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WHO WILL TAKE THE LEAD IN SHAPING CHINA'S SECURITIZATION MARKET MODEL?

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I. Introduction

China's first structured finance transaction dates back to 1992, an urban real estate development project on faraway Hainan Island. In 1996, Zhuhai City, near Macao, issued a municipal toll-road backed financing. In 1997, a cooperation agreement between Chongqing and Horizon ABS (China) produced the first future flow financings issued from special purposes vehicles. Also in 1997, an offshore subsidiary of state-owned China Ocean Shipping Company (COSCO) floated USD300 MM in container receivables-backed notes. A follow-on transaction of similar size was issued in 2000.¹

None of these transactions were real securitizations. They were asset-linked corporate bonds whose investors relied primarily on borrowers' good faith and ability for repayment. Laws did not yet exist in China to have true-sale securitization, i.e., sell non-recourse beneficial interests in future cash flows on specified collateral.² There was no contract law in the PRC until 1999 and no clear way under the law to place assets beyond the seller's reach until China passed a Trust Law in 2001. The legality of collateralized lending itself was not beyond doubt until China modernized its property laws in 2007.

For China, the "real" securitization market began in April 2005, when the People's Bank of China (PBOC) and China Banking Regulatory Commission (CBRC) together cleared away a space for it: a pilot market with facilitating regulations. The pilot was suspended in 2009 in the wake of the Credit Crisis but revived in May 2012 after the Crisis was over.³ Since then—in particular, since the opening of the 18th Party Congress of the People's Republic of China (PRC) in late 2012—China has moved full-throttle to integrate securitization market architecture in its capital markets. To allay any doubts as to Chinese policy makers' love affair with the idea of securitization, here are some highlights:

- In June 2013, the Director of the Center for China in the World Economy, Li Daokui, announced securitization as a "breakthrough point for China's financial reform."⁴
- In early July, China's State Council identified securitization as a mechanism for economic structural adjustment, transformation and upgrading.⁵
- In late July, Premier Li Keqiang chaired an executive meeting of State Council and announced the further expansion of China's securitization pilot market project.⁶
- In early September, People's Bank of China Governor Zhou Xiaochuan called for an "orderly roll out of securitization to channel funds for revitalizing small enterprise."⁷
- In November, China's Third Plenum announced extensive, ambitious growth and reform goals, for which securitization could be a particularly effective financial solution or catalyst.

But love is a two-way street. Success with new markets is dependent on attracting the right commercial partners to create deal flow, and a compelling dimension of China's securitization story comes down to which commercial institutions take the lead and use it. Securitization also has a dark side. Its invisible levers can change the velocity of money and debt accumulation in the economy. Will securitization be China's magic bullet to: diffuse risk concentrations, increase liquidity, tier the capital market and channel funding into the real economy? Or, as the SWIFT *Institute Call for Papers* cautioned, will it encourage a buildup of hidden risk unstoppable by market discipline or tough

¹ Wang Jian, 中国大陆推行资产证券化的实践及法律环境评估, September 30, 2006. As Moody's structured analyst in charge of non-Japan Asian ABS from 1995-1998, the author was directly involved in all transactions except the first.

² Semkow, Brian, General Editor, Ann Rutledge, contributor in *Securitization in China Finance Manual*, 2nd Edition, Asia Law & Practice, 1998, p. 520.

³ This history is detailed in the section Sideways Linkages-Regulatory.

⁴ China Securities Journal, June 13, 2013. http://www.cs.com.cn/english/opinion/201306/t20130613_4019624.html

⁵ Guiding Thoughts Concerning Financial Support for Structural Adjustment, transformation and Upgrading of the Economy, July 5, 2013. 国务院办公厅关于金融支持经济结构调整和转型升级的指导意见, 国办发(2013)67号

⁶ People's Daily, *Li Keqiang convenes an executive meeting of the State Council*, 李克强主持召开国务院产物会议, 日农民日报, August 29, 2013.

⁷ Seeking Facts Theory web, *Executing the Party's path for the masses, promote inclusive financial developments*, September 16, 2013; 周小川, 践行 推进包容性金融发展. 求实理论网, 2013/18 期号.

supervision? Moreover, as the Asian Crisis demonstrated, securitization is difficult to contain within borders. It can move quickly across markets in search of asset-pricing irregularities to exploit, and exploiting them. How will China's securitization market enter the global capital markets? How will its commercial interests shape securitization - and who will they be? These are the questions I set out to answer in this paper.

Several market milestones coincided with the term of my grant that provided new data and insights into breaking trends. Two-thirds of all public originations materialized between the months April 2014 - June 2015, as cumulative issuance rose from CNY 200.00 BN to CNY600.50 BN. However, as Table 1 below illustrates, the numbers do not reflect a slow-but-steady growth scenario consistent with commercial acceptance. It is patchy, with inflections clustered around key events.

The picture supports a hypothesis that China's securitization market growth is dynamic but its direction is still uncertain, driven by *both policy-pull and market-push*. About 80% of all originations followed China's State Council's endorsement of securitization in 2013 (82% by deal count). The uptick in volume during the second half of 2014 followed a bold move by a commercial player that nudged the regulators to streamline the approval process for securitizations.

Table 1 Year-on-Year Origination: China's Public Securitization Market

	<i>Issuance CNY MM</i>	<i># Deals</i>	<i>YOY Growth</i>	<i>Events</i>
2005	17,273.95	4	1.00	Market open for business
2006	28,000.78	10	0.62	Sideways growth
2007	17,808.19	4	(0.36)	
2008	30,201.41	8	0.70	
2009	-	0	(1.00)	Market halts
2010	-	0	-	
2011	1,278.87	1	-	
2012	22,441.51	7	(0.26)	Market resumes
2013	23,170.39	14	0.03	Sideways growth
2014	322,859.09	95	12.93	Market breaks out of its holding pattern
July-Dec 2014	224,726.23	67		Market makes new highs
Jan-6/30/2015	145,103.04	68	-	Market shows growth, slope uncertain
7/1-9/2/2015	83,798.92	42	1.24	2014 Market trend extended, estimated 24% growth

Source: Wind Information Co., Ltd. Data as of September 2, 2015.

A challenge of this paper has been to pull seemingly conflicting data points together in a single narrative. Reflecting on my past experiences with China's market development,⁸ I realized the most stable elements of the narrative were the nature of China's socialist-market model and the commercials' quest for profits. So, I decided the best way to organize my findings was in a game-theoretic (strategic decision-making) framework.

In China's top-down approach to market building, the boundaries imposed by regulators on permissible courses of action are the market's *state* (literally) *variables*. The commercial players' *control variables* are the assets and resources within their control, and their institutional market knowledge with which to formulate tactics and strategies to reach their targets.⁹ But, the regulators are not only rule-makers; they are also players who harbor a mix of political ambitions and public interest goals.

⁸ In 1989-1994, the author worked in the developing Hong Kong-China futures exchange environment, selling brokerage services to Chinese target clients; consulting to the Hong Kong Futures Exchange (now part of HKEx) on market reforms and liaising with Chinese exchange and institutional counterparties; and heading Asian prime brokerage for J.P. Morgan Securities, Asia.

⁹ For the best treatment on this topic, see Isaacs, Rufus, *Differential Games*, Dover Publications, 1955.

II. Framework of Analysis

As the *Call for Papers* points out, China has laws, regulations and other behavioral norms that differ from other countries where securitization has flourished. These norms are rooted in its own, not Western, culture. An analysis of the impact of society on securitization market norms is beyond the scope of this paper and the author's expertise. On the other hand, China's modern economic model frames its own securitization market development. This model is not the free-market economic model in other countries where securitization has flourished. The government's control structure is the *game-surface* and starting point of my analysis.

Game-surface: China's socialist-market economic model

The *raison d'être* of China's securitization market, and of all China's markets, is instrumental. It is not just a "market for market's sake," but a milestone in the PRC modernization story.¹⁰ That story begins after 1977, when China turned away from totalitarian rule and reliance on single-party state control of national resource allocation and distribution, and turned towards markets for help. Markets were seen as a mechanism for redistributing capital resources, incentivizing wealth-creation and collecting feedback¹¹ to build a modern state organically.

China's modern market history is filled with successful examples of market- and market mechanism pilots, too many to enumerate.¹² Along the way, the PRC government has developed a process for boot strapping markets that is now quite mature. It starts with an idea that receives state planning level endorsement. If deemed promising, a small-scale pilot is established in isolation from the mainstream economy. (It is no coincidence that over the years many pilots have been first staged in Guangdong or Hainan Provinces). Trusted market makers are enlisted to develop the embryonic market, and trade quotas or limits are set. Implementing laws, regulations, rules, provisions and other administrative guidance documents are issued, and the market opens for business. While the pilot takes its course, regulators and policy-makers observe market behavior within this control structure. They may decide to fine-tune the design by adding regulatory and facilitating infrastructure, etc., to complete the design.¹³ At the right time, the experiment is deemed to be over, and the market is accepted as permanent institutions in China's economy.

Risk and Return

Judging by the size and diversity of China's securities, commodity futures and bond markets today, the pilot market approach has been exceedingly successful:

- In May 2015, market capitalization of the Shanghai and Shenzhen Stock Exchanges exceeded \$10 TN, \$5.9 TN and \$4.4 TN, respectively. Their market cap now exceeds that of NASDAQ, which

¹⁰ Fang, Songhua, "The Chinese dream and the path of modernization for China," December 6, 2013. www.china.org.cn/china/Chinese_Dream_Dialogue.

¹¹ This is the principle of *seeking truth from facts* (实事求是) attributed variously to Mao Zedong and Deng Xiaoping.

¹² In 1979, China took its first step towards securitization by experimenting with securities markets. Within the decade, Shanghai (1984) and Shenzhen (1987) had listed share markets, which seeded the national stock exchanges in Shanghai (SSE) and Shenzhen (SZE), in 1990. The economic utility of China's securities market, "raising funds, deepening enterprise reform, promoting the development of a market system, [and] importing overseas funds," was considered important, but so were social benefits like "...enhancing citizens' sense of responsibility" and participation in wealth-creation.¹² On a parallel track, China promoted the development of forward and futures commodity markets to alleviate severe circulation blockages and promote price efficiency. Zhengzhou Commodity Exchange, China's first organized commodity contract market, opened its doors in 1990. In the Third Plenum of the 14th Congress, in 1993, the PRC declared its economic model to be *socialist-market*. A comprehensive securities law for futures and securities was passed in 1998. Working their way up the economy's capital structure, government financial system planners next turned their attention to money and bond markets. From 1948 until 1978, the People's Bank of China (PBOC) had been China's only bank but in the 1980s, its commercial banking functions were split off and formed four independent, special-function state-owned banks.¹² China's central banking law was formalized in law in 1995 and extended in 2003, to strengthen the PBOC's role in monetary policy, financial risk prevention and financial system stability.¹² From the late 1990s through the 2000s, laws, regulations and implementing market infrastructure were adopted to further develop China's money markets. Its product offerings include the usual suspects, government and municipal bonds, central bank bills, financial bonds issued by policy and commercial banks and other financial institutions, non-financial corporate bonds, medium term notes (MTNs), mutual funds and corporate commercial paper, as well as more idiosyncratic offerings, enterprise bonds, marketplace (P2P) loans, wealth products, special-plan structured bonds and trust products of the ABS and non-ABS variety.

¹³ See discussion on market development Gao, Shangquan and Chi Fulin, *The Chinese Securities Market*, Beijing: Foreign Languages Press, 1996, p. 1-19.

ranks second, and lags only the NYSE.¹⁴

- At the end of 2014, China dominated ten out of 20 global agricultural contract markets, with average volumes two to three times greater than in Chicago's exchanges.¹⁵ China's bond market is the third largest in the world,¹⁶ just behind the U.S. and Japan.
- China's debt market outstandings in mid-2015 were approximately CNY 36TN (USD 5.8TN) and trading volumes were CNY 57TN (USD 9.2TN).¹⁷

If this pilot market history is any guide, China's ABS markets will attain scale to rival or exceed other global markets. However, they are likely to remain primarily domestic for some time to come. In spite of China's stated ambition to internationalize its capital markets, the momentum of interest from U.S. ABS market institutions and lobbies,¹⁸ and talk of using Shanghai's Pilot Free Trade Zone as a testing ground for cross-border securitization¹⁹, rapid globalization is unlikely.

China's asset markets have been historically domestically focused, with Hong Kong serving as the external trading platform for overseas stock and bond investors. More recently, a select (albeit, growing) number of large financial institutions have been licensed to transact in domestic markets under the QFII (Qualified International Financial Institution) regime. QFII took effect for China's stock exchanges in 2002 and was extended to the interbank market in 2012. Shanghai-Hong Kong Stock Connect, launched in November 2014, opened the market to domestic and overseas investors to execute on each other's exchanges through local brokerage and clearinghouses. China's futures markets remain closed to the outside.

One reason for the inward focus has been control of the China's currency. This factor has become less compelling as China has begun lobbying to make the Yuan a reserve currency,²⁰ however inordinate market volatility continues to be a challenge for China. Based on my analysis of risk (see Section VIII) ABS will be no exception. When foreign hedge funds attempted to break the Hong Kong dollar peg to the U.S. dollar in 1997 by aggressively shorting the Hong Kong stock market, China and Hong Kong successfully intervened; and this was an object lesson in the need to curtail external volatility. But China's markets are volatile without foreign influence. Excessive leverage was behind the *327 Incident* (March 27, 1995) when Shanghai's bond futures market collapsed after the Exchange failed to enforce exchange open position limits. China did not reopen financial derivatives trading for a decade after that incident. China-hand Seth Faison's comments at the time still resonate today in the wake of the 2015 stock exchange meltdown:

*The bond market crisis has followed a similar pattern in China's financial markets: a new avenue for raising capital is created, initial indifference gives way to active trading and eventually to a frenzy of speculation, and finally the authorities intervene with strong measures that stop excesses as well as any active trading.*²¹

¹⁴ Yan, Sophie, CNN Money, <http://money.cnn.com/2015/06/15/investing/china-stocks-10-trillion/> June 15, 2015. Also see Business Insider, <http://www.businessinsider.com/global-stock-market-capitalization-chart-2014-11>.

¹⁵ Acworth, Will, *Futures Industry Magazine*, "2014 FIA Annual Global Futures and Options Volume," Exchange Vol. 2014, March 9, 2015. Also Ronalds, Nick, <http://www.world-exchanges.org/insight/views/chinese-futures-markets-coming-booming-decade>, 2010.

¹⁶ Adjusting for currency units, it is close to the size of the US bond market at the end of 2014 (USD 39 TN) and in dollar terms, comparable in outstandings to the US bond market at end of 1987. Sifma statistics, updated June 11, 2015: <http://www.sifma.org/research/statistics.aspx>.

¹⁷ Goldman Sachs Asset Management, Global Liquidity Management: <http://www.goldmansachs.com/gsam/glm/insights/market-insights/china-bond-market/china-bond-market.pdf>, First Half 2015, pp. 1-2.

¹⁸ Attendance at the joint China Securities Forum-Structured Finance Industry Group conference in March 2015 was estimated at over 1100, with significant representation from U.S.-based QFIIs, rating agencies, law and accounting firms, and analytics vendors.

¹⁹ See, for example, <http://www.reuters.com/article/2015/02/05/idUSnMKW31875a+1c0+MKW20150205>.

²⁰ See, for example, <http://www.bloomberg.com/news/articles/2015-03-23/why-china-wants-its-yuan-to-be-the-world-s-5th-reserve-currency>.

²¹ <http://www.nytimes.com/1995/03/06/business/scandal-besets-chinese-markets.html>

Takeaways for China's securitization market development

I believe China's market-building history and experience hold these takeaways for the securitization market:

- (1) China builds markets from the top down. The government is unlikely to abandon its planning role to market forces for the foreseeable future.
- (2) China builds market families, not single markets. Rather than integrating, they develop as local monopolies with special functions.
- (3) China builds markets of scale and prominence but there is reluctance to internationalize them. Globalization will be phased in through the QFII/RQFII (RMB/Qualified Institutional Investor) scheme, which allows selective participation in the interbank and offshore markets.²² Nevertheless, the ABS market will not globalize as soon as some may expect. This choice is related to the absence of an effective circuit breaker for China's markets by isolating them from the force and direction of international trade.
- (4) The risk of meltdown in China's domestic securitization market is very real. So is the pressure for growth. Both challenges have to be considered in tandem, given the current state of knowledge about how to manage leverage in ABS and the lack of an effective systemic circuit breaker.

III. China's securitization market: organization, capabilities and dynamics

Figure 1 below provides a high-level diagram of China's capital markets, siloed by regulatory sector (columns). Regulators, players, self-regulatory bodies and central clearing counterparties are in rows.

The horizontal arrays can be thought of as the *de facto* tranching capital structure of the financial economy. To the left is China's insurance industry. It does not have much dedicated capital market infrastructure. The quest for long-term, high quality assets should push insurance portfolio managers right towards the interbank market, a high quality market for large institutions. The average life of bank portfolios is considerably shorter than insurance liabilities, creating an asset-liability gap problem. Securitization could ameliorate the mismatch.

To the right of the interbank market is the securities market (and the futures market, not shown) regulated by the CSRC. These markets offer higher yield for higher risk. They are centered in China's real economy and serve a diversified national client base.

²² This trend began in early 2015: the Standard Chartered RMB 1.0 BN two-tranche Zhen Cheng Credit Asset Securitization 2015-1 ABS was the second, issued in February <http://www.sc.com/cn/chi/news/2015/ABS-Press-Release-ENG-9-Feb-2015.pdf>, and HSBC-Bank of Communications' RMB 1.35 BN senior-sub Huiyuan 2015-1 Corporate Loan Securitization, issued in January.

To the far right, in the shadow market, structured transactions that are not officially part of the securitization market are also being packaged and sold. Some of them look identical to securitizations but are unregistered and unrated. Anecdotally, some bulge bracket firms from overseas are also selling quasi-securitizations into this market. Recently there has also been considerable interest in securitizations of peer loans originated in this sector. It is very difficult to ascertain objectively whether securitization is absorbing this sector or feeding its expansion.

There is no dedicated securitization channel at present for municipal and SOE capital management. If initiated, the mass of the securitization market would shift to the right, arguably forcing the securitization market to integrate more tightly. The exchange side of securitization in China would develop faster, putting China's ABS portfolio and market on a unique path.

Top-Down Structure: State Variables

At the top of China's centralized power structure, the National People's Congress (NPC) legislative branch elects the President, appoints the State Council and enacts state law. The State Council, in turn, leads the PBOC (1998), Ministry of Finance, MOF (1949), China Banking Regulatory Commission, CBRC (2003), China Securities Regulatory Commission, CSRC (1992) and China Insurance Regulatory Commission, CIRC (1998) by authorizing and giving guidance in future directions. They are the main influencers in the Chinese securitization markets today. China's State Council also empowers other ministries, special agencies and commissions whose sphere of influence overlaps with China's financial-economic reform agenda. Although they are not mainstream financial players, their agenda and responsibilities may necessitate involvement from time to time, in ways orthogonal or even opposed to pure financial market goals. As such, they should still be considered as potential (albeit out-of-the-box) influencers.²⁵

A (not so) short list would include SASC, responsible for improving the operating efficiency of the SOEs; MOFCOM, responsible for foreign trade consumer protection, market competition and trade agreements; MOHURD, with a direct interest in the development of mortgage-backed securities in China and urbanization; MOST, the coordinator of domestic science and technology activities; MIIT, regulator of China's electronic layer and promoter of the knowledge economy; NDRC, successor to the State Planning Commission involved in macro-economic planning, strategy, evaluation and reform; NBR, is responsible for classifying and collecting economic performance statistics on which policy-makers base their plans and proposals; SAFE, in charge of governing foreign exchange market activities, analyzing China's balance of payments and managing its foreign exchange reserves; SAIC, which oversees market regulation, regulation of the private economy and consumer protection (it

²⁵ Chinese regulators involved in capital formation and industrial development care about issues that securitization markets touch on. The State-owned Assets Supervision and Administration Commission, SASC (2003) is responsible for improving the operating efficiency of the SOEs, which are the focus of the attention of one securitization market model (ABSP, as discussed below). The Ministry of Commerce, MOFCOM (2003), successor to Ministry of Foreign Trade, MOFT (1952) is responsible for foreign trade consumer protection, market competition and trade agreements. Anecdotally, this regulator has a close dialogue with the micro- and small enterprise sector that securitization markets as well as competitor microfinance platforms serve. The Ministry of Housing and Urban-Rural Development, MOHURD (2008), successor to the Ministry of Construction (1979), has a direct interest in the development of mortgage-backed securities in China and the advancement of securitization for urbanization generally. Chinese regulators of backbone internet- and mobile banking technologies that make virtual finance possible have a stake in financial market design and the success of domestic technology enterprises. The Ministry of Science and Technology, MOST (1998), successor to State Science and Technology Commission (1958) and coordinator of domestic science and technology activities, is one. The Ministry of Industry and Information Technology, MIIT (2008), with a long evolutionary history, regulator of China's electronic layer and promoter of the knowledge economy, is another. The National Development and Reform Commission, NDRC (2008) and successor to the State Planning Commission, SPC (1952), is involved in financial market design in so far as it is responsible for macro-economic planning, strategy, evaluation and reform. The National Bureau of Statistics, NBR (1952), is responsible for classifying and collecting economic performance statistics on which policy-makers base their plans and proposals. State Administration of Foreign Exchange (SAFE) is a separate administrative agency in charge of governing foreign exchange market activities, analyzing China's balance of payments and managing its foreign exchange reserves. The State Administration for Industry and Commerce (SAIC) oversees market regulation, regulation of the private economy and consumer protection. Its relationship to securitization may seem very abstract but in November 2014, SAIC launched a free, online company information service and registry for receivables' security interests, National Company Credit Information System (NCCIS).²⁵ Also not to be forgotten, the State Administration of Taxation, SAT (1958) is in charge of tax policy and implementation. Tax policy has a direct impact on securitization market development by deciding whether the state siphons the capital conserved through structuring or allows it to be passed on to the market. Finally, with regard to the multi-dimensional question of contract enforcement, so critical to fixed income market development, the Ministry of Justice, MOJ (1954) is ultimately responsible for rulemaking, enforcement and adjudication, extending to all legal matters in the official and shadow financial markets.

launched the Company Credit Information System (**NCCIS**) for collateral registration; **SAT**, the tax bureau, whose policy has a direct impact on securitization market development; and the **MOJ**, ultimately responsible for rulemaking, enforcement and adjudication, extending to all legal matters in the official and shadow financial markets.

Two Securitization Market Families and their Control Variables

China has two securitization market regulators, the CBRC and the CSRC. This means two distinct markets endowed with different rules, goals and players—in effect, two different games. One is played the interbank market, the other in exchanges. Players pursue characteristic strategies and use relevant tactics to achieve their goals. It is not clear that the “winners” in one market could win in the other by relying on the identical resources, knowledge and tactics that work in the home environment.

TABLE 2 China’s Two Securitization Markets, CASS and ABSF

SPONSOR	PBOC/CBRC	CSRC
MARKET	CASS (formerly PSF)	ABSP (formerly SAMP)
RULE MAKERS	NAFMII	SZE, SSE
ABS-SPECIFIC RISK ARCHITECTURE	Benchmark pricing system. Yield curves. Valuation agency grading. ABS info disclosure guidelines. Securitized product design parameters.	Exchange Listing and Disclosure Rules
ORIGINATORS	Banks. Trust companies. Financial lessors. Auto finance companies. Loan companies	Industrial companies. Infrastructure projects. Insolvent platforms.
ISSUERS	Trust companies.	Security companies. Asset management corporations.
INVESTORS	Institutional.	Institutional or Individual.
CENTRAL COUNTERPARTIES	CCDC (“China Bond”)	CSDC (“China Clear”)
INFO VENDORS	CCDC, WIND	WIND

Market #1: Credit Assets Securitization Scheme (CASS)

This is China’s showcase securitization market. Securities issuance is regulated by the CBRC with close involvement of the PBOC. Trades are executed in China’s Interbank Market, whose day-to-day activities are monitored by a powerful self-regulatory institution, the National Association of Financial Market Institutional Investors (NAFMII). The CBRC and PBOC were the original architects of the pilot market (then called *Pilot Securitization Framework*, **PSF**) governed under *Administrative Rules for the Credit Asset Securitization Pilot* in 2005. From then until the Crisis in 2008, they issued eight of the 10 main administrative notices and rulings to shape the early market.^{26,27}

²⁶ MOF and SAT published one document on the taxation of securitizations, in early 2006, and the CSRC issued guidelines for security investment funds investing in securitizations, in mid-2006.

²⁷ CBRC, *Notice Concerning Strengthening the Management of Securitization Business*, February 4, 2008.

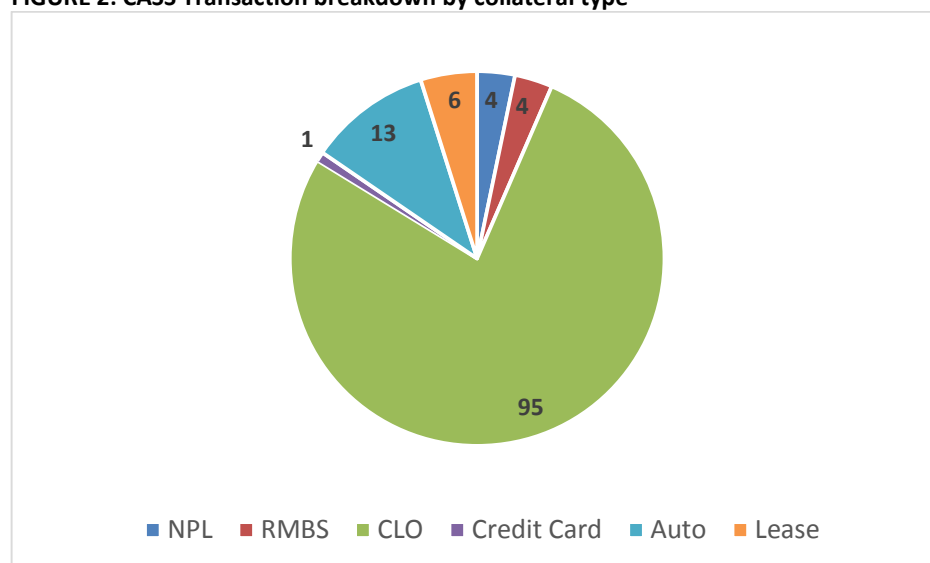
CASS has a lot of natural environmental advantages relative to the other market. *Prima facie*, CASS is the beneficiary of the most policy and regulatory attention. It is the most densely networked ABS market in China. To the extent the Interbank Market is deregulating most rapidly and benefits from market mechanism pilots, CASS has flexibilities not available to the other market.

CASS-transactions most closely resemble U.S.-style true-sale securitizations, although their legal mechanism for achieving bankruptcy-remoteness is organic and most closely resembles that of Japan rather than U.S. or U.K. law.²⁸ They are eligible for higher international bond ratings than ABSP securitizations, from the CSRC-regulated market, so the payoffs are higher (at least overseas) and financial incentives to transact in the CASS market are likely stronger.²⁹

CASS transactions also offer investors more performance transparency (notwithstanding great potential for transparency in the other market) because the regulatory reporting standards are more comprehensive in traditional ABS terms. Based on Wind data, for example, WAC (weighted average coupon), geographical concentrations, capital structure, ratings, yield, are uniformly disclosed. Auto and mortgage backed securities also provide pool level delinquency and default data in line with Reg AB I requirements.³⁰

Furthermore, CASS is the bigger, more liquid market. As of June 25, 2015, 62% (127) of all Chinese securitizations (206) were issued in the CASS market by deal count. It accounts for 82.2% (CNY 497.6 BN) of total principal issuance (CNY 605.00 BN). Principal issuance today is eight times what it was when the market halted in 2008, and average deal size (CNY 3.92 BN) is approximately the same as before the market halted in 2008 (CNY 3.87 BN). This stands in stark contrast to the case for the other, ABSP market, where principal issuance has grown 3.4 times and but average deal size (CNY 1.36 BN) is only 56% what it was before the Crisis and 65% smaller than for the CASS market.

FIGURE 2: CASS Transaction breakdown by collateral type



Source: Wind Information Co., Ltd. Data as of June 25, 2015.

As Table 3 shows, CASS collateral is divided into six categories: non-performing loans (NPL), residential mortgage-backed securities (RMBS), collateralized loan obligations (CLO), credit card ABS, automobile loan ABS and light equipment lease ABS.

²⁸ For an excellent review of the facilitating regulations and laws in China’s ABS market, see Lin Hua, *Asset Securitization: A New Style of Finance*, Citic Press, June 2014.

²⁹ Ong, Kingsley T.W. and Aaron Qunmin Liu, *Capital Markets Law Journal*, “The Influence of public law on the development of China securitization,” p. 4.

³⁰ Wind Information Co., Ltd., a leading integrated service provider of financial data, information and software for the China Market, <http://www.wind.com.cn/en/>.

TABLE 3 CASS Collateral Analysis

Collateral	Deal	Initial	O/S	Pool Factor	Issue Date	WAM	WARM
	#	-----CNY MM-----		Average	Average	Mo.	
NPL	4	13,415	5,565	41.5%	10/3/2007	59.77	24.79
RMBS	4	17,142	8,959	52.3%	12/1/2010	300	156.57
CLO	95	426,209	243,836	57.2%	1/6/2014	56.39	32.26
Auto	13	23,105	13,162	57.0%	1/7/2014	66.30	37.77
Credit Card	1	8,109	3,487	43.0%	3/25/2014	4.84	2.08
Lease	6	9,597	6,030	62.8%	12/9/2014	59.91	37.64

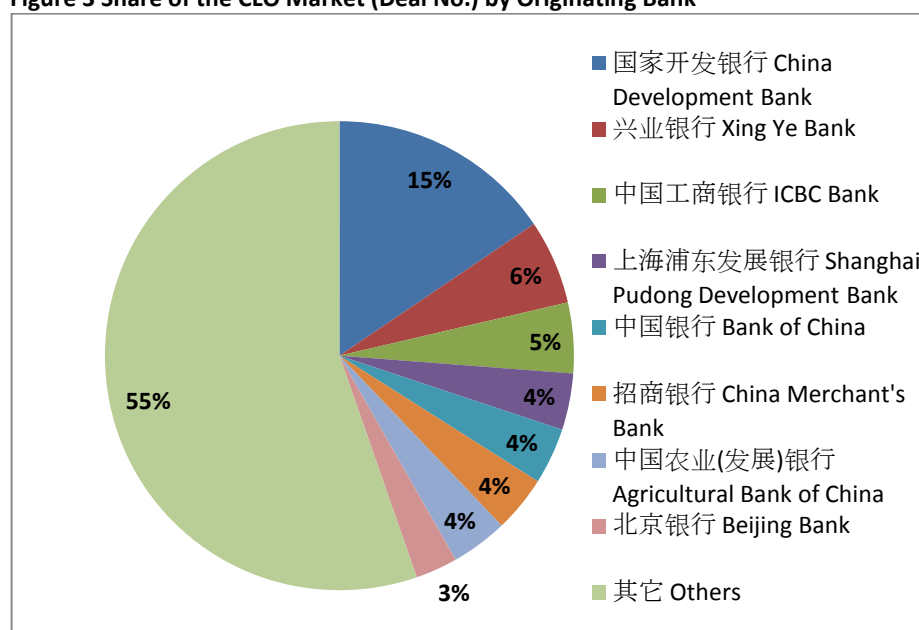
Source: Wind Information Co., Ltd. Data as of June 25, 2015.

Listed first, NPL is the oldest sector (average issue date is 2007) but considering the seasoning, a surprisingly large percentage remains unamortized perhaps because the collateral is not high quality. It is an atypical asset in global ABS markets. RMBS, CLOs, credit card, auto equipment lease are established asset classes in the global markets. In China, pure credit card ABS is the smallest class. (I say “pure” because, in at least one case described at length below, credit cards were used to finance auto loans.) RMBS still is not an attractive asset class in China because funding rates in the mortgage market are very competitive with capital markets. Half the RMBS transactions went to market prior to the Crisis, and the other half were issued in 2014-5.

The attractiveness of auto ABS as a funding tool rose in 2014 with the entry of foreign auto manufacturers, who have limited RMB funding capabilities. It is now the second-largest asset class.

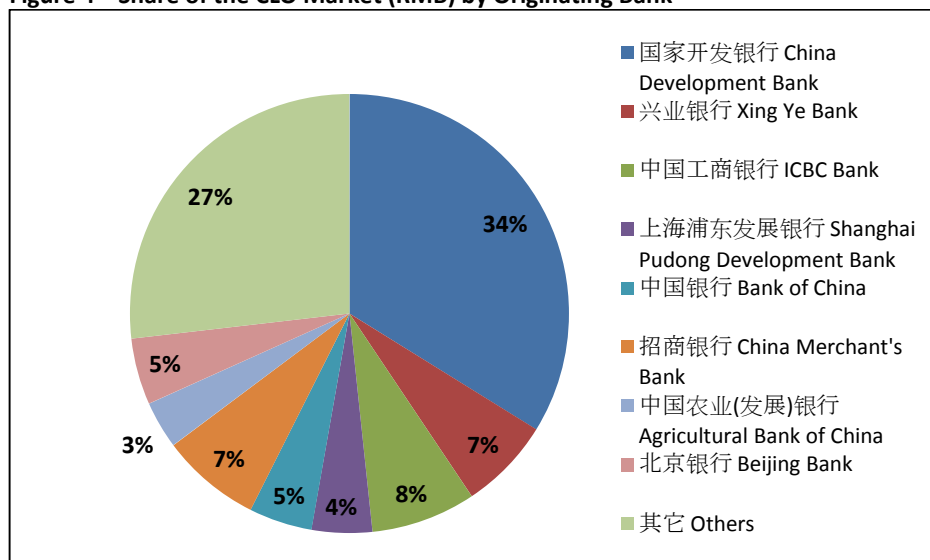
By far the largest sector is CLO—about 75% of the CASS market, and an indication of the importance of middle-market lending to the Chinese securitization market growth story. Figures 3-4 display originators that have sponsored three or more transactions backed by commercial loan collateral. While policy-oriented China Development Bank is responsible for 34% of CLO principal exposure and dominates the market, the rest of the market is quite diverse. Fully 57% of CLOs are from originators with fewer than three transactions.

Figure 3 Share of the CLO Market (Deal No.) by Originating Bank



Source: Wind Information Co., Ltd. Data as of June 25, 2015.

Figure 4 Share of the CLO Market (RMB) by Originating Bank



Source: Wind Information Co., Ltd. Data as of June 25, 2015.

Market #2: Asset Backed Special Plan (ABSP)

As global credit market activities had shut down, in May 2009, the CSRC launched a second pilot (Special Asset Management Plan, SAMP) with *Briefing Letter on Securities Companies Asset Securitization Pilot Case* and *Guide to Securities Companies Asset Securitization Pilot Case*.³¹ The CSRC periodically refined its guidelines through 2012.³² In February 2013, the CSRC sought public feedback on how to reorganize and improve the market design. In March 2013, a permanent market framework was promulgated, Asset Backed Special Plan (ABSP).³³

ABSP is a much smaller market than CASS, as Table 3 shows. It has 79 deals (37% of total market) and CNY 107.4 BN (17.8%) of total ABS originations through June 25, 2015. All special-situation financings before 2005 mentioned in the Introduction belong to ABSP. Borrowers are from basic industries, energy and transport infrastructure, state owned enterprises (SOEs), asset management companies (AMCs), and municipalities.³⁴ The originators (Table 5) usually focus on one or two sectors, and collateral types are less standardized and more idiosyncratic (Table 4). For example, the “Single Seller Enterprise Bond” type encompasses microfinance loans, internet fees, electricity fees, toll road fees, tunnel fees, amusement park ticket fees, hydroelectric dam revenues and other operating revenues, from locations as dispersed as the Tibetan Plateau, Shanghai Pudong, Jilin, Zhejiang, Guangdong and Sichuan Provinces, from names recognized only locally (Big City Electrical Heat Company) to names with global recognition (Alibaba).

TABLE 4 ABSP Collateral Analysis

Asset Class	Count	Initial Issuance	O/S	Pool Factor	Issue Date
		----- CNY MM -----		----- Average -----	
Single Seller Enterprise Bonds	33	47,910	29,408	61.4%	3/25/2013
Infrastructure Bonds	7	10,481	6,470	61.7%	10/26/2010
Lease-Backed Bonds	3	11,173	10,185	91.2%	11/25/2008

Source: Wind Information Co., Ltd. Data as of June 25, 2015.

³¹ CSRC, *Pilot Guidance for Securities Companies on Enterprise Securitization Business (Trial)*, May 21, 2009.

³² 证券公司企业资产证券化业务试点（试行），November 30, 2010, and 证券公司客户资产管理业务管理办法，October 18, 2012.

³³ CSRC, *Provisions for the Management of Asset Securitization Business*, 证券公司资产证券化业务管理规定，March 15, 2013.

³⁴ Fan, Gang and Nicholas C. Hope, Chapter 16, “The Role of State-Owned Enterprises in the Chinese Economy,” *US-China Economic Relations 2022*, 2013, p. 2.

Nevertheless, strategically this is an important market. It is close to the real economy, and to ordinary citizens who invest retail in the exchange markets. Perhaps, it is too close. Success with ABSP would be a realization of the dreams of original reformists like Gao Shangquan (see Footnote 12), to deepen enterprise reforms while enhancing citizen participation and responsibility. However, it would be politically costly if state property and ordinary people's livelihoods were harmed as a result of mistakes in this market.

Also, while ABSP holds great potential for upgrading China's capital base, the law on true sale is viewed less favorably here than in the CASS model where the *issuer* is a trust (信托) company. Under PRC Trust Law, trust property is clearly separated from the seller's estate, and this separation ensures bankruptcy remoteness.³⁵ In the ABSP model, the issuer is not a trust company. Although the collateral is placed beyond the seller's reach under the CSRC Securitization Administrative Provisions of March 2013,³⁶ the enforceability of investors' claims is less certain.³⁷ Legal experts note that the administrative provisions rank in authority below laws.³⁸ That raises the specter of scenarios such as the following:

The ABSP seller becomes insolvent. Its creditors, for example employees seek to claw back the funds due to ABSP investors for past-due wages. They challenge the true sale on grounds of state law, legal interpretation, administrative, local or autonomous regulations, or special rules. The judge sees things their way.

In this scenario, the default risk of the ABSP securities is no different than the seller's. The economics have not changed in the new transaction. The bonds should not be rated significantly higher. The funding cost should not be significantly lower. Even if the seller repays the investor on time and in full, the rate of return will not be the fair market rate; the fair market rate would correspond to the seller's default risk.³⁹ The funding arbitrage is not there.

Anecdotally in the ABSP market, even after the "sale" of assets takes place, the borrower/seller nearly always remains on the hook to pay investors. The investors also view these bonds as asset-linked corporate financings, and demand additional protection.

Sideways Linkages-Regulatory

As mentioned above, the PBOC, CBRC, CSRC, CIRC and MOF exert direct policy and regulatory influence over China's financial market structure and activities. But sideways linkages are also being forged. In August 2013, the State Council established an inter-agency financial regulatory committee that promotes collaboration, cooperation and coordination.⁴⁰ This change goes hand-in-hand with a post-2012 regulatory approach emphasizing loosened regulations, relaxed constraints and risk prevention (放松管制, 放宽限制, 防控风险), which financial market scholar-practitioner Dr. Ba Shusong⁴¹ has called a "turning point, to usher in the grand era of asset management."⁴²

The effect of this approach on ABS regulation have been evident beginning with the market's reopening on May 17, 2012, to new regulations published jointly by the PBOC, CBRC, CSRC and MOF,

³⁵ For a definitive current analysis on the impact of differences in the legal standing of bankruptcy-remoteness mechanisms in the two markets, see Ong, Kingsley T.W. and Aaron Qunmin Liu, *Op. Cit.* Discussion of true sale is on p. 3.

³⁶ See footnote 31.

³⁷ Ong, Kingsley, *Ibid.*, pp. 10-16.

³⁸ Ong, Kingsley, *Ibid.*, pp. 10-16.

³⁹ To illustrate the financial impact of true sale treatment using yields, suppose a three-year bond of the seller is rated BB and the credit risk premium is 6.1%. The rating on a three-year average-life Class A bond backed by the seller's collateral is AAA and the credit risk premium is 1.5%. Compared to the investor in comparable CASS bonds, the ABSP investor has 13.8% [(0.061-0.015)*3] of its yield at risk for such true-sale issues.

⁴⁰ *State Council Concerning the Establishment of A Financial Regulatory Cooperation and Coordination Council*, 国务院同意建立金融监管协调部际联席会议制度的批复, August 20, 2013 http://www.gov.cn/zwqk/2013-08/20/content_2470225.htm.

⁴¹ Presently China economist for Hong Kong Exchanges.

⁴² Ba, Shusong, 2013 Report on China Asset Management Industry Development, China People's University Publishing; 巴曙松者, 前言, 中国资产管理行业发展报告: 大资管时代来临. The quote is from his *Forward*; but there is extensive discussion of regulatory change and its knock-on effects for China's capital markets in *Chapter 2, Exploratory Corporate Governance and Regulatory Structures for (China's) Mega-Asset Management Industry*, 大资产管理行业的公司治理及监管架构初探.

Notice on Further Matters Concerning the Expansion of the Credit Assets Securitization Pilot No. 127 [2012].⁴³ The insurance regulatory commission (CIRC) joined the securitization dialogue on August 13, 2013.⁴⁴ On January 7, 2014, the Science and Technology Department joined the PBOC and CBRC to promote the use of innovative mechanisms in IT financial services for non-banks in the micro- and small-financial sector and encouraging them to engage in securitization. On July 14, 2014, SAFE joined the PBOC, CBRC, CSRC and CIRC to issue **Notice on Regulating Interbank Business of Financial Institutions No. 127 [2014],**⁴⁵ echoing points made by the State Council on healthy capital market development⁴⁶ for the financial markets, e.g., diffusing concentrations, raising liquidity, creating a multi-tiered market and channeling funds between the interbank market and the real economy. The list goes on.

An undercurrent of interagency competition to liberalize may also be perceptible. The CBRC's response to the Pingan case in June 2014, described below in the section Bottom-Up Disruption offers an example.

Sideways Linkages-Commercial

Recently, the capital markets map has been characterized by growing sideways linkages. While Chinese financial regulators are increasingly sharing information and risk across boundaries, Chinese financial conglomerates have been acquiring scale and specialized capabilities that cross boundaries. State-owned International Commercial Banking Corporation, China Construction Bank, Bank of China and Agricultural Bank of China, and commercial Bank of Communications, Pudong Development Bank, Xinye Bank and Minsheng Bank, participate directly as securitization underwriters via the CASS market, but as affiliated security-investment companies, insurance companies, leasing companies, funds, asset management companies, non-bank financial companies and merchant banks, they may also may fulfill in other roles and cross over to the ABSP market. Such networks greatly enrich their opportunity to lead and profit from securitization.

By the same logic, the four large capital groups, CITIC Group, China Merchants Group, Ping An Group and Guangda Group, may have affiliated banks, security-investment companies, insurance companies, trust companies, futures brokerage, funds, asset management and investment companies. The four state asset management companies (AMCs), Great Wall, Cinda, Huaneng and Orient Asset Management, also have special capabilities in fund management, insurance, direct investment, consumer lending, trust company, brokerage and asset management, which extend the range of the types of transactions they can sponsor and support.⁴⁷ Like China's large banks, these large financial concerns are in a position to pick and choose how they enter the securitization market.

The value of trust companies to the conglomerate deserves study. Regulated by the CBRC, trust companies were the original vehicle for transferring property under China's Trust Law (2001) before China's property laws were updated. They are the key to true sale securitization in CASS, but the business model underlying their main role (facilitating asset transfer) is an open question.⁴⁸

⁴³ It governs, among other things, eligible assets, admissible structures, risk retention, ratings and capital charges, accounting treatment, required disclosures, investor qualifications and funds in escrow.

⁴⁴ *Guiding Thoughts concerning financial support for economic structural adjustment, transformation and upgrading.* in support of securitization and guiding remarks for insurance companies.

⁴⁵ http://english.gov.cn/policies/latest_releases/2014/08/23/content_281474982986750.htm.

⁴⁶ State Council [2014] No. 17.

⁴⁷ Ba, Shusong, *Op. Cit.*, pp. 32-34.

⁴⁸ But not all trust companies are uniformly constituted. A transacting model called collective trust (集成信托) exist legally that operates outside CASS without observing the risk conventions that uphold ABS market order. A collective trust, *Credit Equals Gold #1* (诚至金开 1 号), from China Trust (中诚, not to be confused with CITIC group, 中信) failed very visibly in early 2014 and quickly became a poster child for China's ungoverned credit risk in the Western financial press.

IV. Bottom-up disruption as a leadership factor

Markets evolve by trying out new ideas about how to pair value and risk profitably. If an idea is successful (investors buy it; sellers raise funds and increase liquidity; intermediaries make fees) then other banks and arrangers will copy it. Bits and pieces of the idea will show up in new issues. Gradually the “new” becomes a familiar pattern, and someone decides to try out a new idea or a variation on the familiar. This description fits evolution in the securitization market particularly well because it is designed to take collateral apart and put together in new ways. More or less the same dynamics are evident in China’s securitization market, despite its being more tightly scripted.

To illustrate, Ford Motor China issued its first auto ABS, Fuyuan 2014-1 Retail Auto Mortgage Loan Securitization, on May 27, 2014. It has a double-principal waterfall unique in China but a modified version of Ford’s standard global auto ABS structure. At around the same time, China Merchants Bank (CMB) issued an auto ABS transaction CMB 2014-1 Trust. Optically it would be reasonable to compare the Fuyuan deal to the CMB deal. However, in the prospectus fine print was a disclosure that substantially less than 100% of the CMB pool was collateralized. CMB was securitizing lines of credit it had extended to qualified borrowers to purchase cars—some had cars, some did not. Differences in the credit package, pricing and structure between the two transactions are nuanced, but could lead to very different performance outcomes.

These transactions were not game changing, but they were innovative in the usual way of ABS innovations: they altered the payoffs in a way that benefitted one or more parties. The Ford deal pushed the envelope towards fuller reliance on structured analysis.⁴⁹ The CMB transaction pulled it back towards fuller reliance on corporate analysis.

Truly game-changing deals in China are of special interest for what they say about market leadership. Over the past two decades, many interesting ideas have bubbled up in the deal literature. To my eye, they boil down to one of two strategies: deals that subtly change the payoffs or deals that not so subtly move boundaries. The latter are the focus of this section on “bottom-up disruption.” Of ABS transactions that are searchable on the web, two in particular stand out. One is from the pre-securitization market, *COSCO (Cayman) Freight Management Master Trust* (1997). The other is very recent, *Pingan.1401.SH* (June 2014).⁵⁰

COSCO (Cayman) Freight Management Master Trust (1997)

In April 1997, China Offshore Shipping (Group) Company (COSCO) sponsored two series of \$100 MM fixed- and \$200 MM floating-rate notes origination backed by U.S. dollar shipping receivables from overseas subsidiaries. Had this deal been issued domestically today, it would be classified as an ABSP deal; however, these notes were issued from a Cayman Island master trust and sold to foreign investors with BBB/Baa2 ratings.

For a Chinese deal to achieve investment-grade ratings it needed to reassure investors that the standard legal protections were in place: cash flows to repay investors would be secure in U.S. dollar trust accounts, and terms of the indenture would be enforceable under international law. But the joke was on the buyers and the agencies that assigned the ratings, for the real credit structure was based on a COSCO (Beijing) guarantee, and the quota from the State Administration of Foreign Exchange (SAFE) to guarantee dollar payment was not in place. Substantively, COSCO was a domestic Chinese ABS deal.

With hindsight, the COSCO transaction was a milestone in China’s corporate market ABS. The inefficient state-owned enterprise (SOE) sector still accounted for over 50% of China’s gross

⁴⁹ In a January 2015 interview, Jason Behnke (Ford China CFO) explained that Ford had invested time in educating the regulators about why the structure is good for investors, despite the seeming complexity.

⁵⁰ Also, *Pingan Bank No. 1 Small Consumer Loan Credit Asset Certificates*. 平安银行 1 号小额消费贷款证券化信托资产支持证券.

industrial output but was under increasing pressure to restructure or cut bait.⁵¹ COSCO I, and its successor transaction COSCO II (1999), were an out-of-the-box strategy for China to raise funds in the foreign exchange markets. They also demonstrated a sophisticated understanding of how to play the securitization game.

An interesting question to consider is why SAFE, a powerful regulator in a still largely planned economy, did not interfere. But, there were potentially many benefits for the COSCO deal to go ahead. First, it fell in line broadly with overarching macro-economic policy goals. Second, it gave working-level directors of China's financial planning and reform institutions, like the State Council, the People's Bank of China (PBOC), the then-State Development and Planning Commission (superseded by the National Development and Reform Commission, 2003) and, of course, SAFE, a precious experiment to be studied, savored and absorbed.⁵² Finally, tactics played a role. COSCO effectively transferred regulatory risk to overseas investors. If they did not clearly understand China's regulations, it was neither SAFE's nor COSCO's problem. Caveat emptor.

Ping An Bank No. 1 Small Consumer Loan Credit Asset Certificates (2014)

On June 16, 2014, Ping An Bank, a joint-stock commercial bank with headquarters in Shenzhen, announced it would list a small consumer ABS on the Shanghai Stock Exchange under the CASS program. The loans were about one and a half months' seasoned and the average loan balance was RMB 7,351.46 (about USD \$4,412). Total issue size was RMB 2.63 BN (about \$425 MM) and the collateral legal final maturity was June 2019.

On June 17, the PBOC suspended the listing. That evening, it expressed moral support for exchange listing but admonished the bank for not making the proper notifications,⁵³ because the central government's policy directive required coordination with respect to new market developments.⁵⁴ The underlying concern was that exchange listing had crossed "market firewalls"⁵⁵ enabling retail investors to invest directly in a product previously restricted to institutional investors, which goes to market with only one rating instead of the CASS-required two and does not benefit from monitoring by the experienced CCDC, central clearing and settlement party that oversees the entire CASS market.⁵⁶

On June 25, the listing of Pingan 1401.SH went forward, with Class A1 and A2 tranches (96.96%) yielding 5.3% and 5.6%, respectively, and Class B (3.04%). The Exchange's press release declared that the transaction "symbolizes the debut of product of credit asset securitization on the SSE market, a great progress made in terms of the expanded pilot of credit asset securitization in China, and a great leap forward for the interflow of the bond markets."

On November 20, 2014, the financial regulators jointly decided to streamline the listing process for CASS ABS. The CBRC formulated and promulgated a new policy⁵⁷ and immediately approved 27 second-tier banks to use that system. On April 3, 2015, the PBOC issued ***Announcement on issues regarding the management of issuing credit asset-backed securities***,⁵⁸ putting the banks in charge of transaction quality and extending the policy to all CASS participants across the board. Effectively, the case-by-case approval system had been replaced by a shelf-registration system similar to the U.S. for CASS-eligible institutions.

⁵¹ Fan, Gang and Nicholas C. Hope, Chapter 16, "The Role of State-Owned Enterprises in the Chinese Economy," *US-China Economic Relations 2022*, 2013, p. 2.

⁵² Rutledge, Ann, China Law, 1998, p. 520. Also, Asian Markets in Review, 1997-1998.

⁵³ "央行表态支持平安银行 ABS 自主发行, 但银行自主发行须事前报告." <http://www.xinhuanet.com/finance/zhuanti/aggc/zt17.htm>

⁵⁴ Ren, Daniel, South China Morning Post, *Mainland China authorities clash over securities launch*, June 23, 2014.

<http://www.scmp.com/business/banking-finance/article/1538534/mainland-china-authorities-clash-over-securities-launch>

⁵⁵ Suzhou Allpro Certified Public Accountants, *Central Bank's concern: ABS exchange trading breaks two firewalls*, June 18, 2014,

<http://www.allprocpa.com/newBody.aspx?NewsID=N000874>

http://en.ce.cn/Insight/201407/29/t20140729_3251366.shtml

⁵⁷ *Notice Concerning the Work Process for Registration of Credit Assets Securitizations under the Notification Filing System*, Office Memo No. 1092 关于信贷资产证券化备案记工作流程的通知。[2014] No. 1092.

⁵⁸ 关于信贷资产支持证券发行管理有关事宜的公告。[2015] No. 7.

I believe these two cases of disruption moving the market offer important lessons in how companies successfully assert a leadership position in their market by driving financial market development forward. Commercial leadership in China means understanding that—

- The boundaries of public and private enterprise are not always clear.
- Policy goals still matter more than rules, but with less scope for interpretation.
- To move the dime in China, the most effective style of leadership may be brinkmanship.

V. China's ABS commercial leaders, 2015

To rise to the top in any sector of China's competitive, complex capital market environment is not easy. Thus, a showing in China's ABS league tables is certainly one measure of market leadership. The most recent tally of sponsors, issuers, underwriters and servicers of China's all-time Top 10 transactions show considerable concentration at the top:

TABLE 5 China's largest transactions and their transactors (ranked in order of issue amount)

Transaction Name	Sponsor	Issuer	Underwriter	Servicer	RMB MM	Issue Date
Kaiyuan 2014-9 Railroad CLO	CDB	CITIC Trust	CDS	CDB	15,000.00	12/30/14
Kaiyuan 2014-7 CLO	CDB	CITIC Trust	CDS	CDB	12,773.24	12/12/14
Kaiyuan 2014-6 CLO	CDB	Ping An Trust	CDS	CDB	11,443.00	11/18/14
Gongyuan 2015-1 CLO	ICBC	CITIC Trust	Guangfa Securities & China Securities ⁵⁹	ICBC	11,353.00	2/10/15
Kaiyuan 2014-3 CLO	CDB	CITIC Trust	CMS	CDB	10,946.74	5/19/14
Kaiyuan 2014-4 CLO	CDB	Jingu Trust	CMS	CDB	10,933.17	8/5/14
Kaiyuan 2015-2 CLO	CDB	Jingu Trust	Galaxy Securities	CDB	10,824.00	6/17/15
Zhaoyuan 205-2 CLO	CMB	Huarun Trust	CMS	CMB	10,546.96	6/19/15
China Netcom 2006	China Netcom	CICC	CICC	China Netcom	10,340.00	3/14/06
Kaiyuan 2014-8 CLO	CDB	COFCO Trust	CDS	CDB	10,236.20	12/19/14

Source: Wind Information Co., Ltd. Data as of June 25, 2015.

Nine of the transactions are CBRC-regulated and originated after July 1, 2014. China Development Bank (CDB), one of three state policy banks, is the top originator; sponsor of seven of the deals (nine CLOs); servicer of six; and also underwriter of six through its security affiliate (CDS). China Merchants Bank (CMB) has one transaction, which it also services, underwritten by its security affiliate (CMS). State-owned International Commercial Bank of China (ICBC) sponsored and serviced one CLO, which was co-underwritten by Guangfa Securities and China Securities. The tenth deal was a net receivables securitization sponsored by China Netcom and underwritten by China International Capital Corporation (CICC). It is a one-of-a-kind, CSRC-regulated transaction that went to market before the Crisis. China Netcom has its own colorful history but was merged in 2008 with China Unicom.

⁵⁹ China Securities is actually CITIC Development Investment Securities, part of CITIC.

TABLE 6 CASS market: most frequent underwriters and their asset experience

Rank	Underwriter	Assets	Deals
1	China Securities	Enterprise loans	29
		Credit card receivables	1
		Auto loans	8
		Leases	2
2	CICC	NPLs	3
		RMBS	1
		Enterprise loans	10
		Credit card receivables	1
		Auto loans	5
3	CMS	RMBS	1
		Enterprise loans	13
		Credit card receivables	1
		Auto loans	2
4	Guotai Junan Securities	Enterprise loans	18
		Auto loans	1
		Leases	2
		Bank certificates	2

Source: Wind Information Co., Ltd. Data as of June 25, 2015.

CASS rankings of China's top underwriters by the number of deals and asset types present a different picture. China Development Bank is not in the rankings. One, Guotai Junan, was not mentioned in the supsize CLO table. CICC and CMS are also more visible here.

China's most active underwriter is China Securities. It dominates both CASS and ABSP markets (see Figure 7 also). In the pie chart of ABSP market underwriters below, China Securities is top-ranked with 13 CLOs, but Orient Asset Management is a close second, with 11 CLOs. Third is Hengtai Securities, an up-and-coming securities company from natural resource-rich Inner Mongolia, with seven.

Size is important to the leadership analysis, but leadership is about more than size. If I have characterized the Chinese securitization market's competitive landscape and challenges realistically, only a handful of candidates have what it takes to develop sustained competitive advantages.

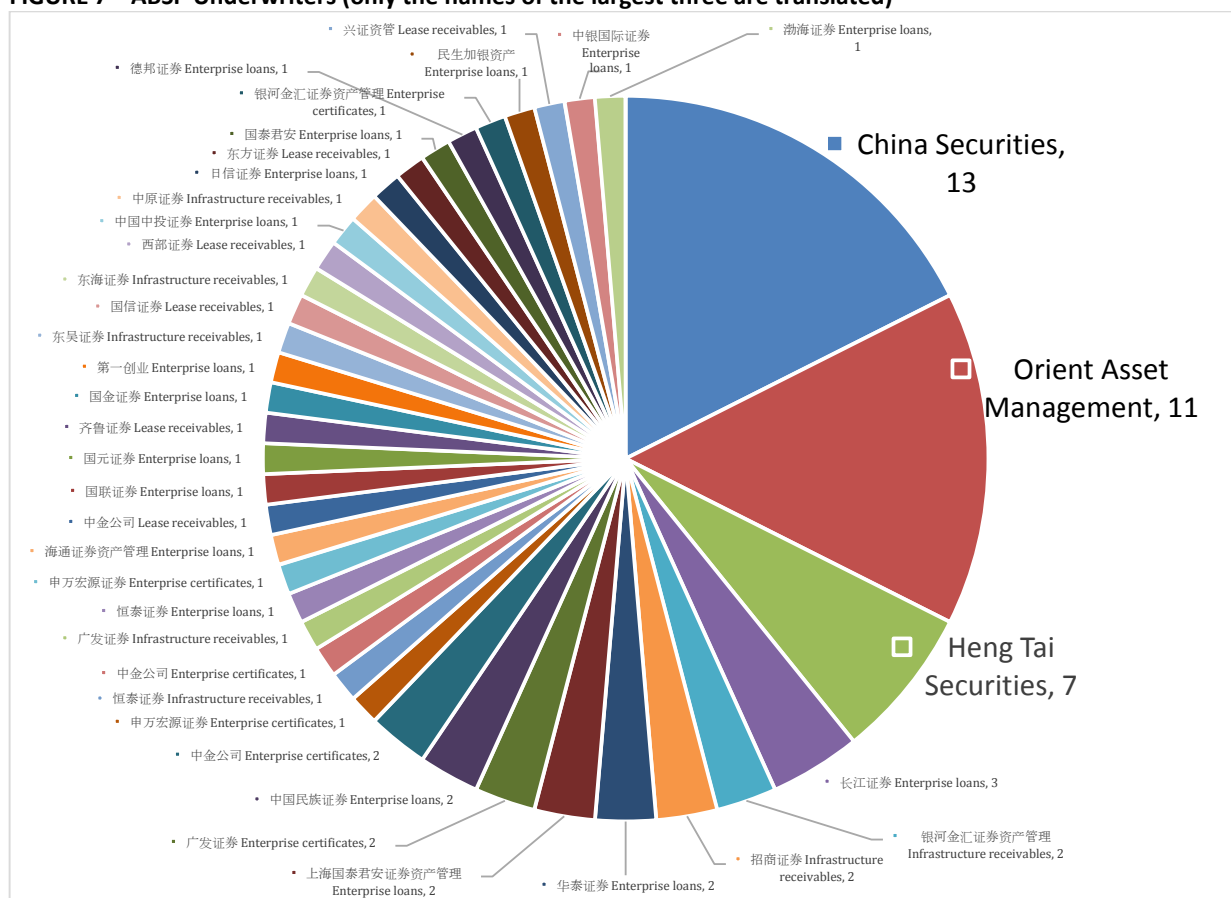
In the analysis below, I have boiled these criteria down to five.

- (A) The institution must be *Chinese*, socially as well as by registration, although Chinese financial institutions with foreign investors are not ruled out. (Transparency around ownership information in this sector is uneven.) From the discussions on the socialist-market model, top-down regulation and leadership style, a candidate institution must be capable of functioning in China's markets, which are primarily domestic and more tightly controlled than in the West. Hence, it must be a domestic institution with enough political capital to play the game of brinkmanship with skill, and a big enough name to attract top local and returning overseas talent, to seed its knowledge and skill base.
- (B) Since China tends to build market families but does not integrate them, and the current Chinese securitization market is quite fragmented, a commercial leader ideally would *belong to a financial conglomerate* with fingers in many different markets and would enjoy friendly regulatory relationships generally.
- (C) From the discussion on endogenous risks in the securitization and Chinese capital market contexts, the institution must be "a player." That means, well enough *capitalized* to withstand extremes of volatility but *sufficiently long-term oriented* to wait out intermittent downtimes, which can be long. It also needs *institutional memory* and should also be *adaptable* because (at least,

judging from the last four decades) the institutional landscape in China is very dynamic.

- (D) From the analysis of CASS, ABSP and exchange markets, a candidate cannot lead as a banking generalist. It should have *special structuring expertise or product knowledge*, to compete successfully in multiple sectors, and a *broad client base* on which to build a healthy book of business.
- (E) The willingness to *play a game-changing role* is an important facet of leadership. In China, this means (among other things) crossing invisible boundaries to originating deals without causing harm. Another way to describe this is fusing deep knowledge of China's *old* (post-1978) market culture with an intuition for how to create and transmit *new* (post-2008) securitization market culture.

FIGURE 7 ABSP Underwriters (only the names of the largest three are translated)



Source: Wind Information Co., Ltd. Data as of June 25, 2015.

Below, I have reproduced my initial shortlist of candidate institutions. Based on my research I have partitioned them into four categories: *Shadow Forces*, *Market Mainstays*, *Rising Stars* and *Market Leaders*.

TABLE 7.1 China ABS Shadow Forces

CC TIC	✓	-	-	Largest ABS issuer regulated by CBRC. Involvement in Collective Trusts is a negative.
Ant Financial	✓	-	+	Financing arm of Alibaba Group. Access to small entity credit data is valuable. Not in ABS.

Shadow Forces: Ant Financial and CCTIC

Alibaba is an ABS issuer, an aggressive provider of credit in its virtual e-commerce market and equally aggressive user of capital; through Ant Financial, it is a data-rich lender to the grassroots economy. However, I have classified it as a “shadow force” in 2015 because it is focused on other markets and lacks essential ABS skills.

At the other extreme, CCTIC is an active trust company, also the largest in the ABS market. China Life, Huarun Investment and Yankuang Group (China’s largest coal mining SOE) own over 50% of its shares. CCTIC got into trouble with a non-ABS trust in early 2014 (see Footnote 47) but it has a lot of experience and an interesting network that connects Interbank to Shadow banks.

TABLE 7.2 China ABS Market Mainstays

	Domestic	Financial Conglomerate	Growth Trend	Special Comments
China International Capital Corp. (CICC)	✓	-	+	(China’s first JV investment bank co-invested by Morgan Stanley and China Construction Bank. Diversified product expertise.)
Industrial & Commercial Bank of China (ICBC)	✓	ICBC (banking) is a bank SOE.	+	
Guotai Junan Securities	✓	-	-	(Large domestic securities company with investment banking functions.)
Hong Kong Shanghai Banking Group (HSBC)	X	-	+	First (of two) to issue a CLO in China’s Interbank Market.
Standard Chartered (SC)	X	-	+	Second (of two) to issue a CLO in China’s Interbank Market.

Market Mainstays: CICC, ICBC, HSBC, Standard Chartered and Guotai Junan Securities

These five institutions already have an ABS market footprint and experienced ABS teams. Although they do not meet all the criteria, it is still early days in ABS. To me, they all appear as well capitalized, with a diversified portfolio and sufficiently motivated by profit to bring a *tour-de-force*, boundary-moving benchmark transaction to market.

TABLE 7.3 China ABS Rising Stars

Xing Ye Bank (XY)	✓	Xingye (banking) Securities/leasing companies	+	
China Merchants Bank (CMB)	✓	China Merchants Capital Group (securities) has wide range of subsidiary types including CMS.	+	
Hengtai Securities	✓	-	+	Inner Mongolia- based securities company with growing role in ABS underwriting.

Rising Stars: Xing Ye Bank, China Merchants Bank and Hengtai Securities

The two banks, Xing Ye and CMB, have strong franchises in China’s project, industrial and commercial middle markets. Xing Ye is second to China Development Bank in originating CASS CLOs market, and CMB ranks sixth. Both have strong underwriting teams, and CMB has access to other deals through the group network. Hengtai Securities has risen quickly in the ABS underwriting league tables in 2014.

TABLE 8 China ABS Market Leaders

China Securities	✓	CITIC Group (securities) has full range of subsidiary types.	+	Established 1979. China Securities (中信建设投资证券) exceptional human talent. Functionally versatile. Present in every asset class across CASS-ABSP markets. Large ABS team in place since pre-Crisis.
Orient Asset Management (OAM)	✓	OAM (AMC) has wide range of subsidiary types.	+	Established 1999 as an AMC. Successfully transitioned from managing NPLs to securitizing new collateral and distribution strategies. Famous for bringing Alibaba securitizations to public markets. Focus: client network development and risk education.
Ping An Bank	✓	Ping An Insurance Group (securities) has full range of subsidiary types.	+	Group established in 1988 (bank-1995) in Shenzhen. Commercial bank said to operate in Shenzhen, Shanghai and Fuzhou. SSE-listed CLO profiled in “Bottom-Up Disruption.”
China Development Bank (CDB)	✓	-	+	Policy bank with direct reporting line to State Council. Deep grass roots reach.

Market Leaders: China Securities, Orient Asset Management, Ping An Bank and China Development Bank

The detailed rationale for selection is in Table 8.3. All four are outstanding, high-achieving ABS-savvy institutions, with high standards and deep experience with capital management. The franchises of China Securities and CDB are especially solid. China Securities is probably the most versatile ABS player in the country. Orient Asset and Ping An are calculated risk takers with valuable networks, able managers, and organic growth strategies.

VI. Jekyll and Hyde: two faces of securitization

People need fear. – Liu Ming Kang, Interview March 2015

The SWIFT Institute’s *Call for Papers: The Role of Securitization in China’s Capital Market 2014* paints a less flattering portrait of securitization than that articulated by Chinese policy-makers. *Good* securitizations can bring “non-fundable enterprises to a fundable position,” but *bad* securitizations can hide leverage and mask risk, potentially exposing China’s economy to a 2008-style crisis again.

Moreover, the cardinal problem of fair value has not been addressed: *Since the Crisis, there has been a general trend towards the requirement to record securitization at fair value on the balance sheet reflecting the hidden risk. However, securitizations of many types are customized and traded over the counter. It is very difficult to define ‘fair market value’ for them. The lack of fair value in turn limits the efficacy of regulatory supervision and market discipline. The hidden risk along with the lack of efficient supervision and market discipline makes securitizations dangerous.*⁶⁰

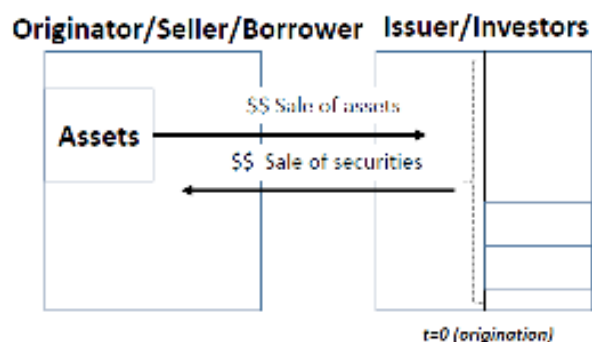
Why do we have bad securitizations? If the cause has not yet been addressed in the mature overseas markets, how will China tackle the potential risk in its own markets? Or, are they immune to the problems that beset the Western ABS markets? Will China’s commercial leaders in the securitization market recognize and respond appropriately to good and bad transaction types? It is very difficult to answer such questions generalizing from the alphabet-soup of vehicle names and collateral types—a proverbial forest-and-trees problem. The structured market’s microstructure must first be parsed by the transaction economics underlying each sector.

⁶⁰ SWIFT Institute, *A Call for Papers: The Role of Securitization in China’s Capital Market*, April 2014.

Funding Arbitrage vs. Pricing Arbitrage

Securitization in Chinese is 资产证券化 (zì chǎn zhèng quǎn huà): literally, *assets-security-ize*. Asset securitization entails a borrower of capital (**Seller**) under the instructions of a financial intermediary (*arranger*) pooling some cash flow-generating assets to make non-recourse securities and getting working capital on acceptable terms when these securities are sold by an intermediary institution (*issuer*) to buyers (*investors*) per Figure 5.

Figure 5 Essential parties to the securitization transaction at origination



Going forward, the investors will be repaid from cash flows collected by agents (*servicers*), who sometimes but not always are one in the same with the seller. *Trustees* are retained to safeguard investors' rights to the receivables. Other agents and service providers enter the deal to bring it to market and then (if all goes well) exit the deal, but those identified in Figure 6 are essential to the deal.

The English word does not explicitly say *what* is securitized. The answer is implicit: something that is already a security cannot be securitized, so it must be a contractual obligation. Loans priced in the fragmented middle markets, where borrowers have little clout, or trade receivables, leases and other financial instruments of a contractual nature *for which no dedicated market exists* are re-underwritten using historical performance data and refinanced in a public debt capital market, where competition and the reliance on ratings as standard credit risk benchmarks compresses yields. Any unused spread difference is a gift to the real economy.⁶¹

The new transaction has a new economic (*payoff structure*). It is not a zero-sum game. The payoff has a *credit basis*. The motivation is *funding arbitrage*, which makes at least one party better off economically without increasing risk to the other—

1. The investor is better off bearing the risk based on its own capital management strategy; or
2. The borrower has locked into a cost of funds that is lower than the on-balance sheet cost.

For the funding arbitrage to materialize, the transaction needs to sell liabilities that reflect the new asset economics. The essence of this process is to design a capital structure so that the credit risk of each tranche is exactly cushioned by sufficient contingent capital (credit enhancement) to neutralize the risk, consistent with the meaning of the rating.⁶² In other words, a “well-engineered capital structure” is one in which no investor faces the risk of loss in the base case (risk-neutral) and all investors are properly compensated for their exposure to statistically remote scenarios (where the

⁶¹ Chances are, precious little spread will be left over after various lawyers, agencies and banks help themselves. But still, the potential to finance the real economy more fairly, or more of it no less fairly, is the *raison d'être* of securitization, and the reason why securitization came back after the Crisis, proving the naysayers wrong.

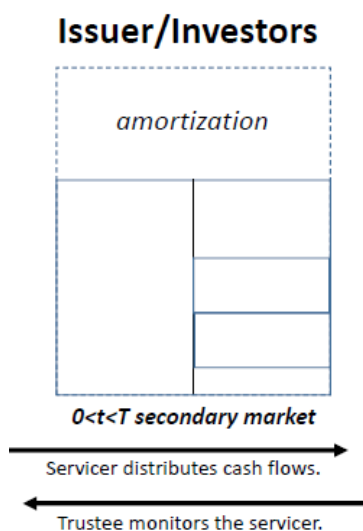
⁶² This is the concept. In practice it is difficult to achieve because rating definitions are not uniform.

rating signifies the degree of remoteness) by the market yield. Since the rating is the pricing benchmark for structured transactions, in a rational market the level of yield should compensate structured investors for the payment uncertainty of their position in the capital structure. The equilibrium between the risk embodied by the rating and the value realizable in the yield has a name: *risk certainty-equivalence*.

Risk certainty-equivalence leads to *pricing arbitrage*. Unlike funding arbitrage, which takes place on the left side of the balance sheet when the assets are re-underwritten, pricing arbitrage starts on the right side of the balance sheet when the tranches are sized based on standard default risk measures, a.k.a. ratings. Assuming risk standardization, there exists within the system of measures and rules an optimal, top-heavy capital structure, which is to say a maximally leveraged capital structure. Maximizing leverage minimizes the funding cost.

Of course, investors must ultimately be willing to buy the tranches. For this reason, the objective function of the optimal capital structure is said first to maximize liquidity and, within the set of feasible solutions for maximal liquidity, minimize capital cost. Not all structured finance deals involve funding arbitrage but all structured finance deals, including securitization, entail *pricing arbitrage*.

Figure 6 Essential parties to the securitization, ongoing



To illustrate pricing arbitrage, imagine 2,000 one-year bonds rated BBB with a coupon of 2.2%. In theory, they can be pooled and sliced into two new bonds, a large (say 94%) AAA bond and a much smaller (most likely) BB or B certificate. The sizing and ratings depend upon the rules for making the senior bond AAA. If AAA bonds yield 1%, the certificate can be priced to yield up to 21% [= (2.2% - 1.0% \times 0.94%)/0.06] and the seller will be better or no worse off. If no one buys the bottom tranche, the seller can still fund 94 cents on the dollar at 1%, and keep the change.

True sale, capital arbitrage and arbitrage trading

Given that transacting in the structured finance market is motivated by different arbitrage opportunities, the market's micro-structure mirrors the strategies employed to capture those arbitrages. It is possible to parse the market into three distinct transaction strategies:

(1) True-sale securitizations (driven by funding arbitrage)

As described at length above, collateral is sold to a new balance sheet (SPE) to lock into a funding arbitrage. Capital structure optimizes the risk-adjusted value of the new balance sheet *via* pricing

arbitrage.⁶³ Properly structured using representative performance data as the basis of collateral risk measurement, securitizations in this market improve capital efficiency and lower systemic credit risk. They create incentives for good credit behavior: better underwriting is rewarded with a lower cost of funds. Their public good value is high. Asset-backed securities (**ABS**), residential mortgage-backed securities (**RMBS**), commercial mortgage-backed securities (**CMBS**), and collateralized loan obligations (**CLOs**) exemplify this virtuous-circle market.

(2) **Capital arbitrage vehicles** (driven by pricing arbitrage)

This market was established after the Basel Capital Accord in 1988. It is primarily a channel for banks to sell risky collateral to an SPE at the highest possible price, to optimize the risk-adjusted value of old balance sheets, which in the global capital markets are the banks. A challenge here is a perverse relationship between motivation and design: to collateral at the highest possible price, one must overstate it. This behavior is not consistent with risk transfer at fair value but it is easy to execute with impunity by using lagging ratings on the underlying collateral, and especially easy with structured securities because ratings in the secondary market naturally lag value (see discussion in *benchmark arbitrage* below). Collateralized debt obligations (**CDOs**) backed by corporate bonds (**CBOs**), ABS or RMBS (**ABS-** or **RMBS CDOs**), and other CDOs (**CDO-squareds**), notes issued from asset-backed commercial paper conduits (**ABCP**) and structured investment vehicles (**SIVs**) exemplify this vicious-cycle market.

(3) **Arbitrage trading vehicles** (driven by benchmark arbitrage)

This market is a late stage evolution of the structured finance market from cash to synthetic. The prototype was the BISTRO⁶⁴ deal (1997). Morgan Guaranty Trust purchased default risk protection on a reference portfolio of corporate securities. Its brokerage arm, J.P. Morgan, packaged and sold the risk in a **synthetic CDO**. The investors did not purchase securities; they wrote credit default swaps (CDS) on the reference portfolio and were paid a premium commensurate with the market-required credit risk premium on like-rated assets. This market became immensely popular in Europe because they did not disturb the pattern of lending for banks. It gained traction in the U.S. because derivatives are more flexible and cheaper to finance than the cash markets, and because the U.S. hosts a large population of derivative traders, who were enabled in this market by their knowledge of option pricing.

CDS were the building blocks of credit-linked notes (**CLNs**); **hybrid cash-synthetic CDOs**, with some synthetic and some true sale features; **bespoke CDOs**, where certain portions of a customized capital structure are carved out and sold; **funded synthetic CDOs**, where the sale proceeds are used to purchase treasuries), and **CDS index products**, for hedging and speculation on structured asset sectors. The risks of this market mirror the risks of capital arbitrage but are compounded by the possibility of selling the same mispriced risk to multiple buyers.

Good and bad benchmarks

If the U.S. market represents an evolutionary trend of ABS markets generally, it is important for China to understand whether the U.S. crisis can be averted and how. After more than a decade in the role of a litigation expert, I find that the most popular explanations for why the crisis happened are appealing on descriptive grounds but causally weak:

Hypothesis 1: Crisis was caused by excessive leverage made possible through re-securitizations.

Apparently so, but where is the boundary of appropriate and excessive? The answer depends on the measure of asset volatility—a fundamental dimension of ABS structuring that has never been part of

⁶³The two-step process is illustrated in Appendix I.

⁶⁴The abbreviation stands for Broad Index Synthetic Trust Offering.

popular debate. Not to understand the link between capital structure and asset risk is to miss entirely the point of structured finance (see the discussion of risk certainty-equivalence above). A market that cannot critique the use of benchmark measures could scarcely opine on the right amount of leverage. This problem boils down to market-wide reliance on ratings. One cannot apply arithmetic operations to a letter. Hence, while it may be used to rank credit quality in a capital structure, it can never be a proper asset volatility measure; yet that is how it was used in the CDO market, and that is where problems began.⁶⁵

*Hypothesis 2: The issuer-pay rating agency model was a direct cause of the Credit Crisis, as the sell-side was able to persuade rating agencies to produce false benchmarks by proffering fat rating fees.*⁶⁶

This hypothesis is consistent with some but not all the facts. Since the issuer pay model was in effect from 1968, it does not explain why structured securities outperformed the credit quality of corporate debt in the years 1977-1997. What changed was not the rating agency business model. It was the changeover of ABS from buy-and-hold to a traded market. All securitization markets are naturally illiquid;⁶⁷ so, if anything, the decade that ended in 2008 is remarkable for the level of after-market activity galvanized by structured CDS indices and synthetic (CDS-linked) structured products after 2000.

Why would a multi-trillion US dollar origination market require derivatives to have a secondary market? In general, markets fail to develop liquidity when there is no consensus pricing benchmark that allows buyers and sellers to find “fair value.” The explanation that makes sense is that ABS investors only rely on ratings in the primary market, but they could be induced to invest in newly rated securities from repackaged secondary market ABS. This twisted logic is consistent with the prior observation that letter grades are adequate for ordinal ranking but not asset risk measurement; and, it suggests a causal explanation:

Hypothesis 3: Good and bad rating benchmarks coexisted and were used interchangeably in the ABS market. Buy-side institutions were indifferent to information quality differences in ratings, while sell side institutions, which paid for ratings, preferred bad benchmarks. By 2004, bad benchmarks were gaining the upper hand, and in 2008, they brought the market down.

In a nutshell, “good” benchmarks are produced with numerical inputs. “Bad” benchmarks use ratings as inputs. Benchmarking for *funding arbitrage* involves numerical data on receivables quality, especially static pool defaults and recoveries, which are used to “size” credit enhancement and assign ratings. When the tranches are sold, the ratings are publicized but the numerical measures are suppressed, so the original credit rating analysis is not reproducible. These securities are likely to perform well or even outperform their norms because the securities have option-like properties: the risk will disappear faster than the capital coverage. In fact, if numbers were used instead of letter ratings, credit improvements due to declining asset risk would be transparent to the entire market.

The same is not true for risk-transfer (Basel-inspired) type transactions, where the default measure is imputed from the existing *rating* but the underlying performance is not re-analyzed. Use of a potentially lagging performance signal creates a selection bias that favors repackaging subpar securities. Since letters cannot respond to shifts in asset volatility, up or down, early signs of

⁶⁵ For example, see Rutledge, Ann and Robert Litan, “A Real Fix for Credit Ratings,” Brookings Institution, July 9, 2014.

⁶⁶ The author’s views on this topic are cited in the Financial Crisis Inquiry Commission, see Chapter 8, “The CDO Machine,” p. 140; and emails, [http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2010-11-16%20FCIC%20emails%20with%20Ann%20Rutledge%20\(R&%20R%20Consulting\)%20re%20CDO%20ratings.pdf](http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2010-11-16%20FCIC%20emails%20with%20Ann%20Rutledge%20(R&%20R%20Consulting)%20re%20CDO%20ratings.pdf)

⁶⁷ See Wang, Jian, “China Needs An Integrated Securitization Market,” May 23, 2013. In particular, the author writes, “The mature western markets have active secondary markets, with the banking system providing the bulk of the underlying assets and the capital markets providing the funding and trading platform. An active secondary market increases the products’ liquidity, which, in turn, lowers sponsors’ funding costs. However, without the integration of China’s capital markets and its banking system, a mature and liquid secondary market for securitization can’t develop.” This statement shows good understanding of why fragmented markets cannot evolve and the relationship between fragmentation and secondary market illiquidity, but the author is apparently unaware that the U.S. ABS market failed to develop a normal, liquid secondary market.

deterioration will not be transparent to buyers. Issuers will prefer bad benchmarks to good ones because bad benchmarks enable them to lock into gains by selling the new securities above fair value before deterioration is patently obvious.

Sophisticated derivative traders recognized an opportunity to profit from static ratings. They entered the market using option pricing-based benchmarks around the time of the BISTRO deal. Given the option-like behavior of structured securities, this strategy appears to make sense, but there is a limit to how much new information option pricing models filter in. Credit ratings reflect *real* default probabilities from performance data. Derivative models reflect *risk-neutral* default probabilities obtained from market price data. If the market is fundamentally illiquid, switching models will not add much information except at the point of resecuritization/sale.

Competition is good, and there would be nothing inherently wrong with this “battle of the benchmarks” if structuring and investing processes were mutually independent. However, this was not the case. The institutions seeking to profit from false benchmarks had an incentive to cause securities to be originated and rated with false benchmarks in the manner described above, so that arbitrage profits could be harvested. The result was a vicious-cycle with dynamics resembling those in George Akerlof in “The Market for ‘Lemons,’ Quality Uncertainty and the Market Mechanism.”⁶⁸ Buyers, being primarily reliant on credit ratings, stopped investing when they stop believing in the ratings.

VII. China’s securitization market microstructure: true sale, capital arbitrage and trading

Re-securitizations and synthetic structures are prohibited in China.⁶⁹ Nevertheless, functionally, the microstructure of Chinese and global structured finance markets is very similar—tantalizingly so—in that both have separate market sectors for true sale, capital arbitrage and secondary market trading:

*True-sale markets*⁷⁰ are where the collateral gets a fresh review and small sellers share in the value discovered. China’s CASS market is evolving rapidly in the footsteps of the U.S. market model, which makes it most accessible to overseas market participants and most likely to mirror overseas markets’ dynamics. Because the industry is still very young, banks stand to benefit from the positives of securitization and may be less sensitive to its negatives (margin compression, vicious competition) in mature lending markets. Moreover, as China’s interest rates continue to deregulate, the risk sensitivity of the market can only rise. Securitization skills will be in increasing demand for all banks. However, at some point in the near or distant future, banks in China may come to perceive (as banks in the U.S. and Europe have) that securitization takes away their information edge. Their relationship to securitization is likely to remain ambivalent.

In respect of *capital arbitrage*, China’s ABSP market the analogue of the CDO market, a *de facto* capital arbitrage market whose goal is to enable banks to lower their regulatory capital assessments and re-lever the balance sheet. By contrast, ABSP exists not to help banks manage their Basel requirements but to help the state finance its fixed capital assets and infrastructure. Although, in principle, ABSP is vulnerable to pressures to cash out of assets at the highest price, it is unlikely to become as frothy as CDOs in the near- or medium-term for two reasons. First, ratings are not used as

⁶⁸ Akerlof, George A. The Market for “Lemons”: Quality Uncertainty and the Market Mechanism, 1970. <http://www.jstor.org/stable/1879431>

⁶⁹ *Notice on Further Matters Concerning the Expansion of the Credit Assets Securitization Pilot No. 127 [2012]*.

⁷⁰ See Ong, Kingsley and Aaron Liu, speakers from Eversheds: *PRC Securitization APSA/HKSI Joint Seminar* presentation given June 2, 2015. See also Chen, Jeffrey H. and Haiping Liu, *Securitization in China-overview and issues. Can China develop a viable cross-border securitization market?* Dentons 2015. I have heard several eminent legal scholars in China criticize the true-sale mechanism for not being a par with the U.S., but prior to the Crisis, the U.S. true-sale provision was also criticized for being outside case law in the U.S. See the proceedings of an American Bar Association program, “*Crossing the Threshold: Why Seek A Legal Opinion at All?*” 2007. <https://apps.americanbar.org/buslaw/tribar/materials/20090715000003.pdf> Yet, true-sale had nothing to do with the global Credit Crisis, which leads me to believe true sale issues are exaggerated, and defects in the global securitization model’s market mechanisms are probably underestimated.

input measures of default risk. (However, if this were to change, the same incentive for adverse selection would come into play as for CDOs.) Second, the inability of ABSP to achieve true-sale treatment in cross-border markets, coupled with investors' requirements for corporate guarantee as part of the security package, constrain the use of leverage in ABSP transactions.

Third, both markets have turned to trading platforms *to stimulate secondary market liquidity*. In the U.S., the CDS market succeeded where other previous market experiments have failed or met with only tepid success.⁷¹ China does not have a CDS market, but there are exchanges opening up in China for repackaged, distressed and obscure collateral by the tens or hundreds, if the CSRC, MOF and shadow markets are taken as a whole. For example, Pingan 1401.SH was listed on the Shanghai Exchange, and a series of Alibaba microcredit ABS were listed on the Shenzhen Exchange beginning in 2013, arranged by Orient Asset.

Turning to private market platforms, in Shanghai there is Ping An Insurance Group-sponsored peer-to-peer lender and financial asset exchange Lufax (陆金所) and another financial asset exchange in Qianhai, Shenzhen (前海金融资产交易所). Beijing has Beijing Financial Assets Exchange (北京金融资产交易所, or 北金所), which is co-sponsored by the China Beijing Equity Exchange (Beijing city), Cinda Investment Company, Beijing Huarong Comprehensive Investment Company, both part of the Huarong AMC group, China Everbright Investment Management Corp., and Huaneng Capital Service Company, Ltd. The giant trade web Alibaba's domestic financial affiliate, Ant Financial, which has online payment, investment, credit scoring and digital banking services, also belongs to this third market type. Anecdotally, there are hundreds more.

This mushrooming of markets is strikingly different from the securitization experience elsewhere. The investment in market building and belief in markets should not be dismissed on the basis of failures elsewhere. If China developed viable benchmark-arbitrage trading, it could be very significant, a securitization market game-changer.

VIII. Conclusion: an ongoing leadership role for government

The platform does not matter much. What matters is the unification of regulation and oversight, in a top-down leadership design. – Liu Ming Kang, Interview March 2015.

My analysis ends as it began. China's economic rationale for securitization, in particular its connection to the Third Plenum platform, is highlighted in the Introduction. Below is a shortlist of Third Plenum goals for which I believe securitization could be a particularly effective financial catalyst or solution:⁷²

- If the market is permitted to play a more decisive role in allocating resources, securitization pairs risk and return more flexibly and fairly than other financing tools.
- If investment rules are to be relaxed to attract new funding sources, securitization gives dealmakers tools for creating attractive new investment products.
- If diverse ownership forms are to be promoted, securitization is a true laboratory for capital structure.
- If establishing a modern fiscal system and making government more law-based and service-oriented are key reform goals, securitization can help government shed liabilities in an orderly fashion and attract investment funds for urbanization, environmental conservation and social services delivery based on economic merit.

⁷¹ For example, see Visible Markets: <http://beebee.ws/peter/cv/VisibleMarkets/company.html>

⁷² Convened November 9-12, 2013, the Third Plenum promised to promote diverse forms of ownership, to let the market play a decisive role in allocating resources, to relax investment rules, to make government law-based and service-oriented, to establish a modern fiscal system, to city and country on a new foundation, and to protect the environment, China Daily, November 14, 2013.

- On the risk-regulatory front, securitization has been nicknamed a “decompression weapon”⁷³ for its ability to absorb funds circulating in China’s illegal shadow-banking system.⁷⁴

But behind this ambitious plan there are significant medium-term hand-off and execution risks:

- 1) Will the market achieve self-correcting operating equilibrium à la Smith and Hayek? Will it seamlessly align China’s public welfare goals with the interests of its commercial players? Or will public goals conflict with private goals? Do China’s commercial players have the requisite knowledge and skills to bring about risk certainty-equivalence, the *raison d’être* of structured finance?
- 2) Will China’s market leaders in section VII (or other newcomers) be motivated to fulfill the ideals articulated in the government’s policy documents?
- 3) Will the Chinese government cease to lead the securitization market now that it is launched and regulators are giving the market more rope? What circuit breakers are in place for the times when the reality of securitization falls far short of the ideal? In case of adversity, will it intervene directly—and to what effect?

The paragraphs below address each set of questions in order:

Will China’s ABS market naturally realize the government’s stated policy ambitions?

In a nutshell, for the government’s ambitions for China’s ABS market to be realized, trading needs to be competitive. ABS practitioners will need to acquire the knowledge and skills needed to transact responsibly and safeguard market order. Now, while the market is still formative, is the best time to develop the risk benchmarking disciplines that lead to transaction quality and consistency. But China’s ABS practitioners appear slower to embrace best risk measurement practices than was the case (for example) with Taiwan in the early 2000s. Practitioner comments like these are legion: “China’s market is too new to need to learn these skills,” or “China’s ABS is less risky than in the U.S. because banks are required to cherry-pick and securitize only their best assets.”

China’s fragmented market structure is likely to frustrate the kind of vigorous competition that could elevate market efficiency (see footnote 66). Within the subsectors, CASS market standards are the most competitive and transparent. It is hard to compare the competitiveness of CASS and ABSP deals because the latter’s disclosures are less complete. Neither market meets the basic U.S. standards of disclosure as set forth in Reg AB I. Regarding shadow market transactional disclosures, a trained ABS analyst eye can spot routine violations of basic static pool measures, and sometimes of asset-liability parity in public disclosures.

Will the leading commercial institutions in China’s ABS market “do the right thing”?

China’s commercial leaders identified in Section VII (and others) will be counted on by government to serve the public good. Commercial players everywhere become leaders by translating short-term tactical gains into long-term strategic institutional advantages. A defining trait of commercial leadership in China has been a willingness to disrupt inertia and move the market forward. This is a positive potentiality, but whether or not it translates into a public good depends on incentives. If doing the right thing is rewarded, or doing the wrong thing is punished, then China’s ABS market leaders will set an example for the world. The tendency of leaders in the Chinese context to disrupt markets (see pp. 12-14) can be channeled into new asset type development. On the other hand, absent any improvement over incentives in the U.S. model, China’s ABS leaders may be counted on to use whatever benchmarks lead to faster profits, namely, bad ones. China, like the West, uses a letter-grade credit rating system. The temptation will be strong to cut corners in the same way that brought on the global crisis.

⁷³ First Financial Daily, *Shadow Banking is Curbed, Expansion of ABS As Decompression Weapon*, November 18, 2014. <http://bank.hexun.com/2014-11-18/170487083.html>

⁷⁴ Jingu, Takeshi, Nomura Research Institute, *The Significance of Resumed Asset Securitization in China*, September 14, 2013.

Is there a path for China's government to lead the growth of ABS without micromanaging the market?

Since late 2014, China's capital markets have been unendingly whipsawed by macro-economic policy moves causing temporary dislocations in the market for capital:

- *Loosening of benchmark lending rates.* In November 2014, the PBOC cut the one-year lending benchmark rates from 6% to 5.6%, and one-year benchmark deposit rates from 3% to 2.75%, have led to credit loosening. After the first stock market stumble in June 2015, the respective rates were cut to 4.85% and 2%. In late August, one-year lending rates further cut to 4.6% and large bank reserve requirements were cut by 50 bps, to 18%. These actions were part of the government's deregulation agenda but also emulated to some extent the U.S. strategy for dealing with excessive market leverage. The rate cuts enabled indebted institutions to breathe more easily, but intensified the scramble for yield.
- *On-again/off-again curtailment of non-bank sponsored margin lending.* In mid-January 2015, the CSRC suspended large brokers from stock lending to new clients while the CBRC banned banks from margin lending to institutions. The release of these curtailments coincided with the April 2015 run-up in stock prices. In August 2015, the PBOC proposed a 5,000 Yuan cap (about \$806) on retail borrowing through non-bank internet payment systems⁷⁵ and to prohibit finance companies from tapping those facilities.
- *Loss of control in the run-up of prices indicated a mixed government agenda.* China Clear (CSDC, from Figure 1) widened the permitted number of investor stock accounts from one to 20. Stock Connect helped facilitate arbitrage trading between China's A-share markets and Hong Kong's H-share markets. An influx of new investors in April followed the end of the new account moratorium (see above). A crackdown on untrammelled margin lending ignited the stock market collapse (see below).
- *Stock market collapse and bailout.* All eyes were on China's share markets the week of June 13, when A-share prices dropped 33% in one month. By July 7, the trading of half of China's listed companies had halted. On July 27, prices dropped 8.5%, the largest one-day fall since 2007. On August 24, they dropped another 8.49%.⁷⁶ In response, the government limited short-selling under threat of arrest, froze new IPOs, and funneled 1.3 TN Yuan (\$209 BN) from brokers and commercial lenders to shore up share prices *via* the China Securities Finance fund.
- *Currency devaluation.* Having traded below the currency target throughout the summer, the Yuan was notched down by the PBOC over three consecutive days. The first devaluation on August 11, 2015 shocked the markets as it was the largest one-day change in the currency in 20 years. Both the stock market collapse and the currency devaluation signified a downward revision in China's economic outlook.

What has been the significance of these developments for China's ABS market? First, there has been no observable negative impact on domestic funding activities. July 1 through the end of August originations extended the trend of market growth from 2014 (see Table 1).

Devaluation of the Yuan may well put the development of a cross-border ABS on China's back burner. (In Section II, the author previously expressed skepticism about the likelihood of cross-border

⁷⁵ A good essay on shadow bank lending-related litigation is this: <http://thediplomat.com/2015/06/shadow-banking-cases-threaten-to-overwhelm-chinas-courts/>

⁷⁶ See <http://www.ft.com/intl/cms/s/0/589b8192-2483-11e5-bd83-71cb60e8f08c.html?siteedition=uk#axzz3lPOS1gQq>, figure from Thomson Reuters Datastream.

market development in the near future.) In any event, these outcomes are not necessarily bad if the domestic market has more time to mature and investors are discouraged from using ABS as a vehicle for currency speculation.

The deeper question is, what do the events signify about the Chinese government's stewardship of its ABS markets going forward? China appears to have emulated the U.S. strategy of fiddling with the national capital structure by reducing debt expense while pushing up stock prices. Although the execution was not successful, there may be a silver lining for China. The U.S. Federal Reserve went to extraordinary lengths to bail out strategically important financial institutions at the apex of the ABS-induced Crisis. In so doing it missed crucial opportunities in the decade before the Credit Crisis to shape the market with better market discipline (see Section IV, Jekyll and Hyde). China's visible loss of market control may be a motivation to build effective market control mechanisms through information and feedback rather than brute force manipulation.

China's ABS information layer would benefit from diversification and upgrading, as well as mandatory public disclosure of basic performance data for ABS transaction modeling up to the level of Reg AB I. These data are already being collected by the CDC (see Figure 1). China's post-2012 regulatory philosophy emphasizing relaxed constraints, risk prevention and a common front (see Section III) is compatible with a strategy of pushing the market to develop better information sources and technologies that digitize and disseminate ABS benchmarks, and instituting mandatory testing or licensing for ABS professionals to bring their skills to a basic standard. Such moves will help to establish a foundation for healthy self-governance and put Chinese practitioners on a more equal footing to compete with the West for a solid ABS market model.

Unification of Regulation and Oversight Requires Continued Top-Down Leadership

CBRC ex-Chairman Liu Ming Kang's quote at the beginning of this section resonates deeply. If markets are to fulfill their role of allocating resources efficiently, a unified regulatory approach is required. The way to unify regulation in ABS is to enforce frequent security performance measurement, with all China's sub-markets (CASS, ABSP and shadow) using the same yardstick.⁷⁷

ABS value is the present value of an amortizing stream of cash at a hurdle rate that changes as volatility decreases. Few ABS practitioners actually know how to value ABS in practice; and solving for ABS value is not easy. First, this is a nonlinear problem. Second, treating default risk as variable rather than a parameter is an unfamiliar concept.⁷⁸ But, on the other hand, the world has seen what happens when ABS risk is not measured properly. The minute the value and the benchmark are decoupled, an incentive is created to exploit the decoupling by widening it.

On the other hand, the complexities of ABS valuation are greatly simplified when the market agrees to use a fixed scale of impairment measures (or discounts to par) mapped to credit risk grades, but market participants are unlikely to voluntarily surrender freedom to act in their own self-interest. This is why regulators need to lead by putting such a control structure in place, and imposing penalties on frequent violators, including rating agencies, such as de-licensing.

⁷⁷ A figure is provided in Appendix II showing the payment volatility of the subprime pool backing the Americredit 2012-2 auto ABS over past three years and the decreasing volatility of the securities. A second figure is provided showing asset volatility decline in the Fuyuan (Ford) 2014-1 deal. It is much lower than in Americredit because these are not subprime assets, and its rate of decline is much slower at this early point in the pool lifecycle. Graphs on the security-volatility are also provided.

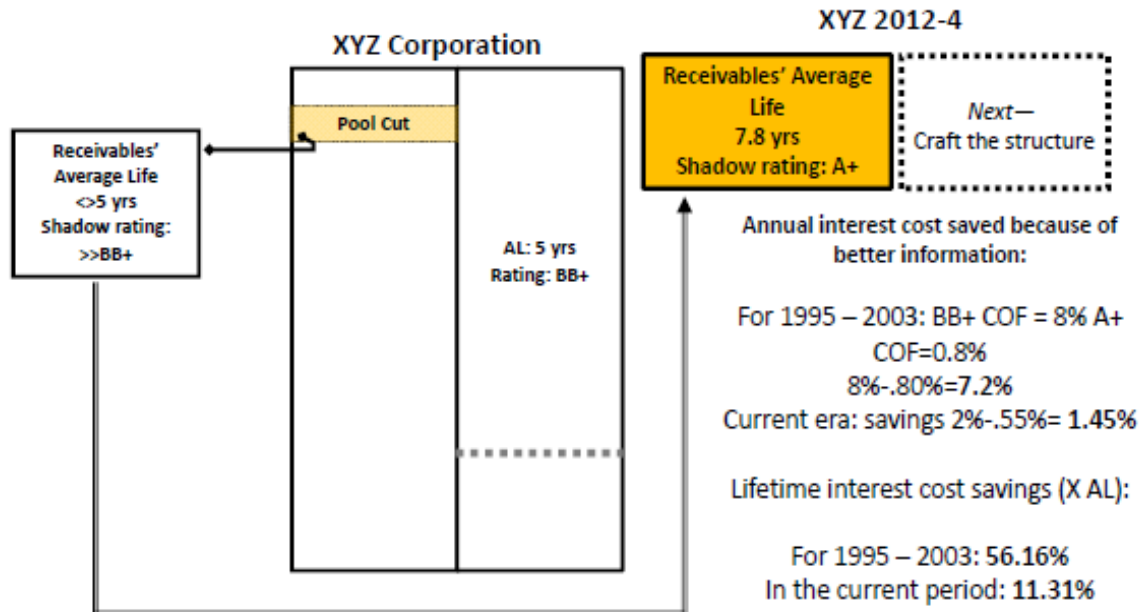
⁷⁸ The collateral are amortizing, hence their dynamics are different than for corporations. The risk is not expected to fluctuate within a band of volatility from the business cycle. It has its own logistic behavior, first rising and then falling. As the pool amortizes, asset volatility declines and the collateral default risk decreases steadily over; it does not stay the same. Liability payment mechanics reduce the leverage in the capital structure over time as well, so that more contingent capital (credit enhancement) becomes available to cover the outstanding bonds. This also increases their payment security. In sum, as asset volatility and capital structure leverage fall, security risk falls and on an apples-to-apples basis the rating should rise. Security payment performance becomes increasingly certain. At termination, it is entirely certain. This phenomenon is true for corporate bonds, too, of course; but corporate bonds are not issued with dedicated cash-generating collateral to cover 100% of bonds issued. It is literally, using cash to buy cash, to quote a well-known phrase by the reformist pioneer Cheng Siwei.

To base pricing on a consensus ABS risk scale is very healthy, not only for the ABS market but also for the real economy. Since ABS securities are backed by receivables, and receivables are close to cash, ABS is actually a direct link to the macro-economy. Proper management of ABS risk serves to calibrate the leverage and velocity of money in an economy to the phase of the business cycle. Credit expansion is maximal when receivables performance is optimal, and the benefits to the real economy of credit expansion will flow through to investors. The moment the cycle turns, receivables payment deterioration will instantly be observable, and credit will begin to be curtailed immediately as the market demands more credit enhancement, which will automatically make borrowing more costly.

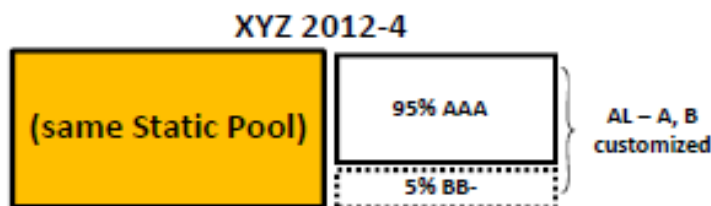
If the same risk measurement system is uniformly enforced across CASS, ABSP or shadow market sectors, fair pricing will be the market norm, market sustainability will be within reach, and the chronic ABS secondary market liquidity problem will resolve itself.

Appendix I: Economics of True-Sale Securitization

Step 1: Funding Arbitrage



Step 2: Pricing Arbitrage



Original era: assume AAA premium is 20 bps, BB- premium is 10%

$$.95\% * 20 \text{ bps} + .05\% * 10\% = 69 \text{ bps vs } 80 \text{ bps}$$

$$\text{Lifetime funding cost} = 5.38\% \text{ vs } 6.24\%$$

Current era: assume BB- premium is 2.5%

$$.95\% * 20 \text{ bps} + .05\% * 2.5\% = 31.5 \text{ bps vs } 55 \text{ bps}$$

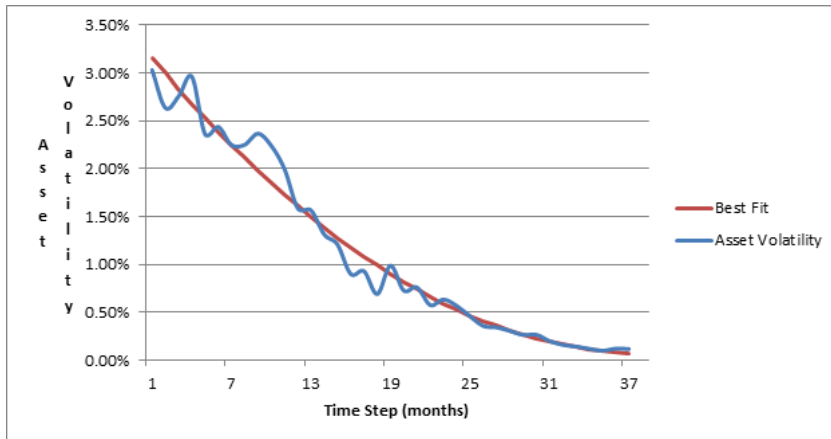
$$\text{Lifetime funding cost} = 2.42\% \text{ vs } 4.29\%$$

Even more capital efficiency possible with—

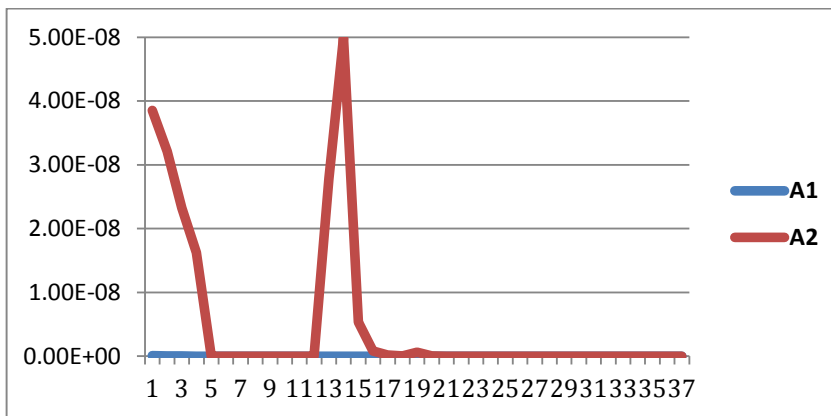
- Capital market segmentation
- Capital market inefficiencies
- More data showing even better asset quality

Appendix II: ABS Asset and Security Volatility Decrease with Time

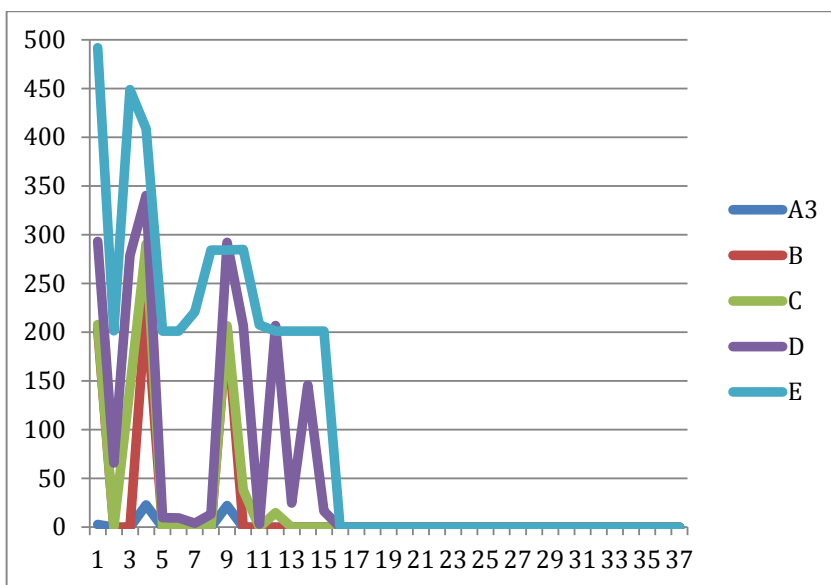
Americredit 2012-2 Subprime Auto Loan Collateral Cash Flow Volatility (bps)



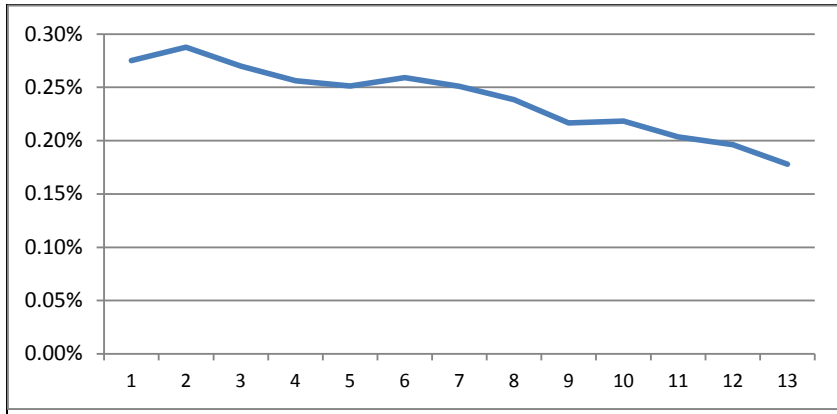
Americredit 2012-2 Classes A1 and A2 Cash Flow Volatility (negligible vol.) (bps)



Americredit 2012-2 Classes A3, B, C, D and E Cash Flow Volatility (bps)



Ford China Motor – Fuyuan 2014-1 Nonprime Auto Loan Collateral Cash Flow Volatility (bps)



Ford China Motor – Fuyuan 2014-1 Class A, B and R Volatility (bps)

