Assessing Environmental, Social, and Governance Factors in Structured Securities

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The issuance of green asset-backed securities (ABS) almost quadrupled from $8.6 billion in 2016 to $36 billion in 2017[1], but significant challenges remain in quantifying the environmental, social, and governance (ESG) factors in a portfolio comprising more traditionally structured securities. Angel Oak Capital Advisors, LLC (AOCA) is an investment management firm focused on structured securities, including residential and commercial mortgage-backed securities (RMBS and CMBS), collateralized loan obligations (CLOs), and collateralized debt obligations (CDOs). In addition, AOCA has direct experience with seven RMBS and one CDO backed by U.S. community bank debt. AOCA is in the process of developing an internal ESG scoring methodology for ABS. This case study summarizes the challenges that have been identified, as well as the progress made in implementing the methodology.

Publicly traded equity and debt securities are typically issued by a single entity that provides the basis for standardized, formulaic ratings of its ESG performance, both historically and versus its industry peers. Securitized instruments consist of pools of assets where both the issuer/sponsor of the security (Issuer) and the issuer of the underlying assets (Asset Issuer) are often private. **Figure 1** details the components of a representative AOCA portfolio.

Figure 1: Representative Structured Credit Portfolio Holdings as of 5/30/18

	Number of Securities/ CUSIPs*	Number of Issuers	Number of Trustees	Number of Underlying Assets	Avg. Number of Underlying Assets per CUSIP	Collateral Pool Description
ABS	28	21	8	N/A**	N/A**	Static pool of similar receivables from a single or aggregated creditors including auto/credit cards/student loans
Agency CMBS	22	5	4	1,290	58	Static pool of primarily multi-family commercial mortgages
CLO	58	38	6	16,691	287	Actively managed pools of public & private corporate loans
CMBS	99	30	6	4,111	42	Static pool of either a single asset or conduit deal containing pool of commercial real estate properties where top 10 loans typically comprise 40-50% of the notional
Non-Agency RMBS	707	97	9	1.83 million	2,563	Static pool of residential mortgages
Grand Total	**931**	**205**	**15*** **	**2.07 million**		

*Corporates, derivatives, and cash excluded from strategy holdings.
**Number of ABS underlying receivables ranged from 6k to 78k for auto ABS and up to 82k for credit card ABS.
***15 unique Trustees across 931 CUSIPs.

ANALYZING AND INTEGRATING ESG FACTORS IN STRUCTURED CREDIT PORTFOLIOS

AOCA has historically conducted rigorous due diligence on all potential asset purchases, focusing on determining the financial risk/return characteristics of the instruments. This assessment includes a review of performance and risk metrics (e.g., earnings, nonperforming loans, loss reserves, and capital adequacy) for each issuing institution, indicating the probability of default for each instrument. AOCA's rationale for including ESG factors in the investment process includes studies indicating that institutions with high ESG scores are:

→ **more competitive**, thereby generating abnormal returns, leading to higher profitability and dividend payments;

→ **better at managing company-specific business and operational risks**, lowering the probability of suffering incidents that can negatively impact their share price; and

→ **less exposed to systemic risk factors**, lowering their expected cost of capital[2].

Portfolio managers will provide an assessment of the impact of ESG scores on the investment selection process once internal ESG metrics are established by investment product. The ESG scores for each portfolio will be tracked and reported to relevant stakeholders. Portfolio managers will be responsible for ensuring that scores for an ESG designated fund trend higher than the initial baseline.

[1]Badlyans, D. 2018. "Green Bond Issuance Doubled in 2017." https://seekingalpha.com/article/4157445-green-bond-issuance-doubled-2017.

METHODOLOGY AND CHALLENGES TO CALCULATING ESG SCORES

Asset-backed securities are issued through structured credit special-purpose vehicles (SPVs). SPVs create debt and equity tranches whose value derives from the income generated by the asset pool underlying the SPV. Although deal structures vary, they typically involve multiple banks, broker/dealers, and SPVs having the roles of trustees, collateral managers, issuers, servicers, and depositors (Transaction Parties). ESG assessments can be conducted at two levels—Transaction Parties and Asset Issuers—and on the underlying assets of the SPV. AOCA's goal is to develop an internal methodology that will be utilized to monitor its portfolios until an industry-accepted methodology becomes available.

TRANSACTION PARTY LEVEL

AOCA has experienced several challenges in collecting data for ESG assessments and implementing ESG practices at the transaction-party level:

- Although the U.S. Treasury now requires trustees to verify the identities of beneficial owners of their clients' SPVs,[3] this information is not public.
- Holders of the debt securities (creditors) issued by SPVs do not have an ownership interest in the SPV, which results in one less data point for AOCA to evaluate since proxy votes aren't relevant.
- As detailed in Figure 1, the number of Transaction Parties is small compared with the number of Asset Issuers. Securities with underlying assets from aggregated creditors would have different evaluation criteria from those with assets of a single creditor.

Despite these challenges, AOCA continues to engage with the industry to develop a methodology that assigns a weighted ESG score to Transaction Parties and Asset Issuers.

Underlying Asset Level

Vendor databases maintain cash flow data for structured securities and store details on the underlying assets as provided by the trustee and/or collateral manager, although not all data items are populated and/or available for download. In addition to cash flow information, the databases may include the Committee on Uniform Security Identification Procedures (CUSIP) numbers, International Securities Identification Numbers, and LoanX IDs (a unique identifier applied to syndicated loans), industry codes, credit ratings, and other descriptors (**see Figure 2**). ESG scores are more likely to be available at the underlying asset level when the asset issuers are publicly held companies. Even when the relevant information is available in a database, it is not always in a readable format that can be easily extracted. For example, underlying asset schedules had to be downloaded individually to perform a more detailed analysis of a sample of 26 CLOs, of which 84% of the Asset Issuers were able to be mapped to equity tickers, which are more likely to have an ESG score.

Figure 2: Comparison of Available Information for CLOs from Two Databases

	DATABASE A		DATABASE B	
	SPV CUSIP	Underlying Asset CUSIP	SPV CUSIP	Underlying Asset CUSIP
Underlying Asset Count	94%	N/A	100%	N/A
CUSIP	100%	81% (+3% Invalid)	N/A	89%
Industry	N/A	81%	N/A	91%
Domestic vs. International	2% Domestic	77% Domestic	N/A	94% Domestic
Published ESG Score	0%	15%	0%	0%
Issuer	100%	81%	100%	100%
Trustee	100%	N/A	100%	N/A
Lead/Collateral Manager	100%	N/A	100%	N/A

Additional information related to the underlying assets (such as commercial tenants, geographical locations, income, and industry concentrations) can be manually extracted from prospectuses and other offering documents. Formats vary, and because many of the Transaction Parties are frequently private funds and/or SPVs, the prospectus and/or offering memorandum are often the only source for factors that would facilitate the calculation of ESG scores. The creation of common naming conventions would facilitate the capture

[2] Guise, G. 2018. "Has ESG Affected Stock Performance?" https://www.msci.com/www/blog-posts/has-esg-affected-stock/0794561659.
[3] One World Identify. 2018. "FinCEN Clarifies Customer Due Diligence Rules as May Compliance Deadline Looms." https://oneworldidentity.com/fincen-clarifies-customer-due-diligence-rules-may-compliance-deadline-looms/.

of ESG-relevant factors using optical character recognition software. Ideally, ESG-related factors such as Leadership in Energy and Environmental Design (LEED) certification, ESG-positive industries, and corporate board diversity could be added to existing portfolio concentration tables as additional reference material. The ESG value of these data would then be assigned to each underlying asset's contributed balance as a percentage of the total SPV notional to develop a weighted-average ESG factor for the SPV.

PROPOSED METHODOLOGY TO INCORPORATE ESG FACTORS

AOCA has recently begun to collect potential ESG assessment factors as part of its due diligence process when investing in community bank subordinated debt. These investments are held in portfolios managed by AOCA and some have been included in CDO securitizations. Portfolio managers conduct phone interviews with senior management at the issuing banks and often schedule onsite meetings when feasible. These interactions provide an opportunity to identify ESG factors such as:

→ Community Development Entity certification, allowing participation in New Market Tax Credit programs that provide loans to immigrant and disadvantaged communities;

→ Community Development Financial Institution (CDFI) designation, recognizing banks that specialize in serving economically distressed communities;

→ loans to industries (e.g., solar energy, low-income housing, and waste management/recycling) that have positive environmental and societal benefits;

→ Small Business Administration (SBA) 7(a) loans to local companies which support job creation

→ directors or associates who serve on the boards of nonprofit organizations; and

→ activities that satisfy Community Reinvestment Act (CRA) requirements:

- affordable housing loans to low-to-moderate income borrowers,
- loans to businesses in economically distressed areas,
- lending to support natural disaster recovery efforts,
- student lending programs, and
- lending to support nonprofits, foundations, and government agencies.

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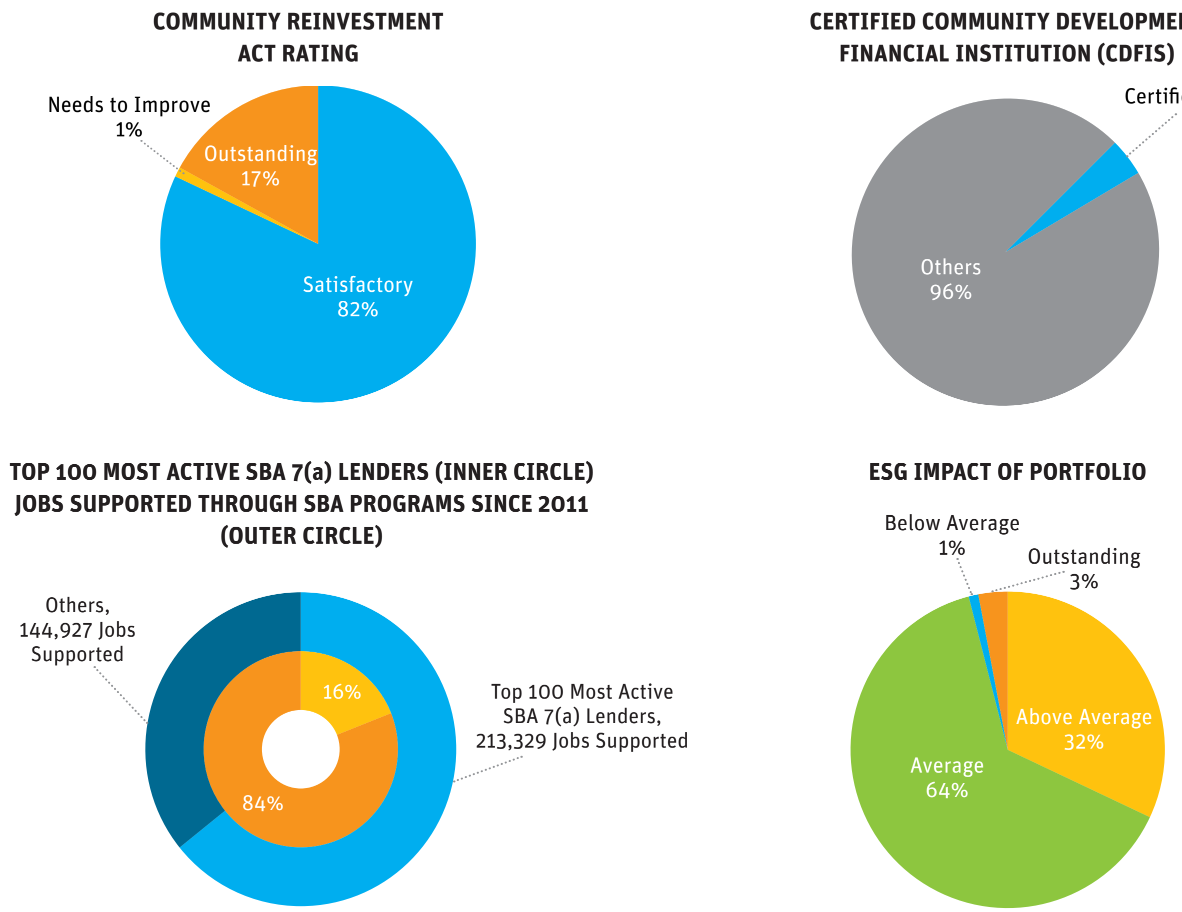
These factors are aligned with the United Nations' Sustainable Development Goals as shown in **Figure 3**.

Figure 3: Sample CDO ESG Factors Mapped to the United Nations' Sustainable Development Goals

SUSTAINABLE DEVELOPMENT GOALS		Community Reinvestment Act Rating	Community Development Financial Institutions	Small Business Administration 7(a) Lender	Commercial & Consumer Loan Composite	Diversity of Board & Officers
1	No Poverty	✓	✓			
2	Zero Hunger	✓	✓			
3	Good Health and Well-Being	✓				
4	Quality Education	✓			✓	
5	Gender Equality					✓
6	Clean Water and Sanitation				✓	
7	Affordable and Clean Energy			✓	✓	
8	Decent Work and Economic Growth	✓	✓	✓		
9	Industry, Innovation and Infrastructure	✓	✓			
10	Reduced Inequalities				✓	
11	Sustainable Cities and Communities	✓	✓			
12	Responsible Consumption and Production				✓	
13	Climate Action	✓			✓	
14	Life Below Water				✓	
15	Life on Land	✓				
16	Peace, Justice and Strong Institutions					
17	Partnerships for the Goals					

AOCA has begun capturing these data in its due diligence questionnaire, which will be used to gauge the ESG factors in community bank subordinated debt instruments. These investments frequently become collateral in bank subordinated debt CDO securitizations, and their ESG factors can be used to create an asset-weighted average ESG score for the CDO. Although these ESG scores can be used by potential investors to evaluate CDOs, the ability to compare scores across different sponsors will ultimately require some degree of industry standardization. **Figure 4** details factors impacting ESG associated with representative community-bank subordinated debt held in portfolios managed by AOCA by percentage of notional. Utilizing the CRA, CDFI, and SBA data as factors to create an ESG score for the portfolio resulted in a baseline of 35% positive impact for the holdings.

Figure 4: Factors that Impact ESG for Community-Bank Subordinated Debt



OPPORTUNITIES FOR ENHANCED ESG ASSESSMENTS

The following points would facilitate evaluation of ESG factors as investors conduct due diligence on potential investment decisions for structured financial instruments (particularly CDOs):

- market consensus on ESG factor weights for Transaction Parties and Asset Issuers by product;
- standardization of ESG factor reporting by Issuers in offering memorandums/prospectuses, including data on non-individual SPV beneficial owners and nonpublic issuers;
- coordination among database administrators to publish ESG-related factors;
- implementation of an ESG factor rating system for CDO transactions; and
- incorporation of ESG data associated with equity securities of the issuing bank into the CDO rating.

Other firms may use a similar methodology for structured securities, but until the industry agrees to a standard methodology for each product to ensure comparability across individual firms' ESG metrics, investors can compare AOCA's ESG impact only to its own historical record.