

Portfolio Strategy Research

# The ABCs of ABS



GUGGENHEIM

## Summary

Asset-backed securities (ABS) finance pools of familiar asset types, such as auto loans, aircraft leases, credit card receivables, mortgages, and business loans. In one way or another, these asset types represent contractual obligations to pay.

These contractual obligations to pay often rank senior to a borrower's traditional debt obligations, reducing ABS investors' exposure to the borrower's financial health. ABS also has many other investor-friendly features that may help protect against loss and improve liquidity, such as tranching of risk, overcollateralization, and diversity of payers in each underlying pool. Despite these and other strengths discussed in this report, some ABS and other forms of structured credit continue to offer higher yields than similarly rated corporate or municipal bonds. The principal job of ABS investors is to analyze the cash flows from these obligations to assess value and the possibility of loss, rather than relying solely on the current market prices of hard assets, the reputation of a sponsor, or the presence of an investment grade rating.

During the financial crisis, many investors experienced losses related to certain private label residential mortgage-backed securities (RMBS), commercial mortgage-backed securities (CMBS), and MBS-backed collateralized debt obligations (CDOs). In the aftermath of the crisis, the structured credit market underwent a painful yet necessary transformation as market participants soberly returned to conservatism, yet the asset class remains complicated. At Guggenheim, we believe that identifying value and risk in ABS requires dedicated credit, trading, technology, and legal resources supporting a disciplined investment process.

# Report Highlights

- Securitization begins with the creation of a special purpose vehicle that acquires a pool of assets and simultaneously issues asset-backed securities to fund the purchase of those assets.
- Assets backing a securitization, without exception, must include “contractual obligations to pay.” Each asset features a payer (borrower, lessee, insurer, etc.) and a contract (mortgage, lease, loan, account receivable, etc.). A securitization typically “pools” contractual assets of the same type (auto loans, aircraft leases, credit card receivables, corporate loans, etc.).
- ABS debt boasts investor-friendly features that may help protect against loss and improve liquidity, including bankruptcy remoteness, prioritization of payments, overcollateralization, excess spread, amortization, professional servicing, and diversity of payers within each underlying pool.
- Lenders, lessors, and specialty finance companies commonly turn to structured credit for funding. Additionally, traditional corporate borrowers that receive payments under contract may securitize those contracts as an alternative to issuing corporate debt, particularly when the contracts are of higher credit quality. We illustrate such a situation with a case study.
- Successful investment in structured credit requires dedicated credit, trading, technology, and legal resources, institutional knowledge, and a disciplined investment process.

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# Introduction to ABS

Let us begin by demystifying the terminology. Securitization, structured products, structured credit, and asset-backed securities all refer to roughly the same thing: debt secured primarily by pools of “contractual obligations to pay.” Technically, RMBS and CMBS represent types of ABS.

Too often, we find that reports on structured credit as an asset class rely on jargon, anecdotes, and generalizations. Our goal is to provide a coherent description that answers the following fundamental questions: Why does securitization, the process which creates structured credit investments, exist? How does structured credit differ from traditional corporate credit, mortgage lending, or leasing? What distinguishes a “securitizable” asset from other assets such as real estate, guarantees, or equity interests? How do common features of structured credit protect debt investors? What roles do originators and servicers play? What are the benefits to the borrower? Asset-backed securities are complex investments and not suitable for all investors<sup>1</sup>. We present this primer on securitized credit with the hope that investors can approach the sector with greater familiarity and perspective.

## The Elephant in the Room

During the financial crisis that began in late 2007, many investors experienced losses related to private label RMBS, CMBS, and MBS-backed CDOs. This dislocation exposed investors who based their investment decisions primarily on ratings, guarantees from monoline insurers, and a blind faith in stable or increasing real-estate prices. Even those structured credit investors wise enough to avoid MBS and related securities experienced some combination of price declines, illiquidity, and ratings downgrades. As a result, many structured credit investors, bruised and shell-shocked, remained on the sidelines during the subsequent recovery that began in early 2010 and missed out on the associated

returns. Even today, many investors remain reluctant to allocate to funds and strategies that are exposed to securitized credit. While intrigued by the additional yield offered by structured credit versus similarly rated corporate or municipal credit, skeptical investors worry that the credit losses and illiquidity following 2007 lurk around the corner.

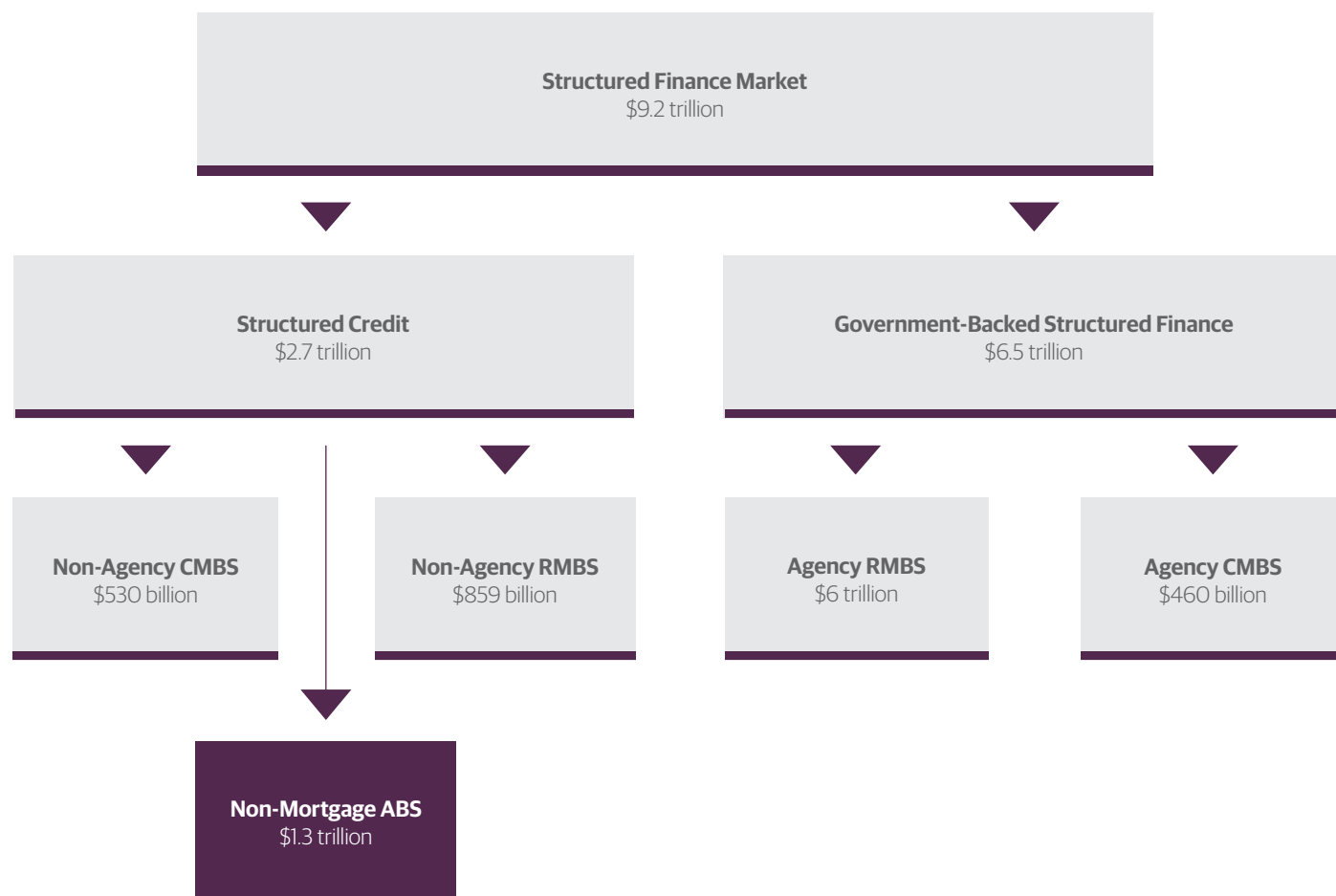
It is a reasonable worry. In the aftermath of the financial crisis, however, the structured credit market underwent a painful yet necessary transformation. Market participants, including investors, issuers, arrangers, and rating agencies, soberly returned to conservatism. Diverse, appropriately capitalized, cautious buyers stepped into the vacuum created by the disorderly departure of overly levered, homogeneous and correlated investors, thereby improving market liquidity and stability.

Despite these important positive developments, we believe that losses and volatility always have the potential to return to certain corners of structured credit. These instruments are subject to many risks, including credit, liquidity, interest rate, and valuation risk<sup>1</sup>. Identifying which specific ABS types, structures, and securities may experience a dislocation requires dedicated credit, trading, technology, legal resources, and a disciplined investment process. More importantly, building an effective investment process that can distinguish an out-of-favor but creditworthy investment from a precariously constructed house of cards, requires a fundamental understanding of structured credit and securitization.

1. Investors in asset-backed securities generally receive payments that are part interest and part return of principal. These payments may vary based on the rate loans are repaid. Some asset-backed securities may have structures that make their reaction to interest rates and other factors difficult to predict, making their prices volatile and they are subject to liquidity and valuation risk. Please see “Important Notes and Disclosures” at the end of this document for additional risk information.

## Non-Mortgage ABS's Place in the Structured Finance Universe

Due to its small size and complexity, ABS tends to be overlooked. Our focus on this asset class reveals compelling yield opportunities.



Source: SIFMA, Guggenheim Investments. Data as of 12.31.2016.

## Inside ABS: Securitizable Assets and Contractual Cash Flows

Securitization begins with an agreement. One party agrees to pay another party. A family buys a home and agrees to monthly mortgage payments. A software company borrows to purchase a smaller competitor and agrees to terms of a bank loan. A regional airline, looking to add routes, enters a lease agreement on an Airbus A319. A franchisee opens a drive-through restaurant and agrees to pay 5 percent of sales to Sonic Corp.

Look beyond the house, the software company, the airplane, and the restaurant. These agreements are all “contractual obligations to pay” that form the basic building blocks of securitization, which we call “assets.”

You may be the proud owner of a rare stamp collection. Your stamp collection, however, doesn't belong in a securitization. In order to serve as the collateral backing an asset-backed security, an asset must represent a contractual obligation to make payments. In other words, the assets of a securitization also exist as liabilities on the “right side” of the

payer's balance sheet. Note that we refer to a "payer," because an asset may represent the obligation to pay by a borrower, lessee, customer, or licensee, among others. Contrary to common understanding, "hard" assets do not serve as the primary collateral for securitizations. Only contracts, such as leases, mortgages, loans, and agreements that define payment obligations create the contractual cash flows necessary for securitization.

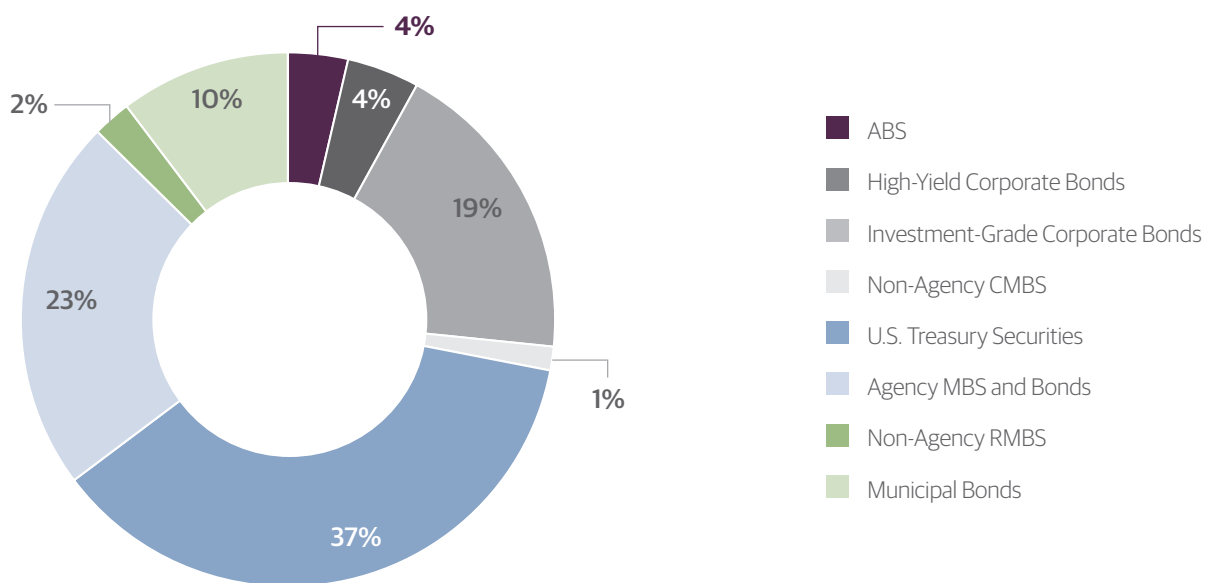
Other sources of value, such as real estate, airplanes, or a corporate guarantee, may also be available to repay ABS investors. However, these provide only secondary security. Disciplined structured credit investors rely primarily on contractual cash flows for repayment; these other sources of value represent methods of repayment only in break-glass-in-case-of-emergency situations. Experienced and capable

ABS investors seek structures and collateral that avoid direct reliance on such secondary sources of value. For example, if large numbers of homeowners cannot (or choose not to) make their mortgage payments, counting on rock-steady housing prices turns out to be folly.

Leading up to the financial crisis, those who conservatively evaluated borrower ability to pay their mortgages, rather than focusing upon property values, generally sidestepped losses (and, in some cases, gained the insight to short the ill-constructed securitizations). Meanwhile, those investors who relied on continued home price appreciation and ignored the quality of the contractual cash flows fared poorly. We believe the specific values ascribed to real estate, companies, planes, ships, and intellectual property derive from the quality of the underlying cash flows, not the other way around.

### ABS Makes Up Just 4% of the Fixed-Income Market

The U.S. fixed-income universe is dominated by Treasuries, Agency MBS and bonds, and investment-grade bonds.



Source: SIFMA, Credit Suisse, Guggenheim Investments. Data as of 9/30/2016.

## SPVs: The Structure of Structured Credit

Securitization, the act of creating asset-backed securities, begins with the creation of a special purpose vehicle, or SPV. Think of an SPV as a company with no purpose other than to acquire assets and issue debt secured by those assets. The SPV, also called the “issuer,” purchases a specific pool of assets and nearly simultaneously issues debt securities—the asset-backed securities—and equity interests to fund the purchase of those assets. The pool of assets usually belongs to the same type (auto loans, aircraft leases, corporate loans, etc.) but represents diverse payers.

Often, but not always, the SPV issues multiple classes of debt with different priority of payment, which are called tranches. Other important steps in this securitization process include the assignment of a servicer or manager, assignment of a trustee, issuance of a rating on the issued debt tranches, and the establishment of an assortment of rules to govern the securitization. These rules dictate how the trustee distributes cash flow from the asset pool between the principal and interest due on the debt tranches and equity interests, what sort of assets the SPV can own, what to do when assets pay off early, and whether cash can be used to purchase new assets. They also prescribe what happens when things go wrong, such as when the assets do not generate enough cash, or there is a precipitous decline in their quantity and/or quality. The governing documents also establish the content of the periodic investor reports, spelling out the roles, ratings and rules, and much more. Usually, the bond indenture serves as the governing document, but some securitizations may use a credit agreement, a trust deed, or a servicing agreement. Needless to say, navigating these documents efficiently requires significant experience and dedicated resources.

## More than MBS: ABS Collateral Types Are Familiar and Diverse

At its inception in the mid-1980s, the non-mortgage ABS market began with securitizations of auto loans and credit card receivables. Since then, the sector has rapidly evolved into a highly diversified \$1.3 trillion market, running the gamut of collateral types. Within structured credit, investors can construct a portfolio of various collateral types, providing additional diversification benefits at the investor portfolio level. Real estate-related securitized credit, including Agency and non-Agency RMBS and CMBS, technically represent types of ABS, but their investment considerations differ significantly enough that we consider them an entirely separate asset class. Non-real estate ABS collateral types can be grouped into two main subsectors: consumer and commercial:

- **Consumer ABS** is backed by cash flows from personal financial assets, such as student loans, credit card receivables, and auto loans.
- **Commercial ABS** is constructed from pools of receivables, loans, or leases on assets like shipping containers, aircraft, and other commercial equipment. It also includes ABS backed by debt securities. These include collateralized loan obligations (CLOs) backed by corporate bank debt, collateralized bond obligations (CBOs) backed by high-yield bonds, and CDOs backed by various interest-bearing debt instruments, such as subprime mortgage securities, commercial real estate loans, bank trust preferred securities, or tranches of other CDOs.

Other non-mortgage securitized assets include: merchant credit card advances, oil and gas future production royalty agreements, commission agreements, drill-ship charter agreements, property assessed clean energy loans, wireless tower leases, billboard leases, consumer wireless contracts, and wireless spectrum agreements. For a more comprehensive list of ABS types, see Appendix A.

# Investor-Friendly Features of Securitized Credit

ABS debt boasts several investor-friendly features that may help protect against loss and improve liquidity, including bankruptcy remoteness, excess spread and triggers, overcollateralization, diversity of payers, and tranching of risk and amortization.

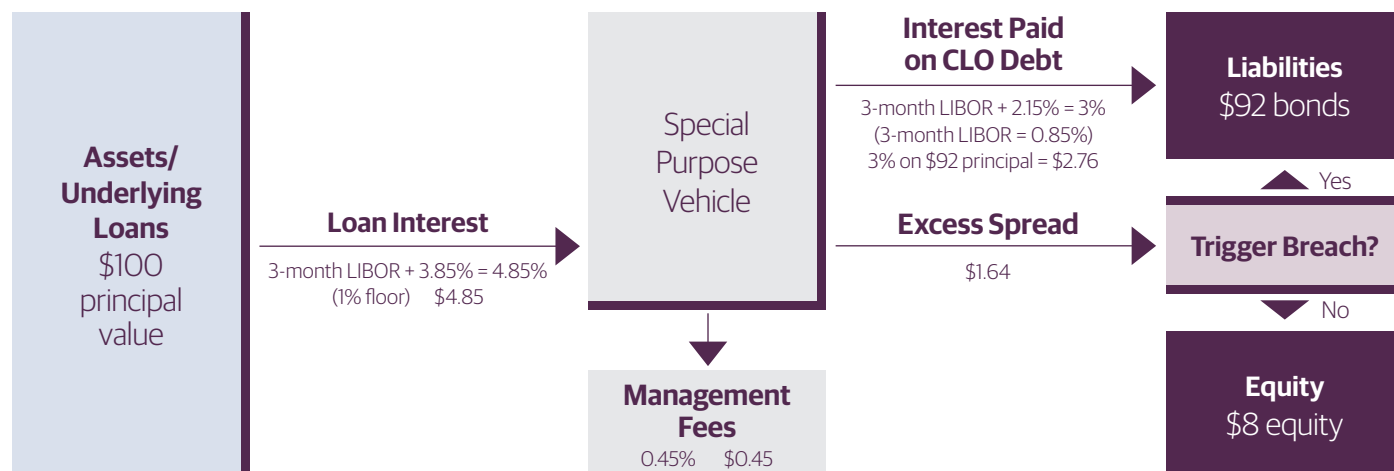
**Bankruptcy Remoteness:** Most securitizations involve a sponsor, typically a lender, specialty finance company, institutional investor, or corporation. If that sponsor gets into financial trouble, it can usually file for protection of its assets from creditors under the bankruptcy code, forcing all creditors into a standstill. However, in a securitization, the SPV that issues the debt is separate and distinct from the sponsor. Bankruptcy protection for the sponsor does not extend to the assets of the SPV. Further, the assets of SPV will not be available to the sponsor's other creditors, providing ABS investors with a layer of protection from financial stress experienced by the sponsor.

**Excess spread and triggers:** As illustrated below, the expected yield or return of the underlying asset pool usually exceeds the average yield of the issued ABS debt.

For example, the loans underlying the hypothetical CLO pictured below pay 4.85 percent, or \$4.85 for every \$100 of loans. Meanwhile, the CLO liabilities and management fees together cost \$3.21, leaving \$1.64 in "excess spread." In the normal course, excess spread cash flow goes to the SPV's equity investor. However, in the event of deterioration in the quality and/or quantity of the underlying loan pool, the CLO may breach a "trigger." A breached trigger will require that

## Anatomy of a Securitization

ABS may seem complex, but many embedded features are intended to act as investor protections. In this example, \$4.85 in interest income that is generated by the underlying asset pool pays \$0.45 in management fees and \$2.76 in interest expense to CLO debt holders. The use of excess spread is determined by trigger breaches.



Hypothetical example for illustrative purposes only. Interest is calculated as 3.85% plus 3-month LIBOR or 1 percent, whichever is higher. Management fees do not include any other SPV expenses.



## Buyers Beware

Credit analysis that overly relies on LTV and asset prices can subject unwary investors to an unstable positive feedback loop.



excess spread be diverted away from the equity investors to either repay principal of the CLO's most senior tranche or to purchase additional collateral. If pool performance deteriorates further, triggers may also require that interest be diverted away from junior debt tranches to repay the senior-most tranche. Excess spread serves as a cushion for the debt investors. Note that not all types of securitizations have excess spread, notably conduit CMBS.

### Overcollateralization or Loan-to-Value (LTV) Ratios:

An SPV generally issues less debt than it has assets. In the example of the CLO above, for every \$100 of bank loans in the underlying pool of assets, the SPV only issued \$92 of CLO debt. The \$8 difference represents the amount of "overcollateralization," which serves as a cushion for debt investors. Overcollateralization becomes tricky to envision when the SPV owns assets that have no explicit face amount. Each loan has an outstanding principal, and each receivable has an amount due. However, what is the face amount of a lease? The ABS market has a number of ways of dealing with this nuance. Often, the market looks to the market value or appraised value of the hard asset related to the contractual cash flow, to calculate a loan-to-value ratio (LTV) or debt advance rate. For instance, in an aircraft ABS or triple net lease ABS, the market focuses on the appraised value of the pool of aircraft or the real estate properties, respectively. Alternatively, the market may calculate the present value of the contractual cash flows that have been securitized as a proxy for the face value.

Focusing exclusively on overcollateralization or LTV, particularly when the securitized assets do not have explicit principal amounts, is insufficient credit analysis. Over time, more favorable debt terms increase appraisals and calculated present values. Cheap debt increases hard asset values as firms enjoy a lower cost of funds and consequently have lower hurdle rates for investments, bidding up asset prices. ABS investors observe higher hard asset values, point to additional overcollateralization, and extend more cheap debt, which increases appraisals further, and so on. Engineers refer to this circular reference as a "positive feedback loop," an inherently unstable condition (see above figure).

**Diversity of Payers:** Most securitizations, regardless of type, have pools of loans, leases, or other contractual cash flows with many unique underlying borrowers, lessees, or payers. A CLO's underlying portfolio may contain over a hundred unique corporate borrowers. A container lease ABS pool may include dozens of container shipping lines as lessees. A credit card ABS master trust may include receivables from thousands of individual card holders. An aircraft lease ABS may include leases that are obligations of many different airlines. By design, ABS debt investors do not require every underlying payer to perform in order for the ABS debt to receive all principal and interest payments. This diversification may help protect against a loss.

**Tranching of Risk and Amortization:** Generally, securitizations issue multiple tranches, or classes of debt, that customize risk, rating, timing of repayment, and relative lien on collateral. This tranching allows debt with different risk characteristics to be created from a homogenous pool of assets. The shorter maturity, more senior tranches enjoy higher ratings, and more cushion against loss, while the longer-dated, more junior tranches expect higher returns but lower ratings. In this way, tranching serves to create debt that will suit different investor preferences. Securitization accomplishes this tranching using a priority of payments, commonly referred to as a waterfall, the backbone of any

### Balancing Risk and Return

This hypothetical CLO capital structure allows debt with different risk characteristics to be created from a homogeneous pool.

Rating	Size (\$mm)	Coupon	Credit Enhancement	Weighted Average Life
AAA	256	3-month LIBOR+160	36.0	5.6
AA	51	3-month LIBOR+220	23.3	7.3
A	18	3-month LIBOR+300	18.8	7.9
BBB	26	3-month LIBOR+425	12.3	8.3
BB	17	3-month LIBOR+675	8.0	8.6
Equity	37.8			

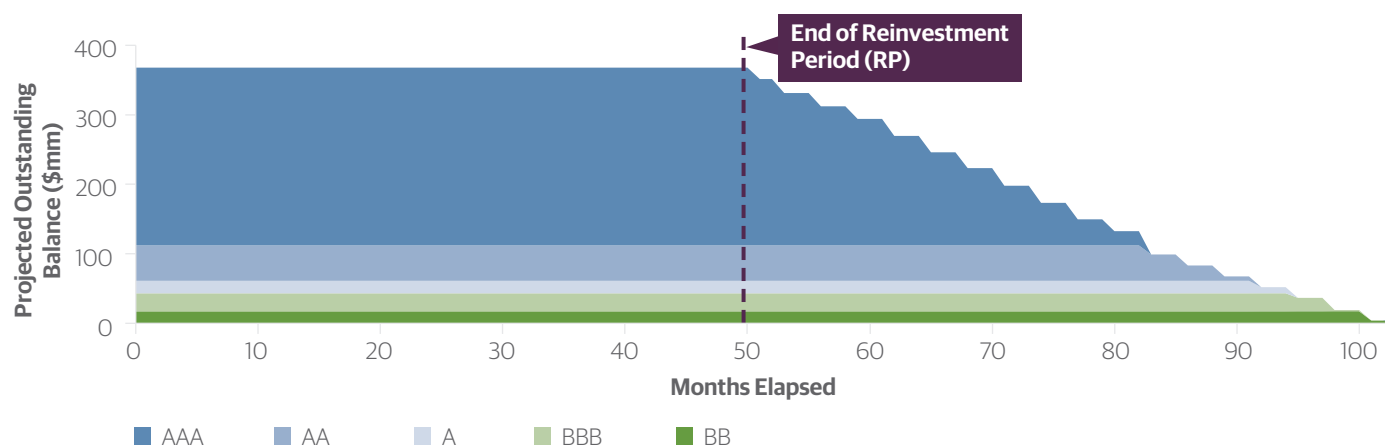
securitization's governing document. While tranching represents a major benefit of securitization, excessive customization may impact liquidity. In practice, within each ABS subtype, we see standardized tranching, or "capital structures," that allows market participants to develop bids and offers in secondary markets.

The capitalization table and amortization graph below belong to a hypothetical CLO. The capitalization table clearly shows the tranching, with the AAA class sitting at the top entitled to repayment before other classes, resulting in the shortest weighted average life (WAL). This is illustrated graphically in the amortization timeline below. The AAA class amortizes first before any of the junior classes, which only begin to amortize once the AAA class is paid off. The same principle applies down the capital stack with the junior classes having longer WALs because they amortize only once more senior classes have been paid off.

Closely tied to the concept of cash flow tranching, most securitizations provide for significant principal amortization, or return of capital, ahead of the expected maturity, which may mitigate risk of loss without any investor action or hedging. In fact, the contractual terms of the underlying assets should fully amortize the debt in most securitizations. Compare this to corporate or municipal debt which, while

### Hypothetical CLO Amortization Timeline

Most securitizations provide for significant principal amortization ahead of the expected maturity, which may mitigate risk of loss without any investor action or hedging.



Hypothetical example for illustrative purposes only.

<sup>1</sup>Please see Disclosures for a more complete discussion of risks of investing in ABS.

<sup>\*</sup>By design, CLO equity tranches receive much of their return from excess spread distributions. Return of stated principal is highly variable.

it may provide for some limited amortization, generally requires a large principal payment by the borrower at maturity (usually from refinancing proceeds). As a result, securitized credit investors usually take less borrower “refinancing” risk than corporate or municipal debt investors or commercial mortgage lenders<sup>1</sup>.

**Professional Servicing and Active Management:** The servicer, also referred to as the collateral manager, seeks to maximize the certainty and quantity of cash flows from the underlying pool of assets. Responsibilities of the servicer may include evaluating credit quality of payers and assets prior to inclusion in the pool, negotiating pricing and terms of loans and leases, remarketing equipment for lease, negotiating with nonperforming lessees or borrowers, obtaining appraisals, and selling hard assets. In many transactions, the servicer or an affiliate owns the equity or residual interest in the securitization, which generally creates a favorable alignment of interest with the debt investors. A major distinction exists between static pools and actively managed pools. In static pools, cash flows from the collateral may not be reinvested in new collateral. In actively managed, or reinvesting, securitizations, the manager may purchase new assets with proceeds received from existing assets, subject to strict eligibility criteria.

**Investment Grade Ratings:** Securitizations represent a bankruptcy remote lien on diverse, contractually cash flowing assets, and consequently rating agencies generally assign investment-grade ratings to many of the issued debt tranches. However, the repayment of debt relies on contractual cash flows and does not generally benefit from recourse to the sponsor or asset originator. As a result, securitized debt ratings rely solely on those cash flows and do not give significant credit for potential active management of the collateral or refinancing. “Rated” maturities are therefore in excess of 20 years, even though the expected maturities generally range from one to 10 years, depending on the product type.

**Professional Reporting:** Each securitization employs a third-party trustee that, among other responsibilities, distributes periodic performance reports to investors. These reports, generally prepared by the servicer, relay information about the underlying collateral’s composition, quality, and payment performance. While the content of the reports varies by securitization type, in each case these reports meaningfully contribute to liquidity and facilitate risk management, as they allow existing and prospective investors to evaluate the performance and outlook of the securitization.

### ABS: What’s In It for the Borrower?

Securitizations provide debt capital to two types of borrowers: They may fund the loans or leases originated by lenders, lessors, or other specialty finance companies. Alternatively, securitizations may provide debt capital to traditional corporate borrowers who have contracts or own assets that are of higher financial quality than their own full faith and credit.

For all borrowers, a benefit of securitization is that the term of ABS borrowing matches the term of the underlying assets, insulating them from mark-to-market or refinancing risks. From the traditional corporate borrower’s perspective, the benefits of financing through securitization include:

- Term of financing matches tenor of assets, reduces refinancing risk and eliminates potential for forced asset sales
- Lower borrowing costs than alternatives such as senior unsecured bonds
- Non-recourse to the sponsor, may provide off-balance sheet treatment
- Diversity of funding sources may improve enterprise valuation for sponsor

In each case, borrowers pledge loans, leases, or other securitizable assets as collateral that exceeds the same borrower’s intrinsic creditworthiness. In other words, the securitization investor tables the difficult question, “Will the borrower repay me?”—indeed, payments are not guaranteed by the corporation—and instead asks the simpler question: “Will these assets (loans, leases, etc.) generate enough contractual cash flow to repay me?”

**The following case study** illustrates the benefits of securitization to a traditional corporate borrower. The \$3 billion securitization by Domino’s Pizza utilized the basic structure, mechanics, and priority of payments for ABS.

In contrast to multi-tranche ABS structures, this securitization is characterized by a single-term tranche of debt and a pari-passu (equal rank to the term tranche) revolver backed by the same assets.

<sup>1</sup> Investors in asset-backed securities may be subject to other types of risks. Please see the end of the document for risks related to this asset class.

# Securitization Case Study: Domino's Pizza<sup>1</sup>

Domino's Pizza, one of the largest pizza restaurant chains in the world, accessed the securitization market to borrow over \$3 billion. As part of the transaction, Domino's established a bankruptcy remote SPV into which it sold substantially all of its revenue-generating assets. The SPV financed the acquisition of these assets by issuing ABS.

The SPV pledged the assets it acquired from Domino's as collateral to secure its repayment obligations to ABS noteholders. Additionally, Domino's provided ABS investors a battery of performance-based tests to support the repayment of the notes in the event of a business decline. In consideration for those terms, Domino's obtained an optimal mix of note tenors and coupon types to fit its business needs, and received an investment-grade rating on the debt, lowering its cost of funds.

## How Securitization Served as the Optimal Financing Solution for Domino's

Founded in 1960, Domino's currently has over 14,000 restaurant locations globally with over \$11 billion annual system-wide sales. Since 2010, average same-store sales have increased 7 percent annually. Domino's primarily operates as a franchisor of its brand, where 97 percent of its stores are owned and operated by franchisees.

In the franchise model, Domino's (as the franchisor) grants a store owner/operator the right to operate using all of Domino's intellectual property in consideration for an upfront license fee and an ongoing sales royalty. By paying the fees and royalties, the store operator benefits from Domino's brand, store look and design, menu, ingredient sourcing network, information technology, and advertising campaigns. From Domino's perspective, the franchisees shoulder the cost of expanding the chain's footprint while providing Domino's with a stable stream of royalty payments.

The stability of the royalty payments comes from the fact that franchisees pay Domino's a fixed percentage of stores sales,

not profits, therefore removing the risk of decreasing franchisee operating margins. The stability and predictability of the royalty payment streams, combined with the value of Domino's intellectual property, allowed Domino's to access the structured credit markets and issue investment-grade debt. Below we describe in summary the steps the company took to achieve its goals:

1. Domino's created an SPV, called Domino's Pizza Master Issuer LLC, into which it sold its revenue-generating assets. These assets include: existing and future franchise agreements, existing and future intellectual property, franchisor-owned store royalties, supply-chain business segment real estate and operational profits, and SPV transaction accounts.
2. The SPV issued ABS notes to finance the purchase of the acquired assets. The SPV pledges its assets as collateral for the benefits of noteholders to secure its repayment obligations.
3. Domino's entered into a management agreement with the SPV, which essentially requires it to continue operating the business on a daily basis as franchisor.

<sup>1</sup>This case study is for illustrative purposes only to show the structure of an asset-backed security and should not be considered as investing advice or a recommendation. The Domino's Pizza example was chosen for its relatively simple structure and its recognizable brand name. Guggenheim Securities, LLC, part of Guggenheim Partners, LLC, served as an underwriter for the security.

4. Domino's retains a substantial equity interest in the SPV and is permitted to collect cash flows in excess of required ABS noteholder payments. Domino's retained equity aligns its interest with that of ABS noteholders; both benefit from a well-performing business. Details below describe how performance triggers within the securitization help protect noteholders by redirecting excess cash flow away from Domino's and to the ABS.
5. In the event Domino's were to default on a non-ABS obligation, any such creditor would be subordinate to all ABS investors in right, title, and claim to the SPV's assets.

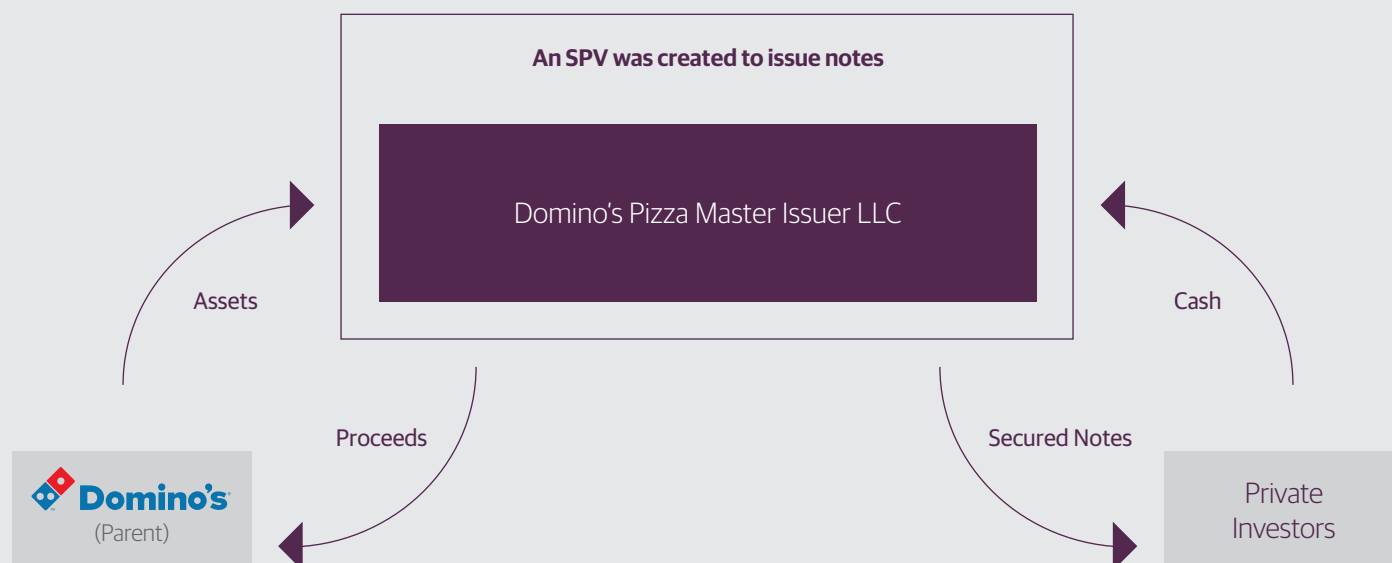
### How Credit Enhancements Help Protect ABS Investors

Notes issued under an ABS transaction are wholly backed by the assets owned by the SPV, but what happens if the cash flows generated by those assets diminish? As noted earlier, ABS transactions often carry several structural protections to help protect the bondholders from losses. Domino's ABS includes a number of such structural protections:

- **Required Amortization.** Domino's is required to repay 1 percent of the original debt amount annually while its leverage is over 5.0x EBITDA—earnings before taxes, interest, depreciation, and amortization—to systematically reduce dollars at risk for debt investors.
- **Performance triggers.** Two performance triggers in the Domino's securitization serve to help protect the ABS investor. Both tests are used to redirect cash from Domino's to either hold in a reserve account or repay debt in the event that business performance deteriorates:
  - **Cash trap** requires excess cash flows to be diverted from equity to a reserve account if the debt service coverage ratio or system-wide annual sales decline below specified test levels.
  - **Rapid amortization** diverts all excess cash flow from the equity (owned by Domino's) to repay the ABS. Rapid amortization is triggered under various conditions, including further debt service coverage ratio or sales declines, failure to repay the loan by a certain date, or if Domino's declares bankruptcy.

### ABS Structure Aligns Domino's Interests with Investors

Domino's retention of equity in the SPV means both the ABS investors and Domino's gain from a well-performing franchise.





# Investing in ABS

Any investor considering an allocation to ABS should ask two questions in order to understand pricing of structured credit.

A prospective ABS investor must answer two questions: First, despite the previously mentioned risk-mitigating attributes of securitization, why has structured credit continued to offer additional yield when compared to similarly rated corporate, municipal, or Agency debt? Second, within structured credit, which factors help investors understand the relative pricing of different ABS?

**As to the first question,** the reasons for ABS's yield premium mostly concern liquidity, information discrepancies, and historical experience.

- Most broad market indexes, including the Barclays Aggregate, do not include structured credit securities. Investors thus perceive, unfairly in some cases, reduced liquidity versus competing fixed-income products.
- Structured credit securities trade over the counter, not on an exchange or electronic trading system.
- Their reporting, while appropriate for their structure, does not resemble the quarterly disclosures of traditional corporate borrowers. This may tend to hinder crossover interest from traditional corporate debt investors.
- A shifting regulatory landscape has created uncertainty, particularly for banks' capital charges.
- Price volatility, rating downgrades, and credit losses experienced during the financial crisis still haunt some securitized credit investors.

- Finally, the complexity of the documentation and structure of ABS and other securitized products requires a deeper investment in the necessary resources, including human capital, technology, and data.
- Note that none of these reasons are related to creditworthiness or the likelihood of return of full principal and interest. Rather, the reasons are all technical, which supports our belief that structured credit offers attractive incremental return without additional risk of loss.

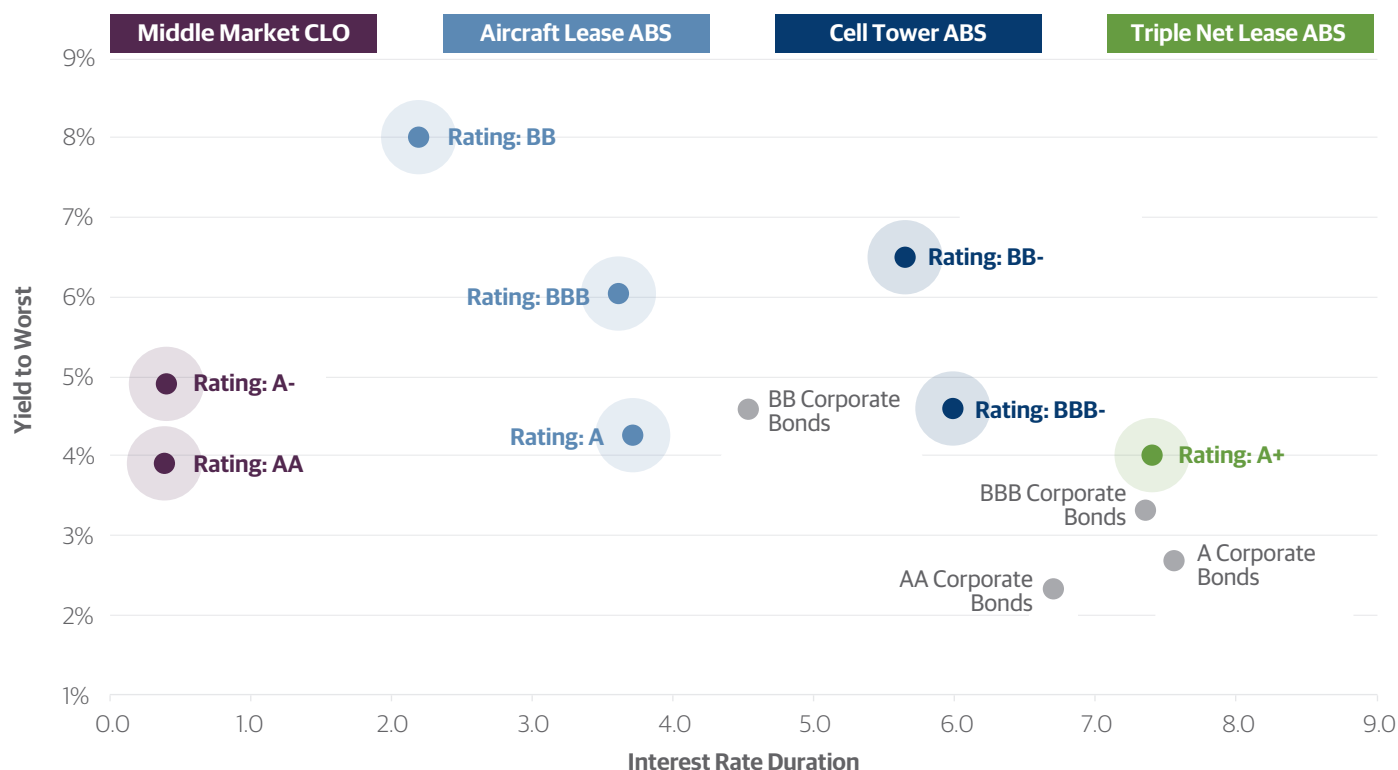
**For the answer to the second question,** investors will need to consider a number of key variables when negotiating pricing.

- With regard to the underlying assets, investors should consider the liquidity, diversity, and transparency of the underlying asset and the availability of accurate historical performance information to inform stress scenarios.
- With regard to the ABS securities themselves, investors should factor into pricing such characteristics as rating, credit enhancement, position in capital structure and tenor, the effectiveness of portfolio limits, triggers, and covenants, and each tranche's ability to withstand hypothetical stress scenarios.
- Equally important in evaluating pricing are such factors as the allowance for reinvestment, call protection, availability of effective hedges, the manager's resources and track record, and the quality of periodic reporting.

## Discovering Yield in the Structured Credit Universe

ABS has offered higher yields than similarly rated corporate bonds. The shorter duration of ABS securities relative to comparably rated corporate bonds also helps protect against rising rates.

**Yield to worst vs. duration of recent structured products, when compared to corporate credit indexes, favors structured credit.**



Source: Barclays, Bloomberg, Guggenheim Investments. Index data as of 10.31.2016.

## Common Mistakes in Structured Credit Investment

When analyzing a poorly performing securitization, in hindsight, we find that debt investors failed to rationally assess one or more of the below risks. A disciplined, thorough investment process and common sense will help guard against these common missteps.

- Focusing on enterprise value, hard asset values, or sponsor reputation instead of the contractual payer's ability, willingness and incentives to pay
- Overreliance on a third party (monoline insurer or rating agency) in lieu of independent credit work
- Correlated outcomes, particularly, but not limited to the strong connection between payer performance and hard asset values
- Collateral obsolescence or technological advances diminishing residual values or prospects for new contracts

**Past performance does not guarantee future returns.** Please see Important Notices and Disclosures for definitions of indexes used. Structured product examples represent certain asset-backed securities issued in October, 2016, used for illustrative purposes to show opportunities that may exist. Other structured products issued may vary from the characteristics of the examples included here. The information provided here is intended to be general in nature and should not be construed as a recommendation of any specific security or strategy. Data is subject to change at any time, based on market and other conditions.

## Overview of Guggenheim's Structured Credit Investment Process

To confidently enter the structured credit market, an investor needs to have the necessary resources, including human capital, technology, and data. At Guggenheim, we believe we not only have the resources for rigorous security analysis, including a deep credit research team and legal team, but we also have built a disciplined investment process. The diagram below illustrates the process we employ to source, evaluate, and select investment ideas.

CLOs present a unique challenge for asset managers. Strong capabilities in corporate credit analysis are an absolute

necessity when evaluating CLOs, given that each is typically backed by approximately 125-175 individual bank loans. Asset managers without substantial corporate credit teams often rely entirely on market pricing to gauge the quality of a given portfolio of bank loans backing a CLO.

Guggenheim's 160+ member fixed-income investment team manages or updates credit opinions on an ongoing basis. This pre-existing research on the vast majority of a given loan pool proves invaluable as it allows our structured credit team to form a comprehensive view of a CLO's collateral pool. The legal documents associated with each distinct deal structure contains nuances, which may require collaboration with our team of 15 dedicated legal professionals.

### Due Diligence Is Paramount in Security Selection

The security selection process requires deep, deliberative analysis, and should not be rushed.

**Sector Outlook and Investment Sourcing** — Develop and evolve an investment thesis and outlook for each sector; determine asset class health and prospects; monitor and assess regulatory developments; source potential investment opportunities directly through issuers, Wall Street relationships, and Guggenheim affiliated businesses.

**Credit and Collateral Analysis** — Confirm or revise collateral performance, value, and refinance-ability forecasts based on Guggenheim estimates of borrower credit, payment history, collateral condition, remaining useful life, and current and residual collateral values, as applicable.

**Structural Analysis** — Conduct comprehensive securitization structure review, including: trust structure and mechanics; forms of credit enhancement; cash waterfall priorities; performance triggers and amortization events; indenture definitions and allowances.

**Servicer, Manager, and Equity Sponsor Analysis** — Perform due diligence on manager, servicer and/or equity sponsor through in-person meetings and independent research; review remittance reports for quality and data transparency; consider "skin in the game" and alignment of incentives.

**Stress Analysis** — Design scenarios incorporating plausible combinations of linear and nonlinear stresses: linear – stress collateral performance in historically extreme environments; nonlinear – identify tail risks (regulatory change, disruption in credit availability, single entity failure, etc.) to future transaction performance.

**Investment Proposal** — Submit investment for investment committee review and approval.

## Appendix A: Selected ABS Types and Related Data

ABS Type	Primary Payment Source	Payer	Payer Type	Contingent Payment Source	Sponsor
Credit Card	Credit Card Receivables	Cardholder	Consumer	Bank Sponsor (implied)	Bank
Auto Loan	Auto Loan	Auto Owner	Consumer	Automobile	Automobile Finance Company
Auto Lease	Lease Agreements Automobile Residuals	Driver	Consumer	Automobile	Automobile Finance Company
Student Loan	Student Loan	Borrower Guarantor/Parents	Consumer	Individual Recourse	Student Lender
Marketplace Lending	Unsecured Consumer Loans	Borrower	Consumer	Individual Recourse	Online Lender
Timeshare	Timeshare Contracts	Resident	Consumer	Individual Recourse, Fractional Unit Ownership	Timeshare Company
Residential Solar	Solar Power Purchase Agreements Solar Equipment Loans	Resident	Consumer	Individual Recourse Equipment/Fixture Filing	Solar Finance Company
Rate Reduction	Right to recoup expenses via utility bills	Residents Local Business	Consumer Commercial	Recourse	Utility
Equipment	Equipment Lease Agreements	Equipment Operator	Commercial	Equipment Disposition Proceeds	Equipment Leasing Company
Whole Business	Franchise & Royalty Agreements	Franchisee	Commercial	IP and Enterprise Value	Brand Owner and Manager
Structured Settlement	Insurance Settlement Lottery Annuity	Insurance Company	Commercial		Structured Settlement Originator
Aircraft	Aircraft Lease Agreements Maintenance Agreements	Airline	Commercial	Aircraft Disposition Proceeds	Aircraft Leasing Company
Triple Net Lease	Triple Net Lease Agreements	Business Operator	Commercial	Real Estate	Triple Net REIT
Single Family Rental	Residential Rental Agreements	Tenants	Consumer	Real Estate	Single Family Owner/Operator
Shipping Container	Container Lease Agreements	Shipping Line	Commercial	Container Sale Proceeds	Container Leasing Company
Railcar	Railcar Lease Agreements	Rail operators	Commercial	Railcar Disposition Proceeds	Rail Leasing Company
Royalty	Royalty and Licensing Agreements	Agreement Counterparty	Commercial	Sale Proceeds from Intellectual Property	Royalty Acquirer
Diversified Payment Rights	Dollar wires and flows from US or Europe destined for foreign bank	Originator of dollar flow	Commercial Consumer	Recourse to Bank Sponsor Sovereign (implied)	Foreign Bank
CLOs	Bank Loans	Non-IG Corporations	Commercial	Proceeds from foreclosure on corporations	Credit Asset Manager Bank Loan Manager
CRE CLOs	Commercial Mortgage Loans	Real Estate Owners	Commercial	Real Estate	Commercial Mortgage Lender
Multi-Sector CDOs	RMBS CMBS ABS Corporate Bonds Corporate Loans	Issuers	Various		None (Now Static)

## Important Notes and Disclosures

Fixed income investments are subject to credit, liquidity, interest rate and, depending on the instrument, counterparty risk. These risks may be increased to the extent fixed income investments are concentrated in any one issuer, industry, region or country. The market value of fixed income investments generally will fluctuate with, among other things, the financial condition of the obligors on the underlying debt obligations, general economic conditions, the condition of certain financial markets, political events, developments or trends in any particular industry and changes in prevailing interest rates. In general, any interest rate increases can cause the price of a debt security to decrease and vice versa.

Asset-backed securities, including mortgage-backed securities, are legal entities that are sponsored by banks, broker-dealers or other financial firms specifically created for the purpose of issuing particular securities or instruments. Investors will receive payments that are part interest and part return of principal. These payments may vary based on the rate at which borrowers pay off their loans. When a borrower, such as a homeowner with respect to mortgage-backed securities, makes a prepayment, an investor receives a larger portion of its principal investment back, which means that there will be a decrease in monthly interest payments. An underlying pool of assets, principally automobile and credit card receivables, boat loans, computer leases, airplane leases, mobile home loans, recreational vehicle loans and hospital account receivables may back asset-backed securities. The pool provides the interest and principal payments to investors. Asset-backed securities may provide an investor with a less effective security interest in the related collateral than do mortgage-related securities, and thus it is possible that recovery on repossessed collateral might be unavailable or inadequate to support payments on these securities. Some mortgage-backed securities may be leveraged or have structures that make their reaction to interest rates and other factors difficult to predict, making their prices very volatile. The underlying assets (i.e., loans) are subject to prepayments, which can shorten the securities' weighted average life and may lower their return or defaults. The value of these securities also may change because of actual or perceived changes in the creditworthiness of the originator, the servicing agent, the financial institution providing credit support, or swap counterparty. These securities are subject to high degrees of credit, valuation and liquidity risks.

An investment in CLO securities involves certain risks, including risks relating to the collateral securing the notes and risks relating to the structure of the notes and related arrangements. The collateral is subject to credit, liquidity and interest rate risk. Investing in bank loans involves particular risks. Bank loans may become nonperforming or impaired for a variety of reasons. Nonperforming or impaired loans may require substantial workout negotiations or restructuring that may entail, among other things, a substantial reduction in the interest rate and/or a substantial write-down of the principal of the loan. In addition, certain bank loans are highly customized and, thus, may not be purchased or sold as easily as publicly traded securities. Any secondary trading market also may be limited and there can be no assurance that an adequate degree of liquidity will be maintained. The transferability of certain bank loans may be restricted. Risks associated with bank loans include the fact that prepayments may generally occur at any time without premium or penalty.

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## Index Definitions

Indices are unmanaged and are not available for direct investment.

Bloomberg Barclays U.S. Corporate Investment Grade Index is the Corporate component of the U.S. Credit Index, which includes publicly issued U.S. corporate and specified foreign debentures and secured notes that meet the specified maturity, liquidity, and quality requirements. To qualify, bonds must be SEC-registered. The U.S. Credit Index is the same as the former U.S. Corporate Investment Grade Index, which has been renamed as the U.S. Credit Index.

Bloomberg Barclays AA Corporate Index is the AA component of the Bloomberg Barclays U.S. Corporate Investment Grade index.

Bloomberg Barclays A Corporate Index is the A component of the Bloomberg Barclays U.S. Corporate Investment Grade index.

Bloomberg Barclays BBB Corporate Index is the Baa component of the Bloomberg Barclays U.S. Corporate Investment Grade Index.

Bloomberg Barclays U.S. Corporate High Yield Index covers the universe of fixed-rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included.

Bloomberg Barclays BB Corporate Index is the BB component of the Bloomberg Barclays U.S. Corporate High Yield index.

The Bloomberg Barclays U.S. Aggregate Index represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis.

<sup>1</sup>Guggenheim Investments total asset figure is as of 06.30.2017. The assets include leverage of \$11.3bn for assets under management and \$0.4bn for assets for which we provide administrative services. Guggenheim Investments represents the following affiliated investment management businesses: Guggenheim Partners Investment Management, LLC, Security Investors, LLC, Guggenheim Funds Investment Advisors, LLC, Guggenheim Funds Distributors, LLC, Guggenheim Real Estate, LLC, GS GAMMA Advisors, LLC, Guggenheim Partners Europe Limited, and Guggenheim Partners India Management.

<sup>2</sup>Guggenheim Partners' assets under management are as of 06.30.2017 and include consulting services for clients whose assets are valued at approximately \$62bn.

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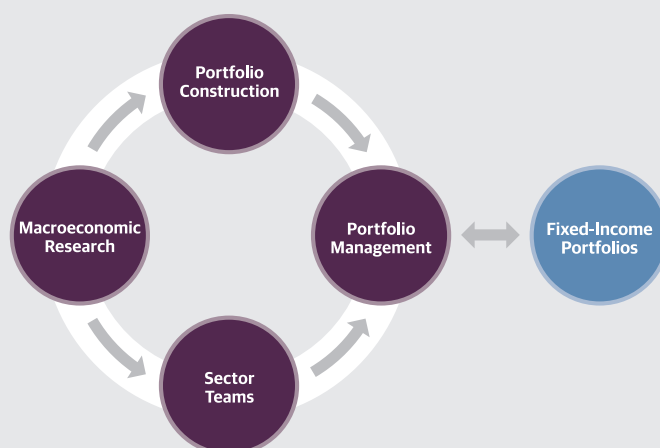
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## Guggenheim's Investment Process

Guggenheim's fixed-income portfolios are managed by a systematic, disciplined investment process designed to mitigate behavioral biases and lead to better decision-making. Our investment process is structured to allow our best research and ideas across specialized teams to be brought together and expressed in actively managed portfolios. We disaggregated fixed-income investment management into four primary and independent functions—Macroeconomic Research, Sector Teams, Portfolio Construction, and Portfolio Management—that work together to deliver a predictable, scalable, and repeatable process. Our pursuit of compelling risk-adjusted return opportunities typically results in asset allocations that differ significantly from broadly followed benchmarks.



## Guggenheim Investments

Guggenheim Investments is the global asset management and investment advisory division of Guggenheim Partners, with more than \$237 billion<sup>1</sup> in total assets across fixed income, equity, and alternative strategies. We focus on the return and risk needs of insurance companies, corporate and public pension funds, sovereign wealth funds, endowments and foundations, consultants, wealth managers, and high-net-worth investors. Our 275+ investment professionals perform rigorous research to understand market trends and identify undervalued opportunities in areas that are often complex and underfollowed. This approach to investment management has enabled us to deliver innovative strategies providing diversification opportunities and attractive long-term results.

## Guggenheim Partners

Guggenheim Partners is a global investment and advisory firm with more than \$290 billion<sup>2</sup> in assets under management. Across our three primary businesses of investment management, investment banking, and insurance services, we have a track record of delivering results through innovative solutions. With 2,300 professionals based in more than 25 offices around the world, our commitment is to advance the strategic interests of our clients and to deliver long-term results with excellence and integrity. We invite you to learn more about our expertise and values by visiting [GuggenheimPartners.com](http://GuggenheimPartners.com) and following us on Twitter at [twitter.com/guggenheimptnrs](https://twitter.com/guggenheimptnrs).

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