"A Public Finance Analysis of the Seattle Arena Proposals"
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Summary

The City of Seattle is considering two proposals to develop an NBA/NHL arena. Oak View Group (OVG) has proposed to re-develop Key Arena. The other, hereafter called "SODO," calls for a new arena near Seattle's existing professional baseball and football/soccer facilities in the south of downtown (SODO) district.

On May 19, 2017 the SODO group hired Justin Marlowe, a professor of public finance at the University of Washington, to analyze the public finance dimensions of both proposals. Dr. Marlowe performed that analysis with the assistance of three Master of Public Administration students at the University of Washington: Grant Dailey, Angela Pietschmann, and Alex Schoemann. Ms. Pietschmann and Mr. Schoemann are Certified Public Accountants. This report outlines our methodology and main findings.

This analysis has two objectives. First is to highlight the public finance implications of both proposals. Specifically, we focused on the City tax revenues each proposal would likely generate, and where those revenues would flow. In our view these revenue flows are essential information for anyone considering the overall benefits and costs of both proposals. In the narrative below we also highlight other important public finance details for each proposal, including: non-tax revenues, capital expenditures, operations and maintenance spending, and others. Our second objective is to provide City leaders, and the public, a tool to engage these public finance details more deeply. To that end, we have made our analytical model available, and we welcome feedback.

Our model is simple but comprehensive. It includes more than 100 unique assumptions that drive estimated tax collections. Those assumptions cover ticket prices, concession sales, tax rates, parking patterns, and many other factors. The model then places those tax collections in one of three “buckets”: 1) City General Fund; 2) City Arena Fund; and 3) Redirected. The “City Arena Fund” is the provisional name – taken from the OVG proposal – for the City fund that would account for revenues generated at the Arena but repurposed for Arena maintenance and operations. Revenues flow to the City’s General Fund if the proposer has offered to pay that tax, or if the City transfers residual revenues from the Arena Fund to the General Fund. Redirected revenues flow to the project directly, or are not collected because they are outside the tax’s original intent.

Under a "base case" set of assumptions applied to both proposals, the model suggests the following:

- **SODO's estimated contribution to the City General Fund is three times OVG's.** The SODO arena would send an estimated $103 million (inflation-adjusted) of new tax revenues to the City General Fund over 35 years. Under the same base case assumptions OVG would generate just under $34 million. These estimates are also consistent across different scenarios. For example, under an "aggressive" set of assumptions SODO would send just short of $111 million to the General Fund, where OVG would send just short of $47 million. "Aggressive" in this context means more successful teams that could command higher ticket prices, higher attendance at games, and other assumptions that would increase revenues. By contrast, under lower ticket prices, lower attendance, and other "conservative" assumptions, SODO and OVG would send to the General Fund just short of $67 million and just short of $25 million, respectively.
- **Both plans redirect roughly the same amount of tax revenue.** In the base case scenario, the SODO plan redirects approximately $205 million of City admissions tax. The City admissions tax has historically financed the public's share of capital investments in publicly-owned Seattle sports and entertainment facilities. The SODO group's position is that collecting that tax on a privately-owned facility puts team owners at a competitive disadvantage relative to markets that do not collect that tax. OVG asks the City to redirect to the City Arena Fund approximately $167 of new City retail sales tax, construction sales tax, admissions tax, parking tax, and the leasehold excise tax. If OVG asks the state and county to redirect their respective portions of those same taxes, then under the OVG plan the total taxes redirected exceed $200 million.
- **OVG's impact on the City's finances hinges on revenue sharing.** OVG has said it will consider transferring some portion of the revenues from the City Arena Fund to the General Fund once the City Arena Fund has received $40 million of redirected revenues. Our model indicates the City will reach that threshold in approximately year 9, and it assumes an annual transfer to the General Fund equal to 10% of the revenues that flow to the City Arena Fund each year. Of course, the City could negotiate a much higher sharing rate and send more revenue to the General Fund as a result. This assumes, of course, that the Arena Fund revenues are more than adequate to cover the arena's annual capital spending needs. It also assumes the City Arena Fund would not be the funding mechanism for a major arena renovation. Recent experiences suggest that even with a properly-funded capital spending plan, most NBA facilities require a major renovation 12-15 years after opening, with renovation costs ranging from $50 million (New Orleans) to $192 million (Atlanta). If the City Arena Fund is the funding source for a renovation, those costs would almost certainly exceed OVG's contribution to the General Fund.

- **SODO would contribute approximately $100 million of property taxes to local governments other than the City of Seattle, especially schools.** We focused on City of Seattle tax revenues because we can assume both proposals will advance the tax arrangements with the City outlined in their public statements to date. We are less sure about similar arrangements with King County, the Port of Seattle, Seattle Public Schools, and other overlapping local governments. However, we can be sure that: 1) OVG will not pay property taxes because the renovated Key Arena will remain publicly-owned; 2) SODO will be privately-owned; and 3) SODO has pledged to pay all applicable local property taxes. Seattle Public Schools' tax rate in 2016 was $2.18 per $1,000 of assessed value, and the State School Fund rate was $2.17 per $1,000 of assessed value, for a combined schools rate of $4.35. At that rate, SODO would contribute $53 million (inflation-adjusted) to public schools over 35 years. Note also that after the state budget passed in late June, the State Schools Fund rate in Seattle will likely increase. Add to that an additional $3.51 per $1,000 for the ports, emergency medical services, and other local taxing jurisdictions, and SODO's total property tax contribution to governments other than the City of Seattle is approximately $98 million.

We hope this analysis brings valuable information to the robust public debate now under way.

Background and Caveats

Dr. Justin Marlowe is the Endowed Professor of Public Finance and Civic Engagement at the Daniel J. Evans School of Public Policy and Governance at the University of Washington. He has is an internationally-recognized expert on public finance and budgeting, and is a Certified Government Financial Manager. He has published four books and dozens of scholarly articles on public finance. He was also part of King County's independent expert team that reviewed the SODO proposal that resulted in the 2012 memorandum of understanding.

The SODO group commissioned and paid for this project. From the outset they insisted on an independent, fair, and transparent analysis. They did not attempt to influence our methods or findings. Our payment for this project is not in any way contingent on our findings.

Throughout our process we attempted to contact the City to share our objectives for this project and to seek City input on our key assumptions and modeling strategy. City staff did not respond.

It's also important to make clear what this analysis is, and what it isn't:

- The views expressed in this report are not an official position of the Evans School of Public Policy and Governance or the University of Washington.
- This is not a "benefit-cost" analysis. We do not attempt to measure how many jobs each proposal would create, the cost to the public of additional traffic, each proposers' anticipated investments in infrastructure and other community benefits, impacts on local businesses, or any of the myriad other considerations that surround these types of proposals. The public finance details are a monumentally important factor, but just one of many factors decision-makers will need to weigh when considering which proposal is right for Seattle.
- To put this previous point a bit differently, we hope this analysis offers City decision-makers an essential data point as they consider the trade-offs that surround both proposals. Specifically, our model suggests SODO will contribute $103 million to the City General Fund, and OVG will contribute $34 million, a difference of around $68 million. Is that $68 million difference – or perhaps as much as $168 million including property taxes from other local jurisdictions – enough to consider an alternative development path for Key Arena? How much should OVG's promised investments in local non-profits and other community organizations offset that $68 million? And so forth.
- We limited our detailed financial modeling to taxes collected by the City of Seattle. No doubt, both proposals have implications for King County, Seattle Public Schools, the State of Washington and other jurisdictions. Unless otherwise noted, we assume these other jurisdictions would negotiate their own arrangement with the selected partner group, and that arrangement may or may not call for those jurisdictions to redirect some of their own taxes to the project.
- We did not intend to draw definitive conclusions about which proposal is "best." We also do not attempt to recommend which proposal the City ought to select. We hope Seattleites examine our model, populate it with their own assumptions, and draw their own conclusions.

Technical Points About the Model

- *Coverage.* The model covers the six taxes the City would typically collect from this type of arena: property, sales, admissions, business & occupations (B&O), parking, and leasehold excise.
- *Overall Revenue Assumptions*. It includes more than 100 inputs and assumptions needed to estimate future tax collections. Those inputs and assumptions cover a variety of issues such as ticket prices, concession sales, parking, tax rates, property values, and many others. Some of the inputs are known because they are defined in law (like local tax rates) or in each group's proposal (like whether a certain revenue source is exempted or the expected arena seating capacity). Some are based on previous studies or other empirical evidence (like expected ticket prices or parking utilization). We include at least one citation for every assumption based on other sources. For some assumptions we rely on data from the original Seattle Partners RFP response.

- *Tax Base and Rate Assumptions*. We employed the following assumptions when computing the taxable base for each of the six City revenue sources in question:
    - Property Tax – Assumes 1% annual growth (per state law) from the original assessed value.
    - Sales Tax – Construction sales tax is applied to "hard" construction costs (i.e. labor and materials), assumed to be 67% of total construction costs. Retail sales tax is based on taxable concessions, catering, and merchandise at arena events.
    - Business & Occupations (B&O) Tax – We assume arena operators would be required to pay or otherwise negotiate three categories of the B&O: 1) retail; 2) service; and 3) intangible and other. The base for the retail component is all taxable retail sales subject to the retail sales tax (see above). The base for the service portion is the same as the base for the admissions tax (see below). The base for the intangible component is the local broadcast revenues distributed under the NBA and NHL's broadcast rights agreements. We assumed the broadcast rights for a Seattle NBA and/or NHL team would be comparable to the current median local broadcast revenues in both leagues. The actual base for the intangible portion would likely include other local revenues not related to retail or service activities, so these estimates based on local broadcast rights alone likely understate the actual collections.
    - Parking Tax – Taxable base is the projected numbers of vehicles driving to and parking at each facility.
    - Leasehold Excise Tax – Derived from rent paid by OVG to City of Seattle.
    - Admissions Tax – Taxable base is projected ticket sales for events at both facilities.

- *Model Mechanics*. The model assumptions are listed on the "Assumptions and Parameters" tab, and the revenue projections are in the "Revenue Projections" tab. Revenue projections are based on the assumptions in the "Active Model Assumption" (column B) on the "Assumptions and Parameters" tab. To change an assumption, simply change the number in the Active Model Assumption column.
- *Non-Tax Revenues*. The model does not include non-tax revenues such as rents paid to the City, naming rights, tax credits, sponsorships, or concessions on City-owned parking facilities. The SODO arena would be privately-owned and therefore would not pay rent to the City, and the owners would keep any revenues from naming rights or sponsorships. None of the other non-tax revenue assumptions are relevant to it. OVG includes several non-tax revenues that are difficult to quantify and are therefore not included in the model, but have implications for the City and are worth mentioning:
    - OVG's plan would redirect all revenues from naming rights and sponsorships of City-owned facilities (Key Arena and potentially other Seattle Center properties) to the project.
    - The City would credit a portion of incremental City tax revenues against OVG's proposed rent payments. It's unlikely those incremental revenues

would equal the proposed rent, especially in the arena's early years. However, in the absence of more details on how that crediting would work, we simply do not include rent in the model.

  - OVG has proposed to use federal historic preservation tax credits as part of its capital financing mix. President Trump proposed to eliminate those credits in his 2018 budget.
  - OVG proposed taking over three city-owned parking ramps at and near Seattle Center. We do not attempt to quantify the non-tax revenue OVG would generate from those ramps, but it's likely a material amount in OVG's overall financial plan.

- *Cost Overruns*. The base case model includes new construction costs equal each proposal's stated costs. SODO assumes any risk for construction cost overruns because it is privately-financed. In the OVG plan it's unclear whether OVG or the City is responsible for cost overruns, and in particular, for any cost overruns due to the "city requirements" OVG called out in its RFP response.
- *Horizon*. The model assumes a 35 year horizon. The SODO proposal is not a lease and therefore does not have a specific time period, but we assume 35 years to keep consistent with OVG.
- *Arena Occupancy*. Consistent with both proposers' public statements, we assume OVG would operate with concerts and other events only in Years 1-3, with an NHL team arriving in Year 4, and an NBA team arriving in Year 8. By contrast, the SODO MOU (or equivalent agreement in the future) requires an NHL or NBA team before the project goes forward. We therefore assume construction in Year 1, an NHL team in Year 2, and an NBA team in Year 4. For these same reasons, OVG's Year 1 for the purpose of this model would likely a different year than SODO's Year 1.
- *Structure of the City Arena Fund*. Per OVG's proposal and subsequent correspondence with the City, we assume if OVG were selected the City would establish a "City Arena Fund" to account for the City revenues redirected to the Arena and for spending on maintenance, operations, and debt service. A key question surrounding this Fund is whether the taxes redirected to it will be adequate for cover the requisite spending. OVG has also proposed to share any residual revenues from that Fund with the City if the Arena is successful. For that reason the relationship between the Fund's revenues and spending is even more important. We do not attempt to quantify the necessary level of spending from the fund, nor do we project OVG's likely debt service payments. At this time it's also unclear whether OVG or the City would be responsible for any shortfall in revenues needed to fund required capital, maintenance, or operations spending (i.e. the project's "demand risk"). There are simply too many unknown details to make credible estimates of those figures. We do assume, however, that if OVG is selected it will indeed share some revenues with the City. In our base case scenario we assume annual spending from that fund will be of 60% of annual revenues. We further assume OVG will agree to share half the residual revenue with the City, for an annual share – presumably transferred to the General Fund – of 20% of the City Arena Fund revenues.

- *Pre-Season, Playoffs and Strikes.* Financial models of sports arenas often assume higher numbers of games in a given year because the team reaches the playoffs. They also assume lower numbers of games for seasons shortened by strikes or lockouts. These are useful assumptions, but we choose here to focus on more predictable regular season games.
- *Discount Rate.* Our assumed discount rate is based on 30 year US Treasuries. As of June 23, 2017 that rate was 2.7%, and most economists anticipate rates rising to near 3% by the end of 2017.

Scenarios and Results

The “base case scenario” revenue projections are based on the assumptions identified in the spreadsheet. Those base case scenarios assume NBA and NHL teams with ticket prices, attendance rates, and concession/merchandise sales near the average for their respective leagues. To further test the model we also developed two alternative scenarios – an “aggressive” case and a “conservative” case. The aggressive case assumes NHL and NBA teams arrive sooner than expected and are near the top of their respective leagues in sales and attendance. The conservative case assumes both teams arrive later than expected and are in the bottom quartile of their respective leagues for sales and attendance. Those assumptions are listed in Exhibit 1 below. For the three cases we manipulate only these assumptions. All other assumptions are held constant.

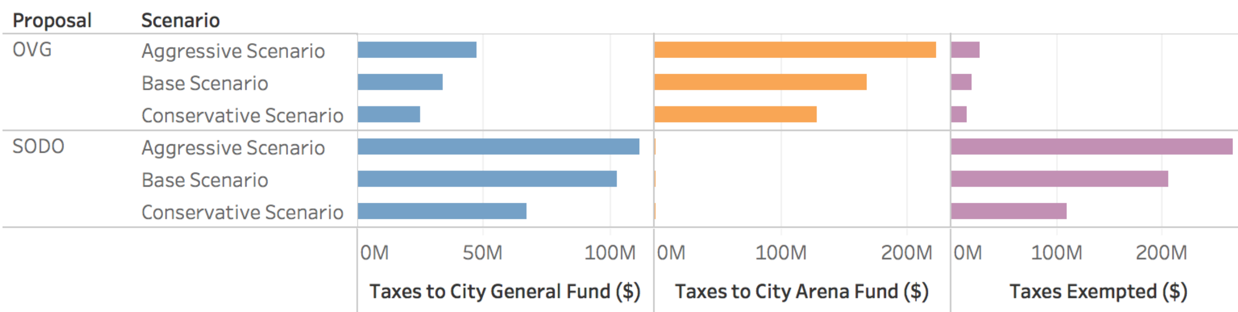
Exhibit 1: Key Assumptions for Base Case, Conservative Case, and Aggressive Case Scenarios

Assumption	Base Case	Conservative Case	Aggressive Case
NBA/NHL Per Person Concessions and Merchandise	$16.95	$12	$21.75
Concert/Other Event Per Person Concessions and Merchandise	$22	$18	$22.00
Average NBA Ticket Price	$65	$45	$85
Average NHL Ticket Price	$63	$50	$95
NBA Sell Rate for regular seats	93.50%	80%	98%
NHL Sell Rate for regular seats	90%	80%	98%
NBA Sell Rate for suites	85%	80%	98%
NBA Sell Rate for club seats	93%	80%	98%
NBA Occupancy	SODO = Year 4 OVG = Year 8	SODO = Year 7 OVG = Year 10	SODO = Year 2 OVG = Year 4
NHL Occupancy	SODO = Year 1 OVG = Year 2	SODO = Year 1 OVG = Year 4	SODO = Year 1 OVG = Year 1

Note: See the Financial Model for source information on specific assumptions

Exhibit 2 shows the predicted revenue flows into all three buckets for both proposals under all three scenarios. In the Base Scenario SODO contributes just over $100 million to the City General Fund, and OVG contributes just under $34 million. In that same scenario OVG contributes more than $167 million to the City Arena Fund. As described above, the SODO facility would be privately-owned, so as a result, the SODO plan calls for the City to not collect that tax.

Exhibit 2: Estimated Tax Revenue Flows from Seattle NBA/NHL Proposed Arenas



Source: Calculations based on estimates from the Financial Model.