COLLATERALIZED DEBT OBLIGATIONS

CHAPTER SUMMARY

This chapter covers a collateralized debt obligation (CDO). A CDO is a security backed by a diversified pool of debt obligations. When the underlying pool of debt obligations consists of bond-type instruments (corporate and emerging market bonds), a CDO is referred to as a collateralized bond obligation. A collateralized loan obligation is a CDO where the collateral assets are bank loans. In this chapter we explain the basic CDO structure, the types of CDOs, and the risks associated with investing in CDOs.

STRUCTURE OF A CDO

In a collateralized bond obligation (CDO) structure, there is a collateral manager responsible for managing the portfolio of debt obligations. The portfolio of debt obligations in which the collateral manager invests is referred to as the collateral. In individual issues held that comprises the collateral are referred to as the collateral assets. The funds to purchase the collateral assets are obtained from the issuance of debt obligations. These debt obligations are referred to as tranches. The tranches include senior tranches, mezzanine tranches and subordinate/equity tranche. A CDO may or may not have a mezzanine tranche.

For the senior tranches, at least an A rating is typically sought. For the mezzanine tranches, a rating of BBB but no less than B is sought. The subordinate/equity tranche receives the residual cash flow; hence, no rating is sought for this tranche. There are restrictions imposed as to what the collateral manager may do, and there are certain tests that must be satisfied for the CDO to maintain the credit rating assigned at the time of issuance.

The proceeds to meet the obligations to the CDO tranches (interest and principal repayment) can come from coupon interest payments from the collateral assets, maturing of collateral assets, and sale of collateral assets.

In a typical structure, one or more of the tranches has a floating rate. With the exception of deals backed by bank loans that pay a floating rate, the collateral manager invests in fixed-rate bonds. This creates a problem as the manager pays tranche investors a floating rate while investing in assets with a fixed rate.

Arbitrage Versus Balance Sheet Transactions

CDOs are categorized as either arbitrage transactions or balance sheet transactions. The categorization depends on the motivation of the sponsor of the transaction. In an arbitrage transaction, the sponsor seeks to earn the spread between the higher yield received on the collateral assets and the lower yield paid to the various tranches in the structure. In a balance sheet transaction, the sponsor’s motivation is to remove debt instruments from its balance sheet. Interest
rate swaps are used in CDO structures due to the mismatch between the characteristics of the collateral cash flow and some of the liabilities.

Cash Versus Synthetic Structures

CDOs are also classified in terms of **cash CDO structures** and **synthetic CDO structures**. The latter involve the use of credit derivatives.

**ARBITRAGE TRANSACTIONS**

The key as to whether it is economically feasible to create an arbitrage CDO is whether a structure can offer a competitive return for the subordinate/equity tranche. The economics of arbitrage CDO structures show the need for the use of an interest-rate swap and how the subordinate/equity tranche will realize a return. In determining whether or not to create a CDO, dealers will look to see if there is a potential return available to the equity tranche of a minimum amount. The threshold return is based on market conditions.

**Early Termination**

A deal can be terminated early if certain events of default occur. These events basically relate to conditions that are established that would materially adversely impact the performance of the collateral. Such events include failure to comply with certain covenants, failure to meet payments (interest and/or principal) to the senior tranches, bankruptcy of the issuing entity of the CDO, and departure of the collateral management team if an acceptable replacement is not found.

**Types of Arbitrage Transactions**

Arbitrage transactions can be divided into two types depending on the primary source of the proceeds from the collateral to satisfy the obligation to the tranches. If the primary source is the interest and maturing principal from the collateral, then the transaction is referred to as a **cash flow transaction**. If instead the proceeds to meet the obligations depend heavily on the total return generated from the collateral (i.e., interest income, capital gain, and maturing principal), then the transaction is referred to as a **market value transaction**.

**CASH FLOW TRANSACTIONS**

In a cash flow transaction, the objective of the collateral manager is to generate cash flow for the senior and mezzanine tranches without the need to actively trade bonds. There are three relevant periods.

The first is the **ramp-up period**. This is the period that follows the closing date of the transaction where the collateral manager begins investing the proceeds from the sale of the debt obligations issued. This period usually lasts from one to two years. The **reinvestment period** or **revolving period** is where principal proceeds are reinvested and is usually for five or more years. In the final period, the collateral is sold and the debtholders are paid off.
Distribution of Income

Income is derived from interest income from the collateral assets and capital appreciation. The income is then used as follows. Payments are first made to the trustee and administrators and then to the senior collateral manager. Once these fees are paid, the senior tranches are paid their interest. At this point, before any other payments are made, certain tests must be passed. These tests are called coverage tests. If the coverage tests are passed, then interest is paid to the mezzanine tranches. Once the mezzanine tranches are paid, interest is paid to the subordinate/equity tranche.

Distribution of Principal Cash Flow

The principal cash flow is distributed as follows after the payment of the fees to the trustees, administrators, and senior managers. If there is a shortfall in interest paid to the senior tranches, principal proceeds are used to make up the shortfall. After all the debt obligations are satisfied in full, if permissible, the equity investors are paid. Management is permitted to share on some prorated basis once the target return is achieved.

Restrictions on Management: Quality Tests

In rating a transaction, the rating agencies are concerned with the diversity of the assets. Consequently, there are tests that relate to the diversity of the assets. These tests are called quality tests. A diversity score is a measure that is constructed to gauge the diversity of the collateral’s assets.

A measure is also needed to gauge the credit quality of the collateral. Certainly one can describe the distribution of the credit ratings of the collateral in terms of the percentage of the collateral’s asset in each credit rating. However, there is a need to have one figure that summarizes the rating distribution test. Moody’s and Fitch have developed a measure to summarize the rating distribution. This is commonly referred to as the weighted-average rating factor (WARF) for the collateral. Unlike Moody’s and Fitch, S&P uses a different system. S&P specifies required rating percentages that the collateral must maintain. Specifically, S&P requires strict percentage limits for lower rated assets in the collateral.

Restrictions on Management: Coverage Tests

There are two types of coverage tests to ensure that the performance of the collateral is sufficient to make payments to the various tranches. These two types are called par value tests and interest coverage ratio tests.

A separate par value test is used for each rated bond issued in the transaction. A par value test specifies that the par value of the collateral be at least a specified percentage above the liability to the bondholders. An overcollateralization test for a rated bond issued is a measure of the cushion provided by the collateral’s assets over the obligation to the bondholders in terms of par value.

The percentage in the par value test is called the trigger, and the trigger is different for each rated bond. Specifically, the trigger declines as the rating declines.
While par value tests focus on the market value of the collateral relative to the par value of the bonds issued, **interest coverage tests** look at the ability to meet interest payments when due.

**MARKET VALUE TRANSACTIONS**

In a market value transaction, the cash flow generated to pay the bondholders depends upon the ability of the collateral manager to maintain and improve the market value of the collateral. The collateral manager focuses on maximizing total return while minimizing volatility.

The order of priority of the principal payments in the capital structure is as follows. Fees are paid first for trustees, administrators, and managers. After these fees are paid, the senior facility and the senior notes are paid. These two classes in the capital structure are treated equally in their rights to their claim on cash proceeds from the collateral. The senior subordinated notes would be paid, followed by the subordinated notes. All of this assumes that the overcollateralization tests are satisfied. If not, the senior notes are then paid down until the overcollateralization tests are brought into compliance.

When rating a cash flow transaction, the rating agencies look at the ability of the collateral to generate sufficient current cash flow to pay interest and principal on rated notes issued by the CDO. The ratings are based on the effect of collateral defaults and recoveries on the receipt of timely interest and principal payments from the collateral.

**Overcollateralization Tests**

Overcollateralization tests in market value transactions are based on the market value of the collateral, not the par value. Market value overcollateralization tests require that the market value of the collateral be adjusted to obtain an adjusted market value for the collateral.

The **advance rates** are the key in the overcollateralization tests and are critical in market value transactions. Advance rates are determined by the rating agencies based on a combination of three factors: price volatility, correlation among securities, and liquidity.

There is an advance rate assigned to each asset type based on the structure of the transaction and the composition of the collateral. The higher the advance rate, the greater the adjusted market value for a collateral asset. The lower the credit rating sought for a single tranche, the higher the advance rate.

**SYNTHETIC CDOS**

**Cash CDO structures** are so named because the collateral assets are owned. In recent years, the fastest growing sector of the CDO market is the **synthetic CDO structure**. The name follows from the fact that the collateral assets are not actually owned. In a synthetic CDO, the collateral absorbs the economic risks associated with specified assets but does not have legal ownership of those assets.
The creation of a synthetic CDO structure requires the use of a credit derivative. More specifically, the type of credit derivative used is a **credit default swap**. A credit default swap allows market participants that own an asset to transfer the credit risk associated with that asset to another party without transferring the legal ownership of that asset. This derivative instrument is conceptually similar to an insurance policy.
ANSWERS TO QUESTIONS FOR CHAPTER 15

(Questions are in bold print followed by answers.)

1. What is the motivation of a sponsor for an arbitrage CDO?

The motivation of a sponsor for an arbitrage CDO is to earn the spread between a higher yield received on the collateral relative to a lower yield paid to the various tranches in the structure. The key to the economic feasibility of creating an arbitrage CDO is whether a structure can offer a competitive return for the subordinate/equity tranche.

2. What is the motivation of a sponsor for a balance sheet CDO?

The motivation of the sponsor for a balance sheet transaction is to remove debt instruments (primarily loans) from its balance sheet. Sponsors of balance sheet transactions are typically financial institutions such as banks seeking to reduce their capital requirements specified by bank regulators by removing loans from their balance sheet.

3. Why is the subordinated/equity tranche of a CDO not rated?

The subordinate/equity tranche receives the residual cash flow; hence, no rating is sought for this tranche. However, there will be a rating sought for other tranches. For the senior tranches, at least an A rating is typically sought. For the mezzanine tranches, a rating of BBB but no less than B is sought.

4. Answer the following questions.

(a) What are the sources of funds that are used in a CDO to pay bondholders?

The ability of the collateral manager to make the interest payments to the tranches and pay off the tranches as they mature depends on the performance of the collateral. The proceeds to meet the obligations to the CDO tranches (interest and principal repayment) can come from the following sources: coupon interest payments from the collateral assets, maturing of collateral assets, and sale of collateral assets.

(b) How does the source of funds affect the classification of a CDO as a cash flow CDO and a market value CDO?

The sources of funds affect the classification in that a market value CDO relies on capital gain, while the emphasis for a cash flow CDO is interest income and maturing principal. Regardless, both a cash flow CDO and a market value CDO rely on interest income and maturing principal.

Arbitrage transactions can be divided into two types depending on the primary source of the proceeds from the collateral to satisfy the obligation to the tranches. If the primary source is the interest and maturing principal from the collateral, then the transaction is referred to as a cash flow transaction. If instead the proceeds to meet the obligations depend heavily on the total return
generated from the collateral (i.e., interest income, capital gain, and maturing principal), then the transaction is referred to as a **market value transaction**. Thus, the sources of funds are influential in classifying a CDO as either a cash flow CDO or a market value CDO.

5. **Answer the following questions.**

(a) **If there is a shortfall in interest paid to the senior tranches of a CDO, how is the shortfall made up?**

If there is a shortfall in interest paid to the senior tranches, principal proceeds are used to make up the shortfall. However, the principal cash flow is distributed to the senior tranches only after the payment of the fees to the trustees, administrators, and senior managers.

(b) **If coverage tests are failed for a CDO, how is the principal received from the collateral used?**

If the coverage tests are failed for a CDO, the principal cash flow is used to pay down tranches in the following order: senior, mezzanine and subordinate/equity.

The principal cash flow is distributed as follows after the payment of the fees to the trustees, administrators, and senior managers. If there is a shortfall in interest paid to the senior tranches, principal proceeds are used to make up the shortfall. Assuming that the coverage tests are satisfied, during the reinvestment period the principal is reinvested. After the reinvestment period or if the coverage tests are failed, the principal cash flow is used to pay down the senior tranches until the coverage tests are satisfied. If all the senior tranches are paid down, the mezzanine tranches are paid off, followed by the subordinate/equity tranche.

After all the debt obligations are satisfied in full, if permissible, the equity investors are paid. Typically, there are also incentive fees paid to management based on performance. Usually a target return for the equity investors is established at the inception of the transaction. Management is then permitted to share on some prorated basis once the target return is achieved.

The collateral manager must monitor the collateral to ensure that certain tests are being met. There are two types of tests imposed by rating agencies: quality tests and coverage tests.

6. **What events can result in the early termination of a CDO structure?**

A deal can be terminated early if certain events of default occur. These events basically relate to conditions that are established that would materially adversely impact the performance of the collateral. Such events include (i) failure to comply with certain covenants, (ii) failure to meet payments (interest and/or principal) to the senior tranches, (iii) bankruptcy of the issuing entity of the CDO, and (iv) departure of the collateral management team if an acceptable replacement is not found.
7. How do overcollateralization tests for cash flow transactions differ from those of market value transactions?

Overcollateralization tests for cash flow transactions are based on the par value, not the market value of the assets in which the collateral manager has invested. A separate par value test is used for each rated bond issued in the transaction. A par value test specifies that the par value of the collateral be at least a specified percentage above the liability to the bondholders. For example, suppose that the par value of the senior notes in a CDO deal is $80 million. The par value test might specify that the collateral’s par value (i.e., the aggregate par value for all the collateral assets) must be 120% of the par value of the senior notes. That is, the par value of the collateral must be at least 1.2($80 million) = $96 million. Basically, this is an overcollateralization test for a rated bond issued since it is a measure of the cushion provided by the collateral’s assets over the obligation to the bondholders in terms of par value.

In contrast, overcollateralization tests in market value transactions are based on the market value of the collateral, not the par value. Market value overcollateralization tests require that the market value of the collateral be adjusted to obtain an adjusted market value for the collateral. Using this adjusted market value for the collateral, if the overcollateralization tests are failed, sale of some of the collateral assets and redemption of some of the liabilities may be required to bring the overcollateralization ratios back into compliance.

8. Answer the following questions.

(a) What is the role of advance rates in overcollateralization tests?

The role of advance rates in overcollateralization tests is to compute the adjusted market value. To illustrate how they are used, suppose that the collateral consists of three asset types with the assumed advance rating for the particular rating sought for a tranche:

<table>
<thead>
<tr>
<th>Asset Type</th>
<th>Market Value</th>
<th>Advance Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 Issuers and 8 Industries Rated Baa</td>
<td>$60 million</td>
<td>0.90</td>
</tr>
<tr>
<td>Performing High-Yield Bonds Rated B</td>
<td>$40 million</td>
<td>0.80</td>
</tr>
<tr>
<td>Performing High-Yield Valued Below Caa</td>
<td>$20 million</td>
<td>0.70</td>
</tr>
</tbody>
</table>

The market value of the collateral is $60 million + $40 million + $20 million = $120 million. The adjusted market value that must be used in the overcollateralization tests for this tranche is found by multiplying the advance rate by the market value of an asset type and summing over all asset types. For our hypothetical collateral, the adjusted market value is $100 million as shown as follows.

Adjusted Market Value = 0.9($60,000,000) + 0.8($40,000,000) + 0.7($20,000,000) = $54,000,000 + $32,000,000 + $14,000,000 = $100,000,000.

(b) What factors affect the advance rates?

Advance rates are determined by the rating agencies based on a combination of three factors: price
volatility, correlation among securities, and liquidity. The higher the advance rate, the greater the 
adjusted market value for a collateral asset. Notice that the lower the credit rating sought for a 
single tranche, the higher the advance rate. That is, it will be easier to pass an overcollateralization 
test when a lower credit rating is sought. Also notice that the more issuers in a structure and the 
more industries, the higher the advance rate for a given target rating.

When there is more than one tranche and more than one asset type, the advance rates are different. 
The way that they change is systematic. For example, if there is a mezzanine tranche, then part of 
the protection afforded the senior tranche comes from the mezzanine tranche. When there is more 
than one asset type, the advance rate depends on the correlation between the asset types in the 
collateral.

9. What is the purpose of a diversity score?

The purpose of a **diversity score** is to measure the diversity of the collateral’s assets. Moody’s has 
developed a measure where greater scores imply a lower likelihood of default. The measure uses 
the binomial probability distribution to estimate the number of collateral assets that will default 
over the life of the CDO.

10. How is the credit quality of the collateral measured in a CDO structure?

There are number of ways of measuring the collateral in a CDO structure. One could describe the 
distribution of the credit ratings of the collateral in terms of the percentage of the collateral’s asset 
in each credit rating. However, such a measure would be of limited use in establishing tests for a 
minimum credit rating for the collateral. There is a need to have one figure that summarizes the 
rating distribution test. Moody’s and Fitch have developed a measure to summarize the rating 
distribution. This is commonly referred to as the **weighted-average rating factor** (WARF) for the 
collateral. This involves assigning a numerical value to each rating. These numerical values are 
referred to as “rating factors.” For example, Moody’s assigns a rating factor of 1 for Aaa-rated 
issues, scaling up to 10,000 for Ca-rated issues. For collateral asset, the current face value of the 
issue is multiplied by its corresponding rating factor. The values are then summed to give the 
WARF, and aWARF value would then correspond to a rating for the collateral. The collateral 
manager must maintain a minimum average rating score.

Unlike Moody’s and Fitch, S&P uses a different system. S&P specifies **required rating 
percentages** that the collateral must maintain. Specifically, S&P requires strict percentage limits 
for lower rated assets in the collateral.

11. Suppose that the collateral of a market value CDO consists of the following three asset 
types:

<table>
<thead>
<tr>
<th>Asset Type</th>
<th>Market Value</th>
<th>Advance Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 Issuers and 8 Industries Rated Baa</td>
<td>$90 million</td>
<td>0.84</td>
</tr>
<tr>
<td>Performing High-Yield Bonds Rated B</td>
<td>$40 million</td>
<td>0.78</td>
</tr>
<tr>
<td>Performing High-Yield Valued Below Caa</td>
<td>$30 million</td>
<td>0.71</td>
</tr>
</tbody>
</table>
In an overcollateralization test, what market value is used?

The market value of the collateral is $90 million + $40 million + $30 million = $160 million. The adjusted market value that must be used in the overcollateralization tests for this tranche would then be found by multiplying the advance rate by the market value of an asset type and then summing over all asset types. So, for our given collateral, we have:

Adjusted Market Value = 0.84($90,000,000) + 0.78($40,000,000) + 0.71($30,000,000) = $75,600,000 + $31,200,000 + $21,300,000 = $128,100,000.

12. Explain why you agree or disagree with the following statement: “The collateral manager for a CDO is free to actively manage the portfolio without any constraints.”

In a CDO structure, there is a collateral manager responsible for managing the portfolio of debt obligations. The portfolio of debt obligations in which the collateral manager invests is referred to as the collateral. In individual issues held that comprise the collateral are referred to as the collateral assets. The funds to purchase the collateral assets are obtained from the issuance of debt obligations. These debt obligations are referred to as tranches. There are restrictions imposed as to what the collateral manager may do, and there are certain tests that must be satisfied for the CDO to maintain the credit rating assigned at the time of issuance. Thus, one would disagree with the statement.

13. Consider the following basic $150 million CDO structure with the coupon rate to be offered at the time of issuance as shown:

<table>
<thead>
<tr>
<th>Tranche</th>
<th>Par Value</th>
<th>Coupon Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior</td>
<td>$100,000,000</td>
<td>LIBOR + 50 basis points</td>
</tr>
<tr>
<td>Mezzanine</td>
<td>$ 30,000,000</td>
<td>Treasury rate + 200 basis points</td>
</tr>
<tr>
<td>Subordinated/Equity</td>
<td>$ 20,000,000</td>
<td></td>
</tr>
</tbody>
</table>

Assume the following:

- The collateral consists of bonds that all mature in 10 years.
- The coupon rate for every bond is the 10-Treasury rate plus 300 basis points.
- The collateral manager enters into an interest-rate swap agreement with another party with a notional amount of $100 million.
- In the interest-rate swap the collateral manager agrees to pay a fixed rate each year equal to the 10-year Treasury rate plus 100 basis points and receive LIBOR.

Answer the following questions.

(a) Why is an interest-rate swap needed?

The need for an interest-rate swap results from the mismatch of cash flows for the fixed-rate debt obligations managers invest in versus the floating-rate liability of any of the tranches.

We should first point out that the ability of the collateral manager to make the interest payments to
the tranches and pay off the tranches as they mature depends on the performance of the collateral. The proceeds to meet the obligations to the CDO tranches (interest and principal repayment) can come from coupon interest payments from the collateral assets, maturing of collateral assets, and sale of collateral assets.

In a typical structure, one or more of the tranches has a floating rate. With the exception of deals backed by bank loans that pay a floating rate, the collateral manager invests in fixed-rate bonds. Now that presents a problem; paying tranche investors a floating rate and investing in assets with a fixed rate. To deal with this problem, the collateral manager uses derivative instruments to be able to convert a portion of the fixed-rate payments from the assets into floating-rate cash flow to pay floating-rate tranches.

In particular, interest-rate swaps are used. This instrument allows a market participant to swap fixed-rate payments for floating-rate payments or vice versa. Because of the mismatch between the nature of the cash flows of the debt obligations in which the collateral manager invests and the nature of the floating-rate liability of any of the tranches, the collateral manager must use an interest-rate swap. A rating agency will require the use of swaps to eliminate this mismatch.

(b) What is the potential return for the subordinated/equity tranche assuming no defaults?

To determine the potential return for the subordinated/equity tranche we begin by computing the interest coming into the CDO. Next, we calculate the interest to be paid out to the senior and mezzanine tranches and to the swap counterparty. Netting the interest payments coming in and going out will give the net interest remaining. From this amount, any fees (including the asset management fee) must be paid. The balance is then the amount available to pay the subordinate/equity tranche.

Thus, given the fees, the cash flow available to the subordinate/equity tranche, we can compute the potential return for the subordinated/equity tranche.

(c) Why will the actual return be less than the return computed?

In computing the potential return, some simplifying assumptions are made. For example, it is assumed that there are no defaults. It is assumed that all of the issues purchased by the collateral manager are noncallable (or prepayable), and therefore the coupon rate would not decline because issues are called. Moreover, after some period, the collateral manager must begin repaying principal to the senior and mezzanine tranches. Thus, the interest-rate swap must be structured to take this into account since the entire amount of the senior tranche is not outstanding for the life of the collateral.

Because of the simplifying assumptions, the potential return that is computed will not likely be the same as the actual or realized return subordinate/equity tranche. In determining whether or not to create a CDO, dealers will look to see if there is a potential return available to the equity tranche of a minimum amount. The threshold return is based on market conditions.
14. Answer the following questions.

(a) In a synthetic CDO, what is the source of funds for making payments to bondholders?

In the proceeds to meet the interest and principal repayment obligations of a synthetic CDO, the following sources of funds are used: coupon interest payments from the collateral assets, maturing of collateral assets, and sale of collateral assets.

To understand the source of funds, let us first give some background information on the CDO structures. First, we have the cash CDO structures that are so named because the collateral assets are owned. In recent years, the fastest growing sector of the CDO market is the synthetic CDO structure so named because that the collateral assets are not actually owned; instead, the collateral absorbs the economic risks associated with specified assets but does not have legal ownership of those assets. There are both synthetic balance sheet and synthetic arbitrage CDO structures.

The creation of a synthetic CDO structure requires the use of a credit derivative. More specifically, the type of credit derivative used is a credit default swap. This derivative instrument is conceptually similar to an insurance policy. There is a credit protection buyer and a credit protection seller. The credit protection buyer pays a fee (premium) to the credit protection seller. If a “credit event” occurs, the credit protection seller must make a payment to the credit protection buyer.

With this basic information about credit default swaps, let’s look at the basic structure of a synthetic CDO. As with a cash CDO structure, a synthetic CDO issues liabilities. The proceeds received from the tranches will be invested by the collateral manager in assets with low risk. Thus, the source of funds is similar to a cash CDO. The ability of the collateral manager to make the interest payments to the tranches and pay off the tranches as they mature depends on the performance of the collateral.

(b) How do defaults on the reference assets impact the ability to pay bondholders?

Defaults on the reference assets will lessen the manager’s ability to pay bondholders. Below we offer additional details.

The collateral manager for a synthetic CDO, like a cash CDO, invests in assets with low risk. These assets create cash flows to pay its bondholders. In addition, the collateral manager will enter into a credit default swap with another entity in which it will provide credit protection. Because it is selling credit protection, the collateral manager will receive the credit default swap fee. On the other side of the credit default swap will be a credit protection buyer who will be paying the fee. This entity will be a financial institution seeking to shed the credit risk of some of its assets. For example, it could be a bank that is using the credit default swap for some specifically defined loans in the bank’s portfolio. These loans are referred to as the reference assets in the credit default swap.

If a credit event does not occur, the return realized by the collateral manager that will be available to meet the structure’s obligations will be the return on the collateral consisting of low risk assets.
plus the fee received from the credit default swap. If there is a default on any of the referenced assets, the collateral manager must make a payment to the counterparty. This reduces the return available to meet the structure’s obligations.

15. In a synthetic CDO, what is the role of a credit default swap?

In a synthetic CDO, there are several roles of a credit default swap. One role is to give credit protection to the buyer of the credit default swap. For example, it could be a bank that is using the credit default swap for some specifically defined loans in the bank’s portfolio. A second role is to provide a fee to the seller of the credit default swap. This fee will supplement cash flows received from the low risk assets that the collateral manager invests in. The risk is that a bankruptcy can occur thereby reducing the cash flows the collateral manager has available to pay its bondholders.