
PUBLIC PRIVATE PARTNERSHIPS: AN OFF BALANCE EXPERIENCE

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INTRODUCTION- ABSTRACT

The development and maintenance of road networks has become a fundamental factor in a country's success. In the United States, the process of design, construction, financing and maintenance of individual roads has been organized in several different ways. The most preferential form of governance in the United States has become public private partnerships. Cases of attempts by different states' governments to implement public private partnerships in the realm of surface transportation reveal major difficulties in governance, policy, as well as questions of ethical conduct. The government's perception of the private sector's capability of rescuing American highway system is detailed throughout the paper. The partnership between the government and the private sector instead of combining the strengths of each seems to combine the problems inherent in each. The origin of the private entity's association is illustrated as means of giving a background of the shift in the government's position in favor public private partnerships.

BACKGROUND ON TRANSPORTATION SYSTEMS

The first roads developed along the paths created by wild animals as they pushed aside vegetation and pounded the earth with their feet while traversing the continents. The migratory movements of animals for salt and water to some extent determined the trade and travel movements of humans¹.

While animals created the first paths, the first road networks required the direct intervention of humans and their propensity to alter their natural environment. This occurred around 2000 B.C. with the discovery and subsequent dissemination of metal tools. Before the use of these tools, some concentrated population centers were creating roads using materials such as stone-pavers, corduroy, and brick. For example, Corduroy, is a method where wood logs are covered by sand and placed in a perpendicular direction of the road's desired direction. Evidence of this method can be seen in Glastonbury, England dating to 4000 B.C. Stone pavers were used in 4000 B.C. in the city of Ur located in the present day Middle East. Lastly, in 3000 B.C., the construction of one of the first roads using brick pavers occurred in India².

By 2000 B.C. the increased availability of metal tools enabled the development of more modern manufacturing techniques. Metal tools could now be used to shape stones into flagstones for paving local streets and paths. The first paved road constructed with the assistance of metal tools can be found in Crete. The road ran for 50km from the Minoan capital of Knossos, through the mountains of Crete, and ended in the southern seaport at Leben. This road was a major artery for east west Mediterranean trade.

The concept of user charges on transportation assets has a long history. The first recorded toll can be found in the myth of Charon³. Charon in Greek mythology is the ferryman of Hades, god of the underworld. Charon carried the souls of the newly deceased across the rivers Styx and Acheron. These two rivers were the division between the worlds of the living and the dead. Newly deceased

¹ Hulbert, A.B. (1904) *Historic Highways of American*. Volume 10

² Kennerell, E. J. (1958) *Roads from the Beginning*. Journal of the Institute of Highway Engineers 5 (3): 176-205.

³ Van Tilburg, C. (2007), *Traffic and Congestion in the Roman Empire*, London and New York: Routledge.

souls were required to pay a coin in order to cross into the world of the dead. Those souls who could not pay the fee were said to be left to wander the shores for an extended period of time. This myth was widely accepted by the Greek population, so much so, that corpses in Ancient Greece would be buried with a coin, ensuring that they had enough money to pay “Charon’s Toll”.

Tolls were not limited to mythology. Rather, they have had a significant impact in the historical development of road infrastructure. The implementation of tolls dates back to the seventh century B.C. when users of the Susa-Babylon highway were required to pay a fee⁴. Moreover, in Asia a number of powers implemented tolls to pay for road maintenance and to protect their users. The Roman Empire also imposed tolls on eastern sections of its domain that were controlled by Arab tribes. Roman tolling can be seen as a precursor to a modern Public Private Partnership, in that the empire contracted out the task of maintaining the road and the person responsible for the task was paid a portion of the toll revenue.

Road transportation initially governed by the instinctual needs of animals, in time developed as a metaphor for the journey of life and as a way to accommodate the needs of a human population to expand and develop.

TOLLS & HIGHWAYS & MOTORWAYS

Both tolls and vignettes are defined as fees paid by the users of the infrastructure. Vignettes differ from tolls in that they are usually time-related. This fee gives the user the right to use the infrastructure for a given period of time. The major difference between tolls and vignettes is that tolls are closely related to the use of the infrastructure, whereas, vignettes are associated with the right to access.

Highways and motorways have a number of similarities; both are defined by a system of paved roads that link major urban centers. The term motorway is primarily used in Britain, whereas, the term highway is used in the United States. Both highways and motorways are comprised of multiple lanes of vehicle traffic and serve the major purpose of providing drivers a means of faster movement. The major difference between highways and motorway is that highways can contain some traffic signals and intersections, whereas, motorways are uninterrupted by traffic signals and intersections.

WHAT ARE PUBLIC PRIVATE PARTNERSHIPS?

A Public Private Partnership (P3) is an arrangement between two parties; one party being from the public sector, and the other party from the private sector. The agreement is a means of privatization, where the private company takes over the design, building, operating and, frequently, the financing of public infrastructure project. Albalade broadly defines privatization as policies that are implemented in which the involvement and control of the private sector increases⁵. The

⁴ Gilliet, H. (1990), *Toll Roads – The French Experience*, Saint-Quentin-en-Yvelines: Transroute International.

⁵ Albalade, D. (2014) *The Privatisation and Nationalisation of European Roads*, London: Edward Elgar. xi

increase in private sector involvement ultimately affects any or all of the three main dimensions involved in infrastructure investments and motorway management; ownership, production, and long run financing. Privatization is the initiative that is taken by either party to introduce market relationships into the bureaucratic production and management of public services⁶.

The ownership dimension of infrastructure investment and motorway management is affected by the increase in private sector involvement when existing motorways that were originally owned and managed by the State are sold or leased to private entities. Ownership or asset sales can also occur when an established publicly owned concessionaires, or corporate company controlled by the state, is sold to private entities. The production dimension involves the creation and/or the management of a motorway network. This dimension can only occur when a Public Private Partnership contract is awarded to a private entity. Lastly, the long-run financing dimension is affected when private financing is introduced into a project. This occurs when a motorway begins to charge users to use the infrastructure. This user fee is implemented as a means of recovering investment and/or operation cost associated with the motorway.

In a Private Public Partnership the roles of each entity is reversed. The public entity is no longer the managing partner of the project, and the private entity is no longer the passive investor⁷. The entities' role reversal allows for the private entity to secure return on their investment in a public facility. The shift in roles by each party allows for new opportunities to be had by the private partner. The role reversal benefits the private entity as investors are able to gain revenue from different sources. Some revenue sources include; the return on capital invested, the appreciation on the equity, and the fee income collected as project service managers⁸. The increase in possible types of revenue leaves room for new hurdles for the public entity to overcome; such as, added transaction costs⁹.

These newly introduced risks require a new means of judging the effectiveness of a Public Private Partnership. Sclar states that the proper criteria for judging this new type of Public Private Partnership is not by its isolated and individual market efficiency, nor its profitability, but rather, "its overall contribution to the equity, sustainability and efficiency of the networked urban society it is intended to serve" ¹⁰.

Public Private Partnerships differ from other agreements as the arrangement is between the public and private sector to execute a project that would traditionally fall under the jurisdiction of public services but with this agreement, the project becomes the responsibility of the private sector. The public party is granting a private entity the right to use land or property for a specified purpose. Some examples of public services that have entered Public Private Partnerships within the United States are; hospitals, parking meters, park maintenance, educational facilities, and transportation

⁶ Sclar, E. (2000), *You Don't Always Get What you Pay For The Economics of Privatization*, Cornell University Press. 3.

⁷ Sclar, E. (2015), The Political Economics of Investment Utopia: public-private partnerships for urban infrastructure finance, *Journal of Economic Policy Reform*, Vol. 18, No 1.1-15.

⁸ Sclar, E. (2015), The Political Economics of Investment Utopia: public-private partnerships for urban infrastructure finance, 1.

⁹ Williamson, O.E. (1999), Public and Private Bureaucracies: A Transactions Cost Economics Perspective. *Journal of Law Economics and Organization* 15 (1).

¹⁰ Sclar, E. (2015), The Political Economics of Investment Utopia: public-private partnerships for urban infrastructure finance, 1.

infrastructure. Public Private Partnerships are comprised of at least three elements; a common goal, that is agreed upon between the public entity and the private entity, a compensation structure, and a term of contract completion. In an ideal situation, both the risk associated with the project and the reward should be equally shared between both, the public and private entity entering into a Public Private Partnership.

Public Private Partnership agreements vary in the amount for which each entity is responsible. The partnership agreement can range from being most similar to the traditional approach, of having one single public entity involved, to having almost all of the tasks associated with the project fully privatized. The goal when privatizing a public service is to force the public bureaucracies into being governed by the same competitive forces that ultimately make the private markets socially beneficial⁶.

Public Private Partnerships differ from the normal means of governmental outsourcing as the partnership involves the control of strategic assets. Strategic assets are specific to partnerships and are usually costly pieces of physical capital. The role of the government is transformed when entering into a Public Private Partnership. In a traditional government procurement for a public infrastructure project the public sector takes the lead when it comes to the facilities design, financing and operations, and only contracting with a private entity is with the builder to construct the physical facility. In the traditional project procurement the government acts as the provider of the public service¹¹. When it comes to Public Private Partnerships, the approach to infrastructure project procurement ends with the bundling of multiple services delivery functions into a single concession. Once the government enters into a Public Private Partnership their role changes from the provider of public services to the purchaser of public services¹². The public agency plays the role of the passive service consumer¹³.

Direct Public Procurement differs from a Public Private Partnership as it is defined by having the public entity finance a capital infrastructure project, by the means of either existing tax dollars or by borrowing. This type of agreement has the public entity contracting with one or more companies to design and build the infrastructure project. The public entity then hires public employees to maintain and operate the physical structure once the project is complete.

TYPES OF PUBLIC PRIVATE PARTNERSHIPS

There are two major models of Public Private Partnerships; the Demand-Risk Model and the Availability-Payment Model. The Demand-Risk Model allows for the public entity to grant the private entity the right to collect fees from the public for the use of the project, i.e. the road, bridge, subway, and airport. This model carries more of an inherent risk to the private entity, because the private party is entirely reliant on toll revenue and fees. The toll revenue and fees are used to pay back debt associated with the project's construction while paying for the fees associated with the

¹¹ Siemiatycki, M., Farooqi, F. (2012), Value for Money and Risk in the Public and Private Partnership, *Journal of the American Planning Association*, Vol. 78, No.3, 287.

¹² Siemiatycki, M., Farooqi, F. (2012), 287.

¹³ Sclar, E., (2014), *Public Goods and Private Goods: The Tradeoffs of Public Private Partnerships for Infrastructure Finance*.

project's operations. The private entity runs the risk of absorbing the consequences associated with overly optimistic traffic forecasts¹⁴.

Another popular model that is gaining traction is the Availability-Payment Model. The Availability-Payment Model results in the public entity involved in the partnership carrying more of the financial risk. The public entity pays the private party a predetermined amount, called the availability payment. The availability payment must be paid regardless of the amount of money the project generated through tolls and fees. The public sector becomes trapped in the long-term partnership. The private entity involved in the contract retains several risks, including construction cost overruns, schedule delays and fluctuation in long-term operations, maintenance and lifecycle costs of the facility during the concession⁸.

HISTORICAL BACKGROUND OF PRIVATE PUBLIC PARTNERSHIPS

The private sector's participation in public highway and transit projects started in the 1800's. The private sector would invest and construct many of the roads that were financed with revenues from tolls across the United States. This participation declined as a result of competition from the railroads as well as an increase in state and federal involvement in building tax-supported highways. The private sector's involvement became limited to contracting with states to build the roads. Private toll roads were basically absent from the surface infrastructure network, resulting in states and local governments being fully responsible for road construction and maintenance. In the 1930s a number of states started to create public authorities. These public authorities built a number of toll roads and relied on loans and private investor bond-buying to finance construction¹⁵.

The federal government began programs that would provide funds for states to develop their highways, with the approval of the Federal-Aid Road Act in 1916. The 1930s and 1940s brought about proposals for a national interstate system of limited access highways as a means of meeting the national defense and mobility needs. The early proposals for this system included plans to build the highways as toll roads. The system would be financed using bonds sold to private investors. These early proposals were abandoned and the Federal-Aid Highway Act of 1944 took over the construction of the interstate highway system. In 1956, the Federal-Aid Highway Act established a tax-supported system for the construction and maintenance of the newly developed road system using revenues associated with motor fuel taxes rather than from tolls. The act prohibited tolls from being established on newly constructed interstate highways.

The 1970s brought about change in the management structure, as it relates to the public. The managerial competence of the public party was questioned and became a major concern. The reduced confidence in the government in light of the loss of the Vietnam War and the problems dealing with inflation changed public opinion. An anti-statist philosophy was apparent throughout

¹⁴ Dovey, R., "Taxpayers vs. Private Investors: Shifting the Risk of Funding Public Projects" *Next City*, Oct. 3, 2014 (<http://nextcity.org/daily/entry/risk-public-private-partnership-p3s-funders-payments>).

¹⁵ United States General Accounting Office, *Highways and Transit: Private Sector Sponsorship of and Investment in Major Projects Has Been Limited*, 2004 (Washington, DC: GOA-04-419). 8.

all of the policy changes¹⁶. A drive for a new public management (NPM) gained popularity¹⁷. Before the new public management model, there was a stronger emphasis on the state when it came to carrying out social tasks and infrastructure service delivery. This new public management model limited the state's power, making it a constrained supervisory figure¹⁸. This role restriction placed on the state made room for the private parties to take the role and responsibility the state once had. This combination in society's ideological shift and the idea that the public actors have proved their incompetence provides a background for how the Public Private Partnership started to gain momentum and popularity in the United States.

HIGHWAYS AND TOLL ROAD CONSTRUCTION BEFORE PUBLIC PRIVATE PARTNERSHIPS

Traditionally the state and local governments built and financed highway projects using the capital improvement program, a federal grant strategy, where state's transportation projects are eligible to have 80% of their costs paid for by the federal government. This financial incentive pushes the states to build their highways without tolls. The federal-aid highway program is funded through a series of formula grant schemes derived from motor fuel and other taxes deposited into the Highway Trust Fund and made available to the states by the Federal Highway Administration (FHWA) for capital projects. FHWA defines capital projects as new construction, reconstruction, and many forms of capital-intensive maintenance.

Projects using Public Private Partnerships as a main funding source, rather than the money from the Federal Highway Administration, would allow for states and local governments to conserve their grant money and potentially, apply the funds to different projects¹⁹. States that are interested in pursuing a project using FHWA grants must first receive approval from the federal government and the metropolitan planning organization associated with the region before proceeding. The state and local government run the risk of not having their project approved by the FHWA, resulting in not having the funds from the federal government to complete their project. By using funding from a Public Private Partnership, the state can bypass the federal approval process and begin their project with the result of allowing market forces to dominate the project. This circumvention, introduces a number of potentially detrimental risks for the public.

¹⁶ Granham, S., (2000) Constructing Premium Network Spaces: Reflections on Infrastructure Networks and Contemporary Urban Development. *International Journal of Urban and Regional Research* 24 (1). 183-200

Perry, D. (1995) "Introduction" In *Building the Public City: The Politics, Governance and Finance of Public Infrastructure*, London: Sage. 1-19.

¹⁷ Osborne, D., Gabler, T., (1992) *Reinventing Government: How the Entrepreneurial Spirit is Transferring the Public Sector*. Reading, Massachusetts: Addison-Wesley

¹⁸ Sclar, E. (2015), *The Political Economics of Investment Utopia: public-private partnerships for urban infrastructure finance*, 2.

¹⁹ *Highway and Transit*, 4.

LITERATURE REVIEW

Public Private Partnerships have recently become a prominent topic of discourse on a global scale. The increasing numbers of failed government infrastructure projects using Public Private Partnerships and bankrupt private partners have compelled scholars to analyze the model and its implications with a more critical lens. The major discussions surrounding Public Private Partnerships have two clear divisions: those who are promoting the use of the Public Private Partnership; those who find the model contradictory to its ultimate goal. Within this division, there are some scholars who discuss the implementation of the model, and some that analyze the theory of the model.

THEORY

Sclar (2015) and Dannin (2011) have written extensively revealing the dichotomy between the implementation of the Public Private Partnership and the theory behind the model. Sclar (2015) reveals the policy disconnect between the private entities' drive to gain a monetary return on their investments in urban infrastructure and the public entities drive to enhance social value. The paper goes through the development of the Public Private Partnership while showing the reasons behind why this model has gained popularity in the United States. Sclar (2015) also discussed the dichotomy created behind the theory of Public Private Partnerships and the practice of Public Private Partnerships. As Sclar (2015) discusses what is needed when structuring a Public Private Partnerships in theory, he reveals holes that further reveal the lack of practicality Public Private Partnerships have in the United States. The major holes Sclar (2015) reveals are the lack of required information Public Private Partnership promoters have when putting theory into practice. The lack of information and the cost associated with the information cost are what Williamson (1999) discusses as 'transaction costs'.

Ultimately Sclar (2015) discuss the disjointed relationship between the state/public entities and market actors/private entities. This discussion reveals an importation economic policy question: should the Public Private Partnership model, as it applies to infrastructure finance be applied widely, narrowly or indeed, should it be reversed²⁰. Sclar argues for flexibility in using the model depending on the project the amount that the model should be employed depends on how one perceives the disjointed relationship between state and market actors as well as, the fundamentality of the relationship itself²¹.

Advocates for the Public Private Partnership model acknowledge the mission differences between both entities but do not identify them as being fundamental. Sclar (2015) describes the advocates for the partnership seeing the differences between the two parties as merely organizational differences that are reconcilable by means of contractual governance. Advocates of the partnership,

²⁰ Warner, M., Clifton, J., (2014). Marketisation, Public Services and the City: The Potential for Polanyian Counter Movements. *Cambridge Journal of Regions, Economy and Society* 7 (1): 45-61.

²¹Sclar, E. (2015), The Political Economics of Investment Utopia: public-private partnerships for urban infrastructure finance, 11.

as described by Sclar (2015), describe Public Private Partnerships as nothing more than apolitical technocratic solutions to a challenge faced by the larger governmental structure²².

Dannin (2011) provides key case studies used to further dispute arguments for privatizing public infrastructure. Her analysis' outcome identifies the urgency to change the government's trending decisions in favor of Public Private Partnership. Protecting the public welfare is beginning to take a subordinate position, should the government infrastructure contracts continue to be structured using the Public Private Partnership's model. She discusses the need change the propensity for Public Private Partnerships before "contracts have locked away so much of our infrastructure"²³.

Albalate (2014) focuses his discussion of Public Private Partnerships in Europe. He identifies the major rationale behind the implementation of the Public Private Partnership in Europe as the Maastricht Treaty of 1992 and a series of documents presented by the European Commission.

The Maastricht Treaty had the unintentional consequence of attracting private financing for government infrastructure projects. As a result of this treaty the private entities had the ability to levy tolls or receive compensations on availability or on the volume of the users. The European Commission presented the Green Paper on "Mobilizing Private and Public Investment for Recovery and Long-term Structural Change: Developing Public Private Partnerships" in 2009. This Green Paper cited that Public Private Partnerships would provide efficiency and innovative gains while at the same time both parties, the public and private partner would share the risk associated with the investment. The Green Paper was presented to the European Parliament as a means of arguing that infrastructure projects were an important means of maintaining economic activity during the crisis the country was facing²⁴. The paper argued that investment in infrastructure projects would not only maintain economic activity, but also support rapid return to sustained economic growth. The argument states that the private sector would be interested in projects with Public Private Partnerships because the collaboration allows for the public sector to offer important safeguards, stability of long-term cash flows from public finances as well as safe return on capital. The European Commission found the benefits of Public Private Partnerships are as follows; improved delivery times, better value for money, spread the cost of financing over the lifetime of the asset, improved risk sharing, boost sustainability, an increase in innovation and research efforts, the private sector has a central role in major industrial, commercial and infrastructure programs, the EU companies would ultimately become enlarged as a result²⁵.

Albalate (2014) indicates the notion that Public Private Partnerships when implemented are expected to provide gains in efficiency and innovation while also sharing the risks associated with these financial endeavors equally between the public and private partner. The idea that the public sector can provide important safeguards and stability of long-term cash flows for the private

²² Sclar, E. (2015), *The Political Economics of Investment Utopia: public-private partnerships for urban infrastructure finance*, 11.

²³ Dannin, E. (2011). *Crumbling, Infrastructure, Crumbling Democracy: Infrastructure Privatization Contracts and Their Effects on State and Local Governance*. *Northwestern Journal of Law & Social Policy* (6), 82.

²⁴ European Commission (2009), 'Mobilising Private and Public Investment for Recovery and Long Term Structural Change: Developing Public Private Partnerships'. COM (2009) 215 final, Brussels: European Union.

²⁵ Albalate, Daniel (2014), 35.

partners, whereas, the private sector can provide improved delivery times, innovation and the ability to develop and implement more sustainable projects.

Albalate (2014) cites Demsetz (1968) as a means of further supporting Public Private Partnerships. Demsetz (1968) refutes the necessity of regulation when it comes to utilities, if competitive auctions are possible. Demsetz (1968) assumes that the Public Private Partnerships are being implemented with a complete contract. What is not addressed in Demsetz's (1968) argument is the factor of change. He does not discuss the idea that when a Public Private Partnership is implemented, the factors associated with the contract and the project's success can change. Sclar (2014) and Dannin (2011) identify situations when change has influenced the Public Private Partnership in a negative way. Albalate (2014) discusses case studies, although, most of them are historic, but does not pick apart the finite details of the partnership's success or failure. In fact, the outcomes of the individual Public Private Partnerships are not revealed throughout his analysis.

Albalate (2014) identifies the advantages and disadvantages of Public Private Partnerships on a macro level as a means of justifying the shift towards greater private participation in historically public affairs; compared to Sclar (2014) and Dannin (2011), who both identify the negatives of the model, but on a micro scale, which is used as a means of deterring the continuation of the current trend towards Public Private Partnerships. The four advantages identified by Albalate (2014) are: the model's ability to contribute private entities' investments and resources as a means of overcoming the budgetary constraints the public sector may have; the increase in efficiency gained by having the private partner driven by incentives; better project screening and selection; and lastly the know-how transfers of and public sector reform enhancements. The disadvantages indicated by Albalate (2014) are: the public entity's loss of political control in a strategic sector, an increase in capital costs for project funding, an increase in transaction costs, and the rigidity of long-term incomplete contracts.

Wolmar (2001) along with Sclar's "Public Goods and Private Goods: The Tradeoffs of Public Private Partnerships for Infrastructure Finance" (November 2014) use the case study of the London Underground as a means of exposing the new dynamics created by this model. Wolmar defines the private sector and its interest as a "simple beast whose only food is profit"²⁶. The differing interests of the partners increase the chances of the project failing. Sclar (November 2014) states the reasons that Public Private Partnerships fail are always unique to each project's situation. With that he finds that the different groups have the propensity to blame each case's failure on the specifics of the situation and 'learn from it', when in fact the what should occur is an in-depth analysis of the substantive problems associated with having two very different partners, with different goals, and limited information involved in a partnership. Sclar (2000) argues against the implementation of the competitive market model for contracting government services. He discusses case studies from other governmental sectors, such as mail services, schools, hospitals, fire stations and prisons as a means of revealing how putting public goods in a competitive market does not end in better service at a lower cost. The market pressures end up limiting the equity and access associated with the

²⁶ Wolmar, C. (2001), *Broken Rails: How Privatisation Wrecked Britain's Railways*, London: Aurum Press. 245.

public good. Sclar (2000, 1975) differs from the other scholars as he introduces the idea of access as a fundamental component of his argument against the Public Private Partnership.

IMPLEMENTATION

Analyzing the Public Private Partnership model after implementation has been done by a number of scholars and agencies. In the 2004 “Highways and Transit: Private Sector Sponsorship of and Investment in Major Projects Has Been Limited” report, published by the United States General Accounting Office the study identified six major projects that have been completed or started in the last 15 years. Of these six projects, five were toll roads, and one was a public transit project. These six projects were executed using existing legislation that would authorize private sector participation, in turn awarding a franchise to a private consortium that would build, own and operate the projects for a predetermined time. Three of the six consortia were private companies that invested their equity and issued commercial debt to finance the project. The remaining three were nonprofit corporations that were formed by the public and private sectors, who issued tax-exempt bonds to fund the projects.

The study Accounting Office Study identifies the State’s motivation behind undertaking a public private partnership. A major incentive is financial, as state and local government can conserve their federal grants and state tax revenues for their other projects, if they elicit the participation of the private sector. The partnership also allows for the state government to be exposed to the risks associated with the tolls not meeting the sufficient debt service requirements.

Many rationales have been implemented to make and promote a case for the use of Public Private Partnerships: the idea that money from a private entity can replace public money and avoid the inherent imposition of taxes; the risks associated with the production and maintenance of the a costly infrastructure project can be partially shifted from taxpayers to private investors,; and lastly the private sector is seen to be more efficient compared to the public sector. This efficiency will lead to a significantly lower cost associated with the project.

Public Private Partnerships when implemented have been cited as an unstable means of managing public infrastructure. A major factor that has been identified by a number of scholars is that Public Private Partnership’s entities have different requirements and varying degrees of conflicting interests for any given project.

FINANCIAL MODELS

“Nowadays people know the price of everything and the value of nothing”
-Oscar Wilde, *The Picture of Dorian Gray*

Many scholars have studied the financial models implemented in Public Private Partnerships as a way of understanding each party’s argument for approaching the model. “The Financial Engineering of Infrastructure Privatization” describes how the lease value is determined for government infrastructure. The article focuses on particular case studies that had private action bids for leasing government infrastructure, which grossly surpassed the government’s estimates. The study argues the main explanation behind the pricing discrepancy is the use of structured finance or financial engineering techniques. The use of these specific techniques lower capital costs

while maximizing quick investor payouts. The study finds that since the public sector is less experienced and undereducated when it comes to the techniques used by the private entities, the public party ends up undercharging for its infrastructure when they enter a Public Private Partnership.

PUBLIC PRIVATE PARTNERSHIPS AND SURFACE TRANSPORTATION PROJECTS

Public Private Partnerships have been used to develop surface transportation in the form of new toll roads, maintenance of existing road infrastructure and construction of and maintenance of bridges. The United States, often considered the driving capital of the world, was the poster child for road and highway development. The American dream came with the ideal of living in the suburbs and driving a car. Americans were driving more and more each year following World War II. Even though this trend finally experienced a decline following 2004, where the annual miles driven per capita fell to 10,000²⁷. Nevertheless, the automobile still accounts for the majority of trip.

This shift in driving habits has not been reflected in the amount of money budgeted by the federal and local government for surface transportation upgrades. Government entities spend the same amount on highway expansion as they did 10 years earlier, despite the decline in motor vehicles use²⁸. As of 2014, 33 states within the US adopted legislation enabling Public Private Partnerships. 75% of all Public Private Partnership investments in the US have been concentrated in eight states; California, Florida, Indiana, New Jersey, Texas, Utah, and Virginia²⁹. The amount invested in US highways that were through Public Private Partnerships amounted to only 2% between 2007 and 2013; while that number seems low, the \$22.7 billion committed to P3 projects during that time period is over 90% of all funding committed to P3 projects for transportation since 1989⁴.

With the increasing popularity in Public Private Partnerships as a means for States and local governments to maintain and construct publicly used infrastructure, comes a need for caution. The number of states signing legislation approving the use of Public Private Partnerships is on the rise. State and the federal governments must analyze further the implications and repercussions Public Private Partnerships have on the public they are governing as well as the amount of power and influence they have on the publically owned infrastructure they are building and maintaining.

WHY CHOOSE TO PRIVATIZE HIGHWAYS & TOLL ROADS?

It can be argued that certain goods or services should be provided by entities that do not have to compete. They could be described, as natural monopolies and are a function of the market structure in that, a single producer, the monopolist, assures technical efficiency. Any additional producer or added competition would duplicate the costs while dividing the demand amongst the

²⁷ U.S Department of Transportation, Federal Highway Administration, *Highway Statistics* series of reports, available at www.fhwa.dot.gov/policyinformation/statistics.cfm.

²⁸ U.S Federal Highway Administration, (2013) *Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance*, 1999, 9-6.

²⁹ McLeod, K. (2014) *Advocacy Advanced, Public-Private Partnerships for Transportation*, 2.

producers. This results in higher average costs compared to the costs associated with the good when there is just a single producer.

Governments have historically looked to private investors to construct the public infrastructure. With the use of Public Private Partnerships, the main change is the amount of participation and control the private investor has. The old Public Private Partnership model had the public infrastructure's construction and operation separated from the private financing, using bond markets³⁰. This model shifted in the mid-1980s to one that diffused the line between the public and private entities. The new Public Private Partnership model has the traditional roles of each entity reversed. The public entity gave up their role as the managing partner while the private entity gave up the role as the passive investor³¹. This role reversal grants the private entity the opportunity to gain capital return on their investment.

On the other hand, arguments for the use of Public Private Partnerships include: the idea that money from a private entity can replace public money and in turn avoid the inherent imposition of taxes; the risks associated with the production and maintenance of a costly infrastructure project can be partially shifted from taxpayers to private investors; the private sector is seen to be more efficient compared to the public sector and this efficiency will lead to a significantly lower cost associated with the project. Privatizing the public infrastructure allows governments a 'solution' to their budgetary constraints. Governments have an alternative method of raising the necessary funds for construction without drawing the ire of citizens by raising taxes, or reallocating expenditures. This fiscal motivation is especially important in developing countries that are in great need of infrastructure improvements but have a weak tax system. It is argued that Public Private Partnerships offer governments a pragmatic solution that allows for the development of road networks. The privatization of these roads results in the sale of existing networks. The idea of a toll, gives the government a short-term solution to the public finance constraints. Also, the implementation of Public Private Partnerships may be attractive to many governments as this type of agreement may attract capital that is not available in the country; but this type of agreement comes with a number of consequences. Public Private Partnerships allow for foreign countries to invest in infrastructure. This foreign capital investment, by the means of a Public Private Partnership puts more risk for negative repercussions on the developing country's public entity.

The psychological impact of private entities engaging in the provision of transportation infrastructure is relevant as well. The public believes that private entities are relatively more efficient when it comes to executing projects. The public assumes that efficiency gains will be transferred, in some form, to the users of the infrastructure. Having a project that is owned and managed solely by a public entity runs the risk of having political interference. The development, implementation, operation and financial policies are more at risk for being changed and held up when the project is a public project⁶. Bureaucratic obstacles that may hinder the project's progress are greatly reduced when dealing with Public Private Partnerships. Lastly, Investment in areas such

³⁰ Clifton, J., Lanthier, P., Schroter, H., (2011) Regulating and Deregulating the Public Utilities: 1830-2010. *Business History* 53 (5): 659-672.

³¹ Sclar, E. (2015), The Political Economics of Investment Utopia: public-private partnerships for urban infrastructure finance, 1.

as infrastructure improvements looks favorably upon political candidates. By allowing Public Private Partnerships, political candidates may increase their chances for reelection. Presumed efficiency and market rigor increase public support for the private provision of roadways.

PUBLIC PRIVATE PARTNERSHIPS IN THEORY VS. PRACTICE

There is an intrinsic disconnect between the theory behind Public Private Partnerships and the implementation of Public Private. The theory of the Private Public Partnership states that both parties involved in the agreement can attain what they both want is highly flawed. Individuals supporting the Public Private Partnership state that the differences between the public party and private party can be overcome, so long as the partnership is structured properly. The idea of structuring the partnership 'properly' is not attainable as long as the public entity's legal environment and institution is structured as it stands now³². The theory behind Public Private Partnerships differs from the implementation so much so, that it is inevitable that the agreement will always have a party that is getting better deal and a party that is compromising. Some fundamental examples of areas where the practice of Public Private Partnerships differ greatly from the theory include; overcoming the goal of both parties when entering the agreement, contractual difficulties, assigning the level of risk to each party and the idea of access. All of these areas play an important role when differentiating the theory of Public Private Partnerships and the practice of Public Private Partnerships.

IDEOLOGICAL DIFFERENCES AMONGST PARTNERS INVOLVED

In order for the structure of Public Private Partnership to have a successful outcome for both parties, the model must take into account the expectations of both parties. "The private sector is a simple beast whose only food is profit"³³. More specifically the private party seeks two unrealistic ideas; a comparatively safe investment returns historically associated with public sector bonds and higher returns more characteristic of riskier private equity markets³⁴. In order for the private party to get both, high returns and minimal risk, an institutional restructuring of the public sector's contracting system must occur³⁵. Both the public and private parties are in search of a balanced partnership where the infrastructure investment is both outperforming capital markets, while having limited market risk.

The parties involved in a Public Private Partnership are approaching the agreement not only with different priorities, but also from different backgrounds. When a public party begins the process of signing a Public Private Partnership, it is usually under an extreme amount of financial stress and

³² Sclar, E. (2015), The Political Economics of Investment Utopia: public-private partnerships for urban infrastructure finance, 3.

³³ Wolmar, C (2001), 245.

³⁴ Sclar, E. (2015), The Political Economics of Investment Utopia: public-private partnerships for urban infrastructure finance, 3.

³⁵ Siemaityck, M., (2013) The Global Production of Transportation Public-Private Partnerships. *International Journal of Urban and Regional Research* 34 (4): 1254-1273.

pressure to find a solution. Historically this tension put on the public partner leads them to underappreciate the transaction costs they are committing to absorb³⁶.

The public entity is mainly concerned with the public good and how it is serving the public; whereas the private entity is primarily interested in the profit that the partnership can create. The assumption behind this agreement model is that both partners' actions are driven by the similar intentions.

The lack of transparency of the individual partner's intentions is something that is not addressed in the theory of Public Private Partnerships. In theory the Public Private Partnership model was created with the goal of providing an improved public service at a lower lifestyle cost; this goal is known as the value for money (VfM)³⁷. Value for Money is defined as the extent to which cost savings are achieved when delivering a public infrastructure project through a Public Private Partnership relative to the traditional government-led procurement approach¹³. Siemiatycki and Farooqi explain that in Public Private Partnerships' contracts, technical findings and VfM reports are not publically released. This lack of transparency leads to confusion, lack of public participation and ultimately an increase in the project's overall risk.

CONTRACTUAL AGREEMENTS

In theory, the creation and agreement of a contract, by definition should protect and hold liable the parties involved equally. With Public Private Partnership the idea of a contract must be more implicit, rather than a rigid stringent document. When creating a contract, the parties need to see the document less as a static legally enforceable document, and more as an ever-evolving process of inter-organizational relationships³⁸. Supporters of this type of partnership model have stated that in order for the partnership to work, the contracting process must be structured and detailed. Critics of Public Private Partnerships have found that when Public Private Partnerships are implemented the time period of the partnership is a fundamental component to its failure; the longer the agreement, the greater the likelihood that the relationship will become unstable. In order for successful partnerships to take place structure and detail must be had, along with flexibility.

Contracts for Public Private Partnerships are usually for an extended period of time; most contracts range from 25 to 99 years. During the duration of the contract, the project's surroundings and influencing factors may change, in turn influencing the project in negative ways. When putting Public Private Partnerships into practice it must differ from its philosophy by planning for change to occur within the partnership's contract.

The implementation of Public Private Partnerships has revealed a number of agreements within its contracts that have hindered the success of infrastructure projects. Within the Public Private Partnership's contracts, three main clauses have been identified that make the public entity's interest at an inferior level, compared to the private entity's interest. These clauses depreciate the public entity's interest in quality and cost while they preserve the private partner's capital and

³⁶ Whittington, J., (2012) When to Partner for Public Infrastructure? *Journal of the American Planning Association* 78(3): 269-285.

³⁷ Siemiatycki, M., Farooqi, F. (2012), Value for Money and Risk in the Public and Private Partnership

³⁸ Sclar, E. (2000), *You Don't Always Get What you Pay For The Economics of Privatization*,101.

investment return needs³⁹. They are also the most common provisions that when enforced can require governments to reimburse the private entity for the lost anticipated revenue⁴⁰.

A major consideration of the private entity is its financial return on the investment. The first clause that is frequently included in Public Private Partnership contracts which significantly subordinates the public entity's interest is the "compensation events". This provision holds the public entity responsible for the projected revenue, even if the infrastructure did not perform to the revenue projected. A number of studies have found that only a small number of Public Private Partnerships had their revenues exceed the projections. In 1996 J. P. Morgan Securities executed a study of fourteen urban toll roads. The study found that only two of the urban toll roads have revenue that exceeded the projections during the first four years of operation. The remaining ten projects fell short by 20% to 75% of its projected revenue⁴¹. The conclusion of the report was that potential lenders, or the private entities should scrutinize the infrastructure's projections to a higher level; by doing this, the private entity will reduce the risk of investing. Thus, the private investor must attempt to protect its investment and reduce its risk through contractual/legal means.

An example of this "compensation events" clause in action can be seen in the Indiana Toll Road. In 2008 the State of Indiana was forced to reimburse the private partner \$447,000 as a result of the compensation events clause⁴². The State of Indiana forced to pay this amount because they waived the toll fee of people who were evacuated during severe flooding crisis. The State of Indiana suspended the toll during this time of crisis as a means, of expediting the flow of evacuees⁴³. The State of Indiana was forced to reimburse the private partner because with the "compensation events" clause the private partner/owner was entitled to the full-market compensation for the lost revenue. If the Indiana Toll Road did not enter a Public Private Partnership the fact that they waived the toll fees during this time of crisis would have just meant that they would have received less revenue that quarter. If the toll road was not involved in a Public Private Partnership, the only out of pocket costs to the State of Indiana would have been the marginal cost of state employee overtime compensation⁴⁴. This out of pocket expense would have been significantly lower than the \$447,000 paid to the private partner.

The "compensation events" clause puts the private partner in a better financial situation compared to the public partner, because the private partner is not at risk for loosing revenue associated with the toll road. The reimbursement terms makes the public partner the private partner's insurer and guarantor⁴⁵. This clause creates financial disincentives for the government/public partner to take

³⁹ Dannin, E., (2011), 1.

⁴⁰ Dannin, E., (2011), 54.

⁴¹ Congressional Budget Office, (1997) *Toll Roads: A Review of Recent Experience* 18, <http://www.cbo.gov/ftpdocs/40xx/doc4014/1997doc03-Entire.pdf>

⁴² Baxandall, P., Wohlschlegel, K., Dutzik, T., (2009) *Private Roads, Public Costs: The Facts About Toll Road Privatization and How to Protect the Public* 19. U.S. PIRG Education Fund. http://www.uspirg.org/sites/pirg/files/reports/Private-Roads-Public-Costs-Updated_1.pdf<http://usprig.org/uploads/rx/yt/rxytdcxiajctxji3cm-w1w/private-roads-public-costs-updated.pdf>

⁴³ Sclar, E. (2015), *The Political Economics of Investment Utopia: public-private partnerships for urban infrastructure finance*, 5.

⁴⁴ Sclar, E. (2015), *The Political Economics of Investment Utopia: public-private partnerships for urban infrastructure finance*, 5.

⁴⁵ Dannin, E.,(2011), 55.

life-saving actions, as seen in the Indiana Toll Road case study. The public partner has more to consider in crisis situations, then just saving lives.

The second clause, that is most commonly found in Public Private Partnership contracts, and leaves the public party at a disadvantage, is the “noncompetition provision”. This provision requires that the government or public partner take no action that would impair the revenue potential of the Public Private Partnership’s investment. The clause has the public entity agree to not build new roads or improve existing roads that would compete with the Public Private Partnership’s project⁴⁶. An example of a Public Private Partnership whose contract includes a “noncompetition provision” is State Route 91. In 1990 the Orange County Transportation Authority signed a 30-year partnership agreement with California Private Transportation Company and had the tolled lanes opened for service by 1995. The agreement had the California Private Transportation Company operating the 10-mile tolled lane located in the center of the most heavily congested portion of the existing 30-mile toll-free State Route 91. The lanes were express lanes and had the intention of elevating the congestion experienced as a result of the rapidly growth Southern California area.

By the late 1990s the public’s view on the SR91X lanes went from positive to negative⁴⁷. The noncompeting clause that was included in this Public Private Partnership’s contract stated that public agencies are forbidden to increase highway capacity within a 1 ½-mile corridor on either side of the SR-91X toll lanes. The non-compete clause created a buffer around the Public Private Partnership’s lanes where development by the public agency could not take place for the duration of the partnership’s agreement. This provision was tested in the late 1990s when the Orange County Transportation Authority wanted to add merging lanes to allow access to the newly completed Eastern Transportation Corridor, a separate toll road build and owned by a public agency, from the SR91 free lanes⁴⁸. The Orange County Transportation Authority justified this need for merging lanes based in part on an increased accident rates. The improvement of safety was used as the major argument. The private partner, the Orange County Transportation Authority, objected to this development, using the non-compete provision as their major argument. In 2003, the debate was finally resolved when the Orange County Transportation Authority, the public partner, purchased the SR91X toll lanes from the California Private Transportation Company, the private partner for a mere \$207.5 million dollars⁴⁹.

The last major clause seen in Public Private Partnership’s contracts is the “adverse action” provision. This provision gives the private entity the legal right to object to and receive compensation for legislative, administrative, and/or judicial decisions that restrict the project’s revenue intake⁵⁰. An example of this provision can be seen in the case in Virginia. The Commonwealth of Virginia entered into a Private Public Partnership with Transurban of Australia and Fluor Corporation of Texas to construct high-occupancy toll lanes on the existing Capital

⁴⁶ *Highway and Transit*, 14.

⁴⁷ Boarnet, M. and J. Dimento, (2004), “Lessons from SR91.” *Access Magazine, The Magazine of the University of California Transportation Center*, Number 25 Fall 2004. 28.

<http://www.uctc.net/access/25/Access%2025%20-%2005%20-%20Lessons%20From%20SR%2091.pdf>

⁴⁸ Boarnet, M. and J. Dimento. (2004), 29.

⁴⁹ Boarnet, M. and J. Dimento. (2004), 29.

⁵⁰ Sclar, E. (2015), *The Political Economics of Investment Utopia: public-private partnerships for urban infrastructure finance*, 5.

Beltway. The repercussions of having the “adverse action” provision in this Public Private Partnership’s contract had Virginia reimbursing the private partners whenever carpools exceeded 24% of the traffic taking the carpool lanes for the next 40-years, or until the partners make \$100 million in profits⁵¹. The reimbursement would have to come from the Commonwealth’s budget as a result of having the carpool vehicles exempt from tolling fees⁵².

ALLOCATION OF RISK

In theory, a successful Public Private Partnership has the risks associated with the project allocated to the party that is most capable of bearing it⁵³. The philosophy behind a successful Public Private Partnership does not define how to decide which party is more capable of bearing risk; there is no introduction of a scientific methodology that would have a single output defining the most at risk party. This lack of an objective approach runs the risk of having each party involved acting behalf of their party’s self-interest. Advocates of Public Private Partnership leave these major structuring criteria in vague terms, and never define who and how to determine which party is more able to support the burden of risk. The high cost of goods and the intricacies of each party’s motivation are never described in-depth.

LEVEL OF ACCESS

Both parties involved in a Public Private Partnership have varying levels of access. Level access plays a pivotal role when discussing the difference between the theory of Public Private Partnership and the implementation of Public Private Partnerships. Access to information, past experience and council has the capability of supporting the reasons behind why some Public Private Partnerships have failed.

The concept of Public Private Partnerships defines the amount of information needed by both parties in order to make a conclusive decision. The fact that in practice Public Private Partnerships, as a structure, rarely allow for both parties to be successful and gain equity when it comes to information, allows for a number of negative repercussions. The promoters of Public Private Partnerships state is that each party needs enough information in order to make a decisive decision. The term ‘enough’ is never quantified. Also, the need for information, does not automatically equate to having the information available and attainable. The significant cost as a result of the lack of information has a negative outcome on the partnership as a whole. In practice, both parties are writing a contract with limited information. The lack of information is what equates to transaction costs⁵⁴.

⁵¹ Amended and Restated Comprehensive Agreement (Related to the Grant of a Permit)to Develop and Operate the Route 895 Connector, between Virginia Department of Transportation, Commonwealth of Virginia and Transurban (895) LLC, supra note 75.

⁵² Weiss, E., “Toll-Lanes Contract Could Cost State—Deal to Allow Free Carpooling on Beltway Project Might Leave Va. Owing Millions”, *Washington POST*. July 20, 2008, <http://www.washingtonpost.com/wp-dyn/content/article/2008/07/19/AR2008071901651.html>

⁵³ Sclar, E. (2015), *The Political Economics of Investment Utopia: public-private partnerships for urban infrastructure finance*, 4.

⁵⁴ Williamsom, O.E. (1999), *Public and Private Bureaucracies: A Transactions Cost Economics Perspective*. *Journal of Law Economics and Organization* 15 (1).

In practice, the introduction of Public Private Partnerships results in information asymmetry. Information asymmetry refers to the fact that individuals have access to different levels of information; the individuals or parties with access to superior information are in a position to act opportunistically⁵⁵. This self-interested guile in turn allows for one party to have a greater advantage at the expense of the other party. The partnership is based on one party trying to get more at the expense of the other rather than attempting to work toward a common goal of increasing the common good. The information asymmetry results in both parties needing to be concerned with the added transaction costs imposed by contracting with the availability of opportunistic actions, in favor of one party, during the life of the contract⁵⁶. These opportunistic actions undermine the contractual relationship between the private party and the public party, while imposing additional transactions costs.

The way a topic is framed has the power to influence the viewer in a specific way. When the primary counsel for the public private partnership is an investment banker, as it usually is, his/her tendency is to frame the partnership in a certain light. The banker becomes the intermediate of the Public Private Partnership. In a number of cases the intermediaries have underestimated the high transaction costs associated with the deal⁵⁷. The relationship between the public entity and its council should not leave room for a conflict of interest issue. The council may have the tendency to portray the public private partnership in a positive light, as their interests are to see the deal go through.

The public sector when compared to the private sector has less experience and no financial incentive to “get the best deal” when it comes to negotiations.⁵⁸ Public private partnership deals are usually discussed at a time when the public entity is in a weakened position, usually when the public entity is facing a financial deficit. This position puts pressure on the public entity to negotiate a deal that may not be in the best interest for the public entity in the long run⁵⁹.

CASE STUDIES- NATIONAL MODELS THAT HAVE EXPERIENCED BANKRUPTCY

Since the legislation allowing for public private partnerships in the United States passed, seven of twenty-four partnerships have filed for bankruptcy. The partnerships that were forced to resort to bankruptcy consisted of mostly toll road and highway projects. The seven failed partnerships cited

⁵⁵ Sclar, E. (2000), *You Don't Always Get What you Pay For The Economics of Privatization*, 97.

⁵⁶ Sclar, E. (2000), *You Don't Always Get What you Pay For The Economics of Privatization*, 97.

⁵⁷ Sclar, E., (2015), *The Political Economics of Investment Utopia: Public-Private Partnerships for Urban Infrastructure Finance*, 3.

⁵⁸ Barrett, K., Greene, R. “Partnering Up: Public Private Partnerships”. *Governing The States and Localities*, August 2010, 2.

⁵⁹ *Governing The States and Localities*, August 2010, ⁵⁹ Williamsom, O.E. (1999), *Public and Private Bureaucracies: A Transactions Cost Economics Perspective. Journal of Law Economics and Organization* 15 (1).

⁵⁹ Sclar, E. (2000), *You Don't Always Get What you Pay For The Economics of Privatization*, 97.

⁵⁹ Sclar, E. (2000), *You Don't Always Get What you Pay For The Economics of Privatization*, 97.

⁵⁹ Sclar, E., (2015), *The Political Economics of Investment Utopia: Public-Private Partnerships for Urban Infrastructure Finance*, 3.

⁵⁹ Barrett, K., Greene, R. “Partnering Up: Public Private Partnerships”. *Governing The States and Localities*, August 2010, 2.

⁵⁹ *Governing The States and Localities*, August 2010

the reason for their failure was an inflated prediction of the amount of traffic that would use the finished project. About 437,000 of the United States' four million miles of roads are categorized as arterial highway mileage. These four million miles of highway are for the most part, eligible for federal-aid funding. Among the 437,000 miles of arterial highway mileage, 4,611 miles are publicly owned toll roads. This figure represents 1% of the nation's arterial highway mileage. In 2008 there were 15 privately owned toll roads, representing about 111 miles. Of the 15 privately owned toll roads, 10 of them are roadways used for the primary purpose of accessing vacation properties. In addition to privately owned toll roads, in 2008 the United States also has 15 privately owned toll bridges.

TYPES OF FUNDING MODELS

LONG TERM LEASE CONCESSION

One type of public private partnership model involves leasing an existing publically financed facility to a private entity for a predetermined period. During this period, the private entity has the legal right to collect tolls that the facility generates. In exchange for collecting the revenue generated by the facility, the private partner must operate and maintain the facility and in some special occasions, make improvements. The fee associated with the agreement is paid upfront by the private entity to the public entity.

Public entities procure long term lease concessions by means of competitive bidding. Private entities bid on the public facilities. The public entity then chooses the most qualified bidder, which is usually determined based on the highest concession fee and the length of the concession period. Credit worthiness of the private entity as well as, professional qualifications are also considered⁶⁰.

Long-term lease concessions can be broken down further into three categories: Debt Transfer Lease Transactions, Hybrid Debt Transfer and New Construction Lease Transactions, and Value Extraction Lease Transactions.

Debt Transfer Lease Transactions are when the private entity's concessionaire is used to void the existing toll facilities underlying publicly held debt. No additional funds are given to the public entity in this transaction. This type of long-term lease concession requires the private entity to maintain the road/facility to a pre-specified standard throughout the lease period. In specific cases, the private entity is required to make capital improvements on the facility.

Hybrid Debt Transfer and New Construction Lease Transactions are similar to the debt transfer lease transaction, in that the private entity pays a fee to the public entity that is then used to void the public held debt on the facility. What differs in this model is that the private entity agrees to complete the new construction extending the existing toll facility.

Value Extraction Lease Transaction is when the private entity pays the public entity a sizeable concessionaire that is used to both, void of any underlying public debt associated

⁶⁰ US Department of Transportation-Federal Highway Administration, Innovative Program Delivery. Public Private Partnerships. http://www.fhwa.dot.gov/ipd/p3/defined/long_term_lease.aspx

with the toll road, as well as, any other needs the public entity finds fit. These transactions also require the private entity to maintain the facility to a pre-specified standard throughout the lease.

INDIANA TOLL ROAD (I-80)

Indiana Toll Road (I80/I90) is a 157-mile arterial connection, which runs the full length of northern Indiana. The Indiana Toll Road was open to traffic in 1956. This arterial highway connects the Chicago Skyway to the west and the Ohio Turnpike to the east. The eastern end of this road is primarily used by freight based traffic, whereas, the western end is a barrier system catering to commuter traffic. This toll road provides the primary connection to the Chicago Skyway and downtown Chicago; it also creates a connection between the largest cities on the Great Lakes with the Eastern Seaboard.

In 2004 the newly elected Governor, Mitch Daniels tasked the Indiana Finance Authority (IFA) with the investigating the feasibility of leasing the Indiana Toll Road to a private entity. A Request for Toll Road Concessionaire Proposals was released in September 2005. Governor Daniels requested this feasibility study because the Indiana Toll Road was marginally breaking even. The toll road was not making enough revenue to make a profit but rather, just enough to maintain the road's upkeep and management costs⁶¹. A total of four teams submitted a proposal. The Indiana Toll Road Concession Company, LLC (ITRCC) was awarded the lease concession. The ITRCC was comprised of a 50:50 partnership between Cintra of Spain and Macquarie of Australia. This partnership submitted the proposal with the highest bid of \$3.8 billion USD. Each private partner paid \$374 million to finance the deal. The remaining \$3 billion was borrowed from a conglomeration of seven European banks. Six of the seven European banks involved in the financing have since been bailed out by their respective government⁶².

The partnership between the Indiana Finance Authority and the Indiana Toll Road Concession Company, LLC was executed in April 2006, resulting in the Indiana Toll Road Concession and Lease Agreement. The agreement provided the ITRCC a 75-year lease of the Indiana Toll Road. The lease agreement was completely contingent on legislative approval. The House Enrolled Act 1008 (HEA 1008) or 'Major Moves', a 10-year transportation plan launched in 2005 by Governor Mitch Daniels was enacted in March 2006. The goal of the act is to improve and expand Indiana's highway infrastructure. A total of \$2.6 billion was committed to the Major Moves act⁶³. The act allows for the funds collected in the Major Moves Construction Fund to be used on an ongoing basis for the funding of road construction projects.

By allowing the Private Public Partnership, the Governor's legislative proposal, 'Major Moves' was able to be financed. The money from the lease of the Indiana Toll Road, \$3.85 billion, financed the Major Moves, 10-year transportation investment plan. This allowed for more than half of the

⁶¹ <http://hhcinc.com/sites/default/files/documents/In%20a%20press%20conference%20.pdf>

⁶² Schmitt, A., Chung, P., "How Macquarie Makes Money by Losing Money on Toll Roads". *StreetsBlog USA*. November 19, 2014. <http://usa.streetsblog.org/2014/11/19/how-macquarie-makes-money-by-losing-money-on-toll-roads>

⁶³ Indiana Department of Transportation: Major Moves. <http://www.in.gov/indot/2407.htm>

construction projects in Indiana to break ground; more than 200 transportation projects were able to have financing⁶⁴.

The ITRCC formally assumed operational responsibility for the toll road in June 2006. The ITRCC and the operation of the Indian Toll Road are overseen by a ten-member board of directors. Before 2006, when the ITRCC assumed operational responsibility for the Indiana Toll Road, the Indiana Finance Authority had a lease with the Indiana Department of Transportation. This lease held the Indiana Department of Transportation responsible for the operation of the Indiana Toll Road. The Indiana Department of Transportation had been operating the Indiana Toll Road for 25 years prior, from 1981 to 2006⁶⁵. The Public Private Partnership used the availability model as a means of structuring their contract. The state was required to pay the private partner a set amount regardless of the amount of money that was received through toll and fees. This toll road marked the first long-term lease of an existing public toll road in the United States executed by a state.

CHICAGO SKYWAY

The Chicago Skyway is a 7-mile toll road that connects Illinois to Indiana. The infrastructure was made available for bids from the private sector in 2005. The city's consultants estimated the toll road would be leased for \$900 million dollars. The winning bid for the lease of the toll road ended up being \$1.83 billion dollars. The private entity that placed the winning bid was Cintra Macquarie, a multi-national financial consortium⁶⁶.

NORTHWEST PARKWAY

The Northwest Parkway is an 8-mile toll road located in Denver, Colorado. The parkway is comprised of four lines and four mainline toll plazas. The goal of creating this toll road was to provide better access to jobs and commercial establishments in the Denver metro area. The private entities were comprised of a joint venture between Kiewit Western Company and Washington Group International. The public private partnership signed a 99-year lease agreement.

SOUTH BAY EXPRESSWAY (SR- 125)

The expressway was implemented to serve San Diego's inland sprawl. Wilber Smith, now CDM Smith was the private consulting firm that handled the traffic projections. This is the same firm that did the traffic projections for the Indiana Toll Road. The traffic projections produced for the South Bay Expressway turned out to be unrealistic. Officials blame the Private Public Partnerships bankruptcy on the softening housing market. Since the construction of the expressway was meant to serve the city's inland sprawl, the housing market burst affected by traffic growth projection by reducing it greatly⁶⁷.

⁶⁴ Segal, G., Bottom-Line on Indiana Toll Road Deal, *Reason Foundation*. July, 10, 2006. <http://reason.org/news/show/122816.html>

⁶⁵ US Department of Transportation- Federal Highway Administration- Innovative Program Delivery. Project Profiles, Indiana Toll Road. http://www.fhwa.dot.gov/ipd/project_profiles/in_indianatoll.aspx.

⁶⁶ Johnson, C., Luby, M., Kurbanov, S. (2007). Toll Road Privatization Transactions: The Chicago Skyway and Indiana Toll Road. Bloomington, IN: School of Public and Environmental Affairs, Indiana University.

⁶⁷ *StreetsBlog USA*. November 19, 2014.

The South Bay Expressway was Macquarie's first project in the United States. The project totaled \$658 million, \$130 million of the financing came from Macquaries, \$340 million in private bonds and \$140 million from a TIFIA loan from the federal government⁶⁸.

STATE ROUTE 91- CALIFORNIA

California's State Route 91 is located in Orange County. In 1990 the Orange County Transportation Authority (OCTA) entered into a 35-year Public Private Partnership agreement with the California Private Transportation Company (CPTC). The toll road was open to motorists in 1995. This agreement had the CPTC operating a 10-mile tolled lane located in the center of an existing 30-mile toll-free State Route. These 10-mile toll lanes, referred to as 91X lanes act as express lane for users to avoid congestion and theoretically reduce wait time experienced on the 30-mile toll-free road. State Route 91 is one of the most congested freeway corridors in California, with the average peak period delays before the implementation of 91X at 30 to 45 minutes⁶⁹. There are two 91X lanes in each direction of State Route 91 and run adjacent to the freeway but separated by soft barriers such as painted buffers with pylons. These express lanes connect the major employment centers of Orange County and southern Los Angeles County with the residential communities of Riverside and San Bernardino Counties and have no intermediary exits. 91X lanes were seen as innovative since these were the first time the United States implemented congestion pricing⁷⁰. Despite the initial success of SR 91X's congestion and peak period pricing and improvement of travel time, by the late 1990s drivers and state officials were disappointed⁷¹.

SOUTHERN CONNECTOR TOLL ROAD (I-185)

The Southern Connector Toll Road is located in Greenville, South Carolina. This toll road is a four-lane highway that links I-385 with I-85 just south of Greenville. The toll road has six interchanges. This project was implemented as a means of elevating traffic in the growing Greenville area, while serving as a connection between the residential and commercial areas of the region.

The project was structured using a Public Private Partnership. The partnership agreement is between the South Carolina Department of Transportation as the public partner and the Interwest Carolina Transportation Group, LLC. Both parties formed a 63-20 nonprofit corporation, which they named Connector 2000 Association, Inc⁷². (C2A). This non-profit corporation was issued a tax exemption for the revenue collected from the toll. The agreement had C2A responsible for the design, financing, operation, and maintenance of the facility. The partnership identified C2A as the operator of the facility for 50 years. This agreement maintained the South Carolina Department of

⁶⁸ *Highway and Transit*, 13.

⁶⁹ Sullivan, E., (2000). *Continuation Study to Evaluate the Impacts of the SR 91 Value-Priced Express Lanes, Final Report*. State of California Department of Transportation Traffic Operations Program HOV Systems Branch Sacramento, CA. San Luis Obispo, CA: Edward Sullivan, Principal Investigator, Department of Civil and Environmental Engineering Applied Research and Development Facility, Cal Poly State University. Accessed May 12, 2015. xvii.

⁷⁰ Boarnet, M. and J. Dimento. (2004), "Lessons from SR91." *Access Magazine, The Magazine of the University of California Transportation Center*, Number 25 Fall 2004. 27.

<http://www.uctc.net/access/25/Access%2025%20-%2005%20-%20Lessons%20From%20SR%2091.pdf>

⁷¹ Sullivan, E., (2000), 2.

⁷² US Department of Transportation- Federal Highway Administration- Innovative Program Delivery. Project Profiles, Southern Connector Toll Road. http://www.fhwa.dot.gov/ipd/project_profiles/sc_southern_connector.asp

Transportation as the primary owner of the Connector. C2A pays a fee to the South Carolina Department of Transportation for the lease and maintenance of the property.

In total, the project came out to 240 million dollars and opened in 2001. By 2007 the traffic volume proved to be lower than projected. C2A filed for a request for qualification for a toll concessionaire to operator and maintain the facility. This filed request would allow the C2A to focus on implementing strategies that would increase the toll's revenue. The strategic planning did not proceed far enough to make the toll road profitable enough for C2A. In June 2010 C2A defaulted on its debt, ultimately leading to them filing for Chapter 9 bankruptcy. By 2012 a bankruptcy plan was agreed upon by both the not-for-profit, C2A and the creditors.

In August 2012 a restructuring of bonds for the creditors took place. The restructuring allowed for each bondholder to get a share of the new bonds contingent on the type of bond they held from the original agreement. The Connector road's 2010 toll revenue fell \$486,890 short of the estimated \$5.8 million for the year⁷³.

FLORIDA I-4

I-4 is an elevated highway located in Tampa, Florida. The toll road runs north to south and connected I-4 with the Selmon Expressway. These two roads are major east to west corridors in the Tampa area. The newly constructed connection will cross several urban streets, State Road 60, and CSX railroad tracks. An interchange with I-4 and the Selmon Expressway is included in this project. I-4 project consists of the reconstruction of 21 miles of the highway in Orange County, Florida⁷⁴.

This partnership used the Availability Model as a means of structuring the Private Public Partnership. The partnership outlines the private entity contracted to build and finance the project. The private sector retained the risk of construction cost overruns, schedule delays and fluctuation in long-term operations, maintenance and lifecycle costs of the facility during the concession⁷⁵.

POCAHONTAS PARKWAY

The Pocahontas Parkway, Route 895, is located in the eastern portion of Henrico County in Virginia. The parkway is an 8.8-mile, four lane tolled highway. The parkway connects Chippenham Parkway at I-95 in Chesterfield County to Interstate 295 south of Richmond, Virginia. The construction for this project started in 1998 and opened to traffic in May 2002. The project includes a high-level bridge over the James River as well as, an interchange. The Pocahontas Parkway was the first project implemented under Virginia's Public-Private Transportation Act of 1995.

⁷³ Temple-West, P. Judge Oks Connector Bond Plan. *The Bond Buyer*. May, 15, 2015. http://www.bondbuyer.com/issues/120_60/connector_2000_lawsuit-1024917-1.html

⁷⁴ Kojima, Y., Lui, F., Florida Governor Rick Scott Breaks Ground on I-4 Ultimate Project, *Infra Insight*. February, 18, 2015. <http://www.infrainsightblog.com/2015/02/articles/ppps/florida-governor-rick-scott-breaks-ground-on-i-4-ultimate-project/>

⁷⁵ US Department of Transportation- Federal Highway Administration- Innovative Program Delivery. Project Profiles, I-4 Selmon Expressway Connector. (http://www.fhwa.dot.gov/ipd/project_profiles/fl_i4_selmon_expressway_connector.aspx).

The financial structure of the parkway is cited as the main reason the construction project was completed without the 15-year delay used for assembling financing⁷⁶. The financing model that was implemented for the completion of this parkway had \$27 million dollars from public funds of the Parkway's total. The rest of the funding was raised through the sale of private bonds. By implementing this structure the Federal Highway Administration stated that the risk to localities and taxpayers were minimized⁷⁷.

The Pocahontas Parkway was built and financed using a newly formed private, nonprofit corporation. This corporation, called the Pocahontas Parkway Association is comprised of investors, and other individuals. This type of nonprofit corporation is called a 63-20 corporation, where the obligations of the corporation are considered issued on behalf of the government. As a nonprofit corporation, the Pocahontas Parkway Association can collect tolls to pay debt service on the road but cannot make a profit⁷⁸. Any excess revenue made on the toll road must be reverted to the state of Virginia.

CONCLUSION & RECOMMENDATIONS

The idea of private property and individual property rights has been integral to the American self-concept as well as to its political and economic system Wars have been fought in order to protect the idea of private property. For example, the American Revolution took place in part to defend the idea of private property. The United States got involved in the Cold War as a means of defending the idea of free enterprise and limited government intervention⁷⁹. Privatization, has gained more influence in the current climate of opinion in the United States, perhaps as a result of the American victory in the Cold War and the triumph of capitalism with its bedrock belief in private property and individualism. However, in its present form the Public Private Partnership is dangerous. The model in its current form provides the illusion that the private sector, because of its familiarity and comfort with competition, will provide the public with the best product for the lowest price and the public sector, with its focus on protecting and promoting the interests of the public, will insure that the product will give the maximum benefit to society. In reality the model shifts the role of the public entity from the provider of the public good to the customer. The Public Private Partnership ultimately leaves the public entity at a disadvantage in that it protects the private partner and its investment while it exposes the public to financial risk without guaranteeing increased societal benefit.

The continued use of the Public Private Partnership model in its present form will deprive society of a valuable opportunity to improve public services and make them more efficient. A rethinking of the Public Private model is indicated at this time. A shift in the public's attitude in favor of government would allow the society as a whole to improve the efficiency and effectiveness of public

⁷⁶ US Department of Transportation- Federal Highway Administration- Innovative Program Delivery. Project Profiles, Pocahontas Parkway. http://www.fhwa.dot.gov/ipd/project_profiles/va_pocahontas.aspx

⁷⁷ US Department of Transportation- Federal Highway Administration- Innovative Program Delivery. Project Profiles, Pocahontas Parkway. . http://www.fhwa.dot.gov/ipd/project_profiles/va_pocahontas.aspx

⁷⁸ *Highway and Transit* (2011), 12.

⁷⁹ Sclar, E. (2000), *You Don't Always Get What you Pay For The Economics of Privatization*, xvii.

service provision by bringing the issue to the attention of policy makers⁸⁰. The present debate on privatization and its use/implementation comes with the implicit assumption that contracting is identical to organizational reform⁸¹. Additionally, the role of competition and market forces need to be better structured in order make them better improve the benefit for all instead of improve the benefit for those involved in the private entity.

WHY SHOULD PLANNERS KNOW ABOUT PUBLIC PRIVATE PARTNERSHIPS?

Planners should be educated on the Public Private Partnership, since the model is gaining popularity and traction. When a public entity begins to investigate the option of entering a Public Private Partnership the urban planner should be aware of the potential contradictions in order to reduce the likelihood the partnership will become compromised and in extreme cases face bankruptcy. Additionally, the lack of knowledge and experience on the part of the public sector has led it to undercharging for its infrastructure⁸².

The development and maintenance of a high quality transportation network is a fundamental component necessary for the success of an urban population. Without a well-coordinated planned infrastructure network, development will become unconstrained and turbulent. It is important that urban planners are able to gain perspective on the impact the success and failure of a project may have on the surroundings. Making decisions purely based on one factor outcome is not making an educated decision. Profit and monetary gain should be only one externality affecting the public that an urban planner takes into consideration. Each Public Private Partnership is not an isolated venture; but is in fact a strategic node intended on adding to the larger urban network of the United States. The government has a primary role in contributing to the public's wellbeing; jeopardizing that role, is a redefinition of the public good, and the government's function as a protector of that good.

⁸⁰ Sclar, E. (2000), *You Don't Always Get What you Pay For The Economics of Privatization*, 5.

⁸¹ Sclar, E. (2000), *You Don't Always Get What you Pay For The Economics of Privatization*, 50.

⁸² Ashton, P., Doussard, M., Weber, R., (2012). The Financial Engineering of Infrastructure Privatization, *Journal of the American Planning Association*. 78(3) 300-312.

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