



U.S. Department  
of Transportation

# Consideration of Tax Issues in Developing and Evaluating Public- Private Partnership Concessions for Transportation: A Discussion Paper

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<b>16. Abstract</b> This paper highlights some key tax-related principles of public-private partnership (P3) structures in the U.S. for both public and private sector participants. The report focuses on key considerations for the public sector at different levels of government and different types of private sector entities. Such key considerations include the distinction between direct and indirect taxes in the context of transportation concessions, the choice of legal entity and other investor-specific tax considerations, and applicable state and local income/franchise taxes relevant to P3 transactions. The report also details tax considerations for transportation concessions, for both the toll concession and the availability payment concession. It makes general observations about the tax implications of each structure. The intended audience of this report is policy and decision makers who are involved in the delivery of transportation infrastructure.					
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# Preface

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On July 17, 2014, the Build America Investment Initiative was implemented as a government-wide effort to increase infrastructure investment and economic growth. As part of that effort, the U.S. Department of Transportation (USDOT) established the Build America Transportation Investment Center (BATIC). The BATIC helped public and private project sponsors better understand and utilize public-private partnerships (P3s) and provided assistance to sponsors seeking to navigate the regulatory and credit processes and programs within the Department. In December 2015, the Fixing America's Surface Transportation Act (FAST Act) was enacted, which directed USDOT to establish a National Surface Transportation Infrastructure Finance Bureau, which was renamed the Build America Bureau (the Bureau).

Building upon the work of the BATIC, the Bureau was established in July 2016 as USDOT's go-to organization to help project sponsors who are seeking to use Federal financing tools to develop, finance and deliver transportation infrastructure projects. The Bureau serves as the single point of contact to help navigate the often complex process of project development, identify and secure financing, and obtain technical assistance for project sponsors, including assistance in P3s. The Bureau replaces the BATIC and is now home to DOT's credit programs, including Transportation Infrastructure Finance and Innovation Act (TIFIA), the Railroad Rehabilitation and Improvement Financing (RRIF) and Private Activity Bonds (PAB). The Bureau also houses the newly-established FASTLANE grant program and offers technical expertise in areas such as P3s, transit oriented development and environmental review and permitting. The Bureau is also tasked with streamlining the credit and grant funding processes and providing enhanced technical assistance and encouraging innovative best practices in project planning, financing, P3s, project delivery, and monitoring.

Working through the Bureau, USDOT has made significant progress in its work to assist project sponsors in evaluating the feasibility of P3s, and helping simplify their implementation. In response to requirements under the Moving Ahead for Progress in the 21st Century Act (MAP-21) and the FAST Act to develop best practices and tools for P3s, the Bureau, jointly with FHWA, is publishing this report on U.S. highway P3 concessions.



# Executive Summary

Public Private Partnerships (P3s) represent a growing trend as a project delivery option for infrastructure projects in the United States (U.S.). The relative cost savings, risk transfer and project acceleration delivered by private sector participants in infrastructure development make P3s an attractive proposition for many transportation agencies. However, P3s require transactions that often involve extensive negotiations of financial, structural, and legal agreements. An important consideration in these negotiations is the treatment of taxes and the impact of that treatment on project value.

While tax considerations are important for private sector bidders as well as city, state, and federal P3 sponsors, there is currently no specific federal legislation or policy that details the tax treatment of P3 projects. This is primarily because each P3 is unique by nature, pursued in light of the specifics of local economic and political conditions, and structured to match the desired amount of private sector involvement with respect to that particular project. In addition, many of the taxes that might be incurred by a P3 are state and local taxes, and each state has a different tax regime. The choice of legal structure is also heavily reliant on location and the relevant applicable tax laws at federal, state, or local levels.

This paper, therefore, seeks not to define a particular approach to tax implications and considerations for P3s, but attempts to highlight some key tax-related principles of P3 structures in the U.S. for both public and private sector participants. As such, we have kept language and descriptions broadly applicable where possible. The intended audience is policy and decision makers who are involved in the delivery of transportation infrastructure.

Below, we describe the objectives and key observations of each section.

**Section 1** – In Section 1, we discuss some key considerations relevant to public sector sponsors of P3 projects, including the types of taxes that they may consider, the performance of P3s versus initial projections, and the impact of P3s on economic activity. Key observations of this section include:

- ▶ By and large, the project is likely to generate economic effects which result in associated tax revenues, regardless of the project delivery mechanism (aside from some timing differences in P3 vs traditional project delivery), so these indirect economic benefits and revenues are not often considered when analyzing the expected comparative impacts of P3 projects vs traditional project delivery.
- ▶ Taxes paid directly by the concessionaire may benefit the government entities in the area of the project. Income taxes paid by the P3 partner or private sector sponsor are likely to be the main tax difference between a P3 and a conventional public project delivery.

**Section 2** – In Section 2, we discuss key income tax considerations for private sector bidders, including the types of entities that may be used in the P3 investment structure. Generally, most P3 investment structures with multiple investors utilize a Delaware limited liability company (constituting a partnership for U.S. federal income tax purposes) as the investment vehicle in order to minimize entity-level income taxes and



have taxable income “flow through” to the investors.<sup>1</sup> We also discuss investor-specific tax considerations, as well as state and local income / franchise taxes relevant to P3 transactions.

**Section 3** – In Section 3, we discuss key tax considerations for two common forms of P3 transactions – toll concessions and availability payment concessions. The discussion focuses on the income tax aspects of such arrangements, as well as relevant state non-income tax aspects. The tax treatment of both types of concessions is subject to some uncertainty but general observations may be made for each.

**Section 4** – In Section 4, we discuss key principles for tax revenue valuation. This includes a discussion that places taxes in the broader context of project evaluation, including the Benefit Cost Analysis (BCA) typically performed to evaluate whether to proceed with a project, and the Value for Money (VfM) analysis typically conducted to select a project delivery method. With this background, we discuss the Competitive Neutrality Adjustment (CNA) component of the VfM, which specifically addresses tax revenue valuation. The discussion also raises key considerations and caveats from practitioners who regularly perform and assess these analyses. These considerations center on how these analytical tools are used by entities at different levels of government to analyze various project delivery options. We end with a discussion of the trade-off between taxes levied on a P3 and the value received by the government sponsor, and how these tax streams are typically modeled. Key observations include:

- ▶ BCA typically considers the value of indirect taxes, or tax revenue streams that would be generated regardless of the delivery vehicle.
- ▶ When evaluating project delivery methods, VfM analysis attempts to compare the risk-adjusted lifecycle costs of delivering a project under a public sponsor’s conventional method with those under a P3. The difference between these two project delivery mechanisms is the “Value for Money” that is created. There are many variations to the VfM methodology that attempt to capture different nuances between conventional and P3 infrastructure delivery, including quality, risk allocation, the potential accelerative benefit of P3s, and others.
- ▶ In general, the U.S. P3 advisory market appears to be moving away from following a highly-defined and government-prescribed VfM methodology similar to those utilized in other countries, and more towards bespoke analyses designed to assist project sponsors make project delivery decisions based on the particular considerations associated with their project.
- ▶ To account for the fact that some taxes levied on the P3 entity or its owners may be received by the public sector sponsor (or other related public sector entities), a CNA is commonly performed by adding the opportunity cost of the foregone taxes to the costs of the Conventional Project Delivery scenario. The tax streams included in this analysis often depend on the evaluating entity.
- ▶ Generally, a tax levied on a P3 concessionaire will increase the cost of the project to that concessionaire, which will be passed on to the project sponsor or to the user. The result is either higher user fees, higher availability payments, lower up-front payments from the concessionaire, or higher up-front public contributions, due to the reduced ability of expected revenues to repay the investment.
- ▶ Modeling direct taxes is typically done as a part of the Value for Money analysis. Modeling indirect taxes is generally done as a part of the decision to proceed with the project, before the analysis about which project delivery method (Conventional or P3) to pursue is undertaken. This original model can be

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<sup>1</sup> Additional non-tax objectives may also be achieved through use of this investment structure (e.g., legal, commercial, and financing).



integrated with the Value for Money models to further refine the indirect tax analysis if desired. Generally, we do not see this performed in practice.



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# Acronyms

AMT	Alternative Minimum Tax
ASC	Accounting Standards Codification
BCA	Benefit Cost Analysis
BLS	Bureau of Labor Statistics
CAD	Canadian Dollars
CNA	Competitive Neutrality Adjustment
DB	Design Build
DCF	Discounted Cash Flow
DOT	Department of Transportation
DRE	Disregarded Entity
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization
ECI	Effectively Connected Income
FASB	Financial Accounting Standards Board
FHWA	Federal Highway Administration
FIRPTA	Foreign Investment in Real Property Act
FTE	Full -time Equivalent
GDS	General Depreciation System
IRC	Internal Revenue Code
IRS	Internal Revenue Service
LLC	Limited Liability Company
MACRS	Modified Accelerated Cost Recovery System
NOL	Net Operating Loss
O&M	Operations & Maintenance
Opex	Operating Expenses
P&I	Principal and Interest
PCM	Percentage Completion Method
PSC	Public Sector Comparator
SPV	Special Purpose Vehicle
UBIT	Unrelated Business Income Tax
UBTI	Unrelated Business Taxable Income
USRPI	United States Real Property Interest
VfM	Value for Money



# 1 Public Private Partnership Tax Considerations for Public Sector Sponsors

P3s represent a growing trend as a project delivery option for infrastructure projects in the U.S. The relative cost savings, efficiency gains, and allocation of project risks delivered by private sector participants in infrastructure development make P3s an attractive proposition for many transportation agencies. However, the associated transfers of cost, risk, and return to the private sector require transactions that often involve extensive negotiations of financial, structural, and legal agreements. An important consideration in these negotiations is the treatment of taxes and the impact of that treatment on project value.

While tax considerations are important for private sector bidders as well as city, state, and federal P3 sponsors, there is currently no specific federal legislation or policy that details the tax treatment of P3 projects. This is primarily because each P3 is unique by nature, pursued in light of the specifics of local economic and political conditions and structured to match the desired amount of private sector involvement of that particular project. The choice of legal structure is also heavily reliant on location and the relevant applicable tax laws at federal, state, or local levels.

This paper, therefore, seeks not to define a particular approach to tax implications and considerations for P3s, but attempts to highlight some key principles of P3 structures in the U.S. for both public and private sector participants.

## 1.1 Types of taxes considered by P3 sponsors

A P3 may be subject to a variety of taxes depending on the jurisdiction in which it is located. Private sector P3 concessionaires are required to pay taxes associated with the operations of their business (i.e., the project). These direct taxes are paid by the concessionaire to federal, state, and local governments and therefore represent a potential benefit to the P3 sponsor.

In addition, if the P3 project stimulates economic activity, it may generate additional revenues through increased indirect tax receipts from property, sales, and other taxes not directly paid by the P3. However, this impact can often be considered to be a product of the project itself, not the project delivery method (P3 vs. traditional). Accordingly, the indirect tax impacts of the project are often considered by the public sector sponsor when deciding to proceed with the project, but are not analyzed further when analyzing which project delivery mechanism to use (P3 or conventional). We note that, depending on how this analysis is performed, it may understate the benefits of P3's, which are often pursued to accelerate project development and to ensure that maintenance standards are maintained through the lifecycle of an asset, which could result in accelerated and increased indirect taxes.



Examples of direct taxes that may be typically levied on a P3 project (including at the investor level) are shown in Exhibit A, and a description of these taxes are provided below<sup>2</sup>:

Exhibit A: Direct Taxes That Can be Levied on a P3 Project			
	Federal	State	Local
Income Tax	✓	✓	
Sales Tax		✓	✓
Property Tax		✓	✓

Exhibit A above describes the direct taxes that generally can be levied on a P3 project at the Federal, State, and Local level. The primary tax levied at the Federal level is the income tax, while States may levy Income, Sales, and Property taxes. At the Local level, primarily Sales and Property taxes can be applied on a P3 project.

- ▶ **Income tax:** a tax levied on the income of a taxpayer. This tax is levied at the federal level by the US Internal Revenue Service (“IRS”) pursuant to the Internal Revenue Code (“IRC”)<sup>3</sup> on annual earnings of corporations and individuals (including corporations and individuals that invest in P3 entities). Most states and many localities also levy income or franchise taxes and have rules that vary considerably by jurisdiction. As discussed in Section 2, the legal entity structure of a P3 project company can impact the income tax profile of a P3 project.
- ▶ **Sales tax:** a form of tax levied by state or local governments on the consumption of goods and services. Sales taxes may vary depending on the goods or services procured. Sales taxes may be paid by a P3 for the goods and services it procures for the construction, operation and maintenance of the project.
- ▶ **Property tax:** a tax levied by municipal or state authorities on property that is paid by the owner (or private user of public property) based on the appraised value of the property. This appraised value is multiplied by a percentage value (“levy”) that may vary widely across districts. There are two main types of property that are taxed: real property (land, or improvements to land) and personal property. In many jurisdictions the P3 may not be subject to real property taxes because title to the real property owned by the state or municipality does not transfer for legal purposes (notwithstanding that ownership for U.S. federal income tax purposes may transfer). However, in some jurisdictions, private use of the P3 property (particularly in a market risk project) may be subject to property tax. P3 projects may also be subject to property tax on any vehicles or other equipment owned.

As a general rule, taxes levied directly on the P3 project will increase the cost of the project to the private sector partner. This cost, in turn, will be passed through to either: (i) the public sponsor through higher availability payments or up-front contributions, which may result in lower up-front cash payments from the private sector, or (ii) users of the project through higher user fees.

<sup>2</sup> The list of taxes with a further description does not include taxes typically used by public sector sponsors to raise funding to pay milestone, availability, or other performance-related payments.

<sup>3</sup> Unless otherwise specified, all Section or § references are to the Internal Revenue Code of 1986, as amended, and the Treasury Regulations issued thereunder.

Significant heterogeneity surrounds the tax treatment of P3s. While non-specificity of tax rules and regulations is a contributing factor, there is also significant variation in the tax strategies and structures of winning bidders in addition to bespoke federal, state, and local tax concessions granted to a given infrastructure project. Analysis of these tradeoffs will be an important factor in negotiations between the public and private parties. Gaining a better understanding of historical risks related to the generation of tax revenues can be helpful to performing this analysis. In Exhibit B we further detail how a sponsor might compare projected and actual project revenues to better understand the risks related to tax projections for P3 projects.

**Exhibit B: Using P3 Project Revenues as a Proxy for Tax Revenues**

P3s are often large-scale projects based on their cost, economic impact, and project life-cycle. This is particularly true in the United States where access to low cost, long-term debt in the municipal bond market and a diversity of permitted contracting mechanisms (e.g., Design-Build contracts and Performance-based operating agreements) may make public project delivery relatively more competitive than in other parts of the world. Actual tax revenues generated by these projects are often difficult to determine as the private owners of these projects are not typically required to disclose this information, except the estimates used in the original financial projections (to the extent bid models are disclosed). As a proxy, comparing actual revenues to the original projected revenues for the project, one may be able to infer a similar performance of tax revenue streams and other related benefits to the government.

**1.2 P3s as a stimulant of economic activity**

The economic activity generated by a P3 can be divided into direct and indirect economic activity. Direct economic activity is activity associated with the construction, operations, maintenance and rehabilitation of the project. Indirect economic activity is the secondary or induced economic activity that occurs as a result of the direct economic activity. An example of direct economic activity would be the employment of a construction worker, while indirect economic activity would result from that worker spending his or her salary. Another example of indirect economic activity would be a change in property values or a change in business activity along the project service area. Both of these span the entire lifecycle of the P3 and represent sources of tax revenue to the government.

Published studies that estimate the amount of direct, and indirect, economic activity created by P3s remain limited for public consumption. The authors of this paper identified and reviewed several reports which provide insightful examples into the effect of P3s as economic stimulants. A 2014 analysis commissioned by the Canadian government analyzed the economic activity of P3s over a 10-year period.<sup>4</sup> It noted that between 1991 and 2014, Canada instituted 206 P3 projects for a total direct spend of \$63 billion (CAD). The analysis used a proprietary model to estimate the indirect economic activity resulting from P3s. Tax revenue effects were only estimated on direct economic activity and were only estimated at the national levels—the local level was excluded due to differing tax rules. The following results were found for the 2003 thru 2014 period, which represent total project costs of \$51.2 billion (CAD).

- ▶ About 290,680 direct Full-time equivalent (FTE) positions, and 226,750 indirect FTE positions were created by the P3 projects.

<sup>4</sup> <http://www.p3canada.ca/en/about-p3s/p3-resource-library/10-year-economic-impact-assessment-of-public-private-partnerships-in-canada/>

- ▶ A total of \$92.1 billion (CAD) in total economic output resulted from executing the P3 projects.
- ▶ National and provincial income tax revenue—which includes both employer-paid and employee-paid taxes—from P3 projects totaled \$7.5 billion (CAD).

As a second example, The Virginia Department of Transportation’s (VDOT) Office of Transportation Public-Private Partnerships routinely estimates economic activity for P3 projects that it undertakes. The estimations are provided in briefing materials; however, the underlying methodology and models are not publicly available. Tax revenue estimates are not provided by VDOT nor can they be calculated without the models. The following economic activity was estimated for the below projects.<sup>5</sup>

Project	Project Cost	Jobs Supported	Economic Activity
495 Express Lanes	\$1.9 billion	31,000	\$3.5 billion
95 Express Lanes	\$0.9 billion	8,000	\$2.0 billion
Norfolk Midtown Tunnel	\$2.1 billion	1,700	\$8.8 billion <sup>6</sup>
<b>Total</b>	<b>\$4.9 billion</b>	<b>40,700</b>	<b>\$14.3 billion</b>

*The table above summarizes the project costs, supported jobs, and additional economic activity for a subset of P3 projects. In total, for the five projects, the economic activity is approximately three times the project costs.*

### 1.2.1 Direct Economic Activity and P3 Tax Revenue

We note that much of the economic activity generated by a P3 project (both direct and indirect) would likely have been generated by a traditionally-procured project through employment of a construction contractor, operations and maintenance staff, etc. This may raise the question of whether the P3 structure creates additional or incremental economic activity beyond what would have been created through traditional project delivery. Generally, this can be answered in the affirmative if a P3 has gone through a project delivery evaluation that involved VfM analysis. Without addressing specific numerical examples, we address both elements below:

**Economic Activity** - If the P3 delivery method is chosen based on delivering the greatest Value for Money (VfM)<sup>7</sup>, or lowest risk-adjusted lifecycle costs, then there is reasonably expected to be incremental economic activity associated with P3 project delivery. This is because the P3 delivery is expected to lower the lifecycle cost of the asset to the public sector (including users of the asset.) This will, in turn, enable the public sector to deliver more assets or services, or to lower the overall tax/fee burden on the public, generating more disposable income or savings, and thus economic activity.

**Tax Revenues** – While the overall lifecycle costs are expected to be lower through a P3 that demonstrates Value for Money, it is also likely to deliver more taxes into the relevant tax bases. This is because the creation of the P3 vehicle creates an additional tax payer in the cash flow structure when compared to a conventional project delivery. This can be seen in the Exhibit C below:

<sup>5</sup> [http://www.virginiadot.org/projects/resources/SYIP/07\\_MPO\\_PDC\\_Presentation\\_P3.pdf](http://www.virginiadot.org/projects/resources/SYIP/07_MPO_PDC_Presentation_P3.pdf)

<sup>6</sup> The economic benefits are estimated to be between \$170 and \$254 million a year when the Project starts operations in 2018. The concession will expire in 2070. Assuming 52 years at \$170 million a year, \$8.8 billion in constant dollars in economic activity is generated.

[http://www.vdot.virginia.gov/news/resources/Hampton\\_Roads/Midtown\\_FAQs\\_12\\_02\\_11.pdf](http://www.vdot.virginia.gov/news/resources/Hampton_Roads/Midtown_FAQs_12_02_11.pdf)

<sup>7</sup> Value for Money analysis is described in greater detail in Section 4.

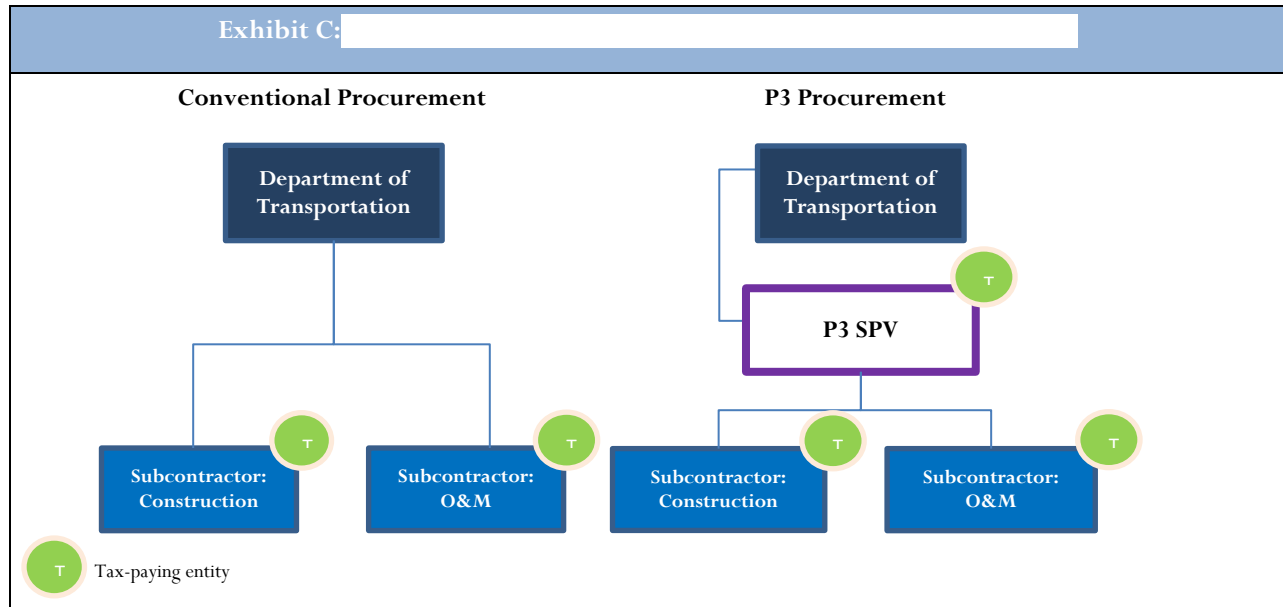


Exhibit C above shows the organization charts for a Conventional Project Delivery and a P3 Project Delivery. For the Conventional Project Delivery, the Department of Transportation (Federal or State) oversees two tax-paying subcontracting entities: Subcontractor responsible for Construction and the subcontractor in charge of Operations and Maintenance. For the P3 Project Delivery, the same Department of Transportation oversees the tax-paying P3 SPV. In turn, the P3 SPV is responsible for the activities of tax-paying subcontractors which are similar to the Conventional Project Delivery subcontractors.

Finally, we note that P3s are often pursued for the stated reasons of accelerating project delivery and ensuring certain performance and quality standards are maintained throughout the lifecycle of the project. The acceleration of the project can also be expected to result in the acceleration of the direct and indirect taxes associated with the project. In addition, while rarely modeled, the fact that the P3 does not have the same level of flexibility in deferring maintenance as a public project may also generate additional economic and tax activity during the project lifecycle.

### 1.3 Conclusion

In conclusion, we note a few key considerations for public sector sponsors of P3 projects when considering direct and indirect economic impacts of P3 projects and the resulting tax streams:

- ▶ The project is likely to generate economic effects which result in associated tax revenues from entities other than the P3, regardless of the project delivery mechanism (P3 vs traditional). These indirect economic benefits and revenues are not often considered when analyzing the comparative impacts of P3 project delivery vs traditional project delivery, although more sophisticated analyses may incorporate timing differences and other operating period differences in their risk analyses.
- ▶ Direct taxes paid by the P3 may benefit the public sponsor or other government entities in the area of the Project. Income taxes paid by the P3 partner are likely to be the main economic difference between a P3 project delivery and a conventional project delivery.

## 2 P3 Tax Considerations for Private Sector Bidders

In order to understand the tax considerations relevant to private sector bidders, a comparative overview of legal entities and tax structuring considerations is necessary. Businesses, including those operating transportation projects through a P3 arrangement in the US, can utilize a variety of legal entities through which to operate. The initial investors<sup>8</sup> must carefully weigh the options and determine the form of business organization that is the most appropriate for the specific transaction. Common legal entities include corporations, partnerships, and limited liability companies. Generally, most US P3s prefer to operate in a “flow-through” tax structure in order to minimize taxes on operating income and capital gains to provide a greater return on the investment.

### 2.1 Types of legal entities

In choosing amongst the particular forms of legal entities through which to operate a P3 project, investors generally seek to balance various commercial, legal, and tax objectives. In our experience, investors have noted key legal and commercial considerations to include: (1) limiting investors’ legal liabilities arising from the business operations, (2) providing an efficient structure for managing the investment, (3) providing flexibility for future transfers of ownership interests and management compensation, and (4) facilitating capital financing needs of the project.

From an income tax perspective, the choice of legal entity will generally depend upon a structure that minimizes the overall tax cost at the entity level and provides flexibility at the investor level (so that investors with different tax profiles may structure accordingly) during the holding period and upon exit. The ability to achieve this objective will help maximize an investor’s rate of return for the investment (including, potentially, through more favorable pricing on exit). The ultimate choice of entity will also impact the investment analysis for any potential future investors (e.g., tax attributes such as net operating losses (“NOLs”) and tax basis). A brief overview of common entity options follows.

#### 2.1.1 Corporation

Generally, a corporation is a business organization formed under state law that is a separate and distinct legal entity from its owners. From a legal liability perspective, shareholders of a corporation are generally not liable for the corporation’s debts and liabilities.<sup>9</sup>

For income tax purposes there are two types of corporations – a C corporation and, if the shareholders elect, an S corporation<sup>10</sup> – the primary difference being the manner in which the corporation’s income is taxed. Due to various restrictions applicable to S corporations, including, but not limited to, the number and types of permissible shareholders and the general limitation to a single class of stock, S corporations are

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<sup>8</sup> An investor consortium comprised of private sector bidders may include US and non-US banks, private equity firms, and construction and engineering companies.

<sup>9</sup> Legal counsel should be consulted regarding the application of the general principles (described in this Section 2.0) of legal liability and similar matters to any particular case.

<sup>10</sup> Corporations that have elected to be treated as S corporations are generally not subject to federal income tax and not subject to many state income/franchise taxes; although such entities are generally required to file federal and state income/franchise tax returns reporting the taxable income or loss of the entity. S corporations pass all items of income, deductions, gains and losses, to their shareholders, who are then taxed on their allocable share of such items.





not used in P3 transactions. Accordingly, unless otherwise indicated, all references to “corporations” throughout this white paper are to C corporations.

C corporations are subject to an entity level federal income tax.<sup>11</sup> Dividends distributed to shareholders are generally also subject to income tax at the shareholder level<sup>12</sup> and not deductible by the corporation. Accordingly, corporate earnings are typically subject to two levels of taxation, as illustrated in Exhibit D below. All other commercial and regulatory considerations being the same, private sector bidders generally tend to avoid using corporations as the P3 operating entity or special purpose vehicle (“SPV”) in order to avoid a double layer of taxation on project income.<sup>13</sup>

### 2.1.2 Partnership

A partnership is generally a for-profit business or venture carried on by two or more taxpayers. Partners in a partnership may be individuals or other business entities (including partnerships or corporations). Partnerships may be either general or limited partnerships, the distinguishing characteristic of which is that a limited partner’s liability for the partnership debts is generally limited to the amount of its contributed capital, whereas a general partner has unlimited liability exposure for such debts. Typically, SPVs utilizing the partnership form are limited partnerships.

For federal income tax purposes, partnerships generally do not pay income tax on their earnings.<sup>14</sup> Instead, the income tax liability for partnership income is the responsibility of the partners, whether or not earnings are distributed to the partner. Partnerships report their items of income, gain, loss and deduction on a US Return of Partnership Income (i.e., Federal Form 1065), and each partner is provided with a Schedule K-1, which reflects its share of these items. The partners then include their share of K-1 items on their own income tax returns. Accordingly, partnership income is subject to only one level of federal income taxation, as illustrated in Exhibit D below. This single layer of taxation on project income is generally preferred by private sector bidders.

### 2.1.3 Limited Liability Company (“LLC”)

Similar to corporations and limited partnerships, an LLC generally shields its members (the owners of the LLC) from personal liability for company obligations beyond the amount of a member’s capital investment. The extent of member liability is generally a matter of state law and may depend on the state in which the entity is formed.

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<sup>11</sup> The current top marginal federal tax rate applicable to corporate taxable income is 35%. If the tax amount due is greater, corporations are subject to an alternative minimum tax (“AMT”) (20% of “alternative minimum taxable income”) (AMT could be higher because different measures of income subject to tax apply to regular tax and AMT). Corporate taxable income may also be subject to state income tax at varying rates.

<sup>12</sup> The applicable tax rate for corporate distributions depends on the tax profile of the recipient shareholder and the type of distribution. Currently, distributions to individual shareholders treated as “qualified dividend income” are taxed at long-term capital gain rates (top marginal rate of 20%). IRC § 1(h)(11). An additional 3.8% “net investment income” tax may also apply to dividends. IRC § 1411. Dividends may also be subject to state income tax. Dividends received by a corporation are subject to ordinary tax rates. Note that corporations may be entitled to a dividend received deduction, which would reduce the amount of the dividend subject to federal income tax.

<sup>13</sup> As noted below, certain investors in P3 projects may insert a “blocker” corporation as an owner of the SPV for tax reasons.

<sup>14</sup> Although not liable for federal income tax, partnerships may be subject to entity-level state tax. Additionally, a partnership may have other federal income tax obligations such as collecting and remitting withholding tax on income allocable to certain partners. See state tax and investor classification discussions further below.



For federal income tax purposes, LLCs are classified pursuant to the “check the box” rules.<sup>15</sup> These rules permit taxpayers to choose the federal income tax classification of an LLC formed under the law of a US state.<sup>16</sup> The default federal income tax classification of an LLC with more than one member is a partnership, while an LLC with a single member is disregarded for federal income tax purposes (i.e., its activities are treated as if directly conducted by its owner).<sup>17</sup> If a “check the box” election<sup>18</sup> is made by the LLC (whether multiple-member or single-member), the LLC will be treated as a C corporation for federal income tax purposes and its earnings will be subject to federal corporate income tax (which would result in double-taxation, as described above). In contrast, the income of a multi-member LLC classified as a partnership under the default rules will be subject to single-level federal income taxation in accordance with the general income tax treatment of partnerships described above.

Exhibit D: Federal Income Taxation of Corporate v. Partnership Income*		
	Corporation	Partnership
Entity Taxable Income	\$100.00	\$100.00
Entity Level Tax Rate	35%	0%
Entity Level Tax	\$35.00	\$0.00
Funds Available to Distribute After Entity Level Tax	\$65.00	\$100.00
Dividend / Distribution	\$65.00	\$100.00
Individual Tax Rate**	23.8%	43.4%
Individual Tax***	\$15.47	\$43.40
Cash to Owner	\$49.53	\$56.60
* State income tax consequences are excluded from Exhibit D		
** Assumes entity owner is an individual US resident. Assumes highest marginal federal income tax rate for 2016, plus the current 3.8% "net investment income tax"		
*** As noted, partners will be taxed on their share of partnership income, whether or not distributed		

Exhibit D above describes the difference in taxation and cash to owners between a Corporation and a Partnership. For the same taxable income of \$100, different deductions and tax rates are applied, resulting in cash to owner of \$49.53 for a Corporation and \$56.60 for a Partnership.

## 2.2 General US tax considerations

The tax treatment of income generated from a P3 investment will vary depending on the type of entity and corresponding income tax classification the investor group selects for the SPV and project operating entity. Thus, the type of entity selected can have a significant effect on the investors’ after-tax return on investment. It should be noted that each investor that participates in a P3 investment may have a different tax profile (e.g., different tax rates (including tax exemptions or foreign status) and may be subject to different tax law provisions (e.g., unrelated business taxable income (“UBTI”) for non-state domestic pensions). Accordingly, P3 investors often select an entity (e.g., an LLC taxed as a partnership) that permits the investors to accommodate their specific tax structuring requirements at the investor level.

<sup>15</sup> The “check the box” rules are found in Treas. Reg. § 301.7701-3, with additional business entity classification rules found in Treas. Reg. §§ 301.7701-1 and -2.

<sup>16</sup> Unless otherwise noted, it is assumed herein that any LLC is formed under the law of a state in the US.

<sup>17</sup> A single-member LLC may or may not also be disregarded for state income tax purposes. See state tax discussion below.

<sup>18</sup> Treas. Reg. § 301.7701-3 also describes the procedure and filing requirements for making the election.



For a variety of reasons, the most common P3 SPV is an LLC treated as a partnership for federal income tax purposes.<sup>19</sup> For legal reasons (not addressed in this white paper), the LLC is typically formed in the state of Delaware.

Accordingly, the following discussion of US tax considerations focuses on LLCs treated as partnerships for federal income tax purposes and, unless otherwise noted, references to an LLC are to an LLC treated as a partnership for tax purposes. Tax observations relevant to LLCs, members, and membership interests are generally applicable to partnerships, partners, and partnership interests, respectively. Notwithstanding this general focus, where relevant, the discussion will include analysis of US income tax considerations relevant to corporations and disregarded entities (“DRE”) as well.

### 2.2.1 Formation of an SPV

The income tax considerations related to entity formation typically include: (i) tax treatment of the contribution, (ii) holding period of ownership interests received in exchange for contributions, and (iii) tax basis of the ownership interest received.

#### LLC (Treated as a Partnership for U.S. Federal Income Tax Purposes)

An investor’s initial cash contribution to an LLC in exchange for a membership interest is generally not a taxable event.<sup>20</sup> The holding period for the membership interest begins on the date of contribution. Subsequent cash contributions will generally be non-taxable to the member or LLC, however, such contributions result in a “split” holding period.

The tax basis of an LLC interest will be relevant for calculating the amount of gain or loss realized upon a subsequent transfer of the LLC interest. Tax basis is also relevant in determining the income tax treatment of distributions and to the amount of LLC losses a particular member may deduct. A member’s initial tax basis in its membership interest generally equals the amount of cash contributed in exchange for the membership interest. Additionally, the tax basis of the membership interest also includes the member’s share of the LLC’s liabilities.<sup>21</sup> Over time, a member’s tax basis in its membership interest is increased by its distributive share of LLC income and any additional contributions, and decreased by its distributive share of LLC losses or any distributions. Similarly, the holding period for an investor’s LLC interest is often relevant to the tax treatment of a disposition.

#### Corporation

An investor’s cash contribution to a corporation in exchange for common stock of the corporation is generally not a taxable event. The tax basis of the investor’s stock will equal the amount of cash contributed,<sup>22</sup> and the holding period for the shares will begin on the date of contribution. Subsequent cash contributions will generally also be non-taxable events, but will increase the shareholder’s tax basis in corporate stock and will result in a “split” holding period. A shareholder’s tax basis in the stock of the corporation will not reflect income or loss generated by the corporation, but may be reduced by

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<sup>19</sup> While most states follow the federal income tax classification of LLCs, some states (e.g., Tennessee) may not. The state(s) of operation of the LLC, rather than the state of formation, generally determines which tax rules apply.

<sup>20</sup> The rules for non-cash contributions to corporations and LLCs differ substantially from those described herein for cash contributions. However, in the P3 context, such non-cash contributions are rare.

<sup>21</sup> The tax rules treat a member as making a deemed cash contribution equal to the member’s share of the LLC debt. This deemed cash contribution correspondingly increases the member’s tax basis in its membership interest.

<sup>22</sup> Unlike members in the LLC context, corporate shareholders do not include in the tax basis of stock any portion of corporate debt.



distributions not out of corporate earnings. As in the case of an LLC, tax basis and holding period for corporate stock are relevant to the tax consequences of a disposition.

### 2.2.2 Income taxes of the SPV during concession period

As a general matter, investors will prefer operating in a P3 structure that minimizes the overall tax cost associated with the project. The income tax impact on project net earnings may vary depending on the legal entities used in the overall structure, as some may be tax-paying entities and others may be pass-throughs. This implies that a tax efficient legal entity structure may allow bidders to submit a more competitive bid, by lowering the overall tax burden that needs to be recouped through the project financials.

#### LLC

As noted above, the LLC treated as a partnership for U.S. federal income tax purposes is generally not subject to federal income tax on its income.<sup>23</sup> For federal income tax purposes, the LLC is required to file an information return reporting the taxable income and loss of the entity, the name and taxpayer identification number of each member, and the amount of income or loss allocated to each member.<sup>24</sup>

The federal income tax associated with the LLC's income is generally the responsibility of the members. A member (whether an individual or another entity) includes its distributive share of the LLC's income or loss on its own income tax return,<sup>25</sup> and any income will be taxed in accordance with the member's income tax classification.<sup>26</sup> As a general matter, the allocation of the LLC's income and loss among the members is governed by the LLC operating agreement.<sup>27</sup>

As noted, LLC members are generally liable for income tax imposed on their distributive share of LLC income even if such income is not actually distributed to the member. However, because an allocation of income may result in a tax liability to the member, an LLC operating agreement can provide for cash or "tax distributions" to the members sufficient to satisfy each member's tax obligation attributable to their income allocation.

#### Corporation

As noted above, corporate taxable income is subject to entity-level taxation at a specified corporate rate (current top marginal federal tax rate of 35%). For corporations, ordinary income and capital gains are taxed at the same income tax rate. To the extent the corporate after tax income is distributed to the shareholders, the distribution will generally be taxed again at the shareholder level (at the shareholder's applicable rate).<sup>28</sup>

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<sup>23</sup> See *supra* note 28 regarding state taxes.

<sup>24</sup> Federal Form 1065. The informational returns and filing requirements for each state will vary.

<sup>25</sup> For federal income tax purposes, each member's distributive share of the LLC's income or loss is stated on Schedule K-1, which is provided to the members by the LLC. The character of such income or loss (e.g., ordinary or capital) is typically determined based on the character to the LLC.

<sup>26</sup> Tax classification of investors, including various tax rates applicable to different types of investors, is discussed below.

<sup>27</sup> This general rule for allocation of income and loss is subject to certain other requirements under the tax law and is generally intended to cause cumulative taxable income to be allocated in accordance with cumulative economic income.

<sup>28</sup> See *supra* note 33 and accompanying text. The highest marginal federal income tax rate on the ordinary income of individuals is 39.6% under current law.



### Single-member LLC (DRE)

A single-member LLC that has not elected to be taxed as a corporation is treated as disregarded for federal income tax purposes and its activities are treated as conducted directly by its owner.<sup>29</sup> Accordingly, DREs are not subject to federal income tax.

### Summary

Ordinarily, an LLC offers a more tax-efficient structure than a corporate SPV (i.e., an SPV treated as a partnership for federal income tax purposes avoids double taxation). As a result, most P3s utilize LLCs in order to operate in a “flow-through” tax structure, as illustrated in Exhibit E below.<sup>30</sup>

### *2.2.3 Investor-level tax treatment of cash distributions – US investors*

The federal income tax consequences to an investor, who is a US person, upon receipt of cash generally depends on the federal income tax classification of the distributing entity (e.g., partnership or corporation).

### LLC

As noted above, a member of an LLC is currently taxed on its distributive share of the LLC’s income, regardless of whether any cash is actually distributed to the member. Accordingly, distributions of cash are generally non-taxable events to the recipient members, and instead are generally treated as a return of basis. Cash distributions in excess of tax basis, however, are generally taxable as capital gains.<sup>31</sup> Further, an LLC is not taxable upon a distribution of cash to a member.

### Corporation

A non-liquidating distribution from a corporation is treated as a dividend to the extent of the corporation’s current or accumulated earnings and profits (“E&P,” generally, after-tax profits with certain adjustments). Dividend distributions are non-deductible by the corporation and are generally included in the shareholder’s gross income.<sup>32</sup> However, under current tax law dividends received by individual shareholders that are generally treated as “qualified dividend income” are taxed at the preferential long-term capital gain tax rate instead of ordinary income rates.<sup>33</sup>

Corporate distributions that are not classified as “dividends” are considered a nontaxable return of the shareholder’s investment in the corporation, to the extent of the shareholder’s tax basis in the underlying stock. After the shareholder has fully recovered its investment in the stock, further non-liquidating distributions to the shareholder are treated as gain from the sale or exchange of property, generally characterized as capital gain.<sup>34</sup> State income tax treatment of distributions may differ from state to state.

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<sup>29</sup> A single-member LLC may or may not also be disregarded for state income tax purposes.

<sup>30</sup> Note that certain tax-exempt and foreign investors may make their P3 investment through a C corporation, subjecting their income to double taxation. Their rationale for utilizing the C Corporation is discussed below in section 2.4 of the white paper.

<sup>31</sup> This capital gains treatment is subject to potential re-characterization as ordinary income under the tax rules.

<sup>32</sup> For corporate shareholders, only a portion of a “dividend” is included in its gross income. Pursuant to the “dividends received deduction,” corporate shareholders may generally deduct 70% to 100% of dividends received depending on the corporate shareholder’s level of ownership in the distributing corporation. IRC § 243. Accordingly, the maximum effective regular federal income tax rate on dividends received by corporate shareholders is generally 10.5%.

<sup>33</sup> See supra note 33 and accompanying text. The highest marginal federal income tax rate on the ordinary income of individuals is 39.6% under current law.

<sup>34</sup> To the extent the recipient is an individual shareholder and the underlying stock has a holding period of more than one year, these distributions may be characterized as long-term capital gain and subject to the lower tax rate, ,



## Summary

Because distributed earnings from a corporation to its shareholders have already been taxed once at the corporate level before being taxed again to the recipient shareholder, it is generally more tax-efficient for the SPV to operate as an LLC treated as a partnership for U.S. federal income tax purposes, so that operating income is subject to only one level of tax.<sup>35</sup>

### *2.2.4 Tax attributes*

#### LLC

To the extent an LLC generates a net operating loss (“NOL”) during a tax year, the loss generally passes through to the members. The loss may be utilized to offset other taxable income of the member depending on a member’s income tax profile.<sup>36</sup> The loss does not carry over to the subsequent tax year of the LLC; but may be carried forward by the individual members subject to certain limitations.

#### Corporation

To the extent a corporation recognizes an NOL during a tax year, the NOL may either be carried back two tax years or carried forward twenty tax years to offset the corporation’s historical or future taxable income, respectively.

The ability to utilize the NOL carryforward will be subject to an annual limitation (the “Section 382 limitation”) if the corporation undergoes a greater than 50% change in ownership within a three-year period (an “ownership change”).<sup>37</sup> The Section 382 limitation is generally equal to the net equity value of the corporation on the ownership change date multiplied by the applicable long-term tax-exempt rate published monthly by the IRS.<sup>38</sup>

### *2.2.5 Exit considerations – US investors*

The holding period of an ownership interest, including membership interests (an LLC ownership interest) and corporate stock, is relevant in determining the tax rate applicable to individuals with respect to any gain recognized on a subsequent transfer of the ownership interest. Taxable gain from the disposition of an ownership interest with a holding period of more than one year is generally eligible for taxation at long-term capital gain rates<sup>39</sup> (currently a marginal rate of 20%, plus the 3.8% net investment income tax). Where the disposition is of an LLC interest (treated as a partnership interest for U.S. federal income tax purposes), a portion of the gain attributable to depreciation recapture (among other items) is treatable as ordinary (taxed at a marginal federal income tax rate of 39.6%). Long-term and short-term capital gain, as well as ordinary income, are taxable to corporations at the same rate, currently 35%. However, corporate capital losses cannot offset ordinary income.

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currently a marginal rate of 20%, plus the 3.8% net investment income tax for top-bracket individual taxpayers. IRC §§ 1 and 1411.

<sup>35</sup> See Exhibit D above for comparison of taxation of corporate and partnership income.

<sup>36</sup> Significant limitations on offset apply to individuals and some closely held corporations.

<sup>37</sup> IRC § 382. There are detailed and complex rules for determining if an ownership change has occurred.

<sup>38</sup> IRC § 382(b).

<sup>39</sup> State income taxes may also apply.



### Sale of an LLC Interest – other considerations

The sale of a membership interest in an LLC treated as a partnership for U.S. federal income tax purposes to a third party will generally be subject to income tax for the selling member. Except as discussed below with respect to a “technical termination,” there is generally no income tax consequence to the LLC or the remaining members upon the sale.

**Partial Sale of LLC Interest:** Upon a sale of LLC interests, the purchasing member will generally succeed to the selling member’s share of the LLC’s aggregate tax basis in its assets without a corresponding adjustment to reflect the amount paid for the membership interest. However, if the LLC has an election in place under Section 754 at the time of the sale/purchase, the new member may receive a tax basis adjustment in its membership interest to fair market value similar to acquiring an undivided interest in each LLC asset.<sup>40</sup> Where the purchasing member pays more for the purchased interest than its share of the tax basis in LLC assets, this adjustment (a “tax step-up”) typically increases the tax depreciation and amortization for the incoming member going forward. If the partnership has a substantial built in loss in its assets, the adjustment (a tax basis “step-down”) is mandatory for the incoming member.<sup>41</sup>

A complete redemption for cash of a member’s interest in an LLC would generally be taxable to the redeemed member.<sup>42</sup> Such a transaction would not in itself result in a technical termination of the LLC. While a tax basis adjustment may result if the redeeming member recognizes gain or loss if the LLC has a section 754 election in effect, unlike a sale to a third party the adjustment is shared by all the remaining members.

**Sale of 100% of LLC Interests:** A sale of 100% of an LLC treated as a partnership for U.S. federal income tax purposes is treated by the purchaser as a purchase of assets. Upon a sale of assets, the purchase price is generally allocated first to cash/cash equivalents and tangible assets based on fair market value. Any remaining purchase price is generally allocated to intangible assets (including goodwill). A buyer of assets receives a tax basis equal to the purchase price paid plus liabilities assumed (for U.S. federal income tax purposes).

### Sale of Corporate Stock – other considerations

The selling stockholder will be subject to income tax on the sale of corporate stock to a third party.

Unlike with a sale of membership interests (treated as partnership interests for U.S. federal income tax purposes), the tax bases of corporate assets are generally not adjusted by virtue of the purchase of corporate stock (i.e., no “tax step-up”).<sup>43</sup> Further, a sale of stock resulting in an “ownership change” of a corporation with NOLs may result in a Section 382 limitation, as described above. A redemption of corporate stock is generally treated as a sale by the holder if the holder has sufficiently reduced its interest as a stockholder of the corporation.

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<sup>40</sup> IRC §§ 754 and 743(b). This adjustment is deemed to be applied only with regard to the purchaser’s allocable share of LLC asset tax basis (i.e., the fractional interest in the LLC assets attributable to the purchased membership interest). The adjustment does not affect the common tax basis of LLC assets, or the other members.

<sup>41</sup> Under complex tax rules pursuant to IRC § 708(b)(1)(b) (the “technical termination” rules), a sale or exchange of 50% or more (but less than 100%) of the total interest in an LLC’s capital and profits within a 12-month period results in the closure of the tax year of the LLC. As a further consequence, depreciation of fixed assets is restarted based on the adjusted tax basis at the time of termination and the LLC may be subject to additional compliance requirements, such as filing two federal income tax returns during a 12-month period.

<sup>42</sup> Such a transaction would not in itself result in a technical termination of the LLC.

<sup>43</sup> The parties can elect in some specified circumstances to treat certain sales of corporate stock as if the sale was instead a sale of the underlying corporate assets. These situations are generally not available in the context of a P3 transaction.



## 2.3 State and local income / franchise tax considerations

Most states impose some form of tax on business entities operating or deriving income from within their state, although the methods used to impose the tax vary among the states. Each state that imposes a corporate income tax has its own system of implementing and determining a corporation's tax liability.<sup>44</sup> Certain localities within a state may impose a local income tax in addition to the state corporate income tax.<sup>45</sup> Although partnerships (including LLCs treated as partnerships for federal income tax purposes) are generally treated for state income tax purposes in the same manner as they are taxed for federal income tax purposes, each state has its own set of rules for taxing LLCs and their members. In addition, most states require LLCs to file composite returns to pay state income taxes on behalf of their nonresident members, to withhold state income taxes on behalf of their nonresident members, or to impose their state income tax on the LLC itself.<sup>46</sup> In certain states, a franchise tax, frequently based on capital or net worth, may also be imposed for the privilege of conducting business within the state.<sup>47</sup>

### 2.3.1 Entity level income taxes

A few states impose entity-level income taxes applicable to all legal forms of business entities.<sup>48</sup> These entity-level income taxes can apply to entities treated as partnerships for federal income tax purposes (including LLCs treated as partnerships), in contrast to their treatment for federal income tax purposes where the entity itself is not subject to tax.

### 2.3.2 Flow through treatment of LLCs at state level

Most states follow the federal income tax classification of flow through entities (e.g., LLCs and partnerships). Accordingly, most entities treated as partnerships for federal income tax purposes (including LLCs treated as partnerships) are also classified as partnerships for state income tax purposes.

### 2.3.3 Impact of state of incorporation

The state of incorporation or formation of an entity generally does not substantially impact its state income tax liability (other than certain minimum taxes). The state in which the P3 project is located is generally the relevant jurisdiction for purposes of determining the state income tax consequences to the entity. However, due to the variety of methods of business entity taxation imposed by individual states, state income / franchise tax consequences typically require state-specific analysis. Because P3 projects and assets are generally situated within a single state,<sup>49</sup> the entity and/or the investors will generally be subject to income tax in that state.

## 2.4 General tax considerations for tax exempt and foreign investors

P3 investors typically have different tax profiles and may include US taxable investors, different categories of US tax-exempt investors, and non-US investors. Each type of investor has its own unique considerations

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<sup>44</sup> Some states, such as Nevada, do not impose a corporate income tax.

<sup>45</sup> e.g., many localities in Ohio impose a local income tax.

<sup>46</sup> e.g., New York City imposes its Unincorporated Business Tax (the "UBT") at a rate of 4% on LLCs with a taxable presence in New York City.

<sup>47</sup> Tennessee imposes an income and a franchise tax on most entities treated as partnerships and certain entities which are disregarded for federal income tax purposes.

<sup>48</sup> e.g., the Texas Margin Tax (which is treated as an income tax for financial statement purposes).

<sup>49</sup> We note, however, that certain P3 projects have crossed state lines.





relevant to tax structuring. The income tax considerations for the various investors in a P3 project will be influenced by the type of SPV utilized – as noted, usually an LLC.

US tax-exempt investors may generally be described in one of two manners. Although generally exempt from federal income tax on their income, some US tax-exempt investors are subject to UBTI on income derived from an unrelated trade or business (“unrelated business taxable income” or “UBTI”).<sup>50</sup> Accordingly, these US tax-exempt investors (“UBTI sensitive investors”), including qualified pension plans, individual retirement accounts, endowments, and state universities, seek to avoid receipt of UBTI to ensure that they are not unexpectedly subject to income tax. On the other hand, certain US tax-exempt investors may not be subject to UBTI and would thus be entirely exempt from income tax, regardless of the nature of the income received (“non-UBTI sensitive investors”). Some pension funds for state and local government employees and governmental affiliates take this position and do not file any federal income tax returns.

Additionally, non-US investors are generally subject to US tax on certain US source income.<sup>51</sup> Non-US investors are subject to US taxation (at applicable U.S. federal income tax rates) on any income that is “effectively connected” with the conduct of a US trade or business (“effectively connected income” or “ECI”). This includes income that “flows through” a P3 project conducted through an LLC. On the other hand, as earnings of a US corporation do not “flow through” to the shareholders, the corporation itself is liable for the US federal income tax.

Non-US investors are generally not subject to US income tax on the sale of corporate stock. However, non-US investors may be subject to the Foreign Investment in Real Property Tax Act (“FIRPTA”), which taxes gain realized (at applicable U.S. federal income tax rates) by a non-US investor from the disposition of a US real property interest (“USRPI”).<sup>52</sup> A USRPI includes direct ownership of US real property (e.g., land, buildings, etc.) as well as stock of a corporation classified as a US Real Property Holding Company.<sup>53</sup> The IRS has indicated that it believes certain concession tolling rights (discussed further below) in some P3 projects are properly classified as USRPI.<sup>54</sup> Accordingly, non-US investors may utilize a C corporation blocker entity as illustrated in Exhibit E to avoid being subject to requirements of filing a US income tax return.

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<sup>50</sup> P3 income which “flows through” an LLC would generally be classified as UBTI for federal income tax purposes (gain on sale of an ownership interest in the SPV may also be classified as UBTI). Dividends and gains from the sale of stock of a corporation would generally not constitute UBTI unless the stock was acquired with borrowed funds (i.e., “debt financed”).

<sup>51</sup> P3 income may be treated as US source since the income-producing property and/or the compensated services are located in the US.

<sup>52</sup> Generally, any FIRPTA tax liability is required to be withheld by the purchaser of the stock acquired from a non-US investor. The details of FIRPTA, including filing and withholding requirements, are beyond the scope of this white paper.

<sup>53</sup> A US real property holding corporation is any corporation if the fair market value of the USRPIs it holds on a testing date equals or exceeds 50% of the sum of the fair market values of its USRPIs, interests in real property located outside the US and certain business assets. Treas. Reg. § 1.897-2.

<sup>54</sup> Announcement 2008-115, 2008-48 IRB 1228. The Announcement stated that the IRS and Treasury Department were considering issuing regulations that would treat certain licenses, permits, franchises, or similar rights granted by a procuring authority to a concessionaire as a USRPI. See discussions related to toll concessions below. Tolling rights are often the primary asset shown in a P3 concession’s balance sheet, especially during the early stages.



### 2.4.1 Corporate SPV

US tax-exempt investors are generally not be subject to tax on (i) dividends received and (ii) gains from the sale of their corporate stock as these are generally not classified as UBTI so long as the investment is not “debt financed.”

Dividends received by a non-US investor are generally not subject to tax as ECI but may be subject to US withholding tax at a 30% rate unless the rate is reduced or eliminated by a bilateral tax treaty. Further, as noted above, if a toll concession is treated as a USRPI, the sale of corporate stock (or a distribution with respect to corporate stock treated as a sale) classified as a USRPI by a non-US investor will be subject to FIRPTA withholding tax.<sup>55</sup>

### 2.4.2 LLC SPV

The distributive share of income to a UBTI sensitive investor in the SPV constitutes UBTI.<sup>56</sup> Accordingly, in order to avoid receipt of UBTI during the concession period, UBTI sensitive investors generally hold their flow-through investments through “corporate blockers”. Corporate blockers are generally U.S. C corporations subject to federal income tax (i.e., the corporate blocker pays federal income tax on its allocable share of the taxable income of the SPV). By using this structure, the income from the tax-paying corporate structure is treated as passive income, and so is not characterized as UBTI. Non-UBTI sensitive investors do not typically hold their investment through a corporate blocker.

A non-US investor’s distributive share of income from a direct investment into a P3 LLC would likely constitute ECI. Accordingly, the LLC may have a withholding tax obligation with respect to the corresponding US income tax liability of the non-US investor.<sup>57</sup> Structuring considerations, such as interposing a corporate blocker, may be considered to eliminate a US tax filing obligation by the non-US investor and a withholding tax obligation of the LLC, as illustrated in Exhibit E.<sup>58</sup> Non-US investors may also be subject to FIRPTA withholding (as described above) in the LLC context. A disposition of an LLC interest would generally result in US federal income tax with respect to the pro-rata portion of the USRPI deemed sold and potentially FIRPTA withholding tax on the gross sale proceeds of the LLC interest.<sup>59</sup> Typically, FIRPTA withholding would also be required on the sale of blocker stock.

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<sup>55</sup> Announcement 2008-115, 2008-48 IRB 1228. The Announcement stated that the IRS and Treasury Department were considering issuing regulations that would treat certain licenses, permits, franchises, or similar rights granted by a procuring authority to a concessionaire as a USRPI. See discussions related to toll concessions below. Tolling rights are often the primary asset shown in a P3 concession’s balance sheet, especially during the early stages.

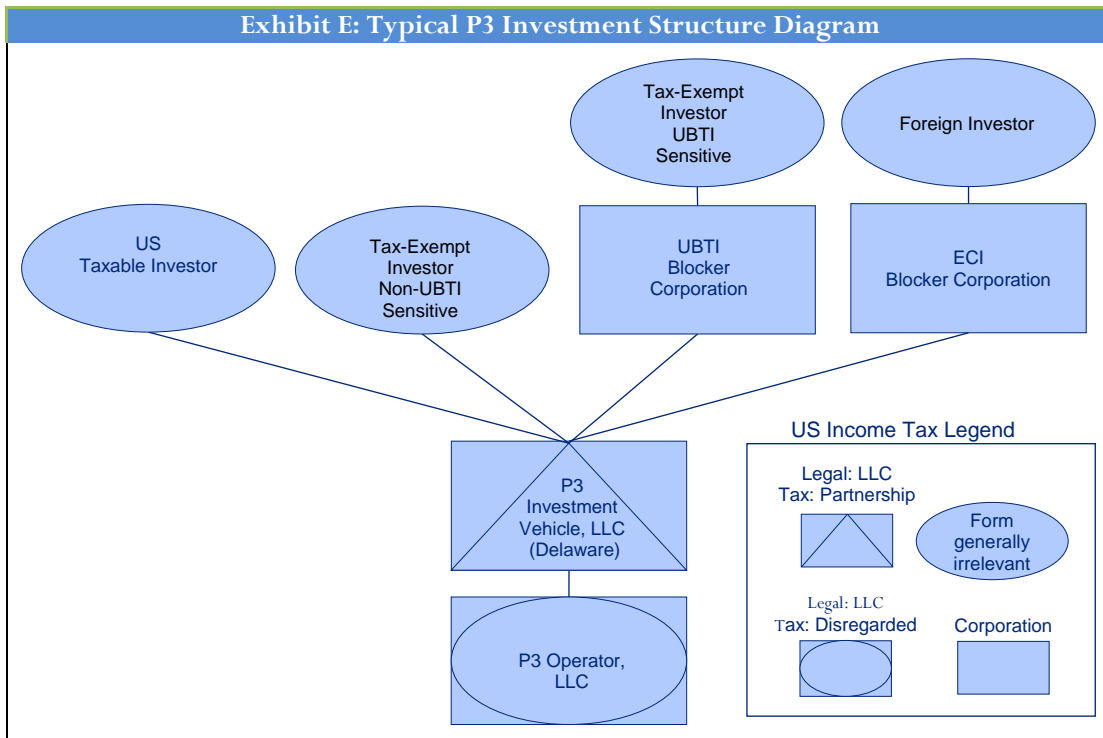
<sup>56</sup> Realized gain or loss on the sale of a partnership or LLC membership may also constitute UBTI in certain circumstances (e.g. if the SPV owns debt-financed property).

<sup>57</sup> IRC § 875(1). Current withholding tax rate on a partner’s share of ECI is 39.6% for non-corporate partner and 35% for corporate partners.

<sup>58</sup> A detailed discussion of non-US sponsor investment structures is beyond the scope of this white paper.

<sup>59</sup> FIRPTA withholding tax may be required if a significant portion of the LLC’s assets constitute USRPI.





*Exhibit E details the typical investment structure for a P3. Foreign investors and tax-exempt investors invest in the P3 investment vehicle typically through UBTI or ECI blocker corporations. U.S. investors and tax-exempt investors invest directly in the P3 investment vehicle (usually Delaware LLC) which in turn owns the P3 Operator company.*

## 3 Discussion of Structures of P3 Arrangements and Implications for Private Sector Bidders

### 3.1 Typical forms of P3 transportation concessions

As discussed below, two commonly used P3 concession structures are the: (i) “toll concession” whereby the concessionaire generally assumes the operating risk of the project, and (ii) “availability payment” arrangement whereby the procuring governmental authority generally retains operational risk.<sup>60</sup> A key difference in the tax characterization of a toll concession and an availability payment arrangement is that the developer is generally treated as the owner of the project assets of a toll concession for U.S. federal income tax purposes whereas the procuring authority is generally treated as the owner of the project assets of an availability style project.

One of the central non-tax issues in developing P3 projects is assessing the amount of operating risk taken on by the concessionaire. For the concessionaire, a key consideration is whether the P3 investment provides sufficient risk-adjusted returns. While there are relatively “typical” patterns of P3 arrangements having similar characteristics, there are generally enough variations in P3 terms (driven by economic, legal, and political considerations) so that each P3 project has unique tax characteristics.

#### 3.1.1 Toll concession

In a basic user fee or “toll concession” arrangement, nearly all demand and revenue risk is taken on by the concessionaire. Toll concessions can generally take the form of a “brownfield” project (an existing asset) or a “greenfield” project (a site with no previous development, which often involves significant construction activities). Under a typical toll concession, the concessionaire acquires the right to operate an asset (e.g., a toll road) pursuant to an agreement with the procuring authority.<sup>61</sup> Pursuant to a toll concession agreement, the concessionaire (i) enters into a long-term lease arrangement with the procuring authority for use of the underlying land and tangible personal property and (ii) is granted the right to operate and maintain the asset, including charging and collecting tolls and fees from users of the asset (i.e., motorists).

To balance some of this risk and to make the proposed P3 project investment more attractive to the consortium, particularly where demand uncertainty is high, some projects may implement revenue structuring arrangements with a reduced upfront payment. Such arrangements may, for example, provide that if toll revenues are greater than a negotiated amount, then the concessionaire may be required to share some of the revenue with the procuring authority.<sup>62</sup>

#### 3.1.2 Availability payments

In an availability payment arrangement, nearly all demand and revenue risk is taken on by the procuring authority. Under an availability payment arrangement, the concessionaire agrees to operate and maintain the asset; however, the procuring authority may collect the tolls or fees directly from users of the asset and

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<sup>60</sup> Other revenue risk allocation arrangements for a specific project may be negotiated.

<sup>61</sup> The lease and other rights granted to the concessionaire, as well as other rights and obligations of the parties, are documented in a concession agreement between the concessionaire and the procuring authority.

<sup>62</sup> Revenue structuring arrangements require scrutiny to assess the risk they may cause the procuring authority to be considered a partner of or in the concession entity for U.S. federal income tax purposes. These arrangements are generally not intended to constitute a partnership for U.S. federal income tax purposes.



make recurring payments to the concessionaire (“availability payments”). These availability payments are conditioned on the concessionaire’s operation and maintenance of the asset in accordance with contractually-set standards.<sup>63</sup> Availability payment arrangements are commonly used in greenfield projects where the concessionaire is required to design, build, finance, operate, and maintain the asset.

### 3.1.3 Financing considerations

A significant portion of a P3 project is typically debt financed. The nature and type of financing arrangement primarily depends on the commercial, legal, and other non-tax aspects of the P3 project. The choice of financing structure may affect financing costs but generally does not directly impact the U.S. federal income tax profile of the project.<sup>64</sup> Interest expense paid to an unrelated lender is generally deductible for U.S. federal income tax purposes.<sup>65</sup> The type of debt used to finance a P3 project varies and can include regular taxable debt (e.g., bank debt) or tax-exempt debt issued by a state or local government on behalf of a private entity (e.g., U.S. Department of Transportation approved Private Activity Bonds (PABs) or through a non-profit corporation pursuant to IRS Revenue Ruling 63-20 (“63-20 Corporation”), which is permitted to issue tax-exempt debt on behalf of the private concessionaire).<sup>66</sup>

## 3.2 General income tax aspects of concession agreements

Although there are some similarities in operating structures among P3 arrangements, the facts and circumstances of each transaction determine the relevant tax treatment. The income tax treatment of concession arrangements is generally subject to heterogeneity. This is because each P3 has a unique tax profile and strategy. In certain circumstances, a lack of relevant guidance or precedents of economically similar transactions will also create uncertainty regarding tax treatment of a P3. Some concession agreements may include a provision describing the intended tax treatment of the transaction.<sup>67</sup> For example, a P3 transaction structured as a toll concession may provide that for income tax purposes the arrangement be treated as, in part, the sale and purchase of certain project assets, lease of land, and a grant from the procuring authority to the concessionaire of a franchise or similar right to collect toll fees. Also, although generally referred to as a “public-private partnership,” nearly all concession agreements explicitly state that the transaction does not constitute a partnership between the concessionaire and the procuring authority or government entity for income tax purposes in order to avoid adverse tax consequences to the concessionaire, such as elimination or limitation of certain tax benefits.<sup>68</sup>

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<sup>63</sup> Another instance where payment comes directly from the procuring authority is a “shadow toll” or fee paid by the procuring authority for each user of the asset. Note, however, that the “shadow toll” is still contingent on usage and therefore subject to demand risk. According to discussions with knowledgeable practitioners, no “shadow toll” arrangements are in use in the U.S.

<sup>64</sup> Application of tax-exempt financing rules could negatively impact depreciation. See Alternative Depreciation System (ADS) discussion below.

<sup>65</sup> Complex U.S. federal income tax rules may limit interest expense deductions in certain circumstances (e.g., applicable high yield discount obligation (“AHYDO”)). A discussion of these rules is beyond the scope of this white paper.

<sup>66</sup> A discussion regarding qualification for tax-exempt financing, including structures utilizing 63-20 Corporations, is beyond the scope of this white paper.

<sup>67</sup> An example of such a provision is provided in Exhibit F.

<sup>68</sup> For example, requiring a taxpayer to utilize a slower depreciation methodology.



### 3.2.1 Toll concessions

While there is lack of certainty with respect to the tax treatment of toll concessions and other tax characterizations may be suggested, the intended tax treatment for the majority of toll concession agreements may generally be characterized as the concessionaire’s upfront payment<sup>69</sup> to the public entity in exchange for: (i) a lease or purchase of the primary infrastructure assets which include tangible assets (e.g., toll road and toll booths)<sup>70</sup>; (ii) a lease of the underlying land associated with the asset; and (iii) the grant of an intangible right to collect tolls (e.g., a franchise or permit).<sup>71</sup> Exhibit F is an example of a contractual provision describing the intended tax treatment as such.

#### Exhibit F: Sample Toll Concession Intended Federal Income Tax Treatment Provision

Nature of Parties’ Interests Pursuant to This Agreement states:

“The Department and the Concessionaire acknowledge their mutual intent that, despite the Department’s retention of fee title to (or other good and valid real property interest in) the Project Assets and the Project Right of Way, as a result of the Concessionaire’s rights and interests therein pursuant to the Permit granted to the Concessionaire under this Agreement, to the maximum extent permitted by Law, for federal income tax purposes the Concessionaire will be treated as having acquired (i) an ownership interest in those Project Assets that have an expected economic useful life equal to or less than the Term, (ii) an interest in the Project Right of Way and those Project Assets that have an expected economic useful life greater than the Term and (iii) a franchise and license permit, or other right within the meaning of Section 197(d)(1)(F) and 197(d)(1)(D) of the Internal Revenue Code of 1986, as amended, and in that regard an amount equal to the Concessionaire’s cost of development, design, construction and start-up of the Project represents acquisition cost of such assets (the “Cost”)....The Cost will be allocated for all income tax purposes in the manner determined by the Concessionaire, which allocation shall be consistent with Section 1060 of the Internal Revenue Code....”

#### Lease of tangible personal property – tax ownership issues

While fee title to tangible personal property may be retained by the procuring authority and the form of legal conveyance of the right to use such property is typically a lease, the concessionaire may be treated as purchasing and owning the assets for federal income tax purposes. A taxpayer must own a depreciable interest in property to be entitled to the related depreciation deductions, either as the owner under U.S. federal income tax principles or as tenant-funded leasehold improvements.<sup>72</sup> The tax benefits associated with the depreciation deductions are often an important consideration in computing the tax cost of a project. Ownership of property for federal income tax purposes does not solely depend on whether a taxpayer holds legal title to the property. Instead, tax ownership generally depends on the concessionaire’s economic interest in the assets. One important factor in making this determination is whether the taxpayer possesses the benefits and burdens of ownership of the property, which must be analyzed from the terms of the concession agreement and the underlying economic facts. For example, the anticipated remaining economic

<sup>69</sup> An upfront payment to the procuring authority may not always be required.

<sup>70</sup> Typically brownfield projects.

<sup>71</sup> The parties will need to obtain a valuation of the project assets in order to allocate the upfront payment across each type of assets. The means for conveying property is generally via a lease or, to the extent permitted under state law, a “bill of sale.”

<sup>72</sup> To the extent that no upfront payment is made by the concessionaire, it is reasonable for the concessionaire to be treated as having a depreciable interest in the project assets constructed by the concessionaire.



useful life of the property relative to the term of the concession may impact tax ownership analysis (a concession term that exceeds the economic useful life of the assets is generally a factor that supports the treatment of the developer as the owner of the project assets for federal income tax purposes).<sup>73</sup> An example of an ownership “burden” is that the concessionaire would suffer an economic loss resulting from the assets’ deterioration and physical exhaustion.<sup>74</sup>

The lease of an infrastructure asset and other tangible personal property is often long-term<sup>75</sup> and likely to exceed the assets’ economic useful lives. Further, the concessionaire has general day-to-day operational control over the assets. This effective control over the assets for all or substantially all of the assets’ useful lives is a factor that supports treating the concessionaire as the owner of the assets for federal income tax purposes.<sup>76</sup> As discussed above, if the concessionaire is treated as the owner of tangible project assets for federal income tax purposes, the concessionaire would be entitled to the related depreciation deductions in accordance with applicable income tax rules.<sup>77</sup> The Concessionaire may generally depreciate tangible personal property under the Modified Accelerated Cost Recovery System (MACRS) using the general depreciation system (GDS), although consideration should be given to whether use of the slower alternative depreciation system (ADS) is required for any project asset(s).<sup>78</sup>

#### Lease of real property

The amount of the payment allocated to the lease of the underlying land will generally be treated as a pre-payment of rent for federal income tax purposes governed by section 467. These complex rules can be used by taxpayers to allocate rent deductions over the term of the lease by treating the pre-paid lease amount as a deemed loan from the concessionaire to the procuring authority for US federal income tax purposes, and imputing throughout the term of the lease, rent payments to the procuring authority (pursuant to a schedule as computed under applicable tax rules). Concomitantly, the procuring authority is deemed to make interest and principal payments to the concessionaire with respect to the deemed loan in the amount of the imputed rent.<sup>79</sup>

#### Grant of amortizable “right” to collect tolls

For federal income tax purposes, the portion of the concession payment allocated to the tolling right may be characterized as the grant of a “franchise” right<sup>80</sup> from the procuring authority to operate and collect tolls

<sup>73</sup> *Durkin v. Commissioner*, 87 T.C. 1329, 1367 (1986), *aff’d* 872 F.2d 1271 (7<sup>th</sup> Cir. 1989). *See also Grodt & McKay Realty, Inc. v. Commissioner*, 77 T.C. 1221 (1981) and *Illinois Power Co. v. Commissioner*, 87 T.C. 1417 (1986), *acq. in result in part*, 1990-2 C.B. 1.

<sup>74</sup> *Commissioner v. Moore*, 207 F.2d 265, 268 (9<sup>th</sup> Cir. 1953), *rev’g* and *remanding* 15 T.C. 906 (1950). *See also, Weiss v. Weiner*, 279 US 333 (1929) and *Geneva Drive-In Theatre, Inc. v. Commissioner*, 622 F.2d 995 (9<sup>th</sup> Cir. 1980).

<sup>75</sup> E.g., the I-95 HOV/HOT Lanes Project (2012) has a term of 73 years and the MLK Freeway Project (2011) has a term of 58 years.

<sup>76</sup> *Illinois Power Co. v. Commissioner*, 87 T.C. 1417 (1986), *acq. in result in part*, 1990-2 C.B. 1.

<sup>77</sup> IRC §§ 167 and 168.

<sup>78</sup> Under MACRS, certain equipment is depreciated over 7 years using the 200% declining balance method under GDS and straight-line over 10 years under ADS. Land improvements are generally depreciated over 15 years using the 150% declining balance method under GDS and straight-line over 20 years under ADS. Also, tolling equipment that is properly classified as information systems would be depreciated over 5 years using the 200% declining balance method under GDS and straight-line over 5 years under ADS.

<sup>79</sup> A detailed discussion of section 467 is beyond the scope of this white paper.

<sup>80</sup> For federal income tax purposes, a franchise includes an agreement which gives one party to an agreement the right to distribute, sell, or provide goods, services, or facilities, within a specified area.



from users of the asset.<sup>81</sup> The portion of the concessionaire's payment allocated to the franchise right is generally capitalized and amortized on a straight-line basis over 15 years for federal income tax purposes.<sup>82</sup>

### Summary

A taxpayer that operates a toll concession will generally report tax losses during the initial years of operation due to the significant (i) accelerated depreciation expense, (ii) amortization expense, (iii) interest expense, and (iv) general operating expenses.

### *3.2.2 Availability payment arrangements*

Availability payment concessions are commonly utilized for greenfield projects and may generally be characterized as the concessionaire's agreement to design, build, finance, operate, and maintain an asset in exchange for the receipt of milestone and availability payments from the procuring authority. The concessionaire's right to receive such payments is generally contingent upon the concessionaire satisfying performance standards and other terms and conditions set forth in the concession agreement. For example, the concessionaire may be required to ensure that the asset is available for public use for a certain number of days during a calendar year without undergoing significant repairs or maintenance.

Although an availability payment concession agreement is written as one integrated contract, the concessionaires are likely to separate the agreement into multiple distinct arrangements for purposes of determining the appropriate income tax treatment, including: (i) a construction contract, and (ii) an operation and maintenance ("O&M") contract.<sup>83</sup>

### Milestone payments

During the construction period, which usually extends beyond one tax year, the concessionaire incurs significant costs in connection with the design and construction of the project. The concessionaire may be entitled to receive agreed to milestone payments as construction milestones are achieved. Milestone payments are typically less than the concessionaire's total construction period costs.

### Availability payments

During the O&M period (which generally commences when construction is completed), the concessionaire is entitled to receive availability payments from the procuring authority while operating and maintaining the asset.

### Taxation of construction period activities<sup>84</sup>

Under availability payment concessions, in general, a construction arrangement extending beyond one tax year is classified as a "long-term contract" for federal income tax purposes. A long-term contract is generally required to be accounted using the "percentage of completion method" ("PCM") of accounting.<sup>85</sup> In these

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<sup>81</sup> There is no direct authority concluding that a tolling concession qualifies as a section 197 asset.

<sup>82</sup> IRC § 197.

<sup>83</sup> Due to the absence of direct authority, tax advisors have adopted various approaches regarding tax characterization of P3 projects utilizing an availability payment mechanism approach. While most adopt the severing approach and separate the tax accounting for construction activities and O&M as described below, others further separate the arrangement to reflect a financing element after completion of the construction.

<sup>84</sup> The below discussion assumes there are no O&M activities during the construction period (which would be accounted for separately).

<sup>85</sup> IRC § 460.



concessions, the long-term contract does not necessarily convey ownership of property for federal income tax purposes (“tax ownership”), which restricts depreciation allowances for the P3.

#### Application of the percentage of completion method for long-term contract activities (i.e., construction period activities)

Under the PCM, total “contract price” with respect to construction activities is recognized for income tax purposes proportionately as construction costs are incurred. For example, if a concessionaire incurs 40% of the projected total construction services costs by the end of the first year of the concession, then the concessionaire must include 40% of the “total contract price” into income.

Application of the PCM to an availability payment concession agreement is subject to uncertainty. Availability payment concession agreements do not typically allocate or designate payments made by the procuring authority between amounts for construction services and amounts for O&M services. Further, there is currently no tax authority directly on point regarding the determination of “total contract price” if the availability payment concession agreement does not specifically allocate payments between construction services and O&M services. The Regulations only provide that “total contract price” equals an amount that the concessionaire “reasonably expects to receive” for performing construction services, which may be estimated “based upon all the facts and circumstances.” Accordingly, the concessionaire will need to establish the total construction contract price based on the specific facts of the availability payment concession.

As the tax rules do not provide a method for computing total contract price, such determination may be complex and potentially subject to different approaches. For example, the concessionaire may decide to obtain a third party valuation or estimate a value based on the consideration the concessionaire reasonably expects to receive for performing the construction services rendered (including oversight services). As the concessionaire typically outsources substantially all construction activities to construction subcontractors, costs paid to the subcontractors may provide a reasonable starting point for purposes of determining the construction contract price. The total gross receipts attributable to the construction period (i.e., the “long-term contract”) will depend on the determination of total contract price.

#### Tax treatment of milestone payments

As noted above, for federal income tax purposes the total contract price is included in the concessionaire’s income during the construction period in accordance with the PCM. The PCM computes taxable income based on the construction period contract price, which is not dependent on timing of cash receipts (i.e., milestone payments). As milestone payments received during the construction period will likely be less than the total construction contract price included into taxable income, the concessionaire would typically recognize more revenue for federal income tax purposes than cash actually received from the procuring authority during the construction period. Whether the milestone payment is taxable or non-taxable depends on how the payment is characterized (e.g., as a reimbursement or compensation).<sup>86</sup>

#### Tax treatment of availability payments

Typically, during the O&M period the concessionaire is entitled to availability payments. The tax treatment of the availability payment is generally the responsibility of the P3 proposer, and depends on agreed terms in the concession arrangement. Due to a lack of direct guidance under general tax law about how to determine

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<sup>86</sup> Describing in specificity how to treat milestone payments for tax purposes exceeds the scope of this paper. It may also be reasonable to treat a government subsidy/milestone payment in a toll risk arrangement as non-taxable (although such payment may reduce the tax basis of the project assets a corresponding amount). However, alternative treatments could characterize the payment as compensation or otherwise taxable income to the concessionaire.

the tax treatment of these payments, the actual tax treatment of availability payments varies across projects. Since payments received during the construction period (i.e., milestone payments) are not adequate to compensate the concessionaire for construction activities, a portion of availability payments likely represent compensation for construction activities, (i.e., for construction activities previously taxed during the construction period under the PCM). Accordingly, it is necessary to allocate the availability payments between: (i) non-taxable payments for unreimbursed construction activities (which had been previously included in revenue for tax purposes), and (ii) taxable payments for O&M services (and depending on Concessionaire’s approach, a finance component and perhaps equity return as well). Different methodologies have been considered by taxpayers to tax availability payments, including “front-loading” of amounts representing unpaid construction contract price. It is generally beneficial for taxpayers to treat greater portions of availability payments as attributable to construction services since those amounts may be treated as previously-taxed income (taken into taxable income under the PCM during the construction period). However, the methodology selected must be supported by applicable tax principles and be consistent with Concessionaire’s methodology for allocating the total payments amount the various types of income.

Availability payments attributable to O&M services (i.e., “non-long-term contract activities”) may be accounted for using the concessionaire’s generally applicable method of tax accounting (e.g., accrual method).

### 3.3 State non-income tax considerations

Because imposition of non-income tax items are reserved for state and local jurisdictions, non-income tax considerations applicable to P3 projects may be covered by state P3 legislation and therefore vary from state to state. It should be noted that not all states have adopted P3 enabling legislation and that for those states that have, some legislation is broader than others. Nonetheless, some general observations may be made concerning treatment of non-income tax items in P3 transactions based on past projects.

#### 3.3.1 Responsibility for payment of taxes (sales, use, property, etc.) & exemptions, credits, and reimbursement provisions

In an attempt to attract and facilitate P3 projects, states often provide relief to the concessionaire from responsibility for payment of various otherwise applicable non-income taxes (including sales, use, and property taxes). This relief has historically been in the form of exemptions and abatements for any project-related non-income taxes, as well as reimbursement to the concessionaire in the event a covered non-income tax is charged. Often these exemptions and abatements are granted to create a more level playing field between the P3 and a traditional public project delivery.

Exemptions from non-income taxes are typically based on specific state and local provisions eliminating the non-income tax due on an item ordinarily subject to the tax. Examples of this form of relief are provided in Exhibit G.

Alternatively, non-income tax relief may take the form of reimbursing the concessionaire in the event a non-income tax is imposed and it makes the related payment. A reimbursement payment for non-income taxes would appear to put the procuring authority in the same position with respect to certain non-income taxes as if it had undertaken the project itself. An example of reimbursement provisions is provided in Exhibit G.



**Exhibit G: Sample P3 Concession Non-Income Tax Provisions**

“With respect to Expendable Materials and Developer-Related Entity purchases, Developer shall submit or cause the Developer-Related Entity to submit a “...Sales and Use Tax Exemption Certification” to the seller of the Expendable Materials. In the event any Developer-Related Entity is thereafter required by the State Comptroller to pay sales tax on Expendable Materials, [Procuring Authority] shall reimburse Developer for such sales tax..”

“...the Department will provide sales and use tax exemption certificates to the Developer for building and construction materials or other exempt items incorporated in the Project and will cooperate with the Developer to file any real property tax exemption forms for the Project and the Project Right of Way, in each case to the extent the Project is eligible for such tax exemptions under applicable Law and, if so eligible, to the extent the Department is required by applicable Law to provide such certificates and file such forms.”

“Reimbursable Tax Imposition” means: (a) any State or local property tax or similar ad valorem tax or charge...or recordation tax on a deed, release or other document recorded in connection with this Agreement, unless recorded by or at the behest of the Concessionaire...” and is included as a Compensation Event entitling the Concessionaire to related damages.

In many jurisdictions, however, there are no P3 specific exemptions and the applicability of the generally-available exemptions is not clear. Further, differences may exist between market risk transactions such as toll concessions (where Concessionaire acquires property rights with respect to public property) and availability payment transactions which typically do not grant any property rights to Concessionaire. In the absence of the procuring authority providing an indemnity, Concessionaire must take the risk of excluding any such potential taxes in its pricing.



## 4 Principles and Methodologies of Tax Revenue Analysis

### 4.1 Taxes in the context of project evaluation

In order to understand the possible tax impacts of different P3 delivery models, it is important to put tax revenue analysis in its proper context. When evaluating whether to move forward with a project, the taxes generated by increased economic activity may be material and represent an important consideration for the public sector sponsor. However, when selecting the preferred project delivery method, the incremental value of tax revenues generated by P3s is typically a small subcomponent of the overall consideration and does not tend to drive the overall decision. With this in mind, below we present a broader discussion on current trends and practices in evaluating projects and delivery methods, followed by an exposition of tax revenue valuation techniques.

### 4.2 Benefit Cost Analysis

Often, public sector decision makers conduct a benefit cost analysis (BCA) to determine whether to proceed with a project. Typically, a benefit cost analysis systematically compares the risk-adjusted economic and/or social benefits and costs of a project or investment proposition.<sup>87</sup> The elements included in a BCA attempt to value the positive and negative impacts of the project from a broad societal perspective, with the objective of determining if, and by how much, the benefits to society outweigh the costs. In addition to financial considerations, these costs and benefits often include environmental, safety, time saving and broad economic/welfare impacts of the project.

Typically, the BCA focuses on evaluating the incremental changes compared to a “base case” in which the project does not occur at all (the “no-build” scenario). The goal of a BCA is to translate the impacts of a project into monetary terms if possible and is usually carried out several times during the development of the project. The steps usually followed by decision-makers to conduct a BCA are summarized below:

- ▶ Planning of the analysis and definition of the scope

The planning activities focus on the definition of a framework for comparing the impacts of the proposed project against the base case. The main elements to define include the technical solution, the analysis timeframe, the geographical focus of the BCA, and the metrics to include in the BCA.

- ▶ Engineering analysis and data gathering

This phase covers the gathering of relevant technical data, such as value-of-time, traffic volumes, projected time savings, vehicle operating costs, safety impacts, and engineering parameters of the proposed project (capital and operating costs for example), and any costs associated with the base case.

- ▶ Economic evaluation

Once the key inputs are gathered, a model is developed that attempts to assign financial values to each of the elements being considered. The BCA may often estimate the revenues generated from indirect taxes or

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<sup>87</sup> <http://www.dot.state.mn.us/planning/program/benefitcost.html>

incremental economic activity generated by the project's existence. It may involve increased (or decreased) tax revenues from surrounding property taxes, general sales taxes, and income taxes resulting from the project's impact on the local economic activity. Since taxes are a transfer (i.e., a benefit to the taxing authority and an equal cost to the taxpayer), the net effect on overall societal welfare is zero. However, these tax streams can influence the decision to move forward with the project as they represent potential revenue streams to fund future projects and/or initiatives. Typically, the BCA does not consider or compare project delivery mechanisms, making the simplifying assumption that, for the most part, the benefits and costs will be realized by conventional or P3 project delivery, apart from some differences in timing.

An important element of a BCA is the definition of the benefit and cost elements to include in the analysis. As with many types of analysis, this will be influenced by the considerations of the entity performing the analysis and sponsoring the project. This question is important in the U.S., where state and local governments are responsible for most investment in transportation infrastructure.<sup>88</sup> In this case, a state or local sponsor may elect to adopt a more focused scope of analysis than would a nationwide entity, focusing only on the benefits and costs that accrue locally for projects that it is funding on its own. On the other hand, BCA's performed for certain federal grant or credit programs may require a broader view that takes into account regional or national impacts, as appropriate.

### 4.3 Project delivery method analysis – Value for Money

Once the project receives the go-ahead based on the results of the BCA, the public sector entity responsible for the project must determine its preferred delivery method. This analysis often includes both qualitative and quantitative analytical methods. While there is a broad range of "traditional" project delivery methods available to U.S. entities, this paper will focus on the generalized choice between a P3 project delivery and whatever the local "traditional" project delivery method would be.

The decision on whether to pursue a P3 or another project delivery method is frequently supported by a common analytical methodology – the Value for Money (VfM) Analysis. At its core, the traditional VfM methodology attempts to evaluate the net present value<sup>89</sup> of the risk-adjusted lifecycle costs and revenues (if appropriate) to the project sponsor of delivering the project through conventional, P3, or other means.<sup>90</sup> The option that has the lowest net lifecycle costs (or highest net revenues) is the one that is said to show the highest value for the money spent assuming that other factors – such as schedule or quality of service are the same under the delivery methods being compared. In many infrastructure markets with a history of performing VfM analysis, qualitative elements like regulatory factors, risk management, and an analysis of the respective capabilities of the proposed parties are often included in the VfM analysis. This is done to ensure that a "better" product that might come at an increased financial cost still demonstrates Value for Money.

We note that the discussion below focuses on quantitative elements of Value for Money in general terms, but does not define specific methods of analysis. This reflects the findings in discussions with advisors and sponsors while researching this paper that, unlike other countries like Australia<sup>91</sup>, Canada<sup>92</sup>, and the UK<sup>93</sup>,

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<sup>88</sup> National Association of State Budget Officers State Expenditure Report, 2015

<sup>89</sup> The net present value is the difference between the discounted value of the revenues of a project and the discounted values of its costs. For an explanation of the calculation methodology to derive the discounted value, please see section 4.3.3 Discounted Values, below.

<sup>90</sup> FHWA – P3 Value for Money Primer

<sup>91</sup> <https://infrastructure.gov.au/infrastructure/ngpd/files/Volume-5-Discount-Rate-Guidance-Aug-2013-FA.pdf>



where VfM follows very defined and prescribed methodologies, the US market appears to be moving in a different direction. Instead of focusing on defining a methodology that will derive one number that will define how much value for money is expected to result from a specific project delivery method, US Value for Money analysis is more focused on understanding the key “trade-offs” (both qualitative and quantitative) that might be associated with a given project delivery methodology. Based on discussions of a roundtable of experienced advisors and procuring entities convened for the purposes of this paper,<sup>94</sup> a leading practice is to develop a matrix of considerations and tradeoffs associated with the various project delivery methods under consideration, and to use that matrix with decision makers and stakeholders to make the final project delivery decision. Many of the elements that would be included in this analysis are beyond the tax-focused scope of this paper, so the balance of the paper will focus on the quantitative elements that typically involve tax revenues.

Typically the first steps of a VfM analysis examine two primary scenarios – (1) project delivery through traditional public means (i.e., the Public Sector Comparator (PSC)), and (2) an estimate of what a P3 bid will be (i.e., the Shadow Bid).

The PSC is the procuring agency’s estimate of what the lifecycle costs of the project will be using a conventional project delivery method. The Shadow Bid is an estimate developed by the procuring agency and its advisors of what a private sector P3 bid would likely be. The Shadow Bid takes into account the financing instruments likely to be selected by a private bidder, as well as expected efficiencies provided by the private sector’s involvement. As described above, Value for Money globally has often been summarized as one number demonstrating the Value for Money of the project. This can be seen in Exhibit H below:

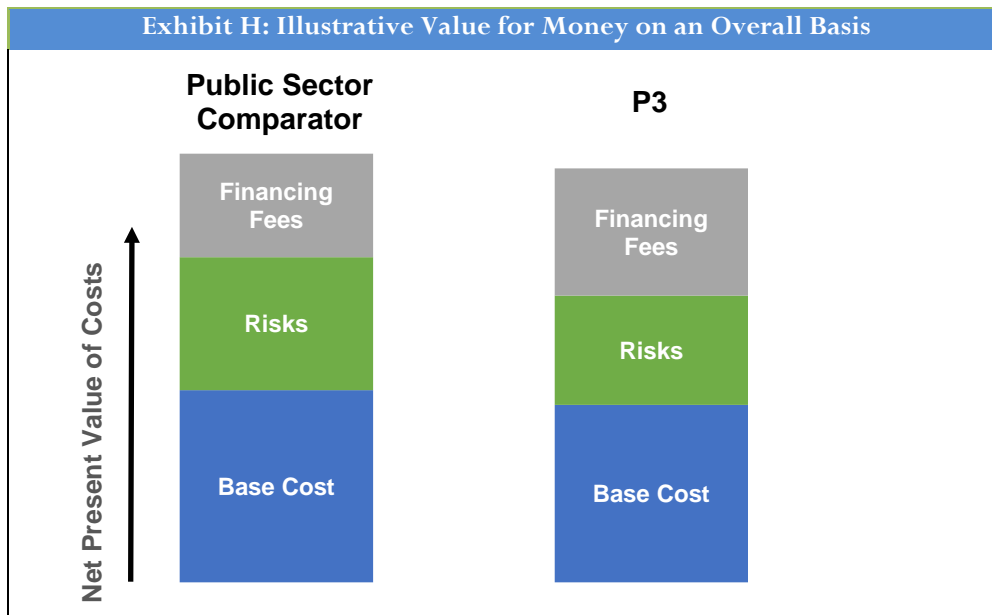


Exhibit H above describes the net present value of costs, comprised of Base Cost, Risks, and Financing Fees, for the Public Sector Comparator and a P3. The aggregate net present value of costs is lower for the P3 than the Public Sector Comparator, reflecting the Value for Money differential.

<sup>92</sup> <http://www.p3canada.ca/~media/english/resources-library/files/revise/p3%20business%20case%20development%20guide.pdf>

<sup>93</sup> <https://www.nao.org.uk/successful-commissioning/general-principles/value-for-money/>

<sup>94</sup> Held on March 30, 2017 at FHWA Office in Arlington, VA.

In addition, one method of analysis that is receiving increased acceptance, is to examine the “value for money”, or savings of one method over another, generated in each year. This enables the procuring authority to understand the potential yearly impacts on its budget in a given year, and is particularly applicable to availability payment projects. It also provides the ability to analyze any trends in benefits achieved over time. An example of this analysis is shown in Exhibit I below.

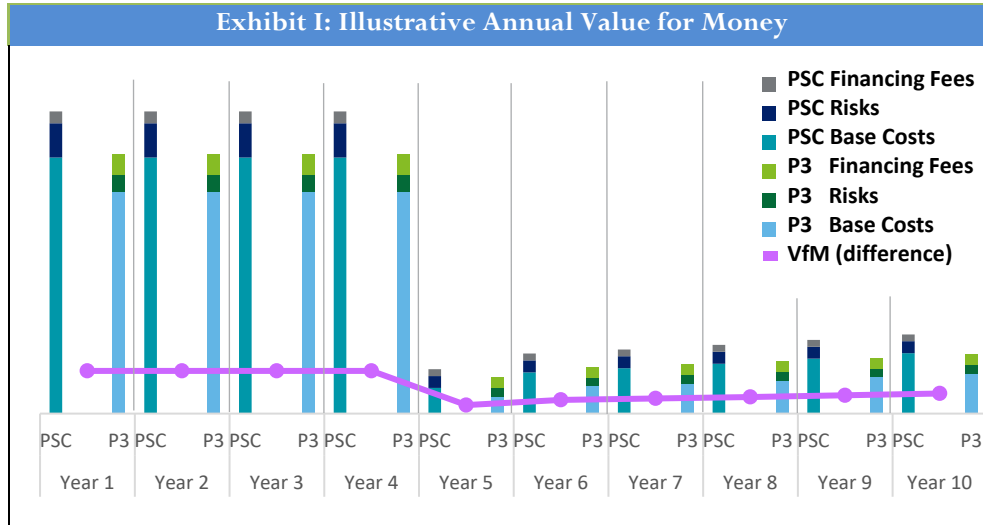


Exhibit I above describes the Value for Money and its three components (Base Cost, Risks, and Financing Fees) as a bar chart over a time period (in years) and compares the PSC with the P3 project delivery. Annual costs associated with the P3 project delivery are lower than the PSC, resulting in a positive Vfm throughout the time series.

A few considerations have arisen regarding the outputs of traditional Vfm analysis:

- 1) While a number of quantitative methods have been developed to account for indirect benefits associated with using a P3 versus a traditional project delivery (particularly the Competitive Neutrality Adjustment described below), these methodologies do not always capture and address the breadth of political or other concerns that may be involved in the decision to use P3 project delivery.
- 2) Because traditional Vfm methodologies center around Net Present Value numbers associated with purely financial cash flows, they can have the effect of “penalizing” a P3 for delivering a project earlier than a traditional project delivery, particularly in the case of availability payment structures. This is because the milestone and other payments for capital costs are made earlier, thus raising the net present value costs of the P3 option.

The discount rates used during the Vfm analysis can materially influence the analysis outcome. Higher discount rates put less value on future cash flows, thus more strongly emphasizing upfront project costs, while the inverse is true of lower discount rates.

There is an ongoing academic debate regarding the selection of the discount rate <sup>95</sup> that is beyond the scope of this paper. However, guidelines provided by several countries where P3s are deployed suggest that the

<sup>95</sup> [http://www.eib.org/epcc/resources/publications/epcc\\_value\\_for\\_money\\_assessment\\_en](http://www.eib.org/epcc/resources/publications/epcc_value_for_money_assessment_en)

discount rate could be comprised of two main components and applied to both the PSC and the Shadow Bid<sup>96</sup>:

- ▶ Cost of borrowing for a public government for a security whose maturity would equal the P3 concession duration; and
- ▶ Value of the risk premium to account for systemic risk.

Some awarding authorities prefer to use different discount rates for each scenario,<sup>97</sup> using a higher discount rate for the costs associated with the Shadow Bid to reflect the risk-shifting to the private sector associated with the P3 project delivery. FHWA's P3-VALUE 2.0 analytical tool and its Value for Money Guide suggest that lifecycle performance risks shifted to a P3 concessionaire may be calculated as a separate component based on the risk premium associated with the weighted average cost of capital of the P3 Shadow Bid. Alternative methods include using a Competitive Neutrality Adjustment to the calculation to reflect the value of this risk-shifting, or adjusting the cash flows and performing scenario analysis to analyze the range of financial results that may arise from different project delivery methods. As stated above, the subject is still a matter of debate and results in different approaches across countries and even across procuring entities and advisors within the same country.

Furthermore, methodologies surrounding the creation of the Shadow Bid may depart from the practices actually in use when P3 bidders submit bids in real procurements.<sup>98</sup> For example, some advisory practitioners may apply different discount rates to the project's revenues and costs, reflecting the different risk profiles and estimation certainty of each. This is not typically a practice seen in bid models. Also, P3 bids often reflect a revenue projection exercise that benchmarks all revenues (and consequently the bearable costs of the project) against a higher estimate than the Shadow Bid. The typical revenue assumption for a P3 bid uses the revenues expected with 50 percent likelihood (P50), reflecting the potential upside of the project, while the Shadow Bid created by the public sponsor often uses the revenues expected with 90 percent likelihood (P90). FHWA's P3-VALUE 2.0 analytical tool uses P50 revenue estimates for the Shadow Bid and incorporates a revenue uncertainty adjustment that accounts for the P90 perspective of public sponsors.

Finally, given the difficulties inherent in the public sponsor's estimation of a P3 Shadow Bid, some U.S. decision makers have elected to deemphasize the Shadow Bid in favor of a more robust PSC. The robust PSC attempts to more precisely estimate the price at which the public sector could traditionally deliver a project at an accepted level of quality. The estimation gives more attention to the required warranties, insurances, and other risk-protections that the public sector would reasonably need to incur to develop the project. This PSC is then effectively used as an auction "reserve price" that the P3 entity must outperform, or else the public sector will deliver under traditional methods.

#### 4.4 Competitive Neutrality Adjustment

Even after accounting for the differences in baseline costs, retained risks, and financing costs, there may still be some adjustments required to provide a more even comparison of the PSC and P3. One additional factor includes tax streams foregone by the public sponsor when it chooses to use traditional project delivery. A Competitive Neutrality Adjustment (CNA) is one way to model these nuances, and in particular for the

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<sup>96</sup> [Ibid.](#)

<sup>97</sup> <https://www.oecd.org/gov/budgeting/45038620.pdf>

<sup>98</sup> FHWA Roundtable with Practitioners, held March 30, 2017, at FHWA facilities in Arlington, VA





purposes of this paper, the value of tax streams. The result of the CNA is a PSC that more fully reflects the foregone revenues and expenses associated with traditional project delivery.

The CNA sometimes attempts to resolve the potential distortions to the VfM arising from the fact that a project delivered via a traditional project delivery is not completely comparable to a P3. P3s often have different characteristics with respect to cost certainty, overall project quality and additional tax revenues. Concession agreements contractually obligate the P3 owner to deliver on schedule (with liquidated damages if not), fulfill maintenance requirements over time, and to use equity or reserve accounts in the event of cash flow shortages. (These factors may be addressed separately in a “lifecycle performance risk” estimate, as suggested by P3-VALUE 2.0 and FHWA’s Value for Money Analysis Guide.) In addition, the P3 entity’s owners generally pay taxes that would not have been realized had a public project delivery been undertaken. Taxes are the key adjustment reflected in the P3-VALUE 2.0 tool.

Incorporating the CNA into the VfM analysis allows these considerations to inform the decision criteria. In its simplest form, and only with respect to taxes,<sup>99</sup> a CNA attempts to account for the additional tax revenues that are received by the public sector because it used a P3 project delivery instead of a traditional project delivery. In this case, the taxes that are foregone because the public sector used a traditional project delivery mechanism represent an opportunity cost to the public sector.<sup>100</sup> Analytically, this is typically handled by adding this as an “opportunity cost” of lost tax revenues to the Public Sector Comparator, on a net present value basis. These concepts are demonstrated in Exhibit J.

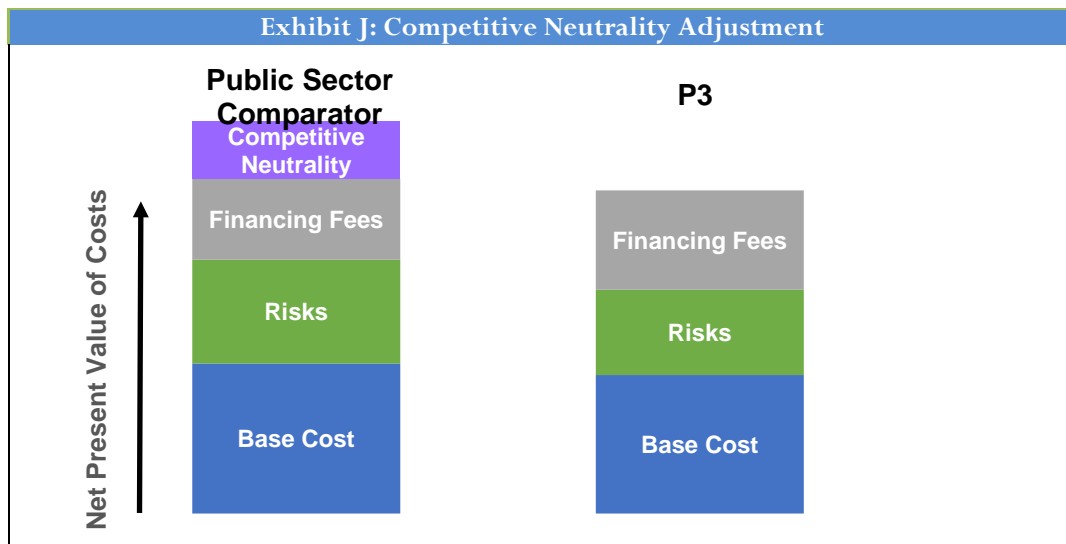


Exhibit J above expands upon the chart described in Exhibit H by comparing the net present value of costs for a Conventional Project Delivery and a P3 Project Delivery. However, in this case, an additional element, Competitive Neutrality, is added to the Conventional Project Delivery option to reflect the opportunity costs of foregone taxes, increasing the Value for Money of the P3.

<sup>99</sup> Competitive Neutrality Adjustments may consider more than the tax implications of a P3. They may also attempt to place a value on the risk-shifting over the project lifecycle, freed-up financial capacity, and other items that may be specific to a project. Often, these other factors outweigh the impact of the taxes. A robust discussion of risk-estimation or CNA methodologies is beyond the scope of this paper. The reader may consult FHWA’s Value for Money Analysis Guide for a more detailed discussion of risk valuation.

<sup>100</sup> Guidance for Quantitative Procurement Options Analysis Discussion Paper, Page 19, Partnerships British Columbia

Specifically, if the P3 concessionaire's owners pay taxes (e.g., taxes on income or dividends), the present value of those taxes are calculated and added as a cost to the PSC to offset the tax income stream that is foregone by not pursuing a P3 project delivery. A comprehensive treatment of taxes generated by a P3 would also consider the tax revenues of any taxable debt issued to finance the P3, as the public sector would generally use tax-exempt debt. Unless the debt issued is tax-exempt, it would be expected that any interest income from the debt would be subject to a combination of local, state, and federal taxes. Practically, though, many U.S. transportation P3s have been majority-financed by federal credit (e.g., TIFIA) and private activity bonds (PABs), which are both tax-exempt forms of debt. (Federal credit programs do not pay taxes on their interest income.) Furthermore, the additional tax income from investors in taxable debt is partially offset by the larger interest deduction claimable by the P3 due to higher interest rates for taxable debt.

Like the VfM that it contributes to, the CNA is subject to subjective decisions in its application. This is because the public sponsor must make assumptions about the tax profile and strategy of likely bidders, which may not reflect the reality of actual bids, as well as the revenues and costs of the P3. The CNA may be more meaningful when used to assess availability payment P3s rather than revenue risk P3s. This is because under an availability payment structure, revenues are contractually agreed upon, whereas under a revenue risk structure revenues depend on actual traffic volumes. Hence, the uncertainty of the tax stream under the former is potentially less than under the latter.

#### 4.5 Perspectives on the VfM and the CNA

The assumptions and calculations performed in the VfM and its CNA can vary depending on who is conducting the analysis. Whether to use different discount rates for revenues and costs, whether to factor in the accelerative benefits of P3s, whether to incorporate a project's social benefits, and which taxes or other cash flows to include, are in the end up to the discretion of the public sponsor. Ultimately, decision makers use the VfM as a tool to assist in making project delivery decisions based on their considerations at the time. Certain methodologies may better fit the objectives of a particular public sponsor at a particular time.

One key motivation for using a P3 delivery method, particularly in the case of revenue risk transactions, is the potential for additional capacity that it creates for procuring entities to pursue projects. P3 delivery mechanisms for revenue risk transactions can bring in outside capital for investment, lower the upfront government contribution, move projects off of the government balance sheet, potentially avoid the need to establish or expand a public authority, and contractually obligate certain performance and quality standards without requiring the allocation of funds to satisfy ongoing maintenance requirements. Projects may get built that would not otherwise be built given the public sponsor's fiscal constraints, expanding and accelerating the portfolio of projects that can be pursued. Benefit-Cost Analysis (rather than VfM) methodologies can be used to analyze these projects by comparing them to a "no build" PSC, or one that is significantly delayed. FHWA's P3-VALUE 2.0 analytical tool and guide demonstrate how such comparisons may be made. The decision of how to structure the PSC will depend on the financial and political realities of the public sponsor at the time.

Similarly, which taxes to include in the CNA is a subjective decision for the public sponsor. Based on discussions with practitioners,<sup>101</sup> a common practice is for the CNA to only include taxes that inure to the public sponsor's level of government. For example, a state department of transportation that benefits from general fund appropriations may not wish to consider federal income taxes, but may include state income

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<sup>101</sup> FHWA Roundtable Discussion with Practitioners, held March 30, 2017 at FHWA facilities in Arlington, VA

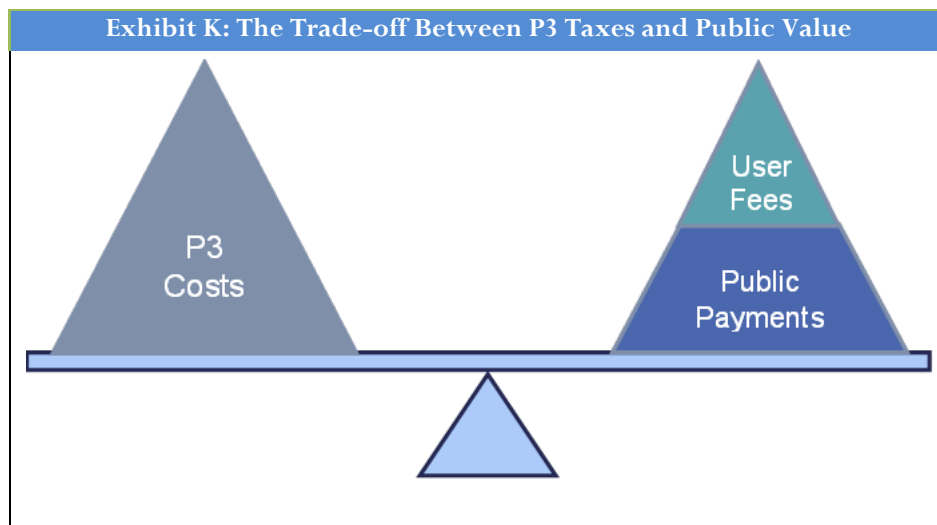


taxes in its CNA.<sup>102</sup> Other state or local agencies may not include state income taxes if they do not receive them. Furthermore, a self-supported state Turnpike Authority may choose to not include any taxes or to perform a CNA. On the other hand, there have been examples where the CNA included all levels of taxation due to the project’s funding by federal, state, and local sources.<sup>103</sup> We note that removing non-incurring taxes from the analysis would tend to weaken the case for a P3, whereas including all levels of taxation would lead to a larger “opportunity cost” adjustment to the CNA.

Regardless of the methodology employed, experience and research indicate that the impact of the state and local taxes associated with the CNA on the VfM will be small compared to differences between the PSC and Shadow Bid in terms of base costs, financing fees, and retained risks. However, as demonstrated in the example tax calculations in the Appendix, much larger impacts may be estimated if Federal income taxes are included in the CNA estimate.

#### 4.6 P3s – tax tradeoffs and incentives

A P3 can be structured in several different ways, and a number of decisions may be made by taxing authorities or government entities as to which taxes to waive or reimburse to the P3 concessionaire. One key principle for public sector sponsors to consider in making tax decisions is that there will be a tradeoff between the value the public sector receives directly from the P3 project and taxes the P3 concessionaire or its owners are required to pay. These taxes factor into the P3 partner’s financial model as a cost, and therefore increase public sector upfront costs (contributions or milestone payments), availability payments, or toll rates that must be paid, or reduce any up-front payment the concessionaire may make. Accordingly, the decision a procuring authority makes (to the extent it makes decisions about the taxes to which a P3 is subject) is whether it wants to receive the value in the form of taxes from the P3, reduced cost in upfront or availability payments, reduced costs for facility users, or an increased up-front payment. Exhibit K depicts this trade-off.



*Exhibit K demonstrates the balance that an awarding authority must preserve for a P3 project delivery. The costs associated with the P3 need to be balanced with the proceeds from user fees and/or public payments.*

<sup>102</sup> I-595 Business Case Analysis\*\*

<sup>103</sup> Presidio Parkway Business Case Analysis

## 4.7 Discussion of methodologies to value future tax streams

Generally, the direct taxes paid by a P3 concessionaire's owners, if they are included in the financial model, will be calculated by the model based on the model's underlying assumptions for the tax base and rate. For public sponsors wishing to analyze or estimate tax revenue streams, this can be a very helpful tool. Various scenarios can be run in the model to analyze the impact of different economic and performance factors on the tax revenue streams. This type of scenario analysis can often be used to develop risk-adjusted expectations of the tax revenue streams. For example, adjusting key project variables will result in a range of revenue streams, which can be combined (generally using a probability-weighting approach) to develop an "expected" revenue stream. In a toll concession, economic activity, traffic, toll rates, inflation, project performance, and other demand-based metrics can be adjusted to produce yearly revenue streams under varying conditions. In availability payment concessions, revenues stem from upfront milestone payments and a series of availability payments that are calculated to meet the private sponsor's required rate of return. Therefore the tax revenue generated from these projects will not change as much in a scenario analysis based on economic variables. However, a project sponsor may wish to consider modeling scenarios based on private partner performance and assumed penalties for non-performance.

Private sector bidders also incorporate calculations for direct taxes into financial projections. As discussed at length in Sections 2 and 3, the legal structure of not only the P3 vehicle but also the project partners will play a role in the effective taxes paid by the P3 concessionaire. In theory, one could come up with a 'best guess' tax rate by combining the various tax rates expected to be paid by project partners and weighting them according to each partner's equity share. In practice, financial models will often simplify this calculation by assuming a 35% corporate tax rate for the project. The simplification allows for a standardized metric that partners use to determine their relative tax burden. If taxes are included in the model, project returns are generally calculated on both before-tax and after-tax bases to allow each investor to analyze project cash flow based on its tax status.

For indirect taxes calculated by the public sector, the modeling exercise may involve developing a secondary model to estimate tax revenue streams. This model would use the project model as an input, and would then perform additional calculations based on the results and economic activity implications of the project model to generate a tax revenue stream. Development of this model would require the development of assumptions for relationships between the tax base and the P3 project's activity. For example, to model the impact of the P3 project on local real estate values, an assumption could be made that for every x% increase in traffic, there is a corresponding y% increase in assessed property values in the area that is z miles on either side of a road. The project model's assumptions for traffic would then feed into the secondary model, which would calculate estimated assessed values and property taxes in each year. A scenario analysis can then be performed to develop a range of property values under various conditions, and an "expected" revenue stream can then be calculated.



## Appendix A Illustrative Examples of Tax Receipts under Different P3 Arrangements

The following tables and accompanying graphs are for illustrative purposes only and should not be viewed as a comprehensive treatment of the complex considerations involved in determining tax revenues generated by a specific P3 project. For illustrative purposes, we have analyzed the high-level taxes associated with:

- ▶ A revenue risk concession
- ▶ An availability payment concession, and
- ▶ A 50% sale of the revenue risk concession's equity interest

The scenarios used a number of assumptions which are discussed below. We note that these assumptions are intended to reflect a credible approximation of a hypothetical P3 project, but are not reflective of any specific P3 project in existence, and are not intended to be used to draw generalized conclusions about taxes on all P3s. They are intended to demonstrate how potential taxes could be modeled.

### A.1 Scenario Assumptions

Key assumptions in each case include:

- ▶ Analysis only includes direct taxes on the project and not on indirect taxes like taxes paid on taxable debt by banks who have made loans or bondholders in taxable project finance debt.
- ▶ Revenues (tolls or availability payments) were the variable adjusted to meet the constraints and other assumptions listed herein.
- ▶ In the revenue risk model, the concessionaire is treated as the owner of the assets for income tax purposes.
- ▶ Total construction capital costs of \$400 million.
- ▶ Debt-equity ratio of 70%:30% for construction costs (after accounting for capitalized interest in both scenarios and taxes due during construction in the availability payment scenario).
- ▶ The P3 is an LLC treated as a disregarded entity for federal income tax purposes (i.e., a “pass-through” entity) 100% owned by a US corporation subject to US income tax in the availability payment and revenue risk concessions scenarios.
- ▶ Net operating losses accumulate at the corporate level, and can be carried forward 20 years. No net operating loss carryback is assumed. The same schedule is assumed for both federal and state level income tax. We assumed that the state treatment of net operating losses is similar to the federal treatment of net operating losses to simplify our evaluation.
- ▶ For the availability payment model, a profit margin on the construction contract of 5% for the SPV was assumed, which is used for the determination of recognized revenues during construction. The profit margin in this case accounts for total contract costs, including interest payments during construction. Therefore, the recognized revenue will lead to positive taxable income for the P3 owner. Since taxes during construction are paid for with additional equity, the required profit margin and resulting recognized revenues directly impact the optimization of availability payments required to meet the target equity return.



- ▶ The debt is drawn proportional to the capital requirements in each year of construction, and interest is capitalized during construction for all of the scenarios, <sup>1</sup> with an additional \$35 million in financing costs for the revenue risk and \$61 million for the availability payment (reflecting the additional taxes from the PCM's recognition of revenues during construction).
- ▶ In the revenue risk scenario, capitalized interest is included in the tax basis of the underlying property and recovered using the MACRS schedule. Financing costs are added to the depreciation pool as per ASC 835-20-05-1.<sup>2</sup> In the availability payment scenario, capitalized interest is treated as "contract costs" under the PCM (i.e., it is included in the PCM completion factor).<sup>3</sup>
- ▶ For the availability payment model, a 50% milestone payment is made to the P3 concessionaire upon completion of construction, which is used to reimburse upfront capital costs and capitalized interest in accordance with contract cost calculations under the PCM, and is therefore considered non-taxable.
- ▶ Construction period of 4 years
- ▶ Concession period of 45 years for the revenue risk, and 35 years for the availability payment
- ▶ Debt structured as:
  - 5% interest rate
  - tenor of 30 years
  - Level P&I payments, after principal payments begin in year 5
- ▶ A pre-tax equity return of 12% for revenue risk, and 10% for availability payment.
- ▶ The only items that are directly impacted by inflation (fixed at 1.89%, the BLS 2006-2015 average) are revenues and operating expenses. Construction costs are fixed with a DB contract that is firm fixed price and does not allow escalation.
- ▶ Annual Opex assumed at 1.5% of capex (in real terms).
- ▶ No alternative minimum tax (AMT) is applied.
- ▶ Federal income tax rate of 35% (reflecting the typically-used rate applicable to corporate entity members of the pass through entity).
- ▶ State income tax rate of 5% (an approximate net of federal benefit).<sup>4</sup>
- ▶ Sales Tax rate of 8% (the rounded combined average of all sales taxes in the US).<sup>5</sup>
- ▶ 25 percent of operating expenses assumed to be subject to sales tax. (Reflective of property owned by the company that may not be covered by sales tax compensation events. We note that this number is

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<sup>1</sup> Please note that for federal income tax purposes: 1. Interest expense incurred on debt proceeds not yet spent is generally deductible; 2. Interest expense incurred on debt proceeds spent to construct project assets is generally capitalized to the tax basis of the assets; 3. Interest expense incurred on debt proceeds after completion of construction is generally deductible.

<sup>2</sup> See FASB Rules for more information on this topic

<sup>3</sup> Treatment of capitalized interest (interest accrued on debt attributable to, and incurred during, construction activities) would depend on whether the project is accounted for using (a) the concessionaire's general method of accounting (e.g., accrual) (i.e., typically for the entirety of revenue risk projects, and for the portion of an availability payment project not accounted for using the percentage of completion method), or (b) the percentage of completion method (i.e., the portion of an availability payment project accounted for using the PCM).

<sup>4</sup> See the Tax Foundation State Corporate Income Tax Rates and Brackets for 2016

<sup>5</sup> See Thomas Reuters Indirect Tax Rate Reports 2015



- likely high relative to a real-world project, and was used to demonstrate the calculation, not to reflect a “typical” transaction.)
- ▶ For the revenue risk scenario, it is assumed that this is a greenfield project and there is no upfront payment to acquire intangible assets (tolling rights) and associated amortization are not assessed.<sup>6</sup>
  - ▶ For the revenue risk scenario, per IRS Publication 946, the class life of the asset is 20 years, with 15 year GDS MACRS depreciation (Land Improvements).<sup>7</sup>
  - ▶ For the availability payment scenario, the \$229.7 million in capital costs and capitalized interest that were not reimbursed through the Milestone payment are recovered on a straight-line basis over the O&M period. This reimbursing portion of the availability payment is recognized as non-taxable, while the rest of the availability payment is recognized as taxable (covering O&M payments, financing costs, and equity).
  - ▶ In the case of the equity sale scenario, the LLC is treated as a partnership for income tax purposes owned by two partners, each a US corporation subject to US income tax, and each owning 50% of the LLC. A new partner, also a US corporation subject to US income tax, purchases all of the LLC interests from one of the two existing partners in a taxable sale. For purposes of the tax calculation, it is assumed that there is no “technical termination” of the partnership under the tax rules upon the sale. Revenue, debt service, tax depreciation, and net operating losses are allocated to each of the members pro rata based on their ownership interests (i.e., 50-50). Available net operating losses are used to offset the capital gains incurred by the selling partner.<sup>8</sup> For simplicity, no depreciation recapture is assumed.
  - ▶ In the equity sale scenario, we only assumed net operating losses carryforward and no carrybacks.
  - ▶ For the equity sale scenario, a 15% gain on 50% of the initial equity position is assumed for a sale at the end of year 10, and is subject to a 35% tax rate, as capital gains to the corporation. For simplicity, debt relief is not considered as additional proceeds to the seller for federal income tax purposes.
  - ▶ For the equity sale scenario, there is no change in the original tax depreciation schedule, but rather the original corporation continues depreciating its 50% share of the SPV’s assets after the sale according to the initial MACRS schedule, and the new partner takes over the 50% share of tax depreciation originally allocated to the selling partner.
  - ▶ For the equity sale scenario, the 15% gain results in a tax basis “step-up” for the new partner, who amortizes this step up straight-line over 15 years, assuming the purchase price premium is allocable entirely to goodwill (\$3 million, or 15% of \$20 million representing 50% of total equity). For simplicity, assumption of debt is not considered as additional consideration paid by the buyer for federal income tax purposes.

<sup>6</sup> See Section 3.2.1 for more information on this topic

<sup>7</sup> To the extent that major maintenance costs result in permanent improvements or betterments of a project, the costs would generally be characterized as a capital expenditure and be required to be capitalized to the cost of the relevant asset(s) and depreciated over the applicable recovery period of such asset. Routine maintenance that does not result in a betterment of an asset may generally be deductible when incurred.

<sup>8</sup> The purchasing partner does not inherit the remaining balance of net operating losses from the selling partner. However, any remaining NOLs of the selling partner do not disappear with the sale and may continue to be utilized by the seller to the extent the seller generates income from other sources subsequent to the sale. An analysis regarding the utilization of the seller’s net operating losses post-sale is beyond the scope of this analysis.



## A.2 Scenario Results

Key observations and points of distinction between the scenarios are as follows:

- ▶ Overall, state income tax and sales tax costs and benefits associated with the P3 SPV are relatively modest compared to the cashflows from the project overall and, presumably, the benefits in Construction, Operations and Maintenance that are realized from using a P3 mechanism. On a present value basis, after accounting for net operating losses, it appears that the revenue risk P3 generates more tax receipts (at discount rates of 3% and 5%) than the availability payment P3. Under the given assumptions, all scenarios generate positive tax receipts at both discount levels used.
- ▶ Under the revenue risk example, income taxes are not paid until year 22. This arises due primarily to the tax depreciation schedule used as well as deductions for interest payment. Net operating losses accumulate at the corporate level and are carried forward, delaying tax payments until year 22 despite earnings before taxes becoming positive in year 14.
- ▶ Under the availability payment example, taxable income is positive throughout the life of the concession. Positive taxable income during construction occurs because the model recognizes revenue based on the percentage completion method. Since interest payments are included in the firm's bid price, it recognizes taxable income during construction at the assumed 5 percent profit margin.
- ▶ The availability payment model's smoother ramp up of taxable income relative to the revenue risk model is due to a "straight-line" method applied to the portion of the availability payment that reimburses the P3 for initial capital costs (that were not already reimbursed by the milestone payment), versus accelerated depreciation in the revenue risk model.
- ▶ The debt service during operations is lower for the availability payment model than the revenue risk model because the milestone payment received reduces the balance of the debt financing raised by the P3.
- ▶ With the availability payment model, the P3 shows EBITDA during the construction period due to the embedded earnings on the construction contract (including capitalized interest), realized according to the percent completion method.
- ▶ Given a target pre-tax equity IRR of 12% for revenue risk and 10% for the availability payment, the revenue risk model generates approximately \$512 million in nominal tax receipts, while the availability payment model generates \$216 million. At 3 and 5 percent, the revenue risk model yields \$188.87 million and \$99.21 million, respectively. The availability payment yields \$121.26 million and \$88.01 million, respectively. This arises due to the fact the concession pays much more in taxes in later years in the revenue risk model despite the net operating losses accumulated by the P3. The revenue risk scenario also yields relatively more nominal tax receipts because periodic revenues are much higher than in the availability payment scenario, which ultimately means more taxes paid. The availability payment model recognizes revenue based on a percentage completion method. Since interest payments are included in the firm's bid, it recognizes taxable income during construction, and has positive taxable income in the early years due to straight-line treatment of the return of capital.
- ▶ In the equity sale scenario, overall nominal and present value tax proceeds are higher than the no-sale revenue risk scenario (\$523 million versus \$512 million, and \$193 million versus \$186 million, respectively). The increase comes from the fact that the selling partner is withdrawing Net Operating





Losses from the project, which cannot be used later to offset project income.<sup>9</sup> The impact of this is greater than the offsetting facts that (1) net operating losses are applied by the selling partner to the capital gains tax due at the time of sale and (2) there is an increase in the total depreciable base (and thus future depreciation) with the tax step-up of the new investor.

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<sup>9</sup> We note that the net operating losses accumulated by the selling partner could be used to offset other businesses' income depending on the corporate structure of the selling partner, but this analysis is beyond the scope of this exercise.



Table A-1: Revenue Risk Tax Receipts

	Revenues	Opex	EBITDA	Tax Depreciation	EBIT	Interest	EBT	NOLs Used	Taxable Income	Federal Tax	State Income Tax	Sales Tax	Total	Cumulative	NPV of Tax Receipts @ 3%	NPV of Tax Receipts @ 5%
	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M
Total	2,381.75	(395.09)	1,986.65	(435.40)	1,551.26	(290.01)	1,261.25	(80.37)	1,261.25	441.44	63.06	7.90	512.40		186.87	99.21
Tax Rate	0	0	0	0	0	0	-	-	0	35.00%	5.00%	8.00%	0	0		
Year 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Year 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Year 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Year 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Year 5	38.98	(6.47)	32.52	(21.77)	10.75	(15.24)	(4.49)	-	-	-	-	0.13	0.13	0.13	-	-
Year 6	39.72	(6.59)	33.13	(41.36)	(8.23)	(15.01)	(23.24)	-	-	-	-	0.13	0.13	0.26	-	-
Year 7	40.47	(6.71)	33.76	(37.23)	(3.47)	(14.77)	(18.24)	-	-	-	-	0.13	0.13	0.40	-	-
Year 8	41.24	(6.84)	34.40	(33.53)	0.87	(14.52)	(13.65)	-	-	-	-	0.14	0.14	0.53	-	-
Year 9	42.01	(6.97)	35.05	(30.17)	4.87	(14.25)	(9.38)	-	-	-	-	0.14	0.14	0.67	-	-
Year 10	42.81	(7.10)	35.71	(27.13)	8.58	(13.97)	(5.39)	-	-	-	-	0.14	0.14	0.81	-	-
Year 11	43.62	(7.24)	36.38	(25.69)	10.69	(13.68)	(2.99)	-	-	-	-	0.14	0.14	0.96	-	-
Year 12	44.44	(7.37)	37.07	(25.69)	11.38	(13.37)	(1.99)	-	-	-	-	0.15	0.15	1.11	-	-
Year 13	45.28	(7.51)	37.77	(25.73)	12.04	(13.05)	(1.01)	-	-	-	-	0.15	0.15	1.26	-	-
Year 14	46.14	(7.65)	38.48	(25.69)	12.80	(12.71)	0.09	(0.09)	-	-	-	0.15	0.15	1.41	-	-
Year 15	47.01	(7.80)	39.21	(25.73)	13.48	(12.35)	1.13	(1.13)	-	-	-	0.16	0.16	1.57	-	-
Year 16	47.90	(7.95)	39.95	(25.69)	14.26	(11.98)	2.28	(2.28)	-	-	-	0.16	0.16	1.72	-	-
Year 17	48.80	(8.10)	40.71	(25.73)	14.98	(11.59)	3.39	(3.39)	-	-	-	0.16	0.16	1.89	-	-
Year 18	49.73	(8.25)	41.48	(25.69)	15.79	(11.18)	4.61	(4.61)	-	-	-	0.16	0.16	2.05	-	-
Year 19	50.67	(8.40)	42.26	(25.73)	16.53	(10.74)	5.79	(5.79)	-	-	-	0.17	0.17	2.22	-	-
Year 20	51.62	(8.56)	43.06	(12.84)	30.22	(10.29)	19.93	(19.93)	-	-	-	0.17	0.17	2.39	-	-
Year 21	52.60	(8.73)	43.87	-	43.87	(9.81)	34.06	(34.06)	-	-	-	0.17	0.17	2.56	-	-
Year 22	53.59	(8.89)	44.70	-	44.70	(9.31)	35.39	(9.10)	26.29	9.20	1.31	0.18	10.69	13.26	-	-
Year 23	54.61	(9.06)	45.55	-	45.55	(8.79)	36.76	-	36.76	12.87	1.84	0.18	14.89	28.14	-	-
Year 24	55.64	(9.23)	46.41	-	46.41	(8.23)	38.17	-	38.17	13.36	1.91	0.18	15.45	43.60	-	-
Year 25	56.69	(9.40)	47.29	-	47.29	(7.65)	39.63	-	39.63	13.87	1.98	0.19	16.04	59.64	-	-
Year 26	57.76	(9.58)	48.18	-	48.18	(7.05)	41.13	-	41.13	14.40	2.06	0.19	16.65	76.28	-	-
Year 27	58.85	(9.76)	49.09	-	49.09	(6.41)	42.68	-	42.68	14.94	2.13	0.20	17.27	93.55	-	-
Year 28	59.97	(9.95)	50.02	-	50.02	(5.74)	44.28	-	44.28	15.50	2.21	0.20	17.91	111.46	-	-
Year 29	61.10	(10.14)	50.96	-	50.96	(5.03)	45.93	-	45.93	16.08	2.30	0.20	18.58	130.04	-	-
Year 30	62.25	(10.33)	51.93	-	51.93	(4.29)	47.63	-	47.63	16.67	2.38	0.21	19.26	149.30	-	-
Year 31	63.43	(10.52)	52.91	-	52.91	(3.52)	49.39	-	49.39	17.29	2.47	0.21	19.97	169.27	-	-
Year 32	64.63	(10.72)	53.91	-	53.91	(2.70)	51.21	-	51.21	17.92	2.56	0.21	20.70	189.97	-	-
Year 33	65.85	(10.92)	54.93	-	54.93	(1.84)	53.08	-	53.08	18.58	2.65	0.22	21.45	211.42	-	-
Year 34	67.09	(11.13)	55.97	-	55.97	(0.94)	55.02	-	55.02	19.26	2.75	0.22	22.23	233.65	-	-
Year 35	68.36	(11.34)	57.02	-	57.02	-	57.02	-	57.02	19.96	2.85	0.23	23.04	256.68	-	-
Year 36	69.66	(11.55)	58.10	-	58.10	-	58.10	-	58.10	20.34	2.91	0.23	23.47	280.16	-	-
Year 44	80.91	(13.42)	67.49	-	67.49	-	67.49	-	67.49	23.62	3.37	0.27	27.26	484.62	-	-
Year 45	82.44	(13.68)	68.76	-	68.76	-	68.76	-	68.76	24.07	3.44	0.27	27.78	512.40	-	-

The Table 1 above describes the cash flows associated with a revenue-risk P3. The table does not display the years 37 to 43.

Table A-2: Availability Payment Tax Receipts

	Availability Payment	Milestone Payment	Capital Reimbursement	Construction Cost	Opex	EBITDA	Interest Deduction	Taxable Income	Federal Tax	State Income Tax	Sales Tax	Total	Cumulative	NPV of Tax Receipts @ 3%	NPV of Tax Receipts @ 5%
	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M
Total	1,507.48	229.69	(533.47)	(400.00)	(269.21)	534.50	(88.65)	445.85	181.98	26.00	7.90	215.88		121.26	88.01
Tax Rate	Note: Years 1-4 of the AP column is recognized revenue on the contract														
Year 1	114.84	-	-	(100.00)	-	14.84	-	14.84	5.20	0.74	-	5.94	5.94	-	-
Year 2	114.84	-	-	(100.00)	-	14.84	-	14.84	5.20	0.74	-	5.94	11.87	-	-
Year 3	114.84	-	-	(100.00)	-	14.84	-	14.84	5.20	0.74	-	5.94	17.81	-	-
Year 4	114.84	229.69	(229.69)	(100.00)	-	14.84	-	14.84	5.20	0.74	-	5.94	23.75	-	-
Year 5	25.18	-	(7.41)	-	(6.47)	11.30	(4.66)	6.64	2.32	0.33	0.13	2.79	26.54	-	-
Year 6	25.65	-	(7.41)	-	(6.59)	11.65	(4.59)	7.07	2.47	0.35	0.13	2.96	29.49	-	-
Year 7	26.14	-	(7.41)	-	(6.71)	12.01	(4.51)	7.50	2.63	0.38	0.13	3.13	32.63	-	-
Year 8	26.63	-	(7.41)	-	(6.84)	12.38	(4.44)	7.94	2.78	0.40	0.14	3.31	35.94	-	-
Year 9	27.13	-	(7.41)	-	(6.97)	12.76	(4.36)	8.40	2.94	0.42	0.14	3.50	39.44	-	-
Year 10	27.65	-	(7.41)	-	(7.10)	13.14	(4.27)	8.87	3.10	0.44	0.14	3.69	43.13	-	-
Year 11	28.17	-	(7.41)	-	(7.24)	13.53	(4.18)	9.34	3.27	0.47	0.14	3.88	47.01	-	-
Year 12	28.70	-	(7.41)	-	(7.37)	13.92	(4.09)	9.83	3.44	0.49	0.15	4.08	51.09	-	-
Year 13	29.24	-	(7.41)	-	(7.51)	14.32	(3.99)	10.34	3.62	0.52	0.15	4.28	55.38	-	-
Year 14	29.80	-	(7.41)	-	(7.65)	14.73	(3.89)	10.85	3.80	0.54	0.15	4.49	59.87	-	-
Year 15	30.36	-	(7.41)	-	(7.80)	15.15	(3.78)	11.38	3.98	0.57	0.16	4.71	64.58	-	-
Year 16	30.93	-	(7.41)	-	(7.95)	15.58	(3.66)	11.92	4.17	0.60	0.16	4.93	69.50	-	-
Year 17	31.52	-	(7.41)	-	(8.10)	16.01	(3.54)	12.47	4.37	0.62	0.16	5.15	74.65	-	-
Year 18	32.12	-	(7.41)	-	(8.25)	16.46	(3.42)	13.04	4.56	0.65	0.16	5.38	80.04	-	-
Year 19	32.72	-	(7.41)	-	(8.40)	16.91	(3.28)	13.62	4.77	0.68	0.17	5.62	85.65	-	-
Year 20	33.34	-	(7.41)	-	(8.56)	17.37	(3.15)	14.22	4.98	0.71	0.17	5.86	91.51	-	-
Year 21	33.97	-	(7.41)	-	(8.73)	17.84	(3.00)	14.84	5.19	0.74	0.17	6.11	97.62	-	-
Year 22	34.61	-	(7.41)	-	(8.89)	18.31	(2.85)	15.47	5.41	0.77	0.18	6.36	103.99	-	-
Year 23	35.27	-	(7.41)	-	(9.06)	18.80	(2.69)	16.11	5.64	0.81	0.18	6.63	110.61	-	-
Year 24	35.93	-	(7.41)	-	(9.23)	19.29	(2.52)	16.78	5.87	0.84	0.18	6.90	117.51	-	-
Year 25	36.61	-	(7.41)	-	(9.40)	19.80	(2.34)	17.46	6.11	0.87	0.19	7.17	124.68	-	-
Year 26	37.30	-	(7.41)	-	(9.58)	20.31	(2.15)	18.16	6.36	0.91	0.19	7.46	132.14	-	-
Year 27	38.01	-	(7.41)	-	(9.76)	20.84	(1.96)	18.88	6.61	0.94	0.20	7.75	139.88	-	-
Year 28	38.73	-	(7.41)	-	(9.95)	21.37	(1.75)	19.62	6.87	0.98	0.20	8.05	147.93	-	-
Year 29	39.46	-	(7.41)	-	(10.14)	21.92	(1.54)	20.38	7.13	1.02	0.20	8.35	156.28	-	-
Year 30	40.21	-	(7.41)	-	(10.33)	22.47	(1.31)	21.16	7.41	1.06	0.21	8.67	164.95	-	-
Year 31	40.97	-	(7.41)	-	(10.52)	23.03	(1.07)	21.96	7.69	1.10	0.21	8.99	173.95	-	-
Year 32	41.74	-	(7.41)	-	(10.72)	23.61	(0.83)	22.78	7.97	1.14	0.21	9.33	183.28	-	-
Year 33	42.53	-	(7.41)	-	(10.92)	24.20	(0.56)	23.63	8.27	1.18	0.22	9.67	192.95	-	-
Year 34	43.33	-	(7.41)	-	(11.13)	24.79	(0.29)	24.50	8.58	1.23	0.22	10.02	202.97	-	-
Year 35	44.15	-	(7.41)	-	(11.34)	25.40	-	25.40	8.89	1.27	0.23	10.39	213.36	-	-

**Table A-3: Equity Sale Tax Receipts (Aggregate Income Statement, Sale Occurs Year 10)**

	Revenues	Opex	EBITDA	Tax Depreciation	EBIT	Interest	EBT	Taxable Income	Federal Tax	State Income Tax	Sales Tax	Capital gains tax	Total	Cumulative	NPV of Tax Receipts @ 3%	NPV of Tax Receipts @ 5%
	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M
Total	2,381.75	(395.09)	1,986.65	(445.20)	1,541.46	(290.01)	1,251.45	1,288.64	451.02	64.43	7.90	-	523.36	-	192.83	103.22
Tax Rate									0.35	0.05	0.08					
Year 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Year 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Year 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Year 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Year 5	38.98	(6.47)	32.52	(21.77)	10.75	(15.24)	(4.49)	-	-	-	0.13	-	0.13	0.13	-	-
Year 6	39.72	(6.59)	33.13	(41.36)	(8.23)	(15.01)	(23.24)	-	-	-	0.13	-	0.13	0.26	-	-
Year 7	40.47	(6.71)	33.76	(37.23)	(3.47)	(14.77)	(18.24)	-	-	-	0.13	-	0.13	0.40	-	-
Year 8	41.24	(6.84)	34.40	(33.53)	0.87	(14.52)	(13.65)	-	-	-	0.14	-	0.14	0.53	-	-
Year 9	42.01	(6.97)	35.05	(30.17)	4.87	(14.25)	(9.38)	-	-	-	0.14	-	0.14	0.67	-	-
Year 10	42.81	(7.10)	35.71	(27.13)	8.58	(13.97)	(5.39)	-	-	-	0.14	-	0.14	0.81	-	-
Year 11	43.62	(7.24)	36.38	(26.34)	10.04	(13.68)	(3.64)	-	-	-	0.14	-	0.14	0.96	-	-
Year 12	44.44	(7.37)	37.07	(26.34)	10.73	(13.37)	(2.64)	-	-	-	0.15	-	0.15	1.11	-	-
Year 13	45.28	(7.51)	37.77	(26.39)	11.39	(13.05)	(1.66)	-	-	-	0.15	-	0.15	1.26	-	-
Year 14	46.14	(7.65)	38.48	(26.34)	12.14	(12.71)	(0.57)	-	-	-	0.15	-	0.15	1.41	-	-
Year 15	47.01	(7.80)	39.21	(26.39)	12.83	(12.35)	0.47	-	-	-	0.16	-	0.16	1.57	-	-
Year 16	47.90	(7.95)	39.95	(26.34)	13.61	(11.98)	1.63	-	-	-	0.16	-	0.16	1.72	-	-
Year 17	48.80	(8.10)	40.71	(26.39)	14.32	(11.59)	2.73	-	-	-	0.16	-	0.16	1.89	-	-
Year 18	49.73	(8.25)	41.48	(26.34)	15.14	(11.18)	3.96	-	-	-	0.16	-	0.16	2.05	-	-
Year 19	50.67	(8.40)	42.26	(26.39)	15.88	(10.74)	5.13	-	-	-	0.17	-	0.17	2.22	-	-
Year 20	51.62	(8.56)	43.06	(13.50)	29.56	(10.29)	19.27	9.08	3.18	0.45	0.17	-	3.80	6.02	-	-
Year 21	52.60	(8.73)	43.87	(0.65)	43.22	(9.81)	33.41	16.38	5.73	0.82	0.17	-	6.73	12.75	-	-
Year 22	53.59	(8.89)	44.70	(0.65)	44.05	(9.31)	34.74	30.19	10.57	1.51	0.18	-	12.25	25.00	-	-
Year 23	54.61	(9.06)	45.55	(0.65)	44.89	(8.79)	36.11	36.11	12.64	1.81	0.18	-	14.62	39.63	-	-
Year 24	55.64	(9.23)	46.41	(0.65)	45.76	(8.23)	37.52	37.52	13.13	1.88	0.18	-	15.19	54.82	-	-
Year 25	56.69	(9.40)	47.29	(0.65)	46.63	(7.65)	38.98	38.98	13.64	1.95	0.19	-	15.78	70.60	-	-
Year 26	57.76	(9.58)	48.18	-	48.18	(7.05)	41.13	41.13	14.40	2.06	0.19	-	16.65	87.24	-	-
Year 27	58.85	(9.76)	49.09	-	49.09	(6.41)	42.68	42.68	14.94	2.13	0.20	-	17.27	104.51	-	-
Year 28	59.97	(9.95)	50.02	-	50.02	(5.74)	44.28	44.28	15.50	2.21	0.20	-	17.91	122.42	-	-
Year 29	61.10	(10.14)	50.96	-	50.96	(5.03)	45.93	45.93	16.08	2.30	0.20	-	18.58	141.00	-	-
Year 30	62.25	(10.33)	51.93	-	51.93	(4.29)	47.63	47.63	16.67	2.38	0.21	-	19.26	160.26	-	-
Year 31	63.43	(10.52)	52.91	-	52.91	(3.52)	49.39	49.39	17.29	2.47	0.21	-	19.97	180.23	-	-
Year 32	64.63	(10.72)	53.91	-	53.91	(2.70)	51.21	51.21	17.92	2.56	0.21	-	20.70	200.92	-	-
Year 33	65.85	(10.92)	54.93	-	54.93	(1.84)	53.08	53.08	18.58	2.65	0.22	-	21.45	222.38	-	-
Year 34	67.09	(11.13)	55.97	-	55.97	(0.94)	55.02	55.02	19.26	2.75	0.22	-	22.23	244.61	-	-
Year 35	68.36	(11.34)	57.02	-	57.02	-	57.02	57.02	19.96	2.85	0.23	-	23.04	267.64	-	-
Year 36	69.66	(11.55)	58.10	-	58.10	-	58.10	58.10	20.34	2.91	0.23	-	23.47	291.11	-	-
Year 44	80.91	(13.42)	67.49	-	67.49	-	67.49	67.49	23.62	3.37	0.27	-	27.26	495.58	-	-
Year 45	82.44	(13.68)	68.76	-	68.76	-	68.76	68.76	24.07	3.44	0.27	-	27.78	523.36	-	-

The Table 3 above describes the cash flows associated with the sale of a revenue-risk P3. The table does not display the years 37 to 43.

**Figure A-1: Tax Receipts under Revenue Risk Scenario**

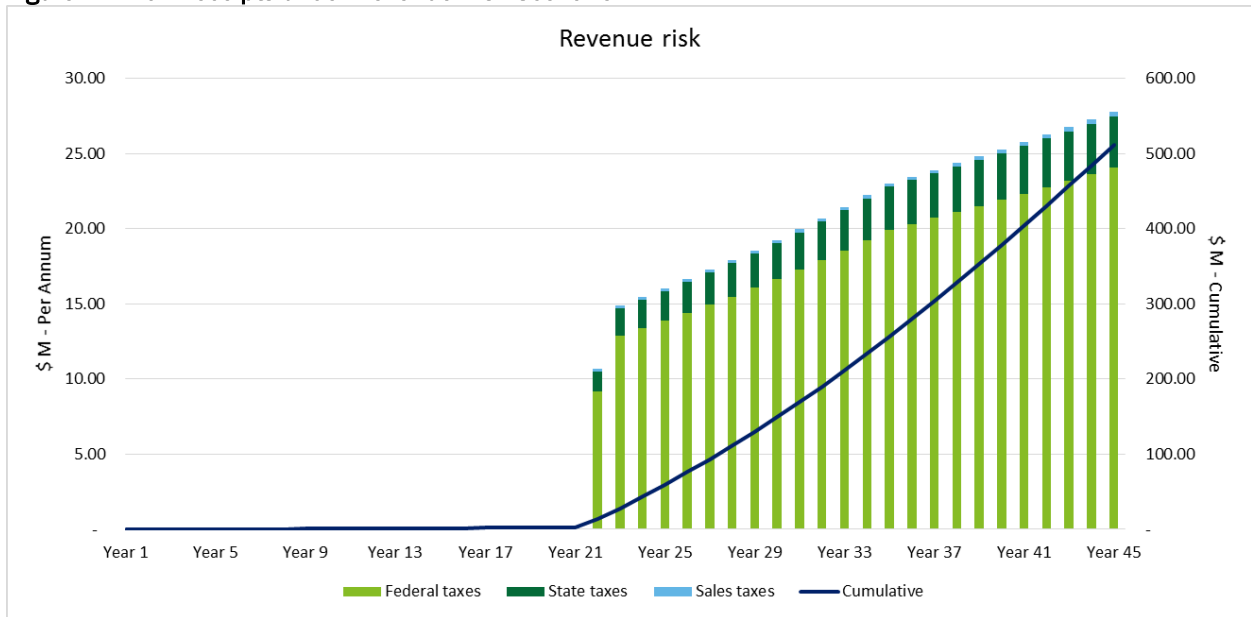


Figure A-1 above shows the annual and cumulative receipts of Federal, State, and Sales taxes for a revenue-risk P3. Due to the accumulated NOLs, the P3 project is only effectively paying taxes after Year 22 for a total aggregate amount of approximately \$512 million.

**Figure A-2: Tax Receipts under Availability Payment Scenario**

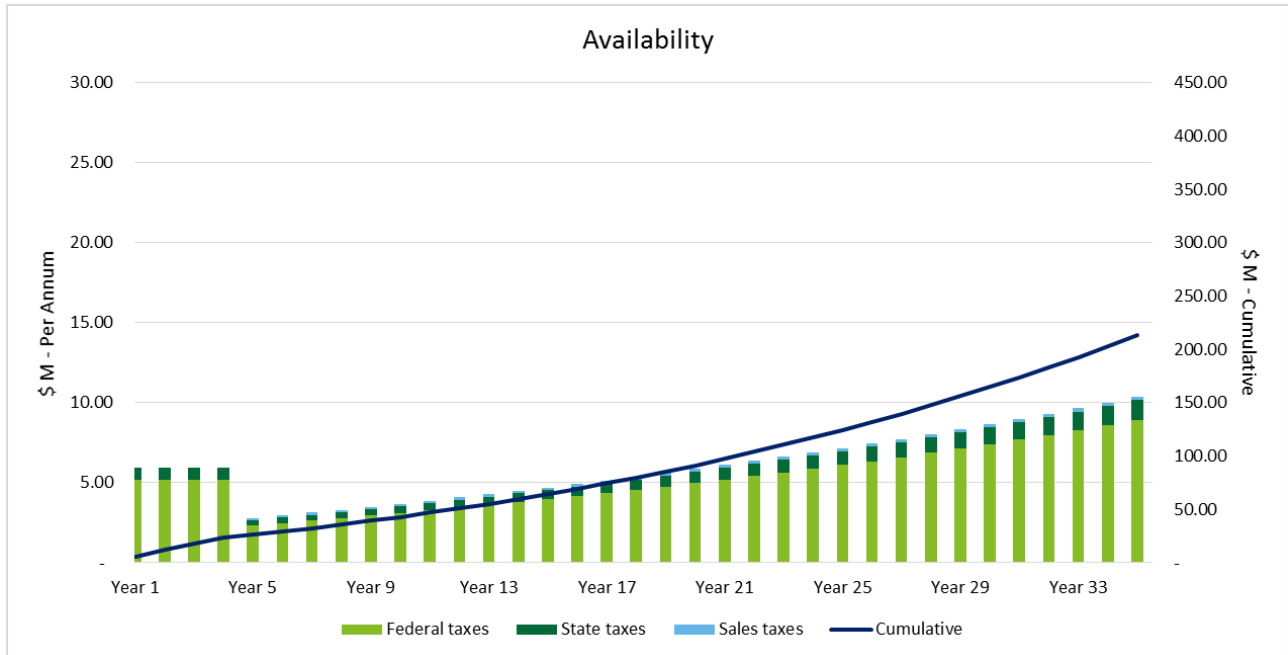


Figure A-2 above shows the annual and cumulative receipts of Federal, State, and Sales taxes for an availability payment P3. The Availability Payment P3 pays taxes immediately without benefiting from any NOLs. The total aggregate amount is approximately \$213 million.



Figure A-3: Tax Receipts under Equity Sale of Revenue Risk Scenario

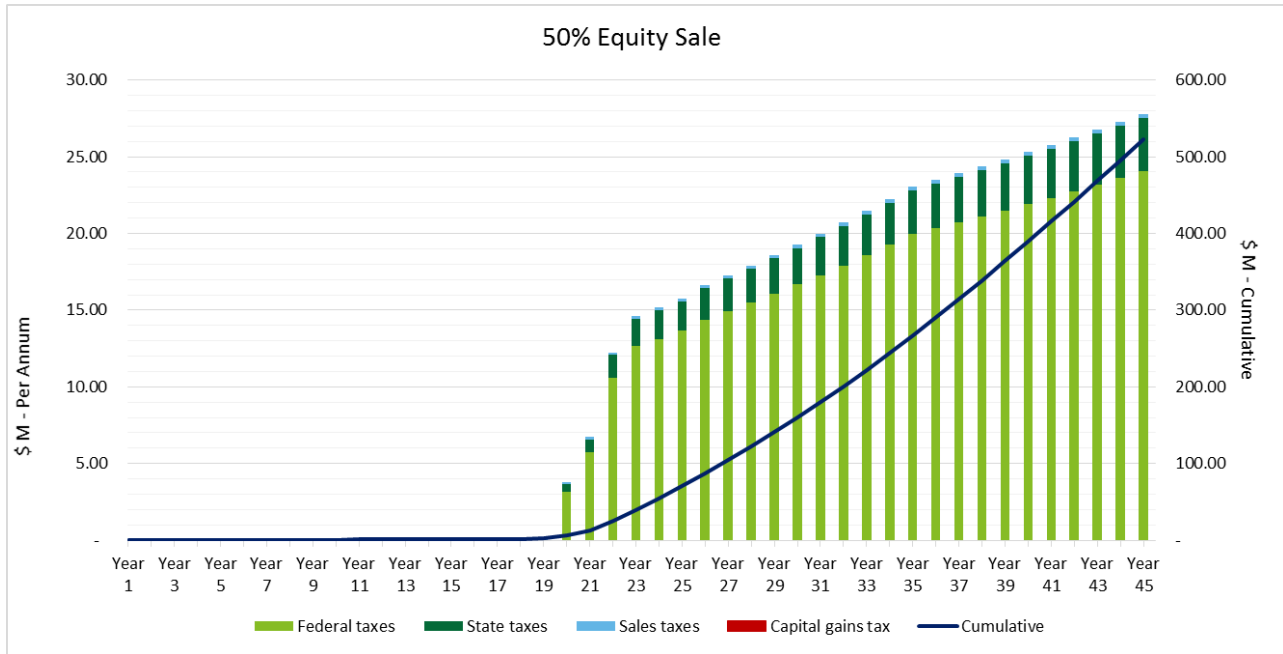


Figure A-3 above shows the annual and cumulative receipts of Federal, State, and Sales taxes for the sale of a portion of the equity in a revenue-risk P3. In this scenario, the P3 starts paying taxes in Year 20 after NOLs are used. The capital gains tax proceeds do not appear, as they are offset by NOLs.