
EXECUTIVE SUMMARY

TischlerBise was retained by BUILD to analyze several aspects of Sagamore Development LLC's Tax Increment Financing (TIF) application for Port Covington in Baltimore, MD (submitted May 23, 2016). TischlerBise was asked to concentrate its examination on the fiscal impact analysis included in the application. In addition, we were asked to provide high-level analysis of the application's TIF bond usage and estimated job development and profit projections.

TischlerBise, Inc.'s, qualifications for reviewing the Port Covington TIF Application are based on the firm's almost 40 years of experience providing fiscal, economic and planning consulting services to public and private sector clients. In summary, TB's experience in the areas of fiscal impact analysis is unsurpassed, having prepared more fiscal impact analyses and fiscal impact models than any other firm in the country.

Our project manager for this assignment, Carson Bise, AICP, has twenty-five years of fiscal, economic, and planning experience and has conducted fiscal, economic and impact fee evaluations in thirty-seven states. Mr. Bise has developed and implemented more fiscal impact models than any consultant in the country. The applications which Mr. Bise has developed have been used for evaluating multiple land use scenarios, specific development projects, annexations, urban service provision, tax-increment financing, and concurrency/adequate public facilities monitoring.

Mr. Bise has written and lectured extensively on fiscal impact analysis and infrastructure financing. His most recent publications are *Fiscal Impact Analysis: Methodologies for Planners*, published by the American Planning Association, a chapter on fiscal impact analysis in the book *Planning and Urban Design Standards*, also published by the American Planning Association, and the International City/County Management Association (ICMA) IQ Report, *Fiscal Impact Analysis: How Today's Decisions Affect Tomorrow's Budgets*. Mr. Bise is also featured in the recently released American Institute of Certified Planners (AICP) CD-ROM Training Package entitled *The Economics of Density*.

Mr. Bise is currently on the Board of Directors of the Growth and Infrastructure Finance Consortium and recently Chaired the American Planning Association's Paying for Growth Task Force. He was also recently named an Affiliate of the National Center for Smart Growth Research and Education at the University of Maryland in College Park.

The Port Covington project represents a key redevelopment opportunity for the City of Baltimore. The project is consistent with both the *Middle Branch Master Plan* and the *South Baltimore Gateway Master Plan*. Both plans are clear in their recommendations that the Port Covington area should transition from an industrial area to a mixed-use center. TischlerBise feels strongly that the City of Baltimore ultimately

need to approve this development project and be a financial participant. However, the question is – at what price to City of Baltimore tax payers?

There are several issues we identified during our review of the Port Covington TIF Application information that should be considered when determining what level of public subsidy should be entertained for this proposed development. We offer the following findings:

- **The Fiscal Impact Analysis Lacks Basic Information.** The fiscal impact analysis prepared by MuniCap lacks basic background information. For example, the report provides no narrative containing the methodology employed, how data was gathered, or even the extent to which MuniCap interacted with or interviewed City of Baltimore staff to derive the cost and revenue assumptions used in the fiscal impact analysis. Rather, the reader is directed to general footnotes at the bottom of spreadsheets to derive any information at all.
- **City of Baltimore Operating Costs Are Understated.** MuniCap lists some expenses as “not impacted” by the Port Covington development. Although we agree with the assumption that certain costs are fixed, we disagree with the notion that entire divisions of certain departments would not be impacted. In particular, areas where we believe costs are understated include Sheriff, Police, Health, and Transportation.
- **Capital Impacts Are Not Included.** The MuniCap fiscal impact analysis excludes an evaluation of the impact of the Port Covington development on City of Baltimore capital facilities. We know from the TIF application that numerous capital costs for interchange improvements, an inner-development circulator train, and a light rail extension, for instance, are assumed to be financed by either the Tax Increment Finance district or various state or federal grants/contributions. We also know that the developer proposed to include some land for parks and open space as part of the development. The analysis appears to assume that this is the limit of any impacts on City infrastructure as a result of Port Covington, which is almost certainly not the case. The proposed development could necessitate capital expenditures related to fire, police, general government, schools, water, and sewer.
- **The Methodology Used for Projecting Operating and Capital Costs Is Inappropriate.** As discussed in more detail in the body of this report, the fiscal impact analysis prepared by MuniCap uses essentially an average cost approach. A major problem with the average cost approach is that it masks the impacts of the timing and absorption of new development, and as a result, fails to truly reflect how new development impacts the provision of facilities and associated operating costs. For example, the MuniCap analysis assumes a cost of \$244.85 per service unit (which includes personnel and operating costs) for the Fire Department, regardless of location in the City and proximity to particular fire stations. This is misleading because fire and emergency services are not provided in increments of \$244.85 per service unit. A better methodology would be the case study-marginal approach, which would include variables such as proximity to Port Covington and existing call volumes, call capacities, and current response times. These factors would determine if and when the Fire Department will require additional space and apparatus to meet level-of-service and response times.
- **Multiple Scenarios Should Be Evaluated.** The MuniCap fiscal impact analysis evaluates one scenario. This scenario assumes development beginning around 2020 and ending around 2040. In our experience, it is always in a City’s best interest to have multiple scenarios evaluated that test

variations in the timing of development and even the mix of uses. The City should be informed of the impact of different mixes of land uses. For example, consider how the retail sector of the economy has changed over the last 10 years (especially with the rise of online retailing), or the impact 3-D printing will have on the need for industrial space in the future. We are presently involved with several clients who have developers with approved master plans requesting amendments for more residential units and a reduction in retail space due to current market conditions. Given the complicated and precise financing arrangements being proposed, we think the City should attempt to understand the impact on financing arrangements if growth were slower than expected or if a different mix of land uses were built. This is especially important given the complicated nature of the financing and the need for a Special Tax as a bridge financing source for the TIF bonds, which would also affect the amount of Surplus Property Tax Revenue being projected in the analysis.

- **The Proposal Includes Unconventional Use Of TIF Bonds.** TIF bonds are most frequently used as a method for financing the infrastructure needed to attract development to an underutilized site – the infrastructure “but for” which private development would not occur. Typical improvements usually relate to roadways and sidewalks, transit, water and sewer system improvements, stormwater trunkline extension, and telecom ductbank installation. The TIF application for Sagamore includes requests for TIF bond-financing for a number of infrastructure improvements that appear to go above and beyond what many other developments in the region and nationally usually request to meet the “but for” criteria, instead providing exceptional aesthetic or experiential benefits to visitors, employees, or residents. For example, the application calls for the TIF financing to pay for the road preparatory work for a new rail-in-street trolley circulator system, kayak landings and trails, constructed wetlands, and micro-biorentention systems. In fact, TischlerBise frequently sees park, schools, and storm water improvements financed by developers and maintained by property managers over time or deeded to a City for continued construction and maintenance.
- **The Need for a Special Tax Is Not Highlighted Adequately.** With TIF districts, there is always the possibility that the tax increment will not cover debt service payments. However, the fact that the need for nearly 20 years of special tax revenue is anticipated before the project even breaks ground is troubling, particularly given the scope of the Port Covington proposal. To TischlerBise, this schedule means the project, as currently construed, does not “pencil out.” The timing of the development schedule must be adjusted such that more private development occurs earlier along the development timeline in order to boost tax revenues to support future debt service payments. In other words, it may be the case that the City needs to adjust the TIF debt issuances to ensure larger infrastructure improvements are pushed to a period further down the line. Any adjustment of the capital improvement schedule should be done in conjunction with the developer so as to ensure a full public-private partnership.
- **Job Projections are Adequate.** TischlerBise found that job projections were completed with an appropriate methodology. However, we caution project stakeholders that these results must be properly framed during discussions on the future of Port Covington. The net impact of job growth within the project site and its value to Baltimoreans must be understood in the context of in-migration (i.e., some workers moving to the metro area or commuting from outside the City to fill the jobs) and job displacement resulting from new development (i.e., cannibalization of some

economic activity from the Central Business District or other parts of Baltimore). From a citywide fiscal perspective, if job simply relocates within Baltimore, this is essentially a net neutral move.

- **The Lack of Market Analysis Is Troubling.** TischlerBise notes the lack of a comprehensive market analysis and accompanying narrative for this project. One of the most important project revenues is land sales, which hinges on assumptions about demand and absorption rates market and vertical development returns (following initial land development). However, the report does not include discussion for demand for new residential and nonresidential development. Likewise, square footage estimates for market comparables are included but without detailed explanation. Finally, more detailed information on the vertical development return expectations is excluded from the report. The inclusion of a detailed market analysis could ameliorate these concerns. Although certain market analysis content is included in the fiscal impact analysis and pro forma sections (e.g. sales per square foot by type of retail), a full-scale market analysis should be included with a TIF application, especially given the immense size of the City's proposed public investment in infrastructure to support the project's financial feasibility.
- **The Pro Forma May Understate Land Acquisition Costs.** It appears calculations were only made using Sagamore's current land acquisition investment of \$114,731,000. If the developer must also acquire some portion of the additional approximately 100 acres in the development area, what will it cost and why is it not included in the total development costs?
- **The IRR Is Adequate, But Not Exceedingly High.** The pro forma projects an unleveraged Internal Rate of Return (IRR) of -1.90% without the TIF infrastructure bond revenues and 9.24% with the TIF revenues. The application notes that the latter figure is in line with IRRs reported in the *Fourth Quarter 2015 PwC Real Estate Investor Survey*. This survey noted that development IRRs ranged from 10% to 20% nationally, with an average of 15.50% during the fourth quarter. Acceptable IRR is subjective and dependent on the inclinations of the investor and the context of the development. For example, a project with a very high IRR may not be desirable to an investor if he or she must stake a large share of initial capital. Likewise, a project subject to a large number of exogenous risks (e.g., a complicated entitlement project, uncertain market conditions, or a difficult development site or location) will probably be less appealing than a less risky project with the same IRR. Therefore, riskier projects may require higher IRRs to attract investors. This is particularly true when developing in an unproven area or when a large amount of investment is required, such as Port Covington. In those cases, desired IRRs may reach into the 20 percent range.

DEVELOPMENT AND TIF APPLICATION OVERVIEW

Port Covington is a 260-acre industrial area with approximately three miles of waterfront between I-95 and the Middle Branch of the Patapsco River. The site is located slightly less than two miles from downtown Baltimore, Maryland.

A TIF application from Sagamore Development, LLC, proposes a new development on the site that would include 5,329 residential high-end multi-family units (both rental and condominium), 1.3 million square feet of retail square footage, 300,000 square feet of industrial/light manufacturing space, a 200 bed hotel, and 4.2 million square feet of office space (including 1.5 million square foot headquarters for Under Armour, manufacturers of sports apparel and related products). In addition, the proposal includes provision of 42 acres of public parks and open space, some of which will provide access to the waterfront, and close to 10,000 parking spaces. In total, the proposal includes the creation of 42 new city blocks, a light rail line extension and two stations, a new off-ramp from I-95, an inter-development circulator train, and a pedestrian and bike swing bridge to the Westport neighborhood.

Sagamore Development controls 161 of the 260 acres that comprise the Port Covington development site. This land acquisition cost approximately \$114 million. According to Sagamore's Tax Increment Financing (TIF) application, the majority of the remaining land is comprised of public rights-of-way, City- or State-owned parcels, and parcels owned by the freight company CSX. On the land it does own, Sagamore has already developed—or is in the process of developing—several projects, including an “innovation” center, a seafood restaurant, the *Baltimore Sun's* printing and distribution facility, an Under Armour headquarters campus structure, and a whiskey distillery. The developer plans to see the project through the entitlement and “horizontal” development process, then sell the majority of improved lots to vertical developers. The total project value of the project prior to tract sell-off is in excess of \$1.4 billion, with the total development estimated to be more than \$6 billion.

The Port Covington site is located within one of the City's Enterprise Zones, which entitles the owners to tax credits. In addition, the site includes several brownfields. Sagamore believes all portions of the development will be eligible for an Enterprise Zone Tax Credit and Brownfields Tax Credit. In addition, Sagamore anticipates receiving various State of Maryland and federal grants, potentially totaling \$573 million, to finance highway and local transit improvements. At the federal level, these grants may be secured through the following programs: FASTLANE (Nationally Significant Freight and Highway Projects), Transportation Investment Generating Economic Recovery (TIGER), Transportation Alternatives Program, New Starts/Small Starts, Surface Transportation Block Grant Program, and Consolidated Rail Infrastructure and Safety. At the state level, Sagamore believes the Maryland Transportation Authority may issue bonds to support the new infrastructure needs of the project.

In addition to the Enterprise Zone Tax Credits, Brownfields Tax Credits, and likely State and Federal grants and subsidies, Sagamore is requesting the City of Baltimore create a Tax Increment Financing (TIF) District and issue \$535 million in TIF bonds (issued in four series with 30-year maturities over the next 11 years, together maturing in 41 years). Bonds will be held by the developer as developer-held drawdown bonds

(paid by the City through the developer) until the development produces sufficient tax revenues to support the debt service, at which time the bonds will be converted to City-held instruments. (The bonds will also be secured by special taxes in the event the available increment revenues are insufficient to repay the debt service.) Together with the costs of issuance (interest, conversion costs, reserve fund, etc.), this investment by the City represents a total amount of approximately \$658.5 million.

TIF bond proceeds will be used to fund the construction of various infrastructure and public space projects, including a number of parks and plazas, a pedestrian alley, roadway construction and improvements, waterfront and pier improvements, a rail-based circulator system, a pedestrian and bike swing bridge to Westport, a pedestrian and bike path under I-95, and several highway improvements and specific site work needs projects. As discussed further below, many of these improvements' benefits are limited to the immediate site.

The City's Department of Planning has articulated its judgement that the Port Covington Master Plan is in accordance with the results of past public planning efforts for the site. Baltimore Development Corporation and Board of Finance have already approved the proposed TIF district. The City Council Taxation and Finance Committee is set to consider the proposal in late July 2016.

BROAD ANALYSIS OF THE TIF BOND PROCEEDS USAGE

Tax increment financing (TIF) is a tool through which a public entity attempts to encourage redevelopment and economic development in an underutilized area by earmarking incremental property tax revenue in that area to fund infrastructure improvements designed to ease the cost of development or attract capital investment. Frequently, infrastructure is funded with bond issues that are guaranteed by future revenue growth devoted to pay them back. From some perspectives, this makes TIF projects self-financing. However, this is not entirely accurate, as tax revenues that would be received by a General Fund or other earmarked funds are diverted to a special TIF fund for a specific period of time, and thus, are not available for general expenditures. After a specified time period, the TIF district designation ends and all property tax revenues are funneled back to their original government entities.

Unconventional Use of TIF Bonds

TIF is most frequently used as a method for financing the infrastructure needed to attract development to an underutilized site. Typical improvements relate to roadway widening, modernizing, or construction or construction of sidewalks, extension of transit lines and needed stations or stops, and other multimodal transportation projects to improve connectivity; water and sewer system improvements (e.g. main installation or sanitary lift station construction); storm water trunk lines extension; and telecom ductbank installation. In general, the widely-held theory behind TIF is that the proceeds from TIF revenue bonds should be used to make the improvements “but for” which the development would not occur.

The TIF application for Sagamore includes requests for TIF bond-financing for a number of infrastructure improvements that appear to go above and beyond what many other developments in the region and nationally might request to meet the “but for” criteria. In other words, these requests are not necessary to prepare the site for development, but instead are used to provide aesthetic or experiential benefits to visitors, employees, or residents. For example, the application calls for the TIF financing the road preparatory work for a new rail-in-street trolley circulator system. Another example includes the request for bonds to construct waterfront paths, shade structures and public comfort stations, kayak landings and trails, constructed wetlands, and micro-biorentention systems at a number of parks or improvement of a pier “to allow for accessible retail and entertainment use.”

These improvements (and several others in the application) are less frequently seen in TIF applications. In fact, our firm frequently sees park development and storm water improvements financed and constructed by a developer and maintained by property managers over time or deeded to a City for continued construction and maintenance. Moreover, if the City is experiencing budgetary strain in these areas, funding, operating, and maintaining additional facilities could exacerbate these issues. This may be particularly important when it comes to parks, since the development proposes a large amount of park and open space amenity development as part of its application.

The City has already signaled to private interests, through its planning efforts and the establishment of an Enterprise Zone, that it desires redevelopment of the site in question. Establishment of a TIF district and issuance of TIF bonds could be seen as a continuance of this support. Moreover, some may argue that TIF

bond support (and subsequent value-added from publicly-financed infrastructure improvements) only offset that fact that development in poorer areas or center cities are sometimes more expensive than on greenfield sites or in suburban locations. In general, these central sites may have higher land prices and property taxes than suburban locations and brownfield complications, as well as lower quality public services and issues with crime.

However, it should be noted that a host of considerations are at play when a firm or developer is selecting a site for a new capital investment. In all likelihood, property tax incentives such as TIF are probably more likely to influence a firm or developer's decision to locate on a certain site within a metropolitan area rather than impact the decision to locate in a specific region over another competing one. Given the fact that the developer has purchased this land prior to the establishment of a TIF district and plans to relocate the headquarters of a major Maryland corporation to the site, this seems to be true in the case of the proposed Port Covington development.

Special Tax Used for TIF

The TIF application notes that there is risk associated with the development if there are slower absorption rates than projected or if the TIF district generates insufficient property tax revenues for other reasons. To guard against this risk, the application notes that a special tax will be imposed in the district to ensure sufficient revenues are available to cover the annual debt service payments. This special tax revenue is also used to hedge against higher interest rates than anticipated.

However, as it turns out, it's not a question of if the City will have to levy the special tax on the district, but when. As shown in the application's project debt service payments and coverage, the City will have to levy special tax revenue starting in 2021 and continue to do so until 2038. Total special tax revenues are projected to total approximately \$292 million in order to cover Series A, B, C, and D debt service.

With TIF districts, there is always the possibility that the tax increment will not materialize quickly enough or sustain strongly enough to cover debt service payments. However, the fact that the need for nearly 20 years of special tax revenue is anticipated before the project even breaks ground is troubling, particularly given the scope of this project. To TischlerBise, this schedule means the project, as currently construed, does not "pencil out." The timing of the development schedule must be adjusted such that more private development occurs earlier along the development timeline in order to boost revenues to support future debt service payments. In other words, it may be the case that the City needs to adjust the TIF debt issuances such that the large infrastructure improvements are not so front-loaded but instead pushed to a period further down the line. Any adjustment of the capital improvement schedule should be done in conjunction with the developer so as to ensure a full public-private partnership.

PORT COVINGTON FISCAL IMPACT ANALYSIS

In general, a fiscal impact evaluation analyzes revenue generation and operating and capital costs to a jurisdiction associated with the provision of public services and facilities to serve new development—residential, commercial, industrial, or other. Maintaining fiscal health in the face of a large-scale development depends on several factors. Perhaps most important in the near term are the incremental costs of new infrastructure and expanded public services, which depend on the current use of existing infrastructure. Because of these costs, projects that require new infrastructure are unlikely to improve fiscal health in the short run. In the long run, the balance of revenue increases and service costs related to operations and maintenance may prove to be the most important influencing factors on the fiscal impact of a development.

It is important to note that fiscal impact analysis should be viewed as one piece of the puzzle when analyzing a potential development. Other issues of importance include public planning efforts around the site, environmental implications, economic development goals, and equity and social justice impacts.

MuniCap, Inc. conducted the fiscal impact analysis of Port Covington included in Sagamore’s TIF application. In the following sections, we highlight a number of methodological choices made by MuniCap that may skew or influence results or that diverge with the current state of the practice. These include 1) inflating revenues and expenditures; 2) using average-costing techniques that do not appear to evaluate current operational and infrastructure capacity and levels of service; 3) excluding operating expenditures from analysis that may be impacted by Port Covington; 5) omitting analysis of the capital facility impacts from Port Covington; and 6) including the revenue impacts of indirect or “ripple effect” jobs (even if these are not inputs in the fiscal impact analysis).

Please note that TischlerBise, in conducting background research on the development, noted various proposed development schedules with different numbers of residential units listed (including one mention of up to 14,000 unit). Obviously, a development schedule that differs dramatically from that which is analyzed in the TIF application could change the fiscal impact equation significantly and should be reviewed separately.

Costing Methodology

This section evaluates MuniCap’s costing methodology for determining the proposed development’s impact on the expenditure side of the fiscal impact “equation.” TischlerBise first describes the two most commonly used techniques for costing in fiscal impact analysis: average costing and marginal costing. Next, we describe the strengths and weaknesses of each methodology. Finally, we analyze MuniCap’s methodology and point out the ways in which it may skew results.

Techniques

There are two dominant methodologies for conducting fiscal impact analysis: average costing and marginal costing. The average-cost approach is simpler and more popular; costs and revenues are calculated based on the average cost per unit of service multiplied by the demand for that unit. Average-cost approaches assume a linear relationship and do not consider excess or deficient capacity of facilities

or services over time. A per capita relationship—in which the current cost of service per person in a community is considered to be the standard for future development—is an example of an average-cost approach.

The most popular average-cost technique is the per capita multiplier. This is obtained by dividing the budget for a particular service, such as parks, by the current population, yielding an estimated service cost per person. Under the per capita approach, it is assumed that each service level will be maintained into the future and that each additional resident will generate the same level of costs to the jurisdiction as each existing resident currently generates. For example, if a parks department budget was \$450,000 and the population of the town 45,000, then the average cost would be \$10 per capita. This figure is then used to estimate additional costs resulting from new development. The per capita approach is easy to use but has the disadvantage of being less accurate than other approaches if local officials want to look beyond broad levels of overall costs and expenditures. An example of the average-cost technique is shown in Figure 1.

Figure 1: Example of an Average-Cost Methodology

		FY 2003				
Insert Budget:		General	Unincorporated	Special		Per Capita
		Fund	Service	Revenue	Total All Funds	Amount
572	Parks/Recreation				\$0	\$0.00
572	Parks/Recreation				\$0	\$0.00
572	Parks/Recreation	\$482,120	-\$39,800	\$16,315,170	\$16,757,490	\$18.36
572	Parks/Recreation				\$0	\$0.00
573	Cultural Services	\$3,136,122	\$9,070,409	\$5,692,760	\$17,899,291	\$19.61
576					\$0	\$0.00
579	Other Culture/Recreation			\$9,966,613	\$9,966,613	\$10.92

Marginal-cost approaches uses locally based case information to describe the unique characteristics of a jurisdiction’s operating departments and capital facilities. This marginal cost approach assumes that every community is unique and that the assumptions regarding levels of service and cost and revenue factors should reflect what is occurring in that community. Department representatives are interviewed about existing public facilities and service capacities. Local information on excess park capacity, for example, makes it possible to predict when new facilities, programs, or personnel may be needed. This method also allows communities to include more detail if desired (e.g., to make estimates based on the costs of specific facilities and programs, such as pools, softball leagues, or tennis courts).

Although over the long term, average- and marginal-cost techniques will produce similar results, the real value of fiscal analysis is in the two- to 10-year period, when a community can incur costs. Marginal-cost analysis is most useful in this time frame. However, average-cost techniques are generally simpler to use, so for relatively small development projects with modest impacts or impacts that are realized over a long time frame, they may be preferred. An example of the marginal-cost methodology is shown in Figure 2.

Figure 2: Example of a Marginal-Cost Methodology

PARKS AND RECREATION STAFFING INPUT			Current Demand Units Served Per Position	% Estimate of Available Capacity	Remaining Capacity/ Initial Hire Threshold	Estimated Service Capacity Per Position
Category	Base Year FTE Positions	Project Using Which Demand Base?				
Environmental Technician	5	UNINCORP POPULATION	137,791	75%	103,343	132,049
Equipment Operator	38	UNINCORP POPULATION	18,130	75%	13,598	18,014
General Crew Leader	2	FIXED	0	0%	0	0
General Manager	4	FIXED	0	0%	0	0
Head Custodian	6	FIXED	0	0%	0	0
Landscape Gardener	6	FIXED	0	0%	0	0
Managers, Divisions/Programs	7	FIXED	0	0%	0	0
Multitrades Worker	39	RECREATION SF	7,363	75%	5,522	7,317
Painter	1	FIXED	0	0%	0	0
Park Manager	20	PARK ACRES	124	75%	93	123
Park Ranger	78.2	PARK ACRES	32	75%	24	32

MuniCap’s Hybrid Approach

One of our criticisms of the fiscal impact analysis prepared by MuniCap is its lack of background information. For example, the report provides no information relative to methodology employed, how data was gathered, or even the extent to which MuniCap interacted with or interviewed City of Baltimore staff to derive the cost assumptions used in the fiscal impact analysis. It appears that MuniCap employed a hybrid costing approach that largely relies on average costing, but does incorporate a small element of marginal costing, in that it attempts to determine which programmatic expenditures within each department will be impacted by additional development and which are fixed (rather than just taking each department budget as a whole). However, the analysis does not delve into the level of detail that a true marginal-cost approach would require. An example of MuniCap’s hybrid approach is shown in Figure 3.

Figure 3: MuniCap’s Costing Methodology

Annual Expenses ¹	Current City Expenses ²	Basis for Projecting Expenses ³	Current City Service Factors ⁴
Fire communications and dispatch	\$5,929,311	service population	837,369
Fire training and education	\$3,661,532	service population	837,369
General Services			
Administration - general services	\$1,624,614	not impacted	-
Facilities management	\$14,553,327	not impacted	-
Design and construction/major projects division	\$340,000	not impacted	-
Health			
Clinical services	\$4,913,580	service population	837,369
Healthy homes	\$885,262	not impacted	-
Substance abuse and mental health	\$1,851,443	not impacted	-
Maternal and child health	\$922,802	not impacted	-
School health services	\$2,618,724	per student	84,976
Emergency services - health	\$668,784	service population	837,369
Youth violence prevention	\$735,378	per student	84,976
Administration - health	\$4,468,511	not impacted	-
Animal services	\$3,164,962	per resident	622,793
Environmental health	\$3,055,320	service population	837,369
Chronic disease prevention	\$373,382	not impacted	-
HIV treatment services for the uninsured	\$1,271,409	not impacted	-
Senior centers	\$780,750	not impacted	-
Administration - CARE	\$377,927	not impacted	-
Advocacy and supportive care for seniors	\$99,956	not impacted	-
Community services for seniors	\$145,176	not impacted	-

For instance, the department expenditures do not distinguish between different types of expenses (e.g., salaries and wages, benefits, purchased services, internal service charges, and materials). Therefore, the granularity of MuniCap’s analysis is limited because programs are either impacted or not: different types of expenditures are not evaluated. Moreover, this also prevents more targeted manipulation to reflect excess capacity or deficiencies in capital facilities or staffing.

Typically, TischlerBise will conduct in-depth interviews with department heads to determine the excess or deficient capacity in schools, general government facilities, fire and police stations and apparatus, parks and trails, water, sewer, and stormwater infrastructure. This information is combined with level-of-service data to determine future needs necessitated by development.

Figure 4: An Example of TischlerBise’s Marginal Costing Methodology

BASE YEAR BUDGET AND FACTOR PROJECTION METHODOLOGY INPUTS							
<i>CUSTOMER CONTACT CENTER</i>							
Expenditure Name	Base Year Budget Amount	Project Using Which Demand Base?	Demand Unit Multiplier	Projection Methodology	Annual Change (+/-)	LOS Std \$ per Demand Unit	
Salaries and Wages	\$356,041	POP AND JOBS	0.50	CONSTANT	0%	\$0.53	
Employee Benefits	\$187,620	POP AND JOBS	1.00	CONSTANT	0%	\$0.56	
Purchased Services & Materials	\$3,734	POP AND JOBS	1.00	CONSTANT	0%	\$0.01	
Internal Service Charges	\$197,958	POP AND JOBS	1.00	CONSTANT	0%	\$0.59	
Other Expenditures	\$6,840	FIXED	1.00	CONSTANT	0%	\$0.00	
Direct Entry Cost Type 1	\$0	DIRECT ENTRY	1.00	CONSTANT	0%	\$0.00	
Direct Entry Cost Type 2	\$0	DIRECT ENTRY	1.00	CONSTANT	0%	\$0.00	
TOTAL	\$752,193						
BASE YEAR BUDGET AND FACTOR PROJECTION METHODOLOGY INPUTS							
<i>FINANCE</i>							
Expenditure Name	Base Year Budget Amount	Project Using Which Demand Base?	Demand Unit Multiplier	Projection Methodology	Annual Change (+/-)	LOS Std \$ per Demand Unit	
Salaries and Wages	\$1,338,422	POP AND JOBS	0.50	CONSTANT	0%	\$2.00	
Employee Benefits	\$560,665	POP AND JOBS	1.00	CONSTANT	0%	\$1.68	
Purchased Services	\$141,933	POP AND JOBS	1.00	CONSTANT	0%	\$0.42	
Internal Service Charges	\$476,036	POP AND JOBS	1.00	CONSTANT	0%	\$1.42	
Materials	\$31,636	FIXED	1.00	CONSTANT	0%	\$0.00	
Capital Outlay	\$5,000	FIXED	1.00	CONSTANT	0%	\$0.00	
Other Expenditures	\$46,470	POP AND JOBS	1.00	CONSTANT	0%	\$0.14	
Direct Entry Cost Type 1	\$0	DIRECT ENTRY	1.00	CONSTANT	0%	\$0.00	
Direct Entry Cost Type 2	\$0	DIRECT ENTRY	1.00	CONSTANT	0%	\$0.00	
TOTAL	\$2,600,162						

Use of Inflation

MuniCap choose to inflate all the results of its fiscal impact analysis using an annual inflation rate of three percent. Over the analysis time horizon of 41 years, use of this rate inflates figures by 326 percent. In general, TischlerBise avoids inflating fiscal results because inflation is complicated and unpredictable. This is particularly the case given that some costs, such as salaries, increase at different rates than other operating and capital costs, such as contractual and building construction costs. These costs, in turn, almost always increase in relation to the appreciation of real estate, thus affecting the revenue side of the equation. Using constant dollars avoids these issues. Additionally, it allows for more useful comparisons of impacts over the period under consideration.

Understated Costs – Selected Examples

As stated previously, MuniCap lists some expenses as “not impacted.” These costs are assumed to be fixed (e.g., they will not increase with additional development). Since the fiscal impact report lacks any background information relative to how assumptions were derived, these assumptions are probably based on professional judgement. *(If MuniCap has determined, through case study interviewing, that these factors are fixed, this portion of the analysis should remain the same. However, an explanation should be included as to why additional development will not impact these services).* Although we agree with the assumption that certain costs are fixed and not impacted by additional development, our experience has generally been that this assertion should not exclude entire departments or divisions from the fiscal impact analysis. Based on our in-depth knowledge of government services nationally and in Maryland in particular, a number of services that are assumed to be “not impacted” could be impacted by additional development. Below are some examples of these costs.

Figure 5: Examples of “Not Impacted” Costs

- General Services - Design and construction/major projects division
- Recreation and Parks - Aquatics
- Legal: Transactions
- Sheriff - Service of Protective and Peace Orders
- Transportation
 - Snow and Ice Control
 - Bridge and Culvert Management
 - Street Cut Management
 - Traffic Safety
 - Special Events

Transportation

Transportation Department expenditures total approximately \$96.1 million in the current fiscal year. MuniCap’s analysis assumes that approximately 16 percent of these expenditures are not impacted by the additional development occurring at Port Covington. As stated in the Development and TIF Application Overview section, the Port Covington development project will create 42 new city blocks. It is not explicit within the TIF application, but TischlerBise assumes the streets created will be turned over to the City for maintenance, which will almost certainly have an impact on divisions within the Transportation Department such as Snow and Ice Control and Traffic Safety, for instance.

Health

Health Department expenditures total approximately \$22.3 million in the current fiscal year. The MuniCap analysis assumes that almost 50 percent of these expenditures are not impacted by the additional development occurring as a result of Port Covington.

Sheriff

The Sheriff’s Office expenditures total approximately \$20.4 million in the current fiscal year. The MuniCap analysis assumes that four of the five divisions, totaling 47% of the budget, will not be impacted by the additional development occurring at Port Covington. These divisions are Courthouse Security, Service of

Protective and Peace Orders, District Court Sheriff Services, and Child Support Enforcement. While there may be fixed costs within the Sheriff’s Office, in our opinion it is disingenuous to assume that if an additional 12,073 residents are generated by the Port Covington development it will place no demands on the service of protective orders or enforcement of child support.

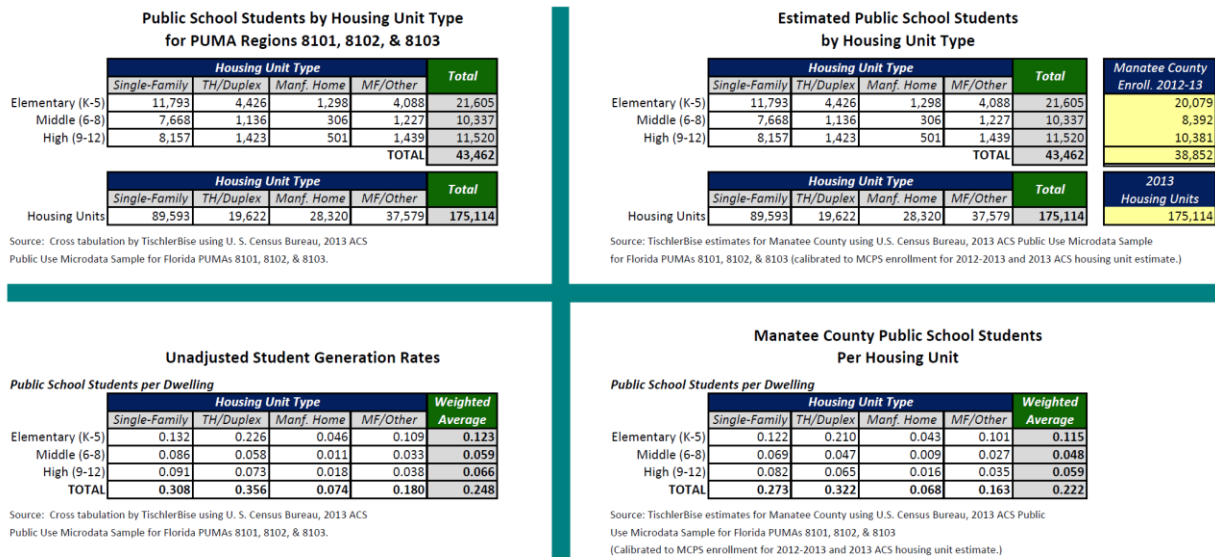
Baltimore City Public Schools

Baltimore City Public School expenditures are projected to increase with additional student enrollment, based on a projection of new students using student generation rates by housing unit type.

MuniCap used student generation rates by housing type (apartments and condominiums) from Baltimore County Schools District 2 because the Baltimore City Schools could not provide rates specific to the City. Presumably this was an attempt to obtain rates from a location nearby with a large amount of multifamily units. However, there is little discussion of the likelihood that these stand-in rates approximate the rates that will be seen in the proposed development. Pupil generation depends on size of unit along with a whole host of demographic and socioeconomic factors. Therefore, when rates are not from the locality in which a development is proposed, a discussion of the characteristics of the data source should be included in the analysis, particularly given the large share of municipal budgets devoted to education.

Moreover, there are a number of other methodologies for calculating student generation rates if geocoded student address data is not available. For instance, using a comparison methodology for specific developments that are similar in housing stock quality and size could provide more accurate generation rates. Additionally, TischlerBise has utilized a methodology for calculating generation rates that utilizes U.S. Census Bureau Public Use MicroData Sample (PUMS) data combined with school district enrollment data. This information can be used to derive rates for a variety of housing unit types and sizes. This methodology is shown in Figure 5.

Figure 6: TischlerBise’s PUMS Student Generation Rate Methodology



No Analysis of Capital Impacts

MuniCap's fiscal impact analysis does not include an evaluation of the impact of the Port Covington development on City of Baltimore capital facilities. The TIF application notes that numerous capital costs for interchange improvements, an intra-development circulator train, and a light rail extension, for instance, are assumed to be covered either by the Tax Increment Finance district or various state or federal grants/contributions. Also, the developer proposed to include some land for parks and open space as part of the project. It appears the analysis assumes this is the limit of any impacts on City infrastructure as a result of Port Covington.

Parks and Recreation Facilities

It is not uncommon for a development project to include open space or park amenities as part of the development. Generally, these improvements are intended to serve the residents of that development, and are not intended to satisfy city-wide parks and recreation needs such as community park land, athletic complexes, and recreation and community centers. The MuniCap report contains no discussion of current City parks and recreation facilities or of current levels of service. In other words, there is no discussion or analysis of the impact of Port Covington's 12,073 residents on the City's parks and recreation infrastructure.

General Government Facilities

Similar to parks and recreation, the MuniCap report does not discuss current City levels of service for general government facilities or whether the increase of over 27,000 in service population will have an impact on the provision of general government space.

Police Facilities

The MuniCap report contains no discussion of current City level of service for police facilities and whether the increase of over 27,000 in service population will have an impact on the provision of police space. It has been our experience through discussions with police departments around the country that developments similar in size and scale to Port Covington often require a substation within the actual development. It is often the case that this space is provided free-of-charge to the city. In addition, we are often told that the catalytic effect of a Port Covington-size project spurs redevelopment nearby, necessitating the need for an actual stand-alone substation, which is usually a City expense.

Fire Facilities

The MuniCap report contains no discussion of the current City level of service for fire stations and whether the increase of over 27,000 in service population will have an impact on the provision of fire station space and apparatus. Items that need to be addressed include which station(s) would serve Port Covington, current call volume versus capacity, and based on current call volumes can the station(s) handle the addition of Port Covington without additional space and/or apparatus. Additionally, the fire station(s) serving the Port Covington area may currently not have adequate equipment to serve development with Port Covington's scale. For example, a new ladder truck may be required due to the height of the new buildings. Finally, similar to the police discussion, if the development of Port Covington were to have a catalytic impact and spur redevelopment nearby, how would that impact fire station space and apparatus needs?

Roads

We know from the Port Covington TIF Application that there are numerous transportation-related improvements planned that will be funded through various state and federal funding sources, and possibly tax increment financing. However, there is little discussion or analysis on the impact of the Port Covington development on the City's existing transportation infrastructure. For example, a developer is usually required to mitigate the impact of his development in two ways. First, the onsite impacts are addressed, which usually consists of turn lanes and/or intersection improvements. Second, there is an impact of the development on system-wide transportation capacity. These are infrastructure needs that cities and counties typically address through the collection of impact fees. In a redevelopment situation such as Port Covington, it is often the case that the existing city transportation infrastructure can handle the increased traffic volumes. However, there is no explanation provided if this is the case.

Schools

We know from the MuniCap fiscal impact analysis that they are projecting 884 public school students to be generated by Port Covington. However, MuniCap includes no analysis or evaluation of current Baltimore City Schools infrastructure and whether there is capacity in existing schools to handle this increase in students, or if existing bus routes are adequate.

ANALYSIS OF EMPLOYMENT PROJECTIONS

Overview

MuniCap chose to project retail and hotel jobs resulting from the proposed development using IMPLAN software (published by IMPLAN Group, LLC). IMPLAN is an industry-accepted product that is most useful for calculating indirect impacts of development through the use of multipliers that can be used to calculate indirect jobs and dollar outputs created by jobs directly related to a specific development (i.e., “spin-off” effects). However, it can also be used to calculate direct jobs expected at a development. IMPLAN utilizes U.S. Bureau of Economic Analysis National Income and Product Accounts data to calculate labor income and numbers of jobs by industry and indexes these numbers against U.S. Census Bureau data for specific localities.

Total direct employment is typically calculated by determining the average square feet per employee for each individual land use. For instance, MuniCap reports that IMPLAN projects retail development at Port Covington would generate 3.72 full-time employees (FTE) per 1,000 square feet, or 269 square feet per employee. Total buildout retail square footage (1,304,040) is then divided by the latter number (269), yielding a total of 5,920 retail jobs. In the same fashion, IMPLAN projects 0.43 FTEs per hotel room for a total of 95 FTE (resulting from a 200 room hotel).

To derive a manufacturing jobs-to-square footage ratio, MuniCap used another national source, *Logistics Trends and Specific Industries that Will Drive Warehouse and Distribution Growth and Demand for Space*, published in March 2010 by the NAIOP Research Foundation. Until 2009, NAIOP was the National Association for Industrial and Office Parks, but the organization now focuses on commercial real estate development more broadly. Using a rate of 0.46 FTEs per 1,000 square feet of manufacturing space, MuniCap projects a total of 139 manufacturing FTEs from 303,016 square feet at Port Covington.

MuniCap utilized a localized data source for information on the relationship of jobs and office space: the *BOMA Experience Exchange Report (2014)* for the Baltimore, MD market. This study reported an average square feet per employee of 226, yielding a total of 18,844 employees (from a total of 4,251,500 square feet of office space). This figure is multiplied by an FTE equivalent of 0.9298 (from IMPLAN), resulting in a total employment of 17,521 FTEs.

Finally, MuniCap uses 75% of the assessed value of residential and non-residential costs of construction for the Schedule I projects to calculate temporary construction jobs. Jobs are derived using IMPLAN multipliers and an FTE equivalent multiplier. This process results in a total temporary construction job count of 14,603 FTEs over a one-year basis.

Analysis

In general, TischlerBise finds these projection methodologies to be valid. To calculate job increases, TischlerBise often uses square feet per employee data from the Institute of Transportation Engineers’ *Trip Generation (2012)* manual. The ITE manual would project fewer retail workers, since it estimates 500 square feet per employee in the typical shopping center (as opposed to 269). The manual would also

estimate lower numbers of office jobs for the same reason. Interestingly, ITE estimates the average square feet per manufacturing employee at 558, and light industrial at 433. These figures are dwarfed by MuniCap's inputs from NAIOP, which are close to 2,000 square feet per employee. Therefore, the MuniCap estimates may be conservative on manufacturing jobs and/or generous on office and retail jobs. The projection of temporary construction jobs is reasonable as well, though the inclusion of a narrative basis for using 75% of construction costs as the employment projection base would be informative for further analysis.

It is important to note that with the exception of the temporary construction jobs, the direct job figures are not job *creation* figures: they are more akin to job *hosting* figures, in that they describe the jobs that will be *located* at the development. The development is more intricately connected to job creation as it pertains to the indirect effects, since by locating in the City the development is bringing in wages that then build demand for other services. Even this is a murky relationship, however, especially if you have businesses moving from an existing location in the City to the new development. That is, to the extent creating a desirable new venue in Port Covington cannibalizes economic activity now located in the Central Business District or other parts of Baltimore, some "new" jobs will actually be existing jobs with new addresses. From a citywide fiscal perspective, this is essentially a net neutral move.

Moreover, this jobs analysis should not be framed as an analysis of decreasing City unemployment. Though this may occur, it is important to note that many jobs may be filled by in-migrants or commuters instead of existing residents. People migrate to areas with strong economic growth, particularly in the United States, where there is a notably high degree of labor mobility. This is particularly true of high-skill jobs related to the development of manufacturing or R&D space, back-office support, finance and insurance, or corporate headquarters functions like those at Under Armour. Similarly, claims that jobs require less skill or training or that serve the local population are expected to increase income or employment should also be taken with a grain of salt. A local population can only support so much retail, housing, and other general every-day service establishments, and expansion through one development may displace sales for competitors. Though in the case of Port Covington, a large residential increase will temper these effects, if the development becomes a regional entertainment or retail hub, this effect may be present.

Inclusion of Multiplier Effects in the Job Projections

As noted above, a fiscal impact evaluation analyzes new tax revenue generation and operating and capital costs to a jurisdiction associated with the provision of public services and facilities to serve a new development—residential, commercial, industrial, or other. A fiscal impact analysis is different than an economic impact analysis. Whereas a fiscal impact analysis projects the cash flow to the *public sector*, an economic impact analysis projects the cash flow to the *private sector* (measured in income, jobs, output, indirect impacts, etc.).

MuniCap chose to include results from the use of IMPLAN multipliers to also calculate the *indirect* job creation and dollar outputs for its fiscal impact analysis. When a firm locates to a new location, its "upstream" purchases of goods and services and the "downstream" purchases of its employees can have

significant “spin-off” effects on the local economy if a large share of these expenditures are made on locally-sourced goods and services. This “multiplier” effect describes the portion of the initial direct increase in company expenditures on goods and services and employee wages that is spent locally. A similar multiplier effect can occur from industry “clustering” as well (when a large expansion or relocation attracts other related firms or suppliers to an area).

However, even though the multiplier effect has the potential to increase income tax revenues for the City, this portion of MuniCap’s analysis is more traditionally conceived of as *economic* impact analysis, rather than *fiscal* impact analysis. The reason for this distinction is that multiplier effects can be extraordinarily complex. For instance, infusions of capital can continue to ripple through the economy multiple times as it changes hands from business to business and person to person. Moreover, unless a development is entirely leased up prior to the completion of a fiscal impact analysis (which is highly unlikely), it is difficult to estimate how new development and businesses will compete with existing development. Existing jobs or businesses may be displaced by the new development, dampening positive fiscal impacts. Although MuniCap does not appear to have included these indirect impacts in the fiscal impact analysis, it could be misleading to include them in the job projections as anticipated revenues when discussing the fiscal impact of Port Covington.

ANALYSIS OF DEVELOPMENT PROFIT

TischlerBise also examined the development pro forma provided in the TIF application. This is very difficult to do without access to the Excel version of the pro forma, since one important aspect of pro forma due diligence is stress testing via various risk and development scenarios. Nevertheless, in this section TischlerBise provides some high-level analysis of the profit projections.

The first aspect of the pro forma considered was the Internal Rate of Return (IRR). IRR is a metric used to measure the profitability of potential investments by evaluating the return on an initial investment (projected cash flows) over time. Technically, the IRR is the discount rate (interest rate) at which the net present value of cash flows equals zero, or the cost of the initial investment.

The pro forma projects an unleveraged IRR of -1.90% without the TIF infrastructure bond revenues and 9.24% with the TIF revenues. The application notes that the latter figure is in line with IRRs reported in the *Fourth Quarter 2015 PwC Real Estate Investor Survey*. This survey noted that development IRRs ranged from 10% to 20% nationally, with an average of 15.50% during the fourth quarter. However, given the fact that real estate markets vary dramatically nationally, a more informative pro forma would situate this IRR within the Washington, DC – Baltimore, MD metropolitan region, determining expected net operating incomes and capitalization rates from case study projects.

Acceptable IRR is subjective and dependent on the inclinations of the investor and the context of the development. For instance, high net-worth individuals simply looking to make the investment with the highest returns may view a land development project as one potential investment which must be measured against other investments available in the financial markets or venture capital space. These investors may simply choose the investment with the highest IRR given the amount of capital available for investing. Land developers, on the other hand, tend to view IRRs within the specific real estate space, comparing IRRs for different types of developments or building operations.

Moreover, IRRs must be evaluated within the context of the development as a whole, including the amount of capital invested initially and risk to all equity stakes. A project with a very high IRR may not be desirable to an investor if he or she must stake a large share of initial capital. Likewise, a project subject to a large number of exogenous risks (e.g., a complicated entitlement project, uncertain market conditions, or a difficult development site or location) will probably not be as appealing as a less risky project with the same IRR. Therefore, riskier projects may require higher IRRs. This is particularly true when developing in an unproven area or when a large amount of investment is required, such as Port Covington. In those cases, desired IRRs may reach into the 20 percent range.

TischlerBise has several other concerns about the pro forma. For one, it appears calculations were only made using Sagamore's current land acquisition investment of \$114,731,000. If the developer must also acquire some portion of the additional approximately 100 acres in the development area, what will it cost and why is it not included in the total development costs? Related to this point, if the TIF is approved,

acquisition costs can be expected to increase as current owners anticipate critical mass is building for the development and so demand higher prices.

Likewise, one of the most important project revenues is land sales, which hinges on assumptions about demand, market comparables, and vertical development returns (following initial land development). However, although square footage estimates for market comparables are included, they lack detailed explanation or sourcing. Similarly, more detailed information on the vertical development return expectations is excluded from the report. The inclusion of a detailed market analysis could ameliorate these concerns.

In general, the fact that no market study is included with the TIF application is odd. Typically, a granting authority would want to see the evidence of demand for new development when such a large amount of public revenues is requested to fund infrastructure for it, not to mention the fact that a detailed and vetted market study will be required by any prospective lending institution. It is not enough to simply say that the residential units will create a market for the nonresidential space, or vice versa, or that the development is so big that it will create its own markets. Too often this assertion has proved untrue. A market analysis is also critical to evaluating sales prices, since sales prices will vary dramatically with various prevailing absorption and vacancy rates.