Table of Contents

Introduction and Background..........................................................................................2
TIF Financing Methodology..............................................................................................3
TIF Project Examples........................................................................................................22
Conclusion.......................................................................................................................33
Bibliography...................................................................................................................35
INTRODUCTION AND BACKGROUND

Much of the academic research on Tax Increment Financing (TIF) relates to its effectiveness as an economic development tool. While this master’s project acknowledges the importance of this kind of research, the primary intent of this paper is to provide municipalities already committed to using TIF with a description of the basic financing mechanics of TIF, a discussion of the methods for financing TIF deals, and an analysis of the ways municipalities balance the costs and risks of TIF deals. Additionally, research published on methods of financing TIF largely focuses on analysis of investment-grade TIF bond issuances. Little has been written about the growing use of non-rated bonds, developer notes and pay-as-you-go financing. This master’s project intends to build on TIF bond research to make more general conclusions about the tradeoff between the costs and risks of TIF project financing. Therefore, this master’s project seeks to evaluate the following question:

*How do municipalities structure TIF financing deals to optimize the tradeoff between cost and risk?*

This question will be addressed by exploring the following secondary research questions:

1) How do municipalities execute the TIF financing process?
2) What are the major methods of financing TIF project used by major municipalities across the country?
3) What are the major trends in TIF financing structures?

While the origins of Tax Increment Financing (TIF) date back to California in the 1950’s, its widespread popularity among municipalities across the United States as a key economic development tool has skyrocketed in the last two decades. Currently, Arizona is the only state in the country without TIF enabling legislation. The fundamental concept of TIF encompasses the dedication of future gains in the property taxes of a defined geographic area towards reinvestment in economic development projects within that area. This can take many forms, but commonly features an investment in public infrastructure (i.e. utilities, roads) in the TIF zone that incentivizes new private development interest in the zone. It can also involve the provision of funds for land acquisition, affordable housing, environmental remediation, or direct subsidies to fund hard costs for private development projects. Commitment of TIF funds is commonly restricted to development programs that meet one or both of the following stipulations:

1) Blight - The TIF program must be executed in an area that is officially classified as blighted. The definition of blight varies across jurisdiction but encompasses such as things as the prominence of vacant parcels, property deterioration/code violations, environmental degradation, and deleterious land use (CDFA 2007).

2) “But for”- Many states require use of TIF to be restricted to situations in which private development would not occur “but for” TIF assistance. Guidelines assuring a TIF project passes this “but for” test also vary, but it typically involves the determination of a
financial gap between the extent of private development the market can support and what a developer needs to make a project financially feasible.

It is important to note that enabling legislation governing the use of TIF varies considerably across states. This means that the optimal financing structure for a given municipality might not be ideal for another jurisdiction in a state with a different legal framework. Virtually all states restrict the use of TIF to redevelopment of blighted areas. However, the definition of blight and degree to which this limitation is followed in practice is different in every state and can significantly impact the type of projects that can receive TIF financing (Johnson and Kriz, 2001). State laws limiting a municipality’s ability to use non-property tax revenue streams to bolster TIF projects can also have a significant impact on financing methods (Mikesell, 2001). Additionally, states such as California that restrict property value assessment growth may impact the ability of a municipality to mitigate project risk (Johnson and Kriz, 2001). Finally, state regulations governing overlapping jurisdictional priority to TIF revenue streams affect a city’s ability to enhance the attractiveness of TIF projects (Johnson and Kriz, 2001).

TIF FINANCING METHODOLOGY

The Overall TIF Process

The entity that carries out the TIF process is different from jurisdiction to jurisdiction. Some municipalities execute the TIF program through a directly through a planning or economic development department. Others execute TIF programs through a redevelopment authority. Municipalities that use area-wide TIF often create a quasi-governmental TIF jurisdiction that governs the development program and distributes TIF subsidies to projects within the TIF area. Throughout this paper, the terms municipality and TIF jurisdiction will be used interchangeably and refer to the decision-making body that is governing the TIF program and selecting the method of financing.

Figure 1 illustrates a generalized conception of execution of a TIF subsidy for a hypothetical project. In practice, the steps presented here often overlap or occur in slightly varying order.

Figure 1: The Overall TIF Process

Adapted from Klcik and Nunn, 2001
First, the boundaries of the TIF zone are set. This creates the framework within which a municipality operates to negotiate with the developer and choose the method of financing. Then, a thorough analysis of project feasibility and eligibility is conducted. Here, the ability of the TIF zone to support a TIF subsidy is assessed. This also involves an evaluation of the developer’s need for a TIF subsidy and a determination of how much of a subsidy the municipality is willing to give. Additionally, a municipality will make sure the program of development proposed fits within the overall scope of its TIF policy. When it is determined the project is feasible and meets eligibility requirements, the TIF jurisdiction selects a method of financing based on its overall assessment of the cost/risk balance. Once the method of financing has been selected, the scope of work and commitment of public financial assistance is finalized in a written agreement between the project developer and the supervising TIF jurisdiction. This agreement is then taken to the legislative body with authority over the jurisdiction’s TIF program for approval. Once the TIF program is approved, project execution and evaluation occur throughout the set time the TIF district will be in existence.

The scope and scale of TIF assistance is largely the result of give-and-take negotiation between the developer and the TIF jurisdiction that has typically taken shape throughout each stage of the TIF process. Established TIF jurisdictions with high demand for future projects can generally dictate the terms, requiring a formalized process often with benchmark requirements and a decent amount of hoop-jumping on the part of the developer. Newer TIF jurisdictions or TIF zones experiencing a slow pace of economic development often must allow a potential developer to wield a bit more power at the bargaining table. A developer’s main goal is to maximize the public contribution to the project so as to minimize his financial exposure. From the perspective of the TIF jurisdiction, the main objective is to reach an agreement that produces the highest combined financial and intangible benefits for the community while minimizing both cost and risk.

**TIF Financing Mechanics**

**Forming the TIF District**

Due to differences in state enabling legislations and policy decision-making, the size of TIF districts can vary greatly in terms of land area, number of parcels, and the total dollar amount of assessed tax value. Essentially, there are two main types of TIF formations: 1) project-based and 2) area based. Project-based TIF districts include only those property parcels that are directly included in a specific development project. Area-based TIFs are potentially much larger and include all parcels within a designated redevelopment zone, regardless of whether or not the parcels that fall in that zone are currently part of a specific redevelopment project. TIF is executed on more of a macro level for area-based zones, with a plan guiding an overall program of development that ultimately filters down to individual projects. In many cases, a quasi-governmental body is set up to oversee execution of the area-based TIF’s development plan. However, in other cases, the municipality remains the primary overseer of the TIF district. As might one might expect, there are advantages and disadvantages to utilizing these respective TIF formation types and these will be explored in greater detail later in this paper.
**Calculating Incremental Property Value**

In order to calculate the property tax increment generated by a TIF district, one must sum the assessed value of all real property parcels lying within the designated TIF zone. This total becomes the base year equalized assessed value (EAV). This EAV is now considered “frozen” for a specified period of years. All taxing entities receiving a share of property tax revenues are guaranteed an annual amount equal to their share of the base EAV. Any annual increase in the incremental assessed value is captured by the TIF zone. After the specified TIF period has expired, all property tax revenue is again distributed as it was before the creation of the TIF zone. This is illustrated in Figure 2. The yellow represents the base EAV for 4 hypothetical entities receiving property tax revenue from the TIF zone while the red illustrates the incremental tax revenue captured by the TIF district. In this example, the TIF zone is abolished after 20 years. After that point, the original taxing entities at that point will collect both the base EAV and all additional tax increment generated by the TIF district.

Figure 3 details a quantified example of the calculation an annual TIF increment. Here, the base year EAV is $500,000, which is distributed proportionally each year to all participating taxing entities. Because the current year EAV is $800,000, the incremental assessed value available to the TIF zone is $300,000. With an assumed tax rate of $2.25 per $100 of valuation, the TIF zone in this example will collect $6750 of revenue.

It is important to note this is a general representation of how a TIF increment is calculated. Depending on local state/municipal statutes, policies tax rates, etc., jurisdictions utilizing TIF may perform this calculation with slight alterations. Many of the most common alterations...
involve an additional carve-out of the eligible TIF increment. Some jurisdictions require pass-through agreements where, in addition to the base year EAV, a portion of the TIF increment is distributed back to some of the original taxing entities. Others require a portion of the tax increment to be dedicated to specific governmental funds, such as an affordable housing trust fund. Finally, some municipalities calculate an annual percentage of the total incremental TIF assessed value to be awarded back to the original taxing entities to account for natural inflation in the base EAV.

**Non-Property Tax Increments**
While incremental real property taxes are often the only source of revenue for a TIF zone, many jurisdictions permit the capture of other sources of tax revenue, most commonly sales and/or utility taxes. Here, the increment is calculated in a manner very similar to the property tax calculation, with a base EAV being frozen at the time of TIF district creation. Any incremental taxes above this base are captured by the TIF zone as added revenue on top of what is collected from the property tax increment. If a TIF development will include retail and/or utility development on parcels where none previously existed, the base EAV is set at $0. Thus, all future sales or utility tax revenue is awarded to the TIF zone for the duration of its existence (Mikesell, 2001; CDFA, 2007).

**Projecting incremental tax revenue over time**
Before a municipality can make a decision regarding TIF financing, it must assess the overall ability of the TIF district to generate funds. This requires a forecast of the annual incremental property tax revenue (plus any non-property tax incremental revenues if applicable) brought in by the TIF area over a determined period of years. This analysis can be performed by a private consulting firm or by the entity governing the TIF jurisdiction. Often, it is conducted before the official creation of the TIF area and is a key factor in the decision of whether or not to proceed with the formation of the TIF.

Due to overarching risk factors tied to project execution, public policy, the real estate market, and the economy as a whole, predicting property tax revenue more than a few years into the future poses significant challenges. A robust forecasting model should consider historical trends, economic indicators, and potential changes in property values to provide a realistic estimate of future revenue.
future is extremely difficult and often quite speculative. However, it is important to conduct this analysis to help narrow a TIF area’s scope of financial capability. The following are several factors to consider when calculating the property tax increment (CDFA 2007):

1) Property Tax Levy: Which portions of the total property tax rate may be included in the TIF revenue calculation? Are there portions of the levy that will disappear or be added in the coming years? How does the existence of pass-through agreements affect the total property tax levy?

2) Growth: How much incremental value can be captured due to a rise in property values or an increase in the tax levy? To what extent have unexpected declines in incremental value been taken into account?

3) Assessment and Collection Timing: When are properties within the TIF zone scheduled to be reassessed? When and how often are property taxes paid? How quickly will reassessed property values translate into an increase in incremental tax revenue collections? What is the anticipated payment delinquency rate? What is the impact of the property tax appeals process?

4) Assessment Methodology: What methods/rationales have been used to determine a TIF area’s total assessed value?

Calculating the Maximum Possible Subsidy
The maximum subsidy the TIF district can support is determined by calculating the present value of the TIF incremental revenue stream of cash flows. Figure 4, adapted from Godderis and Webber, illustrates this present value formula for calculating the total value of the incremental property tax revenues in a TIF zone. A jurisdiction will choose a reimbursement examination period, which represents the total number of years the TIF area will collect incremental property tax revenue. For project-based TIF areas, the examination period is often directly tied
to the life-cycle of that project and accounts for both the construction and period of project operation. The examination period for area-based TIFs can be a set number of years as defined in state enabling legislation or can be tied to the life-cycle of a redevelopment plan. As expressed in the formula, the sum of the incremental property tax projections for each year is discounted back to the present using the jurisdiction’s cost of funds. As one might expect, the cost of funds is different for each municipality and can be an important policy decision when assessing project feasibility. Once this calculation is completed, an overall value for the TIF district’s maximum ability to subsidize development projects has been established.

Figure 5 is a simplified example of an incremental revenue projection for a hypothetical TIF area. Here, the TIF area only exists for five years, with Year 0 representing the present day. The current taxable value of all property in the TIF district is $500,000 and this is set as the Base EAV. This district has three taxing entities with rights to a share of property taxes collected in the district, making the total tax levy $2.25 per $100 of valuation. In year 1, the TIF project development plan has yet to begin. Thus, the taxable value of property remains unchanged and no TIF increment is generated. In years 2-5, improvements stemming from the execution of the development program produce a gradual increase in the taxable assessed value. In each year, this assessed value growth produces incremental tax revenue for the TIF district. In order to project the total revenue capability of the district, each year’s incremental tax revenue is
discounted back to the present (in this example, the discount rate assumed is 5%). The sum of these present value calculations equals the total value of the TIF district’s ability to generate funds. In this example, this value is $11,955. In post TIF year 1, the entire $20,250 tax levy generated is distributed as it was before the creation of the TIF district. It is important to note that this example assumes that the tax rate and the proportional shares of each taxing entity remain constant. It also assumes that 100% of taxes that accrue are collected.

**Determining an Individual Project Subsidy**

In determining the amount of subsidy awarded to specific project in the TIF zone, the governing entity typically incorporates a combination of quantitative and qualitative methods. While most TIF jurisdictions claim the application of a significant quantitative approach, the decision-making process is often weighted more heavily towards qualitative factors.

The quantitative approach generally encompasses two different options for a quantified calculation of the subsidy amount. One option is to apply a guideline regarding the percentage of eligible development costs that will be funded by the TIF jurisdiction. Both what qualifies as an eligible cost as well as the percentage of eligible costs to be financed varies by jurisdiction. If eligible development costs include both public infrastructure and some portion of developer hard/soft costs, the subsidy can be as high as 20%-30% of total project costs in some TIF jurisdictions (Webber and Godderis, 2007).

The other option encompassed in the technical approach is to calculate the subsidy required to fill the “gap” and make a project financially feasible for the developer. The most common way this is done is through an analysis of a project’s internal rate of return (IRR), a measure of the quality of a project investment. IRR is the rate of return that equates the present value of future project cash flows to the initial project outlay. The formula for IRR is expressed in figure 6, where the IRR as represented as the variable $r$. Net present value (NPV) is the value of all projected cash flows discounted back to the present, minus the initial project outlay. An NPV greater than zero means the project is generating positive value. If the NPV is less than zero, the cash flows generated by the project do not produce enough value to justify the initial outlay.

Solving for $r$ in this equation gives the discount rate that makes the NPV of a project’s cash flows equal to 0. While this calculation is extremely tedious when performed by hand, it is computed quite easily with the use of computer programs such as excel.

**Figure 6: Internal Rate of Return Calculation**

\[
NPV = \sum_{t=0}^{N} \frac{C_t}{(1 + r)^t} = 0
\]

Where:

- $C = \text{annual cash flow}$
- $r = \text{discount rate (IRR)}$
- $t = \text{time}$
In order to get a better illustration for IRR and how it relates to the determination of a TIF subsidy, it is helpful to go through a simple example. Suppose, a development project in a designated TIF zone is projected to require an initial equity investment of $1,000,000. In addition, income from the project will be $0 in year 1 (construction period), $100,000 each in years 2-4, and $1,100,000 in year 5 when the project is sold and the equity investment is returned. Based on these assumptions, the IRR for this project is 7.69%. However, if we also assume that the developer’s required rate of return is 12%, the project does not produce a sufficient return on investment to make the project financially feasible. If the TIF jurisdiction deems 12% to be a reasonable rate of return for the developer and believes the project meshes with the overall redevelopment goals of the TIF zone, it might agree to award a subsidy to bring the developers return up to 15%, provided this amount is not greater than the maximum possible subsidy the incremental tax revenues can support.

When evaluating a potential TIF subsidy, one must be aware that IRR is very sensitive to alterations in project assumptions. This makes it easy to manipulate both the timing of and the amounts of cash flows to make a project appear more or less feasible than it may be in reality, perhaps providing inaccurate justification for the award of a TIF subsidy (Koch et al, 2007). One way in which a TIF jurisdiction can prevent this is to commission an analysis of IRR paid for out its own budget. This will allow the subsidy decision-makers to obtain a second opinion of the assumptions driving the feasibility of the project. Additionally, any study of project IRR should be accompanied by a detailed sensitivity analysis that provides stress tests for key cash flow assumption drivers such as absorption rates, rents, cap rates, etc. This will allow the decision-makers to grasp how the project will perform given results both better and worse than anticipated (Koch et al, 2007).

While the technical methods discussed above are frequently applied by TIF jurisdictions, these calculations are typically only a part of process. As noted by Webber and Godderis, qualitative factors often play a large role in the awarding of TIF subsidies. These factors include the following:

a) Market Conditions: Jurisdictions are often more willing to give out greater financial assistance when economic conditions are unfavorable.

b) Political Clout: Developers that have significant political connections and/or a favorable business reputation may have more success in seeking a TIF subsidy

c) Project Type/Fit with Redevelopment Plan: Projects that adhere with preferred uses or that mesh well with the TIF zone redevelopment plan are more likely to receive larger TIF subsidies

d) Quality of Life Benefits: Projects that have environmental benefits or that support the enhancement of minority-owned business could be seen as attractive candidates for TIF subsidies

e) Spillover effects: Projects that are believed to be overall economic catalysts beyond the boundaries of the TIF zone will be looked upon favorably

**TIF Financing Methods**
TIF jurisdictions across the country vary greatly in the financing method(s) they use. The following is an overview of how these methods are executed in practice. It is important to note that TIF financing is often only a part of a larger public subsidy package for an individual project deal. TIF funding is often combined with other public funding sources, such as state/federal grants, affordable housing tax credits, etc. (CDFA, 2007; ERA, 1999).

**TIF Bonds**
TIF bonds are a type of revenue bond where the future incremental tax revenues from a TIF zone are pledged as the source of repayment. The proceeds from a TIF bond issuance are used to help finance the body of public development assistance committed to by the TIF jurisdiction for a particular project. While these bonds are typically backed by future incremental property taxes, other streams of revenue (such as sales tax, utility tax, or special assessment tax) are also sometimes pledged to repay debt. TIF bonds are not backed by the full taxing power of the issuing jurisdiction, meaning the only recourse to investors is the dedicated tax increment.

**Bond Issuance Process**
Figure 7 is an illustration of the flow of funds in a hypothetical bond issuance. A TIF jurisdiction that wants to issue bonds for a project will normally begin by hiring a financial advisor (FA) who will guide it through the entire issuance process. TIF bond issuance is more complex with more moving parts than the average municipal bond issuance, and therefore requires special expertise to ensure smooth implementation. With the guidance of the FA, a jurisdiction starts...
by working with a municipal bond dealer, the entity that underwrites the bonds, sets prices, and then markets and sells the bonds to third party investors. As illustrated above, project funds flow from the investors back through the financial intermediary and then to the TIF jurisdiction. At this point, they are allocated to the development project. The bond trustee is responsible for facilitating the flow of debt service payments from the TIF Jurisdiction to the investors. TIF Bonds can be sold through the underwriter via two different methods. In a negotiated sale, a municipality chooses one underwriter upfront and works with it to develop a financing structure for the issuance, including terms of interest rates, pricing, maturity, etc. Thus, a special relationship is formed between the issuer and the underwriter, which is helpful given the uniqueness of each potential TIF issuance. In a competitive sale, several underwriters submit closed bids to the issuer. The underwriter who bids at the lowest cost to the issuer wins the business.

Most municipal bonds are tax-exempt, meaning an investor can deduct the income from the interest on these bonds from his/her federal tax liability. As a result, interest rates on municipal bonds are lower than corporate bonds. However, because TIF bonds are issued to fund private-sector development, some TIF bonds can be classified as taxable. The specific use of the funds is often what determines whether or not a bond issuance can qualify as tax-exempt. For example, bond funds used for public infrastructure would typically qualify as tax-exempt whereas funds dedicated for specific project hard costs would result in the issuance being taxable. Laws governing what qualifies as tax-exempt fund usage can be a grey area with application varying by state. There are also federal and state caps on the total dollar amount of tax-exempt bond issuance.

Bonds can be issued with fixed or variable rate interest. In a fixed-rate issuance, bonds accrue interest at a set rate until maturity. In a variable-rate issuance, the interest rate can change periodically, depending on conditions in the financial markets. It is important to note that a fixed rate bond issuance does not necessarily mean all bonds in the same issuance have the same interest rate. For example, it is common for portions of the total bond issuance that mature sooner to accrue interest at a lower set rate than portions than mature farther out into the future.

**Credit Ratings**

TIF bonds are reviewed by the major credit rating agencies to determine credit quality and risk of default for potential investors. Bonds that earn a rating can be either investment grade or speculative. An investment grade rating indicates that risk of repayment is relatively low. A speculative rating indicates the repayment risk could be significant.

When rating a TIF bond issuance, a rating agency looks at specific factors affecting risk of repayment. These can be placed into three categories: Financial, Economic, and Intangible (Standard and Poor’s 2006; Moody’s Investor Service, 2003; Fitch Ratings, 2007; Corson, 2008; Hitchcock, 2006).

**Financial Factors**
a) Debt Coverage Ratio: \[ \frac{\text{annual incremental tax revenue}}{\text{maximum annual debt service}} \]
This ratio looks at the ability of the incremental tax revenue generated by the TIF district to support the annual debt service payments on the bonds. Because debt service payments can vary from year to year depending on bond terms, the denominator in this equation is the maximum annual debt service payment over the length of the bonds. This ratio needs to be at least 1.00 for investment grade bonds and is typically above 4.00 for the highest rated bonds. A ratio of 4.00 means that the TIF zone is projected to generate 4 times more incremental revenue than the maximum required annual debt service payment. In this case, the risk of default is low even if the actual tax increment collected is significantly lower than anticipated.

b) Taxpayer Concentration Ratio: \[ \frac{\text{top taxpayer(s) incremental assessed value}}{\text{total incremental assessed value}} \]
This examines the percentage of incremental assessed value that is generated by the largest taxpayer(s) in a TIF district. A TIF zone with high taxpayer concentration is at risk of losing a large portion of incremental tax revenue with the failure to collect property taxes from just one taxpayer. Investment grade TIF bonds generally have less than 25% of incremental assessed tax value generated by the largest taxpayer in the TIF zone. It also common to see this calculation performed by dividing the top taxpayer(s) incremental assessed value by the current EAV of the TIF zone. However, rating agencies tend to place more weight on the calculation when it is performed with total incremental assessed value in the denominator (Corson, 2008).

c) Volatility Ratio: \[ \frac{\text{base EAV}}{\text{total EAV}} \]
The volatility ratio measures the sensitivity of a TIF zone to changes in assessed value. The higher this ratio, the greater the level of unpredictability in the incremental revenue stream and the higher the risk of default. For example, a volatility ratio of .5 means that a 1% change in the assessed value of TIF zone will mean a 2% change in the incremental tax revenue collected. In contrast, a volatility ratio of .9 means that a 1% change in assessed value will lead to a 10% change in incremental tax revenue (Corson, 2008).

Economic Factors

a) Land Use Diversity: TIF zones with a myriad of different uses (i.e. residential, retail, office, etc.) are less susceptible to slowdowns plaguing specific sectors of the property market

b) Total Assessed Value: The higher the assessed value in the TIF district, the greater the incremental property tax stream.

c) Assessed Value Growth Rate: A high growth rate indicates a high level of economic development and thus, an increasing stream of incremental tax revenue. A low growth rate signals stagnant economic conditions with much less upside for revenue generation.
d) Median Household Income: As would be expected, municipalities with a high median household income typically generate larger streams of property tax and, if applicable, sales and utility tax revenue.

e) Size of TIF area: Bigger TIF areas are generally considered safer credit risk because they typically have larger assessed values along with a greater diversity of taxpayers and property uses.

Intangibles Factors

a) Agency Oversight: This looks at the track record of the supervising TIF entities in executing TIF projects as well as the quality and scope of the redevelopment plan.

b) Tax Procedures: How smooth is the tax collection process? How secure is the tax-sharing agreement with overlapping taxing entities?

c) Project Uniqueness: What is the track record for comparable projects of the same size and scope?

d) Direct Competition: Are there comparable projects that exist or are currently in the pipeline within close proximity that will be direct competition?

Non-Rated TIF Bonds

It is important to distinguish between rated and non-rated TIF bonds. Rated TIF bonds have officially been deemed investment grade by a rating agency. Non-rated TIF bonds have not rated by any of the major credit rating agencies. While backed by the pledge of a specific TIF revenue stream, there is typically no recourse to the credit of the issuing jurisdiction if it defaults on the bonds. Often, municipalities issue non-rated TIF bonds at the beginning of a risky project. Once the project is operational and tax revenue is stable, refinancing with TIF revenue bonds, or even cheaper general obligation bonds, becomes an attractive option (Busby, 2006). One must be also careful to note there is a difference between non-rated bonds and junk bonds. Junk bonds have been analyzed by a rating agency and determined to be high risk. In contrast, non-rated bonds have not been examined by a rating agency and may or may not be sound investments. If the risks are carefully researched, investment in non-rated bonds can be lucrative (Underwood, 2006).

TIF Bond Market Overview and Trends

An overview of the TIF bond market sheds light on the prominence of TIF and why it is important for municipalities to optimize TIF financing structure. As TIF has become an increasingly utilized economic development tool, municipalities are assuming a greater portion of TIF debt. Thus, cities with large amounts of TIF debt are often pegging a significant portion of their financial security to the performance of TIF projects.

Before the widespread use of TIF revenue bonds, most publicly-funded debt used to fund TIF was issued in the form of general obligation bonds (GO). GO bonds are backed by the full taxing power of a municipality and give investors full recourse to seek repayment. In contrast, TIF bonds are a type of revenue bond, which pledge repayment from a specific revenue stream. General obligation bonds tend to have cheaper issuance costs than revenue bonds. However, there are three main advantages to issuing TIF bonds over general obligation bonds. First, TIF
bonds are a way to access the debt markets without having to pledge the jurisdiction’s full faith and credit. Second, issuance of TIF revenue bonds does not require a public referendum. Finally, TIF bonds do not count towards limitations municipal statutes place on the amount of allowable outstanding general obligation debt (Orrick, 2006; Hildreth and Zorn, 2005).

The insurgence of TIF-backed bond issuances in the past few decades relates back to the economic conditions in the late 1970’s and early 1980’s. During this time, cities began exploring alternate ways to finance economic redevelopment efforts because of high interest rates on debt, increased capital needs, and a reduction in federal aid for local economic development (Hildreth and Zorn, 2005). Even though the Tax Reform Act of 1986 redefined and placed state volume caps on the use of tax-exempt private-purpose municipal bonds, TIF bonds nevertheless continued to become a prominent economic development tool for many cities and states (Johnson, 2001). Johnson finds that seven states constitute the majority of TIF bond issuances, with California having issued more than 80% of the market from 1990-1995 (Johnson, 1999, 2001). More recent data suggests that, while TIF bond issuance has become popular in many states across the country, California is still the dominant player, issuing about 70% of the market since 2005. Other states with high TIF bond issuance include Illinois, Missouri, Georgia, and Colorado (Busby, 2008).

California is such a prolific issuer of TIF bonds due to the large amount of fiscal stress experienced by the state’s municipalities that is caused by various legislative and economic factors. This incentivize jurisdictions to look to tax increment finance as a way to mitigate fiscal difficulties, and to do so by carving out large swaths of area for redevelopment zones. In addition, because the use of general obligation and some revenue bond debt has been historically limited by legislative measure, California municipalities have looked to TIF to finance very large projects that jurisdictions in other states may have financed with other methods (Chapman, 2001; Busby, Personal Interview 2008).

Analysis of TIF bond issues highlights important characteristics of TIF financing trends. Due to the fact that most TIF bond issuances are designed to fund well-defined, specific projects, the average TIF bond issuance is smaller ($6M) when compared to the average bond issuance in the overall municipal market ($16M) (Johnson 1999, 2001). In addition, most TIF bond issuances are tax-exempt, have long-term maturities (65% have a term greater than 20 years), and are sold through negotiated offering (Johnson 1999, 2001). However, a growing number of TIF bond issues are taxable, which increases cost of issuance due higher interest rates. In fact, a higher percentage of TIF bonds are taxable in comparison to the municipal bond market as a whole (Johnson, 1999). Taxable bonds have higher interest rates than non-taxable bonds due to investor demand for higher yields (a measure of an investor’s return on investment) to compensate for the lack of tax advantages.

Municipalities can benefit from the ability to recognize and isolate specific project characteristics strongly impacting TIF financing costs. Johnson finds that incremental property tax base and the degree of financial flexibility of the issuer are significant factors leading to cheaper borrowing costs (Johnson 1999). He also finds that larger, long term issues are likely to
have higher credit ratings and lower interest rates than smaller issues. Competitive offerings sell for lower interest rates than negotiated offerings and commercial/industrial TIF projects benefit strongly from some form of credit enhancement (Johnson 1999). Standard and Poor’s finds that the concentration of taxpayers contributing to the TIF revenue stream along with a TIF district’s volatility ratio is strongly correlated with the cost of bond issuance (Standard and Poor’s 2006).

Because the risk involved in TIF projects is often significant, many municipalities have opted to issue non-rated bonds. In fact, cities are increasingly moving towards the issuance of non-rated bonds over rated, investment-grade debt (Busby 2006; Johnson 2001). Although these bonds usually have higher interest rates, they allow upfront funding for more risky TIF projects, when financial assistance is most needed. These bonds can also be advantageous if the size of the issuance is small enough where paying the associated financing costs of obtaining a rating from a credit rating agency do not make economic sense (Piper Jaffray 2005).

Developer Notes:
A TIF developer note is a debt instrument featuring a written agreement obligating a municipality to use future incremental property tax dollars to refund, with interest, to a developer a certain portion of project development costs once the project is completed. Figure 8 illustrates the process for a typical TIF note transaction, which begins with the distribution of the note to the developer by the TIF jurisdiction. Frequently, the developer then sells this note

Figure 8: Flow of Funds in a Developer Note Transaction

Adapted from Weber and Godderis, 2007; Temel, 2001
to a financial institution to get funding upfront for the TIF project. In some cases, the note is used as collateral for the private construction loan. The developer can also hold the note and receive payments from the municipality after the project is finished and tax increment funds begin to accumulate. Often, the note will initially be held in escrow by a third party intermediary until the end of construction. This protects the municipality in the event that the project is not completed and gives the developer added incentive to finish the project on time.

Though bond issuance is still more popular for larger deals, developer notes have become more common than bonds in the financing of TIF projects. Unlike bonds, notes do not require as much in financing costs. Additionally, by promising payments from tax revenue only after the project is completed, the burden of project risk is placed with the developer (Nakajima and Smith 2004; CDFA 2007; Weber 2008; Ehler’s 2005). Though it might be difficult for a municipality relatively new to TIF financing to implement this tool, it can be an extremely advantageous financing method for cities that have some leverage in negotiations with developers.

One municipality that has used developer notes extensively is the city of Chicago. Out of 171 project deals negotiated from 1997-2006, the city instituted developer note agreements in 63 of them. However, though Chicago used developer notes successfully to mitigate risk in TIF deals, it paid higher interest rates on these notes than it did on its bond debt during the same period (Weber 2008). With the recent decline in the real estate market, there are doubts as to whether Chicago will continue to be able to negotiate cost-effective, developer note financed TIF deals (Weber 2008). The question remains as to whether the benefits of reduced risk and lower upfront financing costs outweigh these higher interest costs in the long run.

Pay-As-Go: Finally, Pay-As-You-Go reimbursement financing involves creating a TIF district or project area and accumulating any incremental taxes above a designated base value into an economic development fund. Developers are awarded money from this fund to help construct projects or invest in improvements/infrastructure in the designated area. Because this method
involves no debt issuance, there must be upfront project financing for this to be a viable option (CDFA 2007; Webber and Godderis 2007).

Figure 9 illustrates the process for pay-as-you-go TIF financing, which is fairly simple since it does not require the use of financial intermediaries as in bond or developer note financing. A TIF zone first collects incremental revenue into a designated fund. When a developer completes a project, he typically appeals to the TIF jurisdiction for a reimbursement of qualified project expenses. The TIF district evaluates the validity of the qualified expenditures and awards project funds to the developer. Interest on the project funds can also be paid to the developer to compensate for time value of money.

Though little academic research has been written on Pay-As-You-Go TIF financing, it is important to examine because it presents the cheapest and least risky way to finance a TIF project. Lacking the obligation for documentation requirements dictated by debt issuance, TIF jurisdictions often provide scant information regarding their extent of and methodology for Pay-As-You-Go financing.

**TIF Costs and Risks**

In executing a TIF program, municipalities must consider both the cost and risks of distributing TIF subsidies to development projects. The following is a summary of the major costs and risks that must be considered by a TIF municipality throughout the course of the process.

**Risks**

*Project Timing:* Timing is everything in the world of real estate development. Aggressive project timelines can significantly affect feasibility assumptions. Benchmark completion dates for projects in the TIF area may be delayed or modified, leading to inaccurate projections of incremental assessed value. Thus, a TIF jurisdiction may find itself in the position of having prematurely dedicated public funds to a project that has since become insolvent.

*Real Estate Market:* Real estate markets are cyclical and subject to prolonged periods of boom and bust. During a bust period, property values can decline significantly which leaves a TIF district susceptible to extended periods of declining property tax revenues falling below projections. This can make it extremely difficult to meet debt service obligations.

*Financial Risk:* TIF financing can be subject to the whims of financial markets. Interest rates may suddenly rise, affecting the viability of a project- particularly if variable rate debt is issued. If the debt issued is fixed rate, a municipality could be stuck paying much higher interest rates on TIF debt than what they would currently pay in the market. Additionally, due to nuances in financial markets, the pool of potential investors for TIF debt may decline suddenly, removing the possibility of upfront funding for a project that has already received a commitment of public funds.

*Legislative/Jurisdictional:* TIF projects must be approved by the supervising municipal body. This means there is always risk that a project determined to be eligible for assistance by the TIF
jurisdiction will be rejected by the body overseeing the process. Additionally, TIF districts do not have the power to tax, which means property tax revenue generated is ultimately controlled by the municipality— not the TIF jurisdiction. A municipality may decide to lower or raise the property tax rate in the TIF zone or the tax sharing agreement among overlapping jurisdictions may change. This can significantly affect future revenue projections and hamper the ability to make debt service payments (Johnson, 2001).

**Overall Economic Risk:** TIF projects are quite susceptible to the overall economic picture of the municipality and state. The TIF process can be long and complex. Projects approved for TIF financing may not be executed until several years down the road. By the time this occurs, the economic outlook may have been altered dramatically. The onset of a significant recession can mean tax revenue projections can be off significantly. A municipality may be forced to shuffle revenue to fill operating gaps, perhaps eliminating a TIF project’s access to key incremental revenue streams that are vital to keep the project viable. A bleak economic outlook will also negatively affect a municipality’s credit rating, which may mean a reevaluation of the TIF project financing plan.

**Community Support:** TIF project need the support of the local community to help garner legislative support. Projects that are not backed by the citizenry may face backlash that can hamper the project development process. If the project fails, the time and money already spent by the municipality to execute the TIF program will likely be lost.

“**But For**”: With TIF, jurisdictions risk the commitment of public subsidies for development that may have occurred even without TIF implementation. If a jurisdiction can determine with certainty that a TIF development program would never have existed without TIF, this risk is minimized. However, due to a multitude of factors, it is difficult for a municipality to be 100% certain that this is the case. By committing a public subsidy upfront, the municipality risks wasting money it could have used for other purpose simply to pad a developer’s return on investment.

**Substitution Effect:** Some critics of TIF argue that, rather than attracting new investment and catalyzing development both in and out of the TIF zone, TIF merely redirects development from one part of a city to another. This is often referred to as the Substitution Effect. Thus, TIF can have the unintended impact of attracting private development at the expense of non-TIF areas of the city. While a TIF zone may thrive, non-TIF areas may experience a drain of existing non-TIF development and experience a steady decline directly as a result (Dye and Merriman, 2006). The bigger the size and scale of a municipalities’ TIF program, the greater the ability of TIF to accelerate decline and siphon private investment from non-TIF areas. Thus, with implementation of a TIF program, a jurisdiction risks serious unintended consequences that may make it worse off than it was before the utilization of TIF.
Due to time value of money, a TIF subsidy accrues interest with time. Money promised today but not received till the future is worth less than money received today. From the perspective of a bond or development note investor, the rate of interest is directly tied to the level of investment risk. The greater the risk of non-payment, the higher the interest rate the investor will require. If a municipality executes debt financing for a TIF project that has a large amount of risk, this cost of interest will significantly increase the total project expenditure.

From the developer’s perspective, a TIF subsidy that has been promised but not yet delivered represents money the developer could have spent on his/her next best investment. Because the developer covers the TIF subsidy from his/her own funds upfront, he/she will typically require compensation in the form of interest for a TIF subsidy that is not paid out until the project is completed and the tax increment is flowing. The money he was forced to use to front-fund the TIF subsidy could have alternatively been used on his next best investment. The longer it takes for the tax increment to flow, the more interest will accrue, thus continually increasing total TIF expenditure.

**Financing/Issuance Fees:**
A TIF project financing can have many different financing/issuance fees associated with it. These fees are the most extensive when issuing bonds. However, the issuance of a developer note also requires the municipality to incur financing fees. The fees associated with pay-as-go financing are minimal because no debt issuance is involved. The following are some of the major fees a municipality may incur:

a) **Consultants/Underwriting Fees:** A municipality must compensate all the actors providing assistance in the TIF financing process. Attorneys provide legal documentation and advice. Financial advisors aid in the structuring of the financing plan. Underwriters facilitate the sale of the bonds in the market. Payment to servicing entities involved with a deal is priced as a percentage of the total amount of the bond issuance.

b) **Capitalized Interest:** A TIF development program may not be able to generate a stabilized tax increment from the start. When issuing debt, a municipality may borrow extra funds to pay interest on the borrowed amount until it can begin to make payments from the tax increments. This is most often involved with a bond issuance, but capitalized interest is also sometimes paid with a development note financing.

c) **Original Issue Discount:** This relates primarily to TIF bonds, which are unique debt instruments that often involve the investor assuming a significant amount of risk. In order to entice investors to buy the bonds, a municipality may have to sell the bonds at a discount. A cost is incurred because the municipality still has to pay back the debt at full price.

d) **Reserve Fund:** TIF projects are often mandated to have reserve funds from which money can be withdrawn if incremental tax revenues are insufficient in any given year.

**Credit Enhancements:**
In order to mitigate risk of a TIF project, a municipality may choose to use a credit enhancement in order to increase the security of the tax increment backing the project. The
application of a credit enhancement makes the debt more attractive to would-be purchasers. The following are some examples of common credit enhancement tools:

a) Bond Insurance: This involves the purchase of a bond insurance premium, where the provider pledges to cover any shortfall in the incremental tax revenue pledged to repay debt.

b) Bank Letter of Credit/Surety Bond: A form of security where a commercial bank or private corporation guarantees debt service payments in the event of a shortfall.

c) Double-Barrel/Backstop/Credit Overlay: A TIF jurisdiction may opt to pledge additional revenue sources on top of incremental tax revenues to repay debt or to cover the cost of funding a TIF development program. The most common form of this is the use of increment from non-property tax sources such as sales or utility tax. TIF jurisdictions can also pledge a secondary backstop revenue source such as a neighboring TIF district or portion of General Fund revenue. Another example of this would be a special assessment levied on property owners in the TIF zone. If incremental revenues in a given year are not sufficient, property owners might be required to pay a fee to make up the difference.

Figure 10 displays the sources and uses of TIF bond proceeds for the Mandarin Oriental Hotel TIF project in Washington, DC. As one can see, the fees associated with this project were extensive. The project was considered high risk by investors and required a significant amount of fees for consultants, credit enhancements, etc. in order for the bonds to be sold. The most important thing to note here is that only about 75% of the total issuance ($34.5M) of the $45.6M was actually dedicated for project costs. The remainder all went towards the paying of various fees. Thus, in order to issue these TIF bonds, the city had to outlay a large expenditure on top of the $34.5M in TIF subsidy it awarded to the project.

Diversion of tax revenues/Commitment of Public Funds:

Tax Increment Financing is designed to generate new tax revenue stemming from the creation of new development. Without the implementation of TIF, this increased tax revenue would have gone directly to the associated taxing jurisdictions. Thus, all associated taxing jurisdictions are incurring a cost until the dissolution of the TIF program, when they will again collected 100% of their share of the dedicated tax revenue. The larger and more expansive the TIF
program, the more revenue is diverted from these taxing jurisdictions and the more the cost of implementing the TIF program increases. Over the past decade, the use of TIF has increased dramatically in many large cities across the county. For example, in 2003 in Denver, a city with an extensive TIF program, $29.5M of sales and property tax revenues was diverted from the city’s General Fund and dedicated for TIF subsidies. This represented about 6.8% of total general fund revenue. By comparison, just five years earlier in 1998, revenue dedicated for TIF subsidies was $10.6M, or 2.8% of total General Fund Revenues (Robinson, Nevitt, and Stone, 2005). In 2004 in Kansas City, $34.1M of tax revenues was dedicated for TIF expenditures that would have otherwise gone to traditional taxing entities. Just 5 years earlier in 2000, only $11.1M of was redirected for TIF subsidies (Kelsay, 2007).

The Cost/Risk Tradeoff
A municipality’s structuring of the financing of a TIF subsidy involves evaluating the tradeoff between the costs and risks detailed above. In general, the more risk a municipality attempts to mitigate in a TIF deal, the more the cost to that municipality of executing the TIF program. Alternatively, a municipality that wants to mitigate costs will have to assume a larger portion of project risk. The magnitude of this tradeoff is largely a function of size, scale, age, and power dynamics at play (Webber and Godderis, 2007). As the size and scale of a project increases, so do the potential costs and risks of the project. A newly-formed TIF district has only speculative tax increments with which to market the project, making it quite risky and potentially more costly. A developer-driven TIF process where there a municipality must bend over backwards to attract developers and investors signals that the municipality will have to take on a considerable amount of the cost and risk of the deal to get it done. If the municipality can dictate terms with developers and investors, the TIF district has a stabilized tax increment, and/or the size and scale of the project is relatively small, this cost/risk tradeoff is minimized. However, if developers and investors drive the process, the TIF district’s revenue projections are speculative, and/or the size and scale of the development program is large, this cost/risk tradeoff becomes extremely significant.

TIF PROJECT EXAMPLES

Bond Examples:

Midtown TIF District- Houston, Texas

Area-Based TIF Bond Issuance
Midtown is a tax increment reinvestment zone (TIRZ) in the city of Houston. In Houston, tax increment finance districts are known as TIRZs. Created in 1995, the zone consists of 770 total acres. Of this total, 617 total acres was part of the initial zone at creation and 153 acres were added in 1999. In 1995, the city created the Midtown Redevelopment Authority to manage the redevelopment program in the zone. The original project and financing plan, approved by the city in 1997, called for the development of Midtown as a mid-density residential zone complete with a modern streetscapes and design conducive with public transit.
Figure 11: Map of Midtown TIF District

Source: Midtown Redevelopment Authority
The Midtown TIRZ receives incremental real property taxes through a tax-sharing agreement with the City of Houston, Harris County, and Houston Independent School District (HISD). The City of Houston contributes 100% of its available tax increment to Midtown. Harris County contributes a portion of the available tax levy increment for the original area of the zone only. HISD contributes a share of their available tax increment for the original and the annexed portion of the zone, contingent that a portion of their increment be used for school improvements. Additionally, the original agreement stipulates that 1/3 of the tax increments generated in the zone be dedicated to affordable housing (Midtown Redevelopment Authority Continuing Disclosure Report, 2008; Ewoh, 2007; Series 2005 Offering Statement).

Since inception, redevelopment in Midtown has been financed with 4 separate bond issuances totaling $62.1M. Proceeds from bond issuances have been used primarily for general infrastructure and the creation of public spaces. However, funds have also been used to reimburse developers for various project costs related to utilities and streetscapes. An examination of these 4 issues reveals how the financing strategy has evolved as the district has aged and the tax increment has grown, steadily reducing the risk of default for investors. The first issuance, $9M in 1998, helped to fund some of the early infrastructure for developer-initiated projects in the zone. These bonds were non-rated because they were issued early on in the age of the zone and the proposed tax increments that were to back the bonds were speculative. In 2001 and 2003, Midtown issued $17M and $13.5M in bonds respectively to fund infrastructure for private development projects, but also to help to spark a broad development program initiated by the city and the Midtown Redevelopment Authority. These bonds were insured by Radian Insurance, but also received underlying investment grade ratings (Continuing Disclosure Report, 2008; Marquez, 2008). An underlying rating is the rating a bond issuance would have received had it been sold without any credit enhancement. In this case, the bonds were considered investment grade even without the insurance enhancement because the property tax increment was stable and secure enough to cover debt service payments. The latest issuance, in 2005 for $22.62M, received a solid underlying rating and received the highest possible investment grade credit rating (AAA from Standard and Poor’s) as a result of being insured by Ambac (Series 2005 Offering Statement; Marquez, 2008). With the advanced age and strength of the district, it is unlikely additional bonds will be issued to fund projects in the zone. Instead, Midtown officials believe they will move toward pay-as-you-go financing (Marquez, 2008).

As of Fiscal Year 2008, Midtown had an EAV of $1.32B, representing significant growth from a base EAV of $211.8M in 1995. In FY 2008, the total tax increment generated was $11.276M. With the zone’s maximum annual debt service payment at $4.764M, the debt coverage ratio is a solid 2.37. The following table lists details for the ten largest taxpayers in the zone. While the top 8 taxpayers are owners of apartment buildings, there is good dispersion of assessed value across these taxpayers should tax collections wane from some of them (Midtown Redevelopment Continuing Disclosure Report, 2008).
Cost/Risk Tradeoff Analysis
In the early years of the Midtown TIF district in Houston, the city had little clout with developers and had to absorb a large portion of project risk to entice development in the area. Because of this and the fact that the district encompasses such a big area with a large amount of taxable property, the magnitude of the cost/risk tradeoff was high and bond issuance made logical sense. Midtown’s initial bond issuance was non-rated, which meant the city saved on financing costs. The pledge of such a large amount of tax increment for repayment offset investors’ concerns that the bonds were not labeled investment grade. For the subsequent bond issues, project risks were lessened due to the age of the district and the stabilization of the tax increment. This made the application of credit enhancements an appealing and economical way to further reduce costs of issuance. At the same time, however, the massive size of Midtown means that it siphons a tremendous amount of tax revenue from its participating taxing entities- a high cost to pay for the execution of this TIF program.

### Gallery Place TIF: Washington, DC
#### Project-Based TIF Bond Issuance
The Gallery Place project in Washington, DC is a nice illustration of a bond-financed project-based TIF project. In 1999, it became the first project approved for TIF financing by the city of Washington, DC. Located in the thriving Chinatown/Penn Quarter section of downtown DC, Gallery Place is a 950,000 square foot mixed-use project featuring retail and entertainment uses on the lower levels with offices and condominiums on top. It sits adjacent to the Verizon Center, a 20,000 seat professional sports and concert arena. Together, these projects have catalyzed the revitalization of an area devoid of investment for decades (Marshall and Lester, 2008; Office of the Chief Financial Officer of the District of Columbia, 2008).

---

<table>
<thead>
<tr>
<th>Rank</th>
<th>Assessed Taxable Value</th>
<th>Owner</th>
<th>Use</th>
<th>% Total Assessed Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$49,704,540</td>
<td>Post Uptown Inc.</td>
<td>Apt.</td>
<td>4.39%</td>
</tr>
<tr>
<td>2</td>
<td>$45,192,000</td>
<td>Calais Emerald LLC</td>
<td>Apt.</td>
<td>3.99%</td>
</tr>
<tr>
<td>3</td>
<td>$39,903,530</td>
<td>AMLI/BPMT Midtown</td>
<td>Apt.</td>
<td>3.53%</td>
</tr>
<tr>
<td>4</td>
<td>$33,408,000</td>
<td>4001 Fannin No. 1A LTD</td>
<td>Apt.</td>
<td>2.95%</td>
</tr>
<tr>
<td>5</td>
<td>$31,287,080</td>
<td>Camden Property Trust</td>
<td>Apt.</td>
<td>2.76%</td>
</tr>
<tr>
<td>6</td>
<td>$24,769,743</td>
<td>Bagby Apartments</td>
<td>Apt.</td>
<td>2.19%</td>
</tr>
<tr>
<td>7</td>
<td>$24,050,000</td>
<td>AEW LT Midtown APLP</td>
<td>Apt.</td>
<td>2.13%</td>
</tr>
<tr>
<td>8</td>
<td>$19,566,607</td>
<td>Rise Condominium Development LP</td>
<td>Apt.</td>
<td>1.73%</td>
</tr>
<tr>
<td>9</td>
<td>$18,926,800</td>
<td>First Presbyterian Church Houston</td>
<td>Church</td>
<td>1.67%</td>
</tr>
<tr>
<td>10</td>
<td>$17,000,000</td>
<td>MRI Midtown LTD</td>
<td>Dep. Store</td>
<td>1.50%</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>26.84%</strong></td>
</tr>
</tbody>
</table>

Source: Continuing Disclosure Report, 2008
The financing plan for Gallery was hashed out over several years and involved intensive negotiations between the city, the developer, and bond investors. The project developers approached the city in 1998 requesting a subsidy to fill the financing gap that would make the project feasible. The scale, use, and location of the proposed project was extremely attractive to city officials and they agreed to provide financial assistance. The initial TIF development agreement called for the city to provide $46M in TIF bond financing for the project. The city initially looked at supporting the debt service payments on the bonds solely with incremental tax revenue from the property parcels associated with the project. However, due to the city’s poor financial management in the 80’s and early 90’s, bond investors purchasing the city’s general obligation debt demanded that a significant percentage of all real property tax revenue collected by the city had to be reserved to pay the city’s outstanding general obligation debt. Thus, the city could not dedicate 100% of any incremental property taxes from the project. Because the project was designed to be self-supporting, additional backing for the TIF bond issuance had to be found. Given that retail was a vital project component, the city decided to pledge incremental sales tax revenue in addition to a portion of the incremental property tax revenue from the project (Goss, 2007; Marshall and Lester, 2008).

Figure 13: Gallery Place Financing Sources

<table>
<thead>
<tr>
<th>Gallery Place Financing Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developer Equity</td>
</tr>
<tr>
<td>Enterprise Zone Bonds</td>
</tr>
<tr>
<td>TIF Bond Proceeds</td>
</tr>
<tr>
<td>Other City Contributions</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

Source: Goss, 2007

By the time all of the financing partners in the deal were lined up, there was disagreement over the timing of commitments. The city strongly preferred to close on the bonds after all other financing had been executed, thereby minimizing risk of commitment before construction on the project had begun. However, other financing partners wanted to see the TIF funds committed upfront before anything else. Meanwhile, there additional delays involving increasing estimations of the project costs and a changing retail tenant mix, which was important given the reliance on incremental sales taxes to back the bonds (Goss, 2007).

In 2002, the city sold $74.3M in TIF bonds to back the project. The bonds were insured and required the maintenance of a debt service reserve fund. In order to provide additional backing for payment on the bonds, the city pledged incremental sales and property tax revenues from a
secondary backstop source: the Downtown TIF district. This district included most of the taxable commercial property in the city’s urban core. Its purpose was to serve as secondary backing for the Gallery Place bonds (and a few of the city’s other TIF projects) and was not intended to be a standalone TIF district with its own development plan. In any given year, if incremental sales and property taxes for the project parcels were not sufficient to cover debt service, the city agreed to cover the shortfall with incremental revenues from the Downtown TIF (Gallery Place Series 2002 Offering Statement).

Since it’s opening in 2004, the Gallery Place project can be considered a successful project that has catalyzed a great deal of initial investment in the Chinatown Penn Quarter Area. It is estimated that the Chinatown/Penn Quarter has experienced over $3B of investment since 2004. However, due to continuing project delays and complexities, project stabilization did not occur until 2007, forcing the city to commit revenues from the Downtown TIF to cover the shortfall on the debt service payments (Marshall and Lester, 2008; Goss, 2007).

Cost/Risk Tradeoff Analysis
In the Gallery Place project, the size and scale of the project coupled with its speculative nature meant the cost/risk tradeoff was considerable for the city. The city was not in a position of strength in its negotiations with the developer, yet it wanted the project to proceed because it viewed it as a catalyst for surrounding development. This meant it had to assume a large portion of the upfront project risk. Bonds were issued for the project and the city paid had to pay significant costs in order to mitigate risks to make it palatable for investors. Of the $74.3M in total bond proceeds, only $51M of this was directly allocated for project costs. The remainder was used for financing fees and credit enhancements (Gallery Place Series 2002 Offering Statement). An additional crucial cost was the secondary pledge of revenues from the Downtown TIF area. Because the project did not stabilize until 2007, the city ended up having to outlay a significant amount of revenue from the Downtown TIF to cover debt service on the bonds. Thus, while, Gallery Place was ultimately successful, the city absorbed a large amount of risk at a high cost in order to see it through.

Developer Note Examples

Capitol Hill Towers- Washington, DC
Following the commitment of bond financing for some of the early TIF projects approved in Washington, DC, the city moved to shift the allocation of risk by pursuing deals featuring developer note TIF financing. The Capitol Hill Towers project in Washington, DC demonstrates the execution of this developer note financing. This mixed-use residential and hotel project features 344 residential co-op units, a 200 room Courtyard by Marriott hotel, 9,000 square feet of ground floor retail, and a shared underground parking garage.
Located along the Anacostia Waterfront near the new professional baseball stadium built for the Washington Nationals, the neighborhood has seen a dramatic wave of development in recent years and also features the new headquarters for the Federal Department of Transportation and the Washington Navy Yard. Construction broke ground in 2004 and was completed in 2006 (Madigan, 2004; Cube 2003).

The total development cost of this project was about $113.5. Key to the financing arrangement was the city’s contribution of a $10M TIF note backed by incremental property and sales taxes from the project footprint to reimburse the developer, NJA Development Partners, for specific project costs. The note promised annual payments to the owner for 20 years at 7.5% interest. If funds were not sufficient in any given year to make payments on the notes, the city would cover the shortfall in future years. However, the city was not obligated to pay any interest or penalty on this shortfall. Simultaneous with the closing on the note agreement between NJA and the city, NJA sold the note to a third party financial intermediary who provided upfront funding for development of the project. Though the note was issued in 2004, it was held in escrow until project completion in 2006. This meant further reduction of construction risk for the city, as payment on the note was not required until the project was operational and generating tax revenue (District of Columbia 2008; Madigan, 2004; Cube, 2003).

**Cost/Risk Tradeoff Analysis**

The implementation of a developer note for Capitol Hill Towers shifted a large portion of the city’s potential risk in the project onto the developer and, ultimately, the third party institution that purchased the note. The size of the deal and the city’s level of commitment was smaller than in the case of Gallery Place, further making bonds a less attractive option. Costs were reduced tremendously as the financing fees for notes are considerably less than they are for bonds. Yet the city also paid a higher interest rate than it would have if bond debt was issued. Additionally, the application of developer note financing was also made feasible due to the growing attractiveness of development opportunities along the Anacostia Waterfront. Thus, the city had leverage in the negotiations with Capitol Hill Towers developers and this helped it formulate the note structure used in this deal.

**Village at St. Anthony Falls- Minneapolis, MN**

The Village at St. Anthony Falls project demonstrates how a development note can be used as bridge financing until a project is stable enough to support the issuance of TIF bonds. In 2000, the city of Minneapolis...
announced the creation of the East Hennepin and University Tax Increment Financing District. Located in the Nicollet Island/East Bank neighborhood, this TIF area contained the three block area of the St. Anthony Falls project. Divided into development blocks, the total plan consisted of the following:

- Block 1 - Rehabilitation of the historic Firebarn and Annex including 45,000 square feet of retail, 30 affordable rate housing units, and structured parking.
- Block 2 - 48 for-sale townhomes in 8 total buildings
- Block 3 - 109 loft condominium units and 12 brownstone condominiums (City of Minneapolis 2003, 2008)

In 2001, the city of Minneapolis finalized TIF assistance for blocks 2 and 3 in the form of developer notes to fund eligible project costs. These costs included land acquisition, demolition, environmental remediation, public infrastructure and public parking. The block 2 note was taxable and issued for a total of $2.74 million at an interest rate of 9%. The block 3 note was also taxable and issued for a total of $7.37M at a rate of 8%. Both notes were sold to third party financial institutions and featured 5 year terms with balloon payments at the end. Proceeds from the notes included $8.525M for project funds with the remainder dedicated towards costs of issuance and capitalized interest. The notes were secured by a minimum assessment agreement, which sets a minimum taxable value for the property and prevents the developer from contesting it during the life of the note. In addition, the developer provided a guaranty to make up any shortfall of incremental tax revenue during the life of the note. Because of the minimum assessment agreement and the developer guaranty, the notes were not eligible to be issued tax-free (City of Minneapolis, 2003).

In 2004 and 2005, the city issued tax-exempt bonds for the Village at St. Anthony project. As per the original development agreement, the city had pledged to issue bonds for the project once each block phase was fully complete, the taxable value could be fully assessed, and once the developer met certain other specifications related to project administration. Proceeds from these bond issuances were used to pay off the original block 2 and block 3 development notes. In addition, these bonds did not include the minimum assessment requirements or a developer guaranty. Thus, at this point, the burden of risk was transferred from the developer to the city (Ehlers, 2005; City of Minneapolis, 2008).
Cost/Risk Tradeoff Analysis
The cost/risk tradeoff decision-making process implemented by the city of Minneapolis in the Village at St. Anthony project is not uncommon for municipalities using developer note TIF financing. In the early stages of the project, incremental revenue projections are largely speculative, meaning there is considerable risk in the project. Even though the size and scale of the project might be large enough to make the financing costs of bond issuance cost effective, the costs associated with risk mitigation and credit enhancement of the bonds would be quite high. In this case, the city decided to issue development notes upfront, with the understanding these notes would be refunded with bonds in a few years once the incremental revenue had stabilized. While the notes were sold to a financial institution, the stipulation of a developer guaranty meant the project risk remained with the developer. This risk was not mitigated until the city issued the bonds in 2004 and 2005. Yet, by this point, the incremental revenues had stabilized and project risk was minimal. As with the Capitol Hill Towers deal, the city of Minneapolis paid a much higher interest rate on these development notes than it would have on bonds. But the application of these notes was appealing because it allowed the city to avoid assumption of project risk until it had been considerably mitigated. It should also be noted that Minneapolis is an experienced and extensive user of tax increment financing. Previous relationships with developers and third party institutions had allowed the city to build leverage and permitted development note financing to be a feasible option in this TIF deal.

Pay-As-You-Go Examples

Chase Commerce Center- Milwaukee, WI
Chase Commerce Center is housed in an old manufacturing facility in the Bay View neighborhood of South Milwaukee. The 513,000 square foot building was purchased and rehabilitated in 2005 by Industrial Properties, LLC. The building had served as the longtime headquarters for Nordberg/Metso Minerals. After Metso ceased operations in 2004, there were proposals in the works to tear down the building and construct a new development featuring commercial and big box retail uses. However, the city desired to preserve the industrial use of the building as a way to stimulate higher-wage job creation for local residents. Therefore, it agreed to subsidize the redevelopment of the site as office and work space for manufacturing businesses. In total, the complex houses 10 businesses and has created over 300 jobs. The largest tenant in the complex is Bucyrus.

Figure 15: Total Project Costs- Chase Commerce Center

<table>
<thead>
<tr>
<th>Project Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Acquisition</td>
</tr>
<tr>
<td>Site Improvement</td>
</tr>
<tr>
<td>Bucyrus Improvements</td>
</tr>
<tr>
<td>General Repair</td>
</tr>
<tr>
<td>Signs</td>
</tr>
<tr>
<td>Roof repair and replacement</td>
</tr>
<tr>
<td>Parking lot replacement</td>
</tr>
<tr>
<td>Repair/Update Rail Access</td>
</tr>
<tr>
<td>New Construction (Dock Construction)</td>
</tr>
<tr>
<td>Remodeling of Existing (Demising)</td>
</tr>
<tr>
<td>Equipment (Metering, Docks, Security)</td>
</tr>
<tr>
<td>Metering &amp; Security and Fire Alarm</td>
</tr>
<tr>
<td>Docks</td>
</tr>
<tr>
<td>Furniture &amp; Fixtures</td>
</tr>
<tr>
<td>Working Capital</td>
</tr>
<tr>
<td>Debt Refinancing</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Source: City of Milwaukee, 2005
International, a mining equipment manufacturer that occupies 90,000 square feet and provides about 90 total jobs (Decker 2006; City of Milwaukee, 2005, 2008).

Including the purchase of the site, the total cost of the project was approximately $7.5M. Of that total, the city contributed $500,000 in the form of a Pay-As-You-Go reimbursement for rehabilitation and operating costs of the facility. While the developer was responsible for front-funding these costs, annual payments from incremental property taxes were pledged to reimburse the developer through 2014 or until the building is 80% leased—whichever is sooner. The reimbursement payments to the developer do not accrue interest. In 2007, the developer received $26,472 in incremental tax revenue (City of Milwaukee, 2008).

A feasibility analysis conducted by the city determined that, in order to execute the project, the developer would need to pay a premium for the site. In addition, given that the site was essentially vacant at purchase, it would be difficult for the developer to obtain a loan for the project without the additional backing provided by the city’s commitment of TIF assistance. Without TIF assistance, the city projected that the IRR produced by the project was 7.2%. At this low level of feasibility, the developer would be incentivized to explore other uses for the site in an effort to generate a better return. With the TIF assistance, the IRR jumped to 12.1%, making the execution of the project plan financially feasible for the developer (City of Milwaukee, 2005).

*Cost/Risk Tradeoff Analysis*

The city of Milwaukee’s TIF commitment to the Chase Commerce Center was much smaller than the TIF bond and developer note examples illustrated above. This made pay-as-you-go financing a feasible option, as it was much easier for the developer to front-fund the $500,000 subsidy until incremental revenues began to materialize. The city assumed very little upfront risk, which meant the city did not have to take on added cost to mitigate it. Additionally, the caveat ending reimbursement payments after the building was 80% leased protected the city from supporting a project that no longer required assistance.

*Cedars TIF District- Dallas, Texas*

Created in 1992, Cedars is a 247 acre TIF district located just south of downtown Dallas. The district contains a new light rail station and has easy access to two major interstates, making it an attractive destination for development. The original development plan has been modified several times but, as of 2006, featured the following private investment program:

- 700 Residential Units
- 400 Hotel Rooms
- 55,000 SF additional retail
- 300,000 SF office/flex space

When fully complete, the total development plan is projected to produce $7.2M in net present value tax increment revenue through 2012. These TIF revenues will be spent on various public improvement projects that compliment private investment in the district and include
streetscapes, pedestrian amenities, roads, and infrastructure. While development was fairly minimal in the early years of the district, private investment has picked up in recent years with the completion of the light rail station, the new Dallas Police headquarters, and a few other privately financed development projects. As of September 2008, seven development projects within the district have received a combined $1.624M in TIF funds. The base year EAV for the district was set at $35.3M in 1996. With the 2008 taxable assessed value estimated at $83.07M, the district is projected to collect about $789,564 in TIF incremental funds (City of Dallas, 2008).

Unlike the Midtown TIF district in Houston, the financing plan for Cedars is strictly pay-as-you-
go. No bond issuance has ever been planned. Private developers enter development agreements with the city of Dallas to fund public improvements related to new development. They are subsequently reimbursed from TIF incremental revenues. These developer reimbursements accrue interest at the developer’s cost of funds. If TIF revenues exceed projections, the total TIF contribution planned for public improvements will be completed ahead of schedule. If TIF revenues decline or occur at a pace below projections, the schedule of public improvements will scaled back or can be discontinued altogether if termination is approved by the city council (City of Dallas, 2006).

Cost/Risk Tradeoff Analysis
By executing the TIF plan for Cedars solely on a pay-as-you-go basis, the city of Dallas largely eliminated both risk and cost from the equation. The city only commits TIF funds until after incremental revenue is collected and avoids the financing and structuring fees common to bond and note issuances. However, development in Cedars has not progressed as projected, and the development program has been revised several times since the original creation of the district. The use of pay-as-you-go at the beginning of the life of an area-based TIF can be very difficult because there is no upfront subsidy provided to entice developers. The pace of development has picked up in the past few years, but some question whether the use of TIF financing has been necessary or even effective at stimulating development.

CONCLUSION
While the unique characteristics of individual states and municipalities that use TIF make generalizations difficult, this Master’s project has sought to provide the reader with an overview of the financing methodology for TIF projects, the major financing methods used in practice, and an analysis of the cost/risk balance that municipalities must weigh when executing the financing of a TIF program.

TIF bond issuance is the most universal way to finance a TIF project. The municipality is assuming a significant portion of the risk and project funds are generated before a shovel is placed in the ground. Because bonds require a large amount of financing costs, they are best utilized for larger TIF projects where paying the costs of issuance make better economic sense. At the same time, this means that the cost/risk tradeoffs can be considerable. When using TIF bonds, a municipality must carefully weigh both the costs and risks of the project to determine the best way to mitigate both.

The issuance of a developer note reduces financing costs because it is privately placed with a third party financial institution. However, the interest rates paid on notes are typically higher than on bonds to compensate the developer for interest accrued at his/her cost of funds. Risk to the municipality is mitigated in that payments to the developer are only made if the tax increment materializes as projected. However, the widespread application of developer note financing is more limited in comparison to bonds. Developer note financing is executed at the project level and involves much smaller TIF subsidy amounts than bonds. While it is used to provide upfront financing to a speculative project, a developer note cannot be executed unless
the municipality can dictate some of the terms of the TIF deal to the developer, who will have to initially fund project costs from his/her own pocket.

Pay-as-you-go financing is commonly used by experienced TIF jurisdictions in healthy development climates. The size and scale of pay-as-you-go TIF commitments is usually smaller than in bond or note financing. This allows a developer to more feasibly front-fund the TIF costs from his/her own pocket until he/she can be reimbursed from the incremental taxes. These factors make the cost/risk tradeoff minimal for a municipality utilizing pay-as-go financing. While, it is executed at the project level, this financing method can be used for both project-based and area-based TIF zones.

**Recommendation for Further Research**

As the use of TIF is becoming more and more established across the country, the use of developer notes and pay-as-you-go to finance TIF projects is increasing. These financing methods allow the TIF jurisdiction to avoid many of the costs and risks involved with bond financing. While they may have utilized bond financing for early TIF deals, TIF jurisdictions are becoming more experienced and are looking to the use of developer notes and pay-as-you-go as ways to improve their TIF processes.

Because the utilization of TIF is a controversial topic in many places, municipalities are often hesitant to disclose a great level of detail regarding their TIF programs. This makes it difficult to gather information regarding TIF financing methods. However, bond issuance requires at least a base level of documentation that allows a researcher to piece together information regarding a TIF deal. With developer note and pay-as-you-go deals, the level of documentation is much lower, limiting public access to information. This accounts for the spotty record of TIF financing methods in the academic literature. Thus, researchers must dig deeper to further examine developer notes and pay-as-you-go TIF financing. This will highlight the extent to which notes and pay-as-you-go financing are used by municipalities across the county and will present a more complete picture of the TIF financing landscape.
BIBLIOGRAPHY


Milwaukee Department of City Development (2005). “Project Plan Tax Incremental District No. 61 (Chase Commerce Center Project)”. Retrieved from: http://legistar.milwaukee.gov/Attachments/c38b1384-7916-490a-90ad-7259248a1161.PDF


