Goodbye (Chinese) shadow banking, hello market-based finance

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ABSTRACT: Shadow banking in developing and emerging countries (DECs) oscillates between two semantic poles. One definition is typically deployed by scholars for the narrow analysis of non-bank financial intermediation as viable alternative to banking. The other, more recent, circulates in the policy world to capture a new agenda of engineering (securities) market-based finance. The second, the paper argues, is the essential but neglected aspect of DECs shadow banking. The 'shadow banking into market-based finance' narrative reaffirms the celebratory tone of the financial globalization *cum* liberalization thesis dominant before the global financial crisis. It seeks to depoliticize contentious debates about capital flows and the constraints that globalized finance poses to development, instead asking DECs to abandon capital controls, encourage portfolio flows, relax the regulatory grip on shadow funding markets and tap into the growing global demand for securities that marks the new age of asset management.

Keywords: China, shadow banking, securities markets, collateral, wholesale funding, local currency markets, capital controls.

Introduction

> 'in order to successfully internationalise the RMB […] China will have to build deep and liquid financial markets open to the rest of the world' (Eichengreen 2015 p1).

> the real issue isn't the volume of debt, but rather the liability-side plumbing that underlines the debt boom…if there is going to be a financial crisis in China, this is where it will come from'.
> Financial Times (2016)

The term shadow banking has had a short yet unusually productive life. It was first coined in 2007 to account for the workings of complex chains of credit, liquidity and leverage with no systemic regulatory oversight (Ban and Gabor 2017). By 2011, the G20 countries had thrown their weight behind it, mandating a newly created international institution (the Financial Stability Board) to map its systemic risks. The FSB published the first annual global monitoring exercise in 2011, and by 2015 an annual progress report monitoring the implementation of its reforms. If the political power of economic ideas is demonstrated by the speed with which they trigger institutional change (Blyth 2002, Ban 2016, Helgadottir 2016), then shadow banking is an exceptionally powerful idea.

What does the rise of this powerful idea mean for developing and emerging countries? At first, it seemed very little. The first FSB (2011) policy documents drew heavily on the literature offering a structural change account of the global financial crisis (Adrian and Shin 2009, 2010a, Gorton and Metrick 2012 and Pozsar et al 2010). According to these seminal papers, the liberalisation spur of the 1980s saw banks and capital markets in high-income countries become closely connected in a globalised finance built around securities markets (also Mehrling 2012, see Christophers 2013 for a critical account). Shadow banking captured the *production* (via securitization of illiquid bank loans) and *funding* (via wholesale markets) of tradable securities, or as Mehrling et al (2013) put it 'money market funding of capital market lending'. Its distinctive vulnerabilities arose from the use of newly created asset and mortgage-backed securities as collateral to tap wholesale market funding, where complex collateral valuation practices triggered runs during crisis (see Brunnermeier and Pedersen 2009, Gabor 2016). To regulate shadow banking, the FSB (2011) insisted, it was necessary to regulate banks' activities in the shadows - securitization, collateral-based wholesale funding - and a new breed of (shadow) banks, money market funds.

On these terms, few developing countries had any shadow banking to speak of. In most, capital markets mainly consisted of government bond markets, while banks lent to each other without collateral. Indeed, the FSB's first global monitoring exercise had only one (arguably) 'emerging' country, South Korea. This changed quickly. By 2013, Mark Carney, the head of the FSB, warned that shadow banking in emerging countries posed serious risks to global financial stability, and called for reforms of the 'parallel banking sector in the big developing countries'. Most interpreted his remarks to mean China. With this, the FSB elevated DEC shadow banking on equal footing in terms of relevance to global financial stability.

Since then, the literature on DEC shadow banking has been mostly concerned with establishing whether this is a 'viable credit alternative' to the formal banking sector (Allen et al 2016, Tsai 2016, Acharya et al 2013). It defines shadow banking as 'other financial intermediaries' that meet the needs of economic actors traditionally left out by banks, such as SMEs (Acharya et al 2013, Schwarcz 2016, Allen et al 2016). Yet DEC regulators worry that this approach conflates well-regulated non-bank financial institutions important to economic development with shadow banks posing systems risks (FSB 2014). If the FSB's shadow banking agenda was to become an important input into regulating domestic financial systems, then DEC countries insisted that 'each jurisdiction has the flexibility to exercise national discretion' in designing regulatory regimes proportional to the risks posed by shadow banking entities (FSB 2014: 57).

The 'viable alternative' literature, this paper argues, suffers from two important shortcomings. First, it depicts DEC shadow banking as a universe strictly confined by national borders. This is immediately apparent from the growing literature on shadow banking in China, usually portrayed as the escape valve of a financial system repressed by the long hand of the state. Second, it ignores the changing ambitions of the global regulatory community as expressed by the FSB work on shadow banking. Since 2014, the FSB agenda changed from a regulatory intervention motivated by the rise of new systemic actors and markets to a deeply normative project of transforming shadow banking into resilient 'market-based finance' that organizes financial systems around securities markets (FSB 2015, 2016, also Engelen 2017).

Such transformative ambitions matter for development. Market-based finance has evolved from Gerschenkron (1962) into what many describe as 'the age of asset management' (Haldane 2014, Braun 2015). Securities markets are no longer driven by the needs of economic development and industrialization a la Gerschenkron, but the demand for securities generated by powerful institutional investors such as pension funds, insurance companies and multinational corporations with large cash reserves. The rise of asset managers is a manifestation of the growing inability of high-income countries to tax powerful corporations and collectively provision for future uncertainties (Streeck 2014, Gabor 2016, Helgadotir 2016), prompting individuals to turn to the market via private insurance and pension funds in a new regime of asset-based welfare (Finlayson 2009). The same pressures manifest in DEC countries, advised by international development organizations to adopt market solutions (such as the privatization of public pension funds), and encourage the entry of foreign investors into local currency debt markets. Indeed, asset managers have absorbed a growing share of the rapidly expanding DEC local currency securities since 2008 (Farolli et al 2014). Foreign holdings of DEC local currency bonds doubled from 12.7% in 2008 to 30.1% in 2015, as DEC local currency debt increased fourfold to $17.2 trillion in that period (IMF and World Bank 2016).

Thus, the new shadow banking agenda seeks to define the terms on which DEC countries join the global supply of securities, re-invigorating a pre-crisis plan pursued by G8 countries, the World Bank and the International Monetary Fund to accelerate the reach of financial globalization (G8 2007). This policy-engineered financial globalisation seeks a clean break from 'policy-engineered industrialisation' in DEC countries that involved capital controls, bank credit guided by the priorities of industrial strategies and competitive exchange rate management (Storm 2017). It

seeks to accelerate the global diffusion of the architecture of the US securities and securities funding markets, with its well-documented fragilities (FSB 2012, 2013, Tarullo 2015, Gabor 2016) and contested social efficiency (see Epstein this issue), in order to support business models predicated on daily volatility in the market price of securities.

This is important for broader questions of development and economic stability in DEC countries, historically more vulnerable to volatile capital flows (Dutt 2013, Rey 2014). In the wake of the global financial crisis, for the first time since the Washington Consensus, DEC countries successfully questioned the purported benefits of free capital flows and normalized the use of capital controls to deal with 'currency wars' ignited by large central banks. The project to transform shadow banking, the paper argues using China as a case study, threatens DEC's new 'monetary power' (Gallagher 2014), a hard-fought victory to deal with the dilemmas posed by global financial cycles (Rey 2014, Gabor 2015, Kaltenbrunner and Painceira 2017) and financialisation more broadly (Bortz and Kaltenbrunner this issue). On the longer–term, the turn to market-based finance prepares the terrain for organizing development interventions via securities markets, as suggested by the growing popularity of green bonds, social impact bonds and digital financial inclusion approaches to poverty reduction (Gabor and Brooks 2016, Mader this issue).

DEC shadow banking as 'viable credit alternative'

The early literature on DEC shadow banking noted an important challenge. Conceptually, shadow banking had emerged to capture new processes that 'decompose the process of credit intermediation into a sequence of discrete credit operations' (Ghosh et al 2012) through opaque chains of bank and non-bank companies (Pozsar et al 2010). The chains were connected through two important shadow activities: the *production* (via securitization markets) and *financing* (via wholesale funding markets) of tradable securities (FSB 2011).

The production and financing of tradable securities reflected structural changes in financial markets of high-income countries. Relationship banking made way for broadly two types of non-bank investors populating the universe of asset managers: those hungry for higher returns (via leverage) and those demanding safety. Shadow banking connected the two. The first, driven by the 'imperative to generate assets to fill balance sheets' (Adrian and Shin 2009), could fund securities portfolios by pledging them as collateral in repo funding markets to institutional cash pools. These – multinational companies, insurance companies, money market and pension funds – demanded safe vehicles for their cash that traditional banking provided to retail bank depositors under deposit guarantees and lender of last resort support from central banks (Pozsar 2011, IMF 2014). Large banks with activities in securities markets would sit in between, moving idle funds and collateral between institutional cash pools and leveraged funds (Pozsar 2011, Gabor 2016). The presence of collateral created the (perception of) safety that institutional cash pools required to lend to leveraged investors via bank balance sheets (Pozsar 2011, 2014, Singh 2011).

Collateral-intensive relationships, the early literature argued, made financial systems built around securities markets more fragile (Adrian and Shin 2010a,b). In drawing

attention to the fragility of collateral, the shadow banking literature resurrected a prescient insight from Hyman Minsky:

> …the viability of loans mainly made because of collateral, however, depends upon the expected market value of the assets that are pledged […]An emphasis by bankers on the collateral value and the expected values of assets is conducive to the emergence of a fragile financial structure. (Minsky 1986, 233)

Without explicitly referencing Minsky, the early shadow banking literature echoed his observation. It connected financial instability to the collateral valuation mechanism deployed in securities financing (known as repo) transactions (Adrian and Shin 2010b). In a repo contract, a bank buys securities from a hedge fund, which in turn promises to repurchase them at a later point in time. For the hedge fund, the repo (repurchase) agreement is a mechanism for funding securities, by borrowing from the bank using those securities as collateral. For the duration of the repo contract, the hedge fund and the bank calculate the market value of collateral on a daily basis (marking it to market), with the purpose of maintaining the market value of collateral equal to the cash lent. If collateral increases in price, the bank is obliged to send the hedge fund the difference, either in cash or in securities. The bank has two incentives in the repo transaction: it charges an interest rate on the cash it has loaned to the hedge fund and it also becomes legal owner of the collateral securities (although it is obliged to send interest payments on those securities to the economic owner, the hedge fund). Collateral ownership allows it to repo those securities for its market-making activities, making profit from the spread between the purchase and the sale price (the bid-ask spread) (CGFS 2017). The profitability of the hedge fund and of the market-making bank depends on daily variation in the price of securities (Lindo 2013).

This emphasis on collateral value lies at the heart of shadow banking fragility. During good times, daily increases in securities prices free up balance sheet space, encouraging the hedge fund to take further leverage (Adrian and Shin 2010b). In bad times, falling securities' prices trigger runs as the hedge fund needs to find additional collateral, and when it cannot, it resorts to firesales that push asset prices lower (Gorton and Metrick 2009, FSB 2012, 2013). It was the destabilizing potential of daily collateral valuation that prompted the Financial Stability Board to dedicate the repo work-stream on shadow banking to collateral fragility, imperative to "reduce the cycle of excessive borrowing in economic booms that cannot be sustained when liquidity dissipates in core fixed-income markets" (Carney, 2014).

The literature on DEC shadow banking found little of such structural phenomena built around tradable securities. Shadow banking, one paper argued, 'does not involve long, complex, opaque chains of intermediation, as is often the case in advanced economies' (Ghosh et al 2012). Finding little evidence of complex, collateral-intensive financial engineering, scholars equated shadow banking with non-bank financial institutions (NBFIs) and reframed the analytical questions from 'how did we get to this new financial landscape fragile in novel ways' to 'is shadow banking a viable alternative to traditional banking in emerging countries?'.

This, it turned out, would be a question mainly asked of China. In one of the few exceptions, Acharya et al (2013) examine India. Shadow banking, they argue, provides a 'completeness of credit spectrum in the economy' because it can reach borrowers (SMEs, rural areas, infrastructure developers) that traditional banks cannot or will not service. Yet the authors caution that equating shadow banking with NBFI is misleading in that the Indian regulators first developed a complex prudential regime for deposit-taking NBFIs, and the capital requirements for systemic non-deposit NBFIs in 2006. RBI defined 'systemic' NBFIs as those with assets above 1bn rupees, together amounting to roughly 10.5% of bank assets in 2011[1] and 14% in 2015. The authors dismiss the idea that NBFIs are Lehman-type shadow banks, systemic nodes in complex collateralised networks, since 'none of these NBFC may be large enough on their own to cause systemic collapse'. The danger, if any, arises from traditional bank lending to NBFIs, but not opaque financial engineering of tradable securities.

In turn, the literature on shadow banking in China documents in great detail the (admittedly eye-watering) growth in 'shadow' credit creation since 2010. It identifies three broad drivers: financial repression, the fiscal-monetary policy mix and the distinctive politics of local-central government relationships.

The China literature turns the US story on its head. Whereas US shadow banking emerged from competitive pressures pushing banks into the shadow, encouraged by light-tough regulation, China's shadow banking is a market-response to financial repression (Zhang 2013). The network of trust companies, brokerage firms, small lenders and financial guarantors grew rapidly in response to the Chinese state's intervention in loan and deposit markets (for example with caps on deposit rates for regulated banks), directed credit policies (regulators discouraging lending to sectors such as real estate), costly reserve requirements and prohibitive loan-to-deposit ratio (see Elliot et al, 2015). Banks were key nodes in these shadow networks, seeking to boost profits and circumvent tight credit conditions (Awrey 2014, Elliot et al 2015, Dang, Wang and Yao 2015). The most illustrative example is the rapid growth in Wealth Management Products, off-balance sheet funding instruments. Small and medium banks structured WMPs to ward off competition for retail deposits from big banks, whereas the latter use WMPs to refinance their local government loans (Acharya et al 2016)[2].

Some 'shadow' products – such as entrusted loans extended by cash-rich corporations to other corporations via banks – provide important sources of alternative financing, a market solution to credit shortage (Allen et al 2016). Often, big non-financial corporates tap subsidized bank credit and re-lend it to the private sector (Du, Li and Wang 2016). In sum, shadow banking steps into the void created by the long-hand of the state, extending credit to SMEs and other private firms neglected by the Chinese developmental strategy (Sheng et al 2015, Ellio and Qiao 2015).

The significant fiscal stimulus of 2009/10 (approximately 12% of GDP) cast a long 'shadow' in two ways. One involves the Chinese central bank (the PBOC) tightening the monetary policy stance to contain the inflationary potential of the fiscal

[1] The total assets of 'systemic' NBFIs rose from 2.5 trillion rupee in 2006 (around 9% of bank assets) to around 7.3 trillion rupee in 2011, (around 10.3% of bank assets).

[2] Trust companies, insurance companies, brokerage firms and private equity funds not related to banks also issue Wealth Management Products.

expansion. Since the Big Four banks dealt with the burden of supporting the Stimulus Plan by aggressively bidding for deposits and shadow financing (via WMPs) in an environment of tighter liquidity, smaller banks were forced into the shadows (Acharya et al 2016). The other saw the central government use local governments' access to shadow credit as quasi-fiscal lever. Beijing allowed local governments to fund social services and ambitious infrastructure projects via shadow banking, by creating Local Government Financing Vehicles (Bai, Hsieh and Song 2016). These were set up as companies that could issue bonds and borrow from banks, circumventing rules a ban on direct local borrowing in place since 1994. This marks the distinctiveness of Chinese shadow banking, benefiting in most parts from implicit state guarantees.

The China literature has little to say about systemic risks of the shadow banking kind, beyond the obvious warning that banks' involvement in rapid credit growth may end up in a financial crisis. Shadow banking in China is opaque but not complex (Sharma 2014). Rather than built around tradable debt, it involves 'non-standard debt instruments' that are rarely if ever traded (Liao, Sun and Zhang 2016). It generates perverse incentives for front-running 'gradual' policy approaches (Brunnermeier et al 2017), but when the day of reckoning comes, it will be the state-owned banks and the state that will have to pay for it. China's shadow banking may pose a threat to the global economy, it is argued, but not the Lehman-type ripples propagating through wholesale funding chains.

This is a critical omission. Busy condemning financial repression (and implicitly the developmental state[3]), scholars have both underestimated China's willingness to tighten regulations and neglected the broader political economy of reminibi internationalisation driving a new approach to shadow banking. Indeed, events since 2014 suggest that we should not read Chinese shadow banking as an elaborate artifice of regulatory arbitrage, but rather as a shifting policy experiment with liberalizing the financial sector (He and Wang 2012) by encouraging securities markets. This has led to a rapid change in structure and complexity that increasingly fits the picture of pre-crisis US shadow banking.

China – a case study of transitioning to market-based finance

In 2014, China announced a series of reforms intended to put a break on shadow credit to real economy. It removed the ceiling on bank deposit rates, the binding loan-to-deposit ratio, and tightened rules on banks' involvement with entrusted loans, trust beneficiary rights, directional asset management plans and wealth management products[4] (Chen et al. 2016, also Keohane 2016[5]). While analysts remain divided on the overall tightening impact, the widely used proxy for shadow credit to the real economy, non-bank credit in 'Total Social Financing' (including trust loans, entrusted

3 See Michell (2012) for an account of the role of the financial system in China's high growth rate performance.

4 Since January 2017, banks cannot issue WMP off balance sheet, while the on-balance sheet holdings are targeted by the new macroprudential framework. The policy pressures for deleveraging saw WMP issuance fall by around 10% between by June 2017.

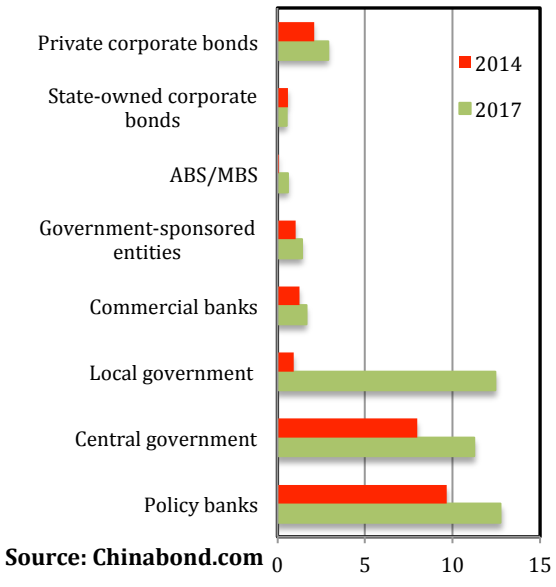
5 https://ftalphaville.ft.com/2016/06/08/2165445/document-82-and-slapping-down-chinas-shadow-loan-market/

loans and bankers' acceptance bills) fell from 30% of total credit extended to nonfinancial corporates in 2013 to around 5% by end of 2016 (see Li 2016).

Arguably more important than the clampdown on regulatory loopholes, China introduced measures to reorganize shadow banking into securities markets. The share of capital raised by firms in securities markets increased from 12% of TSF in 2010 to 30% in 2016. One key policy was to move local governments from shadows into securities markets. The central government would allow local authorities to issue municipal bonds and create the legal framework for switching (short-term, high interest) LGFV debt into municipal bonds. With this, China aimed to transform a symbol of ballooning leverage, equivalent in 2014 to 38% of GDP, into market-based finance, and replace the implicit guarantees with the principle of 'self-issue, self replacement'.

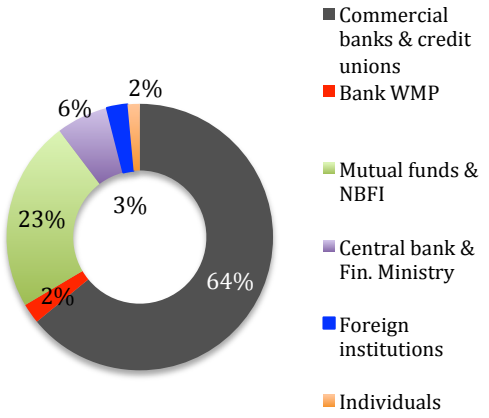
As a result, the local government bond segment expanded from less than a RMB 1 trillion in 2014 to around RMN 12 trillion by March 2017, the fastest growing securities market (Figure 1). With it, the Chinese securities markets became the third largest in the world, behind US and Japan. Commercial banks own the largest share of securities, directly and via WMPs. It is important to note the growing share of institutional investors, with mutual funds, insurance and securities companies collectively holding around 23% of outstanding securities (Figure 2).

Figure 1 Growth in securities markets, China, 2014-2017 (RMB trillion)



Source: Chinabond.com

Figure 2 Ownership of Chinese securities, June 2017



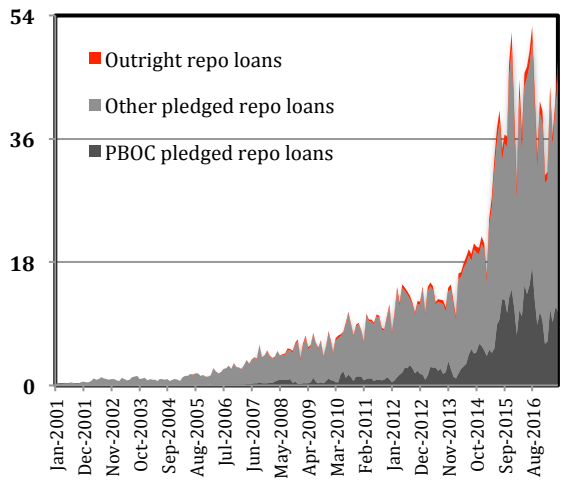
China is not alone in experiencing a rapid growth in local institutional investment. In 2014, DEC pension funds and insurance companies held assets of USD 6 trillion (World Bank and IMF, 2016). By mid-2016, India's asset management industry reached USD 1 trillion, compared to USD 8.5 trillion in China. This reflects the growing cash reserves of DEC corporations, rising inequality and market-based provisions for health (insurance) and pensions.

Historically, the provision of credit via securities markets has been accompanied by rapid growth in wholesale money markets where securities are financed (Lindo 2013, Gabor and Vestergaard 2016). This has also been the case in China. Its repo market reached USD 8 trillion by June 2017 (RMB 50 trillion), similar in volume to European and US repo markets (see Figure 3). To put this in perspective, in 2010 it was a fifth of those markets. In that period, Chinese banks and shadow banks increased their repo funding from 10% to 30% of total funding (IMF 2016).

The Chinese repo market has two distinctive segments: the interbank repo and the Shanghai Stock Exchange (SSE) repo (see Lee and Kendall 2017). The former, an over-the-counter market, dwarfs the latter in size. The term 'interbank' is a misnomer in that market participants include institutional investors alongside banks. Most interbank repos are pledged (see Figure 3). The Chinese central bank (PBOC) is an active participant in the pledged market, which it uses to inject liquidity into the financial system and support credit extension via securities markets. Together with large policy banks, it provides around 80% of pledged repo funding to smaller (country and cooperative) banks and a growing array of local institutional investors. In the outright segment, commercial banks fund securities companies.

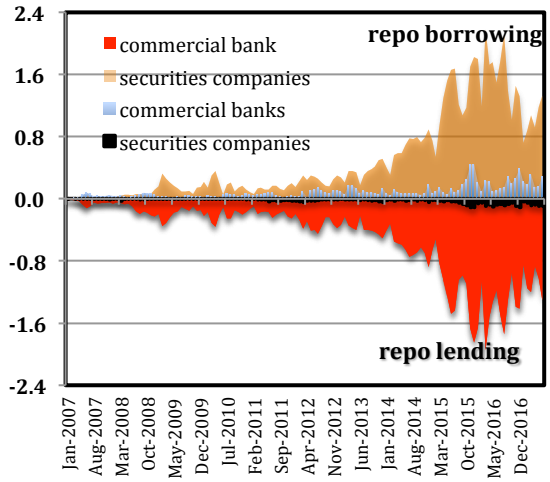
The difference between pledged and outright repos resides in the legal status of collateral. To illustrate, a securities companies funding corporate bonds on the outright segment would sell those bonds to a commercial bank, and promise to repurchase them later point in time, overnight or longer. The commercial bank becomes legal owner of collateral (the corporate bonds) for the duration of the repo, and can re-use it for market-making activities or for short-selling. If the commercial bank accepts the corporate bond as collateral in a pledged repo, it only becomes legal owner if the securities company defaults. A pledged repo does not enable re-use of collateral, and therefore market-making activities for banks (and other financial institutions). Put differently, only the outright segment of the Chinese repo market fits the legal definition of a repo that guides the FSB shadow banking regulatory framework.

Figure 3 The interbank repo market, China, 2001-2017



Source: ChinaBond.com and WIND

Figure 4 The outright repo market, China, 2007-2017 (June)



The shift to market-based finance documented above is not simply a project of cleaning up shadow banking. Rather, it should be viewed through the lens of the RMB internationalization strategy, designed to attract foreign investors to China's securities markets. Indeed, pointing to the low share of foreign ownership of Chinese securities, scholars and the international policy community have consistently argued that 'in order to successfully internationalise the RMB, in the sense of enhancing its attractiveness as an international unit of account, means of payment and store of value, China will have to build deep and liquid financial markets open to the rest of the world' (Eichengreen 2015 p1, also Mersch 2014, Helleiner and Kirchner 2014). Deep, liquid markets would attract foreign investors that prefer to hold foreign assets in liquid securities.

While tightening controls of residents' attempts to move capital abroad, China has cautiously welcomed foreign portfolio investors. In February 2016, it extended the list of foreign institutions that can enter securities markets without approval or quota limits to include commercial banks, asset managers and institutional investors. In July 2017, it introduced the Bond Connect that allows foreign investors to trade Chinese bonds in Hong Kong. Market analysts expected this to generate around RMB 1 trillion of inflows in the second half of 2017 (Bloomberg 2017).

Critical for understanding the metamorphosis of shadow banking into market-based finance, China continued to grant access to shadow funding (repo) markets to only a handful of foreign institutions: foreign reserve (central bank) managers and offshore RMB clearing banks (Deutsche Bank 2016). Its reluctance to open up the repo market offers an entry point to examine shadow banking as terrain for broader political struggles over the shape of financial globalization since the collapse of Lehman Brothers.

'The world needs to develop missing markets': from the G8 to FSB

The academic literature on DEC shadow banking has stayed safe of theorizing it as phenomena intricately linked to financial globalization. Yet this is precisely what the FSB agenda has gradually evolved into, reinvigorating a pre-crisis plan initiated by high-income countries to actively engineer market-based finance in DEC countries.

The story officially begins in May 2007, at the Potsdam meeting of the G8 Ministries of Finance. These announced an Action Plan for developing DEC local bond markets, drawn under the leadership of the German Central Bank, the Bundesbank, with cooperation from the World Bank and the IMF (G8 2007). The plan argued that deeper securities markets would reduce dependency on external financing and improve DEC countries' ability to withstand volatile capital inflows, learning an important lesson from the East Asian crisis. While acknowledging capital flow volatility, the Action Plan called for carefully phasing out capital controls, eliminating first those capital controls that hamstrung local securities markets (such as withholding taxes on foreign investors' bond earnings). Domestic institutional investors were also to be encouraged, by privatizing pension funds and 'enabling mutual funds and insurance companies'. These will later become known in the shadow banking literature as 'institutional cash pools', the demand side driving shadow banking (Pozsar 2011).

To demonstrate its commitment to the process, the World Bank set up Gemloc, a Global Fund for Emerging Markets Local Currency Bonds. This would raise USD 5 bn in a public private partnership with PIMCO, then the world's largest asset manager, to 'transform local bond markets into a mainstream asset class'. 'Investability', measuring the attractiveness for large foreign investors, would be further improved by a private global index, GEMX (World Bank 2007).

At first, the global financial crisis seemed to deal a serious blow to this German-driven G8 project. Brazil's Finance Minister coined the term 'currency war' in 2010 to describe what he, and other DEC policy makers, thought the US Fed unconventional monetary policies meant for DEC markets. The US Fed was flooding the developing world with cheap dollars, triggering widespread concerns that the 'wall of money' surging from the West would bring back asset bubbles, currency overvaluation and loss of export competitiveness that afflicted DEC countries at one point or another throughout the Washington Consensus era, episodes that inevitably culminated in currency and financial crises (Gabor 2012, Kaltenbrunner and Painceira 2017). The global financial crisis did what the East Asian, Russian, Brazilian and Argentinian crises failed to do, weakening the political clout of what Jagdish Bhagwati (1998) termed the 'Wall Street –Treasury complex' that successfully pressured DEC countries to open their capital accounts.

This time, DEC countries pledged, would be different. In the regulatory community, the conceptual framework was shifting from the celebratory narrative of free capital flows to a new vocabulary of global liquidity, global financial cycles, carry-trade speculation, interconnectedness on the balance sheet of global banks and vulnerability (CGFS 2011, Rey 2014, Gabor 2015). Marking the growing 'monetary power' of DEC countries (Gallagher 2014), that year the IMF abandoned its notorious opposition to capital controls (Ostry et al 2010, Gabor 2012). Scholars celebrated the normalization of capital controls as the 'the single most important way in which

policy space for development has widened in several decades' (Grabel 2011:806). One after another, large DEC countries imposed controls on portfolio flows, foreign investors entering their local securities markets (Gabor 2014).

The Bundesbank and its partners were quick to find a strategic response to the changing politics of portfolio flows. The desirability of free flows was reaffirmed through a 'missing markets' narrative (Braasch 2012). According to this, the global financial crisis showed that short-term portfolio inflows (into securities/equities markets) were a destabilizing factor because international investors hurried for the exit without paying much attention to (distinctive) fundamentals (also Dombret 2011). The solution, the institutions insisted, was not capital controls but more markets. Pushing ahead with the original plan would deepen local securities markets and expand the investor base to domestic institutional investors that could act as a buffer, increasing DEC's capacity to absorb large capital inflows. Solving the problem of missing markets would also reduce global imbalances, since large DEC countries (read China) would no longer need to recycle their savings in US financial markets (including shadow banking). That year, at the Cannes Summit, the G20 endorsed an extended Action Plan.

The revised plan stressed that capital markets is a long-term project that requires carefully sequenced structural measures. With this, the G20 ensured that the wording accommodated, albeit not explicitly, the use of capital controls by calling to expand 'the range of instruments available to manage volatile short-term flows' (G20 2011). Buried deep within the technical appendix of this cautious approach, however, lurked shadow banking.

The appendix described the modernisation of repo markets as immediate priority, to 'enhance the money and bond market nexus'. The 2013 Diagnostic Framework identifying the barriers to DEC securities market development provided further detail: 'the money market is the starting point to developing [..] fixed income (i.e. securities) markets', integral to financial stability, and to the emergence of market-makers[6] (IMF et al 2013). It recommended the introduction of global standards for repo collateral (known as classic repos) that protected both lenders and borrowers, but failed to connect the repo-building project with the FSB view of repo markets as the critical, fragile plumbing of the shadow banking universe.

The synergies between the Local Currency Bond Market plans and the FSB agenda on shadow banking became apparent in 2014. That year, the FSB's progress report identified a new priority, to transform shadow banking into resilient market-based finance (Engelen 2017). At first, this appeared to be political semantics, responding to DEC countries concerned that the FSB's definition cast a pejorative tone, and required tightening regulations, on an alternative system of credit intermediation that played an important role in countries where the absence of collateral excluded borrowers from bank lending (FSB 2014). The 2015 FSB reports on shadow banking in the Americas and Asia adopted this framing, extending the definition to 'intermediation through non-bank or market-based channels'.

[6] In securities markets, market-makers, usually banks, stand ready to buy and sell, thus making a market in that debt instrument.

The 2015 FSB report on China elaborated the meaning of resilient market-based finance further. It called on authorities to:

> *continue to promote a more diversified and resilient financial system by increasing reliance on market-based pricing mechanisms via financial liberalisation and the removal of implicit guarantees, and by encouraging the development of capital markets and of an institutional investor base as an alternative pillar to bank financing (p.15).*

The FSB also stressed that this approach was not unique to China. Many other DEC countries, it argued, 'are in the process of improving their monitoring and developing appropriate policy tools to ensure that non-bank activities develop into a transparent, resilient and sustainable source of market-based financing' (p22).

Repo market reforms were central to the FSB (2015) recommendations on shadow banking reform in China. Using the language of the sister initiative, the Local Currency Bond Markets Action plan, it called for China to 'upgrade the regulatory and operational repo market framework to increase market liquidity, enhance risk management and reinforce the money and bond market interest rate nexus'. The FSB (2016) report on India similarly outlined a long list of repo market liberalisation measures introduced since 2010[7] in the effort to create 'vibrant secondary market liquidity'. Put differently, the FSB country reports intimated that it was important to redesign repo markets according to global standards if DECs wanted to develop local securities markets, thus tapping into the growing global demand.

In this approach to engineering 'resilient market-based finance', the FSB and other international financial institutions are now fully aligned with the demands of the global asset management industry. Take ASIFMA, the Asia Securities Industry and Financial Markets Association, whose mission is to promote liquid and efficient capital markets in Asia. It produced two important policy notes, the 2013 'India Bond Market Roadmap' and the 2017 'China's capital markets: the road ahead'. Both reports stress that secondary market liquidity, a *sine qua non* of resilient securities markets, require the two countries to open up repo markets to foreign investors and replace idiosyncratic repo market architectures with 'classic' repos (ASIFMA 2013, 2017).

Why this seemingly innocuous demand matters for DEC countries becomes immediately apparent in the Chinese repo market. The lesson from Lehman, it is argued, is that the danger resides not in the bond markets but in their money market plumbing. The exponential growth has been a source of persistent concern in the policy world (IMF 2014, FSB 2016, Financial Times 2017). The plumbing can only work better, producing resilient market liquidity, if DECs adopt classic repos. That would allow legal ownership of bonds used as collateral to be transferred to the lender. Legal transfer of title enables short-selling (taking positions on bonds without owning them in the first place), re-use/rehypothecation (chains of wholesale funding

[7] These included corporate bond repos with maturity less than a year, easier collateral requirements for oney market funds (no longer restricted to AAA securities in repo lending) and less restrictions on foreign institutional investors' collateral policies (FSB 2016).

connected by the same collateral) and sale of collateral in case of default (Riles 2012, BIS 1999). Furthermore, better protection for lenders requires the adoption of daily mark-to-market valuation of collateral, ensuring that lenders can recover the entire value of their loan if forced to sell collateral. The challenge, AFME(2017) warned, is that Chinese pledged repos bear little resemblance to a classic repo because there is no title transfer (See Table 1). A bank or fund using a repo cannot engage in market-making, re-use repo to get funding, cover short position, or swap securities. The outright segment may be distinctive, but the lack of collateral valuation mechanisms also affects creditor protection.

Put differently, the Chinese repo markets bear the hallmarks of financial fragility: over-the-counter, concentrated on the overnight segment, enabling growing levels of leverage, with collateral dominated by government and policy bank securities. However, this is not fragility in the Minskyan sense of orienting the shadow banker towards the daily market value of collateral. Chinese repo markets do not engender Lehman-style fragilities that rendered US shadow banking systemic to global finance because repo collateral practices do not validate business models predicated on daily volatility in the price of collateral securities.

Table 1 Chinese vs classic (Western) repo

	Classic repo	Chinese pledged repo	Chinese outright repo	Chinese SSE repo
Legal transfer of title to collateral	Yes	No	Yes	No
Collateral valuation				
1. Mark to market	Yes	No	No	No
2. Haircuts	Yes	No	No	Yes
2. Margin calls	Yes (daily)	No	No	No

It is important to note that finance lobbies with an interest in promoting securities markets successfully deployed similar arguments about classic repos in high-income countries. Although it is common to retrace the history of shadow banking as a story of regulatory arbitrage and idiosyncrasies of the US financial system, a more careful look points to changing macroeconomic paradigms alongside the financial globalisation. The 1990s saw the emergence of a repo market liberalization project as the Keynesian state made way for central bank independence and market financing of government debt. To attract international investors, G7 countries adopted the institutional blueprint of the US government bond market, including a classic repo designed according to the preferences of globalised finance. Investors required repo markets free of regulatory intervention, the narrative went, if they were to enter local securities markets. A liberalized repo market could be used to fund securities portfolios, to borrow temporarily securities for shorting and to enter and exit securities markets easily, lubricating liquidity and lowering funding costs. The policy engineering of liquid bond markets has been, since the 1980s, a shadow-banking project of liberalising repo markets (Gabor 2016).

Paradoxically, the Bundesbank was one of the few G7 central banks (alongside Bank of England) to resist loud calls from its large banks and the Ministry of Finance that it relax its grip on the repo market in the early 1990s. It invoked concerns with financial stability and monetary policy effectiveness. But the threat that France, a more eager liberaliser, might dominate the Euroarea capital markets proved impossible to resist. By 1997, it abolished repo rules (that the FSB would later use as template to regulate shadow banking). Ten years after, Bundesbank was quietly powering the G7 project to roll out free repo markets (shadow banking) to DEC countries. This approach only changed when the repo runs triggered by Lehman's collapse forced central banks to recognize that repo markets fed leverage, asset bubbles and financial instability in securities markets- based financial systems (Tarullo 2015).

What is at stake in building 'resilient' market-based finance?

The more careful supporters of financial globalisation would find little to worry in the FSB's new agenda. After all, the FSB work on shadow banking has produced in short period of time, unusual for global financial reforms, a comprehensive regulatory regime. The FSB introduced rules for increasing transparency and skin-in-the game for securitization, it tightened regulations for the most systemic shadow banks (money market funds), and for the first time it also outlined rules on the use of repos for funding securities portfolios, reducing its propensity to feed leverage and asset bubbles. While these rules are not legally binding for FSB members, the combination of moral suasion and peer pressure has thus far proved effective. Indeed, the FSB's reform agenda, Mark Carney suggested in 2017[8], meant that shadow banking was no longer a systemic danger to global financial stability. The age of asset management may be upon us, but the FSB made it safer, more resilient than the age of global banking that led the world into the global financial crisis (see Christophers 2013).

Such optimism is unwarranted for three reasons. First, it is now well-documented that FSB repo collateral rules have been watered down significantly. From an approach that targeted any institution using repos, the most recent FSB proposals only target those between non-banks that use non-government bond collateral. That reduces the scope of collateral rules to around 20% of the global repo market universe (Gabor 2016). Equally important, the FSB abandoned the push to treat large asset managers as too big to fail global institutions, that would have generated stricter oversight and capital requirements. Blackrock, the world largest asset manager, with assets under management of USD 4.5 trillion, twice the size of the largest global bank, wrote to the FSB in September 2016 to congratulate it for rethinking its position, the result of years of intense lobbying (Bloomberg 2016[9]). The Trump administration in the US is likely to put another nail in the coffin of repo regulation. The first Treasury (2017) report on recalibrating financial regulation identified a freer repo market as a key priority for an administration worried about market liquidity.

DEC countries would be unwise to rely on FSB rules to contain the fragilities of market-based finance. For DEC regulators reluctant to liberalise repo markets, the Committee on the Global Financial System (2017) report makes grim reading. First,

[8] https://www.theguardian.com/business/2017/jul/03/financial-crisis-mark-carney-fsb-bank-of-england-g20

[9] https://www.bloomberg.com/news/articles/2016-09-26/blackrock-vanguard-hail-regulators-shift-from-too-big-to-fail

the report echoes the FSB (2015, 2016) and AFISMA (2017) view that repo markets are liquidity-enhancing rather than systemic shadow markets feeding leverage and fragility. One annex however, notes that a more volatile market environment, one that US tightening of monetary policy could easily trigger, will put significant pressure on asset managers active in repo markets. This admits that the age of asset management will be riddled with shadow banking fragilities.

Second, the re-engineering of shadow banking comes with pressures for DEC countries to import the institutional structures for producing liquid securities markets from the high-income countries, entangling money and bond markets. While this is narrated as a modernisation of arcane/archaic money markets, it imposes a structure for generating liquidity that is known to be highly fragile. The classic repo amplifies liquidity shocks, it triggers fire sales in securities markets and wholesale funding runs (FSB 2012, 2013, Carney 2014). Repo markets, the Lehman Brothers collapse showed, are resilient to the extent that the central bank extends its mandate to become a market-maker of last resort, arresting the collapse in collateral prices (Mehrling 2012, Gabor 2016). Put differently, shadow banking as market-based finance relies on implicit, and in several countries (eg. Great Britain) explicit, state guarantees in the form of direct central bank interventions in securities markets. Paradoxically, China's repo markets would become a source of systemic risk if the PBOC follows through with the recommendations of the FSB and finance lobbies to adopt 'modern' repo markets and open them up to foreign investors. Collateral fragility is not yet a mark of systemic risk in Chinese (shadow) banking because the existing legal regime does not allow lenders to sell or mark collateral to market. These 'archaic' rules may hurt individual investors but do protect the financial system.

Third, few traces remain today of the gung-ho international financial capitalism pushing for capital account liberalization in the 1990s (Bhagwati 1998). It has been replaced by new arguments that DECs need to solve the 'missing markets' problem by transforming shadow banking into deep, resilient securities markets. Supported by sound macroeconomic policy, market-based finance will allow DEC countries to harness the benefits of financial globalisation. But the perils remain. The entry of foreign investors in local bond markets is a mixed blessing: it may improve liquidity, but often in a pro-cyclical fashion. The IFIs new position on how to address these pro-cyclical forces, that capital controls are warranted once countries have strengthened their macroeconomic policies, is also misleading (Gabor 2012). Large capital inflows bring structural change, financialising currency markets (currency trading driven by financial rather than real economy motives, see McCauley and Scatigna 2011) and interbank money markets (interbank liquidity determined by banks' market activities rather then lending to the real economy). With financialised currency and interbank money markets, DEC countries often had no choice when faced with currency market pressures, including speculative attacks, then to hike interest rates, potentially harming 'real' economic activity (IMF, 2013: 18, also Gabor 2014). Furthermore, Kaltenbrunner and Painceira (2017) convincingly articulate the Minskyan paradox faced by central banks in DEC countries: credibility and predictability in monetary and exchange rate policies breeds instability by encouraging speculative, one-sided bets. More currency volatility reduces the build-up of speculative positions, but also acts as a deterrent to the entry of foreign investors, as China discovered recently. In sum, the project of building local currency bond markets attractive to foreign asset

managers will run into serious policy dilemmas, dilemmas that regulators in high-income countries have confronted but failed to solve for some time now.

Conclusions

The shadow banking reform agenda in DEC countries has undergone fundamental changes. It started as a project of understanding, regulating – and for DEC regulators protecting – alternative sources of credit that are socially useful given the credit rationing exercised by the formal banking sector. However, it has morphed into a project of transforming DEC financial systems into market-based finance, of policy engineering the production and wholesale funding of tradable securities. In practice, the project resuscitates pre-crisis ideas about the benefits of financial globalization, and threatens the policy space for managing DEC countries' integration in global finance, space won through long struggles to normalize capital controls in the face of large and volatile capital flows.

The paper raises several questions for future research. It is important to map out how DEC countries are engaging with the 'shadow banking into market-based finance' agenda. While India and China, two of the largest, have so far retained a cautious approach, particularly towards liberalizing systemic shadow funding markets, the rapid changes in their financial systems may generate additional pressures to fully embrace the 'missing markets' approach outlined by high-income countries. For instance, in April 2016, China's Yu'E Bao (owned by Alibaba) became the largest shadow bank (money-market fund) in the world, overtaking the US's largest fund, JP Morgan Government Money Market Fund. What policies are available for countries faced with rapidly growing domestic institutional investors? How can these be harnessed into a stabilizing force? And what are the implications for a research agenda in international political economy that takes seriously Blyth and Matthijs (2017) plea for re-engaging with the global macroeconomy?

Furthermore, future research could examine critically the longer-term implications of the policies to engineer market-based finance at the intersection with climate and poverty reduction strategies. While this paper examined the efforts to deepen DEC government and private bond markets, the turn to market-based finance can be viewed through longer historical lenses. It prepares the terrain for generating new asset classes in DEC countries. For instance, the Climate Bonds Initiative, supported by the global bank HSBC, promises to mobilise the global investor community for market-based climate action, allowing investors to finance low-carbon, climate-resilient infrastructure via 'climate-aligned' bonds. In 2015, China was the lead issuer of green bonds, a 'zero to hero' story applauded by foreign investors[10]. What are the implications for our understanding of the financialisation of the environment (see Keucheyan this issue)? Furthermore, international development interventions to fight poverty have been re-framed through financial inclusion (see Mader this issue). This new development paradigm promises to solve poverty with big data. A new alliance of DEC countries, international financial organisations, 'philanthropic investment firms' and fintech companies celebrate the power of technology to simultaneously achieve positive returns, philantrophy and human development (Gabor and Brooks 2016, also Mader 2016). Fintech companies promise to create, collect and commodify

[10] https://www.ft.com/content/84ac893a-028e-11e7-aa5b-6bb07f5c8e12

behavioral data from the poor's digital footprints, under the motto 'all data is credit data'. In thus advancing the risk frontier towards the world's poor, the new digital financial inclusion agenda creates new opportunities for market-based finance (poverty bonds and the securitisation of digital loans) and the financialisation of development.

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