Interest Rate Swaps

Application to Tax-Exempt Financing

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DISCLAIMER: Nothing in this booklet should be construed or relied upon as legal or financial advice. Instead, this booklet is intended to serve as an introduction to the general subject of interest rate swaps and their related products, from which better informed requests for advice, legal and financial, can be formulated.

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INTEREST RATE SWAPS: APPLICATION TO TAX-EXEMPT FINANCING

CHAPTER ONE

Introduction

The global interest rate swap market is remarkably vast, both in terms of size and scope of products, and it continues to grow rapidly. Within the U.S. public finance sector, the use of interest rate swaps and their close relatives is becoming more common as increasing numbers of governmental entities utilize them to reduce their borrowing costs, better manage or limit their interest rate risk, and effect better matching of assets and liabilities. Written for the benefit of issuers of tax-exempt debt (referred to herein as "Agencies") and other entities that have access to the municipal capital markets, this booklet serves to help Agencies enhance their understanding of interest rate swaps and related financial tools.

Included is an overview of common types of swaps and discussions of how they work. Additional topics addressed are transaction mechanics and documentation, potential benefits and risks, legal and tax issues, and post-trade management. Special emphasis is placed on the most common type of transaction, the so-called "fixed rate swap," in which an Agency receives a floating rate and pays a fixed rate. When combined with an issue of floating rate bonds, this swap is intended to create a structure which, on a net basis, results in synthetic fixed rate debt for the Agency.

Like other areas of finance, the swap industry has developed its own terminology to describe the financial and legal terms of a transaction in a practical and concise manner. Several of the most commonly used terms are listed in the ***Glossary of Key Terms*** at the end of this booklet.

This booklet is a joint effort of Bond Logistix LLC ("BLX") and Orrick, Herrington & Sutcliffe LLP ("Orrick"). BLX is a financial and investment services advisory firm, dedicated to governmental and other users of tax-exempt debt. BLX maintains an

active swap advisory and monitoring practice in addition to investment advisory and brokering, arbitrage rebate compliance, continuing disclosure and program administration practices. Orrick is a global, full-service law firm with a finance emphasis. Over the past decade Orrick has ranked number one in the country as bond counsel and has represented numerous governmental issuers and swap providers in hundreds of swap transactions of every type. Orrick attorneys have also crafted legislation authorizing swaps and other hedging instruments in a number of states.

CHAPTER TWO

What Are Swaps and How Do They Work?

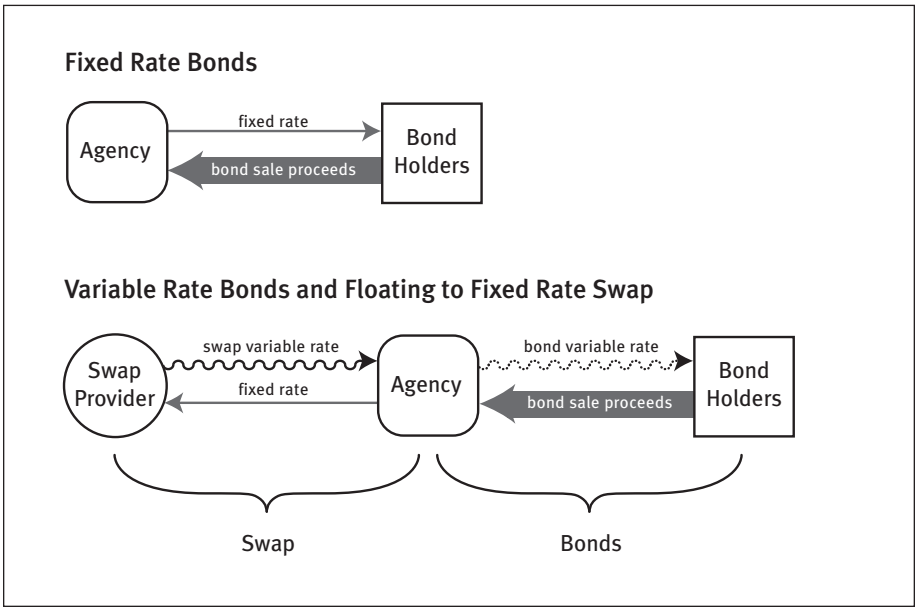
An interest rate swap is a contractual agreement between two parties who agree to exchange (or "swap") certain cash flows for a defined period of time. Generally, the cash flows to be swapped relate to interest to be paid or received with respect to some asset or liability. Accordingly, the swap is designed to generate a net change in the interest rate cash flow related to that asset or liability (typically investment securities or bond indebtedness, respectively), but neither impacts the principal of that asset or liability nor results in the creation of any new principal. As a result, the size of a swap, for purposes of describing the computational base on which the swapped payments are calculated, is referred to as the "Notional Amount." As part of any swap, both parties agree to (i) the Notional Amount, (ii) the rate or rate formula each party will use to compute the amounts to be paid to the other on that Notional Amount, (iii) the dates on which cash flows will be exchanged, and (iv) the term of the swap.

Interest rate swaps do not typically generate new funding like a loan or bond sale; rather, they effectively convert one interest rate basis to a different basis (e.g., from floating to fixed). There are also swap variations which are structured to have an up-front payment made from one party to the other. Such swaps, or "off-market" swaps, can be a useful tool when an Agency's financing objective includes the need for additional, up-front cash. However, an Agency should consider the fact that such a swap can be characterized as having an embedded loan. Chapter Three discusses these off-market swaps in greater detail and Chapter Seven addresses the additional legal issues that they present.

Whether entering into a plain vanilla fixed rate swap, or one tailored to a set of special circumstances, Agencies should note that issuing variable rate bonds and then

entering into a fixed rate swap is ***not*** the same as issuing fixed rate bonds, even though the Agency's future debt service obligations should be similar under both. Figure 1 compares a conventional fixed rate bond issue arrangement to a swap transaction creating a synthetic fixed rate which, in fact, involves two separate transactions.

Figure 1



Structure of an Interest Rate Swap

Each swap transaction has its own terms and features, but the typical interest rate swap used in the municipal marketplace provides that one party's payments are calculated using a fixed rate (the "Fixed Leg") while the other party's payments are calculated using a variable rate (the "Floating Leg"). The swap documentation identifies:

- the set fixed rate;
- the specific variable rate index;

- the Notional Amount (including any scheduled increases or more likely, decreases or amortization);
- the dates of cash flow exchange;
- the conditions of optional and mandatory termination; and
- the scheduled termination date, which defines the term (sometimes referred to as the "tenor").

The fixed rate is generally set for the term of the swap. The variable rate can be based on any index (e.g., BMA Index or LIBOR), or even a specific security (e.g., an Agency's variable bond rate). The underlying index, or other instrument, from which the Floating Leg payments are calculated is known as the "Underlying."

If scheduled to occur on the same dates, the fixed payment by one party is netted against the floating payment by the other, such that only a net settlement is made by one of the parties on a given payment date. These exchanges take place on the pre-established payment dates and reflect the differences between the two rates during the applicable period.

The Counterparties' Perspectives

In the municipal marketplace, the two parties to a swap are the Agency (or, in the case of a conduit bond deal, the conduit borrower) and a financial institution (the "Provider"), typically a commercial bank, an investment bank, or an insurance company (or a subsidiary of one of these entities). While the Agency accomplishes some financial goal (e.g., hedging variable rate exposure, improving asset/liability matches, reducing borrowing costs, etc.) by entering into the swap, the Provider will be compensated for establishing its own hedges and the on-going costs of carrying the swap on its books.

What is a Hedge?

In finance, the term hedge generally refers to a tactic (or a financial product) used to offset losses or potential losses associated with an existing financial position. For example, a put option is a hedge that can be used to reduce or eliminate the risk of adverse price movements in a security. However, the cost of the hedge limits the amount of any future gain on the security as well. If a hedge completely eliminates any possible future gain or loss (put another way, if it eliminates the uncertainty of the security's return), it is called a perfect hedge.

Specifically, in the case of a fixed rate swap, an Agency's variable rate debt is said to be hedged by the swap since, on a net basis, the Agency is paying a fixed rate of interest and the swap has eliminated the possibility of having to make higher (or lower) interest payments to its bondholders should short term interest rates rise (or fall). In this way, the Agency has eliminated any potential loss (higher rates) or gain (lower rates) on the variable rate bonds. As discussed in Chapter Three, there are varying degrees of hedge effectiveness among commonly used interest rate swap structures.

The Provider's Perspective

Providers typically enter into particular interest rate swaps as part of a large, hedged portfolio. To illustrate, a Provider might enter into swap transactions with two different Agencies of similar credit, with matching variable interest rates, Notional Amounts, and terms. The Provider would be the receiver of the variable interest rate in one transaction and the payer in the other. However, for the transactions to be economically feasible for the Provider, there needs to be a difference in the fixed rate components of the swaps. For example, if in the first transaction the Provider is obligated to make payments computed using a fixed rate of 5.00%, the Provider would look to structure the second transaction to receive 5.00% plus a spread. This way, the Provider will earn that fixed spread, or "bid/ask spread", between the two agreements.

Even with the use of very sophisticated financial engineering programs, in practice, Providers are unlikely to be able to achieve a hedge that is completely without credit and related risks and perfectly matched in terms of both the timing and amounts of the cash flows. There are some risks to a swap (e.g., counterparty credit risk or change in tax law risk) that cannot be hedged to any significant degree; that is,

cannot be quantified in dollars with any precision. Additionally, there are other risks inherent in the swap agreement provisions themselves (e.g., one-way termination upon downgrade, default by a counterparty to the agreement or the invalidity or unenforceability of the agreement) that a Provider is also unable to completely hedge, especially if those provisions differ from completely balanced, two-way industry norms.

Thus, for the same reasons that a lower credit rating may require an Agency to issue debt at higher interest rates, an Agency's swap rate can also be higher than that of other Agencies with higher credit ratings or if it contains non-traditional swap terms that are difficult to hedge. Therefore, in a fixed rate swap, the interest rate the Agency is charged by the Provider will include a component used to offset the incremental costs for hedging greater risks. The greater the risk perceived by the Provider, the higher the interest rate that will be charged to the Agency.

Subject to the caveat that there is a limit to the amount of the unhedgeable risk a Provider can and will take on, swap agreements are very flexible. As mentioned, features that are difficult for the Provider to hedge (or cannot effectively be hedged) come at a cost; and there may be features, if analyzed separately, that cost the Provider more than they can benefit the Agency and therefore may not be to the Agency's advantage. Thus, in evaluating and negotiating a proposed swap transaction, it is important that the Agency be able to delineate the cost components of the swap and understand not only its own needs and objectives, but also the needs and objectives of the Provider.

The Agency's Perspective

Unlike a Provider making its business from earning the bid/ask spread on a transaction, an Agency generally enters into a swap in order to achieve some specific financial objective, such as achieving a lower borrowing cost or hedging interest rate exposure. For example, the most commonly used swap structure – the synthetic fixed rate transaction – is attractive when the net synthetic fixed rate (the fixed swap rate plus the on-going costs associated with variable rate debt, taking into account reasonable assumptions for basis spread and other risks) is lower than the fixed rate on a traditional fixed rate bond structure. In this scenario, the Agency achieves an

important financial objective – lowering its borrowing cost – while maintaining the predictability of a fixed interest rate. However, as with any financing structure, the Agency must first evaluate the risks associated with a swap and conclude that they can be adequately managed and that the swap is otherwise suitable for the Agency.

Conversely, a synthetic variable rate transaction may be attractive if an Agency wishes to increase the proportion of variable rate exposure in its debt and/or asset structures in an effort to reduce a mismatch between its assets and liabilities. An appropriately structured swap can convert fixed rate debt to a variable rate, and may be the most efficient, and perhaps the only viable, method of reducing such a mismatch, given the costs and tax limitations associated with restructuring debt and limitations on investment maturity terms. As with the synthetic fixed rate structure referenced above, an Agency must compare the costs and associated risks of the available swap structures with other, perhaps more traditional, financing techniques, in order to make a prudent, informed decision.

Regardless of structure, an Agency should go beyond the financial analysis required to determine if a swap will achieve its economic objective and review a proposed swap transaction with the same level of diligence it would apply to the consideration of any bond issue. Issues such as rate exposure, basis risk, transaction costs, covenant obligations, security, redemption or refunding flexibility, termination risk, counterparty creditworthiness and other similar issues should all be carefully considered prior to entering into a swap.

CHAPTER THREE

Types of Swaps and Other Hedges

Interest rate swaps can be used to achieve goals beyond creating synthetic fixed or variable rate debt. Agencies seeking to achieve a variety of financing objectives have a choice between several interest rate swap structures in use today, each having its own set of features and variations. Swaps can be structured as floating-to-floating rates swaps, in which one variable rate index is swapped for another (also sometimes known as a "basis swap"). Additionally, instead of debt, they can be associated with investment assets in order to effectively convert the interest earned on such investments from fixed to floating or vice versa. Swap agreements may also incorporate a variety of features, such as an off-market swap component, which is economically equivalent to a loan, generally made from a Provider to an Agency. Other features might include a tax reform trigger event, which is used to hedge against changes in tax law, or an embedded option, such as a call option. These different types of swaps as well as other forms more generally described as hedges, are described in the sections immediately below.

Basic Swap Structures:

- Floating-to-Fixed Rate Swap ("fixed rate swap")
- Fixed-to-Floating Rate Swap ("floating rate swap")
- Floating-to-Floating Rate Swap ("basis swap")

Variations and Other Related Hedges:

- Off-Market Swap
- Forward Swap
- Interest Rate Caps, Floors, and Collars
- Swaption

Interest Rate Swaps

As previously mentioned, an interest rate swap is an agreement between two parties to exchange future cash flows. The term of the swap and its Notional Amount will typically

mirror the dates and amounts of the hedged debt or asset. The most common variations found in tax-exempt financing are (i) the Floating-to-Fixed Rate Swap (fixed rate swap), (ii) the Fixed-to-Floating Rate Swap (floating rate swap), and (iii) the Floating-to-Floating Rate Swap (basis swap).

Floating-to-Fixed Rate Swap (fixed rate swap)

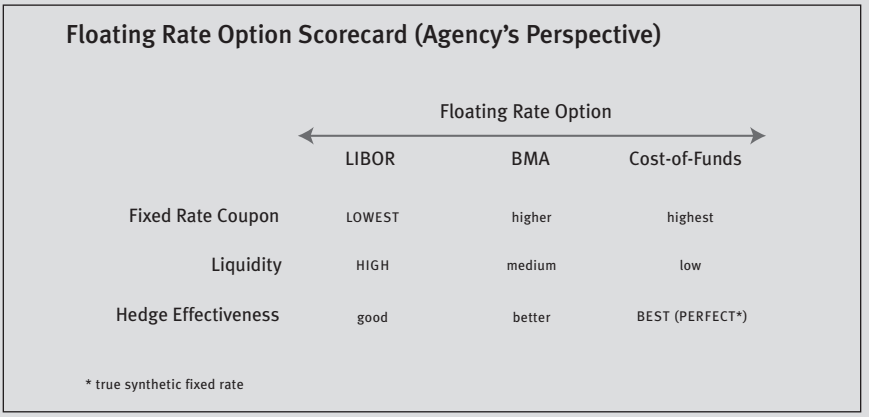
As an alternative to issuing fixed rate bonds, an Agency can instead sell floating rate bonds and simultaneously enter into a receive-floating, pay-fixed interest rate swap, or fixed rate swap. The goal is to create, on a net basis, a fixed rate obligation. A key consideration for the Agency will be the formula and floating rate index to be used in computing its receipts on the Floating Leg of the swap (e.g., % of LIBOR, % of LIBOR + a fixed spread, BMA Index, or Cost of Funds). The goal is to select a formula and index that will best match, or hedge, the Agency's bond interest payments. To the extent the Floating Leg receipts do not match the variable rate bond interest payments, the Agency's net debt service will vary over time and, accordingly, will result in somewhat higher or lower net debt service payments from period to period.

Floating-to-Fixed Rate Swap: How fixed is synthetically fixed?

A properly structured swap will provide an effective hedge, but more often than not, a less than perfect one. A perfect hedge would be defined by Floating Leg receipts that match the interest payments due on the hedged bonds ***exactly,*** which is known as a Cost-of-Funds swap. This structure results in a true fixed rate obligation for the Agency, but may not result in the lowest overall cost of funds. This is because market rates charged for the Fixed Leg on a Cost-of-Funds swap will be considerably higher than the Fixed Leg of a swap where the Underlying is more liquid and traded in greater volume, such as the BMA Index or LIBOR.

Simply put, a Provider can more effectively hedge a BMA or LIBOR-based swap, which is reflected in the rate charged on the Fixed Leg. For this reason, Cost-of-Funds swaps have been rare. Furthermore, Cost-of-Funds swaps generally include provisions converting the swap to an index under certain circumstances (such as a decline in the credit quality of the Agency) and may give the Provider significant control over factors that may influence the Agency's cost of funds (e.g., interest rate mode, remarketing agent, or similar on-going costs).

Figure 2



An Agency's net future debt service obligations under a synthetically fixed rate structure may not be determined with the absolute level of precision of a fixed rate bond issue. However, from a budgeting perspective, absolute precision is not likely to be essential so long as the Agency understands the underlying mechanics and factors that will affect its net debt service requirements and the degree to which those requirements may vary.

The fixed rate achieved through this structure can be lower than the fixed rate that can be attained through a traditional fixed rate bond offering. This is especially true if an Agency structures its swap using a LIBOR-based floating payment in exchange for a fixed payment. The rate advantage of a LIBOR based swap is the result of a combination of factors, including the greater liquidity and efficiency of the taxable

swap markets and the Agency's assumption of basis risk, including change in tax law risk. Also, because the Agency can generally terminate a swap only at market value and not at par value, the synthetic fixed rate arrangement should be evaluated against the cost of *noncallable* fixed rate bonds as opposed to typical fixed rate bonds with optional redemption provisions.

Basis Risk, Including Change in Tax Law Risk

The term basis risk refers to the potential or actual mismatch between an Agency's floating receipt from a swap and its floating payment obligation on the underlying debt. This mismatch exists when each cash flow references different underlying securities or ones of differing maturity terms. For example, every month an Agency might receive a pre-set percentage of the one-month LIBOR rate from the Provider, and pay interest on its tax-exempt variable rate bonds once every 35 days. Both the timing difference and the fact that interest will accrue at different rates, even if neither is significant, technically results in basis spread. Moreover, the magnitude of the basis spread will vary over time. It is the cumulative basis spread over the term of the swap, or more practically over each fiscal year, that will be important for the Agency in terms of cash flow budgeting.

Change in tax law risk, or tax reform risk, is the risk that there will be an unanticipated structural change to the current tax law (e.g., a reduction in marginal income tax rates), which would then impact the relationship (i.e., the spread) between tax-exempt and taxable rates. This is the risk Agencies undertake whenever they issue floating rate bonds. It can also can arise in the context of a swap. To illustrate, suppose an Agency currently has outstanding tax-exempt variable rate bonds at 3.5% as well as taxable variable rate bonds at 5.0%. If the marginal tax rate was, for example, reduced from 30% to 10%, the yield on the tax-exempt bonds might increase to 4.5%. In the case of a fixed rate swap wherein the Provider is paying the BMA Index (and receiving a fixed rate) and the rate on the Agency's bonds is substantially the same as the BMA Index, the Provider is exposed to tax risk because if there is a reduction in the marginal tax rates and the BMA Index suddenly rises, the Provider's payment obligations under the swap will increase.

While the Agency's payment obligations under the bonds will also increase, that increase will be offset by the increased swap receipts. On the other hand, if the Agency had entered the same swap, but instead of receiving payments based on the BMA Index, it received payments based on LIBOR (70% of one-month LIBOR for example), the Agency would be exposed to tax reform risk. In this example, assuming that if since inception the swap receipts had closely approximated the bond interest payments, then a sudden reduction in the marginal tax rate could adversely impact the Agency.

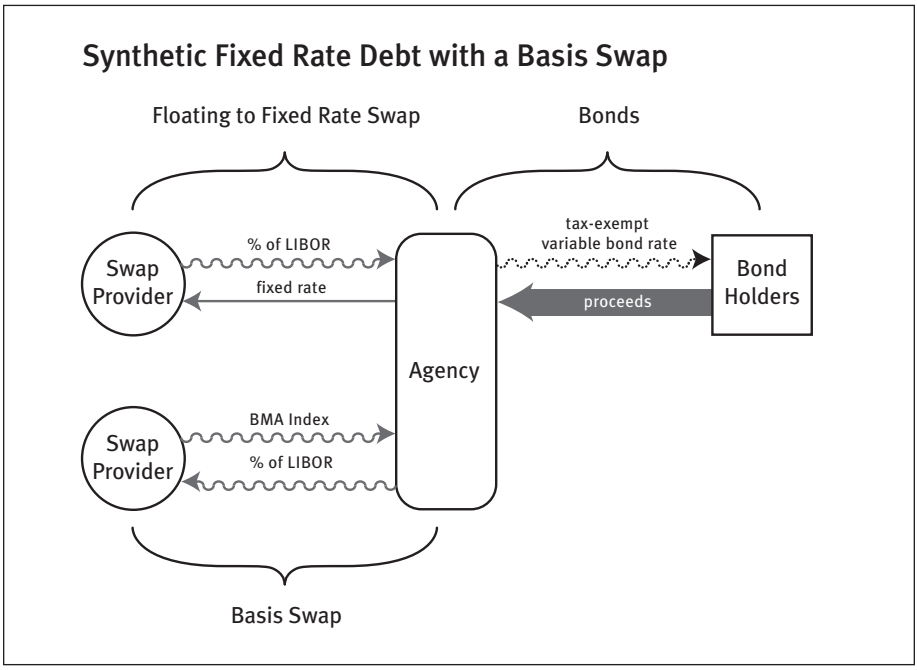
Fixed-to-Floating Rate Swap (floating rate swap)

As an alternative to issuing variable rate bonds, the Agency can instead sell fixed rate bonds and simultaneously enter into a receive-fixed, pay-floating interest rate swap. The goal is to create, on a net basis, a floating rate obligation.

Basis Swap (floating-to-floating rate swap)

In a basis swap, the Agency enters into a receive-floating, pay-floating interest rate swap where, for example, the Underlying for the first Floating Leg is the BMA Index and for the second Floating Leg is based on the one-month LIBOR rate. A basis swap may be used to reduce risk associated with potential changes in tax law (see sidebar above), decrease basis risk, or to move from one index to another.

Figure 3

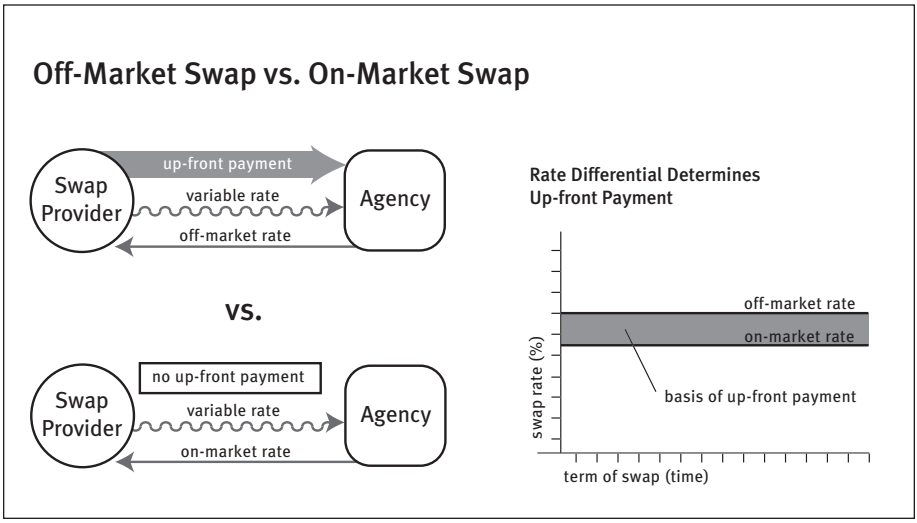


Off-Market Swap

An off-market swap is a variation of an interest rate swap in which one or both of the referenced rates is priced off the market, resulting in an up-front cash payment, usually paid by the Provider to the Agency. For example, in the case of a floating to

fixed rate swap, if the coupon rate for the Fixed Leg is set above the market rate, the Agency would receive an upfront payment from the Provider (which is somewhat similar to a loan to the Agency which it, in effect, pays back as that portion of the fixed rate that is above the market rate.)

Figure 4

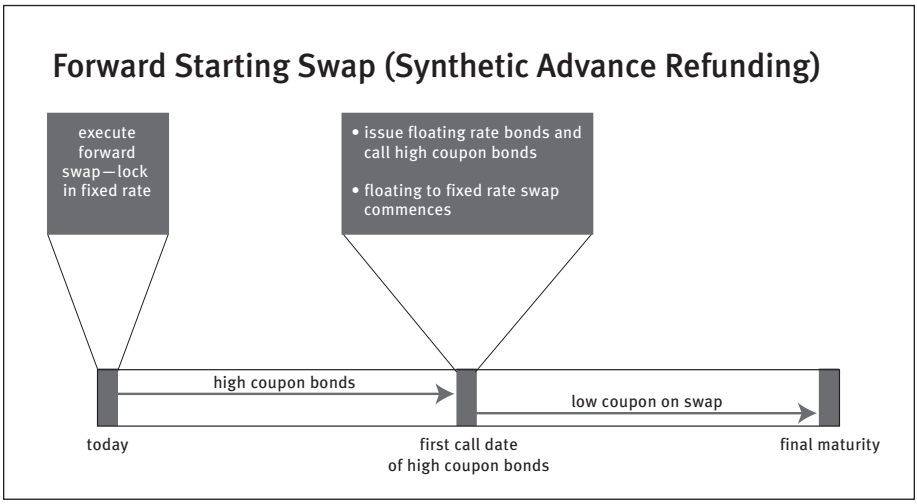


Forward Swap

Forward swaps are interest rate swaps in which the accrual and exchange of cash flows commences at a later date (the Effective Date) rather than the current date (on or around the Trade Date), thereby affording the opportunity to lock in rates today while accruals begin in the future. While forward swaps allow rates to be locked in, the rates will be determined via the forward rate curve, which is not the same as the current yield curve. These types of transactions are often used to approximate the benefits of an advance refunding when one is not otherwise permitted under tax law. The forward swap locks in a fixed rate, and then variable rate bonds are issued in the future as current refunding bonds upon the Effective Date of the swap. Although mechanically different from a swap, Agencies can achieve similar results by utilizing what is known as a rate lock agreement, which entails entering into an agreement with an underwriter to issue fixed rate bonds in the future.

Agencies who have entered into a forward swap often determine to optionally terminate the swap prior to its scheduled Effective Date, and essentially utilize the forward swap as a cash settlement hedge. If, for example, interest rates have risen since the Trade Date, the swap is "in the money" for the Agency; that is, if the swap were terminated the Provider would be required to pay the Agency a termination amount. Depending on market conditions, including the relationship between the tax-exempt and taxable yield curves, the Agency might be able to achieve a better financing result by terminating the swap (and collecting its settlement amount) and either leaving the bonds that were to be refunded outstanding, or issuing conventional fixed rate bonds as a current refunding.

Figure 5



Swaption

A swap option, or a "swaption", is similar to a forward swap in that the swaption outlines the terms of a swap to be entered into in the future. However, in a swaption, one party, usually the Provider, has the right, but not the obligation, to enter into (or modify or cancel) that swap with the other party, the Agency, at a specified fixed rate and floating rate formula, on a specified date or during a specified period in the future. In exchange for that right, the Provider will pay an option premium to the Agency on the Trade Date, which can be months or years prior to the swap's potential Effective Date.

This structure is sometimes used in connection with the refinancing of debt that cannot be advance refunded because of tax law restrictions. In such a case, the fixed rate on the swap that underlies the option is the "strike rate" (which might be structured to equal the average coupon on the outstanding bonds) and the Provider may only have a limited time frame (on or just before the first call date of the bonds) to exercise its option. If the Provider exercises its option, the Agency will issue variable rate bonds at that time, call the outstanding bonds, and on a net basis have a synthetic fixed rate as a result. The payments associated with that fixed rate will be approximately the same as prior to the swap. The option premium received by the Agency then would be reflective of the Agency's refunding savings. If the Provider does not exercise its swaption, the Agency will have received its premium while retaining the ability to call the old debt at a later date and, therefore, may have yet another opportunity to refund those bonds.

Option or Obligation?

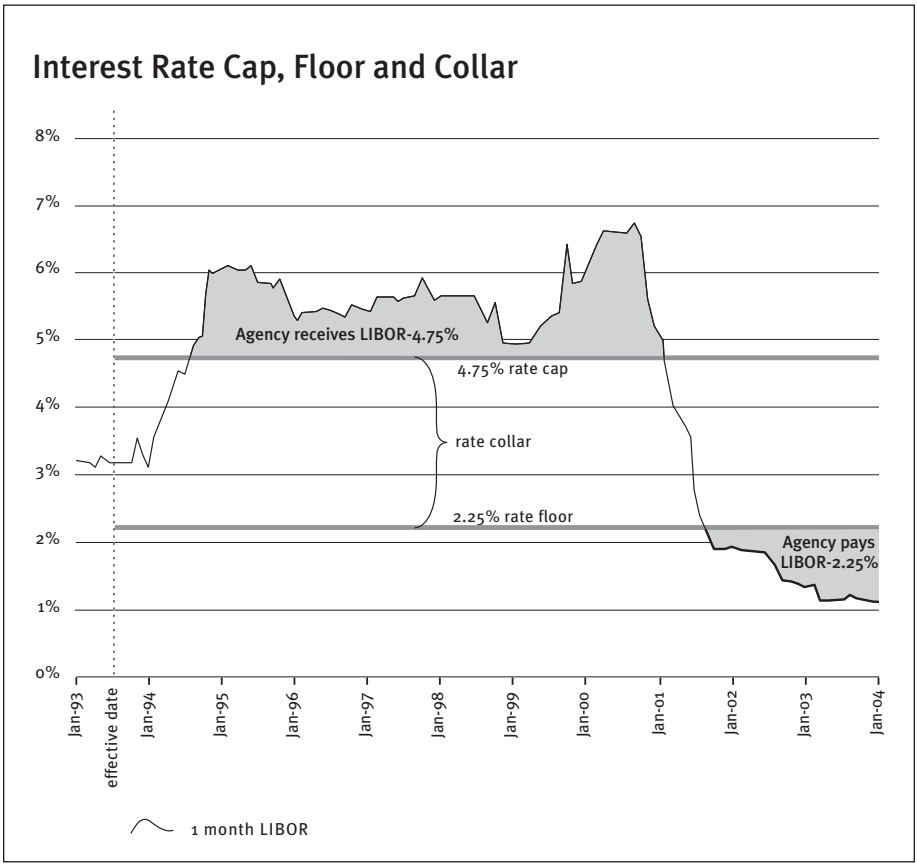
An Option is a contract that provides the right, but not the obligation, to enter into or effect a transaction for pre-specified terms within a predetermined time period, or Exercise Period. The entity that sells the option (and usually receives an upfront payment in exchange), has an obligation to fulfill the terms of the transaction if the option is exercised. The Exercise Period can vary from a single date in the future (a European option), to a series of single, periodic dates (a Bermuda option), to any date within a specified date range (an American option). Agencies that utilize these tools should be aware of the associated obligations that may arise in the future and plan accordingly.

Interest Rate Caps, Floors, and Collars

An interest rate cap is a hedging tool that protects the purchaser of the cap from rises in short-term interest rates through receiving a payment from the Provider when the interest rate on the Underlying exceeds a specified strike rate (the "cap rate"). By contrast, in the case of an interest rate floor, the Agency would *receive* a

premium and would be obligated to make payments to the Provider to the extent the strike rate (the "floor rate") exceeded the rate on the Underlying. An interest rate collar is a combination of both an interest rate cap and interest rate floor which can be structured such that the cap premium and floor premium offset each other and, therefore, on a net basis, no premium(s) are paid by the Agency. Similar to an interest rate swap, basis risk will exist to the extent the rate on the Underlying does not equal the Agency's bond interest rate in any given period. Figure 6 below shows an example of an interest rate cap (with a strike rate of 4.75%) and an interest rate floor (with a strike rate of 2.25%) and, when combined, the two represent an interest rate collar.

Figure 6



CHAPTER FOUR

Uses and Benefits

Although a swap does not itself represent debt, it is usually tied to one or more debt issuances. As such, swaps are used to change the economics of existing or future debt without changing the size or structure of the debt itself. When used as part of a coherent strategy, swaps provide access to different markets and more flexible structures than have been historically available to Agencies when straight fixed rate or variable rate debt were the only options. Swaps can also be entered into for any term, and can therefore be useful for addressing near-term cash flow and other liability management needs, for example, during the construction period of a debt-financed project in which an Agency does not wish to change the underlying structure of outstanding long-term debt.

Swap structures are most commonly explored because of the potential reduced borrowing costs, but entering into a swap agreement can benefit an Agency in other ways. Beyond any cost savings, the uses and benefits of debt-related swaps by Agencies can generally be described as falling into four broad categories:

- swaps afford increased flexibility in the design of an Agency's asset/liability matching strategy;
- swaps serve as a way to hedge certain interest rate and market risks;
- swaps can enable an Agency to access interest rate markets otherwise either unavailable or unattractive with traditional debt structures; and
- swaps can be used to generate cash payments to the Agency in exchange for certain adjusted terms or options sold to the Provider.

Asset/Liability Matching

Agencies are becoming increasingly attentive to comprehensive asset/liability management strategies. Historically, debt and investment decisions were often made independently of each other, and governmental agencies typically borrowed at long-term fixed rates and invested at short-term rates. Particularly in an interest rate environment where the yield curve is steep, Agencies with significant funds invested short-term have felt the adverse impact of a debt strategy which does not account for such an environment. With their relative ease of structuring, implementation, and termination, swaps can be a useful tool in restructuring the debt side of an Agency's balance sheet to better reflect certain asset positions. Such a unified and coordinated strategy can allow an Agency to use either side of the balance sheet to more readily anticipate uncertain cash flow needs that might be presented by the other side.

Hedging of Interest Rate and Market Risks

The most common type of debt-related swaps are floating-to-fixed and fixed-to-floating rate swaps. In the first scenario, a swap is used to create a synthetic fixed rate obligation where the underlying debt is variable. This presents an alternative to issuing true fixed rate debt by allowing the Agency to utilize the short-term capital markets while not exposing it to interest rate risk. Under certain market conditions, influenced by factors such as the steepness of the yield curve, credit spreads, and current or expected income tax rates, true fixed rate debt will carry a higher interest cost, and so a floating-to-fixed rate swap can serve to lower the borrowing costs of the debt. Such swaps are also useful when an Agency wishes to convert existing variable rate debt to a fixed rate obligation without the time and costs of a bond refunding. This is particularly common when an Agency anticipates a future period of rising interest rates, and wishes to limit its variable rate exposure in connection with given debt for a certain period of time.

In the fixed-to-floating rate swap scenario, synthetic variable rate debt is created where the underlying debt is fixed. In this context, an Agency is able to create variable rate debt exposure without the traditional costs of true variable rate debt (e.g., liquidity, letter of credit, or remarketing fees, etc.) and without exposure to the risk the bonds will be tendered by their holders and not remarketed. In this way, an Agency can also achieve a better matching of a given bond issue's short-term assets with the debt, thereby mitigating the risk of significant negative arbitrage on large cash balances. Additionally, this structure is useful for certain borrowers that are unable to easily acquire the necessary insurance or liquidity support for true variable rate debt.

When structured on a forward basis, a floating-to-fixed swap can be used to hedge against rising interest rates. This can be particularly valuable in the context of large or long-term debt restructurings. For example, a forward funding swap can enable an Agency to achieve a synthetic advance refunding of fixed rate debt when it is otherwise precluded from doing so by the tax rules limiting advance refundings. By entering into a forward swap today, an Agency can lock in today's fixed rates, while the swap payments do not actually begin until after the call date of the old bonds. At that point, variable rate current refunding bonds are issued, and the Agency has thereby replaced the old true fixed rate debt with synthetic fixed rate debt at today's rates (but determined via the forward yield curve). This provides an effective hedge against interest rate risk if an Agency considers today's environment to be favorable, and is concerned that such an environment might no longer exist once the call date of the old debt is reached.

An important element of swaps is the ease with which they can be terminated or renegotiated. Early terminations can be motivated by the desire to regain the exposure of the underlying debt structure, or the opportunity to monetize a market gain on the swap. Some Agencies have a swap management strategy to terminate the swap (in whole, or in part) when a significant termination fee would be owed to the Agency and then subsequently replace the swap when interest rates cycle in the opposite direction.

Achieving Access to Different Interest-Rate Markets

Swaps are frequently used to lower an Agency's borrowing costs by providing access to interest rate markets otherwise unavailable or unattractive with traditional debt structures. For example, while the traditional tax-exempt fixed income market generally provides governmental issuers access to cheaper capital than its taxable counterpart, the greater liquidity and flexibility of the swap market can often present even more borrowing cost savings opportunities. Also, in certain interest rate environments (e.g., historically low rates), the difference, or "compression," between taxable and tax-exempt rates can increase the pricing advantage of synthetic fixed rate bonds over traditional fixed rate bonds. As will be discussed in Chapter Five, when considering these relative advantages, Agencies must carefully analyze the possible impact of basis cost and the potential that it might reduce and/or eliminate the projected cost advantage. Further, swaps can allow an Agency to diversify its exposure to different markets, which is often a goal in and of itself.

The creation of synthetic fixed rate or variable rate debt can also enable an Agency to maintain some characteristics of one type of debt while accessing some characteristics of another. This allows the Agency to optimize its debt positions while also simplifying its overall asset/liability position.

Generating Cash Payments

While most swaps contain defined commencement and maturity dates, it can be advantageous for an Agency to sell one or more options to the Provider relating to a swap or potential swap. Two examples of these are options to extend and options to cancel (or suspend) the swap. In either case, the option gives the Provider increased flexibility in the future management and maintenance of the swap, which may be valuable in certain changing interest rate environments. The benefit to the Agency may come in the form of an increased rate on its receipt under the swap (or decreased rate on its obligation under the swap). Alternatively, these options can be monetized in whole or in part in the form of a cash payment to the Agency upon execution of the swap.

A swap can also be structured such that the Agency's obligation under the swap is greater (or its receipt is lower) than would otherwise be the case (i.e., its payment obligations are above the current market). This is an off-market swap, and is characterized by the Agency receiving an up-front payment from the Provider in exchange for higher future net swap payments from the Agency.

Another way to generate cash is through the use of a basis swap (see Chapter Three for further explanation of basis swaps) with an up-front payment. This can be a stand alone structure or it can be layered on top of a floating-to-fixed rate swap. This is most appropriate when the Agency either (i) is comfortable that the up-front payment outweighs the basis risk being assumed, or (ii) already has a basis position to be neutralized by the basis swap.

An additional way to generate a cash payment today is to enter into a swaption, under which the Provider is sold the option to enter into a swap over a given term (see Chapter Three for more on swaptions).

CHAPTER FIVE

Business Risks

When entering into a swap, the Agency anticipates that the Provider will honor its obligations for the full term of the swap (unless the Agency exercises its early termination option). Further, when entering into a synthetic fixed rate swap, to convert variable rate debt to a fixed rate obligation, the Agency expects that the variable rate payments it receives under the swap will closely approximate the interest rate on the related debt. There are risks, however, that such expectations will not be fulfilled.

Business Risks

- Provider Credit Risk
- Termination Risk
- Collateralization Risk
- Basis Risk and Tax Risk

Provider Credit Risk

The value of a swap to the Agency depends on the ability of the Provider to meet its payment obligations under the swap. This risk is addressed, though not eliminated, by requiring some level of Provider credit (e.g., AA/Aa2 or A/A2) as a condition to entering into a swap. Provider credit can often be enhanced through an unconditional guarantee by an affiliate of the Provider. Credit risk can also be addressed with collateralization requirements and/or provisions that, in the case of Provider downgrade, allow for termination of the swap, or require a transfer or assignment of the swap to a creditworthy Provider (See Chapter Nine regarding Credit Annex).

Termination Risk

Swap agreements allow for termination of the swap in the case of certain "termination events." Such events may include, in addition to payment defaults on the swap, adverse credit indicators such as a downgrade or a cross default on other obligations, force majeure, a challenge to a party's legal obligation to perform its obligations under the swap beyond the parties' control, or other factors. If there is an early termination, one party will owe the other a termination payment reflecting the valuation of the swap under then-current market conditions. If market rates have changed to a party's disadvantage (e.g., if the party is a fixed rate payer and interest rates decline), or even if rates have not changed but the party received an up-front payment on an off-market swap, that party will be "out of the money" on the swap and will owe the other party a termination payment. A termination of a swap, therefore, could result in a substantial unanticipated payment obligation on the part of the Agency. This risk can be addressed to a degree through credit enhancement of the Agency's obligation and swap agreement provisions basing termination events on the credit of the credit enhancer as opposed to the Agency. Because swap agreements generally provide for "two-way" termination payments at market value, an Agency may be obligated to make a substantial payment even if termination is the result of Provider default or deterioration of the Provider's credit.

Collateralization Risk

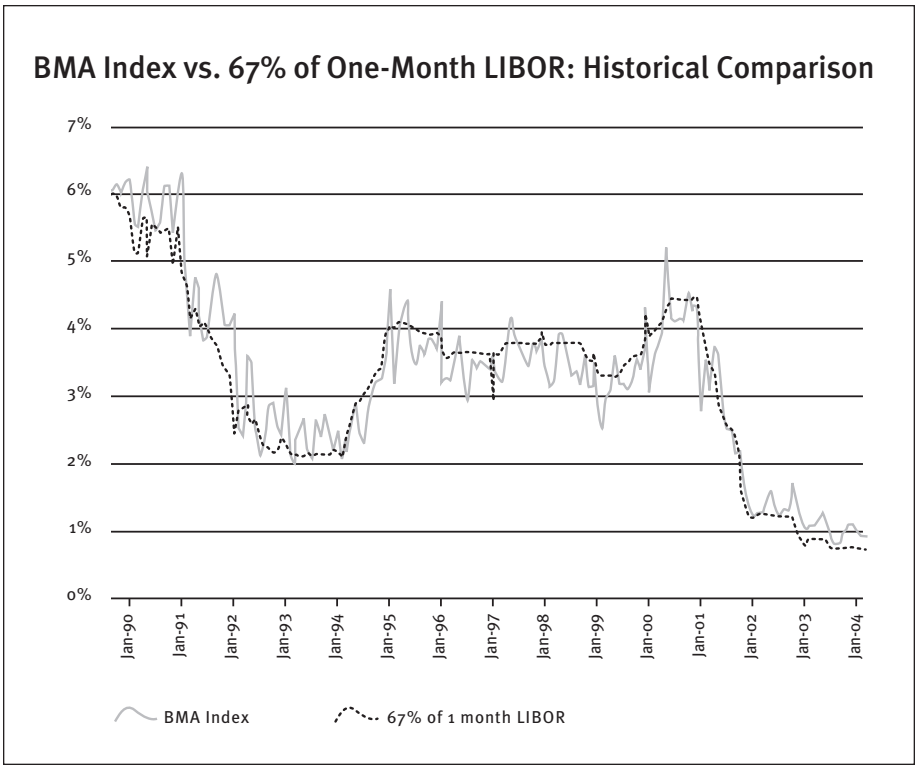
Swap agreements often require a party that is out of the money on a swap above a negotiated threshold to post collateral even if that party is performing and no termination event has occurred. This may be burdensome for an Agency and may raise significant legal issues. Since collateralization thresholds are tied to credit ratings, collateralization risk can also be addressed in part through credit enhancement.

Basis Risk and Tax Risk

When an Agency enters into a swap in connection with variable rate debt, for any payment period the variable rate received by the Agency under the swap (calculated in accordance with the terms of the swap agreement) may be either greater than or less than the interest rate paid by the Agency on the underlying debt. The potential for a disadvantageous mismatch is known as "basis risk."

If the variable rate payable to the Agency under the swap is calculated based on a taxable index (e.g., a percentage of LIBOR) and the related debt is tax-exempt, then the Agency is also exposed to "tax risk," the risk that the spread between taxable and tax-exempt rates will be less than anticipated (perhaps because of a reduction in marginal tax rates).

Figure 7



Basis risk and tax risk can be addressed by structuring the swap as a "cost of funds swap". Cost of funds swaps are uncommon, however, since (i) pricing is not as efficient as with an index-based swap, (ii) the Agency must generally cede some control over the administration of its debt (e.g., interest rate mode changes, monitoring of remarketing agent performance) to the Provider, and (iii) cost of funds swaps generally convert to an index-based swap under certain adverse circumstances (e.g., Agency credit event, challenge to tax-exemption of the debt).

CHAPTER SIX

How To Acquire a Swap

The emergence of swaps has introduced an additional complexity to the issuance of public debt, which is already complicated by a myriad of federal and state rules and regulations. Along with the real world benefits of the prudent use of swaps comes the responsibility of understanding the mechanics, benefits, and perhaps most important, the risks. Thus, because of the added intricacies that a swap can bring to tax-exempt financing, there are additional issues that an Agency must consider when entering into a swap agreement beyond those of a traditional issue of tax-exempt debt.

When an Agency undertakes to issue new tax-exempt debt, one of its first and most important tasks is to assemble the appropriate financing team. In the case of a traditional offering, a financing team usually consists of the Agency, underwriter(s), bond counsel, financial advisor, disclosure counsel, and trustee. However, given the unique and specialized nature of swaps, if a swap is utilized in a debt offering, the Agency may wish to add a Swap Advisor and/or swap legal counsel to the financing team. It is not unusual for some bond counsel and financial advisory firms to lack the required expertise to advise issuers on the specifics of swap structures, documentation, and pricing. In these instances, the Agency will often supplement the financing team's capabilities with firms possessing substantial swap expertise. A Swap Advisor can offer an Agency a diverse line of services tailored to help the Agency analyze, develop, and implement a comprehensive swap strategy. Such services include: development of internal swap utilization policies; independent evaluation of proposed interest rate swap structures; risk assessment and stress-testing evaluation; swap structuring and pricing services; competitive bidding services; swap documentation review and

Roles of the Swap Advisor:

- Transaction Structuring
- Pricing Negotiations
- Document Review
- Competitive Bidding
- Pricing Certification
- Ongoing Monitoring

consulting; fair market pricing certification; termination valuation and negotiating services; and swap position monitoring and reporting services. With specialized expertise in the swap industry, a Swap Advisor often proves to be an invaluable tool employed by Agencies seeking to maximize the benefits of utilizing swaps as part of a diversified asset and liability portfolio.

The Bidding Process

An Agency has two basic approaches to acquiring, or entering into, an interest rate swap: (i) conduct a competitive bid process, or (ii) negotiate the terms with a pre-selected Provider.

As with the sale of bonds or other governmental debt, the advantages and disadvantages of the competitive versus negotiated transaction are debatable and difficult to quantify given the complexities of today's financial markets. With appropriate prudence and safeguards, an Agency can acquire a fairly priced swap with either approach.

Competitive Bid

Once an Agency has concluded that entering into a swap agreement is a prudent option to achieve its financial objectives (e.g., hedging interest rate exposure, improving asset/liability matches, achieving a lower borrowing cost, etc.), its first step is to work with its Swap Advisor to draft a comprehensive "bid package" for eventual dissemination to qualified bidders. Qualified bidders would typically consist of appropriately experienced and creditworthy institutions which also qualify under the Agency's general policy standards.

The bid package would typically include:

- a description of the Agency's financing plan;

- a term sheet with the desired terms of the swap (which can be very detailed in order to avoid protracted negotiation over the swap documentation and should address all of the terms likely to be included in the swap documents that are material to the Agency);
- relevant information on the Agency's credit.

The term sheet might include the following:

GENERAL	
Counterparty Party A (Provider)	[to be awarded]
Counterparty Party B (Agency)	City of Anytown
Notional Amount	See Exhibit A [typically the bond amortization]
Currency	US Dollars
Trade Date	January 15, 200__
Effective Date	February 1, 200__
Termination Date	February 1, 203__
FIXED AMOUNTS	
Fixed Rate Payer	Agency
Fixed Rate Option	[to be awarded]
Fixed Rate Payment Dates	August 1 and February 1 beginning August 1, 200__
Fixed Rate Day Count Fraction:	30/360
FLOATING AMOUNTS	
Floating Rate Payer	Provider
Floating Rate Payer Payment Dates	1st day of each month beginning March 1, 200__
Floating Rate Option	67% of the USD-LIBOR-BBA (one-month maturity)
Floating Rate Day Count Fraction:	Actual/Actual

Once a draft bid package has been circulated and commented on by the Agency's financing team, including legal counsel, the Agency and/or its Swap Advisor would then distribute the draft bid package to qualified Providers. Circulating a draft bid package allows the Agency to solicit feedback and address any concerns that the Provider community may have regarding the Agency's credit and/or financing plan.

Often the feedback received during this pre-marketing effort can provide the Agency with important structuring considerations for its overall financing plan. For example,

less creditworthy Agencies may benefit from swap dealer feedback to determine the additional cost of their "credit penalty" and the advisability of credit-enhancing the swap through either third-party insurance or some type of collateral arrangement (referred to as a credit support annex), much like evaluating bond insurance.

After receiving feedback from an adequate number of interested swap dealers and reasonable assurances of sufficient interest, the Agency would schedule a formal bid and circulate the final terms it desires. On the bid date, swap dealers submit bids and the swap is entered into with the winning bidder.

If an Agency is offering to pay a fixed rate and receive a floating rate, the winning bidder will be that conforming bidder which is willing to accept the lowest fixed payment in exchange for the desired floating payment. If an Agency is offering to pay a floating rate and receive a fixed rate, the winning bidder will be that conforming bidder which is willing to pay the highest fixed rate in exchange for receiving the floating payment. Often, dealers will submit conditions with their bids. In these instances, the Agency and its financing team must evaluate the conditions of each bid to determine if it still conforms to the terms of the bid process.

Once a winning Provider has been selected, the Provider offers draft documents detailing the terms and conditions of the swap (see Chapter Nine for an overview of swap documentation). The Agency and its financing team then review the draft documents and negotiate any specific terms that they might find objectionable or absent from the documents. Once these negotiations are complete, the Agency and the Provider will execute the swap documents and the exchange of payments will commence as prescribed.

Negotiated Bid

As with a negotiated sale of bonds, where an Agency negotiates the debt structure and cost with an underwriter, an Agency can select a single swap dealer (or limited group of dealers) with which it can negotiate the terms of an interest rate swap. The selection of a Provider in a negotiated swap transaction is usually based on a number of factors including past relationships, special expertise, experience, size and overall

capabilities, creditworthiness, innovative ideas, fees, etc. An Agency should consider all of these factors prior to selecting the Provider in a negotiated swap transaction.

Typically, an Agency will utilize an interest rate swap in connection with a debt financing. In such cases, the Agency often selects its senior bond underwriter as the designated Provider. The senior underwriter structures the swap as an integrated part of the overall financing plan, and collects a fee for its usual underwriting and structuring services, while also being compensated for its principal position as the Provider.

Once financing and swap structures have been settled upon, the Agency and its underwriter will set a pricing date on which the bonds and the swap will be priced. The underwriter, acting as the swap dealer, will offer the Agency the swap at a price that it deems to be fair market.

Once the Agency has accepted an offer for the swap pricing, the underwriter provides draft documents setting forth the terms and conditions of the swap. After reviewing these documents and negotiating the final terms, the Agency and underwriter execute the final documents and the swap commences.

Pricing and the Swap Advisor

As mentioned previously, a recently emerging role in the public finance industry has been that of the Swap Advisor. Given the complexities and nuances of the swap market, many Agencies have elected to utilize the specialized skills and capabilities of a Swap Advisor whose responsibilities can include a wide range of services, such as policy development, transaction structuring, pricing negotiations, document review, competitive bidding, pricing certification, and ongoing monitoring.

Of all the elements to a swap transaction that these services address, perhaps the most important is pricing. While transparency in the pricing of vanilla swap transactions has improved significantly, the pricing on transactions that include more exotic elements can differ significantly from one swap dealer to another. In order

for an Agency to be secure that it is entering into a swap at a fair market price, it is important that some criteria or process for establishing the fair market price for its swap be in place. In addition to using publicly available or subscription-based pricing data (e.g., Bloomberg), a Swap Advisor will monitor the prospective Providers' pre-trade date pricing indications and then advise the Agency on final pricing.

Also, post-trade, Agencies will generally need ongoing pricing updates ("marked-to-market") on existing swap transactions for accounting purposes (see Chapter Ten regarding Accounting).

Swap Policies

It is increasingly considered prudent financial management for governmental entities considering the use of an interest rate swap to put into place a written swap policy. Such a policy should be approved by the entity's governing body and clearly address the following:

(1) the entity's rationale for utilizing interest rate swaps

(2) permitted instruments

(3) approved transaction types

(4) risk and benefit analysis procedures

(5) procurement and execution procedures

(6) counterparty eligibility requirements

(7) collateral requirements

(8) documentation requirements

A Swap Advisor and legal counsel expert in swap transactions can assist in the development and implementation of swap policies.

CHAPTER SEVEN

Legal Issues

Public agencies, unlike other entities, are characterized by limited powers and compartmentalized revenues and obligations. State constitutions and statutes can raise challenging issues and care must be exercised in the integration of swaps with an Agency's other obligations, in particular the Agency's debt.

Legal Issues:

- Authority to Enter Into Swaps
- Sources of Payment and Security
- Integration with Bond Documents

Legal Authority

In states, or for particular entities, that do not have legislation granting express authority to enter into swap agreements, an Agency's authority to enter into a swap must be derived from that Agency's general power to enter into contracts in furtherance of its governmental purposes. Often the particular statute authorizing the related bonds may also authorize other actions necessary or appropriate in connection with issuing the bonds.

A number of states, however, do have statutes expressly authorizing public agencies (or certain types of public agencies) to enter into swaps and similar transactions. Such statutes often impose procedural requirements. Public agencies may, for example, only enter into swaps following a determination by the Agency's governing body that the proposed swap is designed to achieve one of the purposes specified in the authorizing statute (e.g., reducing interest rate risk, lowering the cost of borrowing, enhancing the relationship between risk and return on investments). Some states require Providers to satisfy various credit criteria.

Constitutional Issues

In addition to concerns about legal authority to enter into swaps, constitutional issues may arise as well. For example, in the case of public agencies subject to constitutional debt limits, when the Agency's obligations under a swap are payable from the Agency's general fund, as distinguished from enterprise revenues, such obligations might qualify for the broadly recognized special fund exception to the debt limit. Interest rate swaps are unique. They are unlike debts, investments, insurance, or anything else, and there is very little case law analyzing how swaps, or certain swap features (such as an obligation to pay a termination payment) are to be treated for such legal purposes. Counsel asked to opine that a particular swap is not a prohibited indebtedness must evaluate carefully both the particulars and the overall economic substance of the transaction and in some cases may require structural changes to certain swap provisions (e.g., eliminating or qualifying the Agency's obligation to make a termination payment to a defaulting Provider or subjecting the Agency's payment obligation to an appropriation contingency). In most cases, however, state constitutional debt limitation issues have a greater effect on the swap opinion than on the swap itself.

Sources of Payment and Security

It is common and generally appropriate for an Agency's obligations under a swap agreement to be payable from the same source as the debt or asset to which the swap relates. If a swap is entered into in connection with an Agency's general fund debt or with respect to the investment of general fund assets, for example, the Agency's obligations on the swap are usually payable out of the Agency's general fund. If the swap is entered into in connection with debt issued under an Agency's master trust indenture, it is appropriate for the Agency's obligations on the swap to be secured by such master indenture; and if a swap is entered into in connection

with the debt or investments of an Agency's enterprise fund, the Agency's obligations on the swap would normally be payable solely out of the revenues of such enterprise. Swap documents should limit the Agency's obligations accordingly. Similarly, cross-default and credit events (usually included in termination events) should be limited to the same source of funds.

Further, with respect to swap obligations payable from enterprise revenues, the priority of payment versus other obligations payable from such revenues must be specified. Often revenues have been pledged to secure bonds and the swap either cannot qualify as a parity obligation or it is not desirable to treat it under the additional indebtedness or rate covenant tests. Accordingly, many swaps are secured by and payable from revenues on a subordinate basis to the bonds. Many modern indentures specifically contemplate parity swaps. However, even in those cases, because a termination payment on a swap could be a significant lump sum and could distort debt service coverage ratios, and even the ability to pay debt service on the bonds, it is common for termination payments on a swap to be payable on a basis subordinate to the payment of regular swap payments and enterprise revenue debt.

Integration with Bond Documents

Provisions relative to payments and receipts on swaps entered into in connection with bonds or other debt obligations should be integrated into the bond documents. This is of particular importance if the intention is to produce synthetic fixed rate debt by combining a swap with variable rate debt (see Chapter Three for Floating to Fixed Rate Swap). An indenture executed and delivered in anticipation of a swap should provide for regular swap payments on a parity with debt and should treat amounts received on swaps as a reduction in debt service (as opposed to an addition to revenues). Otherwise, debt service coverage calculations will not reflect the integration accurately.

Bankruptcy

Should the Provider go into bankruptcy, or become the subject of some other type of insolvency proceeding, the Agency may face a number of different risks. The Provider may be able to repudiate the swap and refuse to perform further. The Provider may have a period of time in which to decide whether or not it wants to continue to perform, and it may be able to suspend its performance while it makes that decision. The Provider may be able to transfer the swap to another Provider without the consent of the Agency, even if the transfer is in violation of the terms of the swap. In addition, the Agency may be required to continue performing under the swap even though the Provider is not required to do so. The netting provisions of the swap may not be enforceable. The Agency may be required to return all payments that it has received under the swap for a specified period of time prior to the bankruptcy or insolvency; such period may be as long as one year. The Agency may be required to return the collateral that secures the swap. The Agency may be unable to foreclose on any collateral securing the swap without court permission, and the court is not required to give its permission. Similarly, the Agency may be unable to take any other action to enforce the provisions of the swap without court permission. The Agency may not be able to terminate the swap, even if the swap provides that it can be terminated upon the bankruptcy or insolvency of the Provider. There are a number of other possible risks associated with the bankruptcy or insolvency of a Provider and the bankruptcy and insolvency risks that are present in any swap will depend on the specific facts of the transaction. As a result, an Agency that has concerns about bankruptcy and insolvency issues should consult with counsel experienced in this area.

CHAPTER EIGHT

Tax Issues

A swap entered into in connection with an issue of tax-exempt bonds may impact certain tax matters relating to those bonds. Specifically, the nature of the swap structure will determine if the Agency may or must take into account the payments under the swap in its determination of arbitrage rebate liability in connection with the bonds.

Section 103 of the Internal Revenue Code of 1986 (the "Code") provides generally that income on a state or local government bond is exempt from gross income for federal tax purposes so long as, among other things, the bond in question is not an "arbitrage bond" within the meaning of Section 148 of the Code. An arbitrage bond is generally defined by the Code as "any bond issued as part of an issue any portion of the proceeds of which are reasonably expected (at the time of issuance of the bond) to be used directly or indirectly to acquire higher yielding investments ...." Therefore, the relevant benchmark in determining whether a bond is an arbitrage bond is the yield on the bond.

The Treasury Regulations under Section 148 of the Code (the "Treasury Regulations") provide detailed rules for determining the yield on an issue of bonds, whether fixed or variable rate. In determining that yield, the Agency is permitted to take into account certain payments associated with a "qualified hedge." A hedge is a contract entered into primarily to modify the Agency's risk of interest rate changes, such as an interest rate swap contract.

Amounts paid or received by an Agency pursuant to a swap contract which meets the definition of a qualified hedge have the effect of increasing or decreasing, respectively, the yield on the bonds, and accordingly will impact the Agency's potential

arbitrage rebate liability and yield restriction limitations. Amounts paid by an Agency pursuant to such a swap contract will permit the Agency to invest the proceeds of the bonds at a higher return. Conversely, amounts received by an Agency will lower the rate of return an issuer may earn on investments made with bond proceeds.

Qualified Hedges – Regular Integration

For an issuer of bonds to take into account (or "integrate") payments made or received on a swap in the determination of bond yield, the swap must meet the definition of a qualified hedge set forth in the Treasury Regulations. In order to meet the definition of a qualified hedge, the following factors must be satisfied:

Interest Rate Hedge. The swap contract must be entered into primarily to modify the Agency's risk of interest rate changes with respect to a bond.

No Significant Investment Element. The swap contract must not contain a significant investment element. Generally, a swap contract contains a significant investment element if a significant portion of any payment by one party relates to a conditional or unconditional obligation by the other party to make a payment on a different date. For example, a swap contract requiring any payments other than periodic payments (such as a payment for an off-market swap), or an interest rate cap which calls for the Agency to pay an up-front premium, might be determined to have a significant investment element. If a single payment for an off-market swap is made by the Provider to the Agency, however, the Agency may still treat the swap as a qualified hedge if: (i) the Provider's payment to the Agency and the Agency's payments under the swap in excess of those that the Agency would make if the swap bore an on-market rate are separately identified in a certification of the Provider, and (ii) the payments described in (i) are not treated as payments on the swap.

Hedge Features to Achieve Integration:

- Interest Rate Hedge
- No Significant Investment Element
- Unrelated Parties
- Contract Covers Substantially Identical Bonds
- Interest-Based Contract
- Payments Closely Correspond
- Same Source of Payments
- Hedge Must be Identified

Unrelated Parties. The Agency and the Provider must be unrelated parties.

Contract Covers Substantially Identical Bonds. The swap contract must cover, in whole or in part, all of one or more groups of substantially identical bonds of the issue. For example, the contract may cover all of the fixed rate bonds having the same interest rate, maturity, and terms. The contract may also cover a pro-rata portion of each interest payment on a variable rate bond issue. This somewhat formalistic requirement necessitates special drafting when an Agency wishes to hedge only part of its interest rate risk on particular maturities.

In addition, the issue of bonds resulting after all payments pursuant to the swap contract are taken into account must also have terms substantially similar to a bond described in the Treasury Regulations. In the context of variable rate debt instruments, Agencies are generally comfortable that the terms of the resulting bonds satisfy this requirement if the variable interest rate on the swap is within, or would be within, 25 basis points (.25%) of the hedged bonds if otherwise issued as variable rate bonds.

Interest-Based Contract. The contract must be primarily interest-based. That is to say, the hedged bonds must, without regard to the swap contract, be either fixed rate bonds or one of several variable rate debt instruments described in the Treasury Regulations. In addition, after all payments pursuant to the swap contract are taken into account as additional payments on the hedged bonds, the terms of the resulting bonds must be substantially similar to a bond described in the preceding sentence. Generally, issuers are comfortable that the terms of the resulting bonds are similar to a variable rate debt instrument if the variable interest rate on the swap and the interest rate on the hedged bonds are or would be within 25 basis points (.25%) of each other on the date the swap contract is entered into.

Payments Closely Correspond. The payments received by the Agency from the Provider must correspond closely in time to either the specific payments being hedged on the hedged bonds, or specific payments required to be made pursuant to the bond documents, irrespective of the hedge. These payments might include payments to a sinking fund, debt service fund or similar fund maintained for the issue of which the hedged bond is a part.

Same Source of Payments. Payments by the Agency to the Provider must be reasonably expected to be made from the same source of funds that, absent the swap, would be reasonably expected to be used to pay principal of and interest on the hedged bonds.

Hedge Must be Identified. While a qualified hedge may be entered into by either the actual issuer of the bonds or a conduit borrower, the actual issuer must identify the hedge on its books and records maintained for the hedged bonds not later than three days after the date on which the hedge contract is entered into. The identification must contain sufficient detail to establish that the requirements of a qualified hedge have been satisfied and must specify the Provider, the terms of the swap, and the hedged bonds. In addition, the hedge transaction must be noted on the first form relating to the issue of which the hedged bonds are a part that is filed with the Internal Revenue Service (i.e., the form 8038 or 8038–G submitted in connection with the issuance of the bonds).

If a swap satisfies all eight of the criteria listed above, the swap is treated as a qualified hedge, and accordingly payments made or received by the Agency under the swap are included in the determination of yield on the bonds. A swap satisfying the definition of a qualified hedge in the Treasury Regulations is terminated upon the sale or disposition of the swap by the Agency, when the Agency acquires an offsetting swap, when the bonds subject to the swap contract are redeemed, or when the swap ceases to be a qualified hedge as discussed above. Upon the termination of a swap that is a qualified hedge, the Agency must treat any payments received or paid in connection with the termination as payments made or received on the hedged bonds for purposes of determining bond yield. If such payments are made by the Agency, bond yield will be increased; and if such payments are received by the Agency, bond yield will be decreased.

Qualified Hedges – Superintegration

Certain qualified hedges relating to floating-to-fixed rate swaps have been accorded unique tax treatment – although variable rate bonds, the yield on the variable rate bonds will be treated as a fixed rate yield. While regular integration calls for the inclusion of payments made or received on a swap in the determination of bond yield, in these certain cases the bond yield is simply the stated fixed rate of the swap.

These swaps are often referred to as "superintegrated swaps." Superintegrated swaps, and the accompanying ability to treat a variable rate bond issue as a synthetic fixed rate issue, offer several advantages over the normal qualified hedge rules set forth above.

Because the yield on a fixed rate issue does not change, an Agency may more effectively plan its investment of bond proceeds, making certain that the yield on its investments does not violate applicable arbitrage restrictions. An issuer of bonds seeking to advance refund (i.e., use the proceeds of a refunding bond issue to refund bonds more than 90 days from the date of issue of the refunding bonds) an older issue of bonds, where the proceeds of the refunding bonds are invested in an escrow for a long period of time until the prior bonds can be refunded, will desire certainty that the yield on the investments in the refunding escrow does not exceed applicable arbitrage yield restrictions on the refunding bonds. This certainty results from being able to disregard any differences (so-called basis differences) between the variable rate on the bonds and the variable rate on the swap.

Finally, because the yield on a fixed yield bond issue is calculated only once, on the issue date, where true fixed rate bonds and synthetic fixed rate bonds are combined in a single bond issue, the yield on a synthetic fixed rate issue will usually be higher during initial computation periods than the yield on a similar variable rate issue. This

is because the higher yielding, longer term bonds will have a greater effect in the fixed yield calculation, as compared to the more limited effect those longer term, higher yielding bonds would have in initial computation periods in a variable yield calculation.

In order to qualify as a superintegrated hedge, the swap contract must meet the rules set forth above, as well as the following:

Maturity. The term of the swap contract must be equal to the entire period during which the hedged bonds bear a variable rate of interest, and the Agency must reasonably expect that the swap contract will not be terminated before the end of that period.

Additional Hedge Features to Achieve Super-Integration:

- Maturity
- Payments Closely Correspond in Time
- Aggregate Payments Fixed

Payments Closely Correspond in Time. Payments to be received by the Agency or the Provider under the swap contract must correspond closely in time to the hedged portion of payments on the hedged bonds. According to the Treasury Regulations, payments received within 15 days of the related payments on the hedged bonds generally correspond closely.

Aggregate Payments Fixed. After taking into account all payments made and received under the swap contract, the Agency's aggregate payments must be "fixed and determinable" as of no later than 15 days after the issue date of the bonds. Payments on the bonds are treated as fixed if: (i) payments on the bonds are based on one interest rate, (ii) payments received on the swap are based on a second interest rate that is substantially the same as, but not identical to, the first interest rate, and (iii) payments on the bonds would be fixed if the two rates were identical. For example, the BMA Index is likely to be substantially the same as an Agency's individual 7-day interest rate, and a swap whereby the Provider is required to make payments to the Agency based on the BMA Index (possibly increased or decreased by an appropriate spread) should be eligible for superintegration. A more thorough analysis would need to be undertaken, however, to determine whether a swap under which the Provider is required to make payments to the Agency based on an index

which is not a tax-exempt variable rate index (such as a % of LIBOR chosen to approximate the BMA rate) may be eligible for superintegration.

For accounting purposes, the interest payments an Agency makes on the hedged bonds are treated as equal to the payments received by the Agency under the superintegrated swap when calculating the yield on the hedged bonds. Accordingly, the only payments taken into account in calculating the yield on the hedged bonds are the payments the Agency makes under the superintegrated swap.

If an Agency terminates a superintegrated swap within five years of the date of issue of the bonds, the Agency must recompute the yield on the bonds as if the bonds were originally issued as a variable rate issue. If the swap is terminated after five years of the date of issue of the bonds, the issue of which the hedged bonds are a part is treated as if it were reissued as of the termination date of the swap for purposes of calculating the arbitrage yield on the bonds.

The deemed reissuance or recomputation of arbitrage yield due to the termination of a superintegrated swap is only applicable for purposes of the arbitrage rebate rules and does not apply to the rules with respect to yield restrictions set forth in Section 148 of the Code. This distinction is most relevant in the context of an advance refunding escrow; if the termination of a swap results in a recomputed arbitrage yield which is lower than the escrow yield, this presents only a potentially positive arbitrage rebate liability and not a yield restriction violation.

Anticipatory Swaps

Often, an Agency will want to enter into a swap prior to the issue date of its bonds in an effort to, among other things, hedge against interest rate fluctuations prior to the bond issuance. This is called an "anticipatory hedge." The Treasury Regulations divide anticipatory swaps into two categories: (i) swaps expected to be terminated upon the issuance of the bonds, and (ii) swaps not expected to be terminated upon the issuance of the bonds.

Swaps expected to be terminated upon the issuance of the bonds.

For swaps expected to be terminated substantially contemporaneously with the issuance of the bonds, the amount paid or received, or deemed to be paid or received, by the Agency to terminate the contract is treated as an adjustment to the issue price and proceeds, respectively, of the bonds. Special rules apply if the swap is not actually terminated substantially contemporaneously with the issue date of the hedged bonds.

Swaps not expected to terminate upon the issuance of the bonds.

For swaps not expected to terminate upon the issuance of the bonds, the Agency does not take into account payments made or received before the issuance of the bonds, but will take into account the payments made after the issue date. Special rules apply if the swap is, in fact, terminated in connection with the issuance of the hedged bond.

Anticipatory hedges must, within 30 days of the date the hedge contract is entered into, meet the identification requirement set forth above and must specify the reasonably expected governmental purpose, issue price, maturity and issue date of the hedged bond, the manner in which interest is reasonably expected to be computed on the hedged bond, and whether the swap is expected to terminate upon issuance of the hedged bonds.

CHAPTER NINE

Documentation and Negotiation

Documentation

Swap agreements are generally based on the ISDA (International Swaps and Derivatives Association, Inc.) Master Agreement, which was developed with the hope of creating uniformity within the market. The Master Agreement itself is a pre-printed form, and is accompanied by a Schedule and, if applicable, a Credit Support Annex. The Schedule designates the parties' elections among options presented in the Master Agreement, amends Master Agreement provisions as negotiated by the parties, and addresses additional deal terms not covered by the Master Agreement. The Credit Support Annex, when present, details collateralization requirements, terms and mechanics. A Confirmation, detailing the terms of that particular transaction, is entered into in connection with each trade. An overview of each of these documents required in a swap agreement is outlined below.

- ISDA Master Agreement – the standardized master legal agreement for all derivative transactions between the Agency and a Provider that states standardized definitions, terms and representations governing the swap transaction(s).
- Schedule to the Master Agreement – schedule amending or supplementing the ISDA Master Agreement in order to set out the specific business terms and conditions governing the transaction(s) executed under the agreement.
- Credit Support Annex – document governed by the ISDA Master Agreement which states the provisions regarding the mutual posting of collateral, if required, under the ISDA Schedule to the Master Agreement. The need to post collateral is triggered by designated events (e.g., if the credit rating of one party drops below an agreed upon rating level, or if the market value of the swap exceeds a threshold for a given rating level of either the Agency or the Provider).

- Confirmation – document governed by the ISDA Master Agreement that is executed for an individual transaction, itemizing the specific terms and conditions for that particular transaction. Each Confirmation contains the pricing terms of the particular swap transaction (e.g., fixed or variable rate, Notional Amount and amortization, termination options) and is executed by the parties at the time of the trade.

The Master Agreement, Schedule, and Credit Support Annex are designed to apply to all of a series of swaps entered into between the parties.

Swap documentation can be difficult to read and understand because the basic documentation forms do not address precisely the legal and business issues particular to public agencies and tend to be oriented toward the Provider. Additionally, swap documentation can cover termination event/payment and other real financial risks to the Agency, which can be narrowed or eliminated through careful negotiation. It is, therefore, essential that an Agency considering a swap take it as seriously as the issuance of bonds and be assisted by legal and financial advisors experienced with municipal swaps.

Major Points of Negotiation

As with any negotiated contract, understanding the needs and perspectives of the other party, as well as one's own, is essential to reaching a mutually satisfying outcome. The process of such negotiations will reflect the relative values assigned by each party to various structures, with the optimal result that the needs of both parties are addressed. Because the early termination of a swap can have a significant adverse impact and because various dispute resolution approaches are unsuitable for governmental agencies, termination, credit, and dispute resolution issues, for example, are usually diligently negotiated. The following is a brief list of some of the points that are often subject to negotiation.

Termination and Credit Related Points

Downgrade Termination. Swap agreements generally allow one party to terminate the swap at its market value if the other party's long-term, unsecured debt rating falls below a given level. This provision allows the non-downgraded party an opportunity to exit the swap and eliminate its credit exposure to the downgraded party. The threshold level can vary (below A-/A3 and below BBB/Baa3 are common).

Cross-Default Termination. Swap agreements generally allow one party to terminate the swap at its market value if the other party defaults on other obligations of particular types ("Specified Indebtedness") above a specified size (the "Threshold Amount"). Specified Indebtedness should be limited to obligations germane to the sources from which the Agency is obligated to make payments on the swap. The Specified Indebtedness and Threshold Amount should reflect an order of magnitude indicating significant financial difficulty in the case of default. It is, therefore, not uncommon for the Threshold Amount for the Provider (generally a large financial institution) to be significantly greater than the Threshold Amount for the Agency.

Incorporation of Bond Documents. Swap agreements generally incorporate provisions of the indenture or other documents pursuant to which the related bonds are issued or secured. This is appropriate to the extent that the incorporated provisions are important in securing the Agency's obligations under the swaps. However, since any default of an incorporated provision is typically a termination event under the swap, many provisions of the indenture or other documents (like accounting, notices filings, maintenance, covenants) are not appropriate for incorporation.

Incipient Illegality. Swap agreements may contain provisions allowing the Provider to terminate the swap upon the occurrence of an "incipient illegality" (e.g., introduction or enactment of legislation, a public declaration by the Agency, etc. challenging the validity of swaps similar to the Agency's swap). The rationale is that if an event occurs that would make the swap agreement invalid, or would assert that the swap agreement is not a valid obligation of an Agency, the Provider should be

empowered to take action before such illegality is in fact formalized. The Agency must be certain that the definition of incipient illegality is not so broad as to result in an unwarranted termination of the swap. Thus, events such as a public official expressing his or her views about swaps in negative terms, the introduction of resolutions or legislation that are never implemented and would probably not affect existing swaps in any event, or even judicial cases finding a swap to be invalid in an unrelated setting, should not be allowed to cause termination due to an overinclusive definition of incipient illegality.

One-way termination; two-way termination. Two-way termination (non-defaulting party required to pay defaulting party on termination if non-defaulting party is out of the money) is the norm for swap transactions, but, since for a public agency the prospect of an obligation to make a potentially very large unexpected payment to a defaulting Provider can be politically unpalatable, an Agency may wish to consider "one-way termination" (only a defaulting party is obligated to pay a termination payment).

Collateralization. Swap agreements may require a party that is out of the money above a certain threshold to post collateral or provide for collateralization as an alternative to termination for credit downgrade. Points of negotiation include the thresholds at which collateralization will be required (which generally depend upon the long-term, unsecured debt rating of the party at the time), the types of collateral permitted, the level of collateralization, and the frequency of valuation. An obligation to post collateral may present significant financial, and in some cases legal, difficulties for a governmental agency.

Set-off. A "set-off" provision enables a party that is entitled to a payment under the agreement (e.g., a termination payment) to satisfy that obligation by reducing the amount it owes the other party in another transaction. Accordingly, set-off is a way to manage credit exposure. Set-off would allow a Provider to debit any deposit accounts the Agency has with the Provider or an affiliate of the Provider to satisfy amounts payable to the Provider. For public agencies, for whom moneys are not necessarily interchangeable, a set-off provision can complicate the Agency's other business dealings with the Provider.

Term Out. A "term out" provision allows the Agency to make payments over time for any amount it may be required to pay upon termination of a swap.

Optional Termination. An Agency should have the right to optionally terminate a swap at market at any time. The particular mechanics, though, can be the subject of further negotiation. Typically, Providers can unilaterally terminate the swap agreement only upon the occurrence of Agency downgrade or default.

Transfer or Assignment. The parties' ability to assign their rights and obligations under a swap (e.g., to an affiliate, to another bond indenture) are often heavily negotiated since an assignment can have major credit implications.

Swap Insurance. Swap insurance provides that the Agency's payment obligations under the swap are insured. The terms of such insurance are fairly standardized, however, the presence of swap insurance can have a significant impact on negotiations relating to other credit related points described above.

Dispute Resolution Points

Settlement Amount Calculations. When a swap terminates at market, the market value (i.e., the settlement amount) must be determined. The methodology for such determination (e.g., "market quotation" vs. "firm bid") and identification of the party entitled to manage the process should be described in the swap agreement.

Choice of Governing Law. Providers uniformly ask that swap agreements be governed by New York law. Providers wish to reduce uncertainty by having their agreements governed by a single jurisdiction's law to the extent possible, and New York has the most developed body of law relating to sophisticated financial transactions. The Agency may request that issues relating to its power and authority to enter into the swap be governed by the laws of its home jurisdiction.

Jurisdiction and Venue. Each party would prefer that any dispute arising under a swap agreement be resolved in its local courts. Silence on this matter or mutual, non-exclusive jurisdiction are often acceptable compromises.

Jury Trial Waiver. Waiver of jury trial is a common provision in sophisticated financial transactions. Some Agencies, however, have a firm policy against such waiver, and in some jurisdictions a jury trial waiver may not be enforceable.

Waiver of Sovereign Immunity. Agreements often purport to have the Agency waive sovereign immunity. As a general matter, the exercise of remedies against public agencies is governed by state statute, such that procedural and substantive requirements cannot be waived by contract. A representation that remedies are available should be sufficient.

CHAPTER TEN

After the Close: Post-Trade Management

From hedging interest rate risks to lowering borrowing costs to introducing flexibility into an Agency's overall debt management strategy, the economic motivations for developing and implementing a comprehensive swap strategy are clear. Part of such a strategy should be well conceived plans for (i) monitoring the performance and effectiveness of the swap, (ii) accounting for a changing valuation and position of the swap, and (iii) periodically disclosing consistently the associated terms and risks.

Financial Management

When initially structured, a given swap will contain a stated termination date. This is the date through which the swap will remain in effect in the absence of any voluntary or involuntary termination under the swap documents. However, an Agency should not simply assume that all will go as planned, or that the scheduled termination date will or should be reached. Rather, procedures should be in place to monitor the potential advantages of a negotiated (voluntary) termination, and to monitor the risks and consequences of any other kind of early termination.

It is important that an Agency that makes use of swap structures have a strategy in place for monitoring changes in the interest rate environment. Changing market conditions will impact the effectiveness and value of a swap, and may even create opportunities for terminations or restructurings with substantial payments to the Agency from the Provider or with terms more favorable to the Agency. As with other

financing structures, swaps are very sensitive to changing market conditions and a successful swap strategy should allow for quick action to take advantage of favorable market conditions while those conditions still exist.

Two other examples of options that may present themselves given interest rate environments different from those at the time a swap commenced, are (i) reversing or layering an offsetting swap on top of an existing swap and (ii) changing the underlying basis or index of an existing swap. In both examples, the Agency that is prudently monitoring existing swap positions may be able to either realize substantial monetary gains or improve the economics of their original swap.

Risk Monitoring

In addition to monitoring for financial strategy and planning reasons, an Agency should also monitor changing business risks, such as those outlined in Chapter Five. While each of those risks is considered at the time a swap is structured, changes in market conditions, counterparty creditworthiness, and even the tax and regulatory environments might effect a change in how the Agency values and accounts for the swap. In the case of counterparty solvency, it is important that the Agency develops a plan of action in the case of downgrade or other rating triggers or, in the extreme, an event calling for an early termination of the swap. Similarly, the Agency may have its own obligations if its ratings are downgraded or it suffers other changes to its financial condition. Markets and circumstances can change rapidly, and it can be costly for an Agency to be caught reacting to changes after they occur (even if they effect directly only the Provider) without monitoring procedures and plans in place.

Accounting and Disclosure

Before the introduction of FASB 133 ("Accounting for Derivative Instruments and Hedging Activities") and GASB Technical Bulletin No. 2003–1 ("Disclosure Requirements for Derivatives Not Reported at Fair Value on the Statement of Net

Assets"), swaps were off-balance-sheet transactions and there was very little consistency regarding how swaps were accounted for or reflected in financial statements, if recognized at all. With the introduction of FASB 133 and GASB Technical Bulletin No. 2003–1, an Agency using swaps in connection with the issuance of tax exempt debt should be aware of the additional accounting and disclosure requirements for swaps and the potential impact on its balance sheet. Unlike in the case of accounting for traditional outstanding bonds, an Agency using swaps must generally account for and reflect the performance of its swap portfolio in its financial statements.

Under FASB 133, Agencies reporting financial results under FASB guidelines must report payments made and received under a swap with interest expense on the balance sheet. Furthermore, all swaps must be recorded as assets or liabilities (depending on whether the swap is in a gain or loss position) at fair market value. Unrealized gains or losses for a given period must be reflected in the earnings for that period. In volatile environments, this can result in large differences from one period to the next. There may be an opportunity, however, if a given swap qualifies as a "cash flow hedge," for the Agency to make use of hedge accounting, thus reducing some of the impact of changes in unrealized gains and losses on earnings statements. An Agency desiring to make use of such hedge accounting should be certain to consult with the proper experts before entering into a swap agreement so as to be sure the swap meets the necessary requirements.

For Agencies reporting under the guidance of GASB, GASB Technical Bulletin No. 2003–1 outlines a number of items which should be disclosed in the financial statement notes for swaps not reported at fair market value on the balance sheet on a given reporting date:

Objective – The Agency should disclose its objectives in entering into the swap, and its strategies in achieving those objectives. Also to be disclosed is the broader context leading to the development of those objectives.

Significant Terms – The Agency should disclose significant terms of the swap, such as Notional Amount, interest rates, other financial terms and options, the effective date, and scheduled termination date.

Fair Value – The Agency should disclose the fair market value of the swap, as well as the methodology for determining that value.

Risks (e.g., basis, termination) – The Agency should disclose its updated exposure to various risks through use of the swap, including those outlined in Chapter Five, as well as changing interest rate risks and market access risk.

Associated Debt – In the case that the swap is associated with an underlying debt obligation, the net cash flow of the swap should be disclosed along with the requirements of the underlying debt.

Swaps may have a significant impact on an Agency's overall financial position and may present risks material to the holder or purchasers of an Agency's bonds. An Agency must take care, therefore, to insure that its swaps and attendant risks are adequately disclosed in official statements and continuing disclosure reports. In order to comply with their financial reporting obligations, Agencies need to have in place a mechanism to periodically value (mark-to-market) swaps for annual and internal account purposes, in addition to the other purposes set out in this Chapter Ten.

GLOSSARY OF KEY TERMS

Agencies—For the purposes of this booklet, issuers of tax-exempt debt and other entities that have access to the municipal capital markets.

Arbitrage—For federal tax law purposes, the resulting dollar amount, positive or negative, generated by an Agency investing tax-exempt bond proceeds at interest rates above (positive arbitrage) or below (negative arbitrage) the rate an Agency is paying on an issue of tax-exempt debt obligations (see arbitrage yield).

Arbitrage Yield—For federal tax law purposes, the yield on an issue of tax-exempt debt obligations used to calculate the amount of arbitrage earned, positive or negative, by an Agency.

Assignment—The transfer of a party's rights and obligations under a swap to another party.

Basis Risk—The risk of a mismatch between an Agency's floating rate receipt (or payment) on a swap and its floating rate payment (or receipt) on the underlying debt (or asset) as a result of different indices or terms being used to determine payments and receipts.

Basis Spread—The difference in interest rates between an Agency's floating rate received (or paid) on a swap and its floating rate paid (or received) on the underlying debt (or asset), which results from different indices or terms being used to determine payments and receipts.

Basis Swap—A floating-to-floating rate swap in which one variable rate index is swapped for another; commonly used to modify basis risk.

Bid Date—In a competitive bid transaction, the date on which swap Providers submit bids and the swap entered into with the winning Provider is priced.

Bid Package—Documentation package distributed by or on behalf of an Agency to qualified Providers, detailing the terms and structure of the swap desired by the Agency, which the Providers will use to formulate their bid on the scheduled bid date.

BMA Index—The BMA Municipal Swap Index (formerly the PSA Municipal Swap Index), is the principal benchmark for the floating rate interest payments for tax-exempt issuers. The BMA Index is a national rate based on a market basket of (approximately 250) high-grade, seven-day tax-exempt variable rate demand obligation issues of $10 million or more.

Cap—A financial contract under which the Provider, in exchange for charging a set premium, will make payments to the Agency whenever and to the extent the interest rate on the Underlying exceeds a specified strike rate, also known as the cap rate.

Change in Tax Law Risk—The risk that there will be an unanticipated structural change to current tax laws, which would impact the spread between tax-exempt and taxable rates.

Collar—A combination of an interest rate cap and an interest rate floor.

Collateralization Risk—Risk that the circumstances under which an Agency would have to post collateral pursuant to certain swap agreement provisions will arise in the future.

Competitive Bid—Process of entering into a swap agreement where interested swap Providers submit bids to the Agency on a specified date, and the swap is entered into with the winning Provider; usually the Provider offering the interest rate terms most favorable to the Agency.

Confirmation—Document governed by the ISDA Master Agreement that is executed for an individual transaction, itemizing the specific terms and conditions for that particular transaction.

Cost of Funds—Refers to an Agency's actual interest rate cost on its debt obligations, which may or may not include carrying costs such as remarketing fees, liquidity fees, letter of credit fees, etc., that is sometimes used as the Underlying in a swap transaction.

Cost of Funds Swap—A swap under which the Floating Leg receipts match the interest payments due on the underlying debt exactly.

Counterparty—A party in a swap transaction. From an Agency's perspective, this is synonymous with Provider.

Counterparty Credit Risk—The risk that a party to a swap will not be able to meet all of its financial obligations under the swap.

Credit Penalty—The additional requirements (e.g., a higher interest rate, additional insurance, etc.) of a party to a swap imposed due to that party's lower credit rating.

Credit Support—Collateral that can be in the form of cash and/or marketable securities posted by one party to a swap agreement to reduce the credit exposure of its counterparty. See also Swap Insurance.

Credit Support Annex—Document governed by the ISDA Master Agreement which states the provisions and circumstances under which posting of collateral is required.

Cross-Default Termination—The ability of one party to terminate the swap at its market value if the other party defaults on other obligations of particular types.

Downgrade Termination—Provision in some swap agreements allowing one party to terminate the swap at its market value if the other party's long-term, unsecured debt rating falls below a given level.

Effective Date—The first date on which payment obligations begin to accrue, including the date any upfront payment is exchanged. In the case of a forward swap, payment accruals may not begin for months or even years into the future. When a swap is entered into in connection with an issue of bonds, the Effective Date is often set to coincide with the issue date of the bonds.

Exercise Period—In an option contract, the period of time in which a party has the right to exercise its option and effect a pre-negotiated transaction.

FASB—Financial Accounting Standards Board.

Fixed Leg—In a swap transaction, the payments made by one party to another based on a pre-determined fixed interest rate.

Fixed Rate Swap—A swap, under which an Agency pays a Provider a fixed rate in exchange for receiving a floating rate; most commonly used to convert variable rate bonds into synthetic fixed rate obligations.

Fixed-to-Floating Rate Swap—See floating rate swap.

Floating Leg—In a swap transaction, the payments made by one party to another based upon a pre-determined floating (variable) rate index.

Floating Rate Swap—A swap, under which an Agency pays a Provider a variable rate and receives a fixed interest rate; usually associated with an issue of fixed rate bonds that an Agency wishes to convert to a synthetic floating rate.

Floating-to-Fixed Rate Swap—See fixed rate swap.

Floor—A financial contract under which an Agency will make a payment to the Provider when the Underlying falls below the pre-determined strike rate, or floor rate.

Forward Rate Curve—The yield curve, as of a future (or forward) date, constructed using currently prevailing rates on instruments settling in the future; commonly used to price many interest rate derivative instruments.

Forward Swap—An interest rate swap under which the accrual and exchange of cash flows commences at a later date, rather than the current date.

GASB—Governmental Accounting Standards Board.

Hedge—A tactic (or a financial product) used to limit potential losses or gains associated with an existing financial position, asset or liability. Also see Perfect Hedge.

In the Money—Refers to a party's financial position if it would be owed a payment by the other party if a swap were terminated at the prevailing market price.

Integration—For tax law purposes, the ability of an issuer of bonds to take into account (or "integrate") payments made or received on a swap in the determination of bond yield.

Interest Rate Risk—The risks associated with changes in interest rates (i.e., the risk that changes in interest rates will adversely effect an Agency's position with respect to borrowing costs, re-investment opportunities, at-market investment termination, etc.)

Interest Rate Swap—A contractual agreement between two parties who agree to exchange certain cash flows, calculated at different interest rates, for a defined period of time.

ISDA—International Swaps and Derivatives Association, Inc.

ISDA Master Agreement—The standardized master legal agreement for all derivative transactions between an Agency and a Provider that states standardized definitions, terms, and representations governing the swap transactions.

LIBOR—London Inter-Bank Offered Rate is the interest rate banks charge each other for short-term money, up to a 12 month term. LIBOR is commonly used as the Underlying for the Floating Leg of a Swap. The British Bankers' Association (BBA) sets the rates daily.

Mark-to-Market—Calculation of the value of a financial instrument (e.g., an interest rate swap) based on the current market rates or prices of the Underlying.

Negotiated Bid—Method of entering into a swap agreement where the terms, including the rates, are negotiated between an Agency and the Provider.

Notional Amount—Similar to bond principal amount; used as the basis to determine the amount of swap interest payments. The Notional Amount will often amortize over time to match the amortization of the bonds to which the swap is related.

Off-Market Swap—A variation of an interest rate swap in which one or both of the referenced rates are priced above or below the market, usually resulting in an up-front payment from one party to the other.

Option Premium—The amount paid by a party in exchange for an option.

Optional Termination—The right of a party to terminate a swap at any time at the prevailing market price. In most swap agreements only the Agency has this right.

Out of the Money—Refers to a party's financial position if it would owe a payment to the other party if a swap were terminated at the prevailing market price.

Perfect Hedge—A hedge that completely eliminates any possible future gain or loss on the hedged asset or liability.

Provider—For the purposes of this booklet, the financial institution that enters into a swap agreement with an Agency, usually a commercial bank, investment bank, or insurance company.

Rate Lock Agreement—An arrangement under which an Agency enters into an agreement with an underwriter to issue fixed rate bonds in the future, at a pre-determined net interest cost.

Schedule to the Master Agreement—Schedule amending or supplementing the ISDA Master Agreement which sets out the specific business terms and conditions governing the transactions executed under the agreement.

Set-off—Swap provision that enables a party that is entitled to a payment under the agreement (e.g., a termination payment) to satisfy that obligation by reducing the amount it owes the other party in another transaction.

Strike Rate—In an interest rate cap or interest rate floor, the pre-determined interest rate that, when reached in the market, automatically triggers a payment under the contract.

Swap Curve—The name given to the swap's equivalent of a yield curve. The swap curve identifies the relationship between swap rates at varying maturities.

Swap Insurance—Insurance policy purchased to guarantee obligations on a swap, which can be underwritten to insure only the regularly scheduled payments under the swap, or also any termination payment that may be required under the swap.

Swaption—A type of swap in which the terms of the swap are agreed to in advance and where one party has the right, but not the obligation, to enter into that swap on a future date or during a specific period.

Synthetic Fixed Rate—The resulting rate an Agency will pay on an issue of variable rate obligations after entering into a floating-to-fixed interest rate swap.

Synthetic Floating Rate—The resulting rate an Agency will pay on an issue of fixed rate obligations after entering into a fixed-to-floating interest rate swap.

Tax Risk—The risk that the spread between taxable and tax-exempt rates will change as a result of changes in income tax laws or other conditions.

Term Out—Provision of a swap agreement that allows the Agency to make payments over time for any amount it may be required to pay upon termination of a swap.

Termination Date—The scheduled maturity date of the swap, when the final payment obligation is made (barring an early termination of the swap). When a swap is entered into in connection with an issue of bonds, the termination date is often set to coincide with the maturity date of the bonds.

Termination Events—Events that allow for the termination of a swap, such as a credit downgrade.

Termination Payment—Payment made from one counterparty to the other if the swap is terminated prior to its scheduled termination date.

Trade Date—The date on which swap terms are set and the agreement is priced; formal documents are sometimes exchanged some time later. Also called the Sale Date.

Underlying—The variable interest rate, security price, commodity price, or index of prices or rates on which the derivative's payments are based. A derivative's payment is based on the interaction of the Underlying and the Notional Amount.

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