischel, 'The "Race to the Bottom" Revisited: Reflections on Recent Developments in Delaware's Corporation Law', 76 *Northwestern University Law Review* 913 (1982), 921–22 (arguing that federalism incentivizes states to compete to create climates that encourage mutually beneficial contractual arrangements); Roberta Romano, 'Empowering Investors: A Market Approach to Securities Regulation', 107 *Yale Law Journal* 2359 (1998), 2385 (arguing that federalism engenders efficiency-creating regulatory competition).
- 207 See, e.g., William L. Cary, 'Federalism and Corporate Law: Reflections Upon Delaware', 83 *Yale Law Journal* 663 (1974), 666 (arguing that federalism engenders regulatory competition leading to a race to the bottom); Merritt B. Fox, 'Retaining Mandatory Securities Disclosure: Why Issuer Choice Is Not Investor Empowerment', 85 *Virginia Law Review* 1335 (1999), 1338 (arguing that the mandatory disclosure system ensures a socially optimal level of disclosure that is unlikely to be attained under an issuer choice regime); John C. Coffee, Jr., 'Market Failure and the Economic Case for a Mandatory Disclosure System', 70 *Virginia Law Review* 717 (1984), 722–23 (providing the four following claims in support of a mandatory disclosure system: (1) because securities research, as a public good, is usually underprovided, a mandatory disclosure system subsidizes search costs, which has the effect of increasing both the quantity and accuracy of information; (2) investors would otherwise incur excess social costs in pursuing trading gains; (3) the theory of self-induced disclosure is limited by its questionable assumption that

clearing arrangements, or even global financial stability concerns if the RMB centers clash over clearing arrangements or regulatory innovation—or end up in a race toward high risk financial innovation’.²⁰⁸

Complicating any debate about competition between RMB-markets is the fact that responses have thus far been somewhat idiosyncratic. The USA, for one, has been particularly cautious about advancing the currency’s internationalization. Not only did it (unsuccessfully) petition other countries not to join the Asia Infrastructure Investment Bank, but it also has not participated in any government-related efforts to promote New York (or any other city) as a renminbi center. Concerns have reportedly been financial—with questions about governance—as well as political. Among them, the internationalization of renminbi finance potentially undermines the country’s sanctions operations, as well as efforts to combat money laundering insofar as it establishes an alternative payment system (through CNAPS and eventually CIPS) that operate alongside different messaging systems either controlled by or influenced by US authorities.

Still, ample evidence suggests that some regulatory competition, even from the USA, has been generated by the rapid growth of China’s economy. For example, until recently, loopholes in the USA offered eased regulatory supervision for Chinese firms seeking to access US capital markets (and investors) via ‘reverse mergers’ of Chinese firms and US shell companies. By engaging such transactions, firms could access major markets, including Nasdaq and the New York Stock Exchange, without having to comply with the full slate of disclosure normally required under U.S. securities laws. Long criticized, the rules were only unwound after a slate of high profile fraud cases stemming from China prompted securities authorities to close the loophole.

Europe has been comparably more eager to engage Chinese infrastructure providers. Germany, the UK, and other European G7 nations rebuffed US resistance to the Asian Infrastructure and Development Bank, leaving the Treasury Department internationally isolated as they joined the bank as members. Most have independently courted China for clearing banks as well at the official government level, and many have signed MoUs that not only set out the parameters for cooperation, but also officially encourage the usage of renminbi in transactions.²⁰⁹

Moreover, the UK in particular has offered some regulatory relief to Chinese financial interests with the purpose of attracting and maintaining renminbi business. Most notably, shortly after China nominated the China Construction Bank as the country’s first clearing bank in 2014, the Bank of England’s Prudential Regulation Authority began a program providing special branch licenses to Chinese banks that allowed them to operate in the country without having to establish themselves as

manager and shareholder interests can be perfectly aligned; and (4) even in an efficient capital market, rational investors would still need the kind of information best provided through a mandatory disclosure system to optimize their portfolios).

208 Gregory Chin, ‘Globalizing the RMB? Beijing Appoints Three New Clearing Banks in London, Frankfurt, and Seoul’, *Asian Pathways* (29 July 2014), <http://www.asiapathways-adbi.org/2014/07/globalizing-the-rmb-beijing-appoints-three-new-clearing-banks-in-london-frankfurt-and-seoul/> (visited 30 December 2016).

209 See e.g., News Release, Bank of Eng., Announcement of Renminbi Clearing Bank in London (18 June 2014), <http://www.bankofengland.co.uk/publications/Pages/news/2014/091.aspx> (visited 30 December 2016).

fully owned subsidiaries. In that way, they could escape more stringent UK supervision.²¹⁰ The lighter touch (and highly unusual) approach was adopted after high profile pressure was exerted on authorities by banks that the tougher rules imposed on subsidiaries would make it more difficult for them to expand, and that reliance on branch license would enable a 'significantly greater contribution to Chinese-British trade [in financial services] in future'.²¹¹ Notably, although the renminbi has fallen in value, the incentives for future accommodation will likely only *increase* with Brexit, and as the UK seeks greater ties with China to offset loss of business with Continental Europe.²¹²

Yet perhaps no jurisdiction has been more eager to host renminbi transactions than Hong Kong. Since its return to Chinese control in 1997, Hong Kong has operated as Greater China's international finance hub, even as it sits both legally and geographically outside of the Mainland.²¹³ Because in large measure of its status, the city's large Chinese and English-speaking populations, and developed capital markets, the city has from the start catered to renminbi business through a range of special arrangements. It was the first center to operationalize offshore RMB deposits, an RTGS clearing system and a clearing bank, for the currency and most recently, established not one, but two stock connects with Mainland China's largest stock markets. Getting these deals done have, for the most part, required a good deal of regulatory coordination, as well as easing of rules for Chinese counterparts in meeting the country's varied financial market standards. These arrangements have also, come against the backdrop of increasing market competition as other financial centers have acquired their own renminbi liquidity and financial infrastructure.²¹⁴

The possibility of official or market-driven pressures to dilute standards—whether in the UK or in other hubs seeking to increase allocations or renminbi business more generally—holds a number of important policy implications for systemic risk. Firstly, contrary to the dominant story of internationalization that holds that financial openness can create incentives to improve market and regulatory

210 Sam Fleming and George Parker, 'UK Set to License Chinese Bank Branch', *Financial Times* (5 September 2014) <https://www.ft.com/content/c3841290-351d-11e4-aa47-00144feabd0> (visited 30 December 2016).

211 *Ibid.*

212 Part of the UK's strategy for weathering its diminished access to the European Union relies on greater engagement with financial services from China. See Danny Lee, 'Britain looks to Hong Kong and Mainland China for Post-Brexit Trade Talks', *South China Morning Post* (23 August 2016, 8:42 PM), <http://www.scmp.com/news/hong-kong/politics/article/2008000/uk-looks-hong-kong-china-post-brexit-trade-talks> (visited 30 December 2016) (in an interview with the SCMP, Richard Graham, the Head of the British Parliamentary Committee on China Relations, remarked: 'This is our opportunity now to decide what we and our partners really want to have in a free-trade agreement and that might be slightly different from what the European Union wants. I would prioritise the whole of Asia and I would prioritise Hong Kong and China within that, and then the Asean countries.').

213 Vanessa Rossi and William Jackson, 'Hong Kong's Role in Building the Offshore Renminbi Market' (Chatham House, Int'l Econ. Program Paper No. IE PP 2011/01, 2011), 2, https://www.chathamhouse.org/sites/files/chathamhouse/0811pp_rossijackson.pdf (visited 30 December 2016) (noting Hong Kong's importance as the Mainland's international hub).

214 See Xi Yu, 'China's "Third Board" Emerges as Threat to Hong Kong's IPO Market', *South China Morning Post* (1 June 2016, 4:39 PM), <http://www.scmp.com/business/companies/article/1961549/china-third-board-emerges-threat-hong-kongs-ipo-market> (visited 30 December 2016) (noting how more start-ups are staying in the Mainland instead of listing in Hong Kong).

institutions, it portends a potential ‘race to the bottom’ in the quality of supervision among jurisdictions seeking to attract renminbi business. As such, it casts doubt on the extent to which offshore centers can help buttress flaws in China’s domestic regulatory system. Prior to China’s capital account deregulation, a Chinese issuer or bank can take steps to register with authorities in Hong Kong or London or cross-list securities in order to convince outside stakeholders that the entities operating abroad are complying with world class (offshore) standards, regardless of whether local rules and regulations are lacking. Now, however, if offshore financial centers create loopholes for Chinese firms, they may themselves operate as transmission belts of risk to foreign markets.

Lapses in regulatory oversight in China can have, in short, implications for not only Chinese markets, but also investors in far-flung locales, from the UK to New York. Reverse mergers, for example, allowed for rampant fraud in US securities markets, costing investors not only in China but also pension funds and private individuals their savings. Similarly, failures of a clearing bank could, if not guaranteed by China, wreak havoc on British, Canadian, or German counterparties, who by extension import risks to their home countries.

These observations ultimately clash, of course, with one of the key premises of renminbi internationalization—that by lowering capital controls, a catalyst can be provided to further strengthen China’s domestic regulatory oversight. Instead of learning from higher quality jurisdictions, the renminbi’s global export as currently operationalized potentially creates conditions that could infect at least some financial centers hosting the currency, and expose them to regulatory risk emanating from China’s still developing financial system. In a competitive landscape, the regulatory adjustment predicted by many economists could in other words go into reverse, with a watering down of international standards in some host financial centers, not a dramatic improvement of government in the Mainland.

C. The limits of prudential capital controls

China’s financial authorities have not been oblivious to the risks posed by its still maturing regulatory infrastructure as cross-border renminbi flows have increased. But instead of introducing stricter market oversight to accompany capital account liberalization, the country’s regulatory strategy has from the outset relied on what can be described as ‘prudential capital controls’ to mitigate the fallout of any financial volatility or distress. That is, for each program designed to open the capital account, the government has maintained policy flexibility such that their reforms can be slowed and even unwound if necessary.

The idea behind capital controls as prudential tools is not novel to economic theory. Many economists have long supported the notion that capital controls can provide a helpful means of stemming financial risk accompanying international capital inflows, especially during times of financial booms and busts. During booms, consumers and financial firms are prone to overborrow and overspend as assets appreciate, along with national currencies. Leverage, however, makes financial systems vulnerable to crashes when fears arise about borrowers’ ultimate ability to pay, and the quality of assets held by

creditors.²¹⁵ When this happens, investors often dump their investments, as well as their holdings of the currency of the relevant country, exacerbating financial turmoil. To prevent excessive booms from starting or gaining steam, capital controls put sand in the wheels of international borrowing, and spending by limiting the availability of foreign capital for borrowers.²¹⁶

Prudential capital controls of the sort employed periodically by China go a step further than merely limiting foreign capital by applying controls to *both* inflow and outflows of investment. In this way, they not only help prevent asset bubbles from forming inside a country, but they also limit the speed with which hot speculative money is withdrawn from the financial system and repatriated abroad. In that way, panicky foreign investors, burned by bad investments, bank failures or fraud, will not be able to yank their money out of an economy in ways that wreak havoc on local banks and financial institutions. They thus stand ready as counter-cyclical brakes to what could otherwise be unhealthy volatility in still immature or emerging markets.

Capital controls of any sort can pose a significant administrative burden on governments seeking to maintain them—and need to be constantly updated to close loopholes.²¹⁷ Yet prudential controls pose the steepest challenges.²¹⁸ Once a country opens conduits for moving capital offshore, and trading or financial channels have been established, they become extremely hard to close.²¹⁹ For one, market participants learn over time the host country's institutional and legal architecture in ways that allow them to more easily circumvent restrictions. Moreover, reversing course on prudential controls can come with significant reputational consequences; in contrast to controls on onshore investment, where investors may never have the opportunity to invest and look elsewhere, controls restricting offshore repatriation and currency movements may upset the expectations of foreign investors who have already committed capital inside a country.

China's monetary authorities have, as a result, exerted a highly granular form of oversight instituted through a myriad of guises, and all aimed at preserving governmental control and policy flexibility. Quotas are the most common operational system. As seen above, for many onshore financial market investment schemes, the CSRC generally grants investor permits according to some general standards such as being in good financial standing and maintaining sound financial systems such that there is no record of recent serious regulatory sanctions. At the same time, some programs repatriation is subject to either lock-up periods, or limits or caps on daily and annual repatriation amounts. In virtually every instance, however, reforms and investment programs are subject to review (and in the case of China, pilot programs in particular expire after a period of time) and can be discontinued altogether or subject to new restraints or controls.

The potentially ephemeral nature of capital account reforms was, as detailed above, reflected in the devaluation of the yuan in 2015, and the monetary responses

215 Andrés Fernández et al., 'Are Capital Controls Prudential? An Empirical Investigation' 2 (15 November 2013) (unpublished paper), https://www.economicdynamics.org/meetpapers/2014/paper_951.pdf (visited 30 December 2016).

216 Ibid.

217 Ibid.

218 Prasad and Rajan, above n 16, at 164.

219 Ibid.

that followed a year later. The renminbi's internationalization has for the most part been driven by wide-scale expectations of the appreciation of the currency. But as the Chinese supercycle of economic growth has slowed, the PBOC devalued the currency, unleashing unprecedented market volatility as investors retreated from their positions and foreign exchange holdings. After initial efforts to commandeer market participants failed, the government instituted a range of new controls designed to reduce currency liquidations and keep the currency from moving offshore where it could be exchanged for other currencies, most notably, the Dollar.

Reversals on policy regarding capital account liberalization have costs and benefits anticipated by the Article's earlier discussion of currency liberalization. On the one hand, the capital controls can be thought of as potentially useful means of squelching hot money. By limiting the means of repatriating renminbi, the government is able to help bolster the value of the currency, and even potentially stabilize domestic stock markets and banks that could be especially hard hit by large withdrawals of money tied to the repatriation of proceeds and yuan.

On the other hand, capital controls come with a range of serious limitations—and even drawbacks—against the backdrop of currency internationalization, especially where initial capital account reforms go into reverse. Firstly, where capital controls restrict transfers from one country to another, they increase the cost of borrowing for some multinationals since affiliates within the same group may be limited to seeking financing for their activities in the host market, as opposed to from abroad (and even from parent holding companies).²²⁰ If restrictions were dramatically raised, firms operating in the Mainland would thus face greater direct exposure to the PBOC's monetary policy—and there is no guarantee that China's financial authorities would be willing to consider their liquidity and operational needs, especially in times of stress.²²¹

Secondly, reinstated controls can undermine foreign investors' faith in a country's promised economic reforms, especially those tied to currency internationalization.²²² Policy declarations intended to increase the cross-border use of a currency can find themselves directly contradicted by policy, causing investors to reduce their exposure to the currency and distrust future programs and liberalization reforms. Closing the capital account also increases investors' perception of the risk associated with holding the currency. Because currency internationalization subjects a country's money (and financial system) to foreign exchange and securities markets that enable

220 Kinga Z. Elo, 'The Effect of Capital Controls on Foreign Direct Investment Decisions Under Country Risk with Intangible Assets' (Int'l Monetary Fund, Working Paper No. 07/79, 2007), 9, <https://www.imf.org/external/pubs/ft/wp/2007/wp0779.pdf> (visited 30 December 2016).

221 Just how much this risk impacts the cost of capital for firms varies along a variety of dimensions. See, e.g., Michael P. Dooley and Peter Isard, 'Capital Controls, Political Risk, and Deviations from Interest-Rate Parity', 88 *Journal of Political Economy* 370–84 (1980) (arguing that interest rate differentials due to political risk depend on the gross stocks of debt outstanding against different governments and the distribution of world wealth among residents of different political jurisdictions).

222 See, e.g., Robert Amano et al., 'The Credibility of Monetary Policy: A Survey of the Literature with Some Simple Applications to Canada' (unpublished paper) (manuscript at 12–13), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3747 (visited 30 December 2016) (noting how reversals in monetary policy can negatively impact the credibility of reforms by impacting the reputations of central banks).

investors to better grasp the value of assets denominated in that currency, currency controls are viewed as conversely undermining the development of a robust price discovery system.²²³ Investment is perceived as riskier due to less information and higher estimations of possible policy reversals in the future.

Thirdly, at a most basic level, capital controls do not speak to the underlying causes of a country's financial outflows once financial turbulence arises.²²⁴ They do not enhance fiscal sobriety by legislatures, or the competitiveness of an economy. Nor do they improve the quality of regulation, or necessarily prevent conduct that undermines foreign investors' faith in the market ecosystem supporting a currency. And although they may in some circumstance help prevent panicky outflows that can destabilize markets, capital controls do not prevent or make less likely fraud or the misallocation of investment capital due to poor information.²²⁵

For these reasons, international financial institutions have been skeptical of capital controls for nearly three decades. The IMF in particular has, however, acknowledged that ad hoc capital controls can be helpful in especially acute stress scenarios.²²⁶ Perhaps most importantly, international authorities have recognized the potentially positive role capital controls can play where countries have not achieved significant levels of financial development since they can help prevent excessive speculation and investment bubbles.²²⁷ Moreover, where they represent a reverse course on a country's policy reforms, prudential controls can, as mentioned above, help prevent a disorderly (and economically damaging) panic-selling of a currency. From this perspective, they can serve as an important stop-gap measure for achieving stability in turbulent markets.

Yet notably, even where they alleviate market stress, capital controls do *not* contribute to either currency internationalization or the quality of either the market or regulatory system supporting a currency. Instead, they constrain the cross-border use of a currency and thus inhibit its deployment in financial centers and markets. And though they may create temporary breathing room for markets and regulators to consider their options for stymying outflows, they do nothing in and of themselves to counter some of the most glaring problems undermining the renminbi's monetary ecosystem. Controls do not, in short, improve weak currency fundamentals or poor macroprudential oversight—and could, ironically, enhance competition among

223 Notably, such advantages extend to areas where cross-listing even within Asia is made available. Marc K. Chan and Simon Kwok, 'Capital Account Liberalization and Dynamic Price Discovery: Evidence from Cross Listed Stocks' (University of Technology Sydney, Working Paper No. 24, 2014), 18–20, http://www.uts.edu.au/sites/default/files/edg_wp24.pdf (visited 30 December 2016) (noting how capital account liberalization via the Shanghai-Hong Kong stock connect narrows the equilibrium level of price disparity).

224 See Shigeto Kitano, 'Capital Controls, Public Debt and Currency Crises', 90 *Journal of Economy* 117 (2007), 118.

225 Notably, the ability to engage in self-help to mitigate their risk will also be limited. Portfolio diversification, for example, itself depends on investors having information necessary to diversify, which in a compromised institutional environment will not be available. Moreover, if broad swaths of the market are potentially subject to fraudulent activities, diversification may offer little help.

226 A. Kokenyne et al., 'Liberalizing Capital Flows and Managing Outflows', *IMF* (13 March 2012), 5, <http://www.imf.org/external/np/pp/eng/2012/031312.pdf> (visited 30 December 2016).

227 *Ibid.*

financial centers seeking to host a more limited amount of offshore renminbi.²²⁸ In light thereof, the next section explores other changes in China's regulatory policy are possible to better balance reforms geared towards achieving both a market-based monetary system and financial stability.

V. MITIGATION STRATEGIES

In principle, internationalizing China's currency holds the prospect of a range of potential benefits for commercial actors, investors, and the global economy as a whole. Among them, internationalization of the currency portends a rebalancing of the global economy for more sustainable growth and helps ensure that the currency, like its contemporaries, is increasingly subject to market forces and less susceptible to currency manipulation.

But in order to achieve these outcomes with less risk to the financial system, the international regulatory community, along with China, should engage in a pragmatic reevaluation of the means by which the currency is being exported around the world. Although a many reforms are theoretically possible, this section outlines three broad measures which, when taken in concert with one another, would immediately cabin the excesses of the existing framework for internationalizing the renminbi. Firstly, the international regulatory community should push China to enhance its domestic regulatory environment such that macroprudential and supervisory reforms keep up with the country's capital account liberalization. Secondly, onshore internationalization should be accelerated over the offshore export of the currency, and the quality of not only regulatory, but also monetary oversight should be enhanced. Finally, China should credibly reduce dangers of future currency manipulation to optimize its current account liquidity. Here the IMF—and the renminbi's new role in IMF financings—can play a surprisingly helpful role.

A. Synching macroprudential and macroeconomic regulations

Because China's monetary policy has traditionally operated to support the country's exports, RMB-internationalization has been described and advanced as almost exclusively as a market project, involving the ability of private market participants to access renminbi for commercial transactions. Little importance has consequently been ascribed to the robustness of regulation and supervision imposed on the burgeoning markets. Instead, policymakers have exercised a laser-like focus on capital controls.

This article has shown that the government's emphasis on the calibration of RMB-denominated capital flows to cabin economic risks has, however, had its own downsides. Among the most important is that basic supervisory components expected of modern international capital markets have remained immature in China. This in turn creates, as shown above, a number of sizeable risks for investors and the global financial system.

To mitigate the risks of supervisory lapses that could become especially significant in times of economic and market stress, macroprudential and market oversight

228 For such reasons—although not, ironically mentioning financial regulation per se—the IMF has stressed that capital controls should be implemented only as part of a larger 'integrated' approach stressing coherent macroeconomic reforms. *Id. Ibid.*, at 16.

should be elevated in importance alongside macroeconomic reforms. How to do so need not be complex. Perhaps most simply, macroeconomic and macroprudential rulemaking could be synched administratively such that deregulation in the former would by administrative action have to be taken in conjunction with regulation of the latter.²²⁹ This would serve as a significant policy departure from the current ad hoc approach towards economic rulemaking. Capital account reforms largely operate entirely independently of market oversight, even where gaps in the latter have been obvious (and well documented): the inauguration of the dim sum market would not catalyze efforts to improve ratings of bond products; no upgrade of accounting oversight would be paired with the stock connect; new CDS markets are being conceived with only limited conformity to international standards for derivatives trading. As a result, capital account liberalization reforms have outpaced upgrades in the regulatory ecosystem, in effect leading to a deregulation of *both* monetary and market oversight—a dangerous combination as seen in the Asian financial crisis.

Greater institutional transparency is also needed to illuminate the at times more bespoke and inevitably opaque features of China's evolving renminbi infrastructure. Although this Article has attempted to explain the key elements of renminbi internationalization, the financial system for RMB-based transactions lacks in many ways the transparency needed to maximize robust, long-term foreign investment, whether it be on or offshore. At a most basic level, directions given by the government to Chinese banks are not always published, and are often informal. Furthermore, just how the government is involved in the market is often unclear, and the fact that capital markets are considered strategic sectors of state planning complicates outsider perceptions of investment risk. There is not only uncertainty about whether or not and when the government will support key financial intermediaries, but also at what point private market participants will be relied on or commandeered to achieve government policies, as was the case of asset managers required to support Chinese stocks during the August 2015 stock rout. Such opaqueness creates credit and political risks making the financial system less attractive for foreign investors. Indeed, in the absence of information about the regulatory and institutional infrastructure, potential stakeholders will either stay home or require a risk premium (or a set off in yield via currency appreciation).²³⁰

In order to operate both transparently and efficiently, a number of steps are needed to better facilitate a healthier financial network. Infrastructure providers, for one, should disclose to stakeholders the governance policies, rules, ownership, and other relevant matters concerning their relationship with both home and host state authorities. Clearing banks and affiliated financial institutions should fully disclose any economic or legal relationship they enjoy with state bodies, including channels of official funding and liquidity support, and the terms and limits of such support, in

229 Notably, many of these reforms were first introduced in the 1990s and early 2000s when the country was first transitioning to more robust domestic banking and capital market finance, but subject to a still closed capital account.

230 See David Easley and Maureen O'Hara, 'Information and the Cost of Capital', 59 *Journal of Finance* 1553 (2004), 1554 (noting that information asymmetries affect the cost of capital such that comparatively less informed investors demand a higher return since better positioned traders can shift stock portfolios and generate 'a new form of systemic risk').

order for clients and users to deepen their understanding of responsibilities and risks tied to their operation.²³¹ Similarly, operators or regulators of stock connect programs should advise users as to legal and regulatory risks, as well as the terms (and limitations) of cooperation effectuated in order to achieve cross-border investment channels. The terms of quotas—and critically, the criteria for determining them—should additionally be made available for planning, hedging and investment purposes both on and offshore, when new programs are unveiled.

Nondiscrimination, a value embedded in other areas of international economic law like trade, should be embraced explicitly as a key macroprudential norm. This is especially important given the less than organic manner in which China is building out its renminbi infrastructure, and the corresponding role of the state. Government intervention in currency markets is not in itself always bad, and macroeconomic theorists have long noted that at times it may be necessary in order to build support for markets.²³² Yet China's quota rationing on both market participant and country levels, combined with opaqueness in governmental decision-making, open up the potential for arbitrary or politically motivated capital account regulations. This risk invites distrust, however, as well as higher risk premiums since official policy actions unrelated to economic or prudential concerns can with little notice undermine an investor's returns, especially where a currency's market fundamentals are weakening. When, on the other hand, decisions are based on credible economic rationales, regulators can help markets lay the groundwork to incentivize the foreign investment necessary for achieving deep levels of liquidity.²³³ Along these lines, the metrics used to dole out and build out infrastructure at home and abroad should be based on terms geared towards a healthy rebalancing of the global economy, not political or geostrategic considerations.

In summary then, synching macroprudential and macroeconomic reforms serves two purposes. Firstly, doing so provides a useful framework for establishing rules and guidelines that mitigate risks to China's domestic financial system, as well as to the global financial system, in those sectors where China's capital account is opened. Secondly, transparency helps reduce the risk of investment in RMB-denominated financial instruments, which in turn can help support demand during a cycle of weakening currency fundamentals. This Article has shown in previous sections how the sheer size of China's economy, and expectations of further renminbi appreciation, have helped fuel interest in the currency and liquidity in offshore and onshore markets. But as China's spectacular growth rate moderates—and by some expectations quickly—and as the internationalization process requires the support of at times skeptical foreign audiences, the rule of (economically rational) law will become

231 This approach would, notably, bring the process in line with other similar ventures including the Santiago Principles for Sovereign Wealth Funds.

232 Hans Genberg, 'Currency Internationalization: Analytical and Policy Issues' (HKIMR Working Paper No. 31, 2009), 9, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1628004 (visited 30 December 2016) ('Official support for the establishment [of currency markets] may [...] be justified to the extent it succeeds in increasing liquidity and reducing transaction costs').

233 Similarly, host states for renminbi infrastructure should impose rules that largely mirror their own; Chinese market participants should not be penalized per se, just as the establishment of renminbi infrastructure should not be premised on a watering down of local rules and oversight.

increasingly important. Market demand will be driven by not only a stable of safe and investable products, but also reliable and predictable rules to support it. In the context of the renminbi's monetary and financial infrastructure, this means that every component will have to be increasingly subject to high standards and market-relevant expectations.

B. Countercyclical implementation of capital account reforms

The Chinese government's export of the renminbi has until recently been premised on the currency's continuing appreciation. Concerned with a possible rush of international investors onshore seeking renminbi, as well as exposure to one of the fastest growing economies of the late 2000s, the government's internationalization strategy sought to prevent dramatic inflows of foreign capital, while increasing and managing conduits for the currency's offshore use. To this end, the government's capital account reforms consisted of tightly controlled curbs on foreign investment, and considerable diplomatic and policy energy was directed towards creating an offshore market for renminbi. Foreign investors could gain gradual entry to onshore capital markets, while offshore bank accounts, the dim sum bond market, clearing banks, and an open current account would help relocate yuan to far flung parts of the world and popularize the currency as an instrument of both commerce and finance. Even offshore, however, controls would remain significant, even as China's economy outperformed others.

China now, however, finds itself in a different economic cycle where pressures are mounting on the value of its currency, and China's internationalization strategy, at least conceptually, should change. Rather than accelerating policies aimed at establishing offshore trading venues that, all else equal, help enable capital outflows—or reversing on the reforms taken thus far—energy in policymaking should flow from offshore capital account liberalization to onshore projects that make investment easier and safer for domestic *and* foreign market participants alike.

Here again, improving the quality of China's regulatory ecosystem should be a critical element of policy reform and enhanced emphasis: by making investment less prone to fraud, and by insuring higher quality information, the risk premium associated with investing onshore will be lowered, making it easier to attract capital. Along these lines, supervision of exchanges along with the quality of company financial statements and government disclosures could be enhanced. Similarly, better oversight of credit rating agencies should be introduced in order to build-out information gathering and internationally credible ratings, just as an infrastructure for credit derivatives is needed for investors to mitigate credit exposures in RMB-denominated instruments.²³⁴

As to China's monetary policy, onshore capital account liberalization could be accelerated during times of economic stress at a relatively faster pace than offshore export. Repatriation controls need not always be deregulated with every new onshore investment scheme. Instead, prudence could dictate that under some circumstances

234 This could in itself significantly enhance the country's ability to expand foreign investor participation in China's onshore corporate bond market, which despite its massive size stands by some estimates at less than 1%. Yiu, above n 172, at 45.

the velocity of offshore repatriation be subject to some curbs, and that modest controls should remain in place. However, because curbs on repatriation create costs for investors who may seek flexibility in relocating profits so that resources can be deployed elsewhere, rules relating to cross-capital movements, and especially repatriation, could be made much more explicit. Currently, rules on capital controls operate in an ad hoc, and largely opaque manner, which drives up the risk premium associated with investing in China. A more (macro)economically nuanced approach that deploys reforms *countercyclically*—when capital outflows increase or asset bubbles on the Mainland appear—and according to transparent and clear *ex ante* rules (ideally in a major Western language), could help protect investors and managers, renminbi-based payments, and financial stability overall. It would also make the renminbi more reliable and acceptable in international currency markets.

Reforms along these lines underscore the often overlooked fact that capital account liberalization and currency internationalization are conceptually distinct, though (if all works well) mutually supportive enterprises. As outlined in our earlier discussion on currency internationalization, liberalizing the capital account increases the ability of foreign nationals to own, most importantly, financial assets. Internationalization, by contrast, refers to the geographic scope of usage of a currency, along with the diversity of individuals and institutions that rely on it. As such, internationalization implies a spectrum of adoption and usage—and can be expanded via even partial steps towards financial liberalization. Offshore circulation of a currency is not the only indicia or means of advancing the internationalization of a nation's money. Expanding access to (properly regulated) domestic capital markets to foreign investors, too, can help promote familiarity with the currency and RMB-denominated products, and in the process render the renminbi more relevant to the capital management and treasury operations of both multinationals and the financial institutions that service them.

C. Expanding current account liquidity via new monetary commitments

For the sake of thoroughness, it is worth adding that it is conceivable that expanded trade flows could potentially help mitigate some, though not all, of the financial risks attendant to the renminbi's internationalization. As a technical matter, trade linkages support capital account liberalization, and make the deregulation of capital controls safer for domestic and global financial centers. Indeed, the more a country is open to free trade, the more it is able to successfully undertake capital account liberalization.²³⁵ Trade helps internationalize a currency, and operationalizes foreign participants' access to it, and in the process helps facilitate capital account liberalization by getting the currency in the hands (or accounts) of potential investors.²³⁶

235 Prasad and Rajan, above n 16, at 160–61.

236 Ibid. Indeed, for some economists, trade is the equivalent of capital account liberalization by other means because it has at least historically provided a mechanism for circumventing capital account restrictions. Foreign manufacturers operating in a country subject to capital account restrictions, but an open current account, can, for example, funnel money into his home country by over-invoicing its exports, and making the capital inflow associated with exports greater than the actual market value of exports. Though it requires a counterparty at the other end of the transaction, with the proliferation of multinationals—and affiliates of large companies trading with one another—the evasion of strict

More importantly, countries with large trade flows and an open account are less likely to experience sudden stops or reversals in capital flows when concerns intensify about a country's economy or fiscal condition. This is because countries with an open account are generally viewed as more capable of withstanding balance of payments pressures since they will be, all else being equal, in a better position to service its external obligations through export revenues.²³⁷ Defaulting on foreign obligations is, by extension, less likely. Similarly, studies suggest that when financial problems do arise 'more open economies have to undergo smaller real exchange rate depreciation for any given current account adjustment. As a result, they tend to recover much faster'.²³⁸

China has, as detailed above, liberalized its current account via more flexible trade settlement practices. And the country enjoys large trade surpluses. But the government has *not* actively advocated liberal free trade, nor has it practiced it extensively. After taking major steps to open up its economy in order to become a member of the WTO in 2001, China avoided further trade agreements and focused on consolidating promised reforms associated with its accession. Instead, it would not be until 2007 that free trade was formally included as a platform in the country's national economic strategy.²³⁹ Since then, China has focused on building regional, as opposed to global, alliances, focused on neighbors and expanding eastwards.²⁴⁰

Given its relatively modest collection of trade agreements, there is even more China could do to expand its formal trade relationships—and in the process help support market-based capital account reforms.²⁴¹ However, whether or not other countries beyond Asia would be interested and willing to assist in securing deeper trade relations is questionable. China's trade surpluses are, as noted, still large even with the 'upward' manipulation of the renminbi's value; moreover, the country's much longer history of 'downward' manipulation has over time made many countries in North America and Europe skeptical of deeper trade, and leaders across political parties, most notably in the USA, have advocated sanctions. Additionally, the renminbi's weak fundamentals suggest that the currency could undergo more rounds of devaluation, and render China's exports relatively more competitive vis a vis Western counterparts with appreciating currencies.

Significantly expanding trade networks beyond Asia, even in the name of financial stability, would thus likely demand credible commitments of some sort by China to

controls is easier than ever. In such circumstances, open current accounts provide conduits for taking money out of an otherwise closed country. *Ibid.*

237 *Ibid.*

238 *Ibid.*

239 For a brief but thorough survey, see Longyue Zhao, 'China Trade Strategy: FTAs, Mega-Regionals, and the WTO' (Robert Schuman Centre for Advanced Studies, Research Paper No. PP. 2015/11, 2015), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2707207 (visited 30 December 2016).

240 China has taken steps, most notably, towards closer trade relationships with its neighbors in the Regional Comprehensive Economic Partnership. This tentative arrangement will include all 10 ASEAN countries, Australia, India, Japan, New Zealand and South Korea—and bind a region where China is already the dominant trading partner. Solomon Teague, 'China Ponders Implications for Renminbi of Trump Victory', *Euromoney* (17 November 2016), <http://www.euromoney.com/Article/3602618/FX-China-ponders-implications-for-renminbi-of-Trump-victory.html> (visited 30 December 2016).

241 Standard Chartered, above n 102, at 2.

limit the country's ability to debase the renminbi for purely competitive reasons.²⁴² Given its recent relevance in the renminbi's internationalization, one possible avenue for generating such commitments lies in the IMF, which at least historically was charged with overseeing exchange rates.²⁴³ Although some experts have concluded that the organization lacks in its current guise the legal authority to impose sanctions on China for currency manipulation,²⁴⁴ the IMF *has*, as discussed above, exercised its authority to include the renminbi among key reference monies in the SDR subject to a number of reforms.²⁴⁵ Yet most of these reforms are only operational in nature, or involve capital account liberalization designed to open up certain foreign exchange markets to IMF members—and better disclose the nature of the government's foreign reserves.²⁴⁶

Ideally, however, the IMF's Executive Committee and relevant staff would include *macroprudential* reforms in China's SDR obligations. Along these lines, even as the renminbi is included in the SDR basket, its weighting or significance would reflect at least in part the soundness (and risks) of China's financial markets and reforms taken to improve them, as determined by the already considerable peer reviews and inspections conducted by key international regulatory bodies like the Financial Stability Board, the International Organization of Securities Commissions and the Basel Committee.²⁴⁷ In this way, not only would the renminbi's international significance be more directly tethered to capital and foreign exchange markets, but China would also face enhanced pressure to execute its monetary policy via a safe, nondiscriminatory and well-supervised institutional environment.

VI. CONCLUSION

The internationalization of the renminbi holds the prospect of a range of potential benefits for global commercial actors, investors, and nations around the world. Among them, the internationalization of the currency could enable a rebalancing of the global economy for more sustainable growth and helps ensure that the Chinese

242 Capital account liberalization should, at least in theory, undermine the ability of the government to maintain such controls for debasement—especially insofar as financial markets process the supply and demand for the currency and act as the primary price discovery mechanisms. But as this Article demonstrates, capital account liberalization can arise across a spectrum, and China retains sufficient authority to backtrack on reforms when necessary and to conceivably reinstitute monetary tactics tied to enhancing its overall trade competitiveness.

243 Lowenfeld, above n 63, at 9. See also note 37 (discussing IMF's attempt to prohibit currency manipulation).

244 *Ibid.* (noting how the IMF's responsibilities were downsized from enforcement to surveillance in the 1970s). See also Bryan Mercurio and Celine Sze Ning Leung, 'Is China a "Currency Manipulator"?': The Legitimacy of China's Exchange Regime Under the Current International Legal Framework', 43 *The International Lawyer* 1257 (2009) (arguing that China's measures are not inconsistent with the IMF Articles or the applicable WTO agreements).

245 See Section III.D.3 and accompanying text.

246 See page 34 and accompanying text.

247 Notably, the IMF already conducts 'Article IV' reviews of important aspects of its members' financial systems that relies on these bodies. Here, their input could provide very direct incentives for structural and regulatory reform in China, and in ways that depart from the soft law system currently dominating global rulemaking. For an overview of these processes, see generally Chris Brummer, *Soft Law and the Global Financial System*, 2nd ed. (New York: Cambridge University Press, 2015).

currency is increasingly subject to market forces and less susceptible to currency manipulation.

Yet the manner in which internationalization has been executed presents a number of problems. The mechanisms relied on for internationalizing the renminbi and maintaining the government's grip over the currency introduce hazards of inadequate liquidity provision for the currency, unhealthy competition between renminbi financial centers, and significant transmission belts of risk to even non-renminbi markets. Furthermore, the currency's fundamentals are such that the yuan could yet undergo a significant devaluation, and in the process unleash a disorderly outflow of capital and significant stress on renminbi markets and the financial system.

To mitigate these risks, China needs a reformed model of currency internationalization that leverages macroprudential reform alongside macroeconomic liberalization. Furthermore, high quality, well-regulated onshore investment opportunities should be made increasingly available through transparent and (macro) economically rational quota regimes. Finally, as capital account liberalization progresses, current account liquidity could be enhanced to buffer shocks, ideally via credible international commitments to refrain from competitive devaluations and currency manipulation.

In sum, 'law and macroeconomics' matter—and are necessary for crafting policy in a world of increasingly bespoke financial and monetary infrastructures. This Article demonstrates that successfully opening the capital account of a large and complex economy like China's will rely as much on well-regulated and supervised financial markets as it does on easing the cross-border movement of capital. And financial regulation, and the intensity of it, will depend at least in part on how open a nation's capital account is, and relatedly, how vulnerable its economy may be to volatile movements of foreign investment. All the while, regulators and monetary authorities inform and are informed by the choices and tactics of their domestic and international counterparts. As a result, when currencies go global—and the renminbi is no exception—prudent financial oversight requires of *both* countries issuing and hosting the newly cross border currency that they be emphatically multidisciplinary in their assessments of financial opportunity and risk, as well as resolutely vigilant.