

CRE FINANCE COUNCIL



EDUCATION SERIES

# CMBS E-PRIMER

## 2022 EDITION

A Comprehensive Overview of Commercial  
Mortgage Backed Securities



---

# Terms of Use for CMBS E-Primer 2022 Edition (“E-Primer”)

The E-Primer and the contents of the E-Primer are copyrighted by the CRE Finance Council (“CREFC”). The unauthorized copying, sharing, or distribution of these materials, in either print or digital format, is strictly prohibited without prior written permission from CREFC.

Furthermore, you may not modify, publish, transmit, participate in the transfer or sale of, reproduce, create derivative works from, distribute, perform, display, or in any way exploit, all or any part of the E-Primer, or remove any copyright or trademark notices contained therein.

The E-Primer is provided by CREFC for general information purposes only and CREFC is not soliciting any action based upon it.

The E-Primer is not meant to provide you with legal or professional advice and services.

Certain transactions, including those involving futures, options, and other derivative products, give rise to substantial risk and are not suitable for all investors.

CREFC is not responsible for any errors or omissions or for the results obtained from your use of the E-Primer.

All information and data within the E-Primer is provided “as is”. There is no guarantee of completeness, accuracy, timeliness, or of the results obtained from the use of the E-Primer, and there is no warranty of any kind, express or implied, including, but not limited to warranties of performance, merchantability and fitness for a particular purposes.

CREFC, and its related corporations, affiliates, members, employees, or agents, are not liable to you or anyone else for any decision made or action taken in reliance on the information in the E-Primer or for any consequential, special or similar damages, even if advised of the possibility of such damages.

Any use of the E-Primer not specifically permitted above is expressly prohibited.



---

# Contents

Chapter 1: An Overview of CMBS	4
Chapter 2: CMBS – History & Evolution	8
Chapter 3: Originating and Underwriting Commercial Mortgages for CMBS	32
Chapter 4: CMBS Structuring	49
Chapter 5: AAA Rated CMBS	64
Chapter 6: Investing in Mezzanine CMBS	88
Chapter 7: Investing in Interest-Only (IO) CMBS	103
Chapter 8: Investing in B-Piece CMBS	113
Chapter 9: Single Asset Single Borrower (SASB) CMBS	120
Chapter 10: CMBS Life Cycle and Administration – Origination Through Termination	139
Chapter 11: An Overview of the Taxation of REMICs	183



# 1

**CMBS** E-PRIMER

**CHAPTER 1**

Introduction to the  
CREFC CMBS E-Primer,  
2022 Edition



## CHAPTER 1

# Introduction to the CREFC CMBS E-Primer, 2022 Edition

## 1.1 Introduction

The Commercial Real Estate Finance Council (CREFC) is pleased to present the 2022 edition of the *CREFC E-Primer*. Last updated in 2015, the new E-Primer is intended to serve all participants in the US commercial mortgage-backed securities (CMBS) industry, including prospective and current participants in the market, international readers interested in CMBS, US regulators and legislators, students, and the press. This latest edition consolidates the writings of today's leading CMBS experts into a unified primer on the creation of, investment in, and transaction of CMBS.

The following pages incorporate CMBS market lessons learned from the Global Financial Crisis (GFC), how the resulting regulatory patterns affected the industry, and how those patterns served to strengthen this important component of CRE liquidity. The E-Primer places CMBS within the context of the broader financial markets, real estate finance, and asset-backed securities (ABS).

Beyond the above, the new edition delivers readers the following content improvements:

- Increased frequency and quality of illustrative figures,
- Organized and standardized introductions of concepts and terms,
- Streamlined concept and term descriptions,
- Simplified abbreviation usage,
- Improved logic and chronology of paragraphs,
- Chronological ordering of events and processes.

We sincerely hope that the new *CREFC CMBS E-Primer* advances your understanding of CMBS and supports your continued success in the CMBS marketplace.

### 1.1.1 Acknowledgments

CREFC would like to recognize and express its gratitude to the authors of the 2022 edition of the *CREFC CMBS E-Primer* for dedicating their time and expertise to writing and editing this educational resource.

## 1.2 In Summary...

Today's CMBS industry continues to evolve as it learns from the lessons of the Global Financial Crisis (GFC) and, most recently, the COVID-19 Pandemic. Investors continuously and diligently seek to find the appropriate balance between credit risk and investment returns. To the good, both CMBS issuers and investors continue to push for heightened transparency and granular data reporting by borrowers, trustees, and servicers in CMBS transactions.



This E-Primer conveys at length the mature and capacious infrastructure that the CMBS industry offers investors. The CMBS industry, with its very existence threatened in the acute phase of the GFC, responded with new structures (risk retention), roles (operating advisor), and heightened transparency to ensure the sector's future success as an important liquidity provider to borrowers and sound investment for institutional investors. The gradual yet powerful revival of the CMBS industry post the GFC and its strong performance during the pandemic, underscore the positive impact, heightened transparency, improved structural features, and increased bond-level credit enhancement have had on the sector.

While the ensuing chapters in the E-Primer outline the CMBS market in significant detail, the balance of this chapter provides readers with a broad-based overview of the industry with the goal of laying the foundation for the balance of this educational resource.

### **1.3 What Are Commercial Mortgage-Backed Securities?**

CMBS are bonds whose payments derive from a loan or a pool of loans on commercial real estate. Commercial real estate includes both business properties and multifamily real estate, typically containing more than four units. Examples range from apartment and office buildings to warehouses, malls, and community shopping centers.

This E-Primer includes in-depth coverage of conduit CMBS, as well as single asset single borrower (SASB) CMBS transactions, which gained significant market share during the economic recovery following the GFC and again as the market emerges from the COVID-19 pandemic. Other important new trends highlighted range from the dominance of government-sponsored enterprises (GSEs) in multifamily financing, to the proliferation of "alternative lenders," entities generally understood to be 'non-bank' providers of capital.

### **1.4 Why CMBS?**

Traditionally, banks, insurance companies, savings and loans, and other financial institutions make commercial real estate loans to borrowers and retain them on their balance sheets. These lenders, known as portfolio lenders, originate commercial and multifamily mortgage loans, service loan payments, work with troubled borrowers on underperforming/nonperforming assets and loans, and generally retain the loans to maturity. In the case of a traditional portfolio loan, the portfolio lender's capital remains tied up throughout the entire term of the loan. This was a non-issue until the late 1980s and early 1990s, when the Savings and Loan Crisis spurred a severe shortage of real estate capital. This generated a need for lenders to leverage additional sources of real estate capital while extending these loans. The solution was the introduction of CMBS as a new source of real estate capital and disaggregating the functions of portfolio lenders.

Rather than tie up capital through the end of the loan term, CMBS enables banks and other lenders to make the loan, immediately contribute it to an investment banking or similar institution, that then pools other commercial and multifamily loans into a CMBS. Investors in CMBS purchase securities, which ultimately provide funds to compensate the originator for the loan. Through this process, CMBS enables commercial and multifamily lenders to accelerate their rate of lending, ultimately enhancing liquidity to commercial and multifamily borrowers.



At the same time, CMBS creates the opportunity for financial institutions to originate and package pools of mortgage loans into CMBS and, in turn, sell CMBS to institutional investors who can purchase bonds that are backed by the cash flows coming from CRE and multifamily loans and are rated by as many as three rating agencies that assign ratings from AAA to B-. In effect, the CMBS market enables investors to gain exposure to commercial and multifamily real estate debt without directly investing in the loans or the assets.

To properly understand CMBS is to give significant consideration to the creditworthiness of the underlying real estate, the structure and underwriting of the loans, and the structural characteristics of the overall transaction and individual bond offerings. This level of individual property analysis is not typically associated with the issuance of ABS and RMBS. However, this three-step analysis is essential to properly assess a CMBS investment's risk over a range of potential economic and real estate market cycles.

## 1.5 Understanding CMBS Bond Structure

CMBS are pools of loans held by a financial vehicle that uses 'tranching' to concentrate credit risk by bond tranche or class. The resulting subgroups are called classes, and each class is a fixed-income security with its own coupon, weighted-average life, and rating. Documentation for each CMBS transaction provides significant detail on its cash flow waterfall. The cash flow waterfall specifies the distribution of principal and interest payments from the borrower to the various classes in a CMBS transaction. It also specifies how loan prepayment penalties, loss recoveries, and other cash received are allocated throughout the CMBS structure.

While the waterfall generally specifies that the safest bonds receive principal and interest first, and the riskiest bonds receive principal and interest last, deal-specific nuances are key to projecting returns.

# 2

**CMBS** E-PRIMER

## **CHAPTER 2**

CMBS – History  
& Evolution





## CHAPTER 2

# CMBS – History & Evolution

## 2.1 Introduction

This chapter provides a history of commercial mortgage-backed securities (CMBS) starting in the early 1980s with the first large loan transaction. From there, it covers how the Resolution Trust Corporation (RTC) used credit-enhanced mortgage pools to spur market demand for CMBS. Also discussed is how the experiences of CMBS borrowers and investors, together with the financial crisis, led to the evolution of CMBS 1.0 to CMBS 2.0.

In the future, there is an expectation that CMBS will evolve further to improve the borrower and investor experience through joint industry efforts—which may even see the distribution of loan data via blockchain technology.

## 2.2 CMBS History—Investor Demand Drives Evolution

As early as the 1980s, investment banks were syndicating large commercial mortgages and sharing risk across multiple investors. Salomon Brothers completed a private placement of the first securitized commercial mortgage in March 1984, supported by three Olympia & York office buildings in New York. These buildings were cross-collateralized in a \$970 million transaction. The first transaction rated by a credit ratings agency followed, over a year later in May 1985, with a large loan secured by the American Express Tower. From there, transaction size gradually increased—eight deals totaling \$2.2 billion had gone through by the end of 1987. But it was not until the Savings & Loan (S&L) Crisis and the creation of the *RTC*<sup>1</sup> in 1989—which was mandated to dispose of non-performing loans (NPLs) held by defunct S&L institutions—that the CMBS market would truly begin.

### 2.2.1 NPL Pool Securitization

From there, non-performing loan (NPL) pool securitization demonstrated real money demand for commercial real estate cash flows. That's because the RTC needed to create liquidity for their NPL pools, and used credit enhancement to support senior bonds. The latter, in turn, were created to match investors' credit risk appetite. As the NPL inventory dwindled (especially after RTC's closure in 1995), dealers started applying this type of credit-enhancement technology to trophy single-asset single-borrower (SASB) pool financings. Eventually, they realized it was possible to securitize pools of commercial real estate loans—and they effectively became today's conduit CMBS transactions. But to survive various real estate cycles, and continue as a more generic rated bond product, CMBS had to establish standardized reporting, workout procedures, bond class sizes, and bond class terms.

Much of this evolution has been facilitated by the CRE Finance Council (CREFC)<sup>2</sup> which meets semi-annually to bring investors with commercial real estate expertise together with issuers, servicers, and rating agencies to shape the information provided at CMBS issuance. CREFC also commits to ongoing reporting during the life of CMBS securitization.

<sup>1</sup> Federal agency formed by Congress in 1989 for the disposal of assets at failed savings & loan institutions.

<sup>2</sup> CRE Finance Council, formerly CSSA and CMSA, was founded in 1994 as an international joint multi-participant industry group overseeing securitization practices involving commercial mortgages. The organization membership consists of around 400 firms, including institutional investors, servicers, trustees, issuers, borrowers and rating agencies. The CRE Finance Council meets multiple times a year to set industry standards, and has many ongoing committees overseeing various aspects of CMBS.

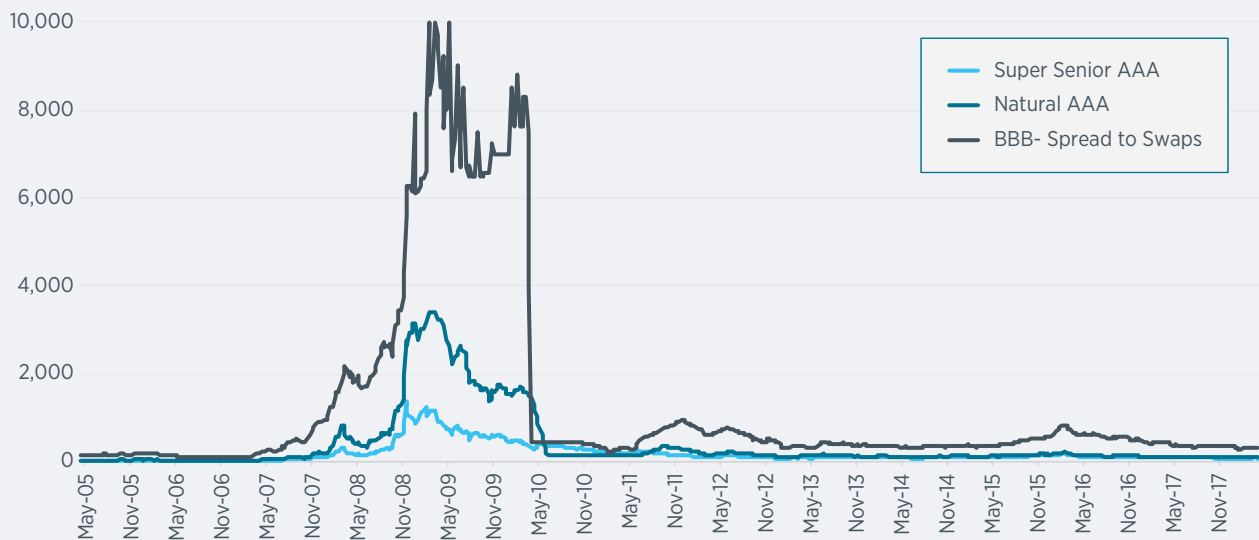
In late 2005, when investors were dissatisfied with the natural credit enhancement provided, issuers created senior AAA credit bonds, with a standardized 30% credit enhancement. After CMBS issuance bottomed out in 2009, investors grew concerned about special servicer fees and loan disposition conflicts of interest. Investors and issuers successfully changed the CMBS structure to transfer transaction control rights based on appraised values, and negotiated to include a new operating advisor to oversee the special servicer’s actions. Among other things, these changes are hallmarks of CMBS 2.0.

Over the pages that follow, we will examine how this history unfolded, describing how the roles and responsibilities of master and special servicers changed in response to potential conflicts of interest exposed during the 2007-2009 financial crisis. These changes ensured CMBS experienced a rapid post-crisis revival, and allowed it to provide commercial real estate borrowers with a robust alternative to banks, insurance companies, and private lenders.

### 2.3 CMBS Hit By the Global Financial Crisis But Proves Resilient

Residential mortgage-backed securities (RMBS) may have sparked the Global Financial Crisis, but these problems spread quickly to all securitized products. Exhibit 2.1 shows how CMBS spreads widened from pre-recession levels, but eventually stabilized with CMBS 2.0.

**Exhibit 2.1: Historical CMBS Spreads (Basis Points)**



Source: Bloomberg, Cantor Fitzgerald