



**A COMPREHENSIVE GUIDE
TO
U.S. SECURITIZATION**

Chinese Market Committee White Paper

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Table of Contents

	Page
Table of Figures.....	xi
PART ONE: SECURITIZATION IN THE UNITED STATES.....	1
I. INTRODUCTION.....	1
A. The History Of Asset-Backed Securities In The United States	1
B. The Role Of Securitization In Funding the Real U.S. Economy	3
1. Credit Cards.....	7
2. Auto Loans	7
3. Student Loans	8
4. Residential Mortgage Loans	9
5. Commercial Mortgage Loans	10
6. High-Yield Corporate Bank Loans	11
II. ABS FUNDAMENTALS.....	12
A. Pooling And Isolation Of Assets	12
1. Pooling of Assets and Elimination of Originator Credit Risk.....	12
2. Isolation of Assets: Bankruptcy Remoteness.....	14
3. Perfection of Assets	16
B. Analysis Of Cashflows	18
1. Common Structural Features in Securitization Transactions	18
a. Protection from credit risk.....	18
b. Protection from pre-payment risk	19
2. Priority of Payments: Allocation of Cashflows.....	20
3. Priority of Payments: Event of Default	20
C. Structures.....	20
1. Market Driven	20
a. Revolving or amortizing structures.....	21
b. Amortizing pools	21
c. Revolving pools	22
d. Interest payments - fixed or floating rate coupons	22
e. Security maturities.....	23
f. Currency.....	23

Table of Contents

(continued)

	Page
g. Considerations for listing asset-backed Securities on European Union Securities Exchanges	23
2. Accounting Driven.....	24
a. Consolidation	24
(1) Special Purpose Entities	24
(2) FASB’s consolidation guidance	25
(3) Are fees paid to decision maker’s variable interests?	25
(4) Controlling Financial Interest.....	26
(a) Power	26
(b) Shared power	26
(c) Related parties and agency relationships.....	26
b. Determining if a securitization is a sale	27
(1) Sale criteria	27
(a) Isolation of assets.....	27
(b) The transferee’s right to pledge or exchange the transferred assets.....	28
(c) The transferor’s surrender of effective control.....	29
(2) Failure to comply with sale criteria.....	30
3. Legal Driven.....	30
a. Legal isolation of assets	30
b. Taxation.....	31
(1) The Originator/Transferor	31
(2) The Issuer	32
(3) The Investors.....	33
c. Investor-driven legal requirements	33
D. High-Level Overview of Required Documents	34
1. Sale Agreement.....	34
2. Servicing Agreement.....	34
3. Indenture	34
4. Pooling and Servicing Agreements	35

Table of Contents
(continued)

		Page
5.	Loan Agreements	35
6.	Special Purpose Entity Formation Documents	35
7.	Legal Opinions.....	36
	a. True sale and non-consolidation	36
	b. Security Interest.....	36
	c. Corporate matters and enforceability	37
	d. Transaction-specific/asset-specific matters	38
	e. Securities laws.....	38
	f. Tax.....	38
8.	Offering Documents.....	39
E.	Ratings.....	39
	1. Initial Contact/Engagement	40
	2. Information Gathering	41
	a. Information review	41
	b. Originator and servicer reviews.....	42
	3. Transaction Analysis and the Rating Committee Process.....	42
	a. Asset analysis	42
	b. Analyzing the financial structure	42
	c. Originator and servicer reviews.....	43
	d. Counterparty analysis	43
	e. Transaction document and legal opinion review	43
	f. Rating committee.....	44
	4. Publication of Pre-sale Reports and Rating Announcements.....	44
	a. Disclosures	44
	b. Representations and warranties (SEC Rule 17g-7)	45
	5. Assigning the Final Ratings.....	45
	6. Surveillance	45
F.	Offering Process And Communications To Investors	46
	1. Registered Public Offerings vs. Private Offerings	46
	2. Written Offering Materials	47

Table of Contents
(continued)

	Page
3. Securities Law Liability	48
4. Reg AB Disclosure Principles	49
5. Due Diligence	50
III. OVERVIEW OF MARKETS.....	51
A. Introduction Of ABS And RMBS Into Specific Markets	51
1. United States.....	51
a. United States ABS	51
b. United States RMBS	55
2. Europe.....	60
3. Asia	63
4. Australia	67
B. The Crisis	67
C. ABS Performance Resulting From The Crisis.....	68
IV. STRUCTURE OF PLAIN VANILLA ABS	69
A. Financial Structure	69
1. Waterfall	69
a. RMBS Waterfalls	70
(1) GSE RMBS.....	70
(2) Non-GSE Prime RMBS	70
(3) RPLs and NPLs	71
(4) GSE credit risk transfer	72
b. CMBS Waterfalls	73
c. CLO Waterfalls	73
d. Credit card ABS Waterfalls.....	73
e. Auto and equipment ABS Waterfalls	74
f. Other ABS Waterfalls	76
2. Excess Spread Capture	77
a. IO and PO Strip.....	77
b. YSOC and YSA mechanisms.....	77

Table of Contents

(continued)

	Page
c. Peripheral income from pre-payment penalties and residual realization.....	77
d. Reclassification via discount rate.....	77
e. Residual Sale	78
3. Hedging Mechanics.....	78
a. Caps.....	79
b. Swaps	79
c. Structural alternative to hedging.....	80
d. Student loan ABS hedges	80
e. Currency swap.....	80
4. Accommodating the Nature of Collateral Securitized (Including Homogeneity)	81
a. Obligor concentration risk	81
b. Geographic concentration risk.....	81
c. Variation of underlying loan types and terms	81
d. Homogeneity.....	81
B. Legal Structure	82
1. Legal Isolation of Securitized Assets	82
a. True Sale.....	82
b. Substantive consolidation.....	83
2. Receipt and Application of Collections	85
3. Security Interests	86
4. Representations and Warranties	86
a. Asset eligibility	87
b. Organizational matters	87
c. Other matters	87
5. Defaults and Remedies	87
6. The Investment Company Act and the Volcker Rule	88
7. Asset-Specific Variations Among The Most Common Asset Classes	89
a. Auto.....	89
b. Credit card.....	90

Table of Contents

(continued)

	Page
c. RMBS	93
(1) The participants in an RMBS transaction.....	94
(2) RMBS characteristics.....	95
d. CMBS	97
(1) Types of CMBS	97
(2) Transaction parties	99
(3) Registration requirements.....	100
(4) Regulatory developments.....	101
e. ABCP	101
f. CLOs	103
g. Unsecured loans.....	104
V. PURCHASE AND SALE OF ABS	105
A. The Primary vs. Secondary Market.....	105
B. New Issue Volume And Spreads	107
C. Secondary Trading	109
D. The Role Of Underwriters In The Secondary ABS Market	115
E. New Issue Process.....	115
1. Issuer Objectives and Alignment of Interests.....	115
2. The Role of Underwriters in the Primary ABS Market.....	116
3. Key Players in the Primary ABS Market	117
4. ABS Securitization Process Map.....	119
5. Summary of the Structural Mechanics of the New Issue Process	120
6. Basic Bond Attributes.....	122
7. Common Types of Credit Enhancement.....	122
F. The Primary Issuance ABS Syndicate Process.....	124
VI. ONGOING OPERATIONS AND SERVICING	126
A. The Role Of The Trustee	126
B. The Role of the Servicer	128
1. The Servicer’s Role in RMBS Transactions	128
2. The Servicer’s Role in CMBS Transactions	130

Table of Contents

(continued)

	Page
3. The Servicer's Role in ABS Transactions	131
4. Servicer Bankruptcy and Transfers	131
VII. COMPARISON TO THE CORPORATE BOND MARKET	133
A. Characteristics Of Plain Vanilla ABS vs. Corporate Bonds.....	133
B. Cashflow Comparison	134
C. High Investment Grade Ratings	135
D. Historical Bond Prices	136
E. Spread Performance	137
VIII. U.S. REGULATORY FRAMEWORK	137
A. Assigned Responsibilities And Coverage.....	137
1. Federal Reserve System	137
2. Office of the Comptroller of the Currency.....	138
3. Federal Deposit Insurance Corporation.....	139
4. Securities and Exchange Commission.....	139
5. Commodity Futures Trading Commission.....	140
6. Consumer Financial Protection Bureau	141
B. Case study on the Crisis: Securitization's Role.....	142
C. Regulatory Response	144
1. FAS 166 and 167.....	144
a. FAS 167.....	144
b. FAS 166.....	145
c. Results.....	145
2. FDIC Safe Harbor	145
3. Reg AB II	147
4. Risk Retention	148
5. Capital and Liquidity Rules.....	150
a. Capital rules	150
(1) No mention of BCBS Consultation Document 236	151
(2) Definitions of securitization and securitization exposure.....	152

Table of Contents
(continued)

	Page
(3) Traditional securitization defined	152
(4) Exclusion for operating companies	152
(5) Scope-in discretion retained	153
(6) Synthetic securitizations defined	154
(7) Resecuritizations	154
(8) Securitization due diligence requirements	155
(9) Securitization operational requirements	156
(10) Clean-up calls	157
(11) Alternative approaches to determine risk-weighted capital	158
(12) Amounts of exposures for which risk-based capital required	159
(13) Double-counting avoided	160
(14) Servicer advances	160
(15) SSFA	161
(16) $KA = (1-W).KG + (0.5.W)$	162
(17) Gross-up approach	162
(18) Alternative treatments for certain types of securitizations	163
(19) Credit risk mitigation for securitization exposures	163
(20) Nth-to-default credit derivatives	164
(21) Pillar 3 disclosures for securitization	165
b. U.S. liquidity coverage ratio for large banking organizations and systemically important non-banks	166
6. Clearing and Margin	168
a. Mandatory central clearing	169
b. Margin requirements	170
D. Good or Bad Regulation: Are The Regulations Adopted Or Proposed As A Result Of The Credit Crisis Appropriate And To What Extent Do They Help Or Hurt Securitization?	171
1. Principles vs. Rules	171
2. Activity-Based	172

Table of Contents

(continued)

	Page
3. Coherent Globally and Macroeconomically	173
4. Precisely Targeted to Minimize Distortions.....	174
5. Designed to Achieve Safety and Soundness	174
6. Flexibility	175
7. Benefits Justify Costs	176
8. Connecting Measures and Objectives	177
9. Constant Reevaluation.....	177
PART TWO: POLICY ISSUES TO CONSIDER.....	177
IX. THE BENEFITS AND RISKS OF SECURITIZATION.....	177
A. The Securitizer	179
1. Cheaper Pricing	179
2. Off-Balance-Sheet Financing.....	179
3. Lower Capital Requirements.....	179
4. Diversity of Funding Sources.....	180
5. Liquidity Management.....	180
6. Financing Available in Times of Stress	180
7. Credit Ratings.....	180
B. The Investor	181
1. Liquidity.....	181
2. Portfolio Diversification	181
3. Stability	182
4. Flexibility	182
C. The Borrower	182
1. Lower Cost of Funding	182
2. Convenience and Adaptability	182
D. The Arranging Bank/Underwriter	182
X. POLICY BACKDROP AND SECURITIZATION IN THE UNITED STATES.....	183
XI. THE FUTURE OF SECURITIZATION.....	184
A. Guarding Against Another Credit Crisis	185
1. The Challenge and the Response.....	185

Table of Contents
(continued)

	Page
2. A Broader View	186
3. The Rise of the Housing Bubble	186
4. Market Sensitivity to Price Fluctuations	187
5. The Bank-Run Phenomenon	187
6. Counter-Factual Basis of Risk Retention Regulations.....	188
7. Basic Prophylactic Measures	190
B. Initiatives To Standardize And Harmonize Securitization.....	192
GLOSSARY.....	194

Figure 1 - US Asset-Backed Securities Outstanding.....	3
Figure 2 - Securitization's Outstanding Share Of Funding In The U.S.:	
Q4 2007 and Q2 2015	6
Figure 3 - Structure Of A Securitization.....	13
Figure 4 - Consumer Credit.....	51
Figure 5 - Total ABS Issuance	52
Figure 6 - Issuance By Sector	53
Figure 7 - ABS Outstanding Market Size	54
Figure 8 - US Asset-Backed Securities Outstanding.....	54
Figure 9 - Credit Card ABS Issuance.....	55
Figure 10 - Housing Contribution To U.S. GDP	55
Figure 11 – Outstanding Home Mortgages	56
Figure 12 - RMBS And Its Contribution To Mortgage Credit	57
Figure 13 - A Transitioning RMBS Market.....	57
Figure 14 - Non-Agency RMBS Net Issuance \$Billion	58
Figure 15 - % Non-Agency RMBS Outstanding By Rating	59
Figure 16 - Agency RMBS Market Shares.....	59
Figure 17 - Issuance Volume By Asset	61
Figure 18 - Volume Placed/Retained	61
Figure 19 - European Placed ABS By Country	62
Figure 20 - Placed Auto ABS - Issuer Breakdown.....	62
Figure 21 - European Placed RMBS By Country.....	62
Figure 22 - Placed RMBS - Issuer Breakdown	63
Figure 23 - Japan's ABS Market by Sector	65
Figure 24 - China's ABS Market by Collateral Type.....	66
Figure 25 - Yearly Securitised Issuance.....	67
Figure 26 - Putting Global Structured Finance Losses in Context (2000-2014 Issuance)	69
Figure 27 - Example Of A Predetermined Shifting Scale For A Subordinate Class's	
Pre-Payment Percentages Of Its <i>Pro Rata</i> Interest.....	71
Figure 28 - Revolving Master Trust Structures	91
Figure 29 - Primary vs. Secondary Market.....	106
Figure 30 - New Issue Volume	107
Figure 31 - New Issuance Volume By Asset Type	108
Figure 32 - ABS Prime Auto Secondary Trading Spreads vs. Primary AAA Spreads	
2014-2015	110
Figure 33 - Seasonal Fluctuations In ABS Secondary Trading Volume (\$BN)	112
Figure 34 - Secondary Trading Volume By Issue.....	112
Figure 35 - Secondary Trading Volume By Asset Type	114
Figure 36 - Bids Wanted In Competition.....	115
Figure 37 - Underwriting.....	117
Figure 38 - New Issuance Roles	118
Figure 39 - New Issue Process.....	119
Figure 40 - Structuring Process.....	121

Table of Figures
(continued)

	Page
Figure 41 - Auto ABS Structure And Attributes	122
Figure 42 - Credit Enhancement	123
Figure 43 - Syndication Process	125
Figure 44 - Servicer Responsibilities & Alignment Of Interest.....	132
Figure 45 - Corporate Bonds Compared To ABS.....	134
Figure 46 - Cashflow Comparison	135
Figure 47 - Historical Bond Prices	136
Figure 48 - Liquidity Characteristics Of ABS.....	137

PART ONE: SECURITIZATION IN THE UNITED STATES

I. INTRODUCTION

A. The History Of Asset-Backed Securities In The United States

The first transactions creating Asset-Backed Securities (ABS)¹ involved Mortgage-Backed Securities (MBS) developed by the Government National Mortgage Association (Ginnie Mae)—a U.S. government-sponsored entity (GSE)—for the purpose of fostering a robust secondary mortgage market.² These MBS transactions created pass-through securities that transferred principal and interest payments to Investors and were guaranteed by Ginnie Mae. Although Investors previously had traded whole loans, or unsecuritized mortgage loans, banks typically had retained their mortgage loans due to the disparity in rates and terms of mortgage financing in different states and the risk concentration in selling individual mortgages on the open market. Banks thus had substantial portions of their resources committed to outstanding loans, which severely limited their ability to finance new homeowners.

The MBS transactions pioneered by Ginnie Mae dramatically altered the landscape of the mortgage industry. By pooling mortgages with similar interest rates, geographic locations, and ownership profiles, MBS transactions dramatically lowered costs for home buyers and minimized the consumer risk that banks faced when originating loans. Additionally, trading MBS instead of whole loans significantly reduced paperwork and legal fees.

In 1983, another GSE—the Federal National Mortgage Association (Fannie Mae)—developed the first Collateralized Mortgage Obligation (CMO) as a further twist on the standard MBS product. CMOs are transactions that repackage and redirect interest and principal payments to securities with different duration and interest obligations. Congress facilitated this innovation by legalizing Real Estate Mortgage Investment Conduits (REMICs). It was not long before corporations realized the possible applications of securitization.

Sperry Lease Corporation developed the first non-mortgage ABS product in 1985, when it structured \$200 million in notes backed by its computer equipment lease payments. These notes received a AAA³ rating from Standard & Poor's (S&P) and were underwritten by First Boston. Leases, similar to loans, involve predictable cashflow streams with standard contractual recourse to clients or to the Originator of the transaction. In Sperry's case, the ABS involved a pool of 75 leases on computer equipment, with Sperry and its subsidiary guaranteeing an amount equal to

¹ Throughout this paper, capitalized terms reflect terms of art, acronyms, or the names of the various participants in ABS transactions. These terms are defined in the Glossary included at the end of this document.

² See http://www.ginniemae.gov/inside_gnma/company_overview/Pages/our_history.aspx.

³ See Section II.E., *infra*, which discusses the ratings process.

up to 20% of the pool against default.⁴ The first auto-loan ABS transaction also occurred in 1985, and was underwritten by Valley National Bank and Marine Midland. This transaction was small, but it drew the attention of the then Big Three auto companies: Ford, GM, and Chrysler. Over the next decade until 1996, 355 auto ABS deals were issued, representing \$162 billion worth of auto ABS. From that point on, auto loan and auto lease ABS transactions have been among the largest ABS sectors.⁵ The first major credit card debt securitization also was executed in 1986, with a first total decade issuance of \$230.95 billion.⁶ Major securitizers included CitiCorp, Capital One, First USA, and MBNA.

The 1990s witnessed a dramatic improvement in securitization techniques and investor comfort with the various asset classes. The early 2000s saw an explosion in the MBS segment, driven by cheap credit in the aftermath of the Dot-Com bubble and rising housing prices. What is more, the rise in housing prices also led to an increase in ABS in other consumer segments, such as auto and credit cards, because houses typically were utilized for home equity loans, allowing consumers to “cash-out” any equity they built in their homes and use the cash to pay off other loan balances. The credit crisis of 2008 saw a dramatic rollback of ABS issuance and demand, as shown in Figure 1 below. While important questions arose as to the viability of securitization products, their performance during one of the worst credit crises in history actually proves the significant resilience of the product and belies much of the negative perception associated with the product. Currently the market is undergoing significant revisions with the development of High Quality Securitization (HQS) initiatives in Europe and standardized securitization in the U.S.

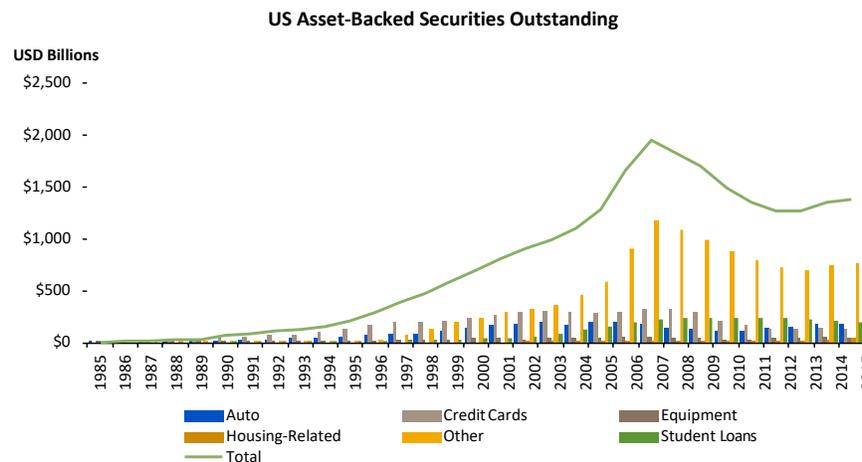
Figure 1, illustrates the volume of outstanding ABS in the U.S. market as of the end of 2014, excluding complex Collateralized Debt Obligations (CDOs).

⁴ See <http://www.nytimes.com/1985/02/12/business/finance-new-issues-computer-leases-back-financing-by-sperry.html>.

⁵ See Anand K. Bhattacharya & Frank J. Fabozzi, *Asset-Backed Securities* 86 (John Wiley & Sons, 1996).

⁶ See SIFMA, *U.S. ABS Issuance and Outstanding* (Aug. 2015)

Figure 1⁷



B. The Role Of Securitization In Funding The Real U.S. Economy

Securitization continues to play as vital a role in financing the real U.S. economy as it did prior to the crisis. Specifically, by tranching credit risk and pre-payment risk, securitization enables a broader Investor base to participate in risk sharing and funding the so-called “real economy.”

Securitization supports American consumers by funding their borrowing in various areas, including residential mortgages, credit cards, auto loans, and student loans. Securitization also supports U.S. businesses by funding their borrowing in such areas as the leveraged corporate loan and commercial real estate markets through the use of Collateralized Loan Obligations (CLOs) and Commercial Mortgage-Backed Securities (CMBS). Indeed, securitization—both private and government-sponsored—represents \$8.6 trillion, or about 50% of the nation’s roughly \$17.3 trillion of loans outstanding as of Q2 2015.⁸ This share has remained relatively stable since the credit crisis, although the private sector’s share has decreased due to the increased involvement of the government in the single and multi-family residential and student loan sectors.

Securitization’s relative share of funding has varied within individual sectors. Consumer non-residential loan securitizations—including credit cards, student loans, and auto loans—have

⁷ Source: Bank of America Merrill Lynch (BAML)/Securities Industry & Financial Markets Association (SIFMA).

⁸ See SIFMA, *U.S. ABS Issuance and Outstanding* (Aug. 2015) (credit cards, student loan, and auto loan securitization volumes); SIFMA, *U.S. Mortgage-Related Issuance and Outstanding* (Aug. 2015) (residential and commercial securitization volumes); Thomson Reuters and Moody’s Investor Servs., *Leveraged Loan Monthly* (July 2015) (leveraged loan and CLO figures); Bd. of Governors of the Fed. Reserve Sys., *Z.1 Financial Accounts of the United States, Forms L.222 and L.217* (Q2 2015) (credit card, student, auto, residential, and commercial loans outstanding); Bd. of Governors of the Fed. Reserve Sys., *Financial Accounts of the United States, Historical Annual Tables, 2005-2014, Form L.222* (2007 credit card, student, auto, residential, and commercial loans outstanding). Loans outstanding include those markets where securitization has a presence, for example, credit cards, student loans, auto loans, residential mortgages, commercial loans, and corporate loans. Investment grade and high-yield corporate debt, and federal, state, and municipal debt are excluded.

dropped from 31% in Q4 2007 to 17% in Q2 2015. During the same period, residential securitizations have risen to 67% from 63%, and non-consumer securitizations have remained stable at about 33%.

For securitization to be an effective tool, it is important to accurately assess the extent to which collateral losses are correlated so that tranche subordination levels can be appropriately determined. To address this issue, post-crisis securitizations have reduced underlying exposure to other securitizations. Certain products—like ABS CDOs—have not come back, while others such as CLOs have practically eliminated allocations to other securitizations. Some of this also has been driven by investor demand for greater transaction transparency and simplicity, but equally important has been the role of the government in instituting regulation that encourages transparency and simplicity.

Another trend that has emerged since the credit crisis is the risk of reduced liquidity in secondary markets for structured finance securities. Increased market-risk capital requirements under Basel 2.5⁹ and liquidity risk charges under Basel 3¹⁰ have increased the costs of maintaining trading portfolios. The new market-risk charges finalized under the Fundamental Review of the Trading Book¹¹ imply risk weights on securitization positions several multiples higher than current market-risk weights. It remains to be seen how markets will adapt to these changes if they are implemented.¹²

Overall, post-crisis securitizations have increased their focus on asset quality. For example, post-crisis residential securitizations have mostly been backed by high-quality single-family loans that meet the standards of the GSEs and are issued under their securitization

⁹ The Basel Committee on Banking Supervision's (BCBS) market risk capital framework is commonly referred to as Basel 2.5. The BCBS began working to make significant changes to the market risk framework in 2007, and developed reforms aimed at addressing issues highlighted by the credit crisis. The BCBS published these changes in its *Revisions to the Basel II Market Risk Framework, Guidelines for Computing Capital for Incremental Risk in the Trading Book, and Enhancements to the Basel II Framework*.

¹⁰ The BCBS established quantitative standards for liquidity in December 2010 in its *Basel III: International Framework for Liquidity Risk Measurement, Standards and Monitoring*, and updated the standards in January 2013 in *Basel III: The Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools*. The framework introduced the Basel III Liquidity Coverage Ratio (LCR), which established the first international quantitative liquidity standard with the primary objective of promoting the short-term resilience of internationally active banking organizations. Beginning in January 2015, under the Basel III LCR, internationally active banking organizations were required to start holding sufficient High Quality Liquid Assets (HQLAs) to meet their liquidity needs during a 30-day stress scenario.

¹¹ In January 2016, the BCBS published its *Minimum Capital Requirements for Market Risk*, which set out revised standards for minimum capital requirements for market risk. The key features of the revised framework include a revised boundary between the trading book and banking book, a revised internal models approach for market risk, a revised standardised approach for market risk and a shift from value-at-risk to an expected shortfall measure of risk under stress. This marked the culmination of a review of the market risk framework by the BCBS after implementation of the Basel 2.5 market risk rules. The revised standards must be implemented by a country's domestic regulator to be applicable for that country.

¹² See Section VII, *infra*, for a discussion of a comparison of the corporate bond market with the ABS and MBS markets.

programs. Private-sector securitizations of high-quality residential loans that are too large to meet GSE guidelines (prime-jumbo loans) have dropped off sharply since the crisis, as Originators have preferred to hold these loans on their balance sheets. In the corporate loan sector, post-crisis CLO transactions are backed almost entirely by first-lien senior-secured loans and have little or no allocations to alternative assets such as high-yield bonds and structured finance securities. Similar trends can be found in other sectors to varying degrees.

Figure 2 below provides a comparison of securitization's share of funding at an asset class level for Q4 2007 and Q2 2015. The figures are broken out between private securitizations, government or GSE securitizations, non-securitized private lending, and non-securitized government lending. Asset classes include credit cards, auto loans, student loans, consumer residential loans, commercial and multi-family loans, and corporate loans. The consumer non-residential asset class aggregates the credit card, auto, and student loan asset classes. The total consumer asset class aggregates the consumer non-residential class with the consumer residential asset class. The non-consumer asset class aggregates the commercial and multi-family asset classes with the corporate loan asset class.

Figure 2

Securitization's Outstanding Share Of Funding In The U.S.: Q4 2007 And Q2 2015

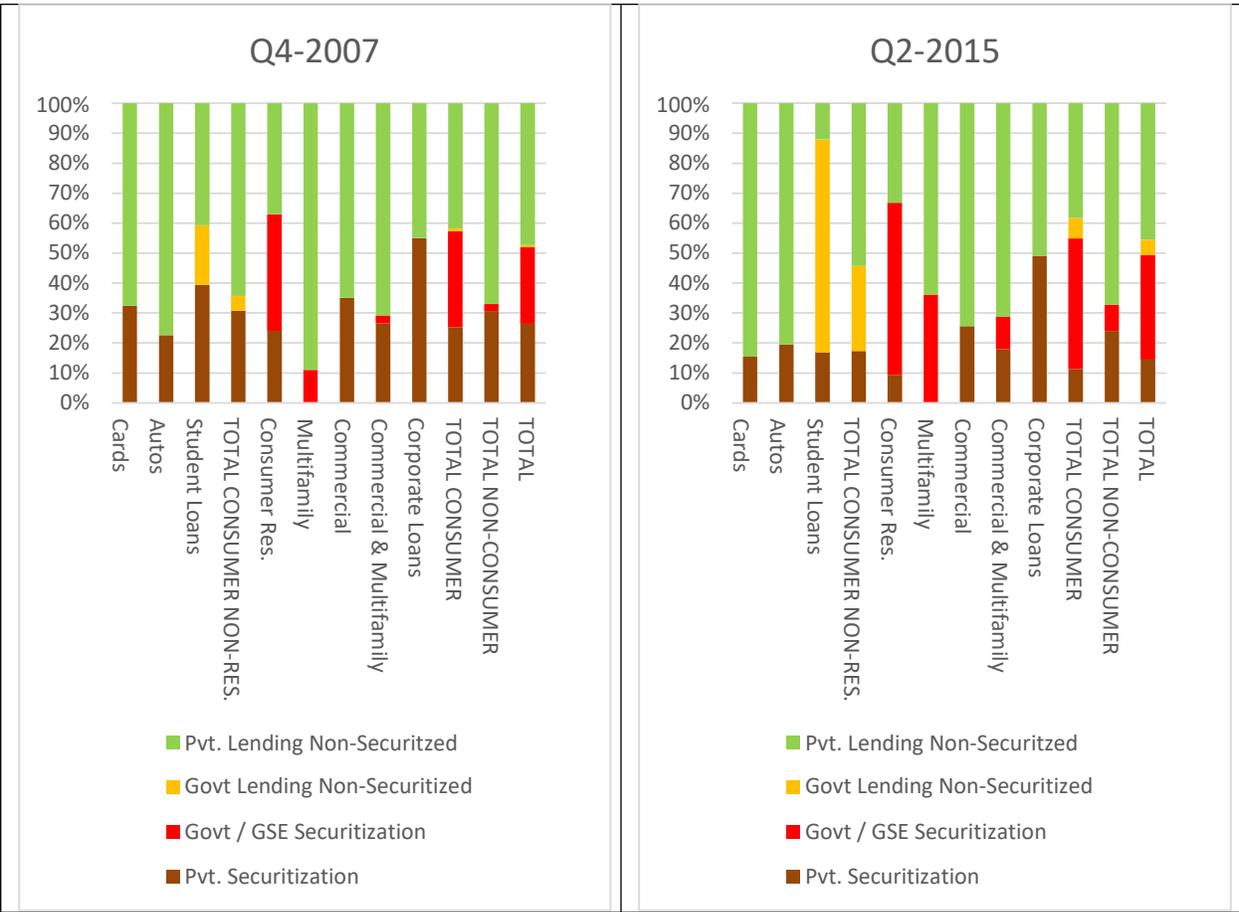


Figure 2 shows that, although securitization’s relative share of aggregate outstanding funding has remained stable since the credit crisis, its share has varied within individual sectors. Since Q4 2007, non-residential consumer loan securitizations have dropped from 31% to 17%, residential securitizations have risen from 63% to 67%, commercial loan securitizations have remained stable at about 29%, and corporate loan securitizations have dropped from 55% to 49%.

The importance of private sector securitizations relative to government-sponsored securitization has changed since the crisis across asset classes. Private sector securitizations currently constitute a large majority of total outstanding securitizations in all but the residential space. In the residential space, private sector securitizations have dropped from 24% in Q4 2007 to 9% in Q2 2015.

Some key drivers have caused the different trends discussed above, although their relative importance varies by sector. These drivers include a more cautious risk-taking environment, regulatory policy affecting banks and securitizations, direct government intervention, poorer secondary market liquidity, and a sluggish global post-crisis recovery.

1. Credit Cards¹³

Securitization trends in the credit card space are explained by a number of factors, none of which pertain to market accessibility.

Following the adoption of Financial Accounting Standards 166 and 167, whereby most credit card issuers were required to consolidate their transactions back onto their balance sheets, Issuers were required to hold loan loss reserves against these securities notwithstanding that large amounts of credit risk had been contractually transferred to investors. The requirement to hold redundant capital reduced the economic efficiency of securitization. Moreover, in line with the reconsolidation of assets, U.S. regulators required Issuers to hold additional risk-based capital, thus further reducing economic efficiency.

As part of their ongoing credit management, Issuers pro-actively reduced credit lines of those customers who demonstrated increased performance risk during the recessionary period. By reducing lines, balances subsequently followed suit. In addition, issuance spreads widened, again having a significant negative effect on the economics of a transaction and the related effect on funding cost.

And as a general positive behavioral characteristic of the U.S. consumer, as the risks of a failing economy manifested themselves, consumers “tightened their belts” and actively reduced their credit burdens. Non-essential spending also reduced, creating reductions in credit card receivables. Card balances fell from \$1.002 billion in 2007 to \$839 billion in 2010. As the economy has recovered, balances have recovered partially and stood at \$847 billion in Q2 2015.

Finally, as consumer confidence dwindled and equity investment was perceived as a riskier alternative to savings accounts, bank deposits significantly increased. The combination of less advantageous economics, reduced loan volumes available to securitize, and a surplus of cheaper deposit funding on hand caused banks to significantly reduce their securitization volumes.

2. Auto Loans¹⁴

Net auto loan issuance has increased by almost \$200 billion since the crisis.¹⁵ Auto loan securitization shares have dropped moderately over that period. A steadily improving job market in the U.S. has allowed auto loan Borrowers to remain current on their loans and supported the

¹³ Additional discussions regarding the credit card asset class appear *infra* in Sections II.C.1.c., IV.A.1.d., and IV.B.7.b.

¹⁴ Additional discussions regarding the auto loan asset class appear *infra* in Sections IV.A.1.e. and IV.B.7.a.

¹⁵ The data in this discussion is drawn from the Federal Reserve Board, *Moody's 2015 Outlook – Weaker Credit Quality on New Loan Pools Will Reflect Continued Easing of Underwriting Criteria*. Auto-loans include loans to retail customers, principally prime and sub-prime auto loans, leases, and rentals. Floorplan auto loans are excluded.

net growth in auto loan issuance.¹⁶ The recovery also improved the credit quality of Issuers that were able to access balance sheet financing to make new loans to Borrowers. Similarly, financial captives of auto companies have been able to finance auto loans on their own balance sheets as their access to credit has recovered in the post-crisis period.

Investors have been drawn to this asset class due to the historically strong credit performance across auto loans and leases, both prior to and after the credit crisis. Indeed, as the post-crisis recovery spurred demand for auto loans in the U.S., auto loan origination increased about 20% between Q4 2007 and Q2 2015. However, the increase in auto loan origination has not translated into proportionately higher ABS issuance, which increased only 7% during the same period. Auto loan ABS securitization's share of total auto loan issuance has dropped moderately from 23% in Q4 2007 to 19% in Q2 2015. The total volume of auto loans outstanding increased from \$801 billion in Q4 2007 to \$998 billion in Q2 2015.

The Issuers of auto ABS fall into two categories. First, most auto manufacturers have a "captive" finance subsidiary whose mission is to finance the sale of their parent company's vehicles to both retail and dealer customers. One of the primary and typically most efficient options for an Auto Captive to finance its business is to securitize their finance receivables through the issuance of ABS. The second category is banks and similar financial institutions, which have more funding options than an Auto Captive, including deposits. Accordingly, bank issuers will use ABS more sparingly.

3. Student Loans¹⁷

Since the credit crisis, there has been a decrease in securitization's share of student loan issuance due principally to increased direct government lending and a decline in student loan origination by private lenders. Student loan ABS securitizations as a source of funding has declined to 17% in Q2 2015 from 39% in Q4 2007.¹⁸ Government-originated student loans increased to \$885 billion from \$116 billion over that same period, which accounts for a large share of the increase in student loans outstanding during this time.¹⁹ Congress discontinued its Federal Family Education Loan Program (FFELP) lending in July 2010 and directed all new government-guaranteed student loans to be funded through the Direct Loan Program (DLP). All FFELP ABS

¹⁶ Unemployment rates dropped to 5.0% as of Q4 2015, down from their peak level of 10% in October 2009. The data in this discussion is drawn from the Unemployment Rate series provided by the Bureau of Labor Statistics.

¹⁷ Additional discussion of the student loan asset class appears *infra* in Section IV.A.3.d.

¹⁸ See SIFMA, *US ABS Issuance and Outstanding* (Aug. 2015) for student loan securitization volumes. Student Loan outstanding balances are based on data from Federal Reserve Board publications. References to those are provided in the next footnote.

¹⁹ Bd. of Governors of the Fed. Reserve Sys., *Z.1 Financial Accounts of the United States*, Forms L.222; Bd. of Governors of the Fed. Reserve Sys., *Financial Accounts of the United States, Historical Annual Tables, 2005-2014*, Form L.222.

since July 2010 have used loans originated prior to that date. As of Q2 2015, there were approximately \$550 billion of loans outstanding under the DLP.²⁰

More recently, a number of marketplace lenders have also entered the private student loan lending space, focusing mainly on refinancing very strong Borrowers with outstanding government or private student loans. While this is currently a small fraction of the private student loan origination market, it is likely to grow to account for a higher percentage of private student loan origination and securitization.

4. Residential Mortgage Loans²¹

There has been an increase in securitization's outstanding share of mortgage loan issuance and a decrease in the private sector's share of that issuance from 24% in Q4 2007 to 9% in Q2 2015. This is due principally to a new and still developing transaction governance framework, regulatory policy affecting banks and securitizations, and direct government intervention.

Transaction governance has become an area of focus for RMBS Investors since the crisis. Market participants are now working to make improvements to the RMBS framework to address these concerns, although several key issues still remain unresolved.²² Lack of market liquidity around RMBS securitizations is another area of concern, which has prompted Investors to require a substantial premium to hold senior tranches of private-label securitizations backed by prime-jumbo collateral.

Residential mortgages have been a primary area of focus for post-crisis regulatory policy. An array of regulatory guidelines and rules are influencing the size and nature of securitization in the U.S. housing market, including: Qualified Residential Mortgage (QRM) rules; ability-to-repay rules; Truth In Lending Act (TILA) and Real Estate Settlement Procedures Act (RESPA) integrated disclosure rules (better known as TRID); risk retention rules for non-QRM loans; Reg AB II disclosures; and Basel-related bank capitalization and liquidity rules for securitizations. The cumulative impact of these rules has been to: (1) focus RMBS issuance on Borrowers with strong credit profiles; (2) increase the rigor with which Originators are required to monitor and make disclosures regarding their transactions; (3) align the interests of Originators and Servicers with securitization equity and debt holders through risk retention; and (4) increase the capital and liquidity costs for banks looking to hold and/or trade senior securitization exposures.

However, despite these regulatory, legislative, and industry-led efforts to improve market liquidity and investor confidence, one area where there is a perception of extreme risk—

²⁰ See Direct Loan Portfolio By Repayment Plan, *available at* <https://studentaid.ed.gov/sa/about/data-center/student/portfolio>.

²¹ Additional discussions regarding the residential mortgage loan asset class appear *infra* in Sections IV.A.1.a, IV.B.7.c., and VI.B.1.

²² See *Prime-Jumbo Market Gradually Recovers as Transaction Governance, Investment Strategies and Capital Requirements Evolve*, Moody's Investor Servs. (Feb. 2, 2016).

contractual integrity—has no proposed solution to date. Following the Global Financial Crisis, the U.S. Department of Justice and State Attorneys General imposed a series of fines against banks, which to some degree created a write down against the collateral supporting Investor’s holdings. Investors view this potential for government interference in the ability to allow a transaction to follow its contractual course as a massive impediment to returning market confidence.

The U.S. GSEs Fannie Mae, Ginnie Mae, and the Federal Home Loan Mortgage Corporation (Freddie Mac) have almost \$5.7 trillion of GSE-issued MBS outstanding.²³ With the GSEs playing such a major role in financing residential loans, the private sector has had a smaller part to play in this space. Indeed, the existence in the eyes of the market of an implicit U.S. government guarantee of GSE-issued MBS has compounded the regulatory scrutiny on private-label securitizations that is holding back private sector issuance, as described above. The perception of a U.S. government guarantee lowers the cost of borrowing for the GSEs in an environment in which the funding costs of private sector lenders are elevated. GSE debt also benefits from lower regulatory capital and liquidity costs relative to debt issued by financial lenders.

Recently, Fannie Mae and Freddie Mac have started to transfer their credit risk exposure on transactions to the private market through their Connecticut Avenue Securities (CAS) and Structured Agency Credit Risk (STACR) credit risk transfer (CRT) deals. As of Q3 2015, CRT deals backed by about \$679 billion in mortgage loans have originated in the marketplace.²⁴ CRT deals generally have a single senior note, with multiple mezzanine notes and an equity tranche. The senior note is typically retained by the GSEs, which also may retain all or part of the equity tranche. Loss exposures to Investors in early transactions were anchored to a fixed recovery rate. However, a distinguishing feature of the mezzanine and subordinate notes of CRTs is that these are direct, unsecured obligations of the GSEs. As such, Investors are exposed to the credit risk of the GSEs. Investors have no recourse to the underlying reference pool; however, the timing and amount of payments that the Investors receive will depend on the performance of the mortgage loans in the reference pool.

5. Commercial Mortgage Loans²⁵

The share of securitization in overall funding of CMBS has remained relatively stable as a result of government intermediation in multifamily CMBS, low defaults in the post-crisis economy, a benign new-issue default outlook up until recently, and relatively transparent market-based pricing on underlying collateral. Although securitization’s share of commercial

²³ SIFMA, *U.S. Mortgage-Related Issuance and Outstanding* (Aug. 2015).

²⁴ See Fannie Mae and Freddie Mac 10-Q Q3 2015.

²⁵ Additional discussions regarding the commercial mortgage loan asset class appear *infra* in Sections IV.A.1.b., IV.A.4.d., IV.B.7.d, and VI.B.2.

loans has remained stable, the private sector's share of that securitization has dropped to about 62% in Q2 2015 from about 90% in Q4 2007.

Fannie Mae, Freddie Mac, and Ginnie Mae have been active participants in the multi-family CMBS space, increasing the government's participation in that market to 36% in Q2 2015, up from 11% in 2007. As a result, the overall share of government securitizations in the commercial and multi-family space has risen from about 3% to 11% over that period.

6. High-Yield Corporate Bank Loans²⁶

Securitization's share of corporate loans has declined about 6% since the crisis to 49% in Q2 2015. This decline is modest relative to the 14% decline in private securitizations in the non-residential consumer sector over the same time. The factors that have helped contain the drop in corporate securitization's share of overall funding include little or no direct government lending, modest impacts from regulatory policy changes, a benign post-crisis default outlook, and a relatively transparent market-based pricing on underlying collateral.

There has been little direct government intervention in the corporate loan space to crowd out private sector securitization. Corporate loans continue to be funded through direct lending and through CLOs. In addition, loan opportunity funds have grown since the recession and are significant holders of corporate loans.

Regulatory policy changes such as compliance with the so-called "Volcker Rule" (Volcker)²⁷ and Credit Risk Retention Rules have not yet had a significant impact on the issuance of CLOs. Many Issuers on pre-crisis deals have modified existing indenture language to remove non-Volcker compliant collateral. Issuers of new deals have largely focused on structures and collateral that would be Volcker compliant to start with. In the case of Credit Risk Retention Rules, the effect was limited and the market continues to look for solutions prior to the rules going into effect in December 2016. Going forward, new CLO issuance will shrink if several market-related factors remain relevant, including: (1) rising liability costs that reduce potential arbitrage gains (and thus prospective equity returns); and (2) the deteriorating credit quality of leveraged loans.²⁸

A low occurrence of defaults in the post-crisis economy and a benign default outlook have encouraged the securitization of corporate funding in order to enhance yields for Investors. In fact, there are early indications that increased issuance in the corporate loan space might already have started to loosen lending standards. The July 2015 Senior Loan Officer Survey by the Federal

²⁶ Additional discussions regarding the high-yield corporate bank loan asset class appear *infra* in Sections IV.A.1.c., IV.A.4.d., and IV.B.7.f.

²⁷ 12 C.F.R. §248 - Proprietary Trading and Certain Interests in and Relationships with Covered Funds.

²⁸ See *Companies Face Record Maturities; New Issuance Wave Likely in 2017*, Moody's Investor Servs. (Feb. 16, 2016).

Reserve Board of the U.S. reported that banks “reported having eased some loan terms, such as spreads and covenants, especially for larger firms on net.”²⁹

II. ABS FUNDAMENTALS

A. Pooling And Isolation Of Assets

1. Pooling of Assets and Elimination of Originator Credit Risk

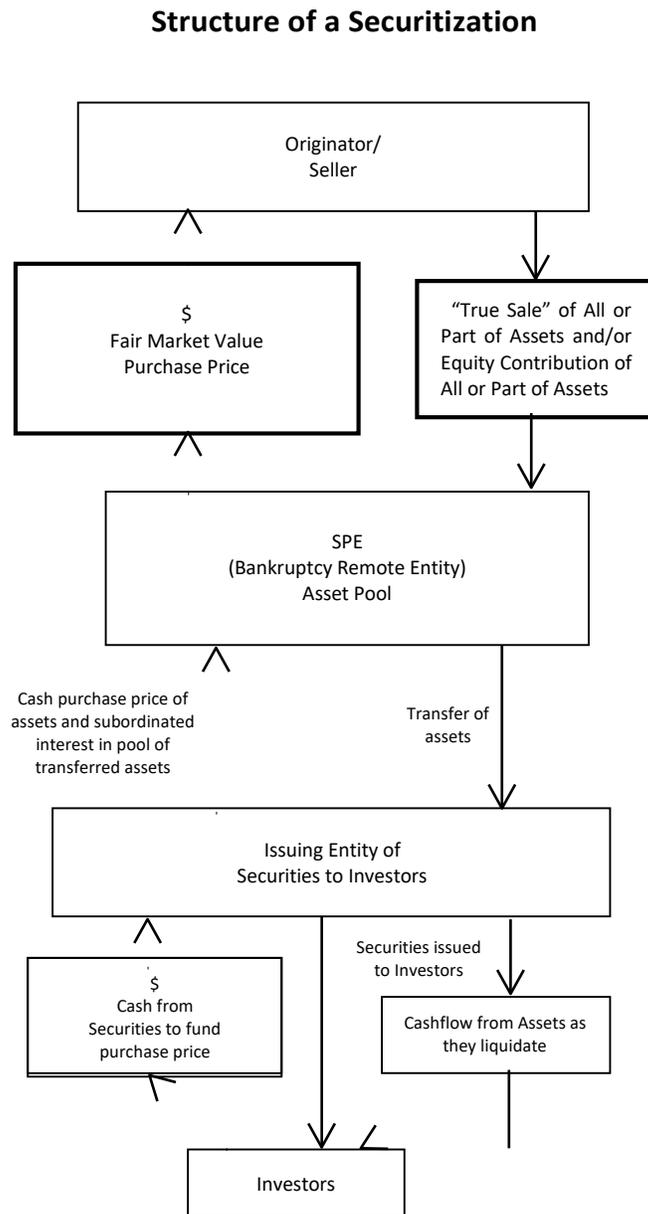
In a securitization transaction, the securitized assets—which most often are financial assets—are typically pooled together, transferred to a separate Special Purpose Entity (SPE), and structured to be isolated from the credit risk of the Originator of the assets. Indeed, the primary structural goal of a securitization transaction is to legally isolate the securitized assets from the credit risk—particularly bankruptcy risk—of the Originator. A key difference between a securitization transaction and typical secured loan transaction is that Investors in the securitization look to the revenue-generating securitized assets for payment rather than to the balance sheet of the Originator.³⁰ This means that, if the cash flow from the securitized assets (plus any other credit support for the securitization) is insufficient to repay the Investors, the Investors do not have the right to look to the Originator for repayment of their investment, thus creating a risk of uncollectability.

The securitization transaction is typically structured as a “true sale” of the securitized assets, as distinguished from a borrowing secured by such assets, with the goal of separating the assets from the financial risk of the Originator. Thus, the first leg of the securitization process is typically the transfer of the assets to the SPE, which is a separate legal entity from the Originator and is limited in its governing articles or otherwise to only conducting business that relates to purchasing and securitizing the assets. The Originator typically transfers receivables to the SPE for cash, makes a contribution of the assets to the SPE’s equity, or both. This is done to ensure that the assets are transferred in such a way that they are no longer considered to be the assets of the Originator in a bankruptcy or otherwise. Generally, this means that: the assets have been sold for fair market value; the Originator does not commit to cover losses on the transferred assets, guarantee collection risk, or retain the right to receive the benefits or income on those assets; and the parties agree that they intend the transaction to be a sale or equity contribution of all right, title, and interest in the assets securitized and not a loan from the SPE to the Originator secured by the assets. Figure 3 below illustrates a securitization structured to achieve this goal.

²⁹ Fed. Reserve Bd., *July 2015 Senior Loan Officer Opinion Survey on Bank Lending Practices* (July 2015).

³⁰ See *infra* Section II.C.3.a for a discussion of the need for isolation’s affect on structuring.

Figure 3



Securitization structures can vary from the above. For example, there might not be an Issuer in addition to the first SPE, which itself might issue securities.

In order to ensure a true sale, the securitization transaction should be structured to ensure that the SPE acquires ownership of the assets. To that end, an opinion of U.S. counsel (a so-called "true sale opinion") would typically be required to the effect that, in the event of the Originator's bankruptcy, such assets would not be deemed property of the Originator (or any of its affiliates that owned the assets at any point during the transfer to the SPE)

under Section 541 of the U.S. Bankruptcy Code. Factors considered in such an opinion may include the following:³¹

- whether there is recourse to the Originator for collection or non-payment;
- which party bears the risks and enjoys the benefits of ownership of the assets;
- whether a price approximating fair value has been paid for the assets conveyed;
- whether the Originator retains any rights in or control over the assets (*e.g.*, right of substitution, redemption, or repurchase);
- whether collections from the transferred assets are segregated from any other assets that may be held by or retained by the Originator;
- how the parties treat the transaction for tax, accounting, and regulatory purposes; and
- the intent of the parties that the transfer be a sale as opposed to a financing, particularly as indicated by either the economic substance of the transaction or, less often, the express language of the documents.

If the Originator also acts as the Servicer for the transaction, a servicing agreement with customary terms and provisions for a third-party arrangement would typically be executed, and segregated accounts would be used to hold the cashflow from the assets.

2. Isolation of Assets: Bankruptcy Remoteness

As indicated above, the securitized assets are typically transferred to a bankruptcy-remote SPE. Consequently, the SPE should not be able to incur debt or engage in business transactions—other than the securitization itself—that cause the SPE to have other significant creditors or businesses, because a creditor at the SPE level might, among other things, bring claims against the SPE that could interfere with payment of cashflow from the assets to the Investors.

To achieve bankruptcy remoteness or “isolation,” the SPE should be structured to reduce the possibility that a bankruptcy court—in a bankruptcy proceeding involving the Originator—would order the Substantive Consolidation of the assets of the SPE with those of the Originator, thereby making the securitized assets reachable by the Originator’s creditors. To this end, the true sale or true contribution is also supported by a series of commitments by both the Originator and the SPE designed to protect the

³¹ See *infra* Section II.D.7 for a discussion of such opinions.

separate legal characters of those parties. These are referred to as “Separateness Covenants.”

The operation of the SPE would typically be governed by specific Separateness Covenants obliging the SPE to: maintain adequate capital in light of its anticipated business operations; maintain its books and records separate and apart from those of any other person, including the Originator; not commingle its assets or funds with those of any other entity, including the Originator; hold itself out to the public as a separate and distinct entity; have separate financial statements; observe all corporate or other formalities; correct any known misunderstandings as to its separate identity; not guarantee or become obligated for the debts of any other person (nor shall the Originator guarantee or pay obligations of the SPE); conduct business in its own name and use its own stationery, accounts, checks, and invoices; pay its obligations and expenses out of its own funds; not enter into any insolvency proceeding without the affirmative vote of one or more independent directors; and give its creditors a certain amount of notice before filing a bankruptcy petition.

In order to achieve isolation, the SPE typically is structured to satisfy the following criteria:

- The SPE has a limited purpose. The organizational documents should limit the SPE’s business and operations to: (i) activities related to the acquisition, holding, and collecting of the specific assets securitized; (ii) issuance of the securities purchased by the Investors in the securitization; and (iii) other activities necessary and appropriate to carry out the securitization.
- The organizational documents should restrict the SPE’s ability to: (i) amend the bankruptcy remoteness provisions set forth in the organizational documents; (ii) dissolve or liquidate; (iii) merge with any entity or transfer all or substantially all of its property or assets other than in the securitization; or (iv) file for, or join in, a bankruptcy proceeding of any person.
- The SPE should be restricted from incurring indebtedness.
- The SPE should have at least one—and often more than one—independent director. The theory is that the independent directors will act in the best interests of the securitization entity and not the Originator. Indeed, the independent directors’ duties set forth in the organizational documents often differ from those of ordinary directors to safeguard the interests of the creditors before those of the equity holders.

The forgoing criteria will typically be accompanied by an opinion of counsel (a “non-consolidation opinion”) to the effect that, in a U.S. federal bankruptcy proceeding of the Originator, a federal bankruptcy court would not consolidate the assets and liabilities of the

SPE with those of the Originator, *i.e.*, would not use its powers to order the substantive consolidation of the SPE assets and debts with those of the Originator or any of its affiliates.

3. Perfection of Assets

Although securitization transactions are structured sales, there is the possibility that a court could construe a transaction as a borrowing by the Originator. In order to protect Investors should this occur, transaction documents include a grant from the Originator to the SPE of a precautionary security interest in the securitized assets and a grant from the SPE to the Trustee, Custodian, or other party on behalf of Investors of a security interest in the SPE's rights in the securitized assets.

Security interests in personal property generally are governed by the Uniform Commercial Code (UCC). They are evidenced either by the filing of a financing statement with the Secretary of State for the state in which the debtor is registered (or where the debtor is located, if it is not a registered entity) or by taking possession of the personal property. Security interests in real property are governed by laws of the various states and are evidenced by a recording in the real property records of the county in which the property is situated.

While the UCC governs security interests in personal property, Article 9 of the UCC also covers the *sale* of some personal property, including sales of accounts, chattel paper, promissory notes, license fees, health care insurance receivables, and a subcategory of general intangibles called "payment intangibles." Thus, compliance with the UCC is critical even in sales of those assets.

A security interest does not exist until it has attached to particular assets. By agreement, the security interest may later attach to additional or substitute assets and may secure future advances made by the secured party. A security agreement is the common form for creating a security interest. The security agreement, which will be between the debtor and the secured party, must provide an express grant of a security interest in the collateral being transferred and must describe the collateral and the obligation secured.

Even if a security interest has attached, it is not valid against other creditors unless it is perfected. While certain security interests are perfected automatically, a security interest is typically perfected by: (1) filing a financing statement; (2) the secured party's taking possession of the property; or (3) the secured party's having control of the property (such as a deposit account or securities account).

The manner in which a security interest is perfected also varies based on the type of property involved. A security interest in intangible collateral (such as accounts, payment intangibles, and general intangibles) is perfected by filing a financing statement, which must include the name and address of both the debtor and the secured party and a description of the collateral. A security interest in tangible collateral (such as goods, tangible chattel paper, instruments, and negotiable documents) may be perfected by possession. A security interest in

securities and other forms of investment property may be perfected by control. In general, obtaining control means taking the steps necessary to place the secured party in a position where it can have the collateral sold without the cooperation of the debtor. In securitization transactions, control is typically obtained by transferring the assets to a securities intermediary and having the securities intermediary agree to act on instructions from the secured party regarding the transfer or disposition of the securities. The chart below summarizes the means of perfecting a security interest.

Asset	Method of Perfection
Accounts	Filing
Chattel Paper (tangible)	Filing or possession
Chattel Paper (electronic)	Filing or control
Commercial Tort Claims	Filing
Deposit Account	Control
Goods	Filing or possession
Equipment	Filing or possession
Instrument	Filing or possession
Document	Filing or possession
Investment Property	Filing, possession, or control
Letter of Credit Rights	Control
General Intangibles	Filing
Payment Intangibles	Filing

B. Analysis Of Cashflows

Securitization transactions segregate exposure to credit risk and prepayment risk by tranching and prioritizing the payments made to Investors between senior and junior note holders. The extent of segregation and the mechanism through which it is implemented varies across asset classes and across structures within the same asset class. We highlight below some of the commonly observed structural mechanisms. A more detailed discussion of these mechanisms is provided in Section IV.A. below.

1. Common Structural Features in Securitization Transactions

a. Protection from credit risk

Senior tranches are structured to remain relatively isolated from credit risk. When defaults occur, losses are generally applied first to the junior note holders. Conversely, recoveries on defaulted assets are generally used to pay down the senior tranches first. Senior tranches achieve isolation from credit risk in several different ways, including subordination, over-collateralization, excess spread, and credit protection triggers. Each of these is described briefly below.

- **Subordination:** Subordination beneath a tranche refers to the principal value of notes that must be written down before the tranche in question is impaired from defaults. Subordination beneath a tranche provides credit protection to that tranche. All else being equal, the greater the subordination the greater the credit protection to the tranche.
- **Over-Collateralization:** Over-collateralization refers to the principal amount by which the underlying collateral exceeds the sum of the principal balances of the notes. It normally is expressed as a percentage of the total collateral balance. All else being equal, the greater the over-collateralization, the greater the credit protection available to the note holders.
- **Excess Spread:** Excess spread refers to the interest payments on the collateral that are in excess of the interest payments due to the note holders. Some transactions have mechanisms to trap excess spread and use this to pay down senior note holders if the credit quality or performance of the collateral deteriorates below pre-established threshold levels.
- **Triggers:** Some transactions, like those involving RMBS and CLOs, have built-in performance triggers that divert cashflows, including collateral interest and principal payments from junior note holders to senior note holders if the credit quality or performance of the collateral falls below pre-established trigger levels. Often these triggers are expressed in terms of the level of subordination and over-collateralization that must exist in the deal for junior note holders to receive interest and/or principal.

- **Loss Allocation:** Losses are applied in reverse order from the most junior credit tranches to the most senior tranches. Deals differ, however, on when the write-down is affected. In some deals like RMBS, the principal balance on the notes is written down as losses occur. The amounts that are written down are restored later if there are recoveries on the collateral. This “write-down-as-you-go” process also reduces the interest payments due on the written-down notes. In other transactions, such as CLOs, principal balances are not explicitly written down. In cases when a deal matures or is redeemed, principal proceeds from the sale of the collateral are used to pay down the tranches in sequential manner. Thus, junior tranches are unable to recover principal if there are un-recovered collateral losses. Moreover, interest payments continue to be calculated based on the outstanding principal balance of the notes, in contrast to the “write-down-as-you-go” process.

b. Protection from pre-payment risk

Junior tranches are structured to remain relatively isolated from pre-payment risk. Unscheduled principal payments resulting from collateral pre-payments are used to pay down the senior tranches first. Transactions often have mechanisms to vary the sensitivity of tranches to pre-payment risk. Some of the primary mechanisms include deal reinvestment periods and Shifting Interest Structures.

Some structured transactions like CLOs have reinvestment periods during which principal payments—scheduled or unscheduled—are reinvested in new collateral, so long as deal performance tests are being satisfied. Reinvesting principal received during the reinvestment period for a CLO reduces senior note pre-payment sensitivity, but might increase exposure to credit risk if the reinvested collateral has weaker credit quality or has coupon or spread levels tighter than the coupon or spread levels of the collateral that has been repaid, leading to lower interest coverage and excess spread. These risks can be mitigated, however, through the use of collateral quality tests. After the reinvestment period, scheduled principal payments are used to pay down the senior tranches. Unscheduled principal payments received after the reinvestment period also are used to pay down the senior tranches if deal performance tests are failing.

Some securitization transactions like RMBS have a shifting interest structure during which all pre-payments received during a lock-out period (*e.g.*, five-years) are used to pay down the senior note holders. After the lock-out period, a fraction of the pre-payments is applied to the junior note holders, usually *pro rata* to principal balances, as long as the deal is passing certain performance tests known as step-down tests (usually a test based on the amount of defaults in the underlying portfolio). The fractional amount typically increases with the life of the deal. If at any point the deal fails to meet its step-down tests, pre-payment proceeds are shifted back to pay down the senior note holders.

2. Priority of Payments: Allocation of Cashflows

Securitizations segregate exposure to credit and pre-payment risk not only by tranching, but also by prioritizing collateral cashflows between senior and junior note holders.

In most deals, interest and principal payments are made to the senior note holders first. This form of payment is commonly referred to as “sequential payment.” Sequential payments prioritize cashflows to the senior note holders and shelter them from credit risk, but they also expose them to pre-payment risk. Sequential structures are commonly found across all asset class securitizations, but they can have nuances. For example, some sequential structures prioritize both interest and principal payments to pay down senior note obligations, including interest payments originally collected to pay the junior note holders. Other structures do not allow interest payments to junior note holders to be used to pay down the senior notes.

Some asset class securitizations, such as RMBS, allow for a *pro rata* prioritization of scheduled principal payments in which the payments are allocated among the senior and junior note holders in proportion to the interest amounts due to them or notional amounts outstanding. Structures that allow for *pro rata* payments often compensate for this prioritization by reverting to sequential payments if a certain performance trigger kicks in. *Pro rata* structures were more popular prior to the credit crisis. Since the crisis, structures have become simpler, and sequential structures have become much more the norm.

3. Priority of Payments: Event of Default

In an Event Of Default (EOD), deals typically revert to a fully sequential model of paying down cash. In an EOD, principal payments on notes are accelerated, and all deal cashflows are used to pay down the senior-most notes first until they are fully paid down. Cashflows are then used to pay down the notes that are next in seniority until they are paid down in full and so on.

C. Structures

1. Market Driven

The ABS market offers a unique set of investment opportunities to Investors with different risk appetites within a single pool of assets by means of separate tranches that establish the priority for the distribution of assets, as set forth in the “Waterfall” provisions of the particular transaction. See Section IV.A.1. below. This process is similar to how a corporation might offer Investors different tranches of risk through bank debt, bonds, subordinated debt, preferred stock, and equity. Asset-backed pools offer Investors different tranches with different risk profiles, principally in the form of senior classes, subordinated tranches (usually referred to as “mezzanine tranches”), and various classes of such equity, all through division and allocation of cashflows from the same pool of assets. (Tranches of similar priority may be further tranced by maturity to match Investor appetite for duration.)

Senior classes, often with AAA ratings, are generally much larger than the subordinated classes, so they target Investors with larger notional amounts to invest and lower yield

thresholds. By contrast, mezzanine tranches often have high- to mid-investment grade ratings and target Investors that are similar to those in the senior classes but that have different strategic holding areas and higher risk tolerance. Junior and equity tranches are generally unrated and are either retained by the asset Originators or sold to Investors with higher risk thresholds, such as hedge funds. The different types of Investors in senior, mezzanine, junior, and equity tranches are summarized below:

- Senior Classes: Banks, pension funds, asset managers, insurance companies.
- Mezzanine Classes: The same as senior classes but with different credit and return hurdles evaluated.
- Junior Classes: Frequently retained by Originators or sold to Investors with higher risk thresholds, such as hedge funds.
- Equity Classes: Originator/asset manager, specialized finance companies, hedge funds.

a. Revolving or amortizing structures

Issuers often divide their ABS offerings between revolving or amortizing investments. Issuers often rely on revolving pools for the aggregation of assets, because they are originated to be taken out when a critical mass of assets is obtained that allows them to be placed into an amortizing security. These are referred to as warehousing structures. However, certain other asset classes have significant levels of monthly activity that does not lend itself to frequent placement in amortizing structures. Therefore, the trusts in which these assets, usually related to particular accounts, are continued are revolving structures. Many Investors in these types of ABS purchase revolving securities. However, these trusts may in some circumstances also issue securities in fixed amounts. Examples of these would be consumer credit card trusts and vehicle floorplan financing trusts.

b. Amortizing pools

Amortizing securities are structured with either periodic scheduled principal payments, balloon payments, or natural pass-through amortization schedules. In each case, the amortization structure is based on the characteristics of the particular assets in the pool. All security payments and maturity of the security are based on the expected payment pattern of the underlying assets in the pool. The Investor and rating analysis of the security is based on features of the particular asset pool to be securitized. These securities are traded but are usually held to maturity by their bank, asset manager, and pension or insurance company Investors. These Investors often purchase these securities to target their own asset liability matching and payment obligations. Many longer term investments are held by life insurance companies, which have a longer term horizon for holding assets.

c. Revolving pools

Revolving pools are often provided by banks to Issuers or Originators with a need for continued funding of similar assets. In many cases, these are warehouse structures for aggregating assets into the mass needed to issue a closed-end amortizing term security. In the case of a revolving pool, assets are frequently turned over and vary over time. In order to reduce the variability of performance of these constantly changing assets, the Investor or bank usually sets parameters for minimum required asset standards to be placed in the pool over the revolving period. The Investor and rating analysis of the revolving security is based on a combination of a possible worst case pool based on minimum asset standards and also on a most likely base case.

Revolving pools have a revolving period and then amortize based on the payment patterns of the assets in the pool at the end of the revolving period. Investors' maturity expectations are based on the combination of the revolving period plus the payment pattern after the revolving period to a final maturity date.

The likely Investors in these revolving structures are often banks or bank-administered asset backed commercial paper (ABCP) conduits. Banks and conduits have the ability to provide daily funding as needed for some revolving pools. Asset managers and insurance companies, however, usually have less flexibility to provide continued periodic funding to the same asset pool, which is required with a revolving pool. Thus, if these entities lend to revolving structures, they often purchase fixed amount securities issued out of these trusts. Some pools are funded by a combination of amortizing and revolving tranches.

d. Interest payments — fixed or floating rate coupons

ABS are issued with either fixed or floating rate coupons, depending on underlying Investor preference and underlying pool yield characteristics, if such pool contains interest bearing assets and such interest is used to finance the yield on the ABS to be issued. General preferences of an investors group may influence the choice for a security of being fixed or floating. The relative interest rate index also has a significant bearing on that choice. In low rate environments, where there is an expectation that rates may well increase in the future, it is more likely that investors will prefer floating rate securities versus fixed rate securities which may well be subject to impending negative mark-to-market accounting when rates increase. While the preferred option would be for an Issuer to match a fixed yield on the pool asset to a fixed coupon on the related security, thereby eliminating interest rate risk from the transaction and creating a matched funded profile, it should be noted that, to the extent investor preferences do not allow such a match, Issuers may elect to embed an interest rate swap into the transaction.

ABCP tranches and other securities purchased by banks are usually floating rate, tied to either LIBOR or a CP cost of funds. Underlying assets may either have a high enough coupon to support the open-ended risk of a floating rate coupon, or a hedge and/or interest rate cap is obtained for the security to minimize fixed to floating rate risk. Coupons in revolving structures often are paid on a monthly basis, whereas fixed-rate securities often pay interest quarterly or semi-annually.

e. Security maturities

Certain assets necessarily have longer durations based on their repayment characteristics (*e.g.*, home mortgages and student loans), which require Investors with a longer duration tolerance. Securitized assets run the range from relatively short maturities (auto loan/lease ABS with a weighted average life (WAL) of approximately two years) to RMBS (WAL typically in the seven-year range). ABS issuances frequently have multiple sequential maturity tranches, particularly within their senior class. An example would be an auto ABS with maturities of nine months or less for money market investors and maturities ranging from three to five years for sequential AAA classes. The holders of these various tranches have maturity preferences based on their yield targets and cash needs within their portfolio management.

ABS often will have a concept of scheduled maturity, which is based on the payment schedules of the underlying assets, and a legal final maturity, which generally incorporates a buffer period for full recoveries from slow-paying or defaulted assets in the pools. This is generally referred to as the rated maturity and allows an additional period of time before a security would be considered to be in default from non-payment. Substantially all ABS securities are paid by their scheduled maturity dates from either asset collections or refinancings by newly issued ABS.

f. Currency

In order to diversify and grow the available investor universe for a transaction and maximize investor demand, an Issuer may wish to avail themselves of alternative or additional foreign currency markets. This strategy may lend itself well to transactions with bullet payment structures, such as credit cards, where a foreign currency swap is relatively straightforward to structure and execute.

g. Considerations for listing asset-backed securities on European Union securities exchanges

Originators and arrangers who wish to offer asset-backed securities to European investors sometimes have the securities listed and admitted to trading on a European securities exchange. Doing so can have several advantages. The main advantage of listing is that it makes the securities easier for European investors to purchase and to trade, so the securities will be more attractive to European investors. Listed securities are required to meet certain standards of disclosure and reporting, so having the securities listed signals to investors that they meet those requirements. Over time, having particular types of ABS listed on EU exchanges helps European investors become familiar with those products and with the regular issuers.

Non-EU originators wanting to list securities on an EU securities exchange can choose between a number of different markets. For non-EU issuers, exchanges commonly used include the London Stock Exchange, the Irish Stock Exchange and the Luxembourg Stock Exchange. These

markets are regulated by the financial regulatory bodies in the relevant EU member states and segments of these markets qualify as "regulated markets" under EU legislation. There are also a number of alternative markets known as "exchange-regulated markets" which are often used by newer and smaller issuers and for less established asset types and products – each of the London Stock Exchange, Irish Stock Exchange and Luxembourg Stock Exchange have exchange-regulated market segments known, respectively, as the PSM, GEM and the Euro MTF. In considering which exchange to use, issuers, originators and arrangers consider, among other things, the target investor market and the needs and preferences of those investors; the exchanges' different standards for provision of historical data, specific forms of disclosure documents, periodic reporting requirements and other information for investors; and the cost and time required for listing.

2. Accounting Driven

In accounting for securitizations, there are two baseline questions to be answered in order to determine whether a specific transaction or deal qualifies for off-balance-sheet treatment. The first is whether the SPE involved must be consolidated with the Originator. The second is whether the transferred assets have been sold for accounting purposes. Because many securitizations often involve more than one transfer, the consolidation and sale questions will often need to be considered more than once for a transaction. Different answers may be appropriate at different stages in the securitization or for different financial reporting purposes.

a. Consolidation

U.S. Generally Accepted Accounting Principles (GAAP) require a reporting entity, as part of the de-recognition assessment, to consider whether the transfer includes a transfer to a consolidated subsidiary. Therefore, the first step in determining whether sale accounting has occurred is to determine if a securitization entity requires consolidation by the transferor.

(1) Special Purpose Entities

For companies applying GAAP, the consolidation guidance is included in Accounting Standards Codification (ASC) 810, in particular, the variable interest entity (VIE) subsections. A VIE is an entity that owns "variable interests," which are investments or other interests that either absorb portions of the entity's expected losses or receive portions of its expected residual returns. Although not all SPEs are VIEs, securitization SPEs generally are VIEs.

The first steps in determining who should consolidate the securitization entity are to identify all the parties to the deal and which parties have a variable interest. While there is no requirement that the transaction parties compare their accounting conclusions, each participant needs to understand the various rights and obligations granted to each party in order to reach a conclusion as to how to handle its own accounting for its interest in the Issuer. Theoretically, only one entity should conclude that it controls the SPE.

Under GAAP, ASC 810 requires identifying “the Primary Beneficiary,” which is the party that has a “Controlling Financial Interest” in the VIE because it has both: (1) the power to direct the activities of a VIE that most significantly impact its economic performance; and (2) the obligation to absorb losses of or the right to receive benefits from the VIE that could potentially be significant to the VIE.

It is worth noting that a “significant” obligation to absorb losses could be a very small amount of a transaction—5% or lower. There is no correlation between GAAP treatment, which is disclosure driven, and Regulatory Accounting, which should be risk driven. Nevertheless, U.S. Regulators erroneously use U.S. GAAP as a proxy for risk—a mistake we strongly caution Chinese regulators to avoid.

(2) FASB’s consolidation guidance

In February 2015, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2015-02,³² which amends the consolidation requirements of ASC 810. The amendments affect an entity’s evaluation of whether: the fees it receives from managing a fund or asset-backed financing structure should result in the consolidation of the entity; limited partnerships and similar entities should be consolidated; and variable interests held by the reporting entity’s related parties or *de facto* agents affect its consolidation conclusion. In addition, it is expected that under the amended guidance, many limited partnerships will be VIEs and may be subject to the VIE disclosure requirements, regardless of whether they are consolidated.

The amendments that are expected to have the greatest effect on the securitization industry are those that address how variable interests held by the reporting entity’s related parties and fees paid to a decision maker or service provider impact the consolidation analysis, particularly involving CLO entities.

(3) Are fees paid to decision maker’s variable interests?

Under current GAAP guidance—specifically, ASC 810 amended by ASU 2015-02—the evaluation of whether fees paid to a decision maker or service provider are a variable interest focuses on whether: (1) the fees are compensation for services provided and are commensurate with the level of effort required to provide those services (“commensurate”) (*see* ASC 810-10-55-37(a)); (2) the decision maker or service provider has any other interests (direct, indirect interests through its related parties, or most interests held by its related parties under common control) in the entity that absorb more than an insignificant amount of the VIE’s variability (*see* ASC 810-10-55-37(c)); and (3) the arrangement includes only terms, conditions, or amounts that are customarily present in arrangements for similar services negotiated at arm’s length (“at market”) (*see* ASC 810-10-55-37(d)). As a result, it is expected that fewer fee arrangements will be considered variable interests.

³² FASB Accounting Standards Update No. 2015-02, *Amendments to the Consolidation Analysis*.

ASU 2015-02 does not amend the existing threshold for evaluating whether a reporting entity meets the potentially significant interest condition. Nonetheless, under the new consolidation requirements, if the fees paid to a VIE's decision-maker are commensurate and at market, they should not be considered in the evaluation of the decision-maker's economic exposure to the VIE, regardless of whether the reporting entity has other economic interests in the VIE. Under this new requirement, certain structures that were consolidated as a result of the significance of the fee arrangement would potentially need to be de-consolidated.

(4) Controlling Financial Interest

(a) Power

Generally in securitizations, the economic performance of the entity is most significantly impacted by the performance of the underlying assets. The activity that most significantly impacts the performance of the underlying assets is typically the management by the Servicer of the inevitable delinquencies and defaults that occur or, in a managed CLO, the activities of the collateral manager in selecting, monitoring, and buying or selling collateral assets. When analyzing who has the power to direct those activities, questions that have to be answered include whether the entity holds the power unilaterally and whether other parties also have relevant rights and responsibilities, such as the right or power to make or consent to important decisions, direct the entity to take certain actions, or replace the entity without cause.

(b) Shared power

Under the VIE model in ASC 810-10, power is considered shared if (1) two or more unrelated parties together have the power to direct the VIE's most significant activities and (2) decisions about those activities require the consent of each of those parties.

(c) Related parties and agency relationships

GAAP requires consideration of the involvement of related parties or *de facto* agents in the consolidation assessment. The VIE model in GAAP includes provisions that require related parties and *de facto* agents to be considered throughout the consolidation analysis. Interests held by related parties—regardless of whether the reporting entity can cause the related party to vote on its behalf—may result in the consolidation of the VIE by one of the related parties involved with the VIE, even if none of the parties individually has power over the VIE. Under GAAP, when no single party has both the power over the relevant activities and a potentially significant economic interest, but members of a related-party group would meet both of those criteria, then an assessment is performed to determine which party within the related-party group is considered most closely associated with the entity and therefore should consolidate.

b. Determining if a securitization is a sale

Not every securitization is accounted for as a sale of the securitized assets. Some are accounted for as a financing, while others are accounted for as neither a sale nor a financing when no proceeds are raised other than interests in the transferred assets, as in a swap of mortgage loans for MBS. In order for a securitization to be accounted for as a sale, the transferor must have surrendered control over the transferred assets. Control is deemed to have been surrendered by the transferor only if each of three sale criteria discussed below are met.

(1) Sale criteria

A securitization of a financial asset, a portion of a financial asset, or a pool of financial assets in which the transferor surrenders control over the transferred assets and receives cash or other proceeds is accounted for as a sale or partial sale. Receiving beneficial interests in the same underlying assets does not count as proceeds for this purpose. Control is considered to be surrendered in a securitization if, and only if, all three of the following conditions are met:

1. The transferred assets have been isolated from the transferor, *i.e.*, put beyond the reach of the transferor, any consolidated affiliate of the transferor, and their creditors, even in the event of bankruptcy or receivership of the transferor or any consolidated affiliate.³³
2. The transferee has the ability to pledge or exchange the transferred assets.
3. The transferor, its consolidated affiliates, or its agents have not retained “effective control” over the transferred assets or third-party beneficial interests related to those transferred assets through agreements providing for the transferor’s repurchase or reacquisition of the assets.

(a) Isolation of assets

A sale requires the transferred assets to be isolated from the transferor and from any consolidated affiliate of the transferor, as well as from their creditors, even in the event that the transferor or its consolidated affiliate enters bankruptcy or receivership.³⁴ This is a “facts and circumstances” determination, which requires that judgments be made regarding: (1) the kind of bankruptcy or receivership into which a transferor or affiliate might be placed; (2) whether a transfer would likely be deemed a true sale at law; and (3) whether the transferor is affiliated with the transferee.

Many securitizations involve a two-step transfer to isolate transferred assets beyond the reach of the transferor and its creditors. In the first step, the Seller transfers assets to an SPE that, although wholly owned, is designed in such a way that the possibility that the transferor or

³³ See ASC 860-10-40-5.a.

³⁴ See ASC 860-10-40-5.a.

its creditors could reclaim the assets is remote. This first transfer is designed to be judged a true sale at law, in part because it does not provide excessive credit or yield protection to the SPE. In the second step, the SPE transfers the assets to a trust or other legal vehicle with a sufficient increase in the credit and yield protection on the second transfer (provided by a subordinated retained beneficial interest or other means) to merit the high credit rating sought by Investors. The second transfer may or may not be judged a true sale at law and, in theory, could be reached by a bankruptcy trustee for the SPE. However, the first SPE's structure, charter, and purpose render the likelihood of its bankruptcy remote.³⁵

The transferor will require a legal opinion in order to demonstrate that legal isolation has been achieved. In certain instances, a legal opinion may not be required if the transferor has a reasonable basis to conclude that the appropriate legal opinion would be given if requested. For example, the transferor might reach that conclusion without consulting an attorney if (1) the transfer is a routine transfer of financial assets that does not result in any continuing involvement by the transferor or (2) the transferor had experience with other transfers with similar facts and circumstances under the same applicable laws and regulations.

(b) The transferee's right to pledge or exchange the transferred assets

The second criteria for a sale is that the transferee must possess the power to pledge or exchange the transferred assets. However, when the transferee is a securitization vehicle that is constrained from pledging or exchanging the transferred assets, each third-party holder of its beneficial interests must have the right to pledge or exchange those beneficial interests. No condition can constrain the holder from taking advantage of its right to pledge or exchange if it provides more than a trivial benefit to the transferor.

Any restrictions or constraints on the holder's rights to monetize the cash inflows (the primary economic benefits of financial assets) by pledging or selling those beneficial interests have to be carefully evaluated to determine whether the restriction precludes sale accounting, particularly if the restriction provides more than a trivial benefit to the transferor, which it is presumed to do. As explained in ASC 860, FASB believes that, in the absence of evidence to the contrary, a condition imposed by a transferor that constrains the transferee presumptively provides more than a trivial benefit to the transferor.

An important factor in the sale analysis is whether the transferor has continuing involvement with the transferred assets. Transferred assets from which the transferor can obtain no further benefits are no longer its assets and should be removed from its statement of financial position, as would be the case if the transferor had no continuing involvement in the transferred assets. Examples of continuing involvement include: servicing responsibilities; recourse obligations other than standard representations and warranties; management responsibilities;

³⁵ See Section II.A. *supra*.

full or partial equity ownership of the vehicle containing the transferred assets; and other participation in future cash flows.

The assessment of whether the continuing involvement is such that a constraint on the transferee would ultimately provide more than a trivial benefit to the transferor requires judgment. Even if it is not a transferor-imposed constraint, the constraint must be evaluated if the transferor is aware of it.

Holders of an SPE's securities are sometimes limited in their ability to transfer their interests, due to a provision that permits transfers only if the transfer is exempt from the requirements of the Securities Act of 1933. The requirement of Rule 144A of the Securities Act that a potential secondary purchaser must be a sophisticated Investor does not preclude sale accounting. Neither does the absence of an active market for the securities.

(c) The transferor's surrender of effective control

A sale requires that the transferor not retain "effective control" over the transferred assets. Neither the transferor, nor its consolidated affiliates, nor its agents can retain effective control over the transferred assets or third-party beneficial interests related to those transferred assets through:

- (1) an agreement that requires the transferor to repurchase the transferred assets before their maturity, as would, for example, a forward contract or a repossession;
- (2) a unilateral right to cause the SPE to return specific assets, other than through a cleanup call that conveys no more than a trivial benefit to the transferor; or
- (3) an agreement that permits the transferee to require the transferor to repurchase the transferred assets at such a favorable price that it is probable that the transferee will, in fact, require the transferor to repurchase them.

With respect to the latter scenario, the accounting literature precludes sale accounting if the transferee has any contractual mechanism to require the transferor to take back specific assets on terms that are potentially advantageous through a put option that, when it is written, is deep in the money. In these cases, the transferor maintains effective control because it has priced the transferee's option on terms so favorable that it is probable that the transferee will require the transferor to repurchase. If the put option is priced at fair value or, when it is written, is priced sufficiently out of the money so that it is probable that it will not be exercised, then the option would not preclude sales treatment.

(2) Failure to comply with sale criteria

If the securitization does not qualify as a sale, the proceeds (other than beneficial interests in the securitized assets) are accounted for as a liability, namely, a secured borrowing. The assets will remain on the transferor's balance sheet with no change in measurement, meaning that no gain or loss is recognized. With no gain or loss recognized, the assets should be classified separately from other assets that are unencumbered.

The securities relating to the transferred assets that are legally owned by the transferor or any consolidated affiliate—*i.e.*, the securities that are not issued for proceeds to third parties—do not appear on the transferor's consolidated balance sheet. They are economically represented as being the difference between the securitization-related assets and the securitization-related liabilities on the balance sheet.

Ongoing accounting for a securitization, even if treated as a financing, requires many subjective judgments and estimates and could still cause volatility in earnings due to the usual factors of prepayments, credit losses, and interest rate movements. After all, the company still effectively owns a residual. Securitizations accounted for as financings often may not be that much different economically than securitizations that qualify for sale accounting treatment. Therefore, the excess of the securitized assets (which remain on balance sheet) over the related funding (in the form of recorded securitization debt) is closely analogous economically to a retained residual.

3. Legal Driven

a. Legal isolation of assets³⁶

Legal isolation of the securitized assets within a SPE is the most important component of securitization structures from a legal perspective. Generally speaking, legal isolation is the process by which the securitized assets are put beyond the reach of the creditors of the Originator.

Isolation of the securitized assets is the attribute that most distinguishes ABS from other forms of corporate debt securities. Consider, for example, an Investor in a corporation's offering of unsecured bonds. Such an Investor must analyze the corporation's ability to repay those bonds, an analysis that necessarily entails an understanding of the corporation's balance sheet, its cashflows, and its future business prospects. Even an Investor in a corporation's secured bonds must pay close attention to such factors, although the investment risk is mitigated somewhat by the collateral that secures the bonds. By contrast, legal isolation of securitized assets allows ABS Investors to focus their attention on the credit attributes of the assets and generally frees them of the concern that the assets will be used to satisfy the creditors of an Originator that seeks bankruptcy protection. As a result, ABS may have a lower yield than

³⁶ See Section II.A., *supra*, for a more detailed description of legal isolation and perfection.

conventional corporate bonds of comparable maturities, sometimes resulting in lower borrowing costs for the corporation.

As explained above and discussed in further detail below in Section IV, a bona fide legal isolation of securitized assets typically requires that: (a) the securitized assets are sold by the Originator to the SPE in a true sale; and (b) there are no circumstances in the transaction or in the relationship between the Originator and the SPE that would lead a bankruptcy court to substantively consolidate the assets of the SPE with those of the Originator in connection with a bankruptcy proceeding involving the Originator. In addition to these bankruptcy law principles, other legal principles and procedures (such as the perfection of sale of receivables under the Uniform Commercial Code) must be followed in order to achieve a valid legal isolation of the securitized assets.

b. Taxation

The primary tax objectives in structuring a securitization transaction are tax neutrality and tax certainty. These two tax themes apply equally to purely domestic securitizations and to securitizations that involve multiple tax jurisdictions and payments across borders. Tax neutrality refers to the goal of minimizing or eliminating any material, incremental tax costs related to the structure. In other words, the goal is to structure the transaction in such a way that both the amount and the timing of tax liabilities arising under the structure are not materially different than would be the case if the underlying assets were not securitized.

Tax certainty is of critical importance in the case of a proposed transaction that may result in incremental tax costs. In this circumstance, it is important that these costs be known early on so that the originator can factor them into its decision whether to proceed with the transaction. Certainty of a securitization's tax consequences is also important to the rating agencies, if any, which will want comfort—often by way of a tax opinion (see Section II.D.5.f. below) or perhaps even through an indemnity—that there will be no unexpected tax charges in the transaction (*e.g.*, Issuer-level taxes).

In formulating the most favorable tax structure for a securitization, the primary focus is on the tax treatment of three key participant groups, namely: taxation of the originator/transferor; taxation of the issuer; and taxation of the investors. The primary tax issues to these taxpayer groups are discussed below. In addition, it should be noted that the tax consequences to other potential parties to a securitization transaction also may be important (*e.g.*, tax consequences to servicers and swap or other financial instrument counterparties).

(1) The Originator/Transferor

There are several key issues of importance to the Originator/Transferor regarding the imposition of tax on the transfer of the underlying assets to the Issuer. They are:

- Whether the transfer constitutes a taxable disposition of the assets by the transferor, *i.e.*, whether the transfer is a sale of the assets by the transferor or a pledge of the assets for a collateralized borrowing.
- If the transfer represents a sale or other disposition of the assets for tax purposes, whether any gain or loss that is realized on the transfer is recognized currently by the Transferor, is deferred until later, or is altogether exempt from tax recognition.
- Whether the transfer attracts any material transfer duties or other indirect taxes such as Value Added Tax (VAT).

Additional critical issues concern the ongoing taxation of residual profits or losses, if any, derived by the Originator/Transferor from the Issuer. These issues include:

- Whether the Originator/Transferor has retained an interest in the transferred assets or in the Issuer.
- What is the timing for recognition of any taxable profits or losses derived from the retained assets or from an interest held in the Issuer.
- How is the Originator/Transferor taxed upon termination of the securitization?

(2) The Issuer

One of the key tax issues to the Issuer is ensuring that little or no Issuer-level taxation is imposed on the income derived from the securitized assets. How this is achieved is highly dependent on the applicable tax laws of the jurisdiction in which the Issuer is established or maintains a taxable presence.

- **Tax Transparency:** The Issuer is treated as a tax transparent vehicle in the relevant jurisdiction/s such that the Originator/Transferor or the Investors (as opposed to the Issuer itself) are the only parties that are or may be subject to tax with respect to income earned on the securitized assets and upon termination of the securitization.
- **Tax Deductions:** The Issuer is potentially subject to entity-level taxation, but is allowed to deduct from the income it recognizes on the securitized assets the interest/yield that is paid or accrued to Investors in respect of their securitization investment interests in the Issuer.
- **Offshore Jurisdiction:** The Issuer is formed in a tax-advantaged jurisdiction outside of the jurisdiction in which the underlying assets are originated that does not subject the Issuer to entity-level taxation.

Other taxation issues of particular concern to an Issuer in a securitization transaction include:

- Ensuring that payments received by the Issuer on its assets are not subject to withholding tax.
- Ensuring that the Issuer will not be treated as a tax resident of any jurisdiction other than in the desired jurisdiction/s.
- Ensuring that the Issuer is not subject to any material transfer duties or other indirect taxes, *e.g.*, VAT.

(3) The Investors

- Ensuring that any local country withholding taxes will not be imposed on payments made to Investors, or that any such withholding taxes are reduced to the maximum extent possible consistent with the goals of the transaction.
- Whether withholding tax can be reduced or eliminated based on applicable local country domestic tax law or by application of relevant tax treaties. This may require consideration of whether the local country maintains an extensive tax treaty network.
- Ensuring that local country income or withholding taxes are not imposed on any gain realized by Investors upon the disposition or redemption of their investment interests.
- Ensuring that Investors are not subject to transfer duties or other indirect taxes.

c. Investor-driven legal requirements

Certain legal structures are utilized for securities offerings based on the unique demands of the Investors involved, not because they are fundamental to the process of securitization itself. For example, pension fund Investors will require legal structures designed to meet the requirements of the Employee Retirement Income Security Act (ERISA).³⁷ Similarly, money market funds will require legal structures designed to meet the requirements of the Investment Company Act.³⁸ The diversity of Investors in the U.S. securitization market has led to the development of similarly diverse legal structures designed to accommodate those Investors.

Investor demand and attributes also underlie the very important segmentation of the U.S. securitization market into the public—or registered public offering—market and the private—or Rule 144A—market. The public market and all of the legal requirements for publicly offered securities are designed to accommodate non-institutional Investors and Investors who desire maximum liquidity. The private market and the somewhat different set of legal requirements for privately offered securities are designed to accommodate sophisticated institutional Investors

³⁷ 29 U.S.C. § 1001 *et seq.*

³⁸ 15 U.S.C. § 80a-1 *et seq.*

who are willing to invest in somewhat less liquid securities or in securitizations that are not eligible for public offering and are more capable of performing their own thorough due diligence.

D. High-Level Overview of Required Documents

1. Sale agreement

The sale agreement governs the sale of the securitized assets by the Originator to the SPE. In order to achieve legal isolation of the assets within the SPE, the sale agreement must effectuate a true sale of the assets. As such, the agreement contemplates a sale of the assets at a fair market value price without recourse to the Originator for any adverse credit performance of the assets.

The sale agreement usually will include representations and warranties by the Originator or other Transferor regarding the attributes of the assets being sold. For example, a typical representation and warranty is that the asset was originated by the Originator or other Transferor in accordance with its credit underwriting guidelines. In the event that a representation or warranty is breached, the sale agreement will typically require that the asset be repurchased by the Originator or other Transferor at par, *i.e.*, an amount equal to the asset's outstanding principal balance plus accrued interest.

2. Servicing Agreement

Given its limited purpose, an SPE has no employees and does not operate as a business concern in any meaningful sense. Therefore, although it is the ultimate owner of the securitized pool of loans, it must hire a third-party Servicer to collect and deposit the payments made under those loans for the benefit of the SPE and, ultimately, the Investors. The agreement that sets forth the terms and conditions of the Servicer's duties is referred to as the Servicing Agreement.

The ability of the Servicer to maximize collections on the securitized pool of loans is a key factor in the overall outcome of any securitization transaction. In addition to regular collection activity, such as the processing and deposit of payments received in the normal course, a Servicer must also deal with the more difficult challenge of collecting what it can from delinquent or defaulting Obligor. Such collection efforts may include measures ranging from the modification of loan terms to make it easier for the Borrower to comply to foreclosure and liquidation of the collateral, if any, securing the loan.

3. Indenture

Once the securitized assets are conveyed to the SPE, the SPE often will issue securities that are backed by that pool of assets. In many securitizations, the securities are issued pursuant to an indenture between the SPE and a Trustee. In other securitizations (particularly RMBS), the securities are issued pursuant to a pooling and servicing agreement among the SPE, a Trustee, and a Servicer.

Under an indenture, the SPE pledges the securitized assets to the Trustee for the benefit of the Investors. Often, the indenture will be the transaction document in which the payment Waterfall is located. The indenture also will specify various Events Of Default—*e.g.*, failure of the SPE to make interest payments when due or the breach of a material covenant by the SPE or Servicer, as the case may be—and the remedies available to the Trustee and the Investors if an Event Of Default occurs, most notably, acceleration of the maturity of the ABS (if practicable), foreclosure sale of the securitized assets (again, if permitted and practicable), or removal or replacement of the Servicer.

4. Pooling and Servicing Agreements

Often, especially in the issuance of RMBS, the Sale Agreement, Servicing Agreement, Indenture, and trust provisions are combined into a Pooling and Servicing Agreement (PSA). A PSA is a comprehensive document that covers the following subjects: the terms of the transfer of the receivables; the perfection of the Issuer's interest in the receivables; the duties of the Servicer; the terms of the trust established by the PSA and transfer of the receivables into that trust; the rights and duties of the Trustee; the Representations and Warranties of the transferer; and the terms of the Waterfall that sets out the priorities of distribution of the cash flow among the various parties and tranches of securities.

5. Loan Agreements

In many instances, depending on a transaction's structure and purpose, the parties will use loan agreements. For example, while the Sponsor warehouses receivables in order to build up a sufficiently large pool to securitize, the warehouse lender will finance the build up of the pool by lending money to a warehouse vehicle that originates or aggregates the pool through purchases to fund such origination or aggregation. Similarly, sometimes when a sponsor transfers a pool of receivables into a SPV subsidiary, rather than further transferring the receivables to a second SPV (such as a trust), the SPV will obtain the desired funds through borrowing from a lender and pledging the pool of receivables as collateral.

Such loan agreements will have most of the contractual provisions similar to regular loan agreements except that the provisions will focus on the collateral and its quality.

6. Special Purpose Entity Formation Documents

Many securitizations utilize two SPEs, a Depositor and an Issuer. The Depositor is an SPE that receives or purchases the securitized assets from the Originator or other Transferor and, in turn, transfers or sells those assets to the Issuer. The Issuer is the SPE that owns or holds the securitized assets and in whose name the securities supported or serviced by those assets are issued.

The Depositor is typically established as a Delaware limited liability company (LLC). Its principal organizational document is a limited liability company agreement, and it is usually managed by a board of directors. In keeping with its limited purpose, and in order to ensure

bankruptcy remoteness from its parent, typically the Originator, the LLC agreement contains various covenants that restrict the Depositor's activities and that require it to follow certain formalities of separateness from its parent.

The Issuer is typically established as a Delaware statutory trust or a New York common law trust. Its principal organizational document is a trust agreement. Because the Issuer has no employees or officers, the trust agreement is often accompanied by an administration agreement under which a third party (usually the Originator or an affiliate thereof) will agree to manage the affairs of the trust that are not otherwise handled by the Trustee.

7. Legal opinions

A typical securitization will involve the delivery of various legal opinions. Those legal opinions address issues that are common to most securitizations, as well as transaction-specific or asset-specific issues. Most legal opinions are delivered by counsel to the Issuer and are addressed to the Trustee, the Underwriters, and various other transaction parties.

a. True sale and non-consolidation

Counsel to the Issuer will typically be required to deliver an opinion stating that, in a properly presented and decided bankruptcy case in which the Originator is the debtor under the Bankruptcy Code:

1. The bankruptcy court would determine that the transfer of the securitized assets pursuant to the sale agreement was a sale of those assets by the Originator to the SPE and not a loan. Therefore, the securitized assets would not be the property of the Originator's bankruptcy estate, and the Bankruptcy Code would not operate to stay payments by the Originator, as Servicer, of collections on the assets in accordance with the servicing agreement.
2. The bankruptcy court would not substantively consolidate the assets and liabilities of the SPE with those of the Originator.

The legal and factual analysis required to deliver such an opinion is extensive. For a description of the general framework of the analysis, see Section II.A.1. above and Section IV.B.1. below.

b. Security interest

In a typical securitization, the Issuer's counsel also will deliver a legal opinion regarding security interests. That opinion often will include the following conclusions:

- The provisions of the sale agreement are effective under the UCC to create a security interest for the SPE in the Originator's rights in the securitized assets and in any identifiable proceeds thereof.

- The SPE's security interest in the Originator's rights in the securitized assets and any identifiable cash proceeds thereof is perfected.
- The provisions of the indenture are effective under the UCC to create a security interest for the Trustee in the SPE's rights in the securitized assets and in any identifiable proceeds thereof.
- The Trustee's security interest in the SPE's rights in the securitized assets and any identifiable cash proceeds thereof is perfected.
- UCC search reports against the Originator and the SPE identify no secured party who has filed a financing statement that: (1) is effective as of the date of the search report; (2) names the Originator or SPE as debtor or seller; or (3) identifies the securitized assets as collateral.

c. Corporate matters and enforceability

Counsel to each significant party in a securitization will typically issue legal opinions as to various matters that address the capacity of that party to enter into the securitization and perform its obligations thereunder. Among the typical opinions rendered are:

- The party is a corporation, limited liability company, etc., validly existing and in good standing under the laws of the state of its organization and has full power and authority to execute, deliver, and perform all of its obligations under the securitization transaction documents to which it is a party and to consummate the transactions contemplated thereby.
- The execution and delivery by the party of the securitization transaction documents and the performance by the party of its obligations thereunder have been duly authorized by all necessary action on the part of the party.
- Each of the securitization transaction documents has been duly executed and delivered by and on behalf of the party and constitutes valid and binding obligations of that party, enforceable against the party in accordance with its terms.
- The execution and delivery by the party of the securitization transaction documents, and the consummation of the transactions contemplated thereby, will not violate any applicable law, statute, or governmental rule or regulation.

d. Transaction-specific/asset-specific matters

Additional, more-specialized opinions may be required with respect to securitizations of specific types of assets or securitizations that utilize a particular structure. For example, securitizations of assets that are particularly concentrated in California may require legal opinions as to pertinent matters of California law—*e.g.*, the requirements of the California certificate of title statute in the case of any auto loan securitization.

e. Securities laws

In a registered public offering of ABS, the key securities law opinions are that:

- As of its effective date, the registration statement (including the prospectus) complied as to form in all material respects with the requirements of the Securities Act and the rules and regulations under the Securities Act.
- The registration statement has become effective under the Securities Act, and the prospectus has been filed with the U.S. Securities and Exchange Commission (SEC) pursuant to the Securities Act in the manner and within the time period required by the Securities Act.

In a Rule 144A offering of ABS, a key securities law opinion is that it is not necessary in connection with the issuance and delivery of the ABS to register the sale of the ABS under the Securities Act.

For both registered public offerings and Rule 144A private offerings, the Underwriters will typically receive a letter (referred to as a “negative assurance letter”) from counsel to the Issuer and counsel to the Underwriters to the effect that nothing has come to the attention of such counsel that would lead them to believe that the prospectus or offering memorandum, as applicable, included an untrue statement of a material fact or omitted to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The Underwriters require this letter in order to support the due diligence defense to securities law liability arising from false statements of material fact in, or the omission of material facts from, the prospectus or offering memorandum.

f. Tax

Once the transaction’s critical tax issues are identified and resolved (see Section II.C.3.b., above), it is almost always the case that, as a condition to closing, a favorable, clean tax opinion be rendered on such issues. The opinion is most often provided by the Sponsor’s tax counsel and is addressed to the sponsor and/or the issuer, the underwriter(s) or placement agent(s), rating agencies, and applicable trustees, if any. The tax opinion reinforces and confirms the parties’ tax conclusions with respect to the transaction, thus conferring the necessary certainty as to the

transaction's tax consequences that allows for the execution and issuance of securitization financings.

In light of the nature of securitizations as, in effect, nonrecourse collateralized financings, most tax opinions express, in one form or another, counsel's conclusion that the underlying assets and related income will not be subject to any tax or, alternatively, to any material amount of tax, in the hands of the Issuer.

8. Offering documents

Securitization transactions that involve the offering of ABS into the capital markets will utilize an offering document. An offering document describes the attributes of the securitized assets, the structure and terms of the transaction, risk factors, and other information that is material to the investment decision.

In a registered public offering, the offering document is referred to as a "prospectus." The prospectus used for a transaction is based on the form of prospectus filed by the Issuer with the SEC as part of the registration statement. In a private offering governed by Rule 144A, the offering document is referred to as a "private placement memorandum" or "offering circular."

For registered public offerings, the format and content of the prospectus is heavily regulated by Reg AB.³⁹ Although Reg AB does not, as a technical matter, apply to private offerings under Rule 144A, many of the disclosure principles set forth in Reg AB are applied in the Rule 144A market.

The SEC's anti-fraud rule, Rule 10b-5,⁴⁰ applies to both public and private offerings. Under Rule 10b-5, it is unlawful for any person to make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, in the light of the circumstances under which they were made, not misleading, in connection with the purchase or sale of any security.

E. Ratings

Rating Agencies have strict policies and procedures in place to manage the engagement, initial rating, and surveillance processes within their respective firms. While there may be substantial differences among the processes used by the different Rating Agencies, their goals are similar, namely, to: avoid conflicts of interest; manage the interaction between the Issuer and/or Underwriter and the different contacts within the Agency (*i.e.*, credit analysis, business relationship management); promote transparency; and provide high quality credit opinions.

³⁹ See 17 C.F.R. § 229.1100.

⁴⁰ See 17 C.F.R. § 240-10b-5.

While each Rating Agency has its own specific processes, as a general matter the “typical” steps in the rating process for a structured finance transaction are as follows:

- Initial contact/engagement;
- Pre-review/filtering (some agencies);
- Information gathering, which includes:
 - Reasonable investigation and information review; and
 - Originator and Servicer reviews;
- Transaction analysis and the Rating Committee process, which includes:
 - Asset analysis;
 - Analyzing the financial structure;
 - Originator and Servicer reviews;
 - Counterparty analysis;
 - Transaction document and legal opinion review; and
 - Rating Committee;
- Publication of pre-sale reports/rating announcement, which includes:
 - Disclosures; and
 - Representations and warranties (SEC Rule 17g-7);
- Assigning the final ratings; and
- Surveillance.

1. Initial Contact/Engagement

As a general matter, the rating process is initiated when an Issuer or Underwriter contacts a member of the Rating Agency’s business group (non-analytical) with a proposed transaction. The business group has sole responsibility for the commercial relationship with the transaction parties. All fee discussions and commercial aspects associated with the rating process are conducted exclusively by this group. Rating Agencies’ codes of conduct prohibit analysts involved in credit rating activities from participating in any fee or commercial discussions with transaction parties.

In the cases of atypical assets, complex or unusual transactions, first time or infrequent Issuers, or Issuers in new jurisdictions, some Rating Agencies may conduct a pre-review or filtering process to determine if there are any data adequacy, credit, or other issues that may limit the Rating Agency’s ability or willingness to proceed further with the rating assignment.

The next step typically would be for the business group in the Rating Agency to prepare an engagement letter or contract and send that to the Issuer or Underwriter. The engagement letter sets forth the terms and conditions of the rating engagement.

Once engaged, the business group is responsible for notifying the analytical team to start the rating process. The transaction is assigned to a primary analyst, who works with support analysts. The primary analyst is responsible for leading the analysis and formulating the initial rating recommendations for the transaction.

In certain jurisdictions, the Rating Agencies are subject to an analyst rotation program. These programs require a primary analyst to rotate coverage of an Originator or Sponsor of an SPE, typically at a minimum of every four years, with two years away from that Originator or Sponsor. Required rotation may occur sooner in some circumstances.

2. Information Gathering

Once notified by the business group that the Rating Agency has been engaged to conduct a rating analysis, the primary analyst obtains preliminary pool information and preliminary transaction terms, either by accessing a password-protected web site as set forth by SEC Rule 17g-5 for U.S. transactions or directly from the Underwriter, Issuer, or Sponsor.

As part of the transaction analysis, Rating Agencies typically expect to receive Originator-specific historical performance data relevant to the securitized asset pool for the longer of the following: five years or a period covering all phases of at least one economic cycle. If sufficient Originator-specific information is not available, significant market-wide historical performance data covering at least the same timeframe may provide proxy information.

a. Information review

Rating Agencies review a variety of information when conducting their analyses. The policies and procedures of these Agencies provide that they may rely only on information that is determined to be of sufficient quality and reliability for use in the rating process. Rating Agencies also will review third-party verification reports to the extent that they are available for a given security or in a given jurisdiction. Furthermore, for some asset classes—such as U.S. CMBS—the Rating Agencies may perform and rely on their own analyses of certain underlying collateral information.

Depending on the transaction, other information that may be evaluated and considered in the rating process includes:

- the quality and viability of parties to the transaction;
- the financial and legal structure of the transaction;

- whether the legal opinions are consistent with and supportive of the Rating Agency’s rating opinion;
- the reasonableness of underlying model assumptions in relation to the assets analyzed; and
- the reasonableness and adequacy of the information received to perform surveillance to maintain the ratings.

b. Originator and servicer reviews

While the Rating Agency’s analysis of the credit quality of the underlying collateral in Structured Finance (SF) transactions is a key part of the rating process, the risk caused by operational weaknesses is often not apparent in the collateral characteristics but manifests itself in pool performance. To assess this risk, Rating Agencies might conduct Originator and Servicer reviews prior to the initial rating and on an ongoing basis.

Rating Agency Originator and Servicer reviews typically involve a management meeting aimed at assessing, among other factors: corporate stability; financial condition; management and staff experience; origination and servicing practices; technological capabilities, policies, and procedures; controls; and historical origination and/or servicing performance. Rating Agencies assess the information gathered throughout the review process and incorporate it into their initial and ongoing rating analysis.

3. Transaction Analysis and the Rating Committee Process

a. Asset analysis

The asset analysis generally includes a review of the credit characteristics of the collateral, risk factors, model output, performance history, and trends of similar collateral, consistent with relevant rating criteria. Combined with the results of the information review, the Rating Agency establishes a base case or expected loss for the pool. Rating Agencies then apply stresses to their base case or expected loss assumption commensurate with various rating scenarios. These “stressed loss numbers” then become key inputs into the analysis of the transaction’s financial structure, including the payment priority and credit enhancement structure proposed by the Issuer or Underwriter.

b. Analyzing the financial structure

The analysis of the transaction’s financial structure is aimed at determining whether the structure and credit enhancement are sufficient as proposed to cover the stressed losses commensurate with the relevant rating. Rating Agencies may use their own proprietary cashflow models or third-party models, such as INTEX. In some cases, they also might consider the results of the cashflow modeling completed by the Issuer or Underwriter. Where applicable, pre-

payment, interest rate, default timing, and/or basis risk stresses may be applied as governed by each Rating Agency's criteria.

Rating Agencies typically conduct sensitivity analyses to understand the impact of changes in key variables on the final rating. For example, sensitivities analyzed for a security could include scenarios that would cause the ratings to be reduced by one full category, to non-investment grade, or to "CCCsf."

The results of the cashflow and sensitivity analyses are presented to the rating committee.

c. Originator and servicer reviews

See Section II.E.2.b. above.

d. Counterparty analysis

Most structured finance (SF) transactions include an element of reliance on counterparties, either through operational reliance or credit dependency, such as payment obligations, and often a combination of both. Typical examples of mainly operational reliance are Servicers, Calculation and Paying Agents, Trustees, and Custodians. Examples of mainly payment obligation functions include Swap Counterparties, Liquidity Facility Providers, and Issuer Account Banks.

Rating Agencies' rating opinions for SF transactions generally include an assessment of the risks associated with counterparties to the transaction and the roles they play. One of the principles of SF is to achieve structural isolation of a transaction's performance from the credit or operational exposure of the counterparties involved. The intended result is that SF transaction performance reflects primarily that of the underlying collateral and is largely isolated from the specific risks that impact corporate counterparties. In terms of a rating opinion, if sufficient isolation is not achieved, the rating of SF securities may not be capable of exceeding that of the lowest-rated counterparty if its failure to perform were material to the transaction.

Rating Agencies have detailed criteria describing their counterparty analysis.

e. Transaction document and legal opinion review

Rating Agencies review transaction documents to confirm structure, duties of the transaction parties, servicing and reporting provisions, and all other aspects of the deal that are material to their rating opinions. In addition, Rating Agencies review the representations and warranties provided by the transaction parties that address the characteristics of the underlying asset pool. The representations and warranties provide assurances that certain facts about the collateral and transaction parties can be relied on.

Rating Agencies generally will have either internal or external parties with legal expertise review legal opinions that address key SF concepts, such as true sale and non-consolidation.

f. Rating committee

All of the information discussed above that is relevant to the credit rating, including the asset analysis, financial structure, originator and servicer reviews, counterparty analysis, and the document and legal opinion review, is presented to a final rating committee.

Rating Agencies have policies that govern the composition of a rating committee. Key roles include the presenter, the committee chair, an independent voter, and other voters. There typically are guidelines setting forth the qualifications for service as a committee member. If the rating of the transaction is dependent on a rating issued by another rating group within the firm—Corporates, for example—the Rating Agency may include a member of that group on the committee.

If the committee is not able to reach a consensus on the proposed rating, each Rating Agency has “escalation” or appeal procedures that are designed to ensure a robust decision.

4. Publication of Pre-sale Reports and Rating Announcements

For most international SF transactions, Rating Agencies prepare a pre-sale report or other form of rating announcement (*i.e.*, press release) that describes their rating analysis to Investors and is released near the time when the transaction is announced. The Rating Agency may send the pre-sale or rating announcement to the Issuer or Underwriter shortly before publication in order to allow a review for factual accuracy and for the inclusion of any non-public information.

Since the transaction has not yet closed and final documentation has not been received at the time of the pre-sale announcement, Rating Agencies typically frame their ratings as “expected” or “preliminary” in order to indicate that they are still subject to final confirmation.

a. Disclosures

To facilitate ratings transparency, Rating Agencies typically disclose in their rating announcements, among other things, the applicable criteria used in the determination of the rating, key rating factors, and any material exceptions, adjustments, or deviations from existing published criteria. Rating sensitivities are also typically described.

b. Representations and warranties (SEC Rule 17g-7)

Pursuant to the Dodd-Frank Act, the SEC adopted Rule 17g-7,⁴¹ which requires Nationally Recognized Statistical Rating Organizations (NRSROs) to include Representation, Warranty, and Enforcement Mechanism Reports (RW&E Reports) in credit reports for SF offerings. These RW&E Reports describe the representations, warranties, and enforcement mechanisms available to Investors that are disclosed in the prospectus, private placement memorandum, or other offering documents and that relate to the asset pool underlying the transaction.⁴² NRSROs also are required to compare these RW&Es with those of similar securities. Therefore, depending on the Rating Agency and the jurisdiction, a report on the RW&Es may accompany the pre-sale and/or rating announcement.

5. Assigning the Final Ratings

Once all of the risk factors are analyzed and all final information and documentation is received by the Rating Agency, a final closing committee and rating decision is made. The rating letter and announcement of the final rating is drafted. Upon transaction closing, the Rating Agency typically publishes a press release announcing the final ratings.

Most Rating Agencies add symbols to denote the ratings of SF instruments as required by certain regulators. For example, an AAA rating in SF may be denoted as “AAA_{sf}” or “AAA(sf).” The “_{sf}” symbol only indicates that the security is a SF instrument and might not reflect any other change to the meaning or definitions of the ratings.

6. Surveillance

Rating Agencies’ surveillance of existing transactions typically follows the same approach as those for assigning new ratings, as described above. Transactions are monitored on an ongoing basis, with a focus on variations in performance that are outside the norm for that collateral or deviate from the Rating Agency’s initial performance expectations. Rating Agencies typically review all SF ratings at least annually, but may do so more frequently, particularly if performance of the underlying pool is unexpected.

Rating Agencies monitor the performance of their rated transactions using remittance information supplied by Servicers, Trustees, other parties to the transaction, third-party sources of information, or a combination of any of these. The surveillance process involves a number of quantitative and qualitative functions to assess the performance of rated tranches, including monitoring pool-level performance indicators, comparing current credit enhancement levels against forecast or stressed assumptions, and assessing the impact of market developments on the performance of transactions. The Rating Agency, in some cases, may have specific surveillance criteria separate from their new rating criteria.

⁴¹ See 17 C.F.R. §240.17g-7(a)(1)(ii)(N).

⁴² NRSROs do not apply a uniform designation to these reports, but instead use their own naming conventions, such as: Representations and Warranties – Presale Appendix; SEC Rule 17G-7 Report Of R&Ws; and 17g-7(N) Representations & Warranties Disclosure Reports.

F. Offering Process And Communications To Investors

1. Registered Public Offerings vs. Private Offerings

Perhaps the most fundamental question in designing the security to be issued in an ABS transaction is whether the market for the security will be public or private. If private, there often will be greater tolerance by the Investor for the idiosyncrasies of the transaction at issue. The principal material difference between private and public offerings is that only the latter require registration with the SEC pursuant to the 1933 Act. This may imply a less liquid re-sale market and a narrower range of possible Investors in private offerings, although deals structured to comply with Rule 144A⁴³ may substantially lessen the difference between the two types of offerings.

The 1933 Act requires that all offers and sales of securities be made pursuant to a registration statement filed with, and declared effective by, the SEC, unless an exemption from registration is available. In an offering that securitizes receivables or other financial assets, the interests in or debt instruments issued by the SPE making the offering constitute the securities being registered, not the underlying receivables or other assets. The provision of credit support for an ABS (*e.g.*, a guarantee or other recourse structure) may constitute a separate security subject to registration, absent an available exemption.

Sections 3 and 4 of the 1933 Act provide numerous exemptions to the registration requirement. Of particular relevance is Section 3(a)(2), which exempts a variety of different kinds of securities. These include securities issued or guaranteed by instrumentalities or banks of the U.S., state, or local governments, as well as a domestic branch or agency of a foreign bank subject to certain federal or state regulation.⁴⁴ The Section 3(a)(2) exemption is available to banks only with respect to securities offered with recourse to the bank, either directly or through the use of a guarantee, including by means of a letter of credit. In the case of a guarantee, the exemption is available only to the extent covered 100% by the guarantee. Thus, for example, a letter of credit used to enhance recourse to a nonbank Seller will not exempt the recourse from registration as a security unless the amount of the letter of credit will always equal or exceed the recourse. Similarly, securities issued by a trust, where the bank is the Seller to and Servicer of the trust's receivables portfolio, must be registered unless fully guaranteed by the Seller or another bank.

Also of special note is the Section 4(2) exemption for “transactions by an issuer not involving a public offering.” Most institutional offerings rely on this section for exemption from registration. To qualify, the offering must be made to a limited number of sophisticated offerees without general solicitation or advertising. Access to all relevant information must be available

⁴³ 17 C.F.R. § 230.144A.

⁴⁴ It does not include thrifts, an exemption for the securities of which is contained in Section 3(a)(5). See Securities Act of 1933 § 3(a)(5), 15 U.S.C. § 77c(a)(5) (1994).

to offerees, and the purchase must be for investment purposes only. SEC Regulation D⁴⁵ provides a safe harbor for the availability of a Section 4(2) exemption.⁴⁶ Regulation 144A also may provide a means to avoid registration under the 1933 Act while allowing Sellers or Underwriters to deal freely in the securities at issue under most circumstances.⁴⁷ Regulation S⁴⁸ contains the rules that provide exemptions from compliance with the registration requirements of the 1933 Act for offerings located outside of the United States.⁴⁹

2. Written Offering Materials

“Prospectus” is broadly defined to include any notice, circular, advertisement, letter, or communication, whether written or transmitted by radio or television, that offers any security for sale. The 1933 Act defines “offer” broadly, and the term has been liberally construed by both the courts and the SEC to include, for example, the publication of information as well as statements and publicity efforts made in advance of a proposed offering that have the effect of conditioning the public mind or arousing public interest in the Issuer or in its securities.⁵⁰

Generally, Section 5(b)(1) of the 1933 Act prohibits the dissemination of a prospectus between the date on which a registration statement is filed and the date after which dealers are no longer required to deliver a prospectus in connection with transactions in the security, unless the prospectus contains the information specified by Section 10 of the Securities Act—referred to as a “statutory prospectus.” This rule is relaxed somewhat after the SEC declares the registration statement to be effective.⁵¹

⁴⁵ See 17 C.F.R. § 230.501 *et seq.*

⁴⁶ Rule 506 of Regulation D permits an Issuer to offer an unlimited amount of securities to an unlimited number of “accredited investors” and to not more than 35 “sophisticated” Investors without registration under the 1933 Act. In order to qualify for the safe harbor under Rule 506, the Issuer also must comply with the general requirements imposed by Regulation D related to disclosure, manner of offering, resale restrictions, and filing.

⁴⁷ Rule 144A permits the resale of securities to qualified institutional buyers. “Qualified institutional buyers” include: (1) institutions (not individuals) who own and invest on a discretionary basis at least \$100 million of securities; (2) dealers in securities (including individuals) registered under the 1934 Act who own and invest on a discretionary basis at least \$10 million of securities; and (3) entities that are wholly owned by qualified institutional buyers.

⁴⁸ See 17 C.F.R. §§ 230.901 - 230.904.

⁴⁹ The SEC’s approach to regulating offshore offers and sales of securities is reflected in the general statement to Regulation S, which sets forth the SEC’s policy that the registration requirements of the 1933 Act are not deemed to apply to offers and sales of securities that occur outside of the U.S.

⁵⁰ See *Guidelines For Release Of Information By Issuers Whose Securities Are In Registration*, SEC Release No. 33-5180 (Aug. 20, 1971).

⁵¹ After the registration statement is declared effective, an Issuer may disseminate written materials that do not meet the requirements of a statutory prospectus so long as these materials are preceded or accompanied by a statutory prospectus.

Reg AB requires that Investors be supplied with a preliminary statutory prospectus prior to the date of first sale. The content of the preliminary prospectus, as well as the final prospectus, is prescribed by Reg AB.

In addition to a preliminary statutory prospectus and the communication of regularly released factual information, forward-looking statements, and research reports, Securities Offering Reform permits some other types of written offers prior to the release of the final statutory prospectus, including free writing prospectuses that meet the requirements of Rules 164 and 433 and research reports by brokers or dealers that meet the requirements of Rules 137 to 139.

3. Securities Law Liability

Section 11 of the 1933 Act establishes liability if any part of the registration statement, at the time it became effective, contained an untrue statement of a material fact or omitted to state a material fact that was required to be stated or that was necessary to make the statements not misleading under the circumstances. A “material fact” is any fact as to which “there is a substantial likelihood that a reasonable investor would attach importance in determining whether to purchase the security registered.”⁵² For purposes of Section 11 liability, statutory prospectuses are deemed to be part of and included in the registration statement. Section 11 liability can attach to the following entities: (1) issuers; (2) underwriters; and (3) accountants and other experts identified in the registration statement with their consent. All defendants but the issuer have a “due diligence” defense that they had no grounds to believe the statement contained a misstatement or omission.

Liability under Section 12(a)(1) of the 1933 Act arises in the context of offers or sales of a security in violation of Section 5 of the 1934 Act. Section 5 prohibits both any offer to sell a security before the registration statement is filed and any written offer to sell a security that is not a prospectus that meets the requirements of Section 10 of the 1934 Act. Section 10 of the 1934 Act gives the SEC broad power to enact rules and regulations that govern the form and content of Statutory Prospectuses. Section 12(a)(1) liability attaches to sellers who offer or sell in violation of Section 5 of the 1934 Act.

Section 12(a)(2) creates liability when a prospectus or oral communication relating to the contents of a prospectus includes an untrue statement of a material fact or omits to state a material fact that is necessary to make statements in or regarding the prospectus not misleading. Rule 159 provides that, for purposes of determining liability under Section 12(a)(2), only prospectuses and oral statements made at or before the time of the sale of the securities (including, without limitation, a contract of sale) will be taken into account when determining whether the prospectus or oral communication relating to the contents of a prospectus includes an untrue statement or material omission. Section 12(a)(2) liability attaches to sellers who offer

⁵² See 17 C.F.R. § 230.405.

or sell by means of a prospectus (or oral communication that relates to the content of a prospectus).

In addition to liability under Sections 11 and 12 of the 1933 Act, Rule 10b-5 of the 1934 Act makes it unlawful for any person to intentionally or recklessly make an untrue statement of a material fact or to omit to state a material fact that is necessary in order to make the statements made not misleading in light of the circumstances under which they were made. Courts have upheld the right of Investors to bring private causes of action under Rule 10b-5. Rule 10b-5 applies to both registered public offerings and private offerings. In addition, under Section 17(a) of the 1933 Act, it is unlawful for any person to obtain money or property by means of any untrue statement of a material fact or any omission to state a material fact that is necessary in order to make the statements made not misleading in light of the circumstances under which they were made. Although the courts have held that no private cause of action may be brought under Section 17(a), that section may be used by the SEC as a basis for enforcement proceedings and may give rise to criminal liability. Offering participants may also incur significant liability under state law for securities law violations.

4. Reg AB Disclosure Principles

Prior to adoption of Reg AB, none of the disclosure requirements in the 1933 Act and accompanying rules were specifically tailored to address ABS offerings. The SEC became concerned that the informal disclosure practices that had developed through the SEC comment process and industry practices were not fully transparent to Issuers and Investors. To address this, the SEC adopted a new disclosure regime in Reg AB.⁵³ This new regime is intended to be principles-based, rather than an exhaustive list of disclosure items required for each asset class, and to govern not only existing asset classes but also new asset classes that may develop in the future. The new rules are also intended to bring greater uniformity to the disclosure process. Reg AB is a sub-part of Regulation S-K and forms the basis for ABS disclosure in registration statements under the 1933 Act and periodic reporting under the 1934 Act. The structure of Reg AB is as follows:

- Item 1100 sets forth items of general applicability for Reg AB.
- Item 1101 provides definitions.
- Items 1102-1120 provide the basic disclosure package required in ABS registration statements and periodic reporting.
- Item 1121 forms the basis for disclosure for distribution reports on Form 10-D, the form on which periodic Servicer's reports will be filed.

⁵³ See § III.B.1 of the Reg AB Release. See generally Jon D. Van Gorp & Christopher B. Horn, *Impact of Regulation AB on Auto Loan and Lease Securitization*, 11 J. of Structured F. 18 (Spring 2005).

- Item 1122 addresses assessments of compliance with servicing criteria and the filing of attestation reports by registered public accounting firms on these assessments.
- Item 1123 specifies the form of Servicer compliance report to be executed by the Servicer with respect to its compliance with the particular servicing agreement.⁵⁴

Reg AB provides additional disclosure requirements for ABS offerings, including increased disclosure about transaction parties, static pool data, pool assets, transaction structure, credit enhancement, derivative instruments, related-party transactions, and credit ratings.

5. Due Diligence

As discussed above, Section 11 of the 1933 Act imposes liability for untrue statements in or material omissions from the registration statement, while Section 12(a)(2) does the same with regard to the prospectus. Both Section 11 and Section 12(a)(2) provide different types of “due diligence” defenses. Under Section 11, any person (*except* the Issuer) can escape liability if that person can prove that “he had, after reasonable investigation, reasonable ground to believe and did believe, at the time such part of the registration statement became effective, that the statements therein were true and that there was no omission to state a material fact required to be stated therein or necessary to make the statements therein not misleading....”⁵⁵ Under Section 12(a)(2), any person can escape liability if that person can prove that “he did not know, and in the exercise of reasonable care could not have known, of such untruth or omission.”⁵⁶

In order to support a due diligence defense, Underwriters typically require, among other things, some form of on-site or “bring down” due diligence, accountants’ comfort letters relating to numerical and statistical disclosure, and “negative assurance letters” from outside law firms.⁵⁷ Accountants’ comfort letters and negative assurance letters may also be useful to Issuers attempting to assert a due diligence defense under Section 12(a)(2).

III. OVERVIEW OF MARKETS

⁵⁴ See 17 C.F.R. §§ 229.1100-1123; § III.B.1 of the Reg AB Release.

⁵⁵ See § 11(b)(3) of the 1933 Act.

⁵⁶ See § 12(a)(2) of the 1933 Act. A strict reading of the Section 12(a)(2) due diligence defense suggests that the person raising the defense does not actually have to show that he/she conducted due diligence. Rather, the defense can be sustained if the person “in the exercise of reasonable care could not have known[] of such untruth or omission.” This language contrasts with the requirement of the Section 11 due diligence defense that the person actually conduct a “reasonable investigation.” However, at least one court has held that affirmative due diligence is required in order to assert such a defense under Section 12(a)(2). See *Sanders v. John Nuveen & Co., Inc.*, 619 F.2d 1222 (7th Cir. 1980), *cert. denied*, 450 U.S. 1005 (1981).

⁵⁷ See Section II.D.7., *supra*, for a discussion of related documentation requirements.

A. Introduction Of ABS And RMBS Into Specific Markets

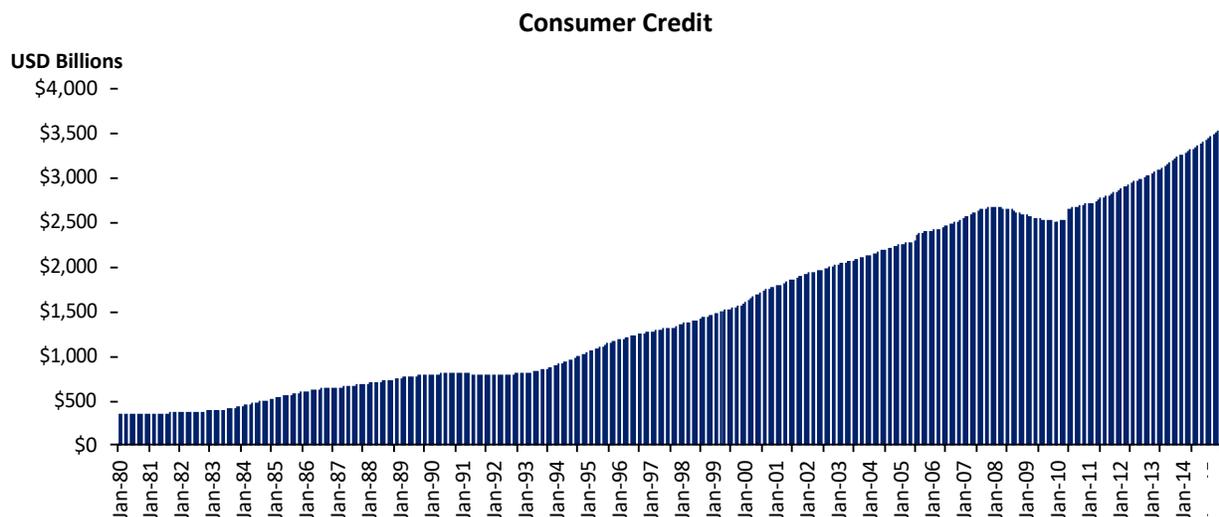
1. United States

a. United States ABS

According to data compiled by the World Bank, household spending historically makes up almost 70% of the United States' Gross Domestic Product (GDP). A good portion of this spending is financed through debt, making accessibility to credit one of the key drivers for consumer expenditures. As of Q2 2015, the total outstanding U.S. consumer debt has surpassed \$3.4 trillion. To put that in perspective, the size of the U.S. economy is roughly \$17.6 trillion, making the ratio of U.S. consumer debt to GDP roughly 20%.

Consumer credit represents almost 25% of total household debt and the percentage has been growing since the credit crisis. Consumer debt has been growing at a rate over 6% since 2011, which is similar to the levels last seen in 2006 and 2007. Figure 4 shows the steady growth in consumer credit since the early 1990s, except during the credit crisis, when households were de-leveraging.

Figure 4⁵⁸



According to a study done by the Federal Reserve Bank of Chicago,⁵⁹ “Credit performs the essential function of moving funds from savers who want to lend to investors and consumers who wish to borrow.”⁶⁰ The flow of funds is important to economic growth and a large portion

⁵⁸ Federal Reserve Board (FRB).

⁵⁹ See Sumit Agarwal, Jacqueline Barrett, Crystal Cun, and Mariacristina De Nardi, *The Asset-Backed Securities Markets, The Crisis, And TALF (2Q2010)*.

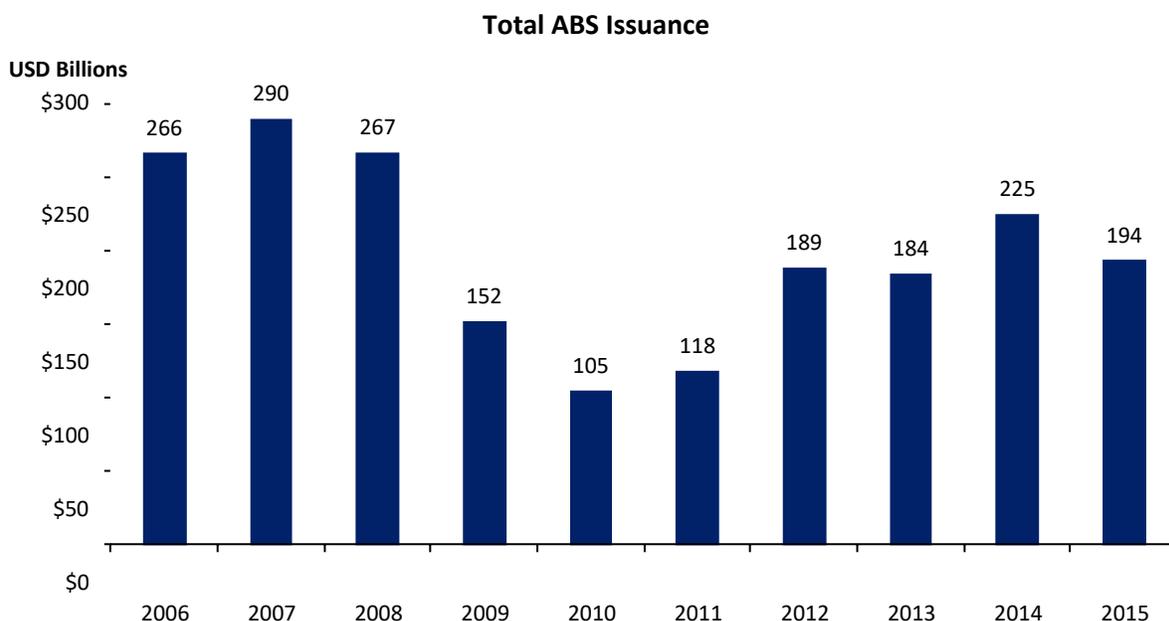
⁶⁰ See *id.* at 1.

of the economic growth in the U.S. is driven by the robustness of the consumer debt sector. The ABS market provides a platform to facilitate and increase this flow of funds.

Typical consumer debt includes auto loans, credit cards, student loans, and other non-mortgage debt. Lenders include banks, financial companies, and government agencies. Given balance sheet constraints, as the size of the consumer credit market expands, lenders need to create more balance sheet capacity to fulfill Borrower demand.

The securitization market was created in the 1970s and 1980s, in part to provide banks and finance companies with more balance sheet flexibility. Initial asset classes were of course residential mortgages, but also auto loans and credit cards. According to the study by the Federal Reserve Bank of Chicago, only \$10 billion in ABS was issued in 1986, representing a very small fraction of the funding sources for consumer debt. However, as shown in Figure 5 below, the annual issuance of ABS surpassed \$290 billion by 2007, a record high reached just prior to the credit crisis.

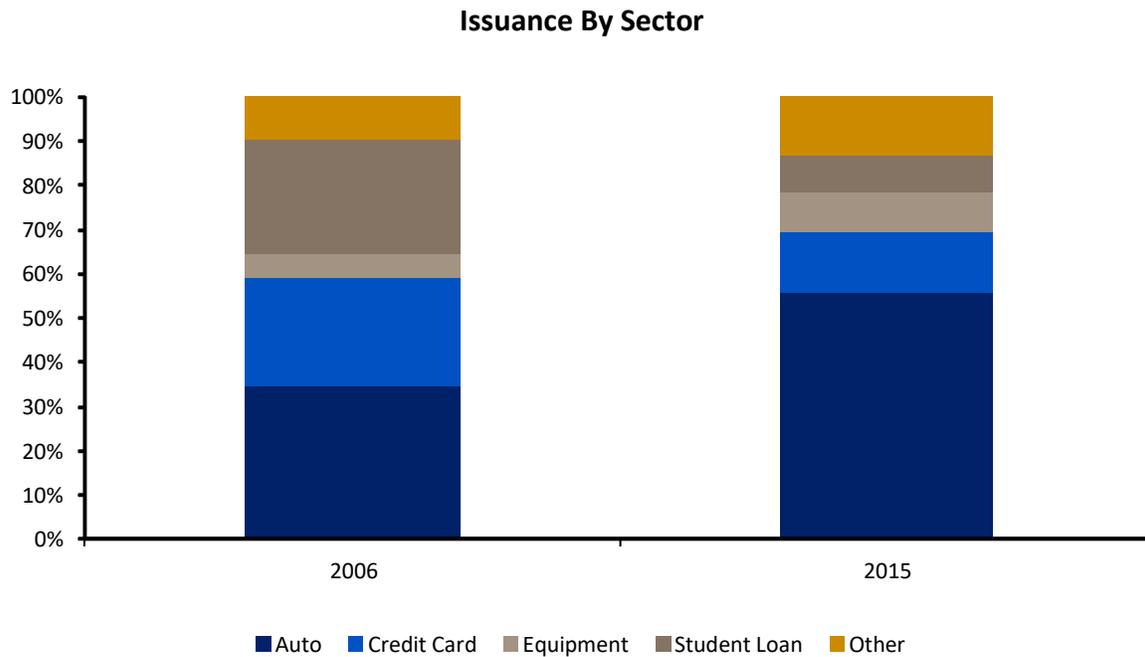
Figure 5⁶¹



In the crisis and post-crisis era, ABS issuance averaged about \$170 billion per year. Issuance during the crisis was encouraged by the Term Asset-Backed Securities Loan Facility (TALF) program, and has increased since the end of TALF in 2009, peaking at approximately \$225 billion in 2014. Since then, issuance has declined slightly for non-crisis reasons, including uncertainty over interest rates (*i.e.*, the “Taper Tantrum”) and the decline of the student loan asset class.

⁶¹ Source: BAML/SIFMA.

Figure 6⁶²



Pre-crisis ABS issuance included non-traditional ABS securities such as home equity loans (HEL), home equity lines of credit (HELOC), and manufactured housing. These categories have ceased to exist since the crisis due to their poor track record during the crash as well as the very limited credit availability for these products. Indeed, most market participants are not expecting to see ABS issuance come near the 2006 and 2007 levels because of the lack of private mortgage type products in the ABS market since the crash. In 2015, approximately \$200 billion worth of U.S. ABS bonds were issued.

Auto ABS dominates new issues in what is widely referred to as the “2.0” ABS market in the aftermath of the crisis. Figure 6 above shows that auto ABS issuance made up more than 50% of total ABS issued in 2015. The sub-sectors within Auto ABS include auto loans (both prime and sub-prime), auto leases, and dealer floorplans.

Figures 7 and 8 below break down the ABS market by asset class and the outstanding balance of the market that each class holds. Student loans is the largest sub-sector within the ABS market, representing approximately 29% of total ABS (Figure 7). During the credit crisis, student debt was the only sector that increased, while other consumer debt levels declined (Figure 8). Student loans have very long terms and therefore remain outstanding for a long time. However, new issuance levels in this asset class have declined primarily due to the termination of U.S. government-guaranteed loans in this asset class. The U.S. government now funds these loans directly.

Figure 7⁶³

⁶² Source: BAML/SIFMA.

⁶³ Source: BAML/SIFMA.

ABS Outstanding Market Size

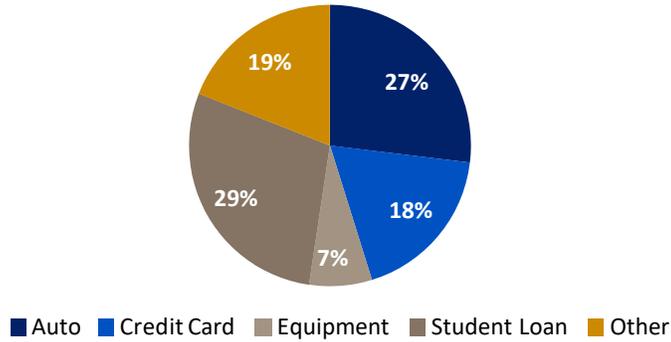
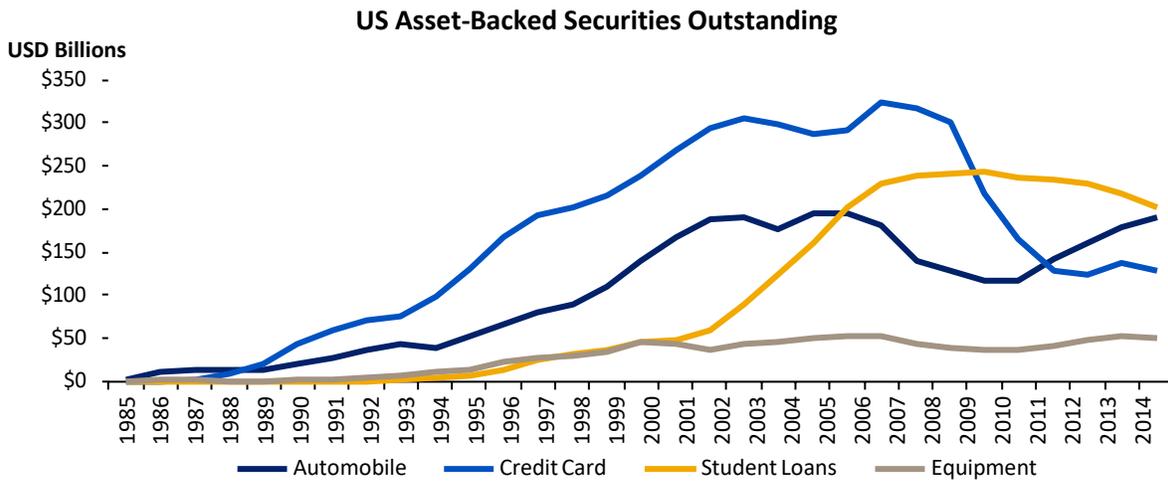


Figure 8⁶⁴

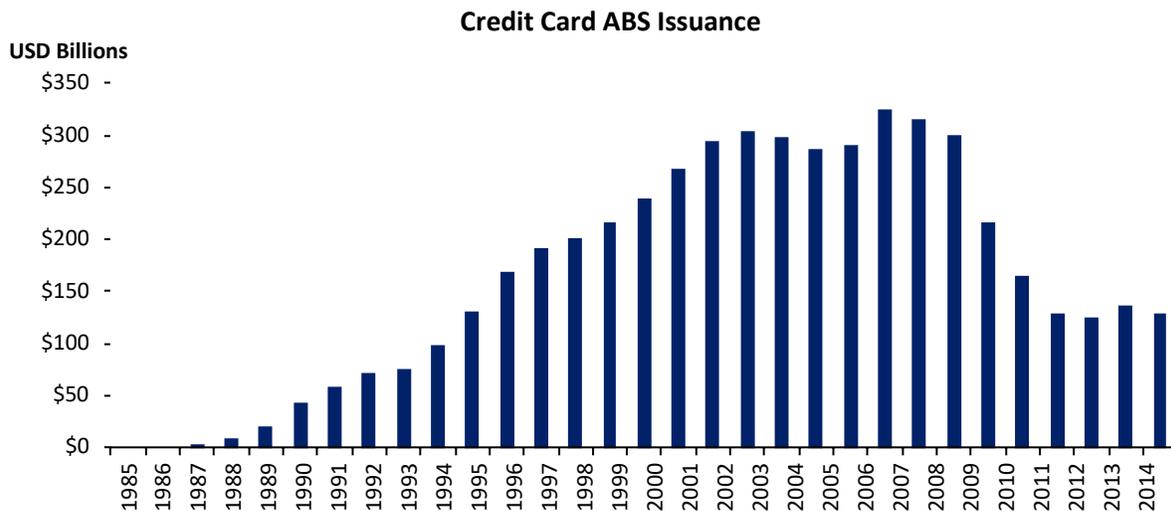


Credit card ABS also plays a substantial role in the ABS market, making up about 18% of outstanding balances. However, this class has declined somewhat, because the Issuers (larger U.S. banks) have a strong funding base of retail and commercial cash deposits.

Figure 9⁶⁵

⁶⁴ Source: BAML/SIFMA.

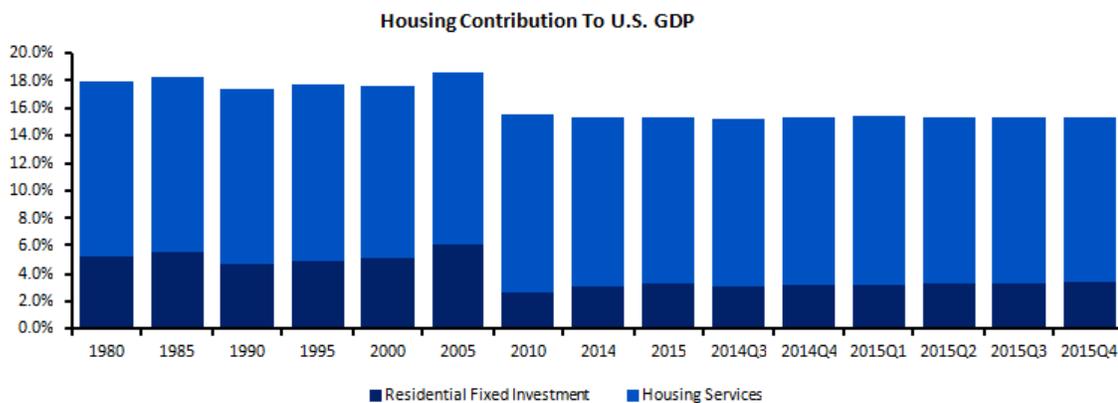
⁶⁵ Source: BAML/SIFMA.



b. United States RMBS

According to the National Association of Home Builders, housing investment and consumption spending on housing services contributed roughly 18% of GDP in the United States before the credit crisis. Since the crisis, the recovery in the U.S. economy has been sluggish, and the contribution to U.S. GDP made by housing investment and related spending has shrunk approximately 3% from the pre-crisis level. However, the overall housing market still makes up more than 15% of the total U.S. GDP.

Figure 10⁶⁶

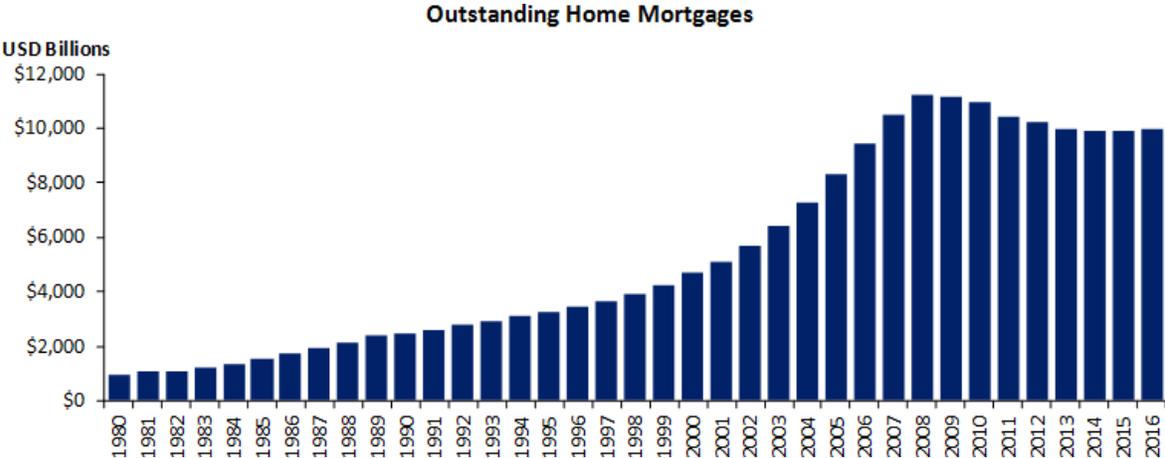


In the U.S., it is not unusual for homebuyers to take out a mortgage when they are buying a house. Home mortgages represent more than 20% of total U.S. debt outstanding and about two thirds of total household credit.

⁶⁶ Source: BAML/SIFMA.

According to the Federal Reserve, credit market debt outstanding reached approximately \$44 trillion as of Q2 2015. Household mortgage debt outstanding topped \$9.4 trillion, or 21% of total credit market debt. Mortgage debt outstanding peaked at \$10.6 trillion in 2007 and made up approximately 32% of total U.S. debt.

Figure 11⁶⁷

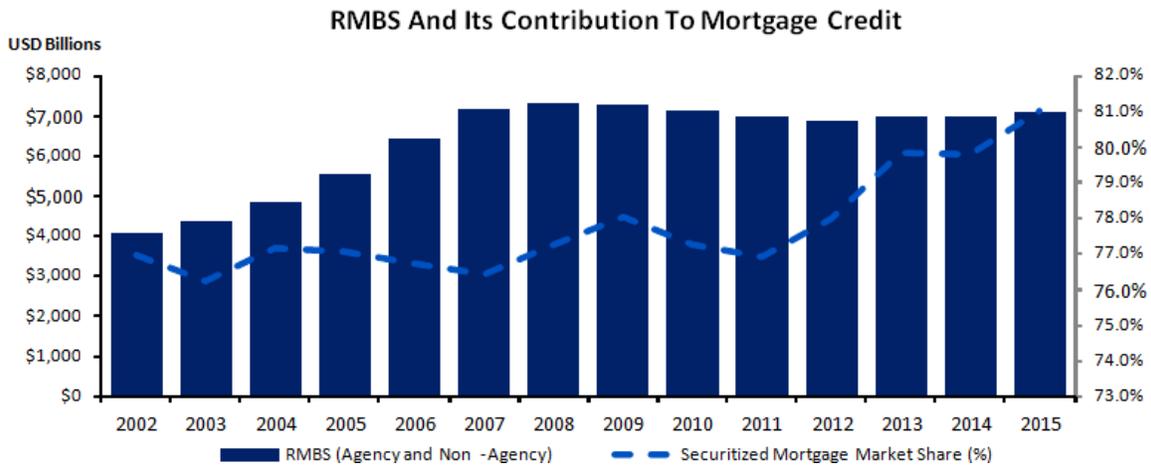


U.S. households de-levered after the credit crisis, and home mortgage outstanding balances had been declining every year since 2008. In Q4 2014, this trend finally reversed as markets regained confidence and Borrowers started to increase net borrowing again. Mortgage credit outstanding was flat between 2013 and 2014, while increasing slightly in 2015.

Figure 12⁶⁸

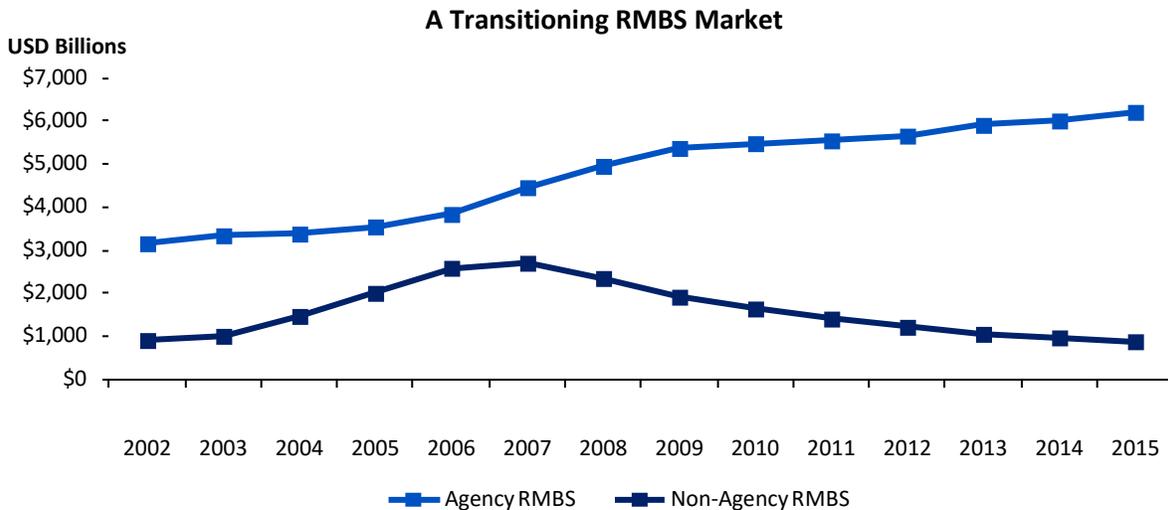
⁶⁷ Source: BAML/National Association of Home Builders.

⁶⁸ Source: BAML/SIFMA.



The securitization market provides a good source of funding for mortgage credit. Figures 11 and 12 above show outstanding RMBS balances and the contribution made by RMBS to the overall mortgage credit market. The RMBS market plays a key part in the housing sector by contributing approximately 80% of total U.S. housing mortgage finance. What is very notable is the decline of private, non-GSE RMBS funding since the crash of 2008 and the very material increase of US GSE RMBS funding this market.

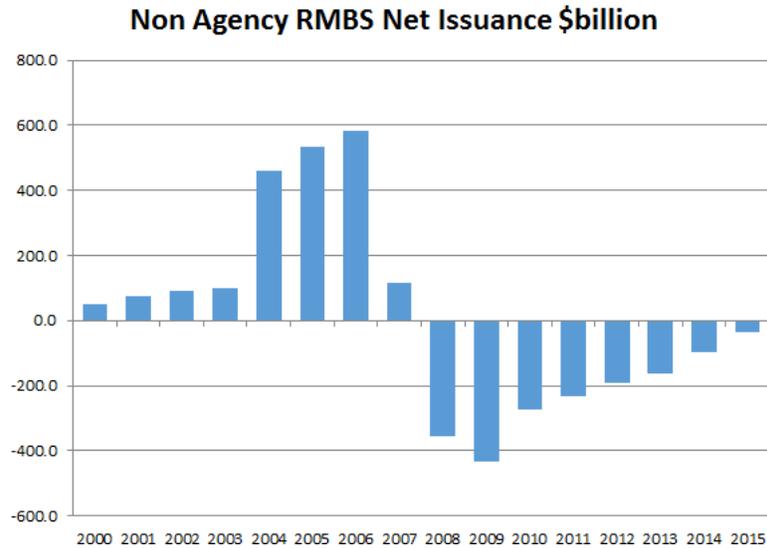
Figure 13⁶⁹



The transformation of the RMBS market was an aftermath of the credit crisis. As shown in Figure 14 below, the non-GSE RMBS market shrank materially after peaking in 2006, while GSE RMBS now comprises most of the RMBS market. The lack of new issuance in non-GSE RMBS has effectively put the non-GSE market in run off mode.

⁶⁹ Source: BAML/SIFMA.

Figure 14⁷⁰

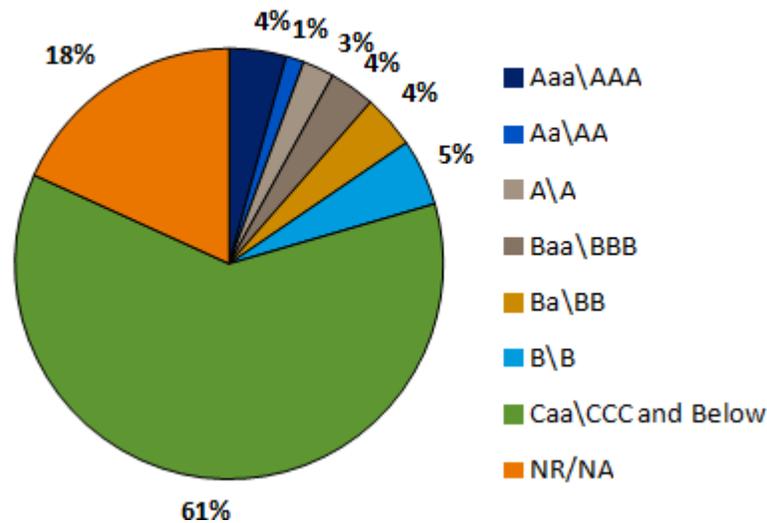


It is likely that the pre-crisis RMBS Obligor with stronger credit profiles refinanced or paid off and are no longer in these pools. Therefore, the remaining legacy RMBS still has a high number of weaker credit Obligor. The weaker credit quality or riskier profile can be noted in the current rating of the non-GSE RMBS market as well. As of Q2 2015, more than 88% of the outstanding RMBS in the non-GSE market are unrated or rated below-investment-grade. Approximately 61% are rated CCC and below, while approximately 18% are unrated.

⁷⁰ Source: SIFMA.

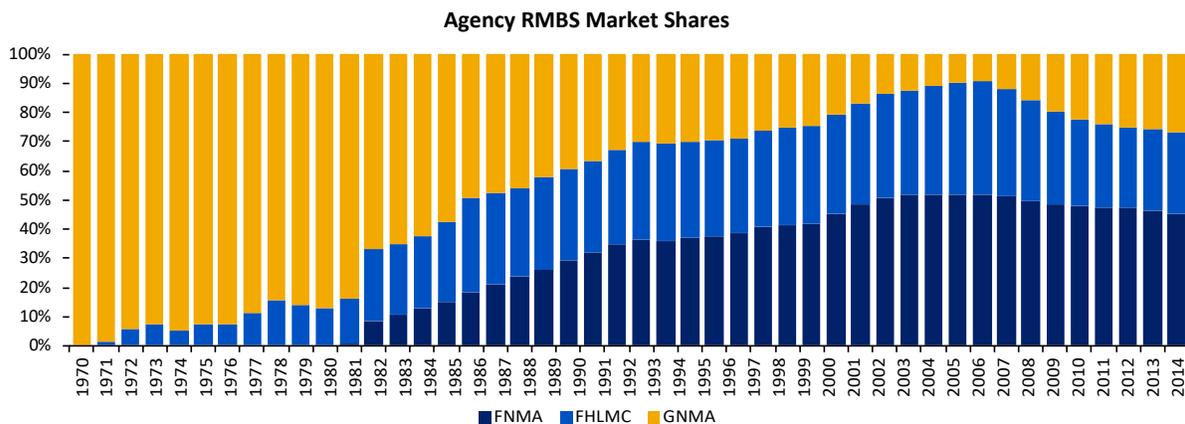
Figure 15⁷¹

% Non-Agency RMBS Outstanding By Rating



RMBS issued by GSEs filled the gap created by the declining non-GSE RMBS market. The GSE-issued RMBS outstanding balance grew more than \$2 trillion over the last decade, and the market was expected to grow again in 2015. As mandated by the U.S. government, Fannie Mae, Freddie Mac, and Ginnie Mae have been providing affordable housing. In recent years, Fannie Mae and Freddie Mac have maintained their footprint in the space, while Ginnie Mae picked up in issuance and its market share.

Figure 16⁷²



⁷¹ Source: BAML/SIFMA as of Q42015.

⁷² Source: SIFMA as of FY 2015.

2. Europe

The volume of ABS issued in Europe never approached the levels reached in the U.S. Contrary to the U.S. market, ABS issuance in Europe ground to a halt in 2008. However, it gradually improved starting in 2009, and now has continued to a steady level of more than €100 billion each year.

Most ABS issuance in Europe has been concentrated in a few sectors of the market: auto (especially German auto); U.K. and Dutch RMBS; and CLOs. A notable difference between the U.S. and the European market is found in the levels of placed and retained securities. Placed securities are sold to third-party Investors, like Asset Managers or insurance companies. Retained securities are held on the balance sheets of bank Originators. In Europe, retained securities are those held by Issuers and pledged to European Central Bank (ECB) Repo Facilities for funding. Repo Facilities are securities lending facilities in which securities are technically sold to the financing counterparty with an obligation of the Seller to repurchase them at a date certain for a price certain, including interest. The ECB announced its most recent program for repoing European ABS in October 2014. The U.S. does not have a similar government-backed Repo Facility for U.S.-issued ABS. Refer to Figure 18 below for data on placed vs. retained offerings.

The major asset classes for European ABS—namely, U.K. and Dutch mortgages and auto ABS—did not have the same material falloff in performance and downgrades that occurred in the U.S. markets during the 2008-2009 crisis. The notable decline in U.S. residential mortgage underwriting standards that contributed greatly to the crisis were not duplicated in the U.K. and Dutch markets.

Further, Europe had a well-developed and deep market for Covered Bonds (*i.e.*, secured guaranteed bank debt with specified pools of collateral), which is not the case in the U.S. Covered Bonds have issued in the range of €100 – €120 million per year over the last four years. Most Issuers have been in Europe, with some in Canada and Australia. The Covered Bond market also is significantly funded through ECB Repo Facilities.

The major market components of European ABS (not including Covered Bonds) are as shown below in Figures 17-22.⁷³

Figure 17

⁷³ Amounts are in €. Sources: BAML/SIFMA, Association for Financial Markets in Europe (AFME), and internal databases from Crédit Agricole Corporate and Investment Bank (CACIB).

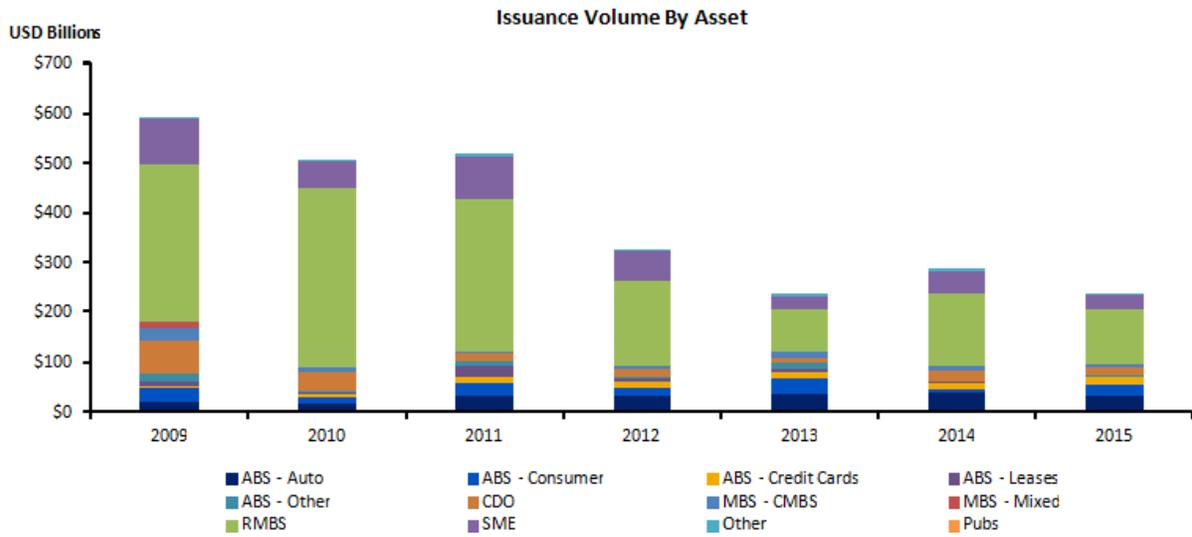


Figure 18

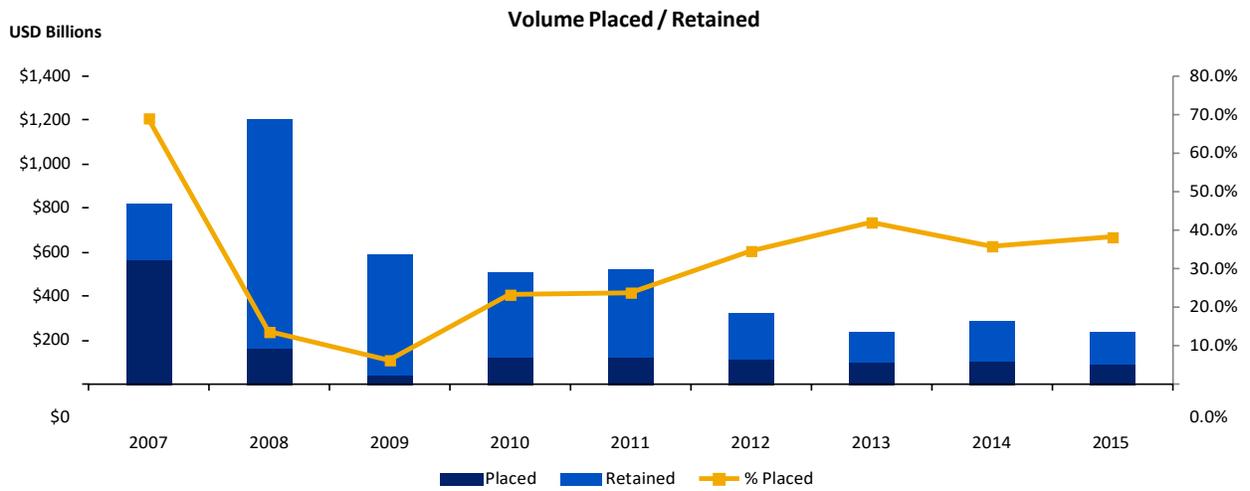


Figure 19

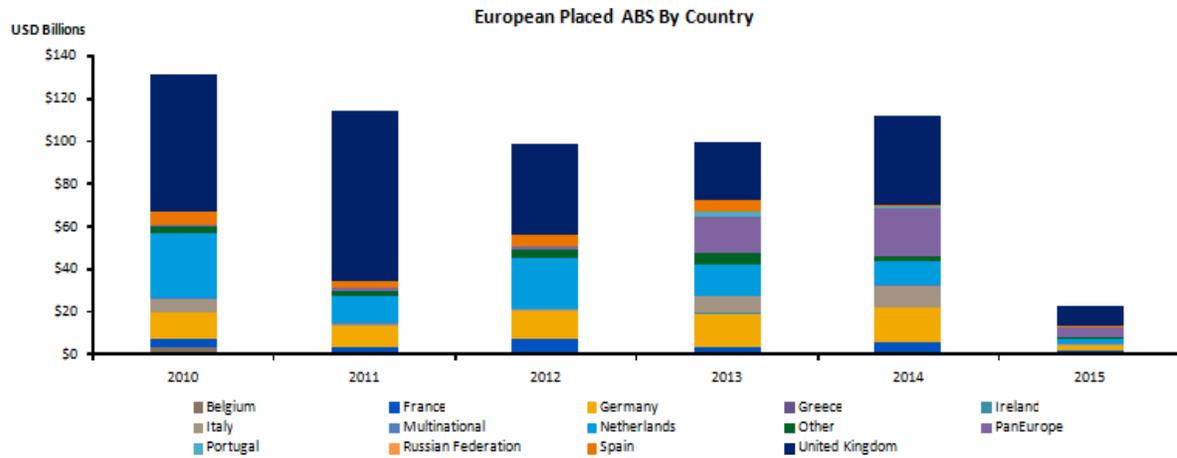


Figure 20

Placed Auto ABS - Issuer Breakdown

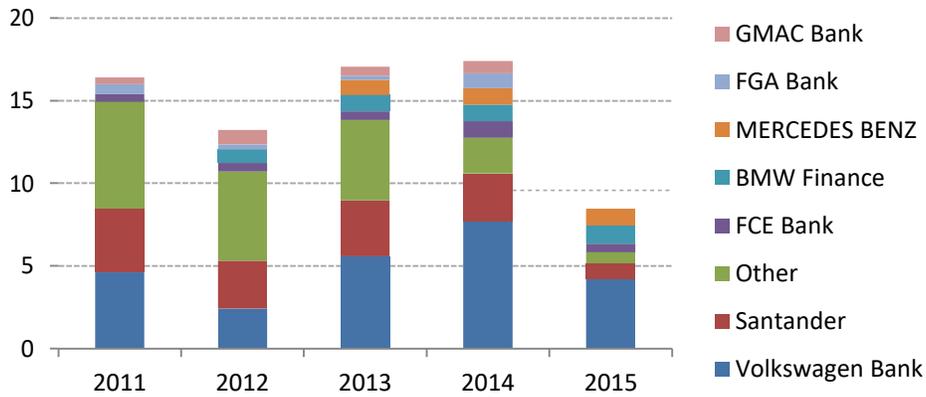


Figure 21

European Placed RMBS By Country

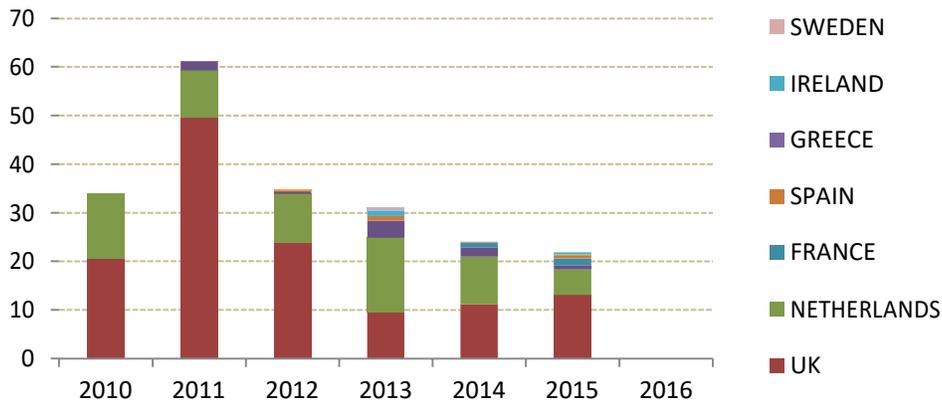
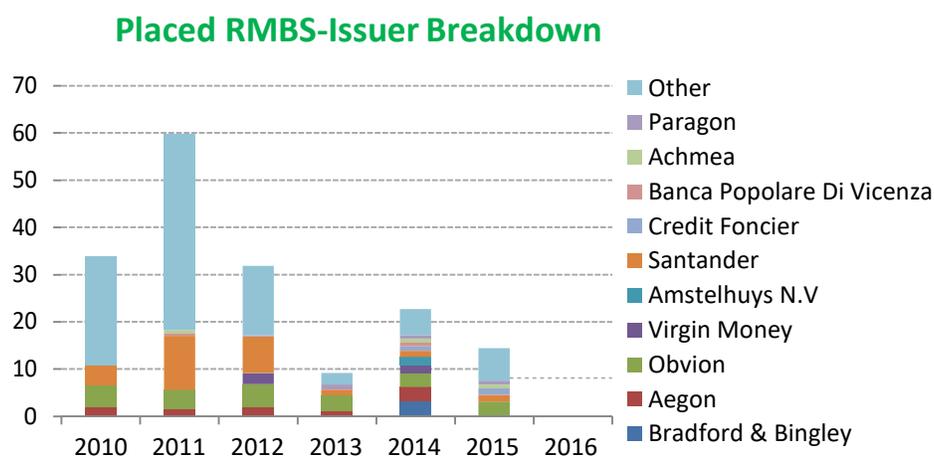


Figure 22



3. Asia

Asia's securitization market has developed in three waves. The first wave began in the late 1980s or early 1990s and peaked during the Asian Crisis in 1997. The second period was between the Asian Crisis and the Global Financial Crisis. The third phase arguably began just before the Global Financial Crisis and continues in Asia's largest bond markets.

Asia's securitization market actually started in Singapore, with one small CMBS in 1986 and several mortgage-backed bonds beginning in 1992. However, most of the transactions from this period combined locally sourced assets with arranging, structuring and placement know-how from international banks, accounting and law firms, rating agencies, and investors. Asia's first sizeable cross-border market was Hong Kong, which boasted a creditor friendly, flexible legal system similar to Singapore's, a large international financial presence and a large asset exposure to real estate. Typically, the assets were indexed to Hong Kong Prime, swapped into HIBOR, and swapped again into LIBOR for most international investors. Between 1994 and 2000, Hong Kong saw four CMBS and six RMBS transactions come to market, along with a credit card receivable, a domestic currency auto loan, and unsecured personal loan transactions.

Beyond capital capacity-building, a second driver of securitization market activity in this period was deregulation of the financial systems in Asia's more advanced economies: Thailand, Indonesia, Japan, South Korea, and the Philippines. Deregulation opened the door to structured carry trades where asset cash flows originated by non-regulated financial entities and denominated in the local currency could be refinanced in Yen (which at the time had very low interest rates) and then swapped into dollars. Two Thai auto hire purchase (loan) securitizations came to market in 1996. Indonesia issued one motorcycle loan ABS in 1996.

A third driver was the search for new funding sources, which became acute with the onset of the Asian Crisis. The Philippines had one securitization of airline receivables with recourse in 1997 and a private net telephone receivables securitization in 1998. China's national shipping group also floated a future shipping receivables securitization with a buyback guarantee from

headquarters in 1997. By the summer of 1997, as domestic banking systems were afflicted by waves of downgrades, new borrowers turned to ABS for working capital or bailout funding. South Korea issued several ABS transactions collateralized by a diversity of consumer and trade credits after its domestic securitization law was passed. Beginning in 1997, Japan's non-bank financial sector scaled up by a factor of ten, from US\$ 4 Billion to US\$ 40 Billion (\$1=100 Yen), mainly in ABS and CDOs.

As overseas investors in Asia pulled back, Asia's securitization market turned to building up domestic market infrastructure. In the early 2000s, Thailand, Malaysia, Indonesia, and Taiwan introduced domestic variants of Japan's securitization laws, and China adopted a trust law. Asset management companies were formed in the late 1990s to manage impaired loan assets in Thailand, South Korea, and China; and securitization was considered or used in conjunction with the workout process.

Government finance institutions were created, including Cagamas of Malaysia (1984), National Housing Bank of India (1988), Hong Kong Mortgage Corporation (1997), and Secondary Mortgage Corporation of Thailand (1997). Later, Korea Housing Finance Corporation (2004) replaced Korea Mortgage Corporation (1999), and Japan Housing Finance Agency (2007) replaced the original Government Housing Loan Corporation (1950). Indonesia established SMF in 2005 and Mongolia Mortgage Corporation was established in 2006. Not all these government finance institutions were actively promoting securitization, but where the country had active bond markets, RMBS was part of the agenda. By 2003, according to one estimate,⁷⁴ South Korea had emerged as Asia's largest securitization market outside of Japan, with 81.8% of total issuance; India was 7.8%, Singapore 4.7%, Malaysia 2.4%, Taiwan 1.4%, Hong Kong 1.0%, and other Asian countries less than 1%.

Over the past decade, these rankings have more or less remained static; however, China's entrance in 2005 has changed the dynamics of Asia's ABS market. Today, China, South Korea, Japan, and India have the most sizeable securitization markets, though Japan and India's inventory are winding down, while China's since 2014 has grown exponentially.

⁷⁴ Diane Lam, International Financial Law Review, Asia Pacific Region, June 22, 2004.

Figure 23

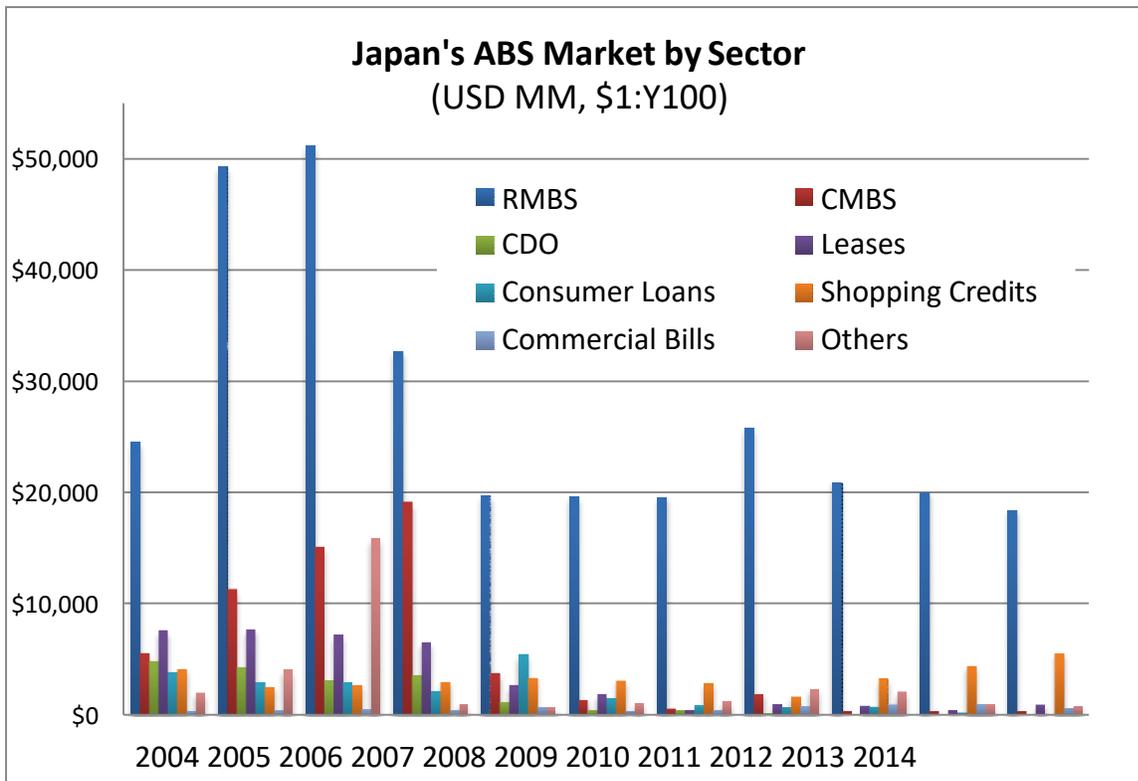
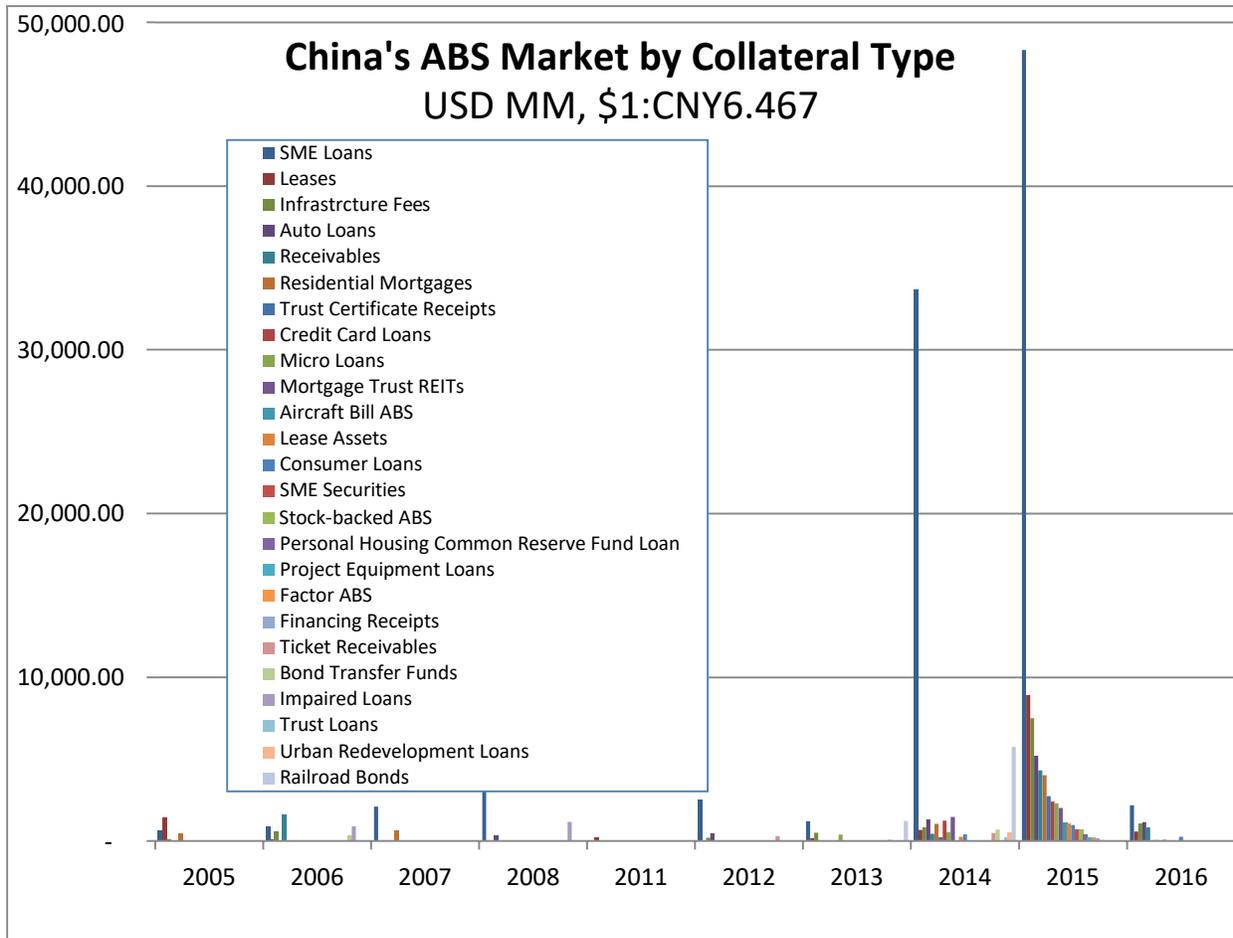


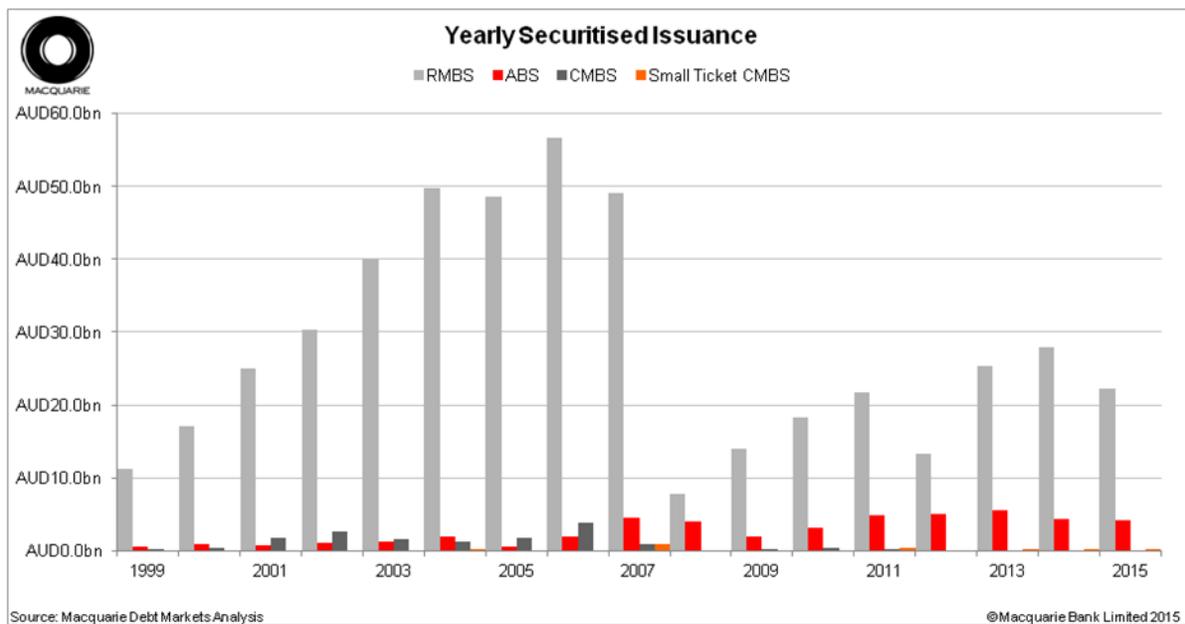
Figure 24



4. Australia

The Australian ABS market is small relative to those of the U.S. and Europe. (The applicable exchange rates as of December 2015 are 1 AUS\$ = .73 USD and .69 €.) As can be seen in the chart below, Australia is almost entirely an RMBS market. As with all other ABS markets, issuance fell to very low levels during the credit crisis. However, because Australian mortgages did not have the same problems noted with U.S. mortgages during the crisis period, there has been a healthy recovery in Australia's RMBS market.

Figure 25⁷⁵



B. The Crisis

The credit crisis commenced in late 2007 with the failure of certain mortgage Originators, and culminated in 2008 with the failure of several important financial institutions that were heavily involved in the mortgage securitization markets, namely, Countrywide, Bear Stearns, Lehman Brothers, Washington Mutual, IndyMac, Fannie Mae, Freddie Mac, and AIG. The failure of two of the three biggest domestic auto manufacturers soon followed. The collateral damage from these failures severely undermined consumer confidence generally, and in particular, Investor confidence in both future earnings generation and the liquidity of markets. This massive loss of confidence froze most capital markets throughout 2008 and 2009, resulting in a drop in the aggregate value of world equity markets in the trillions of dollars, as well as a similar amount of market losses on fixed income securities that suddenly no longer “had a bid.” All of this, in

⁷⁵ Source: Macquarie Bank.

turn, led to a reduction in the outlook of business, a large decline in U.S. household net worth, and a material reduction in both U.S. and global GDP.

The loss of confidence and liquidity caused by the crisis also commenced a global trend of central banks injecting liquidity into the financial system, thereby increasing the assets of the U.S. Federal Reserve, the ECB, and the Bank of England (BOE) by trillions of dollars. These high levels of central bank assets continue today. Although as of 2015 the U.S. fixed-income capital markets are liquid in most sectors (other than in non-GSE RMBS), the ECB continues to be a material source of liquidity for the Europe ABS market through its repo programs.

In addition to directly increasing its balance sheet from central bank and primary dealer liquidity lines, the U.S. Federal Reserve sponsored a number of lender-of-last-resort capital markets facilities such as the Troubled Asset Relief Program (TARP), the Term Securities Lending Facility, asset-backed commercial paper, and Money Market Liquidity facilities, as well as a Commercial Paper Funding Facility. Although the Federal Reserve created generous returns on these facilities, they nonetheless were the product of an environment in which the private markets were incapable or unwilling to conduct normal financing activities.

Blame for initiating the crisis is generally directed at poorly underwritten mortgages and a housing bubble that distorted underlying real estate collateral values when combined with worldwide overleveraging, especially of financial entities. However, the loss in economic activity and household wealth certainly far exceeded the amount of direct losses from these badly underwritten mortgage securities. Besides the loss of Lehman, Washington Mutual, and IndyMac, many surviving financial institutions suffered severe impacts. In addition, the entire bond insurance industry collapsed from its coverage of very large notional amounts of mortgage-related securities. At the beginning of 2007 there were 7 AAA-rated bond insurers. In 2015 all but one, Assured Guaranty, are in some form of insolvency or run-off mode. The pre-crisis execution strategy of AAA-rated wrapped securities, which were conducted in many sectors besides RMBS and CDOs, no longer exists.⁷⁶

C. ABS Performance Resulting From The Crisis

While much blame for the crisis has been laid at the door of the ratings system, with concerns being cited around ratings shopping and incentive structures of the agencies, it should be noted that many asset classes performed better than common perception, according to research published by Fitch Ratings which includes the data set of all Fitch rated global SF tranches issued between January 1, 2000 and December 31, 2014 (see Figure 26 below). Losses both realized or expected account for only 4% of all global SF ratings and 2% of AAA's. As Figure 26 demonstrates, most SF asset classes performed as well or better than expected through the crisis. With that said, U.S. RMBS and related SF CDO performance were far worse than expected.

Figure 26

⁷⁶ See Section VIII.B., *infra*, for an additional discussion of the financial crisis.

Putting Global Structured Finance Losses in Context (2000-2014 Issuance)

	US SF	EMEA SF	APAC SF	Global SF
Original balance (USDbn)	6,280.8	3,739.7	517.6	10,518.1
Performance by original balance (%)				
Repaid	71.4	74.1	55.5	71.6
No loss expected	22.4	25.2	43.9	24.4
Loss expected	3.3	0.5	0.0	2.1
Loss realized	2.9	0.3	0.6	1.9
Total realized and expected losses by rating category, by original balance (%)				
'AAAsf'	3.2	0.2	0.2	2.0
Other investment grade	23.2	2.9	2.3	14.4
Speculative grade	40.2	19.2	9.1	33.6
All ratings	6.2	0.7	0.6	4.0

Source: Fitch Ratings – Data represents Fitch rated transactions only

Note: Numbers may not add due to rounding

FitchRatings

www.fitchratings.com

3

Notwithstanding the above shortcomings pertaining to U.S. RMBS and related SF CDO's, the improvements to regulation, credit underwriting, and the credit rating agency review process have meant that all markets have performed exceptionally well in a post-crisis world, with losses effectively equaling zero.

IV. STRUCTURE OF PLAIN VANILLA ABS

A. Financial Structure

1. Waterfall

The term Waterfall in a securitization transaction refers to the mechanism by which the distribution of cash collections from the securitized assets is prioritized among the various classes of Investors. It is thus one of the key elements of such transactions. There are Waterfalls for both interest collection and principal collection. However, in some instances there is just one aggregate Available Funds Account that holds all funds collected from the assets. Additionally, different Waterfall rules typically apply if an Event of Default or an Amortization Event occurs and triggers accelerated payments to Investors.⁷⁷

For revolving structures such as credit card and dealer floorplan ABS, the trust separates cash collections into a finance charge account and a principal account, then channels excess

⁷⁷ See Sections II.B.1. and II.B.2, *supra*, for a more general discussion of waterfall concepts.

spread, if any, into a cross-collateralization account to support the entire series.⁷⁸ The collections are distributed to Investors according to the separate Waterfalls, subject to Early Amortization Events, Servicer Termination Events, and Events of Default, which may stop the revolving period or unwind the trust if they occur.

Amortizing structures, such as prime auto and equipment ABS, tend to have a “plain vanilla” structure and to utilize a single Available Funds Account. Collections are generally used first to pay fees and expenses subject to caps, second to pay interest and repay principal to Investors, third to maintain over-collateralization targets and to replenish the reserve account, and finally to cover any previously unpaid fees and expenses. If any cash remains, it is used to pay the residual certificate holders or Issuers.

a. RMBS Waterfalls

There is an array of RMBS transaction structures depending on the type of assets being securitized (*e.g.*, prime, Alt-A, sub-prime, re-performing, second-lien), their source of origination (*e.g.*, private or GSE-issued), and the source of cashflows (*e.g.*, mortgage or rental payments). This discussion focuses on four illustrative types of transactions: (1) GSE-issued MBS; (2) non-GSE prime MBS; (3) Re-performing and Non-Performing Loan Transactions (RPLs and NPLs); and (4) GSE Credit Risk Transfer Transactions (CRTs).

(1) GSE RMBS

GSE RMBS has an implied federal government guarantee. Its main structural features are intended to divert principal to create bonds with different maturity profiles and pre-payment allocations. Among the types of MBS issued by GSEs are Planned Amortization Class (PAC) bonds, Target Amortization Class (TAC) bonds, and Non-Accelerating Senior (NAS) bonds. The structural goal of these bonds is to provide pre-payment protection. The collateral Weighted Average Coupon (WAC) is fully restructured to support the maturity profile of the bonds and to create, for example, fixed-rate bonds, interest only (IO), principal only (PO), floater, inverse floater, and z-bonds. Additionally, Modifiable and Combinable REMIC (MACR) classes are often created to allow Investors to exchange or combine their securities to reflect their preferred maturity profiles and appetites for interest-rate risk. No subordinate classes are offered due to the government guarantee on credit losses.

(2) Non-GSE prime RMBS

Prime quality, non-GSE RMBS adopts a senior-subordinate structure, with one or more senior bonds paired with multiple subordinate bonds—very often six subordinate bonds. Accordingly, this type of RMBS is nicknamed “senior-sub shifting interest” or “6-pack” RMBS. Shifting interest refers to the principal allocation rule pursuant to which a proportion of the

⁷⁸ Cross-collateralization is a feature in which excess spreads or other cash flow from different collateral groups/asset pools are used to support each contributing pool under specified circumstances.

subordinate class’s share of pre-paid principal is shifted to the senior classes. The impact of this is to quickly build up the credit enhancement for senior classes, which can be significant if high pre-payment speed is prevalent and collateral losses are not excessive.

This shifting interest structure of non-GSE RMBS is essentially a hybrid of a sequential payment structure and a pro-rated payment structure. Depending on how a deal performs, cash proceeds may be paid in sequential order of priority among tranches or “shift” to *pro rata* payments within different levels of priority. Principal collections are further bifurcated into scheduled principal and unscheduled principal. For the first three to seven years of collections—the length depends on the type of the underlying mortgage loans and the mortgage rate resets if they are adjustable rate mortgage loans—senior classes receive their *pro rata* share of scheduled principal and 100% of the unscheduled principal collections. By contrast, subordinate classes receive just their *pro rata* share of scheduled principal during this “lock-out” period. Once the lock-out period ends, subordinate bonds receive an increasing share of unscheduled principal collections based on a pre-determined scale. The chart below illustrates a typical example of a predetermined shifting scale for a subordinate class’s pre-payment percentages of its *pro rata* interest:

Figure 27

Example Of A Predetermined Shifting Scale For A Subordinate Class’s Pre-Payment Percentages Of Its *Pro Rata* Interest

0-5 th year of prepayments	0%
6 th year	30%
7 th year	40%
8 th year	60%
9 th year	80%
Thereafter	100%

There are various delinquency triggers, cumulative loss triggers, and credit enhancement triggers that keep the shifting of pre-paid principal from subordinate classes to senior classes in place when the assets perform below pre-established target levels. The goal of this structure is to preserve credit enhancement to the senior classes. However, if the performance of the assets exceeds the target levels, the subordinate classes will transition gradually from receiving no pre-paid principal to receiving their full share, eventually receiving distributions on a fully *pro rata* basis with the senior classes on all principal collections. Different Issuers can adjust the shifting scale to suit their circumstances, and the triggers might function somewhat differently as well.

(3) RPLs and NPLs

Typically with RMBS that securitizes RPLs and NPLs, there are one or two time-tranched senior classes and several subordinate classes. Sometimes subordinate classes from the underlying securitization are not included in the restructured securities, or are included but

retained by the Seller to provide credit enhancement support for senior tranches and to demonstrate that the Seller's interests are aligned with those of the Investors through sharing in the risk (*i.e.*, by having "skin in the game").

RPLs comprised of mortgages that are performing tend to be rated by Rating Agencies. These transactions segregate interest collections from principal collections, apply note interest payments from interest collections, and apply principal paydown to the notes from principal collections. IOs can be stripped away if collateral WAC is relatively high. Excess spread, if any, can be used to pay down the principal balance on bonds. In addition, principal collections can be used to pay the interest-due amount on the notes first, and then to retire bonds sequentially in the order of seniority.

NPLs comprised of loans that are not performing well are often unrated transactions. Brokers Price Opinions (BPOs) or third-party valuations are critical for the advance rate of the notes. The available funds collected are commingled into one cash account, as the trust relies heavily on net liquidation proceeds or sale of underlying loans. There can, however, be some collections of interest and principal from re-performing loans.

Given their high credit loss expectation, RPLs and NPLs typically pay servicing fees, other fees, and deal expenses first, followed by interest on the bonds in the order of seniority, and then apply in the same order of seniority all cash in the trust and accelerate the pay down of the principal of the bonds for credit protection. After all of these payments are made, any excess collections are distributed to the residual certificate holders.

(4) GSE credit risk transfer

GSE Credit Risk Transfer (CRT) transactions such as Freddie Mac's Structured Agency Credit Risk (STACR) deals and Fannie Mae's Connecticut Avenue Securities (CAS) deals generally have a single senior note with multiple mezzanine notes and an equity tranche. The senior note is typically retained by the GSE, which also may retain all or part of the equity tranche.

A distinguishing feature of the mezzanine and subordinate notes of CRTs is that these are direct, unsecured obligations of the GSEs. Accordingly, Investors are exposed to the credit risk of the GSEs. Investors have no recourse to the underlying reference pool. However, the timing and amount of payment Investors receive will depend on the performance of the mortgage loans in the reference pool.

CRT transactions pay by reference to the cashflow from designated prime mortgage loans, and they adopt the distinction between scheduled principal and unscheduled principal. Scheduled principal is allocated *pro rata* among senior and sub-classes, while unscheduled principal is applied *pro rata* if no performance trigger is tripped. Following a triggering event, however, unscheduled principal is allocated sequentially.

b. CMBS Waterfalls

CMBS transactions can have several categories of Aaa-rated senior bonds, namely, super senior Aaa certificates, mezzanine Aaa certificates (AM), and/or subordinate Aaa certificates (AS). Besides senior classes, these transactions also have mezzanine classes rated Aa through Baa, and junior credit classes, including a below investment grade and/or an unrated first-loss piece called the B-piece. Principal is generally repaid sequentially, first to super senior certificates, followed by the AM certificates, the AS certificates, the mezzanine certificates, and the junior notes.

c. CLO Waterfalls

Many of the structural features discussed in this section can be found in CLO structures, although the extent to which they are emphasized can vary across deals.

Most CLO transactions have one large Aaa note, Aa-Baa tranches known as the mezzanine notes, and the double B and single B notes known as the subordinate notes. In addition to the rated notes, deals also have an equity tranche which receives any excess spread in the transaction.

CLO transactions most commonly utilize sequential distributions to Investors based on seniority, although payments to the Aaa note holders can be *pro rata*. Occasionally, CLO transactions also have a turbo feature that re-directs excess interest proceeds to repay principal on the junior notes ahead of the senior notes in the event the junior-note OC test has been triggered.

d. Credit card ABS Waterfalls

Credit card ABS transactions are typically issued out of master trust structures. A master trust is designed as a perpetual issuance vehicle whereby each bond issuance shares an undivided ownership interest in a common pool of credit card loans that is constantly being replenished with receivables from designated related accounts. This is in contrast to the structures of most term ABS, in which each transaction is backed by a discrete pool of non-replenished amortizing assets in a standalone trust.

Credit card transactions have evolved to include two different types of structures, namely, de-linked trusts and linked trusts. In a de-linked trust, the Sponsor can issue senior tranches independently of the subordinate bonds, as long as pre-existing subordinate bonds provide sufficient credit enhancement. This allows the Sponsor to opportunistically tailor issuance to meet market conditions and Investor demand. De-linked trusts dominate the U.S. market and are also prevalent in the U.K. In a linked trust, each transaction includes senior and subordinated bonds issued simultaneously, and the subordinate bonds support only those senior bonds issued along with them.

Credit card ABS pay sequentially among senior and subordinate notes of the same series. Payments between notes of the same seniority across the series are made on a *pro rata* basis.

e. Auto and equipment ABS Waterfalls

Auto ABS transactions were among the earliest securitization transactions developed in the U.S. Auto ABS includes prime auto ABS, sub-prime auto ABS, and auto lease ABS. Prime auto ABS is considered the most basic, and serves as the benchmark on spreads, liquidity, and risk profile. The underlying auto loans are generally homogenous, diversified, shorter-term contracts, and thus the expected credit loss is statistically derived from the performance track record of similar types of loan pools. Recent trends in auto ABS include the creation of some pools that deviate from these basic characteristics and seek to compensate for extra risks with structural features and higher credit enhancements.

Prime auto ABS includes as Issuers auto finance companies owned by automobile manufacturers (Auto Captives), banks, and non-bank third-party financial intermediaries. Sub-prime auto ABS tends to have non-bank third-party financial intermediaries as Issuers.

Auto lease ABS transactions are typically issued by Auto Captives. These transactions add another layer of market risk by securitizing Tangible Residuals. Additional credit enhancement is required when assessing the end-of-lease residual realization risk and the manufacturer's financial strength and support to the Auto Captive.

Small-ticket equipment ABS for copiers and printers is similar to auto lease ABS in that Obligor concentration is minimal. However, these transactions can include the Tangible Residual of the equipment lease, although the Tangible Residual exposure is generally around 2%-10%, much less than in auto ABS transactions, where Tangible Residual cashflow may be targeted at 50%-60% of the amount of anticipated cashflow.

Mid-ticket or large-ticket equipment ABS can have higher Obligor exposure and higher concentration risks due to larger contract balances. It can also include the Tangible Residual as part of the asset. Additional credit enhancement is included for this type of deal to compensate for the added risks.

From the development of the auto/equipment ABS space, one can see how the ABS-issuing SPE incorporates and accounts for new layers of risks. These examples illustrate how the U.S. securitization market has evolved over time.

Most auto ABS transactions employ a senior-subordinate structure, with Aaa notes and Aa-Baa tranches serving as the subordinate classes. Aaa notes are normally further time-tranched into money market (0.3-0.5 year), 1 year, 2 year, and last-cashflow tranches. Auto ABS transactions can be structured as one senior pass through or just A1 and A2 for sub-prime transactions or newer and smaller Issuers. For regional bank auto ABS deals, the Tangible Residual certificate could be issued and sold. For sub-prime ABS, many Issuers also issue down to Ba or B notes to increase the advance rate. Equipment ABS is similar to auto ABS in tranche structure.

Although auto ABS is considered to be the most basic transaction, it encompasses the most variety of sequential vs. *pro rata* Waterfall distributions. Equipment ABS is similar to auto ABS in this regard.

Based on the market conditions and Investor appetite, the *pro rata* structure was popular prior to the credit crisis and it still is utilized in some sub-prime transactions. Subordinate bonds are paid a portion of principal while senior bonds are outstanding. Nonetheless, the principal allocation to the subordinate bonds can be shut off or re-allocated if certain performance triggers occur. The *pro rata* structure can be most cost-effective for Issuers, if Investors are not demanding dramatically higher spreads on the senior bonds. This typically is the case, as senior bond holders look to triggers for credit protection. Since the crisis, structures have been simplified, and a sequential structure has become the predominant Waterfall structure.

With respect to the sequence of payments on the bonds, two mechanisms often have been employed, namely, the Interest Interest Principal Principal (IIPP) sequence and the Interest Principal Interest Principal (IPIP) sequence. These are applicable when there are multiple classes of senior and subordinate bonds. The key distinction is whether or not more junior class interest payments are subordinated to senior class principal repayments. Recently, however, it has become more prevalent to utilize the Priority Sequential Structure, in which an explicit or implicit Principal Distribution Account (PDA) is required to prioritize principal allocations. The operation of each of these three distribution sequences is illustrated below.

Assume there are four classes of bonds:

- Class A (Aaa rated)
- Class B (Aa rated)
- Class C (A rated)
- Class D (Baa rated)

The Available Funds Account is applied as follows (after paying fees and expenses) in each variation:

IIPP
Class A Interest

IPIP
Class A Interest

Priority Sequential
Class A Interest

Class B Interest	Class A Principal	PDA to Class A Parity
Class C Interest	Class B Interest	Class B Interest
Class D Interest	Class B Principal	PDA to Class A&B Parity
Class A Principal	Class C Interest	Class C Interest
Class B Principal	Class C Principal	PDA to Class A, B &C Parity
Class C Principal	Class D Interest	Class D Interest
Class D Principal	Class D Principal	PDA to Class A, B, C & D Parity
		Replenish Reserve Account to target
		PDA to Class A, B, C & D reach OC target

All else being the same, the IIPP structure will have a slightly higher required credit enhancement for Class A, B, and C, because interests from sub-classes are not subordinated to the principal payments to the more senior classes. The IPIP structure fully subordinates the Class B, C, and D interests to the more senior class's principal payment, which is not ideal for subordinate-bond Investors. The Priority Sequential structure is the middle ground between the IIPP and IPIP structures. Only when the senior classes are under-collateralized should interest allocation to the sub-classes be reallocated to ensure parity for more senior classes. This structure is commonly used by auto and equipment ABS Issuers.

For transactions with sufficient excess spread before loss provisions, the structures tend to trap excess spread by building OC to a target level. After the target OC is reached, excess cashflow (after payments to Investors) flows to the Tangible Residual certificate holder, if the collateral performs well within the pre-established historical-loss trigger level. Trigger levels generally reflect a slightly higher-than-base-case loss scenario. Cumulative loss triggers, annualized loss triggers, delinquency triggers, and credit enhancement triggers are established to trap the excess spread again if collateral performance deteriorates.

f. Other ABS Waterfalls

ABS structures are used to tranche cashflows for numerous other collateral types, including containers, aircraft, railcars, student loans, and esoteric collateral including solar, cell-towers, and Small and Medium Enterprise (SME) loans. Even a high level discussion of all of these ABS structures would be beyond the scope of this paper. Suffice it to say that these transactions normally include several Aaa tranches with varying weighted average lives and mezzanine (Aaa-Baa) notes. They tend to employ sequential payments even among the Aaa tranches.

2. Excess Spread Capture

Excess spread is the first line of defense against losses. However, for prime quality asset transactions, excess spread is carved out and paid to different bonds. There are multiple ways to capture this excess spread.

a. IO and PO strip

As mentioned earlier, mortgage-related transactions bifurcate collection accounts into interest collection and principal collection accounts, and thus require that extra attention be paid to accurately distributing interest. Mortgage transactions can issue IO or PO strips to strip away excess coupons from the net collateral WAC or to cover the gap between bond coupon rates and collateral WAC. The transactions also use the Available Funds Cap technique to make sure that bonds are entitled to receive coupons only to the extent of interest collections minus fees and expenses, adjusted by day counts.

Hybrid mortgage loans have a two to ten-year fixed-rate period before the interest rate resets subject to caps and ceilings. The Available Funds Cap method is the customized way to address the collateral coupon variability over time.

b. YSOC and YSA mechanisms

For prime auto ABS paper issued by the Auto Captives of auto manufacturers, prime Borrowers frequently can receive lower coupon rates that are subsidized by the manufacturer on the back end. Thus, it is possible to have a significant portion of the pool that carries low APRs at the subsidized coupon rates. To address this issue, the Yield Supplement Account (YSA) and Yield Supplement Over-Collateralization (YSOC) concepts are incorporated into the trust. Loans with APRs lower than the rate needed to pay interest on the bonds are discounted at the discount rate(s) in the form of a YSA cash account or a YSOC scheduled OC target. Through the release of either the YSA or the YSOC, the excess spread can be captured or released.

c. Peripheral income from pre-payment penalties and residual realization

Generally, pre-payment penalties and yield maintenance have separate rules of allocation, in that the income from pre-payment penalties and residual realizations are treated as part of the Available Funds or interest in the interest collection account, and follow through the respective Waterfall.

d. Reclassification via discount rate

The discount rate can be a single discount rate for the lifetime of the trust or a different rate for each loan, which is the maximum discount rate and the underlying collateral APR of each underlying loan or lease. Discount rates are commonly used in equipment lease transactions, where the nature of the collateral WAC is much higher than the sum of the cost of funds on the liability side plus the servicing fee. By discounting, a portion of the higher asset yield is converted to OC, which serves as part of the credit enhancement to the trust.

The reverse can occur as well, where the collateral WAC is lower than the required discount rate. Some principal from the underlying collateral is reallocated as additional asset yield.

e. Residual sale

The residual here is the trust residual. It refers to the excess interest, reserve account release, over-collateralization release, or other undistributed cash after paying all trust fees and expenses, and paying off the bonds.

Given the improving market conditions of the past several years, the low interest rate environment drove Investors to look for higher-yielding paper. Prime auto Issuers became the dominant force selling residuals. These residual sales can enable off-balance-sheet treatment for the Issuers, subject to the approval of the Issuer's accountants and compliance with applicable regulations.⁷⁹ Even though it is more expensive to sell the residual, Issuers can obtain some regulatory capital relief, improve financial ratios, or book a gain-on sale. Selling the residual is the most direct way to monetize excess spread.

3. Hedging Mechanics

Hedges are generally required for a securitization trust when there is a mismatch between the interest rates or currencies. In some cases, unhedged floaters can be allowed. The most common forms of interest rate hedges are the interest rate swap and the interest rate cap.

When the collateral is a fixed-rate asset, and some or all of the bonds are floating-rate liabilities, the Issuer can enter into an interest rate swap agreement to pay a fixed swap rate and receive floating rate payments, which it then passes on to bond holders. However, due to the recent changes in counterparty risk criteria by certain Rating Agencies and the increased swap cost resulting from more stringent capital rules, Issuers are increasingly shying away from entering into any swap agreements.

For short duration bonds, sometimes no swap is arranged. An uncapped floater is issued instead, with a wider credit enhancement level providing for interest rate stress. Prime asset Issuers are not as sensitive to leverage as sub-prime Issuers, and their securitization programs tend to hit the floor in terms of credit enhancement, so issuing uncapped floaters is another way to optimize the capital structure in some cases.

In the current near-zero interest rate environment, in which there is an expectation of rate increases eventually, some Investors prefer floating rate paper. However, most auto ABS deals have fixed rate auto loans or leases as collateral. In order to capture the floating rate demand, and alleviate one-year paper supply, Issuers have been allocating 50% or more of one-year paper as uncapped floating-rate bonds, or sizing floating-rate bonds to demand. This approach has

⁷⁹ See Section II.C.2., *supra*, for a discussion of accounting rules for off-balance sheet presentation.

proven to be effective in allowing auto issuers to shift away from exclusive reliance on one-year fixed rate issuance, thereby reducing potential widening in spreads.

a. Caps

Using an interest rate cap is an easy way to absorb rising rate shocks. The cap premium is paid up front, and it does not interfere with the Waterfall. The cap is executed over a predetermined schedule, which generally lowers the outstanding balance of the bonds that need to be hedged under an historical scenario. Therefore, if the actual pre-payment rate departs from the predetermined cap schedule, the trust can be over- or under-hedged with regard to the interest rate risk.

b. Swaps

There are two categories of interest rate swaps: balance-guaranteed and non-balance-guaranteed. A non-balance-guaranteed swap is similar to a cap contract in that it uses historical pre-payment data to derive a swap schedule, and the trust can pay a fixed rate or floating rate and receive the floating or fixed rate to pass on to bond holders. Swap payments are structured to be paid after servicing fees and trust expenses, *pari passu* with senior bond interest payments. The swap breakage fee generally has the same priority with the monthly net swap payment, but can be separated too. There can be negotiations between the swap provider and senior bond holders regarding which has higher priority in the Waterfall. However, swap payments are typically at the top of the Waterfall, as the swap is part of the infrastructure of the trust.

A balance-guaranteed swap is one in which the notional amount adjusts automatically so as to remain matched to the principal amount outstanding of the indebtedness being hedged by the swap. This seemingly is the best alternative for Investors who do not want interest rate risk exposure. However, a balance-guaranteed swap is much more expensive than a fixed swap schedule. The swap counterparty is taking in additional pre-payment risk, unless this risk is backstopped by the Issuer outside of the trust. A balance-guaranteed swap in some scenarios can cause unintended consequences to the trust. One example is that, over a long period of time with high interest rate stress, the balance-guaranteed swap can divert available funds away from bond holders if not structured properly. The balance-guaranteed swap is not often employed currently due to recent changes regarding regulatory capital maintainence.

c. Structural alternative to hedging

The structural alternative to hedging is to match assets against liabilities. If part of the asset is fixed and part of it is floating, an “H” structure or “Y” structure can be used to pass fixed- rate asset yields from the assets to fixed-rate bonds, and pass adjustable-rate asset yield to floating-rate bonds. For the “Y” structure, two groups of senior bonds are created, which is the

majority of the capital structure, with only one group of subordinate bonds. The subordinate bonds can be either fixed- or floating-rate. For the “H” structure, one group of fixed-rate seniors and subordinates can be created for the fixed assets and another group of floating-rate seniors and subordinates is created for the adjustable-rate assets. In this way, the interest rate mismatch is mitigated to a great extent through internal structure, not through external parties.

An easier scenario in present circumstances is one in which the asset is adjustable and bonds are fixed-rate. Given the current rising interest rate environment, no hedge would be required in this case.

d. Student loan ABS hedges

Student loan ABS transactions frequently utilize hedges. The underlying loans are indexed to a variety of benchmarks, for example, LIBOR 1M, LIBOR 3M, Treasury, Prime, etc. On the liability side, there are fixed bonds and floating-rate bonds indexed to LIBOR 1M. This creates the necessity for fixed-floating interest rate swaps and basis risk swaps for student loan ABS transactions. This fundamental interest rate risk can be mitigated with the various approaches mentioned above.

When a fixed-floating swap is used for a student loan ABS, it works similarly to swaps in the other asset classes, with the exception that the student loan ABS swap schedule could be based on the outstanding asset balances or bond balances, rather than the typical bond balances used in other asset types. This is largely due to the fact that a significant portion of the student loans are adjustable-rate, and only a portion of the liabilities are fixed.

In addition, a material percentage of the underlying student loans are indexed to the prime rate. In order to pay liabilities that are LIBOR 1M floaters, basis risk swap is used to preserve the spread between the prime rate and LIBOR 1M, to make sure that the net margin between Prime and LIBOR 1M is there to support the transaction.

New student loan Originators, who primarily use securitization as the funding source, are evolving to originate LIBOR 1M-based loans. Interest rate mismatch risk is mitigated at the loan origination stage by switching from less-used indices to LIBOR 1M, the same index for the bonds.

e. Currency swap

Currency risk mitigation uses similar procedures to interest rate risk mitigation, but it can incorporate sovereign risk assessment into the deal.

4. Accommodating the Nature of Collateral Securitized (Including Homogeneity)

a. Obligor concentration risk

In terms of Obligor concentration risk, it is usually well under 0.1%. For the Issuers who have national programs, the assets are geographically diverse. Given the relatively long history of securitization and its performance track record, a statistical approach is used to derive expected losses and the credit enhancement for the transaction.

The securitization market has been evolving to reflect the past performance of the market. Over time, new types of risks from the collateral assets have been added to asset pools. Structures of SPEs thus have sought to build loss mitigation into the transaction structures, in the form of legal covenants, performance triggers, and operational trigger events.

When the individual loan is large (typically 1% is the threshold), additional Obligor concentration risk is included. Some Rating Agencies require more credit enhancements to support various defaults at different rating levels, while other Rating Agencies require the pool to run through a CLO/CDO Evaluator to take into consideration the correlation among the large Obligor exposure. If the concentration is too severe, a rating ceiling can be applied.

b. Geographic concentration risk

For Issuers that have a regional footprint, an additional geographic concentration risk factor is assessed for credit enhancement purposes. This is to mitigate the risk of a regional economic slow down or other stress.

c. Variation of underlying loan types and terms

Loans and leases are typically separated, unless the leases are “Hell Or High Water” and are classified as loans rather than leases for accounting or tax purposes.

There can be a wide range of monetary terms related to the underlying collateral. Contract terms tend to congregate around the weighted-average term, while longer-term receivables can be subject to higher risk due to duration and affordability. Allowances for longer-term assets are limited as well, so as not to impact the profile of the asset pool. Similar concerns exist for high-WAC receivables.

d. Homogeneity

Because homogeneity in asset pools leads to greater predictability and more reliable modeling, some asset classes must be structured to overcome their lack of homogeneity. These assets include, for example, CLOs, CMBS, and student loans (or SLABS for Student Loan Asset Backed Securities).

In the case of CLOs and CMBS, the individual loans tend to be much larger proportionately and each loan tends to have a different set of terms. SLABS must accommodate differences amongst student repayment statuses, which, in turn, produces different payment terms and covenants.

B. Legal Structure

1. Legal Isolation of Securitized Assets⁸⁰

As noted above, legal isolation of the securitized assets within the SPE is the most important element of the legal structure of a securitization transaction. This section discusses the two criteria that typically must be satisfied to establish the legal isolation of the securitized assets. First, the securitized assets must be transferred by the Originator to an SPE in a true sale. Second, there must be nothing in the circumstances of the transaction or in the relationship between the Originator and the SPE that would lead a bankruptcy court to substantively consolidate the assets of the SPE with those of a bankrupt Originator.

a. True sale

Section 541(a) of the U.S. Bankruptcy Code provides that the commencement of a bankruptcy case creates an estate consisting of all of the debtor's then-owned legal and equitable interests in property. The Bankruptcy Code governs whether any particular property interest is part of a debtor's estate. However, state law and other non-bankruptcy laws generally define the extent and nature of the debtor's property interests, and therefore can directly impact the bankruptcy court's determination of what interests are part of the debtor's estate.

In the event of the Originator's bankruptcy, the determination of whether the Originator's bankruptcy estate will include the securitized assets depends on the characterization and treatment of the sale agreement under applicable non-bankruptcy law. If there has been an absolute sale of the securitized assets by the Originator to the SPE, then the Originator would no longer have an interest in the securitized assets, and they would not become property of the bankruptcy estate. If, on the other hand, the sale agreement is characterized as a transfer of the securitized assets as security for a loan by the SPE to the Originator, then the Originator's estate would have an interest in the securitized assets and the SPE would be treated as a creditor of the Originator. In that event, a bankruptcy trustee or the Originator as a debtor in possession could enforce the automatic stay under Section 362 of the Bankruptcy Code to prevent the SPE's collection or other exercise of control over the securitized assets.

The threshold inquiry in a true-sale analysis is whether the parties intended the transaction to be an absolute sale and not a loan. When sophisticated parties intend an absolute sale and structure their transaction accordingly, some courts give presumptive weight to that intent and are unwilling to disturb the parties' characterization of the transaction as a sale.

Although the intent of the parties is a significant factor in the true-sale analysis, most courts also review the economic consequences of the transaction to determine if they are consistent with the parties' expressed intent. These courts balance the attributes of a

⁸⁰ See Sections II.A. and II.C.3.a., *supra*, for other discussion of legal isolation.

transaction indicative of a true sale against those indicative of a secured loan in order to determine whether the economic consequences of the transaction more closely resemble a true sale or a secured loan.

A primary determinant is whether the Seller has transferred the risks of ownership of the transferred assets to the Buyer. An owner of financial assets is generally expected to bear the risk that the financial asset might become uncollectible. However, the presence of some recourse back to the Seller does not require that the transfer be treated as a loan. It is a factor to be considered.

In most securitization transactions, the sale of the securitized assets is absolute and irrevocable. The Originator does not guarantee the payment of the securitized assets and the SPE has no recourse to the Originator if collections on the securitized assets yield less than the purchase price or if the assets prove to be otherwise uncollectible. The consideration received by the Originator under the sale agreement is viewed by the transaction parties as representing the fair value of the securitized assets, and the purchase price is not subject to later recalculation based on collections. Finally, the Originator is under no obligation to maintain the SPE's solvency.

Among the other determinants of a true sale is whether the Buyer has acquired the benefits normally associated with ownership. For a financial asset, that generally would include the right to retain the profit derived from ownership of the asset. In most securitization transactions, the sale of the securitized assets is irrevocable, and no provision in the sale agreement gives the Originator the right to any profit or surplus value of the securitized assets.

b. Substantive consolidation

The doctrine of substantive consolidation refers to the equitable power of a bankruptcy court to order that the assets and liabilities of separate, but related, entities be combined and treated as though they are held by a single entity. The authority for consolidating two or more business entities is not specifically set forth in the Bankruptcy Code. Instead, the doctrine derives from the bankruptcy court's equitable power, and the statutory source of that power is Section 105(a), which gives the court power to "issue any order . . . that is necessary to carry out the provisions" of the Bankruptcy Code.

The courts have developed different tests to determine whether it would be proper for a bankruptcy court to order substantive consolidation. Most courts base their analysis on one of two tests, or a variation thereof. Under the frequently cited *Augie/Restivo* test, consolidation is permitted only when either (1) the affairs of the entities are so entangled that consolidation will benefit all creditors, or (2) the creditors dealt with the entities as a single economic unit and did not rely on their separate identity in extending credit. A number of other courts have adopted a balancing test known as the *Auto-Train* test. Under the *Auto-Train* test, the analysis focuses more generally on whether the benefits of substantive consolidation heavily outweigh the harm that would be caused by its imposition.

Regardless of the test adopted, the courts have uniformly cautioned that substantive consolidation should be granted sparingly and in rare cases. That caution is necessary because the doctrine carries the potential to impose unfairness on creditors. Caution is also appropriate in light of the Supreme Court’s admonitions that the equitable powers of the bankruptcy courts are not unfettered and must be exercised consistent with the statutory framework of the Bankruptcy Code.

In applying these tests to the particular facts of a case, many courts consider the so-called “elements of consolidation,” articulated in a case called *In re Vecco Construction Industries, Inc.*, 4 B.R. 407 (Bankr. E.D.Va. 1980) (“*Vecco*”). The *Vecco* elements of consolidation are: (1) the degree of difficulty in segregating assets and liabilities; (2) the presence of consolidated financial statements; (3) increased profitability due to consolidation at a single physical location; (4) commingling of assets and business functions; (5) unity of interests and ownership; (6) the existence of inter-corporate guarantees on loans; and (7) the transfer of assets without observance of corporate formalities.

In applying the *Vecco* elements, a bankruptcy court should treat circumstances that are typical of most securitizations as weighing against substantive consolidation. These factors include the following:

1. The financial and business records of the Originator and SPE accurately reflect their respective assets, liabilities, and financial affairs;
2. The respective, separate assets and liabilities of the Originator and SPE can be readily and inexpensively segregated, ascertained, and identified; and
3. The Originator and the SPE will adhere to corporate formalities in all transfers of assets and other transactions between the two of them.

On the other hand, some factors in a typical securitization may be viewed as weighing in favor of substantive consolidation. For example:

1. The Originator will typically own all of the outstanding ownership interests in the SPE, and the Originator and the SPE may have common directors and officers.
2. An integration of the business functions of the Originator and the SPE will exist to a limited extent.
3. The Originator, if it also acts as Servicer, will retain books and records relating to the securitized assets.

In most securitizations, none of these factors, taken alone or together, would be deemed to justify substantive consolidation. Most securitizations are designed such that the assets and liabilities of the SPE are readily and inexpensively identifiable, and third parties (principally the ABS Investors) are relying on the SPE as a legal entity separate from the Originator.

2. Receipt and Application of Collections

Once the assets of the securitization trust (*e.g.*, mortgage loans, automobile loans, credit card receivables, etc.) are legally isolated within the SPE, attention turns to ensuring that the collections from those assets—most notably, interest and principal payments from the underlying Obligor—are promptly deposited into a deposit account or other bank or investment account that is set up specifically for the securitization (the Collection Account). From a financial perspective, the timely deposit of collections into the Collection Account is necessary to determine how much cash will be available for distribution on the next distribution date and to properly match the timing of the securitization’s expected payment obligations with the timing of its expected income. From a legal perspective, the timely deposit of collections into the Collection Account helps to reduce the risk of commingling—that is, the risk that collections on the securitized assets will be mixed with other funds of the Originator and thereby be considered part of the Originator’s property if it were to seek bankruptcy protection.

In a small number of cases, the task of steering collections into the Collection Account is accomplished by way of a legal covenant requiring the Originator to instruct Obligor under the securitized assets to remit their payments directly to the Collection Account (or to a lockbox linked to the Collection Account). In the vast majority of cases, however, Obligor are permitted to remit their payments directly to the Originator, which then deposits the payments into the Collection Account within a certain period specified in the securitization transaction documents. Under applicable Rating Agency criteria, very highly rated Originators may be permitted to hold collections for up to 30 days prior to depositing them into the Collection Account. However, most Originators must deposit collections into the Collection Account within two business days after receipt thereof.

The securitization transaction documents will require the deposited collections to be distributed on a periodic basis. Most securitizations contemplate the distribution of funds on a fixed date each month (the Distribution Date), with the monthly distributable amount consisting primarily of the collections deposited into the Collection Account during the preceding calendar month.

This monthly distributable amount is paid on each distribution date pursuant to the list of payment priorities specified in the governing agreements, *i.e.*, the Waterfall. The Waterfall applies the monthly distributable amount to satisfy various payment obligations of the securitization trust, in sequential order, until either (a) no funds remain to satisfy the remaining payment obligations listed in the Waterfall or (b) all payment obligations in the Waterfall have been satisfied.

Under the typical Waterfall, the most important obligations of the securitization trust are paid at senior positions, where the availability of funds is more certain. The less important obligations are paid at subordinated positions. As the Rating Agencies typically rate the *timely* payment of interest on each distribution date and the *ultimate* repayment of principal on the final maturity date, it is typically the case that interest payments on the ABS are placed at a very senior position in the Waterfall in order to maximize the likelihood that they will be paid on the

requisite timely basis. Payments of principal may be paid at a more subordinated level, as the ratings typically do not address the timing of principal repayment.

3. Security Interests

The effective and efficient transfer of financial assets is at the core of any securitization transaction. If one is to isolate cash-producing assets of a business from other more risky portions of a business, the transaction documents must satisfy the legal requirements for a valid, enforceable transfer from the Originator, as Seller, to the SPE, and from the SPE to the Investors. To reap the benefits of a successful isolation, the Investors will want to obtain the Seller's right to receive payments on the financial assets and to exercise remedies under the related financial assets if payments are not made by the related Obligor.

Article 9 of the UCC forms the backbone of the legal rules allowing for effective transfer, and thus in many respects governs the relationship between the seller of financial assets and the purchaser. It also governs many aspects of the relationship between the purchaser of financial assets and the Obligor on those assets. Article 9 sets forth the procedures that the purchaser must follow in most circumstances to obtain rights against the Obligor on the financial assets and determines the extent to which the purchaser's rights against the Obligor and any collateral securing the related obligations are the same as, or different from, those enjoyed by the seller prior to sale.⁸¹

4. Representations and Warranties

A typical securitization will require the Originator, the SPE, and other parties to make various representations and warranties. A description of some of the more typical representations and warranties follows.

a. Asset eligibility

The Originator will typically make a number of representations and warranties regarding the characteristics of the securitized assets for the benefit of the SPE, the Trustee, and the Investors. Some typical asset representations and warranties state that the securitized asset: is not in a defaulted or delinquent status as of a cutoff date; was originated in accordance with the Originator's customary origination guidelines; was originated not more (or less) than a specified number of months prior to the cutoff date; and was originated in accordance with applicable law.

In the event that a breach of an asset representation or warranty is discovered, it is typically the case that the sale agreement will require the Originator to repurchase the asset at par—*i.e.*, at its currently outstanding principal balance—plus accrued interest.

⁸¹ See also Section II.A.3., *supra* for a detailed discussion of perfection.

b. Organizational matters

The Originator, the SPE, and other transaction parties typically make various representations and warranties about their organizational status and related matters. Examples of such representations and warranties are that the party: is duly organized and is validly existing and in good standing in the state of its organization; is duly qualified to transact business in all relevant jurisdictions; and has full power and authority to enter into the securitization transaction documents and to perform its duties thereunder. The securitization transaction documents are enforceable against the party.

c. Other matters

The securitization transaction will contain a wide variety of other representations and warranties, many of which relate to the particular asset class or securitization structure. For example, in securitizations of consumer loans, the Originator will often represent and warrant that it has the requisite state consumer lending licenses. In securitizations that utilize a revolving structure, the SPE will represent and warrant that the conditions precedent to each new borrowing have been satisfied.

5. Defaults and Remedies

Due to the great variety of securitization structures and asset classes, there also is great variety in the types of defaults and remedies that are utilized. A fairly typical construct includes the following elements:

- **Events of Default:** These are events specified in the indenture or similar agreement that typically allow the Trustee or the Investors to declare the ABS immediately due and payable if the payment terms of the ABS differ at all from the underlying collateral and to exercise foreclosure or other remedies with respect to the securitized assets that collateralize the ABS. Typical Events Of Default are the failure to make interest payments on the ABS on a timely basis, failure to repay the principal amount of the ABS in full prior to the final maturity date, and the breach (often required to be material) of certain material covenants.
- **Servicer Defaults:** These are events specified in the servicing agreement that typically allow the Trustee or Investors to remove the Servicer and replace it with another Servicer. Typical Servicer defaults are failure to remit funds to the Collection Account within a requisite period of time and breach of other material servicing covenants.
- **Early Amortization Events:** Some transactions specify certain adverse events that do not rise to the level of an Event of Default or a Servicer default, but that trigger the lesser remedies, such as accelerated repayment of principal on the ABS. Asset performance triggers—*e.g.*, cumulative default triggers or delinquency triggers—are often used for this purpose. Note that this remedy only works for pools that are replenished or otherwise revolve in some fashion before they begin to amortize. A term transaction that liquidates

from the first month on will not have an amortization or acceleration remedy, as it would be redundant.

6. The Investment Company Act and the Volcker Rule

The Investment Company Act of 1940 requires every investment company to register with the SEC and imposes numerous burdensome restrictions on investment companies, which are defined as an entity “engaged primarily ... in the business of investing ... in securities.” No SPE may be an investment company and expect to be able to securitize receivables in a practical and profitable manner, because receivables and most other financial assets are securities for purposes of the Investment Company Act. Thus, it is essential to structure SPE purchasers to qualify for an exemption from the registration requirements of the Investment Company Act.

Several exemptions may be available. In particular, the SEC promulgated Rule 3a-7 under the Investment Company Act to exempt virtually all securitization transactions from registration under the Act, subject only to compliance with certain specified requirements that were largely intended to (and largely do) codify existing market practices. Specifically, Rule 3a-7 excludes from the definition of investment company any Issuer that purchases or otherwise acquires and holds financial assets that by their terms convert into cash within a finite time period, so long as: (1) the Issuer does not issue redeemable securities, but instead issues securities that entitle their holders to receive payments that are primarily dependent on the cashflow from the securitized assets; (2) only highly rated “fixed-income securities” are sold to the public, and any other securities issued by the Issuer are sold only to certain specified categories of Investors who are deemed to be able to look after their own self-interests; (3) the Issuer does not buy and sell eligible assets except within certain specified limits; and (4) the Issuer appoints an independent Trustee to serve certain designated (and limited) functions with respect to the securitized assets (subject to certain exceptions where a Trustee would not be required).

Not all securitization transactions are eligible to rely on Rule 3a-7. The portion of the Dodd-Frank Act that adds new Section 13 to the Bank Holding Company Act of 1956 creates additional issues for securitizations involving SPEs that rely on Sections 3(c)(1) or 3(c)(7) of the Investment Company Act.⁸² New Section 13 embodies the so-called “Volcker Rule.” Besides substantially restricting proprietary trading by “banking entities,” the Volcker Rule also prohibits, with some important exceptions, banking entities from acquiring or retaining any equity, partnership, or other ownership interest in or sponsoring a hedge fund or a private equity fund. While the stated focus of this prohibition is hedge funds and private equity funds, Congress defined those categories primarily as Issuers that rely on Sections 3(c)(1) or 3(c)(7) of the 1940 Act (or similar funds identified in the implementing rules) for exemption from the registration provisions of the Investment Company Act.

As a result, entities not customarily considered hedge funds or private equity funds, but which rely on exemptions provided under either Section 3(c)(1) or Section 3(c)(7), could be

⁸² These sections relate primarily to exemptions for hedge funds and private equity funds. However, many securitizations have relied on these exemptions as well, especially ABCP Conduits.

covered under the Volcker Rule. For example, the ban may apply to, among other things, certain actively managed collateralized debt vehicles and other similar bank loan funds, as well as to certain transactions with a mix of collateral that makes reliance on other exemptions from the Investment Company Act difficult. The Dodd-Frank Act also includes what appears to be a blanket exception for a banking entity's sale or securitization of "loans" in a manner otherwise permitted by law, which should provide some support for securitization SPEs that rely on Sections 3(c)(1) or 3(c)(7) to continue to exist outside of the requirements of the Volcker Rule, so long as they are structured to securitize the defined term "loans."

7. Asset-Specific Variations Among the Most Common Asset Classes

a. Auto⁸³

Automobile ABS are backed by a pool of automobile loans or leases. Auto ABS are sold to Investors in different tranches, or risk levels, which allows for tailored risk exposures and expected returns to meet Investor requirements.

Auto ABS typically utilize a "plain vanilla" securitization structure, that includes the following elements. The Originator sells a pool of auto loans to an SPE (the Depositor) pursuant to a first-tier sale agreement. The sale agreement is designed to effect a true sale of the auto loans to the Depositor. The Depositor then sells the pool of auto loans to another SPE (the Issuer) pursuant to a second-tier sale agreement. The Originator, acting as Servicer, agrees with the Issuer to make collections on the auto loans on behalf of the Issuer pursuant to a servicing agreement. The Issuer issues the ABS pursuant to the terms of an indenture between the Issuer and an indenture Trustee.

Credit enhancement for auto ABS typically consists of: (1) overcollateralization, *i.e.*, the excess of the aggregate principal balance of the auto loans over the aggregate principal balance of the ABS;⁸⁴ (2) subordination, *i.e.*, the relative priority of one or more classes of ABS over one or more other classes, such that the more junior classes absorb losses prior to the more senior classes; (3) excess spread, *i.e.*, the difference between the interest income receivable by the Issuer from the pool of auto loans and the interest payments and other expenses (*e.g.*, Trustee and servicing fees) of the Issuer; and (4) cash collateral accounts where appropriate, including cash constituting YSOC.

Auto lease securitization transactions will often utilize a separate SPE known as a "Titling Company." In such transactions, the lease contracts and related leased vehicles are legally the property of the Titling Company. Rather than transferring the lease contracts and leased vehicles themselves to securitization SPEs, a typical auto lease securitization involves the transfer of

⁸³ See also Section IV.A.1.e., *supra*, for a discussion of the financial structure of and securitization with auto receivable transactions.

⁸⁴ Often, when the underlying auto loans bear interest at below-market rates, there will be extra cash added to the deal by the Sponsor to make up for the shortage in yield on the underlying loans (usually called Yield Supplement Over-Collateralization or YSOC).

beneficial interest certificates in or secured notes of the Titling Company. The Issuer, as holder of the beneficial interest certificates or notes, is entitled to all of the cashflows from the lease contracts and leased vehicles allocated to the related beneficial interest or note. The principal benefit of the Titling Company is that it allows a securitization of lease contracts and leased vehicles without the need to transfer ownership of leased vehicles from the Originator to the Issuer. Such a transfer of ownership would otherwise be very time-consuming and costly as, in most states, a new certificate of title must be issued by the department of motor vehicles in order to effectuate the transfer of legal title for each vehicle.

b. Credit card

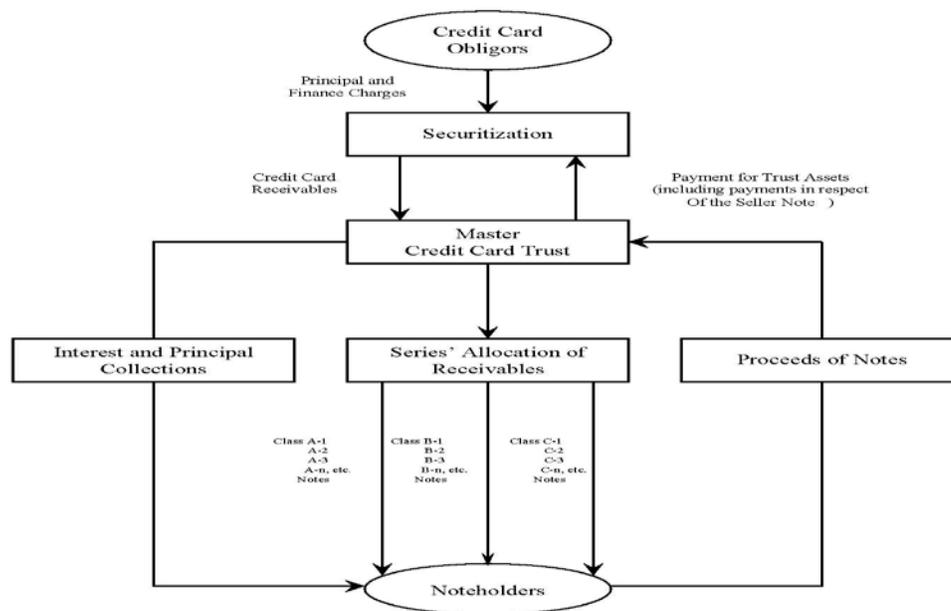
Securitization of credit card receivables has evolved such that these receivables generally are securitized by the use of either a master trust or an issuance trust structure. These structures are based upon the specific legal structure that governs this asset class as well as the fairly unique nature of credit card receivables.⁸⁵

Unlike securitizations of fixed pools of amortizing assets, revolving master trust structures usually provide for multiple issuances of securities from time to time, in separate series as set forth below.

Figure 28

Revolving Master Trust Structures

⁸⁵ See also Section IV.A.1.d., *supra*, for a discussion of the financial structure of the securitization of credit card receivables transactions.



A common credit card securitization structure is detailed in the diagram above and is a series with the three classes: Class A (rated AAA or its equivalent); Class B (rated AA or its equivalent); and Class C (rated BBB or its equivalent). Class A is credit enhanced by the subordination of Classes B and C, and Class B is credit enhanced by the subordination of Class C.

A key feature of this securitization structure is principal sharing across all series. Subject to any reinstatement mechanisms, the amount of principal collections that each series is entitled to have applied towards payments on that series is limited to an amount equal to the sum of the initial principal balances of the three classes of securities in the series. Thus, if principal collections allocated to the series are used to pay interest or costs and expenses such as the servicing fee, there will not be enough principal collections available to that series to repay all of the principal of the securities in the series. Principal sharing across all series therefore allows for the distribution of excess principal collections to any series in its accumulation or amortization period. Since a series in its revolving period has no principal payment requirements, principal collections allocated to that series are available for reallocation. In addition, principal collections in excess of a series' controlled amount are available for reallocation. These uses of trust principal have to be tracked to make sure that a series only uses its own share of principal. Given the necessity of tracking collections, master trust structures generally include a requirement that limits the extent of each series' access to principal collections and principal balances of the securitized receivables.

The various series may have different class structures, different (or no) credit ratings, different interest rates, different credit enhancements, and other important differences. All of these distinct series share in the same pool of receivables. Given the sharing of the same pool of receivables, a major tenant of the securitization of credit card receivables is how the various series will share in collections on the underlying assets.

One alternative that is commonly used provides for the allocation to each series of its own share of collections on the receivables, as well as its own series-specific costs. In a multi-class series, finance charge collections generally are used to pay interest due on a senior interest in full before any finance charge collections are used to pay interest on more junior interests. If the finance charge collections allocated to a series (together with any excess shared from other series) are not sufficient to cover the series' monthly costs, then any credit enhancements available to the series will be drawn upon (in a specified order) to cover the shortfall. Many trusts permit the transfer of receivables to the trust at a discount, which increases the securitized portfolio's yield by including principal collections as finance charge collections. If the credit enhancement to be drawn upon is subordination, this will mean using principal collections (or principal balances) to cover the shortfall.

Chargeoffs are loans written off as uncollectible. Chargeoffs occur either through contractual provisions or bankruptcy of the cardholder. Principal receivables that have been charged off as uncollectible are generally deemed to have an outstanding balance of zero, for purposes of measuring the amount of principal receivables in a securitized pool. Consequently, credit losses have the effect of reducing the aggregate outstanding amount of principal receivables in a pool. To the extent a trust enjoys sufficient excess spread to cover that write down of receivables, then the loss effectively is absorbed by the seller. To the extent there is insufficient cash-flow via excess spread, then investors are expected to absorb the cost of the write down with an expectation that the most subordinated security absorbs the write down of principal as an "investor charge off" first, when the most subordinated is fully written off, the next most subordinated class absorbs the losses, and so on.

Fixed allocation of finance charges permits a larger percentage of finance charge collections to be allocated to investors after an amortization event, when cash is needed most. After an event is triggered, a portion of the Seller's share of finance charge collections will be made available to cover shortfalls in interest or servicing expenses (or chargeoffs) in the Investors' share. In transactions without this feature, Investors receive their *pro rata* share of finance charge collections throughout the payout period.

c. RMBS⁸⁶

RMBS are bonds backed by a pool of mortgage loans secured by residential properties. Eligible property types usually include single-family dwellings, one-to-four family dwellings,

⁸⁶ See also Section IV.A.1.a., *supra*, for a discussion of the financial structure of the securitization of RMBS.

condominiums or cooperative apartments, and planned unit developments. Manufactured housing units (mobile homes) generally are securitized separately, and multi-unit dwellings such as apartment buildings are generally securitized in the CMBS market. The premise of undertaking a securitization transaction is that, by isolating the financial assets represented by residential mortgage loans and pooling them, RMBS can be created (1) for which economic performance can be predicted using statistical models, (2) for which economic returns can be designed to meet Investor demands, and (3) the sale of which can be used to free up capital to reinvest in additional mortgage loans. RMBS are sold to Investors in different tranches, or risk levels, which allows for tailored risk exposures and expected returns to meet Investor requirements.

There are several agencies of the United States government and GSEs that are involved in the secondary market for residential mortgages in the United States. The most prominent of these entities are Ginnie Mae, Fannie Mae, and Freddie Mac. Fannie Mae and Freddie Mac purchase whole loans from various Originators, and may securitize these in pools, issuing RMBS. Ginnie Mae does not purchase mortgage loans; rather it issues a guarantee of RMBS created by an Issuer pooling mortgage loans. All of these entities operate under strict, published criteria, and often have standardized reporting covenants, representations and warranties, and offering materials. There is no negotiation of the terms for each transaction, other than the purely economic terms, which expedites the arrangement and completion of transactions. Since the credit crisis, the overwhelming majority of residential mortgage loan securitizations have been undertaken by one or more of these GSEs.

For an RMBS Investor, the key benefit of GSE transactions is that the RMBS is either a direct obligation of the United States (in the case of the Ginnie Mae guarantee) or benefits from the implied support of the U.S. government, because both Fannie Mae and Freddie Mac are currently in conservatorship and thus benefit from the support of the U.S. Treasury. Before the crisis, Investors assumed that the U.S. government would rescue any GSE that became insolvent in order to protect the residential real estate market and the credit of the U.S. economy abroad, and priced these securities accordingly. In the event, Investors were correct.

Private-label RMBS are formed by the pooling of mortgage loans sourced by the Sponsor of the transaction either from its own operations or from third-party Originators. Originators for residential mortgage loans can include banks, credit unions, and private mortgage loan companies. The Sponsor of an RMBS securitization will arrange for the purchase the mortgage loans from these underlying Originators, if it does not have its own source of residential mortgage loans. The bankers structuring the transaction will work with the Sponsor to create an optimal pool of mortgage loans having the characteristics desired by the anticipated Investors. RMBS characteristics include, for example, different ratings, different interest rate calculations and bases, and different principal repayment rights such as IO, PO, or zero-coupon bonds (such as Z-bonds). The remainder of this section describes private-label securitizations, but most of the steps and processes have a direct analog in GSE transactions, after which the first private-label securitizations were modeled.

(1) The participants in an RMBS transaction

In a typical two-tier RMBS structure, the true sale by which the securitized assets are isolated is generally effected when the Originator or Seller of the mortgage loans transfers them to a Depositor, who then transfers the mortgage loans to the Issuer—often a Trustee on behalf of a trust as Issuer—in exchange for the RMBS. The first sale to the Depositor is the true sale and the second transfer allows for the creation of over-collateralization in the structure and facilitates the sale of the RMBS to Investors. The Depositor sells the RMBS to the Underwriters, who in turn sell the RMBS to Investors in the market. In some structures, such as Covered Bonds, the Originator sells the mortgage loans directly to the Issuer in a manner intended to meet the requirements of a statutory regime that provides for legal isolation.

The Seller will retain some risk in the RMBS transaction through representations and warranties regarding the mortgage loans, for example, that the mortgages were underwritten in accordance with law and are legally enforceable, and that the mortgaged properties are in good condition. If there is a material breach of these representations and warranties as they pertain to a particular mortgage loan, the Seller must repurchase or replace that loan. Loan Sellers will usually seek to minimize their exposure to this risk by having the underlying Originators adopt the various representations and warranties at the time of securitization by means of an “Assignment, Assumption and Recognition Agreement” that essentially creates contractual privity between the securitization transaction parties and the Originator with respect to representations and warranties.

Once a transaction has closed, the Master Servicer, each loan-level Servicer, the Trustee, and a Securities Administrator—which often is the Master Servicer or the Trustee—work together to manage and administer the transaction. The Servicers perform a number of tasks, most notably: collecting payments from the underlying mortgagors; managing requests from the underlying mortgagors for such items as payoffs and loan modifications; enforcing the mortgage loan documents; foreclosing on or selling the mortgaged property in the event of an uncured default by the mortgagor; making advances for missed monthly mortgage, tax, or insurance payments that are not covered by escrows; and covering other expenses specified in the mortgage loan documents. Where there is more than one Servicer, a Master Servicer is used to aggregate the reporting obligations of the loan-level Servicers and to back up the Servicers’ responsibilities relating to advances. All actions of the Servicers and the Master Servicer must be in accordance with the specified servicing standard, which generally requires compliance with applicable laws, the terms of the RMBS transaction documents, and the terms of the mortgage loan documents.⁸⁷

Commonly, a Trustee holds title to the assets of the RMBS trust for the benefit of the RMBS Investors and has various administrative responsibilities with respect to the transaction, including: holding funds for the benefit of the Investors; distributing funds to the Investors; Investor reporting; maintaining information regarding the Investors; and serving as the custodian of the original mortgage loan documents.⁸⁸ Some of these administrative duties may be

⁸⁷ See Section VI.B., *infra*, for a discussion of the role of Servicers.

⁸⁸ See Section VI.A., *infra*, for a discussion of the role of the Trustee.

performed by a Securities Administrator appointed for this purpose, or by the Trustee acting as the Securities Administrator.

Investors who invest in at least investment grade RMBS typically do not perform their own due diligence on the underlying mortgage loans. Instead, these Investors rely on the transaction offering documents—which usually include a summary of pre-securitization due diligence performed by third parties retained by the Sponsor—to guide their investment decisions, along with the inherent diversity of the pool of mortgage loans to limit losses. Unlike CMBS transactions described elsewhere, RMBS transactions can involve hundreds or even thousands of individual mortgage loans. Consequently, the economic performance of each loan is unlikely to have a material impact on the overall transaction unless, as was seen in the credit crisis, many mortgagors are facing similar adverse circumstances. Typical investment-grade investing Investors include mutual funds, commercial banks, pension funds, life insurance companies, and real estate investment companies.

RMBS transactions typically are rated by one or more NRSROs, which evaluate the transactions, issue the ratings, and monitor the transactions for their duration. In the event of certain modifications or amendments to the RMBS transaction documents, the transaction parties may request that the Rating Agencies issue Rating Agency confirmations.⁸⁹

(2) RMBS characteristics

Most RMBS transactions are Sequential Pay transactions. This means that all of the funds from the underlying mortgage loans are paid to the most senior bond holders first and to the most junior Investors last. Conversely, losses are allocated first to the lowest-ranked bonds and then sequentially up to the most senior classes.

The overwhelming majority of private-label RMBS transactions use a REMIC structure, which allows for pass-through tax treatment, meaning that the REMIC is not taxed at the entity level. Instead, the income earned by the Investors is taxable. REMIC status requirements dictate various limits on the structure and the collateral supporting RMBS transactions, and any modification with respect to the underlying mortgage loans must be carefully analyzed to ensure compliance with REMIC requirements.⁹⁰

Securities laws in the U.S. require that public offerings of RMBS be registered with the SEC.⁹¹ This means that the Issuer must file a registration statement that includes the offering document. The Issuer for each RMBS transaction must file a preliminary offering document and a final offering document that includes the required disclosure information regarding the specific mortgage loans included in that transaction and the structure of the RMBS to be issued.

⁸⁹ See Section II.E., *supra*, for a discussion of the role of the Rating Agencies.

⁹⁰ See Section II.C.3.b., *supra*, for a discussion of different tax structures and requirements.

⁹¹ See Section II.F., *supra*, for a discussion of securities offering requirements.

Private transactions that are exempt from the SEC's registration requirements are offered via a private offering document, which includes some of the information included in a public offering document but is not subject to the same requirements. Private RMBS are generally only offered to sophisticated Investors, usually qualified institutional buyers (in Rule 144A re-sales) and accredited Investors purchasing under Regulation D.

Most RMBS transactions include investment grade securities and non-investment grade securities. In connection with a public offering, the non-investment grade RMBS are usually offered privately.

Various regulatory developments stemming from the Dodd-Frank Act⁹² affect the RMBS market in the United States. The SEC's Asset-Backed Securities Disclosure and Registration Rules (Reg AB II)⁹³ created several new disclosure requirements and various new registration requirements for shelf-eligibility in response to the crisis. Although it will provide more clarity to Investors, Reg AB II is expected to increase the cost to Issuers and Sponsors as the framework for providing the required disclosures is put into place.⁹⁴

In addition, Credit Risk Retention Rules⁹⁵ that became effective recently pursuant to Section 941(b) of the Dodd-Frank Act require RMBS securitizers to retain an interest in each transaction.⁹⁶ The multi-agency task force⁹⁷ that adopted the Rules noted that the Sponsor of a securitization typically has an active and direct role in arranging the securitization and selecting the assets to be securitized, and that this role best situates the Sponsor to monitor and control the credit quality of the securitized assets. The task force therefore viewed the Sponsor as an appropriate party to retain the required amount of credit risk. With respect to RMBS, this obligation is satisfied if the Sponsor retains the most subordinate 5% of the RMBS, or 5% of each class of the RMBS issued in the transaction, for at least five years. Depending on the types and quality of the mortgages securitized in the transaction, these risk retention requirements may be lessened or avoided entirely. This can be achieved by pooling mortgages that meet the criteria for QRMs established by the task force as part of the Credit Risk Retention Rules, and the closely aligned criteria for Qualified Mortgages (QM)⁹⁸ established by the CFPB.

⁹² See 12 U.S.C. §§ 5301 to 5641.

⁹³ See 79 Fed. Reg. 57,184 (Sept. 24, 2014).

⁹⁴ See Section II.F.4., *supra*, for a discussion of Reg. AB.

⁹⁵ See 79 Fed. Reg. 77,602 (Dec. 24, 2014).

⁹⁶ See Section VIII.C.4., *infra*, for a discussion of risk retention.

⁹⁷ The six federal agencies that comprised the task force were the Federal Reserve Board, the Department of Housing and Urban Development, the Federal Deposit Insurance Corporation, the Federal Housing Finance Agency, the Office of the Comptroller of the Currency, and the SEC.

⁹⁸ See 12 C.F.R. § 1026.

d. CMBS⁹⁹

CMBS are bonds backed by a mortgage loan or a pool of mortgage loans secured by commercial real estate, including commercial, multifamily, hospitality, and manufactured housing community properties. Like RMBS, CMBS are sold to Investors in different tranches, or risk levels, to allow for tailored risk exposures and expected returns to meet investor requirements. CMBS transactions are also generally characterized by standardized investor reporting and B-Piece Buyers that invest in the first-loss piece of CMBS transactions.

Although CMBS issuance in the U.S. dropped dramatically during the credit crisis (totaling almost \$230.5 billion in 2007 but just over \$2.8 billion in 2009), the market for CMBS has returned in the U.S., with issuance totaling almost \$89.9 billion in 2014 and more than \$100 billion in 2015.

(1) Types of CMBS

Most CMBS issued in the United States fall into one of the following categories: single-asset, conduit, or fusion.

Single-asset CMBS transactions consist of one large mortgage loan made to a single Borrower and secured by one property or portfolio of properties, and typically include only investment grade bonds. These transactions are not as common as conduit CMBS transactions due to the lack of diversity in the asset pool and the related distinct event risk to Investors. As such, many of the large loans that would typically back a single-asset CMBS transaction are split into multiple *pari passu* notes that are sold into different conduit transactions. Single-asset CMBS transactions do not normally have B-Piece Buyers.

Conduit CMBS transactions consist of multiple, smaller, fixed-rate loans. Fusion CMBS transactions are conduit transactions that include some larger loans that could have a significant impact on the payments on the underlying CMBS. Conduit CMBS transactions generally include mortgage loans secured by various types of properties in several different geographic locations. The most common property types are retail, office, multifamily, and hospitality.

Conduit and fusion mortgage loans typically are non-recourse, fixed-rate loans that normally require yield maintenance penalties or defeasance in order to protect against prepayment risk. There are three primary measurements used to evaluate the credit risk of CMBS mortgage loans: (1) debt yield (*i.e.*, the ratio of net operating income or net cashflow of the property to the loan amount), which indicates the return a lender may receive if it forecloses on the property; (2) debt service coverage ratio (*i.e.*, the ratio of the net cashflow of the property to the principal and interest payments required under the mortgage loan), which indicates whether there is a sufficient cushion to cover any unforeseen changes in the performance or income at the property; and (3) loan-to-value ratio (*i.e.*, the ratio of the outstanding principal balance to

⁹⁹ See Section IV.A.1.b., *supra*, for a discussion of the CMBS waterfall.

the value of the mortgaged property), which indicates the ability of the mortgaged property to cover any fluctuations in value and support payoff of the related mortgage loan at maturity.

Most CMBS transactions are sequential pay transactions, meaning that all of the funds from the underlying mortgage loans are paid to the most senior bond holders first and to the B-Piece Buyers last. Accordingly, losses are allocated first to the B-Piece and then sequentially up to the most senior classes.

B-Piece Buyers invest in the first loss position in conduit and fusion CMBS transactions, and are generally the “controlling class” certificate holders, which allows B-Piece Buyers to have increased control over the servicing of non-performing loans and access to more information than Investors in other classes.

B-piece Buyers are heavily focused on the underlying real estate. Accordingly, as part of the diligence process in CMBS transactions, B-Piece Buyers re-underwrite the mortgage loans and may remove certain mortgage loans from a pool. Since B-Piece Buyers constitute the controlling class certificate holders at the outset of the transaction, they have the right to appoint and direct the Special Servicer (subject to a servicing standard) and to consent to modifications and amendments with respect to the mortgage loans in the transaction.

Investor review with respect to the larger loans in any conduit or fusion pool is very important. However, investment grade Investors in CMBS transactions do not typically conduct due diligence of the underlying mortgage loans in the transaction. Rather, these Investors rely on the transaction offering documents to make their investment decisions. Typical investment grade Investors include mutual funds, commercial banks, pension funds, life insurance companies, and real estate investment companies.

As in the case of RMBS transactions, the overwhelming majority of CMBS transactions use a REMIC structure that allows for pass-through tax treatment, meaning that the REMIC is not taxed at the corporate level. Instead, the income earned by the Investors is taxable. REMIC status requirements dictate various limits on the structure and the collateral supporting CMBS transactions, and any modification with respect to the underlying mortgage loans must be carefully analyzed to ensure compliance with REMIC requirements.¹⁰⁰

(2) Transaction parties

Conduit CMBS lenders typically work with commercial mortgage brokers on behalf of the related mortgage loan Borrower to originate commercial mortgage loans. Once a lender has aggregated enough loans, it will pool the loans for sale to a CMBS Depositor. The Depositor in a conduit CMBS transaction is an entity established by the lead loan Seller to purchase the mortgage loans from the loan Sellers and then to transfer all of the assets to the Trustee on behalf of the trust. The trust issues pass-through certificates to the Depositor in exchange for the

¹⁰⁰ See Section II.C.3.b.(2), *supra*, for a discussion of related tax concerns.

mortgage loans, which the Depositor then sells to the Underwriters, who in turn sell the certificates to Investors in the market.

Loan Sellers retain some risk in CMBS transactions in the form of customary representations and warranties that relate to the credit quality of a particular mortgage loan. To the extent that there is a material breach of these representations and warranties, the loan Seller must repurchase or replace the related mortgage loan.

Once a transaction has closed, the Master Servicer, Special Servicer, Trustee, Operating Advisor, and Asset Representations Reviewer work together to manage and administer the transaction. The Master Servicer collects payments from the underlying Borrowers, performs inspections of the mortgaged properties, generates various reports, and may work with the Special Servicer regarding requests from the underlying Borrowers for certain modifications, waivers, or amendments. The Master Servicer is responsible for making advances for missed principal and interest, tax, or insurance payments that are not covered by escrows and for covering other specified expenses, unless it determines that such advances will not be recoverable. The Master Servicer must deliver the funds it receives on the underlying mortgage loans to the appropriate account for payment to the certificate holders. All actions of the Master Servicer must be in accordance with the specified servicing standard, which generally requires compliance with applicable laws, the terms of the CMBS transaction documents, the mortgage loan documents, and any inter-creditor agreements.

The Trustee holds title to the assets of the CMBS trust for the benefit of the certificate holders and has various administrative responsibilities with respect to the transaction. The Trustee is responsible for backup advancing (in the event the Master Servicer fails to make a required advance), and often acts as the document custodian with respect to the mortgage files. Administrative duties of the Trustee include holding funds for the benefit of the certificate holders, making distributions to the certificate holders, investor reporting, and maintaining information with respect to the certificate holders. These duties are sometimes performed by another party appointed for this purpose called the Certificate Administrator.

The Special Servicer administers mortgage loans that are experiencing distress. The CMBS transaction documents specify the trigger events that require transfer to special servicing, and upon the occurrence of a trigger event, the Master Servicer will transfer servicing to the Special Servicer. The Special Servicer works closely with the controlling class representative (the B-piece Buyer, unless that class has been wiped out by mortgage loan defaults, in which case, the controlling class will then be the holder of the next subordinate class of CMBS) regarding decisions with respect to mortgage loan modifications and workouts.

The Operating Advisor is responsible for Special Servicer oversight, especially after the controlling class certificate holder's interest in the transaction decreases to a specified level. The Operating Advisor must monitor the Special Servicer's performance and provide an annual report regarding its findings. The CMBS transaction documents also provide that the Special Servicer must consult with the Operating Advisor with respect to certain servicing decisions.

The Asset Representations Reviewer conducts reviews of the delinquent assets in the pool for compliance with representations and warranties if delinquencies exceed a certain threshold and the requisite number of Investors vote to conduct the review. The Asset Representations Reviewer is an independent entity that cannot be: (a) the Sponsor, Depositor, Servicer, Trustee, or any of their respective affiliates; (b) the party that determines whether noncompliance constitutes a breach; or (c) the party or parties hired by the Sponsor or Underwriter to perform pre-closing due diligence on the pool assets, or the affiliates of that party.¹⁰¹

CMBS transactions are typically rated by multiple Rating Agencies,¹⁰² which evaluate the transactions, issue the initial ratings, and also monitor the transactions throughout their duration. In the event of certain modifications or amendments to the CMBS transaction documents, mortgage loan documents, or the mortgaged properties themselves, the transaction parties may request that the Rating Agencies issue Rating Agency confirmations.

(3) Registration requirements

Securities laws in the United States require that public offerings of CMBS be registered with the SEC. This means that the Issuer must file a registration statement that includes the offering document. The Issuer for each CMBS transaction must file a preliminary offering document and a final offering document that includes the required disclosure information regarding the specific mortgage loans included in that transaction and the structure of the CMBS to be issued. Private transactions that are exempt from the SEC's registration requirements are offered via a private offering document, which includes some of the information included in a public offering document but is not subject to the same requirements. Private CMBS are generally offered only to sophisticated Investors, for example, Qualified Institutional Buyers in Rule 144A transactions. Most CMBS transactions include investment grade bonds that are offered publicly and non-investment grade securities that are offered privately.¹⁰³

(4) Regulatory developments

Various regulatory developments stemming from the Dodd-Frank Act affect the CMBS market in the United States. In particular, the SEC's Reg AB II created several new disclosure requirements and various new registration requirements for shelf-eligibility. Although it will provide more clarity to Investors, Reg AB II is expected to increase the cost to Issuers and sponsors as the framework for providing the required disclosures is put into place.

In addition, the Credit Risk Retention Rules¹⁰⁴ require that, beginning in December of 2016, CMBS Sponsors must retain an interest in each CMBS transaction. This obligation can be satisfied by selling the most subordinate 5% of the transaction to a B-Piece Buyer, which must

¹⁰¹ Regulation AB, 17 C.F.R. § 229.1101(m) (2016).

¹⁰² See Section II.E., *supra*, for a discussion of the Rating Agencies.

¹⁰³ See Section II.F., *supra*, for a discussion of the offering process.

¹⁰⁴ See Section VII.C.4., *infra*, for a discussion of the Credit Risk Retention Rule.

hold such interest for at least five years, or by the Sponsor holding a 5% vertical or horizontal slice of the entire CMBS transaction. While the B-Piece structure is not new to CMBS transactions, most B-Piece Buyers do not currently purchase 5% of the transaction.

Furthermore, many single asset transactions consist only of investment grade certificates and do not have a B-Piece Buyer. For those transactions, risk retention will need to be satisfied in a way other than the B-Piece Option. Lastly, the requirement that this interest be held for five years may increase the cost of the securitization for the Sponsors, since the retention holder will likely need to be compensated for this obligation.

e. ABCP

An ABCP Conduit is structured to be a bankruptcy-remote SPE that issues commercial paper and uses the proceeds to purchase interests in various types of assets. ABCP are generally short-term obligations. The sole purpose of an ABCP Conduit is to purchase and hold financial assets, usually in order to provide financing to the Sponsor's customers. However, as a general matter, any asset that can be funded in the term or bank financing market also can be funded via an ABCP Conduit (depending, of course, on Investors' appetite). Bankruptcy remoteness is accomplished by limiting the scope of the conduit's business activities, restricting the liabilities that the conduit may incur, and requiring nonpetition and payment limitation clauses in the agreements executed by the key parties to the program. The ABCP program documents govern the relationships among the various service providers for the conduit, which often include an administrator, placement agents, liquidity providers, and collateral trustees.

The most common type of ABCP Conduit is a multi-seller program, in which a conduit purchases assets from various entities, generally customers of the sponsoring bank. Some common assets financed through ABCP Conduits include trade receivables, consumer debt receivables, auto and equipment loans and leases, and collateralized debt obligations. These financings may take the form of a traditional asset purchase or a secured loan. Often, ABCP transactions represent the acquisition of undivided interests in revolving pools of assets, as opposed to individual asset purchases.

Single-seller ABCP programs involve a conduit that issues commercial paper backed by assets from only one Originator, which frequently also sponsors the conduit. The majority of single-seller ABCP Conduits mainly fund credit-card receivables, mortgages, MBS, or auto loans.

The sponsoring bank typically is a major commercial bank that provides the ABCP Conduit with a committed liquidity line, manages its daily operations, and sometimes also provides the conduit with program-wide credit enhancement, often through a letter of credit. Program-wide credit enhancement may exist in many different forms. If losses exceed the amount of transaction-specific and program-wide credit enhancement, the ABCP Conduit may be unable to repay maturing ABCP notes in full, though no multi-seller program has ever failed to pay commercial paper notes issued to fund it.

ABCP Conduits also are structured with liquidity facilities to ensure the timely repayment of the ABCP notes for reasons not associated with the credit risks of the conduit's asset portfolio. Liquidity facilities also are intended to be available to fund a tranche of maturing ABCP notes when an ABCP Conduit is unable to issue the new ABCP notes to repay such maturing ABCP notes.

An ABCP Conduit issues short-term ABCP to finance its purchases of assets on either an interest-bearing or, more commonly, discount basis. The maturities of ABCP range up to 270 days, but average about 30 days in duration. The maturity of assets in ABCP Conduits generally is longer than the maturity of the liabilities. ABCP Conduit programs regularly roll over their liabilities and use proceeds from new issuances, combined with yield from the Conduit's investments, to pay off maturing commercial paper.

The final repayment of ABCP issued by a conduit depends primarily on the collections received from the Conduit's assets. The main risks faced by ABCP Investors are deterioration in the credit quality of the assets of the conduit, potential timing mismatches between the cashflows of the asset interests and the repayment obligations of maturing ABCP, a conduit's inability to issue new ABCP, and insolvency risks. To protect Investors from these risks, ABCP programs and the asset interests financed through them are structured to include various mitigating elements, such as credit enhancement, liquidity support, and ABCP issuance tests.

The ABCP Conduit finances the assets by selling ABCP to Investors such as money market funds and other similar Investors. Typically, ABCP is exempt from the registration requirements of the Securities Act of 1933. The exemption is often under Section 4(2) of the Act, which applies to ABCP that does not involve a public offering and is generally sold only to accredited investors.¹⁰⁵

f. CLOs

CLOs are structured finance transactions backed by an asset pool comprised primarily of leveraged loans. Like other ABS, CLO securities are sold to Investors in different tranches, or risk levels. The CLO market can be divided into balance-sheet CLOs and open-market CLOs. Balance-sheet CLOs are akin to a traditional ABS. They are designed by the Originator or owner of a pool of leveraged loans, which sells or transfers that pool to an SPE that in turn issues securities to Investors. By contrast, open-market CLOs are organized principally by Asset Managers that use these CLOs to invest in and actively manage pools of leveraged loans. This summary focuses on open-market CLOs, which dominate the CLO market.

Open-market CLOs differ from traditional ABS in a number of significant ways. The leveraged loans that comprise open-market CLOs are generally purchased at the direction of the organizing Asset Manager from syndicate banks and/or on the secondary market. While such purchases are directed by the Asset Managers, the Asset Managers are neither the owners nor the Originators of the loans acquired by the CLOs. This differs from traditional ABS, which are

¹⁰⁵ See Section II.F., *supra*, for a discussion of the offering process.

organized by loan Originators or owners. Open-market CLOs also differ from traditional ABS in that they are actively managed by investment advisers who are regulated under the Investment Advisers Act of 1940 and have fiduciary duties to the CLO and to the purchasers of CLO securities. Typically, the Asset Manager of an open-market CLO actively manages the CLO's asset pool by selling and buying portions of loans for three to four years following an initial ramp-up period. Thereafter, the Asset Manager engages in only limited trading (generally to dispose of impaired or defaulted loans) while the asset pool self-liquidates. By contrast, the asset pool of traditional ABS (other than revolving obligations such as trade receivables, credit card accounts, or auto dealer accounts) is typically a static, self-liquidating pool of assets. Finally, open-market CLOs are privately placed and their Investors are limited to institutions and very high net worth individuals.

Open-market CLOs are developed in stages. First, Investors negotiate with the CLO's Asset Manager to establish the investment parameters that bind the CLO and the Asset Manager. Next, the Asset Manager directs the CLO's purchase of portions of leveraged loans from syndicate banks or on the secondary market. The CLO initially funds the purchase of its asset pool through a warehouse facility. Once a critical mass of assets has been purchased, the CLO issues tranches of debt and equity securities to Investors to pay down the warehouse facility and fund the purchase of the remainder of its assets. Thereafter, the Asset Manager operates the CLO and manages its pool of leveraged loans. Typically, portions of 100-150 loans compose the CLO's assets, often worth approximately \$500 million. The CLO's assets pay interest and principal, which are used by the CLO to make distributions to Investors pursuant to a pre-established Waterfall.

In a typical open-market CLO, the notes with the highest distribution priority are usually assigned the highest investment grade rating. Tranches of securities with progressively subordinate claims on the CLO's asset pool have correspondingly greater credit risk and pay a higher coupon. The most subordinated class of CLO securities—the equity—has no defined entitlement to any particular payment. Instead, holders of the CLO equity receive any residual payments available during a payment period after the more senior tranches have received all payments due to them.

A significant portion of the compensation paid to Asset Managers of open-market CLOs is based on the performance of the asset pool. The Asset Manager's fee typically includes three components: a senior management fee, a subordinated management fee, and an incentive management fee. The subordinated management fee—which serves as the Asset Manager's principal periodic payment—is payable only after all of the holders of the CLO debt receive the payments due to them. The incentive management fee—which constitutes a significant portion of the Asset Manager's compensation—is only paid when and if the holders of the CLO equity achieve a pre-established total return.

During a given payment period, the CLO distributes interest and principal payments received from its asset pool to Investors as follows: first to holders of the most senior class of CLO notes (to the level of their entitlement) followed by holders of each class of CLO notes with

lower priority. Equity note holders receive payments only after and if the holders of other CLO notes have been paid.

Credit enhancement for open market CLOs typically consists of over-collateralization (*i.e.*, the excess of the aggregate principal balance of the leveraged loans over the aggregate principal balance of the CLO notes) and subordination (*i.e.*, the relative priority of one or more classes of CLO notes over one or more other classes of CLO notes, such that the more junior classes of CLO securities absorb losses prior to the more senior classes absorbing losses).

g. Unsecured loans

Marketplace lending arrangements involving unsecured consumer loans is a rapidly growing market. Marketplace lending's reliance on non-deposit funds for lending capital is driving increasing securitization volume. According to the Kroll Bond Rating Agency, U.S. online marketplace lending has doubled each year since 2010 to approximately \$12 billion in 2014. Products funded through online marketplaces include student loans, small business loans, real estate loans, and consumer loans. However, it should be made abundantly clear, that while marketplace lending may be relatively new as an origination platform, all the asset classes originated under that channel—including unsecured consumer loans—are by no means “new” and have all been securitized in tens, if not hundreds, of billions of U.S. dollars.

A recent court decision has created some uncertainty around the ability of secondary market participants to acquire marketplace loans and collect those loans according to the terms set forth in the agreement between the Borrower and the lender. This has created additional scrutiny around the marketplace lending industry. In May 2015, the U.S. Court of Appeals for the Second Circuit (whose jurisdiction extends to New York, Connecticut, and Vermont) ruled in *Madden v. Midland Funding*¹⁰⁶ that a debt collector purchasing charged-off credit card loans cannot rely on the federal preemption of state law available under the National Bank Act (NBA), which permits national banks to “export” the interest rate permitted by the state where the bank is located to Borrowers located in other states. Until this ruling, nearly every court considering this issue had held that a loan that was validly made could be enforced by a third party pursuant to the terms of the contract between the original lender and the Borrower. The “valid-when-made” doctrine generally protects lenders and subsequent purchasers from changes that may occur after the loan is originated (*e.g.*, the Borrower moves to a different state or state law is subsequently changed). If this holding is expanded to other types of loan purchasers, to other loan programs, or beyond the Second Circuit, it could lead to severe consequences in the marketplace lending industry. The Second Circuit has decided not to rehear the case. While the defendants have sought review of the case by the U.S. Supreme Court, the Court has not yet decided whether to hear this case.

V. PURCHASE AND SALE OF ABS

¹⁰⁶ 786 F.3d 246 (2d Cir. 2015).

This section discusses the primary and secondary markets for ABS, and the new issue process. The primary and secondary markets are symbiotic and, therefore, covered best in tandem. Thus, the discussion begins with a comparison of the two markets and then turns to new issue volume and spreads.

A. The Primary vs. Secondary Market

Broadly speaking, the market for ABS—which, for purposes of this section, are securities backed by non-mortgage assets such as credit cards, autos, and student loans—can be divided into the new issue market and the secondary market. The new issue market involves Issuers transferring new ABS to Investors via a syndication process. In effect, Issuers are borrowing money from the Investors in the market and Investors are lending to the Issuers. The secondary market involves Investors trading existing ABS among themselves, often through the secondary trading desk of a securities firm. The parties to, and the pricing and settlement mechanics of, the new issue and secondary markets are summarized in Figure 29 below.

Figure 29

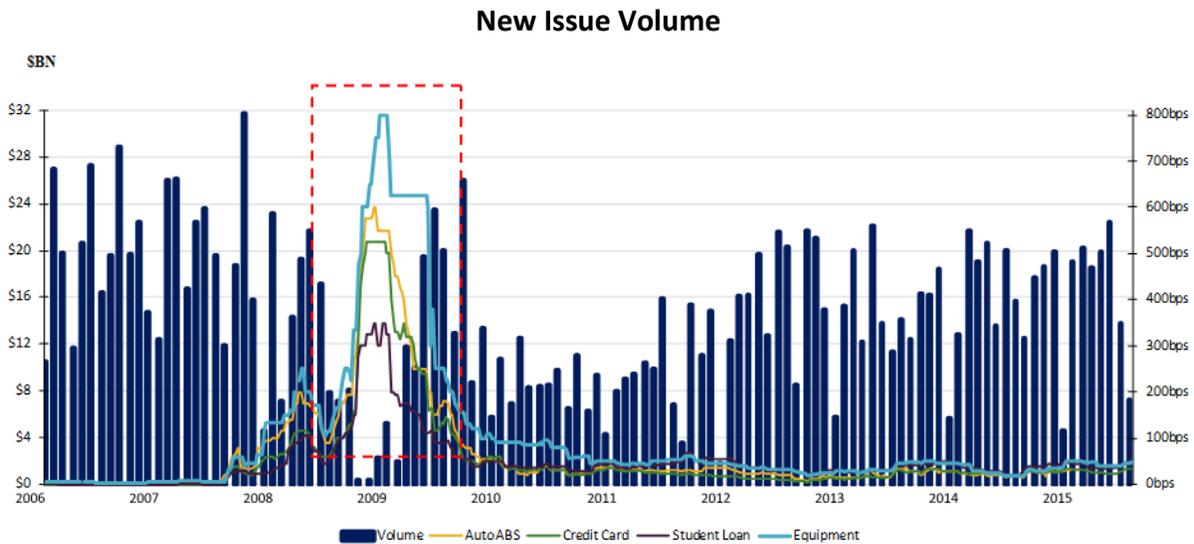
Primary vs. Secondary Market

	New Issue Market	Secondary Market
Securities	<ul style="list-style-type: none"> ▪ New issue securities 	<ul style="list-style-type: none"> ▪ Previously issued securities traded between investors
Pricing	<ul style="list-style-type: none"> ▪ Price set by issuer and investors via a syndicate desk <ul style="list-style-type: none"> ▪ Driven by spreads in the secondary market, structural features of the new issue and competing supply ▪ Generally priced at or just below PAR <ul style="list-style-type: none"> ▪ Pricing at a slight discount allows ABS to tighten without pricing at a premium 	<ul style="list-style-type: none"> ▪ Price set by the buying and selling investor through a bank trading desk or broker <ul style="list-style-type: none"> ▪ Driven by recent trading comps, performance history, collateral quality and transaction seasoning ▪ Price at a discount or premium depending upon credit spreads and interest rates
Settlement	<ul style="list-style-type: none"> ▪ Settled electronically via DTC 	<ul style="list-style-type: none"> ▪ Settled electronically via DTC

B. New Issue Volume And Spreads

The ABS market grew steadily from its inception in the late 1980s until the credit crisis. ABS benefited from strong credit performance, robust structures, and continuously growing Investor acceptance. The new issue ABS market peaked in terms of volume in 2007, with monthly issuance consistently approaching \$30 billion per month. As seen in Figure 30 below, the peak in volume coincided with historical compression in terms of credit spreads.

Figure 30¹⁰⁷



During the height of the crisis, spreads widened dramatically, and issuance volumes fell to near zero. Significantly, credit spreads gapped in sympathy with other markets at the time and, although spreads were dramatically wider, ABS was one of the few structured products that actually was trading. It should also be noted that the actual credit performance of ABS was strong during the crisis. If an Investor bought ABS at the start of the crisis and held it through the crisis, then they were generally paid all of their interest and principal on a timely basis. This outcome was driven by the alignment of interest between Issuers and Investors, which is discussed below.

Another driver of the decrease in issuance volume during the crisis—as depicted by the red-dashed box in Figure 30 above—was the fact that the Federal Reserve Bank of New York had announced the creation of the Term Asset-Backed Securities Loan Facility (TALF) program in late 2008, but did not announce the actual details of the program until early 2009. ABS Issuers stayed on the sidelines until the program details were announced (*i.e.*, government loans to eligible Investors to finance the purchase of new issue ABS, allowing the Investors to leverage their equity

¹⁰⁷ Yearly ABS Volume and Spreads 2006-2015. Source: BAML Research and SIFMA (Dec. 31, 2015).

and earn higher returns). However, once it was up and running, the TALF program played an enormous role in resuscitating the market.

Although new issue volumes have not returned to pre-crisis levels, the market is open and functioning, there are liquid, two-way secondary markets, and there is broad investor participation. The composition of assets securitized in the new issue ABS market has changed over the years. As reflected below in Figure 31, credit card ABS made up the largest portion of ABS issuance in 2007, at 34% of total volume. Auto ABS was the second largest asset class at 29%, and student loans came in a close third at 21% of total volume. In 2014, however, auto ABS made up 44% of total volume, while credit card ABS volume decreased to 24%. The ABS sector that saw the most dramatic transformation was student loans, going from 24% of total volume to only 6%. Over the past eight years, esoteric ABS and equipment ABS have seen an increase in deal volume, replacing some of the lost deal flow from credit cards and student loans.

Figure 31¹⁰⁸

New Issuance Volume By Asset Type

Sector (\$BN)	2007		2008		2009		2010		2011		2012		2013		2014		2015	
	Volume	Δ vs. '06	Volume	Δ vs. '07	Volume	Δ vs. '08	Volume	Δ vs. '09	Volume	Δ vs. '10	Volume	Δ vs. '11	Volume	Δ vs. '12	Volume	Δ vs. '13	Volume	Δ vs. '14
Automobiles	\$83.58	-9%	\$71.15	-15%	\$64.38	-10%	\$58.19	-10%	\$66.02	13%	\$88.04	33%	\$88.49	1%	\$94.90	7%	\$97.89	3%
Credit Cards	\$99.03	53%	\$117.04	18%	\$46.09	-61%	\$6.12	-87%	\$12.28	101%	\$30.06	145%	\$33.26	11%	\$51.96	56%	\$23.90	-54%
Equipment	\$14.19	-2%	\$6.14	-57%	\$8.89	45%	\$8.39	-6%	\$11.27	34%	\$20.13	79%	\$18.67	-7%	\$17.58	-6%	\$16.19	-8%
Student Loans	\$62.07	-9%	\$56.70	-9%	\$20.66	-64%	\$15.45	-25%	\$13.96	-10%	\$25.34	81%	\$17.85	-30%	\$14.10	-21%	\$13.58	-4%
Housing-Related	\$0.00	N/A	\$0.00	N/A	\$2.68	N/A	\$1.84	-31%	\$1.95	6%	\$2.04	5%	\$6.84	236%	\$17.39	154%	\$18.29	5%
Other	\$31.06	19%	\$15.60	-50%	\$9.03	-42%	\$14.56	61%	\$12.55	-14%	\$22.92	83%	\$19.24	-16%	\$21.16	10%	\$23.72	12%
Total	\$289.9	9%	\$266.63	-8%	\$151.74	-43%	\$104.56	-31%	\$118.03	13%	\$188.53	60%	\$184.36	-2%	\$217.09	18%	\$193.59	-11%

The following are the major asset classes that are securitized in the U.S.

- Auto Loans:** Auto loans are the staple of the ABS market. Auto ABS provides matched funding for the assets, and, for most auto ABS Issuers, provides the lowest cost of funds. The increases and decreases in auto ABS issuance are largely driven by changes in auto sales. The largest Issuers of auto ABS recently include Ford, Ally, Santander, Nissan, and GM.
- Credit Cards:** The key driver of the drop in issuance of credit card ABS is the change in accounting treatment for credit card master trusts, which are the Issuers for credit card

¹⁰⁸ Source: BAML/SIFMA. Yearly Issuance Volume and YoY Change (2007-15).

ABS. Credit card ABS was much more attractive to banks when the master trusts were off-balance-sheet for both GAAP and regulatory capital purposes. After 2010, credit card master trusts were consolidated for GAAP and regulatory capital purposes, making ABS much less attractive, because ABS cost of funds—although very low—are significantly greater than the cost of retail deposits. Consolidation also meant that there was no risk-based capital relief for such transactions. Most banks now use credit card ABS opportunistically to diversify funding sources and to help meet certain regulatory requirements for funding. Some of the largest recent Issuers of credit card ABS include Chase, Capital One, Synchrony, Discover, and Bank of America.

- **Student Loans:** This market is comprised primarily of securitized government-guaranteed FFELP collateral, despite the fact that the FFELP program ended in 2010.¹⁰⁹ The private-credit student loan ABS market is growing, with a number of new Issuers focusing on loans to graduates to refinance their existing loans. The recent largest Issuers of student loan ABS include Navient, Nelnet, Sallie Mae, Social Professional Loan, and PHEAA.
- **Equipment ABS:** Equipment ABS consistently accounts for about 10% of the new issue market, and encompasses a wide variety of financed equipment, including farm and construction equipment, small ticket office equipment, and large ticket machinery. Among the largest Issuers of equipment ABS recently are CNH, Deere, GE, Dell, and Mass Mutual.
- **Alternative ABS:** The ABS market also includes a broad variety of esoteric assets, highlighting securitization's versatility and evolution. This space encompasses securitization of assets such as shipping containers, film libraries, aircraft fleet leases, whole-business securitizations, timeshares, solar energy obligations, marketplace lending loans, and cell towers. The attractiveness of alternative ABS has grown steadily since the crisis, as Investors continue to search for yield in this historically low interest rate environment. Recent large Issuers of alternative ABS include Textainer, GE Capital Aviation Services, Dunkin's Brands, Wendy's, and Marriott.

C. Secondary Trading

With the ABS market experiencing annual new issuance volume of approximately \$200 billion, secondary trading is an important function provided by Underwriters to create liquidity in this sizeable area of the capital markets. Indeed, an active secondary market is essential to a well-functioning primary market. This section discusses the correlation between secondary and primary spreads, factors that impact secondary supply and demand, secondary volume, and recent developments.

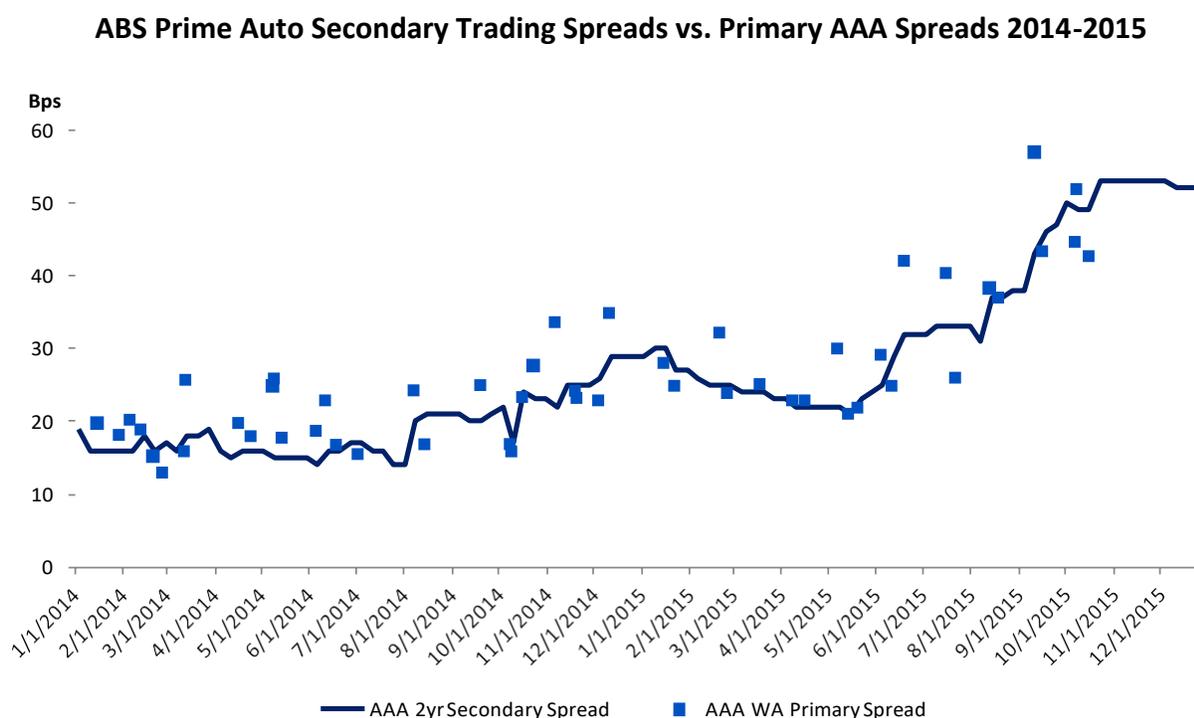
There is often a new issuance premium, *i.e.*, a new issue is priced at a wider spread than exists when outstanding deals are trading in the secondary market. A key driver of the new issue

¹⁰⁹ Federally-sponsored student lending is now funded on the balance sheet of the U.S. Department of Education.

premium is that the average secondary trade is \$5-\$10 million compared to a new ABS issuance of approximately \$700 million. Sourcing enough Investors to execute a larger new issuance requires a higher clearing spread than finding one Investor interested in a smaller block of ABS in the secondary market.

Primary and secondary ABS spreads tend to be positively correlated. On a basic level, both types of spreads follow the laws of supply and demand. Factors restricting supply or increasing demand will cause spreads to tighten, while any factors increasing supply or reducing demand will cause spreads to widen. In the event that spreads tighten in the primary market, a comparable bond in the secondary market will look cheap from a relative value perspective, and thus Investors will pounce—bidding up the price. Conversely, a weak primary market could cause secondary spreads for comparable bonds to grow wider. Wider or tighter secondary spreads can also be an indication of Investor demand for ABS and, therefore, can be an indication of where a new issue would price. Figure 32 below highlights this relationship.

Figure 32¹¹⁰



Factors that increase demand for or decrease supply of ABS, and thus generally lead to higher trading volumes and tightening spreads, include:

- Increases in investable cash due to inflows into fixed income funds based on market sentiment, Federal Reserve actions, etc.;

¹¹⁰ Includes retained subordinate classes. Source: BAML/Informa Global Markets; data as of December 2015.

- Increases in the number of Investors looking to participate in ABS or a specific sub-sector of ABS (*e.g.*, esoteric);
- Spread-tightening in other markets (*e.g.*, RMBS, CMBS, CMO, Corporate Bonds, etc.) that results in a favorable relative value (risk/return) profile for ABS; and
- Relative tightness of other corporate markets, in which Issuers can achieve favorable new issue execution and, therefore, avoid issuing in the ABS market.

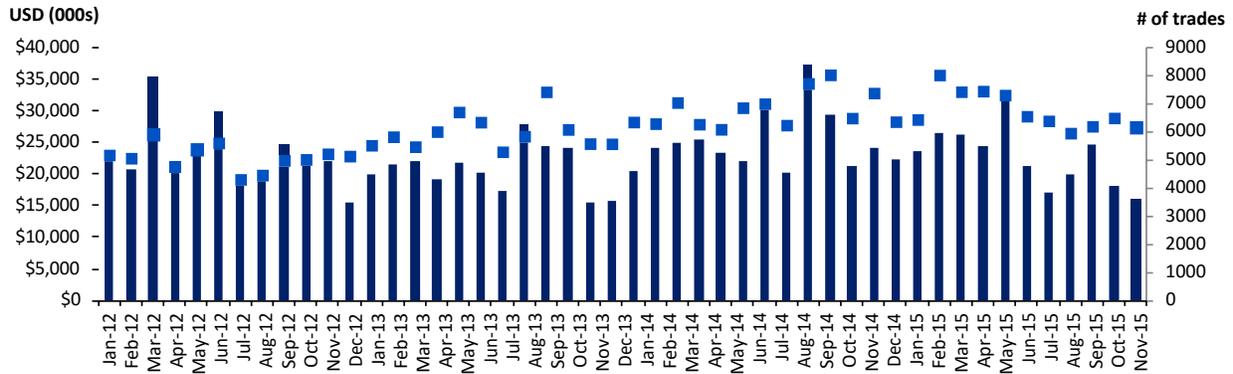
Factors that decrease demand for or increase supply of ABS, and thus lead to lower trading volumes and spread widening, include:

- Decreases in investible cash due to outflows from fixed income funds based on market sentiment, Federal Reserve actions, etc.;
- Decreases in the number of Investors looking to participate in ABS or specific sub-sectors of ABS, potentially resulting from unfavorable media or regulatory scrutiny in a particular sector, new regulations relating to capital treatment of ABS, Rating Agency actions, etc.;
- Spread-widening in other markets that results in an unfavorable relative value profile;
- Strong new issue volume that pushes primary ABS spreads wider as the market tries to absorb the supply and, consequently, secondary spreads widen.

Secondary spreads also tend to follow seasonal patterns. During the Summer and in December, trading volumes decline as fewer Investors are actively participating and buying both new issue and secondary bonds. The Spring and Fall tend to be active seasons in the primary and secondary ABS markets. Figure 33 below illustrates ABS secondary trading volume on a monthly basis.

Figure 33¹¹¹

Seasonal Fluctuations In ABS Secondary Trading Volume (\$BN)



Although secondary trading volume can vary sector to sector (as well as Issuer to Issuer), for prime auto ABS, secondary trading activity as a percentage of bonds outstanding tends to be in the 20%-30% range.

Figure 34 below shows six prime auto ABS platforms, the total ABS outstanding for that platform, and the secondary trading activity in each name. As the table indicates, ABS is a generally liquid asset class. Indeed, for the six prime auto loan Issuers, the trading volume over a period of 10 months represents 14% - 31% of the securities outstanding.

Figure 34¹¹²

Secondary Trading Volume By Issue

Retail ABS Platform	ABS Outstanding	Trading Activity	Trading Activity as % of ABS Outstanding
Issuer 1	\$6,916.28	\$1,545.95	22.35%
Issuer 2	\$7,354.16	\$2,312.42	31.44%
Issuer 3	\$6,059.53	\$1,870.67	30.87%
Issuer 4	\$6,001.62	\$1,699.91	28.32%
Issuer 5	\$3,053.72	\$877.74	28.74%
Issuer 6	\$5,539.95	\$793.35	14.32%

¹¹¹ Source: BAML/FINRA TRACE, IDC.

¹¹² Source: Intex and BofAML Trading Desk; data as of November 2014.

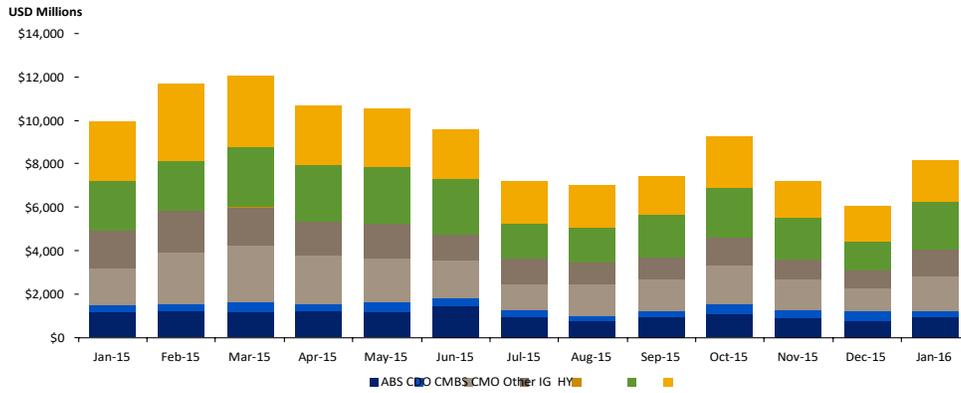
ABS securities, although liquid, are less liquid compared to less complex corporate credit (unsecured markets). ABS Investors benefit from a relative liquidity premium as a result, increasing spread. Within ABS, consumer sectors such as auto and credit card (lower spread) are mostly liquid, while the alternative sector (*i.e.*, consumer loan, timeshare, container, aircraft, cell tower, whole business, and railcar) is least liquid and has higher spreads.

As of June 2015, broker-dealers are required to submit ABS trades to TRACE, which shows which bond was traded, how much was traded (although trades in amounts greater than \$10 million are shown only as “\$10+mm”), as well as the price the bond traded.

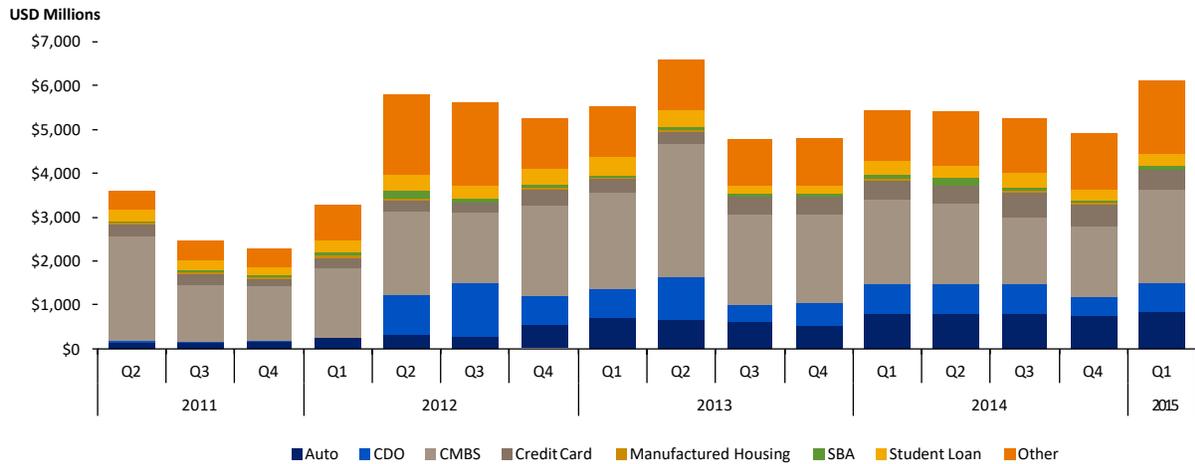
Figure 35 below displays monthly trading volume in the secondary market for a variety of debt securities between January 2015 and 2016. ABS trades less volume than certain debt securities (primarily high yield, investment grade, and CMBS bonds) and more volume than others (mainly CDOs). ABS has similar monthly volumes to CMOs over this period. Secondary market activity reflects the relative liquidity in each market. The less trading volume, the more investors are likely to hold on to their securities from their initial purchase. This causes them to demand a “liquidity premium” for less liquid forms of debt, and this manifests in wider spreads and therefore more expensive funding for Issuers. The ABS market is relatively stable in trading volumes and—taking into account the relative size of the market compared to high yield and investment grade markets—is a liquid market.

Figure 35¹¹³

Secondary Trading Volume By Asset Type



Graph 4: "TRACE Daily Volume by Sector for Period 6/1/2015-8/27/2015"



¹¹³ Source: BAML/FINRA TRACE, IDC.

D. The Role Of Underwriters In The Secondary ABS Market

As discussed earlier, the primary ABS and secondary ABS markets are intertwined. Like other areas of the capital markets, liquidity provided in the secondary market provides primary ABS Investors with a medium to sell ABS positions. This ability to sell holdings before maturity increases ABS demand and reduces spreads in the primary market. Figure 36 below provides additional detail on Bids Wanted in Competition (BWIC) and pricing mechanics in the secondary ABS market.

Figure 36

Bids Wanted In Competition

Market Making	<ul style="list-style-type: none"> Secondary trading presence and support are closely aligned with the primary new issue ABS market: typically ABS underwriters are market makers in the secondary market and operate active secondary flow that provides liquidity to third-party investors
BWIC	<ul style="list-style-type: none"> Investors will provide market makers with a list of bonds soliciting bids from other firms (Bids Wanted In Competition or "BWIC") The list includes the following information about the position: original and current face value, ticker, CUSIP, rating, and current WAL defined as the average number of years for which each dollar of unpaid principal remains outstanding
Pricing	<ul style="list-style-type: none"> Sold at a discount or premium depending on the current credit market environment, performance of the underlying collateral and adjustments to the prepay assumption E-Curve (Eurodollar spot curve) utilized for pricing fixed rate notes inside of 2-years, the N-curve (U.S. dollar swap curve) for fixed rate offerings \geq 2 years and Discount Margin (or "DM") for floating rate ABS Assumed bond cash flows are discounted using the desired yield (curve plus secondary spread) to derive the price to par

An example of a BWIC message distributed via Bloomberg is included below.

```

-1:00PM
OF(MM) CF(MM) Ticker CUSIP Rtg WAL TALK
18.565 4.892 SLCLT 2010-B A2 78444VAB7 AAA 1.45 Flt $103a
13.029 13.029 DMFIT 2015-1A A 68268EAA1 A+ 2.73 Fix +180s
12.712 10.346 SOFI 2015-A A2 83401LAB0 A+ 3.28 Fix +130s
8 8 SDART 2012-1 D 80281AAF6 AAA 0.51 Fix MH $101h
6.65 6.65 CARMX 2014-3 A3 14313TAC3 AAA 1.24 Fix L 60s
5.64 5.228 SOFI 2015-B A1 834017AA3 AA- 3.62 Flt +130s
5.21 5.21 SDART 2013-A C 80283JAE8 AA 1.08 Fix M $101h
5 5 ARIFL 2015-A A2 04032YAB5 AAA 1.27 Fix L 100s
1.25 1.25 AMCAR 2014-2 C 03064VAE8 AA- 2.17 Fix MH $99h
1 1 AMCAR 2014-1 C 03064LAE0 AA- 1.93 Fix $100a
  
```

E. New Issue Process

The new issue process involves a number of parties working together to bring an ABS to market. The following section details the process of successfully executing an ABS transaction.

1. Issuer Objectives and Alignment of Interests

The new issuance of ABS begins when a company decides to originate ABS for the first time to fund receivables, or when a programmatic Issuer needs to fund new originations within an established platform.

Issuers generally view ABS as an integral part of their funding strategy. ABS is often the lowest cost of funds for Issuers that have non-investment credit ratings. Even Issuers that can borrow cheaply in the unsecured market may continue to issue ABS to diversify funding sources and maintain investor familiarity with their ABS platform. If credit markets deteriorate or an Issuer's corporate credit rating falls, ABS issuance will be a critical funding source to maintain business operations.¹¹⁴

For each Issuer, ABS plays a unique role in its overall financing strategy. The benefits of ABS include:

- The lowest cost source of funds for some Borrowers;
- A method of diversifying funding sources and increasing liquidity; and
- An efficient vehicle for matched funding for all or a portion of the portfolio.

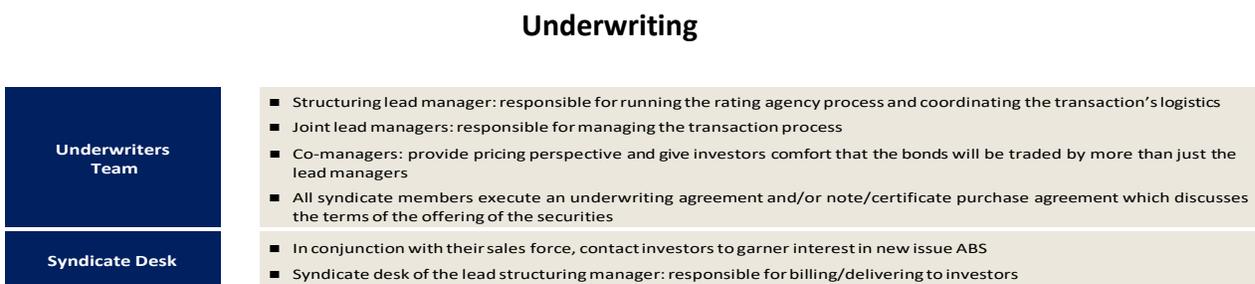
One of the key aspects of ABS is the alignment of interests between Issuers and Investors. The Issuer/Sponsor will continue servicing the assets and interfacing with customers. In addition, the Issuer/Sponsor often retains the first loss, often referred to as equity or the residual. By retaining the residual, and the customer relationship, the Issuer's interests are aligned with Investor. Moreover, the ABS transaction bears the Issuer's name and is its program. Thus, Issuers are incentivized to ensure that ABS transactions perform well. The majority of Issuers are programmatic, or regular, Issuers, motivating them to act in Investors' interests in order to access the ABS capital markets again in the future.

2. The Role of Underwriters in the Primary ABS Market

The Underwriter's role in the primary ABS market is bifurcated into two primary functions/teams that work in conjunction to execute transactions. The underwriting (or banking) team, structures the transaction, interfaces with Rating Agencies, and helps create marketing materials. The syndicate desk acts as an interface with Investors and determines appropriate pricing when selling a transaction.

¹¹⁴ See Section IX.A., *infra*, for a discussion of the value of securitization.

Figure 37



3. Key Players in the Primary ABS Market

Issuing ABS is an intensive process and requires a number of participants to successfully complete a transaction. The process starts when a Sponsor or Issuer decides to originate an ABS transaction.

Issuers will initially mandate one investment bank to act as structuring lead to assist with structuring the transaction, and interface with Rating Agencies to try to obtain the target ratings. The structuring lead is the primary Underwriter involved in the issuance process and is involved from the beginning. At a later date, as the transaction gets closer to going to market, additional Underwriters are required to assist with distributing the ABS via the syndicate process. Utilizing multiple Underwriters increases the probability of exhausting Investor outreach and building the order book quickly, as well as ensuring broad support in the secondary market.

Furthermore, the Issuer will hire legal counsel to assist with drafting the offering and transaction documents. Issuers often work with the same counsel on transactions from the same program. This practice results in counsel having a better understanding and historical knowledge of the Issuers' ABS program.

Accountants play a critical role in performing contract testing, in which they review a select number of contracts and confirm that each contract matches what is reflected in the Issuer's systems and data tapes. The accountant will also model the transaction and tie-out all agreed upon numbers in the offering documents to provide comfort that only accurate information is presented. This process assists the Underwriter and Issuer in ensuring that the information in the offering materials is correct.

Prior to the Issuer announcing a transaction, Rating Agencies generally assign a rating to the structure. The actual rating, depending on the particular Rating Agency's methodology, is a function of the transaction's legal structure, the historical performance of the assets in the collateral pool, and the bond's credit enhancement and capital structure.¹¹⁵

¹¹⁵ See Section II.E., *supra*, for a discussion of the rating process.

Figure 38 below highlights the primary parties involved in the new issue process, and their functions.

Figure 38

New Issuance Roles

	Function	ABS Participants Examples
Sponsor	<ul style="list-style-type: none"> ■ Originates and services the receivables/assets ■ Drives the process ■ Receives the proceeds of the transaction(s) 	Ally, CarMax, CIT, Discover, Daimler, Ford, General Electric, Hilton, Honda, Hyundai, John Deere, SolarCity, Toyota
Underwriter	<ul style="list-style-type: none"> ■ Structures the transaction, central to the rating agency process ■ Prepares investor marketing materials in coordination with sponsor & counsels ■ Distributes securities ■ Provides secondary market 	Bank of America Merrill Lynch, Barclays, Citi, Credit Suisse, Deutsche Bank, J.P. Morgan, Morgan Stanley, Royal Bank of Canada, Wells Fargo
Issuer's Counsel	<ul style="list-style-type: none"> ■ Typically responsible for drafting transaction offering documentation ■ Provides various legal opinions about the originator and the legality of the transaction including true sale, bankruptcy and tax opinions 	Katten Muchin Rosenman, Kirkland & Ellis
Underwriters' Counsel	<ul style="list-style-type: none"> ■ Represents underwriters in the transaction ■ Often responsible for drafting the underwriting/note or certificate purchase agreements 	Mayer Brown, Morgan Lewis & Bockius
Accountants	<ul style="list-style-type: none"> ■ Conduct contract & collateral review ■ Model transaction and tie out offering documents 	Deloitte, PriceWaterhouseCoopers, Ernst & Young
Trustees	<ul style="list-style-type: none"> ■ Acts according to the interest of the investors ■ Usually a bank or trust company ■ Responsible for administration of all payment distributions in the transactions 	U.S. Bank, Bank of New York Mellon
Rating Agencies	<ul style="list-style-type: none"> ■ Assigns rating to the transaction based on: <ul style="list-style-type: none"> ■ Legal structure of the transaction ■ Historical credit performance of the receivables ■ Credit enhancement levels 	Moody's Standard & Poor's Fitch

4. ABS Securitization Process Map

Figure 39 maps out the steps involved in the new issue process, which generally takes 8-14 weeks. For programmatic structures, the deal process can be far shorter. These steps are explained in greater detail below.

Figure 39



- **Kick Off:** During the initial stage, the respective transaction parties are mandated, or hired, by the Issuer. Subsequently, the Issuer communicates and clarifies to all parties its objectives and the deal's expected timing. Finally, specific roles and responsibilities are assigned.
- **Designing the Transaction:** This stage sets the framework for the transaction. A clear understanding of Issuer objectives is essential for a successful execution. Furthermore, bankers work to understand where ABS fits into an Issuer's overall corporate finance objectives. For example, if the Issuer's focus is lowest cost of funds (COF), then the bankers would structure the deal to incorporate features that result in the lowest COF, for example, a short, amortizing structure selling only senior classes.
- **Structuring and Economic Analysis – Issuer Objectives vs. Saleability:** The Underwriter needs to balance the Issuer's objectives with what is saleable to Investors. Following the crisis, Issuers needed to access ABS markets, but Investors were very cautious. Issuers and Underwriters responded by making structures more conservative to attract risk-averse Investors, for example, by having more credit enhancement and less cash released to the Issuer. In all markets, there is a balance between executing an Issuer's objective versus garnering Investor comfort with the credit profile of the ABS.

- **Rating Agency Process:** ABS Issuers generally want at least one, if not two, ratings from a Rating Agency. Following the credit crisis, the SEC implemented Rule 17g-5 in an attempt to manage the perceived conflict of interest created by “issuer paid” ratings. Rule 17g-5 requires Issuers to make available all information utilized by hired Rating Agencies to non-hired U.S. Rating Agencies on a password-protected website.¹¹⁶

Rating agencies assign a rating based on the legal and economic structure of the transaction, collateral type, and performance.¹¹⁷

- **Legal and Documentation:** The Issuer’s counsel drafts documentation for the transaction, which is reviewed by the Underwriter’s counsel. There are several documents that must be developed and vetted by attorneys from both sides, including: preliminary and final offering materials; true sale and non-consolidation opinions; tax opinions (generally the securities issued are debt for tax purposes); and ERISA eligibility opinions.¹¹⁸
- **Syndication, Pricing, and Closing:** During this stage, which occurs during the last few weeks of the transaction, the syndicate desk announces the deal, beginning the pre-marketing phase. In this phase, the desk develops pricing guidance levels (where it thinks the deal will most likely price) and works to market the transaction to potential Investors. After receiving pricing feedback from Investors (essentially, looking at how much in demand each class is), the desk will price each class accordingly by assigning a spread to it. Finally, the syndicate desk sells the securities and the deal officially closes—normally 3 to 5 days following pricing—when the money is officially transferred from Investors to the Issuer.

5. Summary of the Structural Mechanics of the New Issue Process

As previously mentioned, structuring a transaction to balance Investor demands with Issuer requirements is an integral part of the new issue process. From a broad point of view, structured finance mitigates risk through two main factors, namely, a true sale of the assets to be securitized and credit enhancement and tranching—*i.e.*, offering a capital structure and seniority that splits the debt security into classes, providing loss cushioning from the bottom up.

More specifically to ABS transactions, although consistency in structure between transactions is valued by Investors, improving an ABS platform’s structure can result in increased funding efficiency and Investor demand. Figure 40 highlights some of the key aspects of the multi-step structuring process.

¹¹⁶ See Section II.F.5., *supra*, for a discussion of due diligence rules.

¹¹⁷ See Section II.E., *supra*, for a discussion of the ratings process.

¹¹⁸ See Section II.D., *supra*, for a discussion of documentation requirements.

Figure 40

Structuring Process

Collateral Analysis	<ul style="list-style-type: none"> ■ Stratifications – summaries of pool characteristics broken down by criteria such as remaining term, geographic location, and FICO score, are used to analyze the quality of the receivables ■ Net credit loss expectation – are derived from static pool analysis and combined with collateral quality, provide a framework for establishing enhancement
Credit Enhancement	<ul style="list-style-type: none"> ■ Based on net expected loss and rating agency stresses, a capital structure is derived ■ Break-even loss – deviations from the expected case that the notes are structured to withstand is considered ■ Depending on the sponsor objectives, determine usage of subordination, overcollateralization or reserve amount, and credit enhancement building mechanics, if necessary ■ Increased credit enhancement reduces the advance rate (proceeds) but protects investors from losses and increases demand
Bond Structuring	<ul style="list-style-type: none"> ■ Develop an expected amortization of the collateral (source of funds for ABS) ■ Specify use of funds to pay down the notes based on set payment rules (i.e. principal and interest to each class sequentially (waterfall)) ■ Bond optimization – based on investor demand, create specific tranches within the same capital/enhancement level ■ Time tranching – target different durations for each class of notes to attract investors with varied durations demand ■ Bond pricing – set the coupon for the notes
Other Considerations	<ul style="list-style-type: none"> ■ Money market class ■ Replines – representative “loans” that significantly resemble the entire portfolio (bundles receivables into a limited number of similar buckets to simplify modeling) ■ Prepayments – amount and expected rate at which obligors prepay their loans which is an important factor in reinvestment risk ■ WAL – weighted average life of the bond given the prepayment speed assumption
Residual Distribution	<ul style="list-style-type: none"> ■ Different than bonds, equity residuals are priced to a yield given an assumed prepayment speed and cumulative net loss rate

6. Basic Bond Attributes

Transaction structures and bond attributes vary across different ABS asset classes and Issuers. Figure 41 illustrates a common auto ABS structure and typical bond attributes.

Figure 41

Auto ABS Structure And Attributes

Illustrative Transaction										
A	B	C	D	E	F	G	H	I	J	K
Class	Rating	Fix/Float	Size (%)	Size (\$)	WAL (y)	Principal Window	Expected Final	Legal Final	Coupon	Yield
A-1	P-1 / A-1+	Fixed	24.01%	\$240,100,000	0.32	8	Jan-13	Oct-13	0.23%	0.23%
A-2	Aaa / AAA	Fixed	29.83%	\$298,300,000	1.17	13	Dec-13	Sep-15	0.38%	0.39%
A-3	Aaa / AAA	Fixed	29.83%	\$298,300,000	2.37	19	Feb-15	Apr-17	0.51%	0.52%
A-4	Aaa / AAA	Fixed	10.58%	\$105,800,000	3.50	11	Apr-16	Jan-18	0.68%	0.68%
B	Aa2 / AA+	Fixed	1.50%	\$15,000,000	3.68	3	Jun-16	Feb-18	1.07%	1.07%
C	A1 / AA-	Fixed	2.45%	\$24,500,000	3.68	6	Jun-16	May-18	1.37%	1.37%
D	Baa1 / A-	Fixed	1.80%	\$18,000,000	3.68	6	Jun-16	May-19	2.11%	2.12%
Offered Notes				\$1,000,000,000						

A	Class	The designated name of the tranche (if it is rated and settled through DTC, a CUSIP number will also be obtained)
B	Rating	Credit rating assigned by the rating agencies (S&P, Moody's, Fitch or DBRS)
C	Fixed/Floating	Coupon payment rate is either fixed on pricing day or floats with a given benchmark
D	Size (%)	Each class as a % of the total deal size
E	Size (\$)	Class size in US Dollars
F	WAL (Weighted Average Life)	Weighted average period within which the principal is received. Calculated as the sum product of principal payments with period to payment divided by total class principal
G	Expected Final	Date of last expected principal payment under pricing scenario
H	Legal Final	The notes are required to be paid in full by this date (failure to do so results in an Event of Default)
I	Principal Window	Period in months during which the tranche receives principal
J	Coupon	Interest rate on a bond stated at issuance and typically paid semiannually
K	Yield	Benchmark plus credit spread

7. Common Types of Credit Enhancement

Credit enhancement is a key component in obtaining desired ratings and protecting Investors from losses. There are several types of credit enhancement that are available to the Sponsor that can be used in combination in order to protect the security holders from losses on the collateral. The common types of credit enhancement are listed below in Figure 42.

Figure 42

Credit Enhancement

Common Types of Credit Enhancement	Excess Spread
	<ul style="list-style-type: none"> ■ Referred to as soft credit enhancement, excess spread is the difference between the yield on the underlying assets (interest paid), and the sum of the servicing fee and the average bond coupon. This “extra” cashflow can be utilized to cover any losses on receivables
	Cash Reserve Account / Reserve Fund
	<ul style="list-style-type: none"> ■ ABS structures also typically maintain a cash reserve of 0.5% to 2.0% although this reserve percentage can be higher, to cover initial losses. The cash reserve is funded at the time of closing, reducing the final proceeds to the issuers by the required reserve amount
	Subordination
<ul style="list-style-type: none"> ■ Just as interest and principal are paid sequentially to Class A investors, then Class B investors, and so on, losses are absorbed in the opposite direction (subordinate classes first). Subordinate investors will require greater spread to compensate for this additional risk, but the principal protection that subordination provides senior class, reduces the spread required by investors, and reduces overall cost of funds for the issuers 	
Overcollateralization	
<ul style="list-style-type: none"> ■ Overcollateralization exists as the amount that the principal balance of receivables is greater than the offered notes. These additional assets provide further collateral to support losses and ensure investors are paid in full 	
Yield Supplement (Cash/Overcollateralization)	
<ul style="list-style-type: none"> ■ Provides enhancement in the form of supplementing the yield generated on the collateral pool via discounting 	

F. The Primary Issuance ABS Syndicate Process

The primary issuance ABS syndicate process can be divided into a private phase and public phase. The private phase of the process is labeled in Figure 39 above as “Designing a Transaction that Meets the Issuer’s Objectives” and “Structuring and Economic Analysis – Issuer Objectives vs. Saleability.” During the private phase, the syndicate team provides investor intelligence to determine an appropriate capital structure and optimal transaction timing. The optimal timing decision takes into consideration a number of variables, such as Issuer cadence (or the regularity at which an issuer will come to market with ABS securities), competing ABS supply, and availability of investor funds, among others.

Once timing has been established and the transaction has started pre-marketing, the transaction moves into the public phase, which is labeled in Figure 39 as “Pricing and Closing.” During the public phase, the syndicate, in conjunction with the sales force, reaches out to Investors to gather indications of interest. Investors may look to offering documents, Rating Agency pre-sale reports, structure/cashflow files, available marketing materials (such as deal road shows), and other information to inform their decisions. Price guidance is established based on Investor feedback and market conditions. Once sufficient Investor interest has been established, spread levels will be set and the transaction will be priced. At a minimum, each class that will be sold needs to receive subscription levels of at least 1x. The syndicate focuses on finding the right spread level for each class to achieve at least a 1x subscription level without offering Investors too much in spread at the expense of the Issuer. Should a class be greatly oversubscribed, it indicates that spread levels may have been too generous on that class of notes.

Figure 43 below shows additional detail on the syndication process during the private and public phases after the transaction has officially begun pre-marketing.

Figure 43

Syndication Process

Step	Description and Example Bloomberg Messages From Syndicate
Private Phase	<p>Structuring Phase</p> <ul style="list-style-type: none"> Provide feedback on capital structure and tranching scenarios based on investor intelligence and current market conditions in order to optimize the investor interest across tranches Provide recommendations around marketing timing and scheduling investor meetings/calls
Public Phase (Announced to the market)	<p>Pre-Marketing</p> <ul style="list-style-type: none"> Announce expected structure and timing of transaction Pre-market transaction with investors to prepare them for the transaction announcement (may include “whisper” pricing levels) Release transaction offering and marketing materials and rating agency presale reports in order to get investors engaged in the transaction prior to the formal announcement <pre> ABS New Issue: Ford Credit Auto Owner Trust 2015-C -- Mandate/Premarketing Ford Motor Credit has mandated BofAML, JPM, and SociGen as Joint Lead Managers on a \$1.04Bn FORDO 2015-C prime retail auto loan transaction. FORDO 2015-C will be the first ABS transaction to be Reg AB II compliant. Subject to market conditions, the deal is expected to announce on Monday. ANTICIPATED CAPITAL STRUCTURE CLS AMT(\$M) W/S/D WAL BIK STRUCTURAL CHANGES TO 2015-C A-1 220,400 P-1/A-1+R-1(h) 0.27 1LD * Reg AB II compliant A-2a 373,400 Aaa/AAA/AAA 1.05 EDSP * Publicly Registered Class A-1 A-2b 1.05 7-20 5/17 8/15/18 Aaa/AAA/AAA 1mL * Class D eligible; C/E unchanged A3 300,000 Aaa/AAA/AAA 2.25 ISIP * Clean-up call inc. 5% to 10% A4 105,720 Aaa/AAA/AAA 3.30 ISIP * Prelim. Prospectus & Ratings FIP B 31,570 A2/A+/AA(h) 3.48 ISIP * CD and Interest: www.fintex.com C C 21,040 A1/AA/AA(I) 3.48 ISIP Deal Name: basfoat_2015-c No upsize Password: K62B * Ford Credit's First REG AB II Transaction Investor Presentation TIMING * Announcement 8:00am Monday * Books open with Guidance 11:00am Monday EXPECTED SETTLE : 09/22/15 FORMAT : SEC-REG/PUBLIC FIRST PAY DATE : 10/15/15 EXPECTED RATINGS: MOODY'S/SP/DBRS BBB TICKER : FORDO 2015-C WFN DEMOS A1-C : \$1k by \$1k **CLASS A-2 SPLIT : \$120 TO DEMAND **CLASS A-2A MIN SIZE: \$93.4M **CLASS A-2B MAX SIZE: \$280.0M </pre>
Public Phase (Announced to the market)	<p>Transaction Announcement</p> <ul style="list-style-type: none"> Formal Bloomberg announcement released to investors providing a brief summary of the transaction (may include “whisper” pricing levels) Officially open the syndicate book allowing investors to submit orders of interest in each of the tranches across the capital structure <pre> \$1.05-bIn Ford Credit Auto Owner Trust 2015-B -- Reg AB II Compliant Joint Leads: BofAML, JPM, SG Co-Managers: BNY, Bradesco, Mizuho, TD Selling Grp: Drexel, Loop CL \$SIZE(\$M) WAL PWIN EXP LGL MDY/SP/DBRS BENCH ===== A1** 220,400 0.27 1-7 4/16 9/15/18 P-1/A-1+R-1(h) YIELD A2a** 373,400 1.05 7-20 5/17 8/15/18 Aaa/AAA/AAA EDSP A2b*/ 1.05 7-20 5/17 8/15/18 Aaa/AAA/AAA 1mL A3 300,000 2.25 20-36 9/18 2/15/20 Aaa/AAA/AAA ISIPS A4 105,720 3.30 36-42 3/19 2/15/21 Aaa/AAA/AAA ISIPS B 31,570 3.48 42-42 3/19 3/15/21 A2/A+/AA(h) ISIPS C** 21,040 3.48 42-42 3/19 3/15/22 A1/AA/AA(I) ISIPS ===== * Class A2 split, sized to demand Class A2a min size: \$93.4m / Class A2b max size: \$280.0m ** Classes A1 and C offered subject to reserve >> BOOKS WILL OPEN WITH OFFICIAL PRICE GUIDANCE 11:00AM EDT << EXPECTED PRICING: TUE REGISTRATION : ALL CLASSES ARE PUBLIC EXPECTED SETTLE : 09/22/15 ERIISA ELIGIBLE : YES FIRST PAY DATE : 10/15/15 EXPECTED RATINGS: Moody's/S&P/DBRS DEMOS : \$1k/\$1k PKG SPEED : 1.4% ABS to Call BBB TICKER : FORDO 2015-C INTENXT : basfoat_2015-c K62B BILL & DELIVER : BAS </pre>
Public Phase (Announced to the market)	<p>Price Guidance</p> <ul style="list-style-type: none"> Release price guidance levels, typically a range, via Bloomberg which guides investors where the issuer and the syndicate expect to price the transaction <pre> \$1.05-bIn Ford Credit Auto Owner Trust 2015-C -- Reg AB II Compliant Joint Leads: BofAML, JPM, SG Co-Managers: BNY, Bradesco, Mizuho, TD Selling Grp: Drexel, Loop CL \$SIZE(\$M) WAL PWIN EXP LGL MDY/SP/DBRS BENCH PX TALK ===== A1** 220,400 0.27 1-7 4/16 9/15/18 P-1/A-1+R-1(h) YIELD 0.38-0.40% A2a** 373,400 1.05 7-20 5/17 8/15/18 Aaa/AAA/AAA EDSP + 36-38 A2b*/ 1.05 7-20 5/17 8/15/18 Aaa/AAA/AAA 1mL + 36-38 A3 300,000 2.25 20-36 9/18 2/15/20 Aaa/AAA/AAA ISIPS + 47-49 A4 105,720 3.30 36-42 3/19 2/15/21 Aaa/AAA/AAA ISIPS + 52-54 B 31,570 3.48 42-42 3/19 3/15/21 A2/A+/AA(h) ISIPS + 70-75 C** 21,040 3.48 42-42 3/19 3/15/22 A1/AA/AA(I) ISIPS +100-110 ===== * Class A2 split, sized to demand Class A2a min size: \$93.4m / Class A2b max size: \$280.0m ** Classes A1 and C offered subject to reserve EXPECTED PRICING: TUE REGISTRATION : ALL CLASSES ARE PUBLIC EXPECTED SETTLE : 09/22/15 ERIISA ELIGIBLE : YES FIRST PAY DATE : 10/15/15 EXPECTED RATINGS: Moody's/S&P/DBRS DEMOS : \$1k/\$1k PKG SPEED : 1.4% ABS to Call BBB TICKER : FORDO 2015-C INTENXT : basfoat_2015-c K62B BILL & DELIVER : BAS </pre>

Certain transactions contemplate that a third party may provide this service on behalf of the trust.

2. **Holding Title.** Separate from other functional roles, this customarily involves holding a security interest in or owning legal title to the assets of the trust on behalf of Investors.
3. **Registrar and Transfer Agent.** This function includes updating and maintaining records of bond or security ownership to reflect any transfer of those bonds or securities and maintaining a current record and history of named registered Investors.
4. **Paying Agent.** The paying agent makes distributions to registered Investors of collected principal and interest payments, as well as distributions in connection with any equity interests in the Issuer, and may file tax information as required by the U.S. Internal Revenue Service.
5. **Authenticating Agent.** This function involves signing each of the notes or certificates issued in order to verify that they are the securities they purport to be.
6. **Calculation Agent/Bond Analytics.** The calculation agent may calculate the interest rates on the notes issued for adjustable rate notes, principal and interest payments to the Investors, and other cashflow payments and tests regarding the performance of the underlying assets. The calculation agent may also provide Investor reports based on information supplied by other transaction parties as specified in the governing agreements.
7. **Cash Management.** A cash manager handles the processing of deposits and withdrawals to select accounts, which may include lockboxes.
8. **Verification Agent.** The verification agent reports on specified collateral triggers and validates select Servicer data and reports as may be required under the governing agreements.
9. **Cash Management Agent.** This agent handles the execution of the investment and redemption of the investment of certain transaction funds pursuant to instructions from an authorized party.
10. **Servicer of Last Resort.** Often required in a structure where the Seller/Issuer is not rated as investment grade, this is the transaction party charged either with appointing or assuming some or all of the servicing obligations for the underlying assets in the event of a Servicer default. The bank serving as Trustee may be the initial back-up Servicer or may serve as Servicer if the parties to the transaction cannot hire an acceptable successor Servicer.

11. **Bondholder Communications.** In the last several years, certain Investors and prospective Investors have asked for a platform that would allow Investors in a transaction to communicate with other Investors and the Issuer. The Trustee, Indenture Trustee, or Bond Administrator has been the party to send notices to Investors from the Issuer or others involved in the transaction pursuant to the governing agreements. What Investors seek today, however, is a broader ability to effectively communicate with each other. This function could be performed by a Trustee or by any number of other potential providers of a communications platform.

The functions required to be performed for a securitization trust vary based on asset class, structure, Rating Agency criteria, or any number of other factors. These functions, outlined above, may be distinct and separate roles outlined in the governing agreements or embedded in the Trustee role or the role of another contractual party (*e.g.*, Servicer, Master Servicer, or other distinct deal party who is not the same institution as the Trustee).

B. The Role Of The Servicer

The role of the Servicer in a structured finance transaction is to help ensure that interest and principal are paid to note holders in a timely manner and to negotiate loan modifications and loan liquidations when necessary. Servicers also enforce contracts for payment with the related Obligor. Servicer strategies are similar across structured finance asset classes, although there are important differences. This section focuses its discussion on the Servicer's role in RMBS transactions and then discusses key similarities and differences in other structures.

1. The Servicer's Role in RMBS Transactions¹¹⁹

RMBS transactions typically employ loan Servicers, also known as Primary Servicers, to make advances to the trust on underlying mortgages and to assist with the work-out of loans through modifications, short sales, foreclosures, or Real Estate Owned (REO). Typical tasks undertaken by Servicers include collection of interest and principal from Borrowers, payment of property taxes on escrowed accounts, loss mitigation, recovery of principal through the foreclosure process or through short sales, and making advances of interest and principal to RMBS trusts when required. If there is a shortfall in monthly collections from a particular Borrower/Obligor, Servicers are required to make an advance for missed payments and to advance costs necessary to protect and foreclose on the underlying mortgaged property if the Servicer reasonably believes that such advance ultimately will be recoverable from the individual loan/Obligor. In this way, servicing advances are designed to provide liquidity to the trusts in the event a mortgage Borrower is delinquent on its monthly payment.

PSAs compensate loan Servicers by paying them a fee, which is often a percentage (*e.g.*, 25bp or 25 hundredths of 1%) of the stated principal balance of the loan. In addition, Servicers

¹¹⁹ See Section IV.B.7.c., *supra*, for a discussion of aspects of RMBS structure.

might also receive one-off or ancillary fees, such as late charges, non-sufficient funds (NSF) fees, or fees associated with loan modifications and sales.

In addition to the individual loan Servicers, RMBS transactions may also appoint a Master Servicer to coordinate a variety of tasks across all loan Servicers relating to the collection and advancement of interest and principal payments from Borrowers to the RMBS trust. PSAs compensate Master Servicers by allowing them to collect a servicing fee based on remittance balances, outstanding balances, or collections from the Primary Servicers.

PSAs typically allow Servicers to reimburse themselves from cash collateral at the top of the Waterfall before any payments are made to note holders. Typically, servicing advances are recovered first from collections and liquidation proceeds at a loan level. If those funds are insufficient, the servicing advances are recovered from cash collected from all other loans in a trust.

Should a Servicer default on its obligations under the PSA with the respective trusts, the Trustee can replace the Servicer and appoint a successor. The first-in-first out provision in the PSA typically requires that existing advances be repaid by the new Servicer from collections from the trust before any collections are diverted to repay any new advances.

The effectiveness of a Servicer's strategy, policies, and practices on the performance of its loans largely depends on the credit quality of the Borrowers. For high-quality Borrowers, the Servicer's core operational capabilities, such as processing payments and reporting loan performance, are key. For lower-quality Borrowers, the Servicer's default and claims-management-related activities are critical, including Master Servicer oversight of the Primary Servicer's default management activities, review of the Primary Servicer's loss mitigation options, and the ability to conduct a loan-level review of all losses incurred in the transaction.

Servicing practices have varied depending on whether or not they involve bank or non-bank Servicers. As a result of regulatory scrutiny over their handling of troubled loans, bank Servicers have taken a more conservative approach to modifications than non-bank Servicers, who have been more aggressive in their approach to loss mitigation.¹²⁰

These practices have prompted regulatory intervention since the crisis, generally requiring better disclosure of Servicer practices, more granular information on the underlying loans (*e.g.*, Reg AB II), and emphasis on independent third-party assessments of the loans underlying the securitization.

In April 2011, the U.S. Office of the Comptroller of the Currency (OCC), the Office of Thrift Supervision (now a part of the OCC), and the U.S. Federal Deposit Insurance Corporation (FDIC) released 14 executed consent orders targeting weaknesses in servicing processes and controls at

¹²⁰ See Moody's Investor Services, *In Tackling Problem Loans, Non-Bank Servicers Pursue More Aggressive Approach than Banks* (Dec. 16, 2013).

some of the nation's largest banks. The consent orders require banks to take all necessary steps to remedy the deficiencies in their residential mortgage service operations, including the initiation and handling of foreclosure proceedings. Many of the proposed changes require Servicers to provide additional reporting, update controls, enhance audit protocols, implement new technologies, and hire third-party overseers to review the loans prior to foreclosure.¹²¹

2. The Servicer's Role in CMBS Transactions

In CMBS transactions, as in RMBS transactions, the Primary Servicer and Master Servicer are responsible for the timely collection of interest and principal.¹²² Unlike RMBS transactions, however, CMBS transactions employ Special Servicers that are responsible for addressing issues such as evaluating loan modification requests and carrying out liquidations and foreclosures on “specially-serviced” loans. Prior to default or transfer into special servicing, the Master Servicer approves loan modification requests, many times subject to the consent of the Special Servicer.

Also, unlike RMBS transactions, where the loan Servicer might not have any residual interest in the mortgage property, it is not unusual for the Special Servicer in a CMBS transaction to be the owner of the B-Piece, that is, the most junior tranche of the transaction. Some commercial real estate loans have A Notes and B Notes where the A-Note is sold to the CMBS Trust while the B-Note is held outside the CMBS Trust and serviced by a Special Servicer appointed by the holder of the B-Note. Ownership of the B-Note and/or the B-piece, and the compensation structure for Servicers in a CMBS transaction, may incentivize some Servicers to keep loans “alive” for as long as possible. This may adversely impact ultimate recoveries on the underlying loans. However, mechanisms such as appraisal reduction—which shifts control from a tranche with no substantial skin in the game to a tranche that has real economic interest remaining—help mitigate this apparent conflict.

The Special Servicer serves at the pleasure of the controlling class of certificate holders—usually the most subordinate class of outstanding certificates—which has the right to replace the Special Servicer at will. Control rights typically migrate to the notes immediately senior to the current Controlling Class if the controlling certificate holder sustains losses in excess of 75% of the original certificate balance. As property valuations and realized losses vary over the life of the transaction, the identity of the Controlling Class can also change. Changes in the Controlling Class can then result in changes in the Special Servicer, creating administrative discontinuity and inefficiencies in the sale and loan modification process.

As with RMBS, CMBS Special Servicers are paid a fee based on the principal balance of loans that are being worked out. In addition, they receive one-off fees for loan modifications and liquidations.

¹²¹ See Moody's Investor Services, *Bank Regulators' Consent Orders Will Drive Up Servicer Costs and Increase Loss Severities for RMBS* (Apr. 18, 2011).

¹²² See Section IV.B.7.d., *supra*, for a discussion of CMBS structure.

3. The Servicer's Role in ABS Transactions

In ABS transactions involving credit cards and auto loans, it is common for the sponsor of the transaction also to be the Servicer of the underlying collateral. Servicer characteristics may vary greatly from large, diversified, highly rated sponsors to smaller, non-investment-grade specialty lenders.¹²³

An important difference between ABS Servicer responsibilities and RMBS/CMBS Servicer responsibilities is that ABS Servicers typically are not responsible for the timely advance of interest and principal. Instead, ABS structures have other features to compensate for shortfalls in collections. For example, structures typically allow for interest and principal payments to be commingled. They also have liquidity reserve accounts that help to ensure the timely payment of cashflows to notes. These accounts, which often are funded at closing, are used to cover shortfalls. Deal funds are used to replenish the reserve accounts when they drop below target levels. Servicer responsibilities are therefore more focused on payment collections and recoveries of cashflows in the Event Of Default.¹²⁴

4. Servicer Bankruptcy and Transfers

Numerous servicing transfers have taken place in the U.S. across many asset types, without substantial servicing disruption. Once the original Servicer has been terminated, servicing transfers have been completed in a timely manner in the U.S.

Although the time to install a new Servicer is generally short in the U.S., it may take a long time to terminate a Servicer. This is because U.S. securitization transactions typically allow Investors to replace the Servicer only if there has been a Servicer-related Event Of Default, generally defined as a Servicer bankruptcy, a material breach of a material covenant, or a failure to forward cash to the appropriate transaction party.

Further, in some jurisdictions, a bankruptcy court, rather than Investors, may control the decision to transfer servicing. A bankrupt Servicer will probably resist a servicing transfer and may ask the bankruptcy court to allow it to continue as Servicer or sell its servicing business to another entity.

In most U.S. transactions, if a Servicer is terminated, the Trustee is responsible for finding a suitable successor. Some transactions allow for a successor Servicer to receive a higher servicing fee than the original, but most transactions call for the successor to receive the same

¹²³ See Sections IV.B.7.a. and IV.B.7.b., *supra*, for a discussion of aspects of auto and credit card securitization receivables structures, respectively.

¹²⁴ See Section IV.A.1., *supra*, for a discussion of how waterfalls work.

fee. Historically, increased servicing costs have been paid out of transaction cashflows that would otherwise have been available to pay Investors’ principal and interest.

Figure 44

Servicer Responsibilities & Alignment Of Interest

	Servicer	
	Key Responsibilities	Alignment of Interest
RMBS	<ul style="list-style-type: none"> ▪ Collection and advancement of interest and principal. ▪ Loss mitigation. ▪ Principal recovery through short sales, foreclosure, etc. 	<ul style="list-style-type: none"> ▪ Servicers or an affiliate thereof are often the Originators of the loans, and retain a residual interest in the trust. ▪ Compensation structure may incentivize some Servicers to keep loans “alive” for as long as possible, and affiliation may affect motivation.
CMBS	<ul style="list-style-type: none"> ▪ Collection and advancement of interest and principal carried out by Primary Servicer. ▪ Loss mitigation and principal recovery carried out by Master Servicer, often with Special Servicer consent or by Special Servicer on specially-serviced loans. 	<ul style="list-style-type: none"> ▪ Not unusual for the Special Servicer to own all or part of the B-Piece of the trust or the B-Note of the underlying loan. ▪ Compensation structure may incentivize some Servicers to keep loans alive for as long as possible. ▪ Special Servicer is typically appointed by the Controlling Class, which can vary over the life of the transaction.
ABS	<ul style="list-style-type: none"> ▪ Collection of interest and principal. ▪ Principal recovery. 	<ul style="list-style-type: none"> ▪ Servicers are commonly also the Sponsor in ABS transactions, and may have their interests aligned if they own junior tranches of the transaction or manage a portfolio of loans that is substantially similar.

VII. COMPARISON TO THE CORPORATE BOND MARKET

Plain vanilla ABS differ from corporate bonds in terms of general structure and overall performance. In particular, senior AAA-rated ABS may be a more attractive alternative to corporate bonds, because they can offer high ratings, are secured by receivables providing stable cashflows, enjoy diversification of the underlying collateral pool, and have lower vulnerability to rising interest rates. This section highlights the main structural differences between corporate bonds and senior, or AAA-rated, plain vanilla ABS.

A. Characteristics Of Plain Vanilla ABS vs. Corporate Bonds

Corporate bonds have only a single entity as the Borrower.¹²⁵ Investors in corporate bonds have only a general claim in the company's assets and cashflows; thus, if the company defaults, holders of senior unsecured bonds will have a higher priority claim compared to holders of junior unsecured bonds.¹²⁶ Moreover, unsecured corporate bonds are not protected by a guarantor, nor are they collateralized by specific assets of the Borrower in the case of a bankruptcy, liquidation, or failure to meet the terms for repayment. Indeed, a corporation's creditors extend beyond just the bondholders and may include banks, suppliers, customers, pensioners, and others, any of which could have equal or higher claims than bondholders.¹²⁷

By contrast, ABS structures offer diversification in the form of multiple Borrowers—anywhere from 100 to more than one million—with the loans secured by Obligor payments and collateral. Investors receive payments of principal over the life of the ABS or within a projected repayment window. Certain plain vanilla ABS, like auto loan ABS, feature amortization, which is the steady reduction of credit risk as the outstanding principal balance is paid down. Amortization minimizes the uncertainty of whether the Borrower will be able to pay one large lump sum at the maturity date.¹²⁸ An additional benefit of the amortizing structure comes in the form of lower interest rate risk as compared to corporate bonds. The return of principal over the life of the investment allows Investors to reinvest that principal, which is especially beneficial in a rising interest rate environment.

Some plain vanilla ABS, such as credit card or auto dealer floorplan ABS, do not feature amortization. Although these bonds do not return principal to investors over the life of the investment, they are highly liquid, and Investors benefit from the collateral of a diverse Obligor pool, as well as the structural protections provided by subordination and other forms of credit enhancement.

¹²⁵ See Merganser Capital Mgmt., *The Case for Structured Products 1* (2012).

¹²⁶ See U.S. Sec. Exch. Comm'n, Off. of Investor Educ. & Advocacy, *What Are Corporate Bonds?* 2 (2013).

¹²⁷ See *id.*

¹²⁸ See Merganser Capital Mgmt., *supra*, at 2.

Figure 45 below summarizes the major distinguishing characteristics of ABS and corporate bonds.

Figure 45

Corporate Bonds Compared To ABS

Characteristic	Corporate Bonds	Plain Vanilla ABS
Claim on Collateral/Obligor Payments	Unsecured	Secured by collateral
Obligor	Single Borrower (one company)	Diverse collateral pool
Payment Schedule	Semi-annual fixed interest payments until maturity, then lump sum principal payment	Amortizing structures - monthly interest payments and amortizing principal payments Revolving structures - periodic interest payments and bullet principal payment at maturity
Credit/Default Risk	Corporation can make decisions that may impair bondholders	Some independent servicing, multiple Obligors
Credit Rating Factors	Credit ratings depend on the credit standing of the company itself	Credit ratings tied to deal structure, asset performance, and credit enhancement; mostly independent of changes to corporate ratings

B. Cashflow Comparison¹²⁹

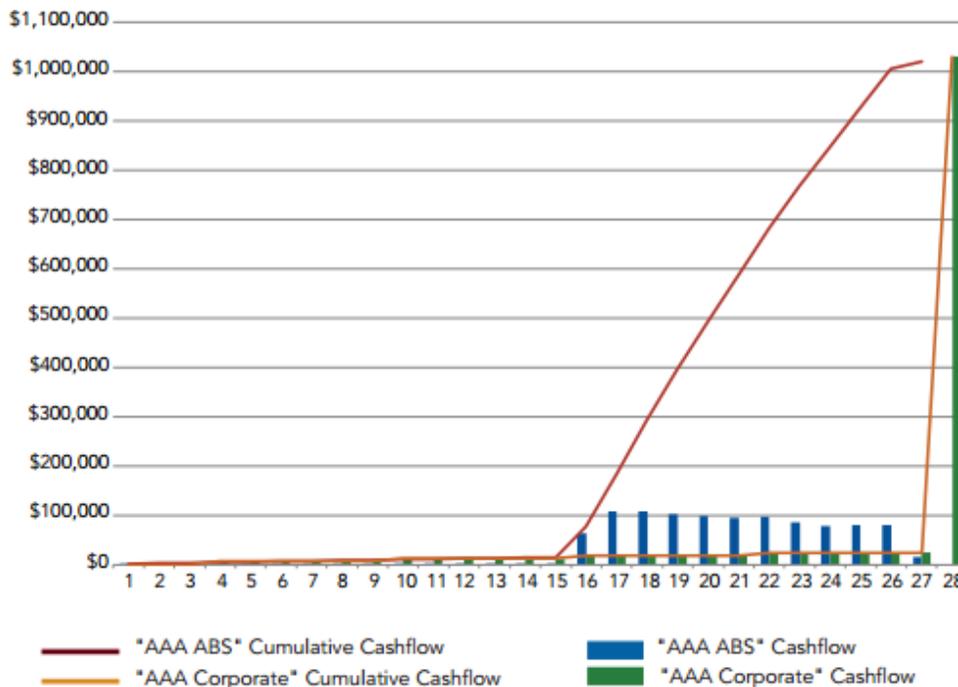
Another area in which there is a notable difference between corporate bonds and ABS is the cashflow that each generates for Investors. By way of illustration, the chart below compares corporate bond and ABS cashflows with similar average lives and quality ratings. Both have the same face value and mature in the second quarter of 2014. The ABS amortizing security has paid monthly interest since its origination and began to pay principal in May 2013, with the final principal payment in May 2014. By paying off the principal over time, the credit risk has been mitigated. Conversely, the corporate bond paid interest on a semi-annual basis and the full

¹²⁹ See *id.*

principal in one lump sum payment in May 2014. In this case, since the principal is not paid off over time, uncertainty of principal repayment is greater, and the cumulative cashflows received for interest payments accrue very slowly.

Figure 46

Cashflow Comparison



C. High Investment Grade Ratings¹³⁰

Plain vanilla ABS in the AAA rating category are rated as such due to a number of key factors, most importantly, collateralization of assets and structural credit enhancement.¹³¹ The secured nature of ABS means that the bonds are collateralized by a diversified pool of cashflows that are pledged to the issued securities. The structural features of plain vanilla (and most other) ABS also provide that the senior bonds benefit from subordination of the junior classes, as well as from other forms of credit enhancement. These factors, along with asset quality and the true sale of the underlying collateral, are key drivers for the high ratings on plain vanilla ABS.

¹³⁰ See Merganser Capital Mgmt., *supra*, at 3.

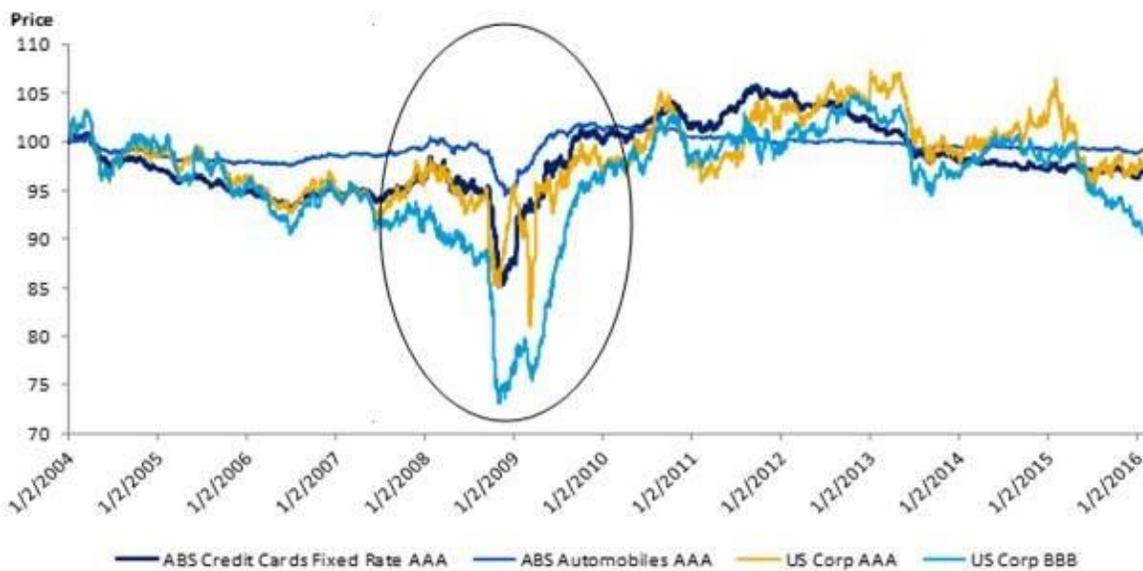
¹³¹ See Section II.E., *supra*, for a discussion of the ratings process.

D. Historical Bond Prices

As demonstrated by the price movements illustrated in the table below, publicly-traded ABS in select asset classes that have an AAA rating have historically performed on par with (or better than) investment-grade publicly-traded corporate debt securities.¹³²

Figure 47¹³³

Historical Bond Prices



¹³² See Structured Fin. Indus. Group, *Proposed Liquidity Coverage Ratio Requirement Comment Letter 21* (Jan. 2014), available at https://www.fdic.gov/regulations/laws/federal/2013/2013-liquidity_coverage_ae04-c_39.pdf.

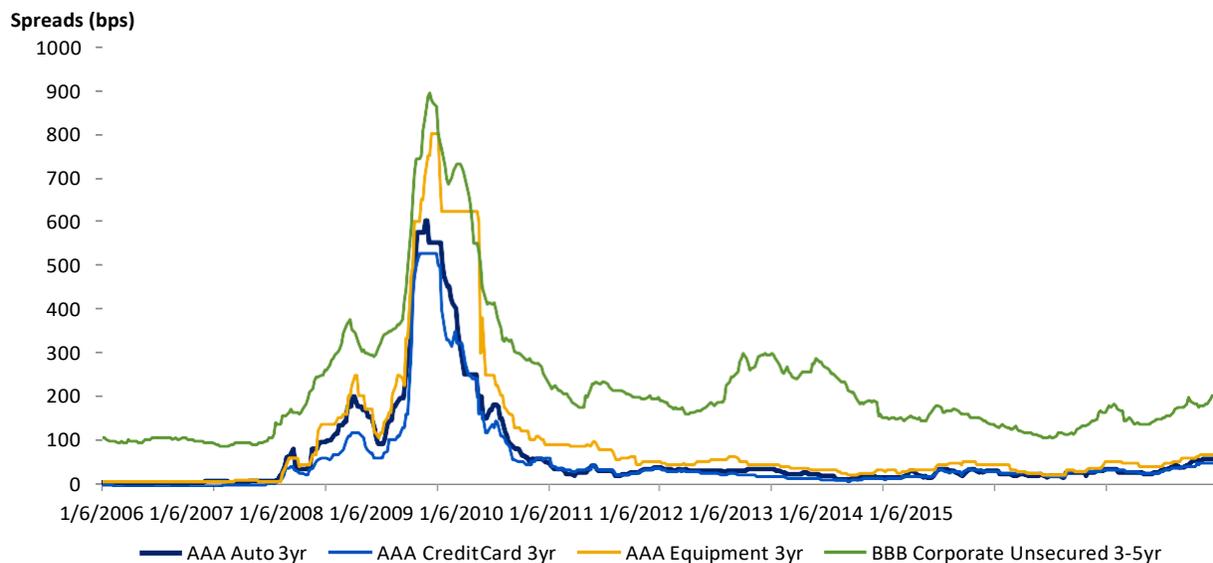
¹³³ Source: BAML Indices.

E. Spread Performance¹³⁴

Plain vanilla ABS performed better than investment-grade corporate debt securities throughout the credit crisis. In particular, senior classes of credit card and auto ABS experienced less spread widening during the crisis and continued to perform better in the two years after the crisis and beyond. As can be seen in the chart below, the spreads on AAA-rated credit card and auto ABS returned to levels close to their pre-crisis levels, whereas corporate unsecured spreads are relatively higher than pre-crisis levels, even long after the crisis.

Figure 48

Liquidity Characteristics Of ABS



VIII. U.S. REGULATORY FRAMEWORK

A. Assigned Responsibilities And Coverage

1. Federal Reserve System

The Federal Reserve System (Federal Reserve) is the central bank of the United States and the primary federal supervisor for certain state banks and bank holding companies, savings and loan holding companies, and foreign banking organizations. The Federal Reserve's primary duties fall into four general areas: (1) conducting the nation's monetary policy; (2) supervising and regulating state member banks, bank holding companies, savings and loan holding companies,

¹³⁴ Source: BAML Indices and Research.

foreign banking organizations, and non-bank financial companies that are designated as systemically important by the Financial Stability Oversight Council (FSOC); (3) maintaining the stability of the financial system and containing systemic risk that may arise in financial markets; and (4) providing financial services to depository institutions, the U.S. government, and foreign official institutions, including playing a major role in operating the nation's payments system.

In the United States, banks can be chartered by the states or by the federal government (*e.g.*, the OCC). Banks chartered by the states also have the choice of whether to join the Federal Reserve. The Federal Reserve is the primary federal supervisor for state-chartered banks and savings institutions that are members of the Federal Reserve. The Federal Reserve has extensive rulemaking authority to help carry out its primary duties and, along with the OCC and the FDIC, is responsible for implementing capital and liquidity standards for banks and bank holding companies. Furthermore, the Federal Reserve serves as a source of liquidity for banks through its discount window operations at the Federal Reserve Banks.

The Federal Reserve System was founded by Congress in 1913. The Board of Governors of the Federal Reserve has seven members, each of whom is nominated by the President of the United States and confirmed by the United States Senate. A full term for a board governor is 14 years. One term begins every two years, and a member who serves a full term may not be reappointed. A member who completes an unexpired portion of a term may be reappointed. The Chairman and the Vice Chairman of the Federal Reserve are named by the President from among the members and are confirmed by the Senate. They serve a term of four years and may be reappointed to those roles and serve until their terms as governors expire.

2. Office of the Comptroller of the Currency

The OCC charters, regulates, and supervises all national banks and federal savings associations, as well as federal branches and agencies of foreign banks. The OCC has the power to: examine these entities; approve or deny applications for new charters, branches, capital, or other changes in corporate or banking structure; take supervisory actions against entities that do not comply with laws and regulations or that otherwise engage in unsound practices; remove officers and directors; negotiate agreements to change banking practices; issue cease and desist orders and civil monetary penalties; and issue rules, regulations, and legal interpretations and corporate decisions governing investments, lending, and other practices.

The OCC is an independent bureau of the U.S. Department of the Treasury established in 1863. The President, with the advice and consent of the Senate, appoints the Comptroller of the Currency to head the agency for a five-year term. The Comptroller also is a director of the FDIC. The OCC does not receive appropriations from the U.S. Congress. Instead, the OCC's operations are funded primarily by assessments on national banks and federal savings associations. National banks and federal savings associations pay for their examinations, and they pay for the OCC's processing of their corporate applications.

3. Federal Deposit Insurance Corporation

The FDIC has several primary responsibilities. First, it is the insurer of deposits for all insured depository institutions in the United States, insuring approximately \$9 trillion of deposits. As part of this role, the FDIC also reviews and approves applications for deposit insurance from new institutions and other applications from insured depository institutions regardless of the chartering authority. Second, the FDIC is the primary federal supervisor for state-chartered banks and savings institutions that are not members of the Federal Reserve. Third, the FDIC is the back-up supervisor for the remaining insured banks and savings institutions. Finally, the FDIC is typically appointed as the receiver or conservator for insured depository institutions that become insolvent and could be appointed as receiver for certain systemically important financial institutions in the event of their failure, as discussed below.

In 2010, the Dodd-Frank Act expanded the FDIC's statutory responsibilities beyond insured depository institutions to bank holding companies with more than \$50 billion in assets and to non-bank financial companies that are designated as systemically important by FSOC. The Act designates the Federal Reserve as the primary consolidated supervisor of these companies and assigns to the FDIC and the Federal Reserve joint responsibility for reviewing and assessing resolution plans developed by these companies that demonstrate how they would be resolved in a rapid and orderly manner under the U.S. Bankruptcy Code in the event of financial distress.

When an insured depository institution fails, the FDIC is ordinarily appointed receiver or conservator for the institution. In that capacity, it assumes responsibility for efficiently recovering the maximum amount possible from the disposition of the receivership's assets and the pursuit of the receivership's claims. Under Title II of the Dodd-Frank Act, the FDIC also may be called upon to resolve the failure of a large, systemically important financial company. Title II is intended to provide a backup authority to place a failed or failing financial company into an FDIC receivership process if no viable private-sector alternative is available to prevent the default of the company and if a resolution through the bankruptcy process would have a serious adverse effect on U.S. financial stability.

The FDIC is an independent U.S. government agency created by Congress in 1933. The FDIC is managed by a five-person Board of Directors, all of whom are appointed by the President with the advice and consent of the Senate, with no more than three being from the same political party. The FDIC is funded by premiums that banks pay for deposit insurance coverage and from earnings on investments in U.S. Treasury securities.

4. Securities and Exchange Commission

The SEC is the primary federal securities regulator, and its main role is to protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation. It is the responsibility of the SEC to: interpret and enforce federal securities laws; issue new rules and amend existing rules; oversee the inspection of securities firms, brokers, investment advisers, and ratings agencies; oversee private regulatory organizations in the securities, accounting, and

auditing fields; and coordinate U.S. securities regulation with federal, state, and foreign authorities.

The SEC has five divisions: (1) Division of Trading and Markets; (2) Division of Corporation Finance; (3) Division of Investment Management; (4) Division of Enforcement; and (5) Division of Economic and Risk Analysis. The Division of Trading and Markets provides day-to-day oversight of the major securities market participants, namely: the securities exchanges; securities firms; self-regulatory organizations, including the Financial Industry Regulatory Authority, the Municipal Securities Rulemaking Board, and clearing agencies that help facilitate trade settlement; transfer agents (parties that maintain records of securities owners); and securities information processors. The Division of Corporation Finance assists the SEC in executing its responsibility to oversee corporate disclosure of important information to the investing public. The Division of Investment Management assists the SEC in executing its responsibility for investor protection through oversight and regulation of the investment management industry. The Division of Enforcement assists the SEC in executing its law enforcement function by: recommending when to commence investigations of securities law violations; bringing civil actions in federal court or as administrative proceedings before an administrative law judge; and prosecuting these cases on behalf of the SEC. The Division of Economic and Risk Analysis assists in protecting investors by integrating robust economic analysis and rigorous data analytics into the work of the SEC.

The SEC, which Congress created in 1934, has five commissioners who are appointed by the President with the advice and consent of the Senate. The commissioners' terms last five years and are staggered so that one commissioner's term ends each year. No more than three commissioners may belong to the same political party. The President also designates one of the commissioners as Chairman. The SEC is generally funded through appropriations from Congress.

5. Commodity Futures Trading Commission

The mission of the Commodity Futures Trading Commission (CFTC) is to foster open, transparent, competitive, and financially sound markets, to avoid systemic risk, and to protect the market users and their funds, consumers, and the public from fraud, manipulation, and abusive practices related to derivatives and other products that are subject to the Commodity Exchange Act (CEA).¹³⁵ Under the CEA, the CFTC has authority to issue new regulations and to amend existing regulations through the rulemaking process. In carrying out this mission and to promote market integrity, the CFTC polices the derivatives markets for various abuses and works to ensure the protection of customer funds. Further, the CFTC seeks to lower the risk of the futures and swaps markets to the economy and the public. To fulfill these roles, the CFTC oversees designated contract markets, swap execution facilities, derivatives clearing organizations, swap data repositories, swap dealers, futures commission merchants, commodity pool operators, and other intermediaries.

¹³⁵ 7 U.S.C. §§ 1 *et seq.*

The CFTC has four divisions: (1) Division of Clearing and Risk; (2) Division of Enforcement; (3) Division of Market Oversight (DMO); and (4) Division of Swap Dealer and Intermediary Oversight (DSIO). The Division of Clearing and Risk oversees derivatives clearing organizations (DCOs) and other market participants in the clearing process, including futures commission merchants, swap dealers, major swap participants, and large traders. It monitors the clearing of futures, options on futures, and swaps by DCOs, assesses DCO compliance with CFTC regulations, and conducts risk assessment and surveillance. The Division of Enforcement investigates and prosecutes alleged violations of the Commodity Exchange Act and CFTC regulations. Potential violations include fraud, manipulation, and other abuses concerning commodity derivatives and swaps that threaten market integrity, market participants, and the general public. DMO oversees trade execution facilities and data repositories, conducts surveillance, reviews new exchange applications, and examines existing exchanges to ensure compliance with applicable core principles. DMO also evaluates new products to ensure they are not susceptible to manipulation as well as rule filings by exchanges to ensure compliance with core principles. DSIO oversees the registration and compliance of intermediaries and futures industry self-regulatory organizations, including U.S. derivatives exchanges and the National Futures Association. Under the Dodd-Frank Act, DSIO also is responsible for developing and monitoring compliance with regulations addressing registration, business conduct standards, capital adequacy, and margin requirements for swap dealers and major swap participants.

Congress created the CFTC in 1974. The CFTC has five commissioners who are appointed by the President with the advice and consent of the Senate. Their staggered terms last five years each. The President, with the consent of the Senate, designates one of the commissioners to serve as Chairman. No more than three commissioners at any one time may be from the same political party. The CFTC is generally funded through appropriations from Congress.

6. Consumer Financial Protection Bureau

The CFPB was established in 2010 by Title X of the Dodd-Frank Act. In order to create a single agency in the federal government for consumer financial protection, the Dodd-Frank Act consolidated many of the consumer financial protection authorities previously shared by seven federal agencies and provided the CFPB with additional authority to: (1) conduct rulemaking, supervision, and enforcement with respect to the federal consumer financial laws; (2) handle consumer complaints and inquiries; (3) promote financial education; (4) research consumer behavior; and (5) monitor financial markets for risks to consumers. In particular, the CFPB has supervision, examination, and enforcement authority over the consumer financial products and services of large banks (*i.e.*, those with assets in excess of \$10B) and certain non-depository institutions and their respective affiliates. The non-depository institutions subject to the CFPB's supervision and examination authority include residential mortgage lenders and servicers, payday lenders, originators of private student loans and larger participants in the automobile financing, credit reporting, debt collection, and student loan servicing markets. Furthermore, the CFPB has rulemaking authority and interpretive authority with respect to a number of federal consumer financial protection laws. The CFPB has broad enforcement authority and works closely with other federal and state consumer protection agencies.

While the CFPB operates within the Federal Reserve and is primarily funded by the Federal Reserve, it operates as an independent organization without any direct Federal Reserve oversight or involvement. The President, with the advice and consent of the Senate, appoints the Director to head the agency for a five-year term. The Director also is a director of the FDIC.

B. Case study On The Crisis: Securitization’s Role

Whether deserved or not, many commentators—and an even larger share of the public—believe that securitization initiated and caused the credit crisis that affected most of the world’s financial markets from 2007 until approximately 2009, the effects of which can still be felt today. Of course, as is usually the case, causation is much more complicated than the common perception, and it is difficult to conclude that we know exactly what happened in terms of cause and effect. But there is no doubt that securitization—or, more precisely, the manner in which securitization was practiced—had a major role in precipitating the crisis.¹³⁶ Regulators might debate with the industry the degree to which the industry was culpable, but even regulators now generally acknowledge that securitization needs to be improved, not eliminated. That is because, when utilized properly and wisely, securitization is an important source of funding for the so-called “real economy.”¹³⁷

The alleged culprit for the credit crisis is usually deemed to be sub-prime and Alt-A RMBS in the private-label and GSE markets and CDOs of such underlying RMBS. There is a debate about whether the government, through Congressional targets forced on the GSEs, actually “caused” sub-prime underwriting standards to loosen in order to meet mandated targets for making mortgage credit available to “underserved” portions of the population. Whether poor sub-prime standards were caused by government targets, private overreaching, or, as is likely, both, the lesson to be learned is that it is not a good idea to stretch underwriting standards in order to accomplish social or more prosaic profitability goals. The effect can actually be a reduction of poor and moderate income Borrowers’ access to credit if the decline in standards goes too far. Knowing where to draw the line is more an art than a science, but mandating specific goals is not the way to increase credit access in the long run, as doing so often takes no account of the quality of underwriting necessary to accomplish those goals.

It also is now generally accepted that even the extremely poor underwriting that occurred, and the consequent losses suffered by financial institutions, would not have had the dramatic effect that it did had the worldwide financial system not been so dramatically over-leveraged.¹³⁸ There were huge losses suffered in the “tech bust” that occurred several years earlier but nowhere near the dislocation among financial institutions. This is because the investments in tech stocks had largely been accomplished by investing without the aid of

¹³⁶ Jason Kravitt, “Securitization: What Happened; Is It Worth Saving; Do We Have The Right Reforms; Where Is It Going?” in *Credit Market and Subprime Distress*, at lvii (Daniel T. Brown & Jon D. Van Gorp, eds., Oct. 2009) (hereinafter, “Kravitt, *What Happened?*”).

¹³⁷ See Sections I.B. and III.A., *supra*, and Part Two, *infra*, for a discussion of related issues.

¹³⁸ Kravitt, *What Happened?* at lix.

securitization, whereas the financial institutions that invested in sub-prime (and Alt-A) RMBS did so in an highly leveraged fashion.¹³⁹ It is no accident that the primary dealers that failed, or that were close to failing, did so roughly in the order of leverage (Bear Stearns being the most leveraged and Lehman Brothers being the second most leveraged, for example).¹⁴⁰

Other lessons learned from the credit crisis were that securitization in particular, and financial markets to a lesser but still great degree, were highly correlated.¹⁴¹ Markets should create rules to take account of this correlation and at the same time attempt to mitigate its effect. In part, this market correlation stemmed from increased interconnectivity. Correlation and interconnectivity also caused a classic “domino effect.” As defaults in RMBS became worse and worse, SPEs and other entities that had invested in these securities themselves began to lose value, thus causing other entities exposed to their value—including “real” financial institutions, such as banks or mortgage originators—to lose value. This whole process was made significantly worse by U.S. GAAP, which in many circumstances required marking investments to market. This failed to account for the fact even in such circumstances that many investors might have intended to continue to hold the offending securities. Marking to market also forced many SPEs or financial institutions to record paper losses that, in turn, forced these latter entities to sell their investments pursuant to certain contractual covenants, which, in turn, glutted the market, which drove prices down, which caused all of the securities at risk to lose more value, which caused even lower marks to market, which forced more securities to be sold, and so on. Thus, the financial markets were caught in a textbook vicious cycle.¹⁴² To be very clear on this critical accounting point: if investors had been able to record values of investments that they had no intention of selling at their expected or ultimate realizable value, then tens, if not hundreds, of billions of dollars in equity could have been prevented from being eroded across the financial system. The role of FASB and U.S. GAAP in turning a systemic deleveraging into a global tailspin is something that has gone uncorrected by regulators and legislators alike.

Again, there has been much debate and analysis concerning the foregoing description of events leading to the crisis, but what is relevant for these purposes is that regulators believed that they needed to re-regulate securitization to mitigate the risks that they diagnosed in the manner in which securitization was conducted. This included improved disclosure in order to make the process fully transparent, or at least as transparent as practically possible and wise; increasing SPE consolidation in order to improve disclosure of risks inherent in SPVs to their sponsors and requiring appropriate levels of equity to support this risk; attempting to standardize documentation and process as much as practicable; improving the due diligence process; reforming Rating Agencies; increasing equity capital and lowering leverage and liquidity ratios thereby; and attempting to align interests between Originators and Issuers on the one hand, and Investors on the other hand. Of course, although aligning interests is not 100% achievable, and

¹³⁹ See *Rethinking the Financial Crisis* 139 (Alan S. Blinder, Andrew W. Loh, & Robert M. Solow, eds., 2012).

¹⁴⁰ Kravitt, *What Happened?* at lix.

¹⁴¹ Kravitt, *What Happened?* at lvii-lix.

¹⁴² Kravitt, *What Happened?* at lxiii-lxvii.

the degree of misalignment present and its responsibility for the losses that occurred are also debated, the concept of “originate-to-distribute” has been viewed as a major cause of the crisis so that eliminating it through structures to align interests has received a great deal of regulatory and legislative support.

The following sections analyze the regulations that have been adopted or proposed in order to accomplish all the foregoing hoped for improvements.

C. Regulatory Response

1. FAS 166 and 167

Under GAAP, Financial Accounting Standard (FAS) 166¹⁴³ and 167¹⁴⁴ govern the question of whether a securitization will be on-balance-sheet or off-balance-sheet with respect to the sponsor. Under those rules, there are two key steps to achieving off-balance-sheet treatment for a securitization, namely: (1) preventing accounting consolidation of the Issuer with the Sponsor under FAS 167; and (2) ensuring an accounting sale by the Sponsor to the Issuer under FAS 166.

a. FAS 167

FAS 167 is the accounting principle that governs whether the Depositor and the Issuer, as VIEs, must be consolidated with the Sponsor.¹⁴⁵ If both the Depositor and the Issuer must be consolidated with the Sponsor, then the related securitization transaction will not be off-balance-sheet for accounting purposes, even if the transaction meets the sale requirements of FAS 166.

In a typical securitization, the Depositor will be consolidated with the Sponsor for accounting purposes because it is wholly owned by the Sponsor, and the Sponsor has the power to direct the most significant activities of the Depositor. Thus, the critical question under FAS 167 is whether the *Issuer* must be consolidated with the Sponsor for accounting purposes.

Under FAS 167, the “primary beneficiary” of a VIE must consolidate 100% of the assets and liabilities of that VIE. The primary beneficiary of a VIE is the entity, if any, that has a controlling financial interest in that VIE. A VIE cannot have more than one primary beneficiary. An entity has a controlling financial interest in a VIE, and is thus the primary beneficiary of that VIE, if all of the following three conditions are met:

1. The entity holds “variable interests” in the VIE;

¹⁴³ See Accounting Standard Codification (“ASC”) 860-10-40.

¹⁴⁴ See ASC 810-10.

¹⁴⁵ For a more detailed discussion of consolidation and sale accounting for VIEs as applied to securitization, see Section II.C.2., *supra*.

2. The entity has the power to direct the activities of the VIE that most significantly impact the VIE's economic performance; and
3. The entity has the obligation to absorb losses of the VIE or the right to receive benefits from the VIE that could potentially be significant to the VIE.

b. FAS 166

Preventing the Issuer from being consolidated with the sponsor under FAS 167 is only the first step in achieving off-balance-sheet treatment for a securitization transaction. An accounting sale from the Sponsor to the Issuer under FAS 166 also is required.

In order to achieve such an accounting sale, the Sponsor must surrender control of the securitized assets to the Issuer and receive cash or other proceeds for that transfer. The Sponsor receives cash or other proceeds in exchange for the transfer of the securitized assets in nearly every securitization. Thus, the key requirement for achieving a sale under FAS 166 is that the Sponsor must surrender control of the securitized assets to the Issuer. That means that the Sponsor must surrender control (not only legal control, but also actual control, and effective control) over the assets.

c. Results

The result of the adoption by FASB of FAS 166 and 167 is that most securitizations now are “on-balance-sheet” to the Sponsor, whereas previously most securitizations were “off-balance-sheet” to the Sponsor.

2. FDIC Safe Harbor

On September 27, 2010, the FDIC adopted new safe harbor rules relating to the treatment of securitizations in receivership or conservatorship of an insured depository institution (bank).¹⁴⁶ The new safe harbor rules replace a prior safe harbor that had been rendered largely obsolete by changes to GAAP.

In adopting the original rule in 2000, the FDIC clarified the scope of its statutory authority as conservator or receiver to disaffirm or repudiate contracts of an insured depository institution (“IDI”) with respect to transfers of financial assets by the IDI in connection with a securitization or participation. The original rule provided that the FDIC, as conservator or receiver, would not use its statutory authority to disaffirm or repudiate contracts to reclaim, recover, or recharacterize as property of the institution or the receivership any financial assets transferred by an IDI in connection with a securitization or in the form of a participation, provided that such transfer met all conditions for sale accounting treatment under GAAP (other than the requirement “fixed” by the FDIC safe harbor itself).

¹⁴⁶ See 12 C.F.R. § 360.6.

The sale and consolidation accounting rules under FAS 166 and FAS 167 made it much more difficult for IDIs to qualify under the original rule. The FDIC adopted the new safe harbor rules in order to rectify that difficulty, as well as the perceived deficiencies in the securitization process following the financial crisis.

The availability of the safe harbor under the new rules assumes that a number of conditions are met, including extensive disclosure requirements for ABS offering documents. Some of the more significant features include the following:

- Imposition of a 5% credit risk retention requirement for ABS issued in securitizations that are sponsored by FDIC-insured banks. This requirement will automatically be superseded when the inter-agency Credit Risk Retention Rules required by the Dodd-Frank Act take effect.¹⁴⁷
- Imposition of Reg AB-style disclosure and reporting requirements on bank-sponsored ABS transactions closed after December 31, 2010, except for issuances by grandfathered master trusts.
- Substantial additional requirements for bank-sponsored RMBS transactions closed after December 31, 2010, including: limitations on capital structure that allow no more than six credit tranches and no pool-level external credit enhancement; mandatory terms as to Servicer powers and incentives; performance-based deferred compensation for Rating Agencies; a 5% reserve account for repurchases of ineligible receivables, in addition to the required 5% retention of credit risk; and third-party assessments on legal compliance of the underlying loans.

The new safe harbor rules impose significant new conditions in order for securitizations that are not grandfathered to benefit from the safe harbors. The FDIC recognizes the importance of securitization as a source of liquidity for banks, but it also believes that securitization played a significant role in bringing about the recent credit and market crises. Consequently, while the FDIC has continued to facilitate bank securitizations by providing safe harbors from its repudiation, avoidance, and automatic stay powers, it is also using the new safe harbor rules to attempt to reshape the securitization market.

The new sale and SPE consolidation rules of the FASB were adopted in June 2009, so one may view them in part as a response to the financial crisis and, in particular, as an attempt for *disclosure purposes*¹⁴⁸ to bring on balance sheet many SPEs that previously were off-balance sheet. But, in fact, the most significant aspect of the new rules was not in balance sheet disclosure. Rather, the most salient aspect of the new rules was that U.S. Federal Bank regulators, in adopting their new risk-based capital rules for banks, provided for requiring risk-based capital to be held against all positions with regard to consolidated SPEs. Thus, rules designed for

¹⁴⁷ For RMBS transactions, the Credit Risk Retention Rules took effect on December 24, 2015. For all other types of ABS, the Credit Risk Retention Rules take effect on December 24, 2016.

¹⁴⁸ See Section VIII.C.5, *infra*.

disclosure—accounting rules—were used as a baseline for capital rules, which should be based on risk, not disclosure.

3. Reg AB II

On August 27, 2014, the SEC adopted final rules that amend Reg AB, resulting in what is referred to as Reg AB II.¹⁴⁹ Reg AB II adopts new rules, forms, and disclosures for registered ABS transactions that became effective in late November 2015.¹⁵⁰ Reg AB II includes many changes that will affect the marketing process, deal terms, disclosure requirements, registration process, and periodic reporting requirements for registered transactions, but it does not govern ABS offered for sale pursuant to an exemption from registration (*i.e.*, Rule 144A, Regulation D, or Regulation S offerings). The four most significant elements of Reg AB II are: (1) changes to the definition of an “asset-backed security”; (2) new eligibility conditions for shelf registration; (3) asset-level data disclosure for selected asset classes and related privacy issues; and (4) other new prospectus disclosure requirements.

Changes to the Definition of Asset-Backed Security. Reg AB II sets forth amendments to the definition of ABS. The SEC amended the definition to address its concern that pools of assets are not sufficiently developed at the time of an offering but may still qualify for ABS treatment, and, as a result, Investors do not receive appropriate information about the asset pool. The SEC was particularly concerned with whether the asset pool is truly a discrete pool of assets that by its terms converts to cash. To address these concerns, the SEC decreased the pre-funding limit to qualify as an ABS from 50% to 25% of the offering proceeds and, in the case of master trusts, of the principal balance of the total asset pool.

New Eligibility Conditions for Shelf Registration. Reg AB II institutes a number of new registrant and transaction eligibility requirements for using Form SF-3 to register ABS for public offerings in the U.S., including:

- a certification by the chief executive officer of the Depositor regarding the disclosure concerning the securitized assets in the prospectus and the structure of the securitization at the time of the filing of a final prospectus for each takedown off the shelf;¹⁵¹
- inclusion in the transaction documents of provisions: (1) requiring an asset-representations reviewer to review delinquent assets for compliance with the representations and warranties if a delinquency test has been triggered and Investors vote to require a review; (2) establishing dispute resolution procedures for repurchase

¹⁴⁹ See 79 Fed. Reg. 57,184 (Sept. 24, 2014).

¹⁵⁰ For a more detailed discussion of Reg. AB, see Section II.F.4., *supra*.

¹⁵¹ Among other things, the officer must certify that there is a reasonable basis to conclude that the securitization is structured to produce expected cashflows at times and in amounts to make required payments on the ABS.

requests unresolved after 180 days; and (3) facilitating communications among Investors; and

- a registrant requirement regarding the timely filing of Exchange Act reports and required Form SF-3 transaction documents, including annual compliance checks.

Asset-Level Data Disclosure for Selected Asset Classes. Reg AB II requires asset-level disclosures for ABS backed by residential mortgages, commercial mortgages, automotive loans, automotive leases, debt securities, and re-securitizations. The SEC has not yet adopted asset-level disclosure requirements for any other asset classes and has stated that it is continuing to consider whether such disclosures would be useful to Investors.

For the relevant asset classes, Issuers must provide disclosure in standardized XML machine-readable format, filed and publicly available through EDGAR on Form ABS-EE. Issuers are required to provide this information in the preliminary prospectus and final prospectus and to update such information over the life of the ABS transaction in ongoing Exchange Act periodic reports.

The SEC stated that it is requiring standardized asset-level disclosures in order to allow Investors to compare and analyze more easily the underlying asset-level data of a particular pool as well as to compare that pool to other recent pools in similar ABS offerings. The SEC's stated goals are to mitigate prior problems caused by Investors not having the necessary information to consider and understand the risks related to the assets underlying the ABS and to make information available to track the performance of ABS offerings.

Other New Prospectus Disclosure Requirements. Reg AB II includes several other requirements affecting prospectus disclosure in registered offerings. Specifically, it provides for: (1) an enhanced disclosure requirement regarding certain transaction parties; (2) a requirement that prospectus summaries highlight material characteristics of the particular ABS being offered; (3) a more detailed disclosure requirement regarding modifications of underlying assets by the Servicer; (4) revisions to static pool information disclosure requirements designed to increase the clarity, transparency, and comparability of static pool information; and (5) the elimination of certain disclosure requirements that rely on credit ratings.

4. Risk Retention

On October 22, 2014, the OCC, the Federal Reserve, the FDIC, the SEC, the Federal Housing Finance Agency, and the Department of Housing and Urban Development jointly approved a final "Risk Retention Rule" implementing the credit risk requirements of Section 15G of the Exchange Act.¹⁵² The Risk Retention Rule generally requires the sponsor of an ABS transaction to retain at least 5% of the credit risk of the assets supporting its securities. The

¹⁵² See 79 Fed. Reg. 77,602 (Dec. 24, 2014).

effective date of the Rule for RMBS transactions was December 24, 2015 and December 24, 2016 for all other types of ABS.

Generally, the Sponsor of a securitization transaction must retain 5 % of the credit risk in the securitized assets (determined as of the closing date of the transaction) in accordance with one of three standard risk retention options, namely: (1) eligible horizontal residual interest (EHRI); (2) eligible vertical interest; or (3) a combination of both an EHRI and an eligible vertical interest. In lieu of retaining an EHRI, the sponsor may cause to be established an eligible horizontal cash reserve account in an amount equal to the fair value of all or a portion of the EHRI. In addition, alternative options are available to certain specified asset classes. The principal asset-specific alternative options are the following:

- For RMBS, the Risk Retention Rule provides an exemption for securitizations of QRMs meeting several eligibility criteria. Specifically, the QRM exemption applies if: (1) all of the assets that collateralize the ABS are QRMs or servicing assets; (2) none of the assets that collateralize the ABS are ABS; (3) at the closing of the transaction, each QRM collateralizing the ABS is less than 30 days past due; and (4) the Depositor has certified the effectiveness of its internal supervisory controls.
- For CMBS, the Risk Retention Rule provides for a B-Piece option, which allows a Sponsor to satisfy its risk retention requirement if one or two third parties purchase an eligible horizontal residual interest, *i.e.*, the B-Piece. This option requires, among other conditions, the appointment of an operating advisor for the transaction. The operating advisor represents the interests of all of the CMBS holders, and has the power to recommend removal of the Special Servicer.
- Under the Risk Retention Rule, a CLO manager is required to meet the standard risk retention requirement unless the CLO is comprised solely of CLO-eligible loan tranches and meets the other requirements for the so-called “lead arranger” option. Rather than imposing risk retention obligations on the CLO manager, this option allows for satisfaction of the risk retention requirement by the lead arranger of a lending facility in which a CLO invests.¹⁵³
- The Risk Retention Rule provides a risk retention option available solely to Sponsors of Revolving Pool Securitizations. The Rule defines a Revolving Pool Securitization as an Issuer “that is established to issue on multiple issuance dates more than one series, class, subclass, or tranche of ABS that are collateralized by a common pool of securitized assets that will change in composition over time, and that does not monetize excess interest and fees from its securitized assets.”¹⁵⁴ A Sponsor of a Revolving Pool Securitization can satisfy its risk retention requirement if, at the closing of the transaction and on a periodic basis (no less than monthly) until no ABS interest in the Issuer is outstanding or otherwise

¹⁵³ However, this option is unlikely to be utilized, because most lead arrangers will be unwilling to assume the risk.

¹⁵⁴ See Regulation RR §5F.5(a).

held by a person that is not a wholly-owned affiliate, the Sponsor or a wholly owned affiliate of the Sponsor, maintains a Seller’s interest of at least 5% of the aggregate unpaid principal balance of outstanding Investor ABS interests in the Issuer. Retention through a majority-owned affiliate, which is an option for other asset classes like CLOs, is not an option for Revolving Pool Securitizations.

- For ABCP Conduits, the Credit Risk Retention Rule permits the Sponsor of an “eligible ABCP conduit” to satisfy its risk retention requirement if, for each ABS interest acquired by the Conduit from an SPE, that SPE’s Sponsor holds a retained interest in the credit risk of the underlying assets by using either the standard risk retention option or the Revolving Pool Securitization option. Under the Credit Risk Retention Rule, a Sponsor of an ABCP Conduit is not required to use the specialized ABCP Conduit option and may instead satisfy its risk retention obligation using one of the standard risk retention options. The definition of an eligible ABCP Conduit provides that an ABCP Conduit must, among other requirements, be collateralized solely by ABS interests that are acquired in an initial issuance and that are collateralized solely by assets originated by an Originator-Seller, SUBIs, or similar ABS interests acquired by an Originator-Seller or ABS interests in a Revolving Pool Securitization collateralized solely by assets originated by an Originator-Seller.

If there is more than one Sponsor of a securitization transaction, the Risk Retention Rule requires at least *one* of those Sponsors (or at least one of their majority-owned or wholly owned affiliates, as applicable) to comply with the full 5% risk retention requirement.¹⁵⁵ The representative sample method of risk retention (which, at the time of the Rule’s approval, was one of only two risk retention options permitted by the FDIC safe harbor for bank-sponsored securitizations) is not an acceptable form of retention under the Rule, nor are participation interests, unfunded credit support, companion notes, or overcollateralization.

5. Capital and Liquidity Rules

a. Capital rules

Each of the U.S. bank regulators—namely, the FRB, OCC, and FDIC (collectively, the “Agencies”)—adopted a final rule¹⁵⁶ (in the case of the FDIC, an interim final rule) to implement the Basel III regulatory capital framework¹⁵⁷ for banking organizations in the United States.¹⁵⁸

¹⁵⁵ See Regulation RR § 5F.3(b).

¹⁵⁶ The final rules and the FDIC’s interim final rule, as adopted, share substantially common text and are available at: <http://www.federalreserve.gov/bcreg20130702a.pdf> (FRB); <http://occ.gov/news-issuances/news-releases/2013/2013-110a.pdf> (OCC); and <http://fdic.gov/news/board/2013/2013-07-09noticedisares.pdf> (FDIC).

¹⁵⁷ We assume readers of this paper will be generally familiar with the Basel III framework. More details are available at: <http://www.bis.org/bcbs/basel3.htm?q=1>.

¹⁵⁸ A Legal Update summarizing the Final Rule is available at: <http://www.mayerbrown.com/Bank-Regulators-Approve-Final-Rule-to-Implement-Basel-III-Capital-Requirements-in-the-United-States-07-15-2013/>.

The Final Rule reflects the recognition that the securitization framework is something of a “work-in-process,” with ongoing Basel Committee on Banking Supervision (BCBS) work-streams and other activities that could have potentially significant impacts on the securitization framework and the Agencies’ ongoing supervisory review of the effects and other consequences of the implementation of the Final Rule.

Consistent with the securitization approach in effect for U.S. advanced approaches banks under Basel II (U.S. Basel II),¹⁵⁹ the Final Rule updates the terminology for the securitization framework to include a definition of securitization exposure that encompasses a wider range of exposures with similar risk characteristics. In addition, as was proposed in the June 2012 NPRs, the Final Rule implements new due diligence and other operational requirements for securitization exposures.

(1) No mention of BCBS Consultation Document 236

Somewhat curiously, the Final Rule makes no mention of the BCBS’ December 2012 Consultative Document,¹⁶⁰ which proposed additional changes to the Basel III securitization framework. These changes included the introduction of a new maturity feature throughout the framework, starting with the modified supervisory formula approach, or MSFA, which is based on the supervisory formula approach (SFA). Industry comments on this proposal have been critical of the significant increase in capital resulting from the new maturity factor, as well as the relatively limited risk sensitivity in those approaches most likely to be used by banks as Investors and the lack of consistency in resulting capital charges under the various alternative approaches. In rather sharp contrast to the absence of discussion of BCBS 236, the Final Rule extensively referenced the then-ongoing BCBS work-streams in other areas, including exposures to central counterparties (CCP) and over-the-counter (OTC) derivatives exposures, and specifically notes that the Final Rule will likely be revised when that other work is concluded.

(2) Definitions of securitization and securitization exposure

Consistent with the June 2012 NPRs and U.S. Basel II, the Final Rule defines a securitization exposure as an on- or off-balance sheet credit exposure (including credit-enhancing representations and warranties) that arises from a traditional or synthetic securitization (including a resecuritization) or an exposure that directly or indirectly references a securitization

¹⁵⁹ 72 Fed. Reg. 69,288 (Dec. 10, 2007).

¹⁶⁰ 8 BCBS, *Revisions to the Basel Securitisation Framework – Consultative Document* (Dec. 2012), available at <http://www.bis.org/publ/bcbs236.pdf>. A related Legal Update discussing these proposals is available at: <http://www.mayerbrown.com/revisions-basel-framework/>.

exposure. The Agencies rejected objections to the proposal that the definition resulted in an overly broad scope and should be limited to exposures that tranche the credit risk associated with a pool of assets. According to the Agencies, both the designation of exposures as securitization exposures (or resecuritization exposures) and the calculation of risk-based capital requirements for securitization exposures under the Final Rule are guided by the economic substance of a transaction rather than its legal form. Provided there is tranching of credit risk, securitization exposures could include, among other things: ABS and MBS; loans; lines of credit; liquidity facilities; financial standby letters of credit; credit derivatives and guarantees; loan servicing assets; servicer cash advance facilities; reserve accounts; credit-enhancing representations and warranties; and credit-enhancing interest-only strips (CEIOs). Securitization exposures also include assets sold with retained tranches.

(3) Traditional securitization defined

The Final Rule generally adopts the June 2012 NPRs' (and, in turn, U.S. Basel II's) definition of traditional securitization, which requires that credit risk of one or more underlying exposures has been transferred to one or more third parties (other than through the use of credit derivatives or guarantees), where the credit risk associated with the underlying exposures has been separated into at least two tranches reflecting different levels of seniority. It also includes certain other conditions, such as requiring all or substantially all of the underlying exposures to be financial exposures.

However, the Final Rule also excludes certain exposures from the securitization framework. Specifically, while tranching of credit risk associated with financial assets is often indicative of a securitization, the Agencies found that the securitization framework was not appropriate for tranching credit exposures to commercial or industrial companies or associated with non-financial assets. For example, the Final Rule explicitly states that specialized loans to finance the construction or acquisition of large-scale projects or commodities would not be securitization exposures, since the assets backing the loans (the project facility or commodity being financed) are non-financial.

(4) Exclusion for operating companies

The Final Rule retains the June 2012 NPRs' proposed exclusion (currently in U.S. Basel II) of an operating company from traditional securitizations, even if substantially all of its assets are financial. Operating companies generally are companies that are established to conduct business with clients with the intention of earning a profit in their own right and generally produce goods or provide services beyond the business of investing, reinvesting, holding, or trading in financial assets. Accordingly, an equity investment in an operating company generally would be an equity exposure. Under the Final Rule, banking organizations are operating companies and do not fall under the definition of a traditional securitization. However, investment firms that generally do not produce goods or provide services beyond the business of investing, reinvesting, holding, or trading in financial assets would not necessarily be operating companies under the Final Rule

and, as such, would not qualify for this general exclusion from the definition of traditional securitization.

Despite comments that requested broader exclusions from traditional securitization for certain investment firms, the Final Rule only adds certain pension funds to the proposed exclusions. The Final Rule also retains the proposed discretion for the primary federal supervisor of a banking organization to exclude from the definition of a traditional securitization those transactions in which the underlying exposures are owned by an investment firm that exercises “substantially unfettered control” over the size and composition of its assets, liabilities, and off-balance-sheet exposures.

In determining whether to exclude an investment firm from the securitization framework, the Agencies are to consider a number of factors, including the assessment of the transaction’s leverage, risk profile, and economic substance. This supervisory exclusion gives the primary federal supervisor discretion to distinguish structured finance transactions—to which the securitization framework is designed to apply—from those of flexible investment firms, such as certain hedge funds and private equity funds. Only investment firms that can easily change the size and composition of their capital structure, as well as the size and composition of their assets and off-balance-sheet exposures, are eligible for the exclusion from the definition of traditional securitization under this provision. The Agencies do not consider managed CDO vehicles, structured investment vehicles (SIVs), and similar structures—which allow considerable management discretion regarding asset composition but are subject to substantial restrictions regarding capital structure—to have “substantially unfettered control.” As a result, such transactions will still meet the definition of traditional securitization under the Final Rule. These provisions largely repeat language from the June NPRs and existing U.S. Basel II and thus offer no additional guidance on ambiguities that have arisen, including treatment of various types of exposures to hedge funds.

(5) Scope-in discretion retained

In noting that the line between securitization exposures and non-securitization exposures may be difficult to identify in some circumstances, the Final Rule retains the power for the primary federal supervisor to expand the scope of the securitization framework to include other transactions if doing so is justified by the economics of the transaction. Similar to the analysis for excluding an investment firm from treatment as a traditional securitization, the Agencies will consider the economic substance, leverage, and risk profile of a transaction to ensure that an appropriate risk-based capital treatment is applied. The Agencies will consider a number of factors when assessing the economic substance of a transaction including, for example, the amount of equity in the structure, overall leverage (whether on- or off-balance-sheet), whether redemption rights attach to the equity Investor, and the ability of the junior tranches to absorb losses without interrupting contractual payments to more senior tranches.

(6) Synthetic securitizations defined

As in the proposal and U.S. Basel II, a synthetic securitization is defined as a transaction in which: (1) all or a portion of the credit risk of one or more underlying exposures is transferred to one or more third parties through the use of one or more credit derivatives or guarantees (other than a guarantee that transfers only the credit risk of an individual retail exposure); (2) the credit risk associated with the underlying exposures has been separated into at least two tranches reflecting different levels of seniority; (3) performance of the securitization exposures depends upon the performance of the underlying exposures; and (4) all or substantially all of the underlying exposures are financial exposures, such as loans, commitments, credit derivatives, guarantees, receivables, ABS, MBS, other debt securities, or equity securities. The Final Rule further clarifies that transactions in which a portion of the credit risk has been retained, not just transferred, through the use of credit derivatives is subject to the securitization framework.

(7) Resecuritizations

Rejecting requests for an exclusion or at least a proportionate treatment for resecuritizations that include only a *de minimis* amount of another securitization exposure (for example, a CLO transaction with a “basket” for up to 5% of its portfolio to include structured securities), the Final Rule retains the June 2012 NPRs’ proposed definition of resecuritization. The definition of “resecuritization” is an on- or off-balance-sheet exposure to a resecuritization or an exposure that directly or indirectly references a resecuritization exposure. Consistent with Basel III, the Final Rule also provides that an exposure to an ABCP program is not a resecuritization exposure if either: (1) the program-wide credit enhancement does not meet the definition of a resecuritization exposure; or (2) the entity sponsoring the program fully supports the commercial paper through the provision of liquidity so that the commercial paper holders effectively are exposed to the default risk of the Sponsor instead of the underlying exposures. A pool-specific ABCP liquidity facility generally is not a resecuritization exposure under the Final Rule, because the pool-specific liquidity facility represents a tranche of a single asset pool (that is, the applicable pool of financial exposures), provided that the pool itself contains no securitization exposures.

However, the Final Rule helpfully clarifies that a re-tranching of a single exposure (for example, a re-REMIC) is not a resecuritization and that pass-through securities do not tranche credit protection and, accordingly, are not securitization exposures.

(8) Securitization due diligence requirements

Consistent with the proposal, the Final Rule requires banking organizations to satisfy specific due diligence and other operational requirements for securitization exposures, including the requirement that the banking organization demonstrate to the satisfaction of its primary federal supervisor a comprehensive understanding of the features of a securitization exposure that would materially affect its performance. The banking organization’s analysis would have to be commensurate with the complexity of the exposure and the materiality of the exposure in

relation to capital of the banking organization. On an ongoing basis (and no less frequently than quarterly), the banking organization must evaluate, review, and update as appropriate the analysis required under the Final Rule for each securitization exposure. The analysis of the risk characteristics of the securitization exposure prior to acquisition, and periodically thereafter, will have to consider:

1. structural features of the securitization that materially impact the performance of the exposure; for example, the contractual cashflow Waterfall, Waterfall-related triggers, credit enhancements, liquidity enhancements, market value triggers, the performance of organizations that service the position, and deal-specific definitions of default;
2. relevant information regarding the performance of the underlying credit exposure(s); for example, the percentage of loans 30, 60, and 90 days past due; default rates; prepayment rates; loans in foreclosure; property types; occupancy; average credit score or other measures of creditworthiness; average loan-to-value (LTV) ratio; and industry and geographic diversification data on the underlying exposure(s);
3. relevant market data of the securitization; for example, bid-ask spread, most recent sales price and historical price volatility, trading volume, implied market rating, and size, depth, and concentration level of the market for the securitization; and
4. for resecuritization exposures, performance information on the underlying securitization exposures; for example, the issuer name and credit quality and the characteristics and performance of the exposures underlying the securitization exposures.

Failure to satisfy these due diligence requirements results in a 1,250% risk weight to the securitization exposure. However, while the Agencies rejected requests for more moderate consequences depending on the degree and frequency of the failure, the preamble to the Final Rule suggests that the Agencies may permit appropriate flexibility where, for example, market data is not available (*e.g.*, for foreign exposures) or loan-level data is not available (in which case, the Agencies indicate that pool-level data can be used).

(9) Securitization operational requirements

General Requirements. As for related operational requirements, under the Final Rule and consistent with the proposal and U.S. Basel II, a banking organization that transfers exposures it has originated or purchased to a securitization SPE or other third party in connection with a traditional securitization can exclude the underlying exposures from the calculation of risk-weighted assets only if each of the following conditions is met:

1. the exposures are not reported on the banking organization's consolidated balance sheet under GAAP;
2. the banking organization has transferred to one or more third parties credit risk associated with the underlying exposures; and
3. any clean-up calls relating to the securitization are eligible clean-up calls.

An originating banking organization that meets these conditions must hold risk-based capital against any credit risk it retains or acquires in connection with the securitization. An originating banking organization that fails to meet these conditions is required to hold risk-based capital against the transferred exposures as if they had not been securitized and must deduct from common equity tier 1 (CET1) capital any after-tax gain-on-sale resulting from the transaction.

In addition, consistent with the proposal and in a change from the current rules, if a securitization includes one or more underlying exposures in which the Borrower is permitted to vary the drawn amount within an agreed limit under a line of credit and contains an early amortization provision, the originating banking organization is required to hold risk-based capital against the transferred exposures as if they had not been securitized and deduct from CET1 capital any after-tax gain-on-sale resulting from the transaction.

Special Requirements for Synthetic Securitizations. In general, the operational requirements for synthetic securitizations under the Final Rule are similar to those for traditional securitizations. However, these operational requirements are more detailed to ensure that the originating banking organization has truly transferred credit risk of the underlying exposures to one or more third parties. Under the June 2012 NPRs, an originating banking organization would have been able to recognize for risk-based capital purposes the use of a credit risk mitigant to hedge underlying exposures only if each of the conditions in the definition of "synthetic securitization" was satisfied. However, to ensure that synthetic securitizations created through tranching guarantees and credit derivatives are properly included in the securitization framework, the Final Rule amends the operational requirements to recognize guarantees and credit derivatives that meet all of the criteria set forth in the definition of eligible guarantee or eligible credit derivative, except the requirement that the guarantee [or obligation] be unconditional. As a result, a guarantee or credit derivative that provides a tranching guarantee would not be excluded by the operational requirements for synthetic securitizations.

Failure to meet these operational requirements for a synthetic securitization prevents a banking organization that has purchased tranching credit protection referencing one or more of its exposures from using the securitization framework with respect to the reference exposures. Instead, the banking organization must hold risk-based capital against the underlying exposures as if they had not been synthetically securitized. If the operational requirements are met, a banking organization that holds a synthetic securitization as a result of purchasing credit protection may use the securitization framework to determine the risk-based capital

requirement for its exposure. Alternatively, it may choose to disregard the credit protection and use the general credit risk framework. A banking organization that provides tranching credit protection in the form of a synthetic securitization or credit protection to a synthetic securitization *must* use the securitization framework to compute risk-based capital requirements for its exposures to the synthetic securitization, even if the originating banking organization fails to meet one or more of the operational requirements for a synthetic securitization.

(10) Clean-up calls

As proposed, and consistent with U.S. Basel II, the Final Rule requires that, to satisfy the operational requirements for securitizations and enable an originating banking organization to exclude the underlying exposures from the calculation of its risk-based capital requirements, any clean-up call associated with a securitization would need to be an eligible clean-up call. In the case of a traditional securitization, a clean-up call generally is accomplished by the Originator repurchasing the remaining securitization exposures once the amount of underlying exposures or outstanding securitization exposures falls below a specified level. In the case of a synthetic securitization, the clean-up call may take the form of a clause that extinguishes the credit protection once the amount of underlying exposures has fallen below a specified level.

The Final Rule continues to define an eligible clean-up call as a clean-up call that is a contractual provision that permits an originating banking organization or Servicer to call securitization exposures before their stated maturity or call date and that: (1) is exercisable solely at the discretion of the originating banking organization or Servicer; (2) is not structured to avoid allocating losses to securitization exposures held by Investors or otherwise structured to provide credit enhancement to the securitization (for example, to purchase non-performing underlying exposures); and (3) (a) for a traditional securitization, is only exercisable when 10% or less of the principal amount of the underlying exposures or securitization exposures (determined as of the inception of the securitization) is outstanding, or (b) for a synthetic securitization, is only exercisable when 10% or less of the principal amount of the reference portfolio of underlying exposures (determined as of the inception of the securitization) is outstanding.

When a securitization SPE is structured as a master trust, a clean-up call with respect to a particular series or tranche issued by the master trust meets criterion (3) of the definition of an “eligible clean-up call” as long as the outstanding principal amount in that series or tranche was 10% or less of its original amount at the inception of the series.

(11) Alternative approaches to determine risk-weighted capital

Consistent with the June 2012 NPRs, the framework for assigning risk-based capital requirements to securitization exposures in the Final Rule will require banking organizations generally to calculate a risk-weighted asset amount for a securitization exposure by applying either the simplified supervisory formula approach (SSFA) or, if the banking organization is a Standardized Bank that is not subject to the market risk rule, a “gross-up” approach similar to an

approach provided under the general risk-based capital rules. A banking organization would be required to apply either the SSFA or the gross-up approach consistently across all of its securitization exposures. If an Advanced Bank has the required data to do so (which may include loan-level data in some cases), such bank must instead use the more risk-sensitive supervisory formula approach as in U.S. Basel II but with changes to the formula that yield a higher capital charge. The gross-up approach is not available to Advanced Banks.

Pursuant to Section 939A of the Dodd-Frank Act, the ratings-based approach in the existing U.S. capital rules (including US Basel II) has been eliminated. The Agencies determined that the SSFA is an appropriate substitute standard to credit ratings that can be used to measure risk-based capital requirements and may be implemented uniformly across institutions. In addition, despite industry objections that it adversely affected banks that maintained capital ratios above the regulatory minimums, the Agencies retained use of a 1,250% risk weight rather than a capital deduction for certain securitization exposures (and for similar treatment elsewhere in the Final Rule), noting that use of the 1,250% risk weight was simpler and provided for comparability in risk-weighted asset amounts for the same exposure across institutions.

There are some exceptions to the general provisions in the securitization framework that parallel the general risk-based capital rules. First, a banking organization is required to assign a risk-weight of at least 100% to an interest-only MBS. The Agencies state that a minimum risk-weight of 100% is prudent in light of the uncertainty implied by the substantial price volatility of these securities. Second, as required by federal statute, special rules continue to apply to securitizations of small-business loans and leases on personal property transferred with retained contractual exposure by well-capitalized depository institutions.

Consistent with the proposal, the Final Rule provides for an alternative treatment of securitization exposures to ABCP programs and certain gains-on-sale and credit-enhancing interest-only (CEIO) exposures, both as further described below. Similar to the general risk-based capital rules, the Final Rule also includes a minimum 100% risk-weight for interest-only MBS and exceptions to the securitization framework for certain small-business loans and certain derivatives, also as described below. A banking organization may use the securitization credit risk mitigation rules to adjust the capital requirement under the securitization framework for an exposure to reflect certain collateral, credit derivatives, and guarantees.

(12) Amounts of exposures for which risk-based capital is required

Under the Final Rule, the exposure amount of an on-balance-sheet securitization exposure that is not a repo-style transaction, eligible margin loan, OTC derivative contract, or derivative that is a cleared transaction is generally the banking organization's carrying value of the exposure. However, if a securitization exposure is an OTC derivative contract or derivative contract that is a cleared transaction (other than a credit derivative) that has a first priority claim on the cashflows from the underlying exposures (notwithstanding amounts due under interest rate or currency derivative contracts, fees due, or other similar payments), a banking organization

may choose to set the risk-weighted asset amount of the exposure equal to the amount of the underlying exposure.

The exposure amount of an off-balance-sheet securitization exposure that is not an eligible ABCP liquidity facility, a repo-style transaction, an eligible margin loan, an OTC derivative contract (other than a credit derivative), or a derivative that is a cleared transaction (other than a credit derivative) is the notional amount of the exposure.

For purposes of calculating the exposure amount of an off-balance-sheet exposure to an ABCP securitization exposure, such as a liquidity facility, consistent with the June 2012 NPRs, under both the standardized and advanced approaches, the notional amount may be reduced to the maximum potential amount that the banking organization could be required to fund given the ABCP program's current underlying assets (calculated without regard to the current credit quality of those assets).

Under the Final Rule's standardized approach, the exposure amount of an eligible ABCP liquidity facility that is subject to the SSFA equals the notional amount of the exposure multiplied by a 100% credit conversion factor (CCF). However, a Standardized Bank can use a 50% CCF to calculate the exposure amount of an eligible ABCP liquidity facility that is not subject to the SSFA. The exposure amount of a securitization exposure that is a repo-style transaction, an eligible margin loan, an OTC derivative contract (other than a purchased credit derivative), or a derivative that is a cleared transaction (other than a purchased credit derivative) is the exposure amount of the transaction as calculated under section 34 (OTC derivative contracts) or section 37 (collateralized transactions) of the Final Rule, as applicable.

(13) Double-counting avoided

Consistent with the proposal and U.S. Basel II, the Final Rule includes provisions to limit the double-counting of risks in situations involving overlapping securitization exposures. If a banking organization has multiple securitization exposures that provide duplicative coverage to the underlying exposures of a securitization, such as when a banking organization provides a program-wide credit enhancement and multiple pool-specific liquidity facilities to an ABCP program, the banking organization is not required to hold duplicative risk-based capital against the overlapping position. Instead, the banking organization must apply to the overlapping position the applicable risk-based capital treatment under the securitization framework that results in the highest risk-based capital requirement.

(14) Servicer advances

A traditional securitization often employs a servicing banking organization that, on a day-to-day basis, collects principal, interest, and other payments from the underlying assets of the securitization and forwards such payments to the securitization SPE or to investors in the

securitization.¹⁶¹ Servicing banking organizations often provide a facility to the securitization under which the servicing banking organization may advance cash to ensure an uninterrupted flow of payments to investors in the securitization, including advances made to cover foreclosure costs or other expenses to facilitate the timely collection of the underlying exposures. These Servicer cash advance facilities are treated as securitization exposures for regulatory capital purposes. Consistent with the proposal, under the Final Rule, a banking organization must apply the SSFA or the gross-up approach, as described below, or a 1,250% risk-weight to a Servicer cash advance facility. The treatment of the undrawn portion of the facility depends on whether the facility is an eligible Servicer cash advance facility. An “eligible servicer cash advance facility” is a servicer cash advance facility in which: (1) the Servicer is entitled to full reimbursement of advances, except that a Servicer may be obligated to make non-reimbursable advances for a particular underlying exposure if any such advance is contractually limited to an insignificant amount of the outstanding principal balance of that exposure; (2) the Servicer’s right to reimbursement is senior in right of payment to all other claims on the cashflows from the underlying exposures of the securitization; and (3) the Servicer has no legal obligation to, and does not make, advances to the securitization if the Servicer concludes the advances are unlikely to be repaid.

Consistent with the proposal, a banking organization that is a Servicer under an eligible Servicer cash advance facility will not be required to hold risk-based capital against potential future cash advances that it may be required to provide under the contract governing the facility. Under the proposal, a banking organization that provides a non-eligible servicer cash advance facility would have determined its risk-based capital requirement for the notional amount of the undrawn portion of the facility in the same manner as for other off-balance-sheet securitization exposures. The Final Rule clarifies that a banking organization that is a Servicer under a non-eligible servicer cash advance facility must hold risk-based capital against the amount of all potential future cash advance payments that it may be contractually required to provide during the subsequent 12-month period under the contract governing the facility.

(15) SSFA

To replace the ratings-based approach as a method to assign risk weights to securitization exposures, the June 2012 NPRs introduced a simplified version (SSFA) of the supervisory formula approach (SFA) that had existed in U.S. Basel II. In the Final Rule, the Agencies acknowledge that there may be differences in capital requirements under the SSFA and the ratings-based approach in the Basel capital framework and note that any alternative standard developed by the Agencies may not generate the same result as a ratings-based capital framework under every circumstance. However, the Agencies state that they have designed the SSFA to result in generally comparable capital requirements to those that would be required under the Basel ratings-based approach without undue complexity. The Agencies will monitor implementation

¹⁶¹ See Section VI.B., *supra*.

of the SSFA and, based on supervisory experience, consider what modifications, if any, may be necessary to improve the SSFA in the future.

The Agencies have adopted the SSFA largely as proposed, with revisions to the delinquency parameter (parameter *W*) that are intended to clarify the operation of the formula when the contractual terms of the exposures underlying a securitization permit Borrowers to defer payments of principal and interest, as described below. The SSFA applies a 1,250% risk-weight to securitization exposures that absorb losses up to the amount of capital that would be required for the underlying exposures under subpart D (the standardized approach) of the Final Rule, had those exposures been held directly by a banking organization. In addition, the Final Rule implements the controversial proposed supervisory *risk weight floor* or *minimum risk weight* for a given securitization of 20%.

At the inception of a securitization, the SSFA requires more capital on a transaction-wide basis than would be required if the underlying assets had not been securitized. That is, if the banking organization held every tranche of a securitization, its overall capital requirement would be greater than if the banking organization held the underlying assets in its own unsecuritized portfolio. In response to industry criticism of this aspect of the proposal, the Agencies simply stated their belief in the Final Rule that this overall outcome is important in reducing the likelihood of regulatory capital arbitrage through securitizations.

The June 2012 NPRs had proposed that data for SSFA parameters may not be more than 91 days old. Commenters had requested that this requirement be relaxed for securitizations of underlying assets with longer payment periods. In response, the Final Rule requires that the most current available data be used but retains the specific 91 days requirement for exposures with monthly or quarterly payments.

In order to use the SSFA, a banking organization must obtain or determine the weighted-average risk-weight of the underlying exposures (KG), as well as the attachment and detachment points for the banking organization's position within the securitization structure. "KG" is calculated using the risk-weighted asset amounts in the standardized approach and is expressed as a decimal value between zero and one (that is, an average risk weight of 100% means that KG would equal 0.08). The banking organization may recognize the relative seniority of the exposure, as well as all cash funded enhancements, in determining attachment and detachment points. Commenters to this aspect of the proposal expressed concern over the level of detail necessary to calculate KG, particularly for residential mortgage-backed exposures. In response, the Agencies noted that the Final Rule's abandonment of the more complex and controversial risk-weighting regime for residential mortgages significantly mitigated any such concerns. In addition, despite commenters characterizing the KG parameter as not sufficiently risk-sensitive, and particularly as not taking into account sequential pay structures or other cashflow Waterfall structures, the Final Rule adopts the KG parameter as proposed, which includes the KA parameter that first appeared in the Market Risk Rule (*i.e.*, the KG parameter adjusted for delinquencies among the underlying assets) to make the SSFA more risk-sensitive and forward-looking. KA is set equal to the weighted average of the KG value and a fixed parameter equal to 0.5.

(16) $KA = (1-W).KG + (0.5.W)$

Under the June 2012 NPRs, the *W* parameter would have equaled the ratio of the sum of the dollar amounts of any underlying exposures of the securitization that are 90 days or more past due, subject to a bankruptcy or insolvency proceeding, in the process of foreclosure, held as real estate owned, in default, or have contractually deferred interest for 90 days or more, divided by the ending balance of the underlying exposures measured in dollars. Commenters had expressed concern that the proposal would require additional capital for payment deferrals that are unrelated to the creditworthiness of the Borrower, such as the case for guaranteed student loans. The Agencies did respond favorably to this comment by excluding from *W* in the Final Rule contractual deferrals on federally guaranteed student loans or on other consumer loans if the contractual deferral was in place at the time funds were disbursed and not related to the Borrower's creditworthiness.

(17) Gross-up approach

The gross-up approach is available for Standardized Banks only and is designed to allow such banks to use a simple method to calculate required capital against their securitization exposures. To calculate risk-weighted assets under the gross-up approach, a banking organization determines four inputs: (1) the *pro rata* share; (2) the exposure amount; (3) the enhanced amount; and (4) the applicable risk weight. The *pro rata* share is the par value of the banking organization's exposure as a percentage of the par value of the tranche in which the securitization exposure resides. The enhanced amount is the par value of all the tranches that are more senior to the tranche in which the exposure resides. The applicable risk weight is the weighted-average risk weight of the underlying exposures in the securitization as calculated under the standardized approach (similar to KG in the SSFA).

Under the gross-up approach, a banking organization is required to calculate the credit equivalent amount, which equals the sum of the amount of the banking organization's securitization exposure and the *pro rata* share, multiplied by the enhanced amount. To calculate risk-weighted assets for a securitization exposure under the gross-up approach, a banking organization is required to assign the applicable risk weight to the gross-up credit equivalent amount. As noted above, in all cases, the *minimum risk weight* for securitization exposures is 20%.

(18) Alternative treatments for certain types of securitizations

Under the Final Rule, a banking organization generally would assign a 1,250% risk weight to any securitization exposure to which the banking organization does not apply the SFA, the SSFA, or the gross-up approach. However, the Final Rule provides alternative treatments for certain types of securitization exposures described below, provided that the banking organization knows the composition of the underlying exposures at all times.

Eligible ABCP Liquidity Facilities. The Final Rule provides—consistent with the Basel capital framework—that under the standardized approach a banking organization is permitted to determine the risk-weighted asset amount of an eligible ABCP liquidity facility by multiplying the exposure amount by the highest risk weight applicable to any of the individual underlying exposures covered by the facility.

A Securitization Exposure In A Second-Loss Position Or Better To An ABCP Program. The Final Rule provides that, under the standardized approach, a banking organization may determine the risk-weighted asset amount of a securitization exposure that is in a second-loss position or better to an ABCP program by multiplying the exposure amount by the higher of 100% and the highest risk weight applicable to any of the individual underlying exposures of the ABCP program, provided the exposure meets the following criteria:

1. The exposure is not an eligible ABCP liquidity facility;
2. The exposure is economically in a second-loss position or better, and the first-loss position provides significant credit protection to the second-loss position;
3. The exposure qualifies as investment grade; and
4. The banking organization holding the exposure does not retain or provide protection for the first-loss position.

(19) Credit risk mitigation for securitization exposures

Under the Final Rule, the treatment of credit risk mitigation for securitization exposures would differ slightly from the treatment for other exposures. To recognize the risk-mitigating effects of financial collateral or an eligible guarantee or an eligible credit derivative from an eligible guarantor, a banking organization that purchases credit protection uses the approaches for collateralized transactions under the Final Rule (Section 37) or the substitution treatment for guarantees and credit derivatives described in the Final Rule (Section 36). In cases of maturity or currency mismatches, or, if applicable, lack of a restructuring event trigger, the banking organization must make any applicable adjustments to the protection amount of an eligible guarantee or credit derivative as required by Section 36 (Guarantees and Credit Derivatives; Substitution Treatment) for any hedged securitization exposure. In addition, for synthetic securitizations, when an eligible guarantee or eligible credit derivative covers multiple hedged exposures that have different residual maturities, the banking organization is required to use the longest residual maturity of any of the hedged exposures as the residual maturity of all the hedged exposures. In the Final Rule, the Agencies clarify that a banking organization is not required to compute a counterparty credit risk capital requirement for the credit derivative, provided that this treatment is applied consistently for all of its OTC credit derivatives. However, a banking organization must calculate counterparty credit risk if the OTC credit derivative is a covered position under the Market Risk Rule.

A banking organization that purchases an OTC credit derivative (other than an n^{th} -to-default credit derivative) that is recognized as a credit risk mitigant for a securitization exposure that is not a covered position under the Market Risk Rule is not required to compute a separate counterparty credit risk capital requirement, provided that the banking organization does so consistently for all such credit derivatives. The banking organization must either include all or exclude all such credit derivatives that are subject to a qualifying master netting agreement from any measure used to determine counterparty credit risk exposure to all relevant counterparties for risk-based capital purposes. If a banking organization cannot, or chooses not to, recognize a credit derivative that is a securitization exposure as a credit risk mitigant, the banking organization must determine the exposure amount of the credit derivative under the treatment for OTC derivatives in the Final Rule. The Final Rule clarifies that, if the banking organization purchases the credit protection from a counterparty that is a securitization, the banking organization must determine the risk weight for counterparty credit risk according to the securitization framework. If the banking organization purchases credit protection from a counterparty that is not a securitization, the banking organization must determine the risk weight for counterparty credit risk according to general risk weights under the Final Rule. A banking organization that provides protection in the form of a guarantee or credit derivative (other than an n^{th} -to-default credit derivative) that covers the full amount or a *pro rata* share of a securitization exposure's principal and interest must risk weight the guarantee or credit derivative as if it holds the portion of the reference exposure covered by the guarantee or credit derivative.

(20) N^{th} -to-default credit derivatives

Under the Final Rule, the capital requirement for credit protection provided through an n^{th} -to-default credit derivative is determined either by using the SSFA (for a Standardized Bank; an Advanced Bank must use the SFA if the required data is available) or applying a 1,250% risk weight. A banking organization providing credit protection must determine its exposure to an n^{th} -to-default credit derivative as the largest notional amount of all the underlying exposures. When applying the SSFA, the attachment point (parameter A) is the ratio of the sum of the notional amounts of all underlying exposures that are subordinated to the banking organization's exposure to the total notional amount of all underlying exposures. In the case of a first-to-default credit derivative, there are no underlying exposures that are subordinated to the banking organization's exposure. In the case of a second-or-subsequent-to default credit derivative, the smallest (n-1) underlying exposure(s) are subordinated to the banking organization's exposure. Under the SSFA, the detachment point (parameter D) is the sum of the attachment point and the ratio of the notional amount of the banking organization's exposure to the total notional amount of the underlying exposures. A banking organization that does not use the SSFA to calculate a risk weight for an n^{th} -to-default credit derivative would assign a risk weight of 1,250% to the exposure. For protection purchased through a first-to-default derivative, a banking organization that obtains credit protection on a group of underlying exposures through a first-to-default credit derivative that meets the rules of recognition for guarantees and credit derivatives under the Final Rule must determine its risk-based capital requirement for the underlying exposures as if

the banking organization synthetically securitized the underlying exposure with the smallest risk-weighted asset amount and had obtained no credit risk mitigant on the other underlying exposures. A banking organization must calculate a risk-based capital requirement for counterparty credit risk according to Section 34 of the Final Rule (OTC Derivative Contracts) for a first-to-default credit derivative that does not meet the rules of recognition of Section 36(b).

For second-or-subsequent-to-default credit derivatives, a banking organization that obtains credit protection on a group of underlying exposures through an n^{th} -to-default credit derivative that meets the rules of recognition of Section 36(b) of the Final Rule (other than a first-to-default credit derivative) may recognize the credit risk mitigation benefits of the derivative only if the banking organization also has obtained credit protection on the same underlying exposures in the form of first-through-($n-1$)-to-default credit derivatives; or if $n-1$ of the underlying exposures have already defaulted. If a banking organization satisfies these requirements, the banking organization determines its risk-based capital requirement for the underlying exposures as if the banking organization had only synthetically securitized the underlying exposure with the n^{th} smallest risk-weighted asset amount and had obtained no credit risk mitigant on the other underlying exposures. For an n^{th} -to-default credit derivative that does not meet the rules of recognition of Section 36(b), a banking organization must calculate a risk-based capital requirement for counterparty credit risk according to the treatment of OTC derivatives under Section 34 of the Final Rule (OTC derivative contracts).

(21) Pillar 3 disclosures for securitization

Stating that significant market uncertainty during the recent financial crisis was caused by the lack of disclosures regarding banking organizations' securitization-related exposures, the Final Rule adopts the enhanced disclosures proposed in the June 2012 NPRs, including the disclosure of following:

1. the nature of the risks inherent in a banking organization's securitized assets;
2. a description of the policies that monitor changes in the credit and market risk of a banking organization's securitization exposures;
3. a description of a banking organization's policy regarding the use of credit risk mitigation for securitization exposures;
4. a list of the SPEs a banking organization uses to securitize exposures and the affiliated entities that a bank manages or advises and that invest in securitization exposures or the referenced SPEs; and
5. a summary of the banking organization's accounting policies for securitization activities.

b. U.S. liquidity coverage ratio for large banking organizations and systemically important non-banks

The purpose of the Liquidity Coverage Ratio (LCR) is to strengthen the liquidity positions of large financial institutions. It creates, for the first time, a standardized minimum liquidity coverage ratio. The U.S. approved its rule, which is stricter than the Basel Committee's version, in September 2014, and it took effect on January 1, 2015, subject to a two-year phase-in period.

The LCR applies in full to U.S. banks with \$250 billion or more assets or \$10 billion or more on-balance-sheet foreign exposures; and to systemically important non-bank financial institutions. A modified and less stringent version took effect January 1, 2016 for banks with \$50 billion or more of assets, and regulators have the discretion to subject additional banks to the requirements. U.S. branches and agencies of foreign banks are not included, although some foreign banks with large U.S. operations might eventually be subject to a similar requirement.

The LCR is intended to ensure that a bank has an adequate amount of unencumbered high-quality liquid assets (HQLA) that can be converted easily and immediately into cash (in private markets) to meet its liquidity needs for a 30-calendar-day stress scenario. The LCR is calculated as follows:

Numerator	=	fair value of HQLA
Where HQLA	=	Level 1 and Level 2 (Level 2A + Level 2B) Assets
Denominator	=	total net cash outflows over a 30-day stressed period with certain adjustments
Level 2 assets	=	Level 2A assets + Level 2B assets
<u>Numerator</u>		
<u>Denominator</u>	=	<u>Must exceed 100%</u>

Level 1 assets are of the highest quality and are the most liquid. They include excess reserves at the FRB; withdrawable reserves at foreign central banks; securities issued or guaranteed by the full faith and credit of the U.S.; and certain claims on, or guaranteed by, certain sovereign entities, central banks, and other zero risk weight international entities (OECD sovereign debt unless defaulted or restructured).

Level 2A assets include certain U.S. GSE obligations (including GSE-issued MBS), limited amounts of obligations of 20% risk-weighted sovereigns (corporate debt securities rated AA or equivalent or higher). State and municipal securities currently are excluded, but some regulators and members of Congress are seeking to permit inclusion of at least some investment-grade general obligation state and municipal bonds. The Level 2A assets are subject to a 15% haircut and a limit of 40% of total HQLA when combined with 2B assets.

Level 2B assets include certain investment grade corporate bonds and publicly-traded common stock that meet certain conditions. Level 2 assets cannot exceed 40% of HQLA. Level 2B assets cannot exceed 15% of HQLA. Certain Level 2 assets are subject to haircuts. Level 2B assets are subject to a 50% haircut and limited to 15% of total HQLA.

As noted above, the denominator of the LCR equals total net cash outflows, which, in turn, are comprised of expected cash outflows minus total expected cash inflows for the 30-day stress period. Outflows are calculated by multiplying balances in various categories by specified supervisory runoff rates (*e.g.*, 3%-40% for deposits, based on the nature of the deposit, the type of customer, FDIC coverage, etc.). Inflows are calculated by multiplying balances of categories of receivables by similar supervisory estimates of the rates at which they are expected to flow in; inflows are subject to a cap of 75% of outflows.

Securitizations were not treated well in the final U.S. rule. There are no GSE obligations in Level 1; rather, they are only in Level 2A. There are no highly rated AAA ABS or MBS in Level 2B. In a departure from the Basel Committee LCR, covered bonds are excluded from HQLA treatment under the U.S. LCR. Even FFELP ABS are apparently excluded, as they are not wholly guaranteed by the U.S. government (as opposed to 97%-99% guaranteed).

Commitments are part of cash outflow and therefore also are important to securitization. Again securitization has fared poorly. The outflow rate is calculated as follows:

- (a) Retail credit and liquidity facilities would have a 5% outflow rate;
- (b) Wholesale credit and liquidity facilities (other than to financial sector entities) would have a 10% and 30% outflow rate, respectively;
- (c) Credit facilities and liquidity facilities to financial sector entities would have a 40% and 100% outflow rate, respectively;
- (d) Liquidity and credit facilities to banks would have a 50% outflow rate (or 0% if to affiliates);
- (e) Commitments to SPEs—whether credit or liquidity—would have a 100% outflow rate, other than as described in clauses (f) and (g) below);
- (f) For any non-consolidated SPE sponsored by the bank, there is a 100% outflow rate assumption if applied to the greater of (x) all debt and commitments to purchase assets of the SPE that mature within 30 days and (y) the maximum funding committed by the bank to the SPE within 30 days; and
- (g) The outflow rate to any SPE that does not issue any securities other than to its parent will be the same as to its parent if such SPE is a consolidated subsidiary of such parent.

General working capital facilities, including revolvers, are *not* liquidity facilities.

6. Clearing and Margin

The Dodd-Frank Act introduces registration requirements for dealers and major participants in the over-the-counter derivatives markets (swap entities), mandates central counterparty clearing of certain swaps and other derivatives, and for un-cleared derivatives between registered swap entities and their financial sector counterparties, will require the exchange of liquid collateral as variation (and, for larger participants, initial) margin to secure performance under the contracts.

Securitization SPEs may enter into a variety of over-the-counter derivatives in order to hedge interest rate and currency mismatches between their assets and liabilities. In a common transactional pattern, swap providers are granted a security interest in the assets securing the SPE's debt obligations, and the SPE's interest in the derivatives contract may itself be pledged for the benefit of the SPE's debt holders. Under this traditional model, the SPE does not need to procure special types of liquid assets, separate from the securitized assets it holds, to collateralize its derivatives contracts, nor does it need to have in place an operational infrastructure for

periodic transfers of collateral to and from a clearing broker or the SPE's un-cleared swap counterparties. This model could not be preserved if mandatory central clearing or un-cleared margin requirements were applied to these contracts, as either regime would require liquid and tradable collateral to be posted to the clearinghouse or counterparty, with subsequent posting or return obligations as the margin amounts fluctuate due to changes in market values and (for initial margin) other risk factors.

a. Mandatory central clearing

The clearing mandate, as currently in effect, applies to certain single-currency interest rate swaps denominated in USD, EUR, GBP, or JPY, and to certain index credit default swaps. The category of mandatorily cleared interest rate swaps is limited by two negative specifications. Specifically, an interest rate swap is not required to be cleared if: (1) it includes optionality; or (2) has a conditional notional amount (*i.e.*, a notional amount that may vary after the time of execution depending upon defined events or conditions). A swap within one of the mandatorily cleared categories not eliminated as described must be submitted for clearing to a CFTC-registered or exempt derivatives clearing organization, unless an exception is available or no eligible derivatives clearing organization accepts that type of swap for clearing. The latter circumstance may occur, for example, if an otherwise clearable swap contains idiosyncratic terms that are not offered by any eligible derivatives clearing organization. However, the inclusion or preservation of such terms without a legitimate business purpose may constitute evasion of the clearing requirement.

Securitization SPEs (other than certain captive finance company subsidiaries, as discussed below) generally qualify as “financial entities” and are therefore unable to rely on an exception from mandatory clearing available to commercial end-users entering into swaps to hedge or mitigate commercial risks. Nevertheless, it remains common practice for securitization SPEs to enter into un-cleared interest rate hedging transactions in one of two ways: (1) by using hedging instruments—such as interest rate caps or balance-guaranteed swaps—that are outside the current clearing mandate; or (2) by relying on their view that certain features of the transactions—such as limited recourse, subordination in accordance with a priority of payments, or termination events triggered by changes in the SPE's asset levels or principal amount of debt outstanding—are idiosyncratic terms that no eligible derivatives clearing organization accommodates. Despite industry requests, the CFTC (which administers the clearing mandate for interest rate swaps) has not provided guidance regarding which features of a securitization SPE's hedging arrangements may be considered idiosyncratic terms of a particular swap transaction, and therefore testable against derivatives clearing organizations' acceptance parameters. If these features are, instead, considered to be terms of the credit relationship between the parties, they might not suffice as a rationale for not clearing the swap, as the mitigation of counterparty credit exposure is one of the primary policy objectives of the clearing mandate.

A statutory exception from the definition of a “financial entity” exists for any entity (a “captive finance company”) whose primary business is providing financing and that uses derivatives for the purpose of hedging underlying commercial risks related to interest rate and

foreign currency exposures, 90 percent or more of which arise from financing that facilitates the purchase or lease of products, 90 percent or more of which are manufactured by the parent company or another subsidiary of the parent company. An interpretive letter of the CFTC staff clarifies that a securitization SPE would be considered to be in the primary business of providing financing—even though the SPE itself does not extend loans—and therefore might qualify as a captive finance company potentially eligible for the end-user clearing exception if it is a wholly-owned, consolidated subsidiary of a captive finance company and engages solely in facilitating financing undertaken by the captive finance company.

b. Margin requirements

Registered swap entities will be subject to margin collection and posting requirements administered by the CFTC, the SEC, or the U.S. bank regulatory agency responsible for prudential regulation of the swap entity. The Dodd-Frank Act directs all of these agencies to consult with one another and, to the maximum extent practicable, establish comparable margin requirements. Our discussion is based on the banking regulators' and the CFTC's margin regulations, which are the only ones finalized to date. The regulations establish a series of staged compliance dates, the first of which will occur in September 2016 for entities with the largest derivatives portfolios.

The margin requirements will apply to un-cleared transactions between a registered swap entity and a "financial end-user," with exceptions for hedging transactions of captive finance companies and certain other entities. The banking regulators and the CFTC rejected industry requests for exemptions for structured finance vehicles and covered bond Issuers, stating that the financial and market activities of such entities comprise the same range of activities as are engaged in by the other entities encompassed in the financial end-user definition. Textually, the definition of "financial end-user" targets securitization SPEs by referring to entities availing themselves of certain exemptions (but not others) under the Investment Company Act of 1940, which are commonly relied on by securitization SPEs, and possibly through a category for vehicles investing or trading in assets for resale or disposition. Due to ambiguities in the regulators' guidance, it is not entirely clear whether they intended to exclude securitization SPEs that qualify for exemption under provisions of the Investment Company Act that are not cited in the financial end-user definition.

In transactions with a "financial end-user," a registered swap entity will be required to collect and post specified types of liquid collateral (eligible collateral) as variation margin (*i.e.*, margin to secure current mark-to-market exposure). If the financial end-user has "material swaps exposure" (*i.e.*, exceeds, together with its consolidated affiliates, an \$8 billion average-daily-aggregate-notional-of-derivatives threshold), a registered swap entity must additionally collect and post eligible collateral as initial margin in amounts determined pursuant to the regulations, subject to a threshold of \$50 million between the two sides' consolidated groups (below which initial margin need not be exchanged). Under the banking regulators' rule, if the financial end-user does not have material swaps exposure, the registered swap entity must collect initial margin as it determines is appropriate to address credit and other risks, but the

prescriptive requirements of the rule—which mandate the form and amount of initial margin—do not apply. Due to the magnitude of the \$8 billion material swaps exposure threshold, it is expected that relatively few unconsolidated securitization SPEs will become subject to the prescriptive initial margin requirement. However, SPEs that are part of an accounting consolidation with banks or other large institutions could well exceed the threshold.

Because it has only recently become clear that securitization SPEs would not be excepted, a *modus operandi* for hedging under the new margin regime has yet to be worked out. Possibilities include: hedging through interest rate caps or other fully-paid transactions that will not require the SPE to post margin; entering into committed liquidity facilities and related operational arrangements by means of which the SPE could meet its margin posting requirements; or hedging with institutions not required to register as swap entities.

D. Good Or Bad Regulation: Are The Regulations Adopted Or Proposed As A Result Of The Credit Crisis Appropriate And To What Extent Do They Help Or Hurt Securitization?

The period following the credit crisis has seen a slew of regulation, with proposals, re-proposals, interim final rules, and final rules hitting the financial sector in furious succession. With the tremendous toll that the credit crisis has taken on the global economy, it is understandable that policymakers have sought to protect the financial sector conservatively. While some of the post-crisis regulation makes quite a lot of sense, many of the other proposals and rules serve as a hammer rather than a chisel, with unintended (and harmful) consequences.

In this section, we will review what we think forms the bedrock of “good” regulation. By “good” regulation, we refer to rules that appropriately address key problems without causing new ones. We believe there are nine key characteristics to such regulation for financial institutions.

1. Principles vs. Rules

A key overarching consideration is whether the regulatory framework should be based on principles or rules. We believe that principles-based regulation is more effective than what tends to be a somewhat ad-hoc accumulation of rules. As noted by Stavros Thomadakis, former Chairman of the Public Interest Oversight Board, principles have

an inherent aspirational quality that rules simply cannot support. For example, it would be impossible to craft a rule that instills true commitment to constant improvement in the quality and reliability of services, or to the public interest. Another highly practical attraction is that establishing principles rather than rules allows regulation to respond effectively to evolving conditions without the need

for constant amendment. Just as consistency of actions promotes confidence, too frequent amendments to rules can actually undermine it.¹⁶²

The post-crisis securitization industry is subject to an extensive patchwork of rules across activities encompassing capital, liquidity, derivatives, trading, market making, disclosure, and many more. Some of these rules do not even address the underlying causes of the crisis. Other rules may have serious, unintended consequences. While it might take time and more coordination among policymakers and regulators, the regulators would do well to identify key principles before handing down additional rules. In fact, it is a necessity at this point in the process that there be a reevaluation (and perhaps a rationalization) of current regulations to ensure that significant rules tie back to key principles.

2. Activity-Based

Policymakers must have a comprehensive view and understanding of the entire financial system and develop regulations accordingly. Prior to the crisis, certain segments of the financial system were not effectively regulated or were not under the purview of any particular regulator. As Ben Bernanke highlighted in a 2012 speech:

It is clear that the statutory framework of financial regulation in place before the crisis contained serious gaps. Critically, shadow banking activities were, for the most part, not subject to consistent and effective regulatory oversight. Much shadow banking lacked meaningful prudential regulation, including various special purpose vehicles, ABCP Conduits, and many non-bank mortgage-origination companies. No regulatory body restricted the leverage and liquidity policies of these entities, and few if any regulatory standards were imposed on the quality of their risk management or the prudence of their risk-taking.¹⁶³

We therefore applaud, at least in principle, the creation of the Financial Stability Oversight Council (FSOC), whose mandate is to provide “comprehensive monitoring of the stability of our nation’s financial system.”¹⁶⁴ FSOC is authorized to constrain excessive risk in the financial system with, for example, the ability to designate a non-bank financial firm for new supervision, if necessary. While one might question the actual effectiveness of FSOC to date, in theory, monitoring the activity of the entire financial system is more effective than only piecemeal, institution-specific oversight.

¹⁶² Stavros Thomadakis, *What Makes Good Regulation*, IFAC Council Seminar, Nov. 14, 2007, at 4.

¹⁶³ See <http://www.federalreserve.gov/newsevents/speech/bernanke20120413a.htm>.

¹⁶⁴ See <http://www.treasury.gov/initiatives/fsoc/Pages/home.aspx>.

3. Coherent Globally and Macroeconomically

Similar to being activity-based, good regulation must take a macroeconomic view of the financial system. Policymakers must have a solid understanding of how financial activities and potential problems are linked across different regions and sectors. Andreas Dombret, a member of the Executive Board of the Deutsche Bundesbank, made a persuasive argument for coherence in regulation. In a 2014 speech, he argued in particular that the more complex regulation is, the more important it is that it adheres to the principle of coherence on three levels:

- First, regulation must be coherent across borders. He states, “We have a global financial system, and it therefore requires global regulation. Where regulation varies from country to country, there is a danger of regulatory arbitrage—of banks moving their business to countries with the lightest-touch regulation. The problem with this behavior is that the risks stemming from these transactions could potentially affect the entire financial system.”¹⁶⁵
- Second, regulation must be coherent across sectors; otherwise, again, one is faced with the potential for regulatory arbitrage.
- Third, the content of rulemaking must be coherent. Dombret uses the example of capital regulation as one in which content might not necessarily be coherent. He points to the zero capital charge attracted by sovereign bonds: “Unlike for all other forms of credit, banks do not have to hold capital against government bonds *in line with the risks that they carry*, and this inconsistency has dangerous side-effects.”¹⁶⁶

This third point is particularly important. The capital (or liquidity) regulations are a good example of, perhaps, somewhat of a knee-jerk reaction. Following the crisis, when all things asset- or mortgage-backed were (and continue to be) regarded with suspicion, new capital and liquidity rules regarding these securities were disproportionately punitive. While research demonstrates that many types of ABS performed well during the crisis, and in many cases better than other types of securities, they were afforded no liquidity recognition in the final liquidity framework.¹⁶⁷ Regulation that does not reflect reality will no doubt have incoherent results, with the financial sector investing in a narrow field of asset-types in order to meet certain liquidity requirements, when other better performing investments might prove to be more resilient and allow for greater diversification in the next crisis.

¹⁶⁵ Andreas Dombret, *What is Good Regulation*, Bundesbank Symposium, July 9, 2014, at 2.

¹⁶⁶ *Id.* at 3 (emphasis added).

¹⁶⁷ See Section VIII.C.5.b., *supra*, for a discussion of the required liquidity ratio.

4. Precisely Targeted To Minimize Distortions

While it is critical to have a birds' eye and coherent view of the financial system, regulators must be, at the same time, appropriately targeted in their approach. Good regulation must address specific problems and not try to be all things to everyone. For example, the crisis made clear that several institutions lacked adequate capital and liquidity. We believe that the enhanced prudential standards mandated by both Dodd-Frank and the Basel Committee on Banking Supervision (as implemented by national regulators) are wholly appropriate and necessary regulations. We might disagree, in some cases significantly, with some of the details of the regulation but agree that heightened capital and liquidity requirements are necessary for the sustained health of the financial system. Similarly, the stress tests that financial institutions must undertake to determine their capital adequacy helps not only to restore confidence in the financial system, but also to ensure the ongoing strength of the overall system.

However, when regulation seeks to solve problems that do not exist (*i.e.*, to fix what is not broken), we face new problems. New derivatives regulation is a good case in point. We agree that derivatives activity benefits from regulation that requires institutions to hold greater capital when necessary and to provide greater transparency, due to the interconnectedness and cascading exposure that accompanied some of this activity leading up to and during the crisis. However, the derivatives regulation that aims to be a cure-all creates new problems when, for example, it sweeps in SPE swaps. Requiring SPE swaps to post daily margin is not only unnecessary and operationally difficult or impossible, but it would also reduce funding options for finance companies and, therefore, funding for the real economy.

5. Designed To Achieve Safety and Soundness

Furthermore, the targeted nature of regulation should focus on safety and soundness. Regulation should not try to address or enhance the competitiveness of certain regions or sectors; rather, it should simply seek to ensure that the financial system operates within certain key parameters that help to prevent weaknesses, vulnerabilities, or potential shocks. As Admati and Hellwig state in their paper on good regulations, "The rationale for regulating banks and other financial institutions is that their failures can have significant negative impact on the rest of the financial system and on the overall economy."¹⁶⁸

In contrast, "concerns about global competitiveness or funding of politically-favored projects should not affect banking regulation."¹⁶⁹ In this vein, for example, we believe that the efforts by European policymakers and regulators to reinvigorate their securitization markets by adopting "simple/standard/comparable/transparent" rules (*i.e.*, allowing preferential capital treatment for banks investing in ABS/MBS where the underlying assets are solely European

¹⁶⁸ Anat R. Admati & Martin Hellwig, *Good Banking Regulation Needs Clear Focus, Sensible Tools, and Political Will*, Dec. 1, 2011, at 3.

¹⁶⁹ *Id.* at 4.

assets) are misplaced. They will not contribute to the safety and soundness of the financial system and will likely result in market fragmentation and other unintended consequences. An even more disturbing example is the quotas for the extension of credit to low- and moderate-income Borrowers that the U.S. Congress set for the GSEs in the period before the crisis. The mandate to fulfill the quotas for sub-prime and Alt-A mortgages to low- and moderate-income Borrowers led directly to a lowering of underwriting standards and the collapse of credit to the very market sought to be served. This, in turn, began the cascade of defaults that began the financial crisis itself.¹⁷⁰

6. Flexibility

One of the most important characteristics of good regulation is adaptability. Markets change continually, and innovation is an important constant. As noted by Stavros Thomadakis, even at the start of the crisis, flexibility was an important criteria for good regulation. As he observed in a speech given in late 2007:

If we are truly looking for continuous improvement in the provision of services, then regulation must allow for innovation. To rely and trust that professionals will make use of their experience and apply their judgment, we must also accept that while acting in good faith they may make mistakes or come up with unpredicted alternatives. If regulations apply sanctions where honest attempts have been made to fulfill regulatory objectives, then there is a clear risk that innovation and judgment will be stifled.¹⁷¹

We believe, for example, that the approach regulators and policymakers have taken toward marketplace lending thus far appropriately reflects the above perspective. Having acknowledged the potential benefits of this space, the U.S. Treasury Department opted to research the various facets of this lending framework and request industry feedback rather than immediately handing down regulation.

As stated in the Treasury Department's Request for Information, "Historically, many American households, small businesses, and promising new enterprises have faced barriers in accessing affordable credit from traditional lenders. To date, the large majority of online marketplace consumer loans have been originated to prime or near-prime consumers to refinance existing debt. Online marketplace lending has filled a need for these Borrowers by often delivering lower costs and faster decision times than traditional lenders."¹⁷² And, further, "through this RFI, Treasury is seeking to study the potential for online marketplace lending to

¹⁷⁰ See Section VIII.B., *supra*.

¹⁷¹ Stavros Thomadakis, *What Makes Good Regulation*, IFAC Council Seminar, Nov. 14, 2007, at 9.

¹⁷² See <http://www.treasury.gov/connect/blog/Documents/RFI%20Online%20Marketplace%20Lending.pdf>.

expand access to credit and how the financial regulatory framework should evolve to support the safe growth of this industry.”¹⁷³

7. Benefits Justify Costs

Good regulation must result in benefits that outweigh costs. As discussed briefly above, regulation that lacks coherence, flexibility, or a broad view of what is being regulated could very well result in distortions to the financial system and unintended consequences. It is absolutely critical that a robust cost/benefit analysis is completed before a new regulation is promulgated. A review of several papers that attempt to answer the very same question we are addressing here—*i.e.*, “What is good regulation?”—shows that all include cost/benefit analysis as one of the key criteria.

An article in the *Federal Communications Law Journal*, albeit one not related specifically to financial markets regulation, eloquently addresses the importance of this criterion:

Even if markets have failed, a specific proposed regulation may or may not ameliorate the situation. Too often, regulators only look at the alleged benefits of a given regulatory proposal without ever examining the costs The decision to proceed with a specific proposed regulation, whether discretionary or not, should be informed by a cost-benefit analysis. Will the likely benefits of a proposed regulation outweigh the likely costs? Asking the question proves far easier than answering it. Most of the costs and benefits of regulation are hidden in the future, allowing only imprecise, speculative measurement. Economics and regulation do not live in controlled laboratory conditions; the precise effects of regulation in a market can be difficult to tease out. Regulatory agencies should at least attempt to offer a brief description of a rule’s potential benefits and costs, or milestones for its review.¹⁷⁴

While U.S. law requires that regulators conduct a cost/benefit analysis before finalizing a new regulation, we believe more stringent analyses would produce better rules. The reduction in market making by banks is an example of unintended consequences. We have heard anecdotally that many banks have made cuts in their trading inventories as they look to fulfill the liquidity coverage ratio and in anticipation of the newly proposed Basel trading book rules. If banks are less available for market making, overall market liquidity will very likely suffer as a consequence, and primary issuance itself with decline.

¹⁷³ *See id.*

¹⁷⁴ Harold W. Furchtgott-Roth, *The Art of Writing Good Regulations*, 3 Fed. Comms. L. J. 1, 3-4 (2000).

8. Connecting Measures and Objectives

Similar to doing a reasonable accounting of costs and benefits, potential policies should be assessed against a standard of connecting them to the actual objectives sought to be achieved. For example, the liquidity coverage ratios developed by the Basel Committee and implemented globally have encouraged banks to increase significantly their investments in sovereign debt and other similarly identified “safe” securities, such as GSE MBS. The reasoning behind these new standards was to ensure that banks have enough assets that could easily be liquidated in times of crisis. However, the question is whether the concentration of bank investments into a limited set of securities will actually make the financial system safer. It might be the case that a lack of diversity in banking books could actually exacerbate any future financial crisis. As Admati and Hellwig posit, “There must be a clear and realistic account of what regulatory measures can achieve and how they promote the objective of the regulation, taking account of systemic effects.”¹⁷⁵

9. Constant Reevaluation

Finally, we also believe that regulators should conduct, and publicly share, rigorous, ongoing assessments of their rulemakings. Only continuous evaluation will allow all market participants, including regulators and policymakers, to gain a deeper and more nuanced understanding of the financial system, thereby allowing for both greater stability and innovation moving forward.

PART TWO: POLICY ISSUES TO CONSIDER

IX. THE BENEFITS AND RISKS OF SECURITIZATION

The Structured Finance Industry Group (SFIG) believes that Chinese policymakers seeking to develop a sound regulatory framework for securitization within China’s national economy would be well advised to carefully consider not only the operational, mechanical, accounting, legal and regulatory features of the framework, but also the policy implications for its implementation. As an integral part of introducing securitization to the domestic economy, policymakers should be attentive to the underlying societal issues—both economic and social—on which securitization may have an impact.

Before debating securitization policy in depth, policymakers and practitioners should clearly understand what securitization connotes and entails. An instructive, albeit broad, conceptual definition of securitization is the use of reliable information about how an isolated pool of financial assets is likely to behave in the future to obtain more efficient financing in the capital markets, usually by means of structure.¹⁷⁶ With that as the starting point, policymakers

¹⁷⁵ Anat R. Admati & Martin Hellwig, *Good Banking Regulation Needs Clear Focus, Sensible Tools, and Political Will*, Dec. 1, 2011, at 4.

¹⁷⁶ See *Asset-Backed Securitization in Europe* (T. Baums & E. Wymeersch eds., 1996)

may begin to explore the ways in which a robust securitization market may contribute to the financial system and the broader economy. Issuers and Investors can utilize securitization to diversify and transfer risk across different asset classes, geographies, industries, instruments, and credit risk profiles.¹⁷⁷ By transforming a pool of illiquid assets into tradable investment securities, securitization also provides a potentially valuable conduit for channeling credit flow between suitable Borrowers and lenders.¹⁷⁸ Issuers also commonly use securitization to create highly rated debt securities that can be posted as fungible collateral in various types of financing and derivative transactions.¹⁷⁹ The academic literature contains numerous examples of the benefits gained through securitization.¹⁸⁰

However, as with any other financing technique, securitization entails certain risks and costs that policymakers should consider along with the benefits. As securitization has the capacity to increase the flow of credit both inside and outside of the formal banking system, regulators should guard against excessively loosened underwriting standards that, in turn, can lead to excessive credit growth and inflated asset prices. Regulators must watch to ensure that securitization coupled with derivative instruments to create synthetic exposures to reference assets does not increase credit flow and resulting price inflation excessively. Incentives and information held or obtained by the various parties to a securitization transaction should be symmetrical and properly aligned to avoid conflicts of interest and moral hazards. Complexity must be carefully dealt with in securitization transactions to avoid negative outcomes as well.¹⁸¹

Nonetheless, securitization has generally demonstrated an ability to deliver stable and reliable performance in a wide variety of market environments. The strong performance of a number of classes of securitized assets before, during, and after the credit crisis—including,

¹⁷⁷ See Darrell Duffie, *Innovations in Credit Risk Transfer: Implications for Financial Stability 1* (BIS Working Paper No. 255, 2008).

¹⁷⁸ With respect to “tradable investment securities,” it is important to keep in mind that first priority should be on investment value, as opposed to trade value. When the primary goal of issuance is to make a tradable asset instead of making an investment asset, there is a danger that substance will suffer. See Jason H.P. Kravitt, *The United States: Lessons Learned for the Chinese Markets*, Comments Regarding Lesson 8 at the 2015 Annual Conference of the China Securitization Forum (transcript available at http://mp.weixin.qq.com/s?__biz=MzAxNDMxNDUyOA==&mid=401660456&idx=1&sn=22b57a6f7a7fdd55b80528b16cd76479&scene=0#wechat_redirect).

¹⁷⁹ See Gary B. Gorton, *Slapped by the Invisible Hand: The Panic of 2007*, Fin. Mgmt. Ass’n Survey and Synthesis Series (Kindle ed. 2010) loc. 1003-1009.

¹⁸⁰ See, e.g., James A. Rosenthal & Juan M. Ocampo, *Analyzing the Economic Benefits of Securitized Credit*, 1 J. Applied Corp. Fin. 32 (1992); Steven L. Schwarcz, *Structured Finance, A Guide to the Principles of Asset Securitization* §§ 1:1, 11:1-11:2 (3d ed. & supps. 2008); Steven L. Schwarcz, *Securitization Post-Enron*, 25 Cardozo L. Rev. 1539, 1565 (2004); Thomas E. Plank, *The Security of Securitization and the Future of Security*, 25 Cardozo L. Rev. 1655, 1667-68 (2003-04); Charles W. Calomiris & Joseph Mason, *Credit Card Securitization and Regulatory Arbitrage* 4 (Fed. Reserve Bank of Pa., Working Paper No. 03-7, 2003); Martin Hellwig, *Systemic Risk in the Financial Sector: An Analysis of the Subprime-Mortgage Financial Crisis* 7 (Nov. 2008 preprint of the Max Planck Institute for Research on Collective Goods, Bonn, No. 2008/43); Gorton, *supra*, loc. 2429.

¹⁸¹ See Miguel Segoviano, Bradley Jones, Peter Lindner, & Johannes Blankenheim, *Securitization: Lessons Learned and the Road Ahead* 7 (IMF Working Paper WP/13/255, 2013).

among others, auto, credit cards, student loans, and CLOs—is a particularly vivid demonstration of securitization’s resilience under pressure, notwithstanding the damage suffered in the RMBS and CDO markets. Securitization is just one part of a complex credit environment. Consequently, different securitization transactions with different assets or practiced in different manners may behave differently in different sub-environments, as illustrated by the marked divergence in performance across classes of securitized assets during the crisis.

Some of the potential benefits of securitization for different transaction participants are described below.

A. The Securitizer

1. Cheaper Pricing

If an Issuer’s corporate credit rating is below the credit rating that can be achieved on the relevant ABS, the Issuer may be able to obtain a lower cost of funding through securitization, as opposed to issuing corporate debt. Because of the securitization premium currently prevailing in the market, this funding arbitrage becomes more challenging for companies rated above “A.” Also, higher overall valuations can be achieved on a pool of illiquid assets that are securitized than would be possible if those assets remain unsecuritized, owing to the positive liquidity premium earned because of the option to trade the securities in the secondary market, compared to the illiquid underlying assets themselves.

2. Off-Balance-Sheet Financing

In most securitizations, the Securitizer transfers the assets that are to be securitized to an SPE. If the Securitizer makes a true sale of the assets to the SPE for accounting purposes and the SPE is not part of the Securitizer’s consolidated group, the Securitizer may not need to record those assets and the related debt on its balance sheet for accounting purposes as it has effectively transferred both risk and control of the assets. In certain circumstances, financing assets off-balance-sheet in this way may allow banks to reduce their leverage ratios and the amount of debt they are required to report. This may lead to positive gains in return-on-equity or other financial ratios, as described below. But perhaps more importantly, it may allow the Securitizer to originate more assets and provide additional funding to the real economy.

3. Lower Capital Requirements

By transferring financial assets to non-consolidated Issuers under U.S. GAAP as described above, banks may be able to correspondingly reduce the amount of regulatory capital that they are required to hold under U.S. risk-based capital rules.¹⁸² As a consequence, banks may be able to engage in certain business by means of off-balance-sheet securitizations without incurring the burden of holding regulatory capital against all of the assets that they originate. To the extent

¹⁸² See Section VIII.C.5. a., *supra*, for capital rules and Section II.C.2., *supra*, for accounting rules.

that securitization permits the undertaking of larger business volumes with the same amount of regulatory capital, securitization may effectively increase potential profitability and return-on-equity ratios across a group of affiliated businesses.¹⁸³

4. Diversity of Funding Sources

Investors that buy ABS created by a Securitizer may differ from those that buy conventional corporate bonds from the Securitizer. In addition, some purchasers of corporate bonds from a Securitizer may have additional appetite, and may treat their credit allocations separately, for securitized assets created by such Securitizer. Thus, securitization opens up additional funding channels for Issuers and potentially creates new credit “buckets” for Investors.

5. Liquidity Management

From a Securitizer's perspective, the functional effect of a securitization is to convert illiquid financial assets into current cash or liquid securities. This conversion of long-term assets into cash or liquid securities rectifies the timing mismatch that results when long-term assets are used to fund short-term liabilities. On the other hand, when assets are securitized, the maturity of the ABS or MBS tends to match the cash flow generated by the underlying assets, either by matching maturities or structuring the cash flow to do so. In addition, securitization provides Issuers with access to diverse markets, especially for highly-rated securities. For example, highly-rated debt securities can be conveniently used as collateral in Repo Facilities and derivative transactions. Thus, in certain situations, an Issuer will actually retain portions of an issue for its own use, effectively converting a portion of its illiquid assets into relatively fungible assets.¹⁸⁴

6. Financing Available in Times of Stress

In certain circumstances, securitization may offer a source of financing when other sources are not available. For example, securitization was an important source of funding for the auto industry during the credit crisis. Similarly, during the Asian Crisis of 1997 and the Russian default in 1998, while Corporate Debt markets may have frozen, securitization markets suffered only brief periods of inactivity.

7. Credit Ratings

If assets to be securitized meet appropriate eligibility criteria and the transaction is presented to Rating Agencies for a ratings request, the Rating Agencies may be able to analyze the credit risk of that transaction and its notes according to their published rating methodologies and may assign credit ratings on the notes that are in some cases higher than those issued as traditional debt financing. The presence of a credit rating in combination with a robust transaction structure may make it possible for the Issuer to obtain tighter pricing on the

¹⁸³ Of course, when rating the securities, Rating Agencies do not simply analyze the accounting treatment; they analyze whether or not the Securitizer has, in fact, reduced risk.

¹⁸⁴ See Gorton, *supra*, loc. 344.

securitized assets than would be possible to obtain on just the unsecuritized underlying assets themselves, even if secured by the assets of the Issuer. This is an example of how bankruptcy-remote isolation of a pool of financial assets can be applied to obtain diversified funding sources in financial markets.¹⁸⁵

B. The Investor

1. Liquidity

From an Investor's perspective, securitization is a source of liquid securities that may be traded more efficiently in secondary capital markets than the underlying securitized assets could be. Moreover, Investors can post highly-rated, liquid debt securities as fungible, information-insensitive collateral for Repo Facilities and derivatives transactions.¹⁸⁶

2. Portfolio Diversification

Issuers use securitization to provide various types of Investors with access to asset classes in which such Investors might not otherwise be able to invest. Additionally, Issuers may structure securitization transactions to provide Investors with built-in risk diversification, since the exposure is to a pool of assets, which can be diversified through the use of appropriately designed selection criteria. The beneficial effect of diversification within the underlying asset pool is one of the factors that Rating Agencies take into consideration when assigning credit ratings to securitization transactions.¹⁸⁷ This is another illustration of using superior information about an isolated pool of financial assets in order to obtain more efficient funding.¹⁸⁸ However, participants in the market should be on guard against widespread underestimation of the degree of correlation between the assets packaged into securitization pools, as occurred in markets worldwide in the years leading up to the credit crisis.¹⁸⁹ Readers also should note that, in times of stress, correlations tend to increase dramatically.¹⁹⁰

3. Stability

¹⁸⁵ See definition of securitization, *supra*, on page 179-180.

¹⁸⁶ See Gorton, *supra*, loc. 344.

¹⁸⁷ See Section II.E.3., *supra*, for a discussion of rating agency practice.

¹⁸⁸ See definition of securitization, *supra*, note 2.

¹⁸⁹ See Segoviano *et al.*, *supra*, at 23.

¹⁹⁰ See Kravitt, *supra*, Comments Regarding Lesson 5. See also, e.g., Roberta Romano, *Regulating in the Dark and an Assessment of the Iron Law of Financial Regulation*, 43 Hofstra L. Rev. 25 at 36 (2015); Nicholas Chan *et al.*, *Systemic Risk and Hedge Funds* 13 (Nat'l Bureau of Econ. Res. working paper 11200, 2005) (discussing "phase-lock risk").

Historically, securitization instruments have demonstrated consistently stable, reliable performance over time and through credit cycles (with a few important exceptions in connection with anomalous economic “bubble” episodes, as discussed in more detail in Section XI.A. below).

4. Flexibility

An important advantage of securitization is the great flexibility it affords for tailoring an instrument to meet particular Investors’ diverse risk-management and timing requirements. Tranches can be structured to carry credit ratings ranging from AAA to B, and unrated residual tranches are also included in many structures. Durations can range from a day to many years. Payment dates are usually scheduled on a monthly or quarterly basis, or can be structured on a semi-annual, or even daily, basis if desired. Interest rates can be fixed or floating, and different currencies may also be used, depending upon Investor preferences.

C. The Borrower

1. Lower Cost of Funding

Perhaps the most compelling rationale for securitization finance is its ability to provide less expensive funding than may be obtained through other channels, such as conventional bank lending.¹⁹¹ A portion of this lower cost can be passed back to the underlying Borrowers without sacrificing the competitiveness or attractiveness of the associated terms and conditions of the financing.

2. Convenience and Adaptability

When coupled with robust origination and warehousing programs, securitization is also part of a chain of financing that can be delivered to Borrowers in remarkably short lead times. Securitization can also finance the widespread delivery of new and innovative financial services, such as marketplace lending programs. In short, securitization can be adapted flexibly for innovative applications to a broad array of financial services inuring to the benefit of Borrowers in many sectors of the financial markets.

D. The Arranging Bank/Underwriter

Securitization is an attractive business line for investment banks. Participation in the market adds diversity to product lines and potentially results in increased business volume, fee revenue, and profits. It also presents opportunities to expand operations into new markets, develop sector specialization, and perhaps hone and improve operating efficiencies. Of equal significance to the role of the Underwriter is the ongoing commitment to supporting liquidity of the relevant bond in the secondary trading market. The role is critical to the maintenance of a vibrant and liquid market. It is also a mutually beneficial role. Market members benefit in general from the bid-ask spread on any security plus the higher allocation of underwriting revenues that

¹⁹¹ See definition of “securitization,” *supra* pages 177-178.

are allocated to investment banks that demonstrate a strong commitment to the secondary markets. In return for these rewards, market makers absorb some of the market risks of illiquidity by providing their own liquidity to the market and ensuring that investors who buy a security always have an option to sell that same security even during times of market stress.

X. POLICY BACKDROP AND SECURITIZATION IN THE UNITED STATES

Securitization finance became an important adjunct to U.S. federal housing policy and a prominent feature of the U.S. economy in the early 1970s, when Ginnie Mae began issuing U.S. government guaranteed mortgage pass-through certificates and Freddie Mac began issuing conventional MBS.

As a vital part of their respective business models, the three U.S. GSEs—Freddie Mac, Fannie Mae, and Ginnie Mae—all issue or guarantee securities backed by pools of qualifying RMBS. The mortgages that make up these pools may be either originated by the GSE itself, purchased in the secondary market, or originated in the primary market and placed into a pool, the related securities of which are guaranteed by a GSE. GSE securities benefit from actual or implied recourse to the U.S. federal government.

The example of the GSEs using RMBS as a way to efficiently implement the U.S. government's affordable housing policies illustrates the interplay that can exist between business and policy interests with respect to securitization.¹⁹² Indeed, it is not uncommon for social policy interests to have a bearing on even the more business-oriented aspects of securitization. At a basic level, when the polity at large tends to view securitization favorably as a useful way to achieve desirable social outcomes, policymakers often will respond with enabling legislation. On the other hand, if thought leaders perceive securitization to be aiding and abetting negative social outcomes, policymakers may respond with legislative and regulatory clampdowns.

Of course, identifying whose perceptions matter is a key element in the policy analysis. In a representational democracy such as the U.S., the perceptions held by the voting public typically are very important factors in guiding federal government policy.¹⁹³ However, this does not by any means preclude the U.S. government from proactive involvement in driving and regulating the national economy. This involvement often is characterized by compromise and accommodation between the competing views of various interest groups and constituencies. The federal government—led by the President in the executive branch and Congress in the legislative branch—must maintain a close finger on the pulse of public sentiment and must carefully choose which causes to support in their ongoing efforts to achieve successful policy outcomes at the national level.

¹⁹² See, e.g., Edward J. Pinto, *Government Housing Policies in the Lead-up to the Financial Crisis: A Forensic Study*, The Am. Enterprise Inst. (discussion draft dated February 5, 2011), available at <http://www.aei.org/wp-content/uploads/2010/10/Pinto-Government-Housing-Policies-in-the-Lead-up-to-the-Financial-Crisis-Word-2003-2.5.11.pdf>).

¹⁹³ See Romano, *supra*, at 28.

The challenges that the U.S. government faces in setting overarching national policy may be due in part to the federal structure of the U.S., in which the constant push and pull between and among the states and the federal government makes coordinating collective actions very difficult, unless the initiative has very broad popular appeal. A good example of popular appeal galvanizing the collective will of the nation might be NASA's lunar missions of the late 1960s. Here, widespread enthusiasm to accomplish "one great step for humankind" might have provided the necessary impetus to underwrite the ambitious and expensive program to put a man on the moon. Yet, most of the examples of successful collective actions in the U.S. are not the result of popular campaigns for the overall advancement and improvement of society, but are the result of collective defenses against commonly-perceived threats. War efforts are the obvious example, but the world of commerce provides others. For example, Congress enacted the Securities Acts in the aftermath of the stock market crash of 1929 to prevent Issuers from defrauding uninformed Investors by requiring full truthful disclosures to Investors in connection with issuing and trading securities. Congress enacted the Sarbanes-Oxley Act of 2002 to prevent businesses from engaging in deceptive accounting and corporate governance practices of the type that came to light in the Enron scandal of 2000-2001. Most recently, Congress passed the Dodd-Frank Act in 2010 in an effort to prevent the future occurrence of the types of events that were perceived as having contributed to the financial crisis.

XI. THE FUTURE OF SECURITIZATION

During the period leading up to the credit crisis, U.S. federal policymakers and regulators closely monitored the development of securitization and generally tended to enact legislation and regulations that facilitated securitization finance.¹⁹⁴ After the crisis hit, however, legislators and regulators began viewing securitization with a much more critical eye, due principally to its perceived role in supporting the "housing bubble" and the subsequent impact on the residential mortgage market after the housing market collapsed.¹⁹⁵ Accordingly, post-crisis reform policies reflect a much more skeptical and cautious outlook toward securitization in general. Notwithstanding the restrictive regulatory responses affecting securitization markets, there is now a general consensus in both public and private sectors around the globe that efficient securitization is an important facilitator of economic growth and development.¹⁹⁶

Numerous researchers and thought leaders have studied and analyzed the myriad factors that may have contributed to the credit crisis, including the role that securitization played. The

¹⁹⁴ For FDIC rules providing safe harbors for securitizations, *see, e.g.*, Mayer Brown Legal Update dated October 1, 2010, *available at* <http://tinyurl.com/jy5rlyb>. For legislation establishing REMICs to hold fixed pools of mortgages and issue multiple classes of interests to Investors, *see* Subtitle H of Title VI of the Tax Reform Act of 1986, Pub. Law No. 99-514. For legislation creating a new type of tax vehicle called a Financial Asset Securitization Investment Trust (FASIT), and exempting it from taxation, *see* Section 1621 of the Small Business Job Protection Act of 1996, Pub. Law No. 104-188, which was repealed under the American Jobs Creation Act of 2004.

¹⁹⁵ *See especially* Section VIII., *supra*, for a discussion of the regulatory response.

¹⁹⁶ *See, e.g.*, Moody's Investor Services, *Securitization Reform Proposals* (Nov. 10, 2015).

ultimate goal of this effort is to formulate policy and regulatory measures that will prevent another similar crisis in future, while at the same time continuing to support and advance robust economic development and overall societal welfare to an optimal degree. In this paper, we seek to present some of the exemplary research for consideration and further discussion. We do not attempt, however, to address the full extent of this research.

Over and above the basic charge of warding off another financial crisis, policymakers face an additional and much more nuanced challenge, namely, to promote measures that advance and improve societal welfare overall—both economically and socially. Policymakers in several jurisdictions are currently debating how they might prudently moderate the current restrictive reforms to achieve a better balance between encouraging financial innovation, including securitization, as a means of providing credit to finance stable economic growth and avoiding harmful destabilizing distortions, excesses, and abuses in the markets.¹⁹⁷ Policymakers in economies in transition such as China may be especially keen to implement policies and initiatives to actively stimulate the development of financial innovations such as securitization. However, such enthusiasm should be prudently tempered with caution and the wisdom of experience.

The present time, therefore, may be an opportune juncture for policymakers in both the U.S. and China to carefully evaluate the role that securitization should play in serving the long-term social and economic policy objectives of their respective nations. Indeed, because China's policymakers can study the experiences of all the world's securitization markets to date, both positive and negative, China may be in a unique position to create a carefully thought out conceptual framework for successfully integrating securitization into China's national financial reform policies.

A. Guarding Against Another Credit Crisis

1. The Challenge and the Response

Policymakers and academics sifting through evidence in the aftermath of the credit crisis quickly identified as primary culprits certain perceived moral hazard and conflict-of-interest problems in the market for mortgage securitizations. Many thought leaders identified Originators' poor loan underwriting practices for sub-prime and Alt-A mortgages—which the Originators purportedly expected to sell quickly to RMBS Issuers under the “originate-to-distribute” practice—as one of the significant causal factors of the crisis.¹⁹⁸ And because many such mortgages were securitized, the securitization industry also was implicated in having contributed to the crisis.

In response, Congress enacted in the Dodd-Frank Act numerous provisions aimed at protecting Investors and Borrowers from potentially opportunistic Securitizers and predatory

¹⁹⁷ See, e.g., *id.*

¹⁹⁸ Segoviano, *et al.*, *supra*, at 15.

lenders.¹⁹⁹ The risk retention requirement and the ability-to-pay rule are two such provisions. Both are premised on the assumption that the problems in mortgage underwriting resulted from Securitizers and mortgage Originators—both sophisticated market participants—taking unfair advantage of relatively uninformed Borrowers and Investors.²⁰⁰

2. A Broader View

Other researchers have found, however, that “originate-to-distribute” underwriting of sub-prime and Alt-A mortgages in connection with the RMBS market was perhaps merely symptomatic of more deeply-rooted problems. Researchers have reported in their findings that the ten-year housing boom that began in 1997, combined with excessive leverage in financial institutions all over the world, was the more fundamental cause of the credit crisis.²⁰¹ In addition, the FRB policy to flood capital markets with liquidity contributed to both the housing boom and the excessive leverage in financial institutions.

3. The Rise of the Housing Bubble

Identifying the factors that drove the prolonged housing boom is no easy task. One conclusion is that U.S. federal government housing policy may have significantly contributed to the boom by facilitating, and in certain circumstances even guaranteeing, poorly underwritten sub-prime mortgages.²⁰² For instance, origination targets which Congress imposed on the GSEs may have guided U.S. federal government housing policy toward the flexible underwriting standards at the GSEs that nurtured the sub-prime mortgage market. Congress set these targets partly in acquiescence to home ownership advocacy campaigns led by citizens’ housing rights organizations such as National People’s Action and Association of Community Organizations for Reform Now.²⁰³ This is an example of the way markets respond to policy signals and societal priorities in far-reaching, subtle, and sometimes very significant and unexpected ways. Policymakers should always be mindful of the unintended and unexpected consequences that may result from their policy decisions, and should constantly be on the lookout for destabilizing market distortions that unbalanced regulatory schemes or special-interest policy priorities may cause.²⁰⁴

¹⁹⁹ See Ryan Bubb and Prasad Krishnamurthy, *Regulating Against Bubbles: How Mortgage Regulation Can Keep Main Street and Wall Street Safe—From Themselves*, 163 U. Pa. L. Rev 1539, 1542 (May 2015).

²⁰⁰ See *id.* at 1566.

²⁰¹ See *id.* at 1555-1557; see also Section VIII.B., *supra*, for a discussion of the financial crisis.

²⁰² See, e.g., Edward J. Pinto, *Government Housing Policies in the Lead-up to the Financial Crisis: A Forensic Study*, The American Enterprise Institute (discussion draft dated February 5, 2011, available at <http://www.aei.org/wp-content/uploads/2010/10/Pinto-Government-Housing-Policies-in-the-Lead-up-to-the-Financial-Crisis-Word-2003-2.5.11.pdf>).

²⁰³ See, e.g., Pinto, *supra* at p. 2.

²⁰⁴ See related discussion in items 4, 5, 8 & 9 of Section VIII. D. of this White Paper.

4. Market Sensitivity to Price Fluctuations

Sub-prime and Alt-A mortgages were financial innovations intended to provide low- and moderate-income Borrowers access to home-mortgage financing. One key feature of these new types of mortgages was the assumption that Borrowers would be able to refinance their mortgages based on capital gains from real estate price appreciation over short time horizons. Price appreciation could be used to justify the roll over of collateral for the refinanced mortgage. The mortgages were structured with low-interest “teaser rates” for the first two or three years. When the teaser rate expired and was replaced with the higher ensuing rate, the sub-prime mortgagor would typically face four options: (1) pay a significantly higher monthly mortgage bill; (2) use the increased equity in the home resulting from price appreciation over the term of the teaser rate to refinance the mortgage; (3) sell the home to repay the mortgage; or (4) default on the mortgage. Typically, the first option was not a realistic alternative for sub-prime Borrowers, due to their limited financial resources. Therefore, unless the value of the home had appreciated enough to collateralize the refinancing described in option 2, or the mortgagor had the resources to hold on until the house could be sold, default on the mortgage was the probable outcome.

As a consequence of Borrowers’ reliance on home price appreciation to stay in their homes, sub-prime and Alt-A mortgage default rates were extraordinarily sensitive to fluctuations in housing prices. This sensitivity to pricing fluctuations carried over into securitizations of such mortgages. Further, the RMBS generated from these securitizations often populated the underlying portfolios of collateralized debt obligations, tranches of which in turn were often sold to off-balance-sheet vehicles or swapped in negative basis trades. Speculators created additional sub-prime and Alt-A securitization risk synthetically via credit default swaps used to fabricate synthetic CDOs.

5. The Bank-Run Phenomenon

Appreciation in housing prices began to taper as the real estate bubble expanded to the point of extreme market saturation. The tapering price appreciation made it more difficult for sub-prime and Alt-A Borrowers to refinance their mortgages or to sell their homes for enough to repay the existing mortgage when teaser rates expired, which led to an increase in default rates on sub-prime and Alt-A mortgages. The complicated structures and derivatives that were based on sub-prime and Alt-A mortgages resulted in reduced transparency. As a practical matter, it often was not feasible to look through the layers of transactions or model transaction processes to determine where the risks resided.

Accordingly, as these transactions began experiencing stress, market participants quickly lost confidence in their positions in the market.²⁰⁵ Rising defaults coupled with inadequate information about where the consequential losses would occur induced funding sources to generally withdraw *en masse*, as participants in many segments of the financial markets almost universally withheld credit from segments of the markets that they previously had been willing

²⁰⁵ See Gorton, *supra*, loc. 1149-58.

to finance.²⁰⁶ Some observers have identified this sudden and widespread withdrawal of credit and the ensuing crisis as a classic “run-on-the-bank” panic of epic systemic depth and scale, in which banks and financial firms—as large-scale depositors in other banks and financial firms—suddenly sought to withdraw from the market.²⁰⁷

In the United States, the federal government has been able to prevent small-scale panic bank runs of the sort that prefaced the Great Depression beginning in 1928, by providing government-backed insurance on bank deposits. However, this insurance is capped at a relatively modest limit for each insured account, so it is ineffective for preventing high-stakes panic events when the values in question far exceed the amount of deposit insurance available, as occurred during the credit crisis. It is a fair question whether another panic run of this scale could be effectively prevented without nationalizing all banks. As bank nationalization arguably would not accord well with American principles and practices of free market enterprise, U.S. legislators did not attempt such a solution in response to the credit crisis.²⁰⁸ Instead, the regulatory response adopted in the Dodd-Frank Act attempts to regulate how securitization is practiced.²⁰⁹

6. Counter-Factual Basis of Risk Retention Regulations

Instead of focusing regulatory attention on controlling panic runs, Bubb and Krishnamurthy suggest that snuffing out the bubble phenomenon in the first instance would be a more effective means of preventing tail-risk panic runs.²¹⁰ However, they also point out that, while indirect incentive-based regulation in the style of Dodd-Frank can be effective to prevent one side of a market transaction from taking unfair advantage of a naive counterparty, this regulatory approach is largely ineffective when the parties on both sides of the deal have an unrealistic expectation for the outcome. The credit crisis illustrates an important feature of bubble economies in general, namely, that runaway valuations can pervade the market, from the most inexperienced investors to the most senior government policymakers.²¹¹ For example, researchers cite evidence that the same banks that were originating and securitizing poorly underwritten sub-prime and Alt-A loans were not merely transferring these risky assets to other parties, but also were retaining considerable exposure themselves.²¹² In the run-up to the credit crisis, certain major securitizers in the RMBS market retained hundreds of billions of dollars of risky RMBS assets and suffered massive losses as a result.²¹³ On the basis of this observation, Bubb and Krishnamurthy query whether regulatory measures such as mandatory risk retention

²⁰⁶ See *id.* at loc. 1149-58.

²⁰⁷ See *id.* at loc. 1120-25.

²⁰⁸ See Romano, *supra*, at 59.

²⁰⁹ See Bubb & Krishnamurthy, *supra*, at 1539.

²¹⁰ *Id.* at 1608.

²¹¹ See *id.* at 1554.

²¹² See Gorton, *supra*, loc. 2311-86; Bubb & Krishnamurthy, *supra*, at 1586.

²¹³ See Bubb & Krishnamurthy, *supra*, at 1581.

requirements will really have significant risk control effects in a bullish market environment. The evidence suggests that many players in the pre-crisis mortgage market were actually voluntarily taking on much more risk than they would have been required to assume under any reasonable construct of mandatory risk retention.²¹⁴ Therefore, they argue, to the extent that a bubble economy is based on unrealistically optimistic expectations generally pervading the market, regulation seeking to mediate alignment of incentives and “fairness” between the parties to a deal is largely ineffective. In light of circumstances such as those described above, policymakers should rigorously question whether regulatory measures directed at curing discrete problems such as moral hazards and conflicts of interest between loan Originators and Borrowers (the focus of the Dodd-Frank ability-to-pay requirement) or Securitizers and Investors (the goal of the Dodd-Frank Credit Risk Retention Rules) will be sufficient to foreclose the possibility of another run-on-the-bank event in future, as these are just two of the factors at play in a complicated web of transactions and relationships.

As an alternative, Bubb & Krishnamurthy suggest imposing bright-line limits on mortgage debt-to-equity ratios and on the debt-to-income ratios of mortgagors. Such limits would reduce the amount of leverage available to the mortgage market and would therefore slow down and foreshorten the expansion of bubbles. As Bubb and Krishnamurthy point out, during a bubble, the growth in prices generally outpaces the ability of borrowers to make down payments on loans, and, hence, a sustained boom market generally relies on easy credit.²¹⁵ In their view, applying a mandatory limit on debt-to-equity ratios would be a relatively straightforward and effective way to dampen the bubble effect, and, accordingly, the tail risk of a panic run and hard landing resulting from a bursting bubble.

It may be worth noting that the Dodd Frank Act provision for the QRM exemption from the risk retention rule does explicitly permit the financial regulators formulating the QRM definition to take into consideration “underwriting and product features that historical loan performance data indicate result in a lower risk of default”.²¹⁶ This formulation could arguably include capped debt-to-equity and debt-to-income ratios. However, the financial regulators instead chose to conform the QRM definition to the CFPB QM definition, effectively adopting the CFPB QM definition, which, Romano notes²¹⁷, does not include a down payment requirement and has a relatively high limit on the permissible back-end debt to income ratio requirement of 43% percent.²¹⁸ Although the definition proposed in 2011 for a qualified mortgage under the risk retention provision by bank regulators, the SEC, and the Department of Housing and Urban Development had more substantial requirements, such as a twenty percent down payment (*i.e.*, a partial proxy for debt-to-equity ratio) and 36% limit on the borrower’s back-end debt-to-income

²¹⁴ See *id.* at 1586.

²¹⁵ *Id.* at 1612.

²¹⁶ Section 15(G)(e)(4) of the Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 941(b), 124 Stat. 1376, 1891 (codified at 15 U.S.C. § 78o-1 1(a)(1) (Supp. IV 2010)).

²¹⁷ See Romano, *supra*, at footnote 126.

²¹⁸ 12 C.F.R. § 1026.43(e)(vi) (2013).

ratio, they were significantly watered down in the final rule.²¹⁹ Legislators, the housing industry, consumer advocacy groups, and community activists lobbied the agencies to adopt instead, as the risk-retention definition of a qualified mortgage, the CFPB's looser definition of a qualified mortgage, and they did just that in a repropoed rule issued in 2013 and finalized in 2014.²²⁰²²¹

7. Basic Prophylactic Measures²²²

Policymakers should not expect to find simple solutions to complex systemic problems. Leadership will require constant attention to nuances and complications as well as the courage to point out fundamental market distortions and regulatory shortfalls before they become too big to challenge. Policymakers also must keep in mind that every crisis is different. If policymakers over-focus on the causes of past crises, they might actually fail to identify potential triggers of future crises that could arise under different circumstances.²²³

Nonetheless, there are several fairly simple, clear-cut lessons and rules of common applicability that policymakers may draw from the credit crisis, which could help to reduce the likelihood and severity of another, similar episode.

To protect the quality of the collateral underlying a securitization transaction, policymakers should monitor the quality of loan origination practices. No manner of structuring will preserve the integrity of a transaction if the credit underwriting is done poorly.²²⁴ Policymakers might require more rigorous prudential credit policies emphasizing cash and income relative to unrealized capital gains in asset prices.

With regard to the securitization process and noting, as pointed out above, that risk retention by Securitizers may not be enough to assure a safely functioning market, policymakers should also take heed of other incentive dynamics across the entire securitization chain. All parties in a transaction or series of transactions should have their interests aligned.

Negotiating sound and objectively practicable representations and warranties, and then providing effective enforcement, may be one valuable mechanism by which to align interests. Representations and warranties are a core element in the mortgage securitization process, as they outline the set of conditions that the Originator must meet in the process of loan origination. Originators typically give representations and warranties to Issuers and Issuers typically give similar representations and warranties to Investors. If representations and warranties are

²¹⁹ Credit Risk Retention, 76 Fed. Reg. 24,090, 24,123-24 (proposed Apr. 29, 2011).

²²⁰ Credit Risk Retention, 78 Fed. Reg. 57,927, 57,989 (proposed Sept. 20, 2013).

²²¹ See *id.* at 1609 *et seq.*

²²² The content in this section is derived largely from Segoviano, *et al.*, *supra*.

²²³ See Kravitt, *supra*, Comments Regarding Lesson 10.

²²⁴ See *id.*, Comments Regarding Lesson 1.

breached, Investors have recourse to the Issuer. In turn, the Issuer may have recourse to the Sponsor or even one or more loan Originators, any one of which may be required to repurchase non-conforming mortgages.

Issuers and other financial institutions active in securitization should take steps to align the interests of their employees and officers with the interests of the institutions themselves.²²⁵ Researchers have reported considerable evidence that employees and officers of certain major financial firms made decisions that exposed the firms, but not the individual employees or officers themselves, to large tail risks in order to increase potential returns that would allow such individuals to reap much higher personal compensation.²²⁶ On the basis of such evidence, some observers attribute the bankruptcy of numerous Securitizers during the financial crisis partly or largely to misalignment of interests between the firms themselves and their executives and other employees.

Rating Agencies should continue seeking to protect the quality and integrity of the rating process, so that Investors and Issuers are treated fairly. Rating Agencies also should continue seeking to provide forward-looking opinions on the relative creditworthiness of Issuers of debt and debt instruments in order to help reduce the information asymmetry that exists between those Issuers and potential purchasers of their debt. To use these ratings effectively, the market should be informed of both their attributes and limitations. It is Rating Agencies' responsibility to be as transparent as practicable with respect to their rating methodologies, rating policies, and overall track record.

Policymakers should seek to set up unified reporting standards for like-type securitization transactions, with particular focus on disclosure of related funding and credit risks, in order to facilitate and support Investor due diligence efforts. Disclosure requirements should be standardized across entire asset classes so that Investors can make objective and meaningful inter-firm comparisons. SPEs, conduits, and their Sponsors and managers should be transparent about business and other relationships between equity holders, founders, and Sponsors of such vehicles so that Investors may be fully informed and aware of any potential conflicts of interest or inside dealings.

Policymakers should ensure that Securitizers, Underwriters, and Investors have strong incentives to heed the advice of their lawyers, accountants, and other advisers, and policies should be formulated to discourage business interests from pressuring professional service

²²⁵ See *id.*, Comments Regarding Lessons 6 and 7.

²²⁶ See Bubb & Krishnamurthy, *supra*, at 1586; see also The Fin. Crisis Inquiry Comm'n, *The Financial Crisis Inquiry Report* 17 (Jan. 2011) (citing Raghuram Rajan, *Has Financial Development Made the World Riskier?*, NBER Working Paper No. 11728 (Nov. 2005)).

providers to cut corners or take shortcuts.²²⁷ Shortcuts taken to make a process go smoothly will often come back to hurt the economic substance of the transaction.²²⁸

Certainly, one lesson from the recent crisis that can be applied almost universally is that, if the impact of a policy mandate or financial practice on the national economy seems too good to be true, it probably is. Policymakers prudently observing this simple canon of common sense could go far toward curbing the type of exuberant but irrational excesses that tend to precede large-scale financial crises.²²⁹

In addition, Section VIII.D. of Part One of this paper contains an insightful, high-level discussion of the characteristics of good regulatory practices and sets forth nine key characteristics of regulatory measures that appropriately address critical problems without causing new ones.

B. Initiatives To Standardize And Harmonize Securitization

Recently, certain policymakers and thought leaders from a number of countries and regions around the world have introduced public policy initiatives directed toward restoring buy-side confidence in securitization markets. These initiatives generally seek to propose certain transaction criteria under rubrics such as Simple, Transparent and Comparable (STC) and Simple, Transparent and Standardized Securitization (STS), which are intended to achieve better disclosure, standardization, and comparability. Separate proposals from the European Commission, the European Banking Authority, the BCBS jointly with the International Organization of Securities Commissions (IOSCO), and the Australian Prudential Regulatory Authority are noteworthy.²³⁰ Certain features of the SEC's Reg AB II in the U.S., such as asset-level disclosure rules, may also be relevant. These proposals generally have as their objectives developing a framework for high-quality securitization that is less complex than prior securitization systems, and more protective of investors, while still facilitating capital formation in a stable, sustainable securitization market.

In a series of written responses to requests for comments,²³¹ SFIG has expressed certain reservations about the efficacy of certain of the European STS and BCBS/IOSCO STC initiatives. One concern that SFIG has raised is that the European proposals are too complicated and inflexible to be effective in practice. SFIG recommends that the proposals be revised to reflect a more flexible, accommodative, principles-based framework. In addition, SFIG notes that the European proposals as drafted limit qualifying assets to those originated in the E.U., which could

²²⁷ See *id.*, Comments Regarding Lesson 9.

²²⁸ See *id.*, Comments Regarding Lesson 2.

²²⁹ See *id.*, Comments Regarding Lessons 3 & 4.

²³⁰ See Moody's Investor Services, *Securitization Reform Proposals* (Nov. 10, 2015).

²³¹ Available at <http://www.sfindustry.org/advocacy/categories/C247>.

lead to a greater degree of market fragmentation and the corresponding potential loss of risk diversification and liquidity.

Another aspirational feature of several of these STC and STS proposals is to promote further integration of financial markets globally, which their authors' view as conducive to diversifying funding sources, dispersing risk, and extending the reach of the securitization markets to more Borrowers and more lenders around the world. In this regard, thought leaders have recommended that, in addition to the efforts to create higher-quality securitization markets within each separate jurisdiction, policymakers should also make concerted efforts to harmonize among global markets. However, the current European STS proposals are at odds with this vision of global harmonization and integration, at least to the extent that they include only securitizations comprised solely of E.U.-originated assets.

Chinese policymakers may find it worthwhile to participate in such global harmonization efforts, and may find utility in formulating a flexible and robust STC/STS framework for their own national securitization market. However, they may be prudent to view the current European proposals with some reservation. We do note, however, that the ideas of standardization and well-structured securitization are aspects of securitization on which regulators all over the world are now beginning to focus. We recommend that Chinese regulators consider implementing best practices that reflect these concepts, but in a manner that harmonizes markets on a global basis as opposed to walling off regional markets.

GLOSSARY

ABCP: Asset-Backed Commercial Paper.

ABCP Conduits: Special Purpose Entities (SPEs) that issue ABCP to finance the financial assets that they buy. ABCP Conduits may be either: (1) single-seller Conduits that buy assets from only the consolidated group that usually sponsors such Conduits; or (2) multi-seller Conduits that buy assets from a variety of third-party Originators and other Sellers (usually a bank or other financial institution) that are unrelated to the Sponsor of the Conduit.

ABS: Asset-Backed Securities.

Accounting Standards Codification (ASC): Accounting Standards Codification is the source of authoritative generally accepted accounting principles (GAAP) recognized by the FASB to be applied to nongovernmental entities.

Accounting Standards Update (ASU): Updates to the Accounting Standards Codification (ASC) as issued by the Financial Accounting Standards Board (FASB). ASU is a document that includes: (1) how the accounting guidance has changed, including details on the specific amendments to the FASB Codification; (2) why the FASB has decided to change the accounting guidance, and background information related to the change; and (3) when the changes will be effective and the transition method.

Alt-A Mortgage: Short for Alternative A-paper, this is a type of U.S. mortgage that, for various reasons, is considered riskier than A-paper, or “prime,” and less risky than “sub-prime,” the riskiest category.

Annual Percentage Rate (APR): The coupon rate for a loan expressed as an annual rate.

Asset Manager: A professional financial firm that manages investments on behalf of others, such as pension funds or insurance companies.

Asset Representations Reviewer: An unaffiliated third-party service provider that, upon the occurrence of a specified percentage of delinquencies and a subsequent Investor vote, performs a review of assets included in a securitization to determine whether such assets complied with representations and warranties made with respect to such assets.

Auto Captives: Auto finance companies owned by automobile manufacturers.

Available Funds Account: The cash account that holds cashflow collections from the asset pool pledged to a trust available for distribution.

Available Funds Cap (AFC): Technique used to ensure that bonds receive coupons only to the extent of interest collections minus fees and expenses, adjusted by day counts. This measure is calculated for bonds that have the same priority of interest payment.

Balance-Guaranteed Swap (BSW): A swap in which the notional amount adjusts automatically so as to remain matched to the principal amount outstanding of the indebtedness being hedged by the swap.

BCBS: Basel Committee on Banking Supervision.

Bids Wanted in Competition (BWIC): A list of bonds soliciting bids from other firms that Investors provide to market makers.

Board of Governors of the Federal Reserve System (Federal Reserve or FRB): The central bank of the United States, and primary federal supervisor for certain state banks and bank holding companies, savings and loan holding companies, and foreign banking organizations. The FRB also sets United States fiscal policy.

BOE: Bank of England.

Borrower: The borrower with regard to a loan or receivable that is part of a securitized pool of financial assets.

B-Piece: The first loss position in conduit and fusion CMBS transactions.

B-Piece Buyer: An investor that purchases the B-Piece. B-Piece Buyers are generally the “controlling class” of certificate holders, which allows them to have increased control over the servicing of non-performing loans and access to more information than investors in other classes.

Brokers Price Opinion (BPO): An appraisal by a broker with regard to property securing a mortgage that is in, or soon will be in, default.

Calculation Agent: The Calculation Agent, as referred to as the Bond Analytics provider, calculates bond payments due to the investor. The Calculation Agent also performs Waterfall and trigger calculations. The party also provides Investor reports.

CARD Act: Credit Card Accountability, Responsibility, and Disclosure Act. The CARD Act amended the Truth in Lending Act.

CAS: Connecticut Avenue Securities.

CCF: Credit Conversion Factor.

CDO: Collateralized Debt Obligation.

CFE: Collateralized Financing Entity.

CFPB: U.S. Consumer Financial Protection Bureau.

CLO: Collateralized Loan Obligation.

CLO/CDO Evaluator: A common term for the Obligor default probability models built by various Rating Agencies with regard to a CLO or CDO.

CMBS (Commercial Mortgage-Backed Securities): Bonds backed by a mortgage loan or a pool of mortgage loans, secured by commercial real estate, including commercial, multi-family, hospitality, and manufactured housing community properties.

Collateral Manager: A Collateral Manager is a party that manages the collateral to preserve and measure its value for investors. The term is especially common for such parties in CLOs and CDOs. During ramp up and reinvestment periods the Collateral Manager will actually purchase and sell the collateral on behalf of the relevant SPE in order to maximize value for the transaction. The Collateral Manager will also manage the collateral to preserve value during work out periods.

Collection Account: The deposit account or other bank or investment account that is set up specifically to receive collections from securitized assets, most notably, interest and principal payments from the underlying obligors.

Commodity Futures Trading Commission (CFTC): U.S. government agency tasked with fostering open, transparent, competitive, and financially sound commodities markets and protecting the market users and their funds, consumers, and the public from fraud, manipulation, and abusive practices related to derivatives and other products that are subject to the Commodity Exchange Act.

Consumer Financial Protection Bureau (CFPB): U.S. government agency that possesses supervision, examination, and enforcement authority over the consumer financial products and services of large banks (assets in excess of \$10 billion) and certain non-depository institutions and their respective affiliates, and rulemaking authority with respect to many federal consumer financial laws.

Controlling Financial Interest: Refers to the type of interest in a VIE that a Primary Beneficiary holds.

Covered Bond: A bond usually issued by a bank, secured by specific assets of the bank, most often a pool of mortgages, under which the creditors also have recourse to the credit of the bank and as part of which there often is a regulatory scheme or a structure to ensure the creditors' access to the collateral.

CRE: Commercial Real Estate.

Credit Risk Retention Rules: Rules implemented by U.S. regulators—namely, the Board of Governors of the Federal Reserve System, the Department of Housing and Urban Development, the Federal Deposit Insurance Corporation, the Federal Housing Finance Agency, the Office of the Comptroller of the Currency, and the Securities and Exchange Commission—requiring Sponsors of securitization transactions to retain credit risk in those transactions. The final rule was published at 79 Fed. Reg. 77,602 (Dec. 24, 2014) and implements the risk retention requirements in the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act).

CRT: Credit Risk Transfer.

Depositor: In a securitization transaction, the entity—usually an SPE—that “deposits” the underlying pool of financial assets into the SPE that will be the Issuer, usually in return for cash, an interest in the transferred pool, or both.

Distribution Date: A fixed date each month specified in the securitization transaction documents on which deposited collections from the obligors of the underlying securitized assets are distributed to Investors.

DLP: Direct Loan Program.

Dodd-Frank Act: The Dodd-Frank Wall Street Reform and Consumer Protection Act, 12 U.S.C. §§ 5301 to 5641.

Early Amortization Event: An event, the occurrence of which commences the early amortization of an ABS.

ECB: European Central Bank.

EDGAR: The Electronic Data Gathering, Analysis, and Retrieval system, which is a publicly-available electronic database maintained by the SEC. The various Exchange Act filings made by securitizers (*e.g.*, annual reports on Form 10-K and periodic reports on Form 10-D) are made via EDGAR.

ERISA: Employee Retirement Income Security Act.

Event Of Default (EOD): A series of events related to timely payments of interest and ultimate payment of principal, asset performance triggers, servicing standards, and covenants. Breach of these events can cause the trust to unwind and the acceleration of repayments, if applicable, to bondholders.

Fannie Mae: Federal National Mortgage Association.

FASB: Financial Accounting Standards Board.

Federal Deposit Insurance Corporation (FDIC): U.S. government agency that: (1) insures deposits for all insured depository institutions in the United States; (2) is the primary federal supervisor for state-chartered banks and savings institutions that are not members of the Federal Reserve; (3) is the back-up supervisor for the remaining insured banks and thrift institutions; and (4) is typically appointed as the receiver or conservator for insolvent insured depository institutions.

FFELP: Federal Family Education Loan Program.

Financial Stability Oversight Council (FSOC): U.S. government agency tasked with providing comprehensive monitoring of the stability of the U.S. financial system.

Fixed-Rate Bonds: Bonds that earn yield at a fixed interest rate.

Floater: A bond that earns yield at a floating rate of interest.

Freddie Mac: Federal Home Loan Mortgage Corporation.

FSOC: Financial Stability Oversight Council.

GAAP: Generally Accepted Accounting Principles.

Ginnie Mae: Government National Mortgage Association.

GSE: Government-Sponsored Entity.

HEL: Home equity loan.

“Hell Or High Water” Clause: A clause in a contract, usually a lease, that provides that the payments must continue regardless of any difficulties that the paying party may encounter (usually in relation to the operation of the leased asset).

HELOC: Home equity line of credit.

HQLA: High-Quality Liquid Assets.

HQS: High-Quality Securitization.

IDI: Insured Depository Institution.

IFRS: International Financial Reporting Standard.

IIPP: Interest Interest Principal Principal; an order of payment in a cash Waterfall.

Interest Only (IO) Bonds: Bonds that earn interest that accrues by reference to a notional principal balance.

INTEX: Analytics software that provides a library of RMBS, ABS, CMBS, CDO, CLN, and Covered Bond deal models for cashflow projections and price/yield analytics.

Inverse Floater: A type of bond or debt in which the coupon has an inverse relationship to the short-term interest rate or its reference rate.

Investor: An entity or person that invests in or otherwise holds the securities or other interests issued by, or evidencing interests in, an SPE that holds the assets securitized.

IOSCO: International Organization of Securities Commissions.

IPIP: Interest Principal Interest Principal; an order of payment in a cash Waterfall.

Issuer: An SPE that issues securities or other interests to be invested in by Investors.

Issuer Account Bank: The primary bank used by a securitization Issuer that holds various transaction-related funds, including funds set for distribution to noteholders and reserve accounts. Rating Agency counterparty criteria typically describe minimum rating thresholds for these banks, *i.e.*, “A” or above, since the counterparty is essential to enabling timely payment to noteholders.

LCR: Liquidity Coverage Ratio.

Liquidity Facility Provider: A financial institution, typically a bank, that provides assurance of timely payment under certain conditions (but is not designed to protect a securitization from default in the underlying pool of financial assets). Some transactions are structured with external liquidity facilities in order to support the ability of a transaction to maintain timely payments to noteholders. External liquidity facilities can mitigate risks resulting from: (1) asset and liability maturity mismatches; and (2) disruptions caused to collections by the default of other counterparties, such as the Servicer. Rating Agency counterparty criteria typically describe minimum rating thresholds for Liquidity Facility Providers, *i.e.*, “A” or above, since the counterparty is essential to enabling timely payment to noteholders.

LLC: Limited Liability Company.

Master Servicer: Entity responsible for coordinating a variety of tasks performed by Servicers relating to the collection and timely advancement of interest and principal payments, typically in residential and commercial mortgage securitization transactions.

MBS: Mortgage-Backed Securities.

Modifiable And Combinable REMICs (MACRs): REMICs that allow Investors to exchange their securities for different securities backed by the same cash flows.

Non-Accelerating Senior (NAS): ABS tranche that is fully protected from pre-payment risk for a certain period of time, and then receives some portion of pre-payments.

NPL: Non-Performing Loans.

NPV: Net Present Value.

NRSRO (Nationally-Recognized Statistical Rating Organization): A credit rating agency registered with the SEC.

NSF: Non-Sufficient Funds.

Obligor: The underlying obligor on any financial asset being securitized. An Obligor may also be referred to as a “Borrower” if the underlying obligation is a loan.

Office of the Comptroller of the Currency (OCC): U.S. government agency that charters, regulates, and supervises all national banks and federal savings associations as well as federal branches and agencies of foreign banks.

Operating Advisor: An unaffiliated third-party service provider that monitors Special Servicer actions relating to mortgage loans serviced by the Special Servicer in CMBS transactions.

Originator: The entity that creates the financial assets that are to be securitized.

Paying Agent: The entity that manages the payments to the bondholders; and it files tax reporting required by the IRS.

PDA: Principal Distribution Account.

PHEAA: Pennsylvania Higher Education Assistance Agency.

Placement Agent: Placement Agent is the agent, usually a financial institution, which places securities (without necessarily purchasing the securities first), issued by an Issuer with investors who do purchase such securities, usually in a private offering.

Planned Amortization Class (PAC): Class of ABS Investors that absorbs pre-payment risk within a range of pre-payment speeds.

Primary Beneficiary: The party that has a “Controlling Financial Interest” in a Variable Interest Entity (VIE) because it has both: (1) the power to direct the activities of the VIE that most significantly impact its economic performance; and (2) the obligation to absorb losses of or the right to receive benefits from the VIE that could potentially be significant to the VIE.

Principal Only (PO) Bonds: Bonds that receive cashflows derived only from principal repayments on an underlying financial asset, such as a mortgage loan.

PSA: Pooling and Servicing Agreement.

QRM: Qualified Residential Mortgage under the Credit Risk Retention Rules.

Qualified Mortgages (QM): Residential mortgages that meet certain tests of affordability and related matters determined by the U.S. CFPB.

Rating Agency: A Nationally-Recognized Statistical Rating Organization (NRSRO), such as Standard & Poor’s, Moody’s Investor Service, or Fitch Ratings.

Reg AB II: The Rule adopted by the SEC regulating disclosure requirements for the issuance publicly of ABS and MBS. *See* 79 Fed. Reg. 57,184 (Sept. 24, 2014).

REMIC (Real Estate Mortgage Investment Conduit): A transaction structure that allows for pass-through tax treatment, meaning that the REMIC is not taxed at the corporate level. Instead, the income earned by the Investors is taxable.

REO: Real Estate Owned.

Repo Facility: The sale of securities together with an agreement for the Seller to buy back the securities at a date certain for a price certain, including interest.

Representation, Warranty, and Enforcement Mechanism Reports (RW&E Reports): Pursuant to the Dodd-Frank Act, the SEC adopted Rule 17g-7, 17 C.F.R. § 240.17g-7(a)(1)(ii)(N), which requires NRSROs to include in credit reports for structured finance transactions both a description of the representations, warranties, and enforcement mechanisms (RW&Es) available to Investors and a comparison of these RW&Es to those of similar securities. Only RW&Es that are disclosed in the prospectus, private placement memorandum, or other offering documents and that relate to the asset pool underlying the securitization need to be covered in the RW&E report.

Revolving Pool Securitization: An Issuing Entity that is established to issue on multiple issuance dates more than one series, class, sub-class, or tranche of ABS that are collateralized by a common pool of securitized assets that will change in composition over time, and that does not monetize excess interest and fees from its securitized assets.

RMBS (Residential Mortgage-Back Securities): Bonds backed by a pool of mortgage loans secured by residential properties.

RPL: Re-Performing Loans.

RW&Es: Representations, warranties, and enforcement mechanisms.

SEC: The U.S. Securities and Exchange Commission.

Securities Act: The U.S. Securities Act of 1933, as amended.

Securities and Exchange Commission (SEC): U.S. government agency that is the primary federal securities regulator in the U.S.

Securities Offering Reform: Rules adopted by the SEC pursuant to the Securities Act of 1933 (the Securities Act) that were designed to modernize the process for registering and offering securities, including ABS and MBS. These rules took effect on December 1, 2005. *See* 70 Fed. Reg. 44,722 (Aug. 3, 2005).

Separateness Covenants: A series of commitments by both the Originator of securitized assets and the SPE created for purposes of the securitization transaction that is designed to protect the separate legal characters of those parties.

Sequential Pay Transactions: ABS transactions in which all of the funds from the underlying mortgage loans are paid to the most senior bond holders first and to the most junior Investors last.

Servicer Termination Event: The occurrence of an event in a contract, usually an indenture or pooling and servicing agreement, that allows or requires a Trustee or other third party to remove or replace the Servicer.

Servicing Agreement: The agreement that sets forth the terms and conditions of the Servicer's duties in an ABS transaction.

SFIG: Structured Finance Industry Group.

Shifting Interest Structure: A characteristic of some securitization transactions, like RMBS, during which all pre-payments received during a lock-out period (*e.g.*, 5-years) are used to pay down the senior note holders. After the lock-out period, a fraction of the pre-payments are applied to the junior note holders, usually *pro rata* to principal balances, as long as the deal is passing certain performance tests known as step-down tests (usually a test based on the amount of defaults in the underlying portfolio). The fractional amount typically increases with the life of the deal. If at any point the deal fails to meet its step-down tests, pre-payment proceeds are shifted back to pay down the senior note holders.

SME: Small Medium Enterprise.

SPE (Special Purpose Entity): An entity that is limited in its governing articles or otherwise to only conducting business which relates to purchasing and securitizing, or otherwise holding or financing, the assets in a securitization transaction, and which contains other protections in its charter and make up of its board of directors that make remote the possibility that it will become insolvent or file for bankruptcy protection.

Special Servicer: Entity responsible for addressing issues such as loan modification requests and for carrying out extensions, foreclosures, and liquidations on “specially-serviced” loans in commercial mortgage securitization transactions.

Sponsor: The entity that organizes and structures a securitization transaction. Often, but not always, the Sponsor is the Originator.

STACR: Structured Agency Credit Risk.

STS: Simple, Transparent And Standardized Securitization.

Substantive Consolidation: An equitable remedy in a bankruptcy proceeding that combines the assets and liabilities of two related entities as though they are one entity.

Swap Counterparty: One of the parties involved in a swap transaction. A swap is a derivative in which two counterparties exchange cash flows of one party’s financial instrument for those of the other party’s financial instrument. The benefits in question depend on the type of financial instruments involved.

TALF: Term Asset-Backed Securities Loan Facility.

Tangible Residuals: Automobiles or other tangible vehicles or other equipment that is the subject of a lease and is to be sold or re-leased upon the termination of the current lease thereof.

Target Amortization Class (TAC): Bond amortized to target a single pre-payment speed.

Transferor: A party in a transaction that transfers the assets being securitized, or interests therein, to another party in the securitization. A Transferor can be an Originator or another party in the chain of transfers.

True Sale: A transfer of assets from one party to another such that the assets are no longer part of the estate of the transferring party in any subsequent insolvency proceeding of the transferor.

UCC: Uniform Commercial Code.

Underwriter: The bank or other similar entity that, on behalf of the Issuer, finds Investors to purchase the ABS or MBS issued in a securitization transaction. In a public or 144A transaction, the Underwriter often will purchase the securities to be offered and then re-sell them to Investors.

VAT: Value-Added Tax.

VIE: Variable Interest Entity.

“Volcker Rule” (Volcker): A rule under § 619[1] of the Dodd-Frank Act (12 U.S.C. § 1851) that (1) substantially restricts proprietary trading by “banking entities,” and (2) prohibits banking entities, with some important exceptions, from acquiring or retaining any equity, partnership, or other ownership interest in or sponsoring a hedge fund or a private equity fund. While the stated focus of this prohibition is hedge funds and private equity funds, Congress defined those categories primarily as Issuers that rely on Sections 3(c)(1) or 3(c)(7) of the Investment Company Act (or similar funds identified in the implementing rules) for exemption from the registration provisions of the Investment Company Act. American economist and former United States Federal Reserve Chairman Paul Volcker originally proposed the rule.

WAC: Weighted-Average Coupon.

WAL: Weighted Average Life.

Waterfall: The list of payment priorities specified in a securitization transaction’s governing agreements. The Waterfall applies the monthly distributable amount to satisfy various payment obligations of the securitization trust, in sequential order, until either (a) no funds remain to satisfy the remaining payment obligations listed in the Waterfall or (b) all payment obligations in the Waterfall have been satisfied.

Z-Bonds: Also called accrual or accretion bonds, z-bonds are not entitled to any coupon payments. Instead, interest that would be paid on a z-bond is used to pay off the principal on other tranches with a higher priority payment sequence in the collateralized mortgage obligation securities. Z-bonds are only paid the principal and interest owed once the other tranches have been paid off.