The Center for Real Estate and Finance
Leaders in commercial real estate education, research, and knowledge

WORKING PAPER SERIES-2014

WORKING PAPER 2014-005

An Analysis of Data Regarding Public Private Partnerships to Encourage Hotel Development in the United States

Robert R. Nelson and Jan A. deRoos

August 6, 2014

This working paper is preliminary in nature. Please do not quote or cite without the expression of the lead author.

Cornell University
School of Hotel Administration

AN ANALYSIS OF DATA REGARDING PUBLIC PRIVATE PARTNERSHIPS TO ENCOURAGE HOTEL DEVELOPMENT IN THE UNITED STATES

Submitted by:
Robert R. Nelson, Ph.D.
University of Delaware
Newark, Delaware - USA
bnelson@udel.edu

Jan A. deRoos, Ph.D.
Cornell University
School of Hotel Administration
Ithaca, NY – USA
Jad10@cornell.edu

ABSTRACT

In recent decades, communities in the United States have increasingly turned to public private partnerships, also known as PPPs or P3s, to encourage development of large convention headquarter hotels. Under such arrangements communities provide incentives to encourage private sector investors to build hotels that can house delegates, exhibitors and other attendees participating in events at publicly owned conventions centers. In recent years the practice of public subsidies, and in some cases outright public ownership, has spread beyond convention hotels to a wide range of hotel projects. This study presents data collected on these publicly assisted hotels to provide a picture of how these arrangements are structured. It goes on propose an economic model based on the income capitalization approach to valuation to determine the rate of return that communities can expect from their investments in these projects.

Keywords: public private partnerships, PPPs, hotels, economic development, financing

---

This research was made possible through support provided by Cornell University's Center for Real Estate and Finance (CREF) and the University of Delaware's Hospitality Associates for Research and Training (HART).

INTRODUCTION

The use of public money to encourage convention hotel development has become common practice in the United States. Today the use of public financing arrangements known alternatively as public private partnerships, PPPs or P3s are used to encourage, not only convention hotels, but hotel projects of all kinds both large and small. These incentives can take many forms that are detailed by Nelson, Baltin and Feighner (2012). Among them are:

- tax rebates and deferrals including payments in lieu of taxes (PILOTs)
- waiving development impact fees and/or building permits
- lowering development costs by subsidizing one or more aspects of the project, particularly related infrastructure
- low cost leases or sales of public land
- assisting the project with public debt instruments which might include tax increment financing (TIFs)
- direct subsidies through development grants.

This study presents data collected and verified from consulting firms, public records, published studies, hotel companies and other public accounts regarding hotel PPPs in an attempt to provide a better understanding of this trend that is of growing importance in the United States hotel market.

Why Use Public Subsidies for Convention Hotels?

There are situations where the returns are such that a desired convention hotel project cannot attract enough private sector capital to be developed. In these cases, it can make sense for the public sector to subsidize the project because the public sector can capture benefits from the hotel's development and operations that the private sector cannot. Among these are increased tax revenues, job creation, improved performance of a convention center, potential gentrification of a blighted area and an amenity that enhances the community.

In the United States, this practice began with large convention headquarter hotels. The high development costs associated with large full service convention hotels, fluctuating booking patterns, along with the expensive full service amenities expected at such properties combine to make a challenging business model for these buildings. In the United States most major convention centers are public projects designed to attract tourists and their highly taxed spending. The competitiveness of the North American convention market is such that most centers operate at considerable deficits (Laslo & Judd 2004, Murphy 2005 and Sanders 2005). In this market, a convention hotel is deemed a compulsory amenity that many communities have found necessary to encourage with incentives or sometimes develop themselves as publicly owned facilities.

Communities are willing to spend money to attract convention tourism because it is a highly taxed and labor intensive industry that creates jobs for a variety of skill levels. Among the taxes generated by tourists are transient occupancy taxes (TOT), sales taxes, airport landing fees as well as taxes on rental cars and taxis. Tourist spending habits also tend to be strong on highly taxed fuel and liquor. In addition, the spillover effects of convention tourism generate

incremental property tax collections, wage tax collections, and income tax collections for these communities. Many communities have added highly taxed casino gambling as yet another way to enrich municipal budgets with tourists' dollars.

LITERATURE REVIEW

In spite of the prevalence and large size of public investments in convention hotels, attempts to quantify the return on investment (ROI) for public sector investments in specific projects are scant. Apgar and Canzoneri (2012); Hecht and Taylor (2005); Magan, Davis, Israel and Liever (2002) and Nelson, Baltin & Feighner (2012) are among those providing trends in how PPPs to encourage hotel development are structured. Hazinski (2004) not only examined trends in hotel PPPs, but also was among the first to assemble a list of publicly financed projects. Nelson (2006) proposes processes for review along with political barriers to such analyzes, but stops short of providing a model to quantify ROI for public sector investments to encourage hotel development. Detlefsen (2012) suggests that open bidding processes should be employed to minimize public subsidies.

Gee and Singh provide some non-quantitative guidelines governments can use when considering investment incentives, but offer nothing in the way of quantitative methods to assess public sector investments. In these guidelines Gee and Singh (2008, p. 142) note that "in most instances, government officials have limited knowledge of the relative costs and benefits of using investment incentives." This study looks to begin to address this important gap by providing an overall perspective on the scale and scope of public sector incentives to encourage hotel development in the United States. It goes on to suggest a model to quantify the ROI to the community for these public sector investments.

METHOD AND DATA

This study seeks to compile the most complete set of data on U.S. PPPs used to encourage hotel development. The largest publish list of such projects to date that the authors could find was the afore mentioned 2004 study by Hazinski which lists seventeen publicly financed hotels and mentions another five PPP projects that involved partial public financing. He also identified another twenty-nine U.S. cities that were considering municipal support for various hotel projects. While Hazinski had not published an update to this list, his firm, HVS, had been informally updating it over time. While acknowledging that the list was incomplete, HVS was willing to share what they had with the authors.

Prior to obtaining HVS's list, the authors had started their own data base of hotel PPPs. These lists were combined and then further augmented and added to using both published and unpublished records. In addition to HVS, the authors got data from executives at Garfield Traub Development, PKF Hospitality Consulting, Marriott Hotels and Resorts, Hilton Hotels Corporation and Hyatt Corporation. These records were checked and cross referenced to create comprehensive and accurate data on domestic hotel PPP's. Combined these sources identified 149 hotels that received some type of public assistance. Firm data needed to calculate the percentage of the project funded with public dollars was obtained for 120 of these hotels. While

this data base is an ongoing project, it is believed to be the largest and most accurate collection of information on PPPs to develop hotels in the United States. Scatter plots are presented to help visualize the data.

RESULTS AND DISCUSSION

Chart 1 plots the number of rooms in the various properties versus the percentage of the projects' funding provided by public sector financing. Several trends can be seen from this chart. The first is that those projects that are fully financed by public dollars run the full spectrum of sizes ranging from a 100 room lodge with an indoor waterpark in a tertiary market to a 1,200 room convention hotel in a gateway city. While there are a few outliers, another apparent trend is

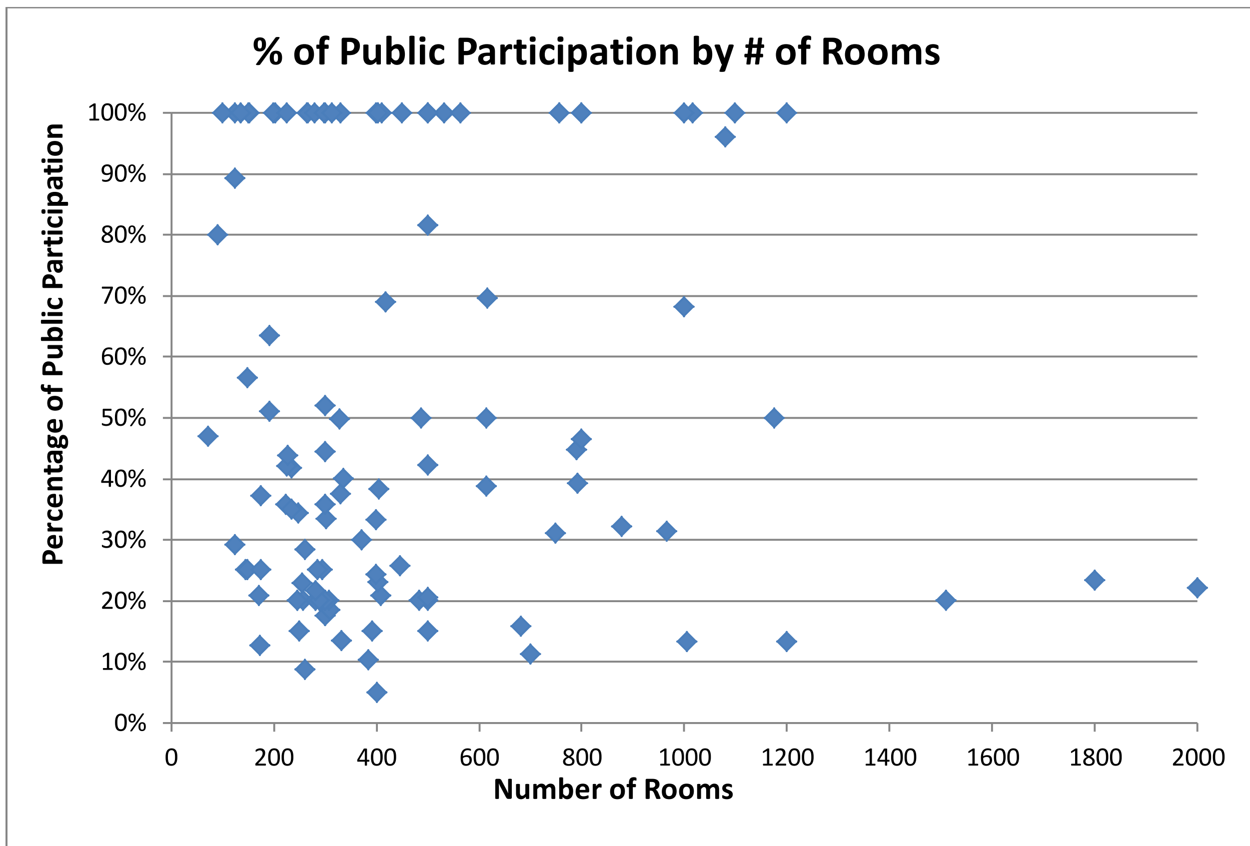

CHART 1 –Percentage of Funding Provided by Public Sector Financing by # of Rooms

that public participation in hotels projects tends to be either a minority stake (less than 50%) or a fully publicly owned project. There is a noticeable cluster of projects that fall in the range of 200 to 500 rooms that received fifteen to fifty percent of their financing from public sources.

Chart 2 plots the percentage of various projects' funding that was public sector financing by the hotels' opening dates. This chart shows that all but one of the hotels that were fully financed by the public sector opened after 1998. There was a change in the U.S. tax code in 1996

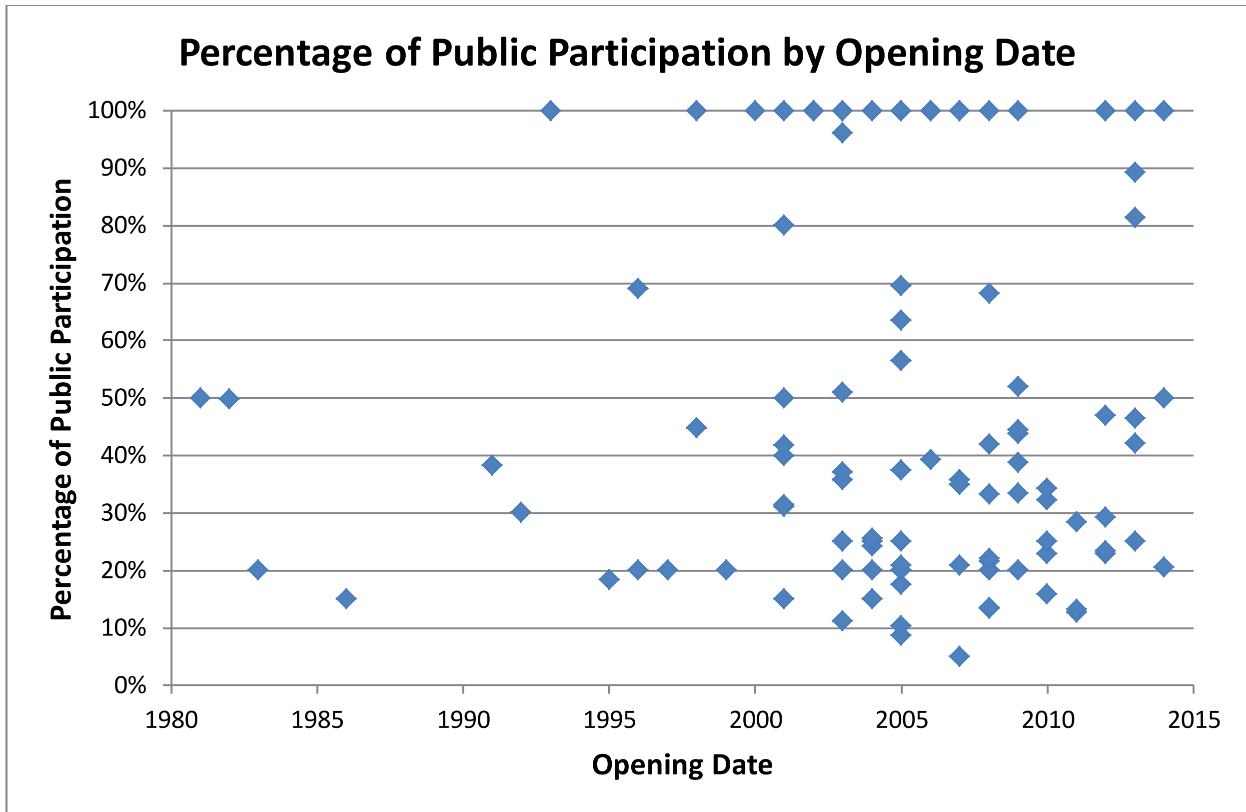

CHART 2 – Percentage of Funding Provided by Public Sector Financing by Opening Date

that enabled the financing of hotels with tax exempt municipal debt (Hazinski, 2004 p. 4). Chicago's Hyatt McCormick Place was the first project to take advantage of these new rules with many others following suit with municipal debt financing at both full and partial levels.

The effects of this tax rule change seem to kick in after 2000 as these projects take several years to go from conception to opening. The economic recession that began in 2008 slowed the number of projects currently in the pipeline, but recent indications are that domestic hotel development is picking up in the United States. The need for better information about PPPs to encourage hotel development is urgent as many of these developers are seeking various levels of public financing. The dire condition of most state and municipal budgets further heightens this need as communities cannot afford to invest in projects that will not provide them with adequate returns.

The Income Approach to Valuation

We propose the income approach to valuation as the best model to examine the ROI that communities can expect for the investments they make to encourage hotel development. The income approach is the most commonly viewed as the most reliable method to evaluate the value of investments in revenue producing real estate such as hotels (Rushmore, O'Neill & Rushmore, 2012, p. 352). While the income approach to valuation is used by investors in most U.S. hotel

real estate transactions, the authors do not know of any case where it was applied to examine the value of public sector investments in these projects.

The following formula shows how the income approach is used to calculate the value of hotel real estate:

$$\text{Value} = \sum_{i=1}^{n} \frac{NOI_i}{(1+r)^i} + \frac{NOI_n/R}{(1+r)^n}$$

Rushmore, Ciraldo and Tarras (2001) note that the income approach to property valuation starts with an analysis of the local market for transient accommodations that considers existing and proposed competition. From this information a forecast is made of income and expenses based on current and anticipated future trends along with cost components over a specific holding period to forecast cash flows, known as net operating income (NOI), over the holding period. The NOI's are then discounted along with a "residual value" of the property at the end of the holding period.

A similar valuation model can be used to determine the value for public sector investments to stimulate convention hotel development. While the cash flows that accrue to the sponsoring government are different than those that flow to the owners, like owners, governments are making an investment for which they should expect a financial return.

Rushmore, O'Neill & Rushmore (2012, p. 341) identify the following three steps to applying the income capitalization approach to valuation:

- Forecast net income for a specified number of years.
- Select an appropriate discount factor or capitalization rate.
- Apply the proper discounting and/or capitalization procedure.

A brief explanation of how these steps can be applied to public sector investments and the resulting cash flows that accrue back to the sponsoring government follows.

For public sector investments stabilized net operating income will consist of incremental cash flows that accrue to the sponsoring government expressed in current dollars. The cash flows we suggest including are:

- Transient occupancy taxes (TOT) generated by the project including any sales taxes that accrue to the sponsoring government as a result of rooms revenue.
- Incremental payroll taxes from
  - The construction of the project
  - Ongoing hotel operations
- Incremental income taxes to the sponsoring government
- Incremental property taxes
- Incremental taxes on food, beverages and other income from the property.

The discount rate will be the rate for municipal bonds issued by the sponsoring government which is their cost of capital.

The last of the three steps outlined is to apply the proper discounting procedure. For this we recommend mirroring the most common method applied to the private sector investment which is to use a ten year forecast that discounts cash flows over time to which they add the discounted value of capitalized net income in year eleven at the terminal capitalization rate. In our model, we use a modification of this technique to project cash flows over a 20 year period and a capitalized value at the end of the 20th year.

This provides a current value for the cash flows expected to be collected by the sponsoring government over the life of the project. This number can be used to calculate an ROI for the public contribution to the project. It can also be used to examine how the ROI might change by restructuring the public contribution. For example if there is a funding gap of X that is preventing a desired project from attracting adequate capital in the private sector, there are many ways that gap can be filled. A common way is to have the sponsoring government issue bonds to fill the gap and pay them off with TOT collected from the project. Another alternative is to provide a tax holiday for TOT, property taxes or other assessments. A third alternative is to wave environmental impact or other development fees. The latter option lowers the cost of the project for investors, but the actual cost to the sponsoring government of waiving these fees may be considerably less than what they charge for these fees. The type of analyzes outlined in this paper can provide better information to weigh these and other alternatives.

CONCLUSION

This study began with an analysis of data on public sector investments to encourage hotel development in the United States. This data shows that communities across the country are subsidizing, and in several cases owning outright, hotels. Many of these investments involve several hundred million dollars. There is a clear need for analysis to make sure tax payers are getting a proper return for these investments. This paper suggests a model based on the income capitalization approach to valuation to determine the ROI for public sector investments. This model determines a value for public sector investments to encourage hotel development. If this value is not greater than the investment itself, there should be very compelling reasons external to the RIO from cash flows if government officials are to commit public dollars to the project. This model can also be used to consider different ways to structure public sector participation that might improve the RIO to communities.

REFERENCES

Apgar, S. and Canzoneri, T. (2012, July 19). A "P3" Manifesto. *Urban Land.* Accessed online November 27, 2012: http://urbanland.uli.org/Articles/2012/July/ApgarManifesto?utm_source=uli&utm_medium=eblast&utm_campaign=072312

Detlefsen, H. (2012). *Public-Private Partnerships: A Strategy to Minimize Public Subsidies*. New York: HVS Consulting.

Gee, K.G. and A.J. Singh (2008). *International Hotels: Development and Management – Second Edition*. American Hotel & Lodging Educational Institute. Washington D.C.

Hazinski, T. (2004) *Public Involvement in Hotel Financing*. HVS International. Chicago.

Hecht, J.E. & Taylor, S. (2005, July 20). *U.S. convention and conference center hotel credit rating methodology.* New York: Standard & Poor's.

Laslo D. H.,& Judd, D. R. (2004). Convention centers wars and the decline of local democracy. In R. R. Nelson (Ed.) *Current issues in convention and exhibition facility development* (pp. 81-98). Binghamton, NY: The Haworth Hospitality Press.

Magan, J., Davis, R. L., Israel, P. E., & Liever, M. (2002). *Hotel projects: Financing with tax-exempt bonds*. Orrick, Herrington & Sutcliffe LLP.

Murphy, V. (2005, February 28). The answer is always yes. *Forbes*. Retrieved August 18, 2005, from www.Forbes.com.

Nelson, R.R., Baltin, B. and Feighner, B. (2012) Public-Private Financing Structures Used in the United States to Develop Convention Hotels, *Journal of Convention & Event Tourism. 13*(2).

Nelson, R.R. (2006) Public Financing of Headquarter Hotels in the United States, in *Developing a Successful Infrastructure for Convention & Event Tourism*. Ed. R.R. Nelson. Binghamton, NY: Haworth Press. pp 29 – 46.

Rushmore, S., J.W. O'Neill and S. Rushmore, Jr. (2012). *Hotel Market Analysis and Valuation: International Issues and Software Applications*. Chicago: Appraisal Institute.

Rushmore, S., Ciraldo, D.M., & Tarras, J.M. (2001). *Hotel Investments: A Guide for Lenders and Owners*. New York: West Group.

Sanders, H. T. (2005). *Space Available: The Realities of Convention Centers as Economic Development Strategy*. Washington, DC: The Brookings Institute.