


CDFA Intro to Public-Private Partnerships Finance

Bostonia Partners

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P3 in the United States:

Key Characteristics & Drivers

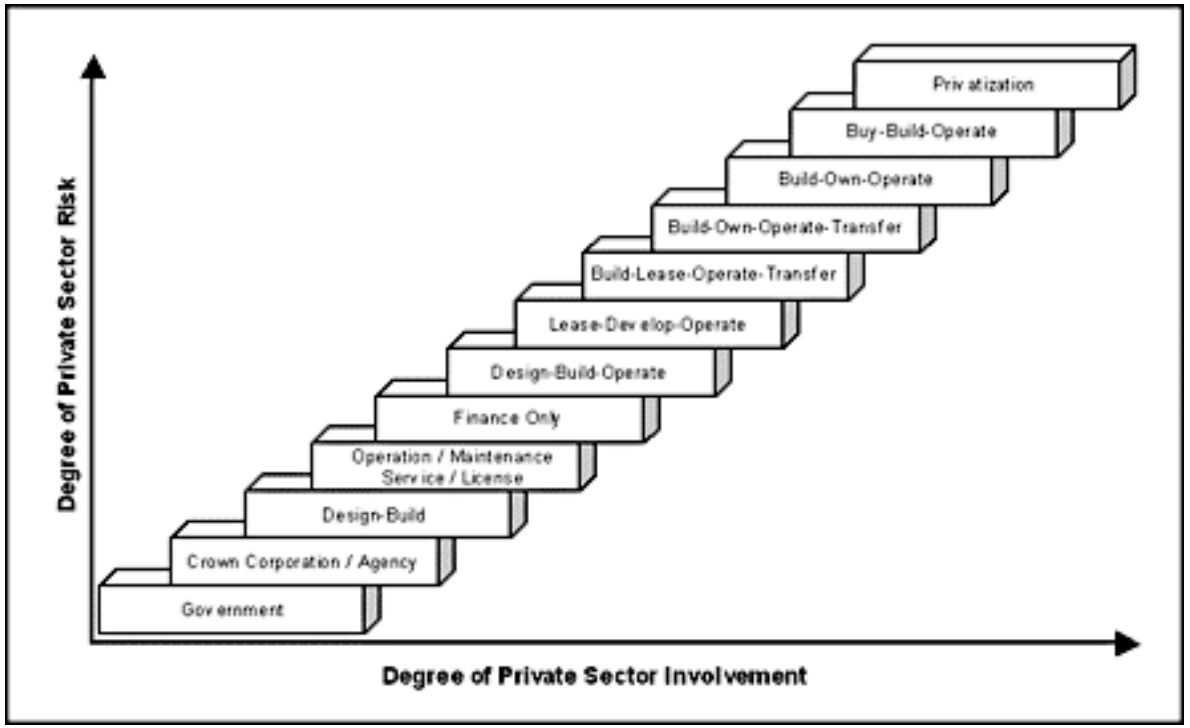
Introduction

What is P3?

- Alternative procurement method where public agency partners (e.g. municipalities, states, authorities) with a private-sector entity (e.g. developers, construction and engineering firms, infrastructure investors) in order to leverage private resources and expertise through the transfer of risk
- Contractual arrangements bundle investment expenditures with life-cycle operation costs of infrastructure projects – *It is not privatization*
- Typically a Performance Based Approach - Development, management, and finance of project is often delegated to private firms

Why Choose P3?

- Debt does not have to be public borrowing and often is not (non-recourse)
- Investment costs spread over life of the project
- Often accelerated and on-time delivery
- Leverage private expertise, and long-term performance guarantees to greater savings and efficiencies
- Price certainty for budgeting
- Flexibility and innovation
- Value for Money (Vfm)



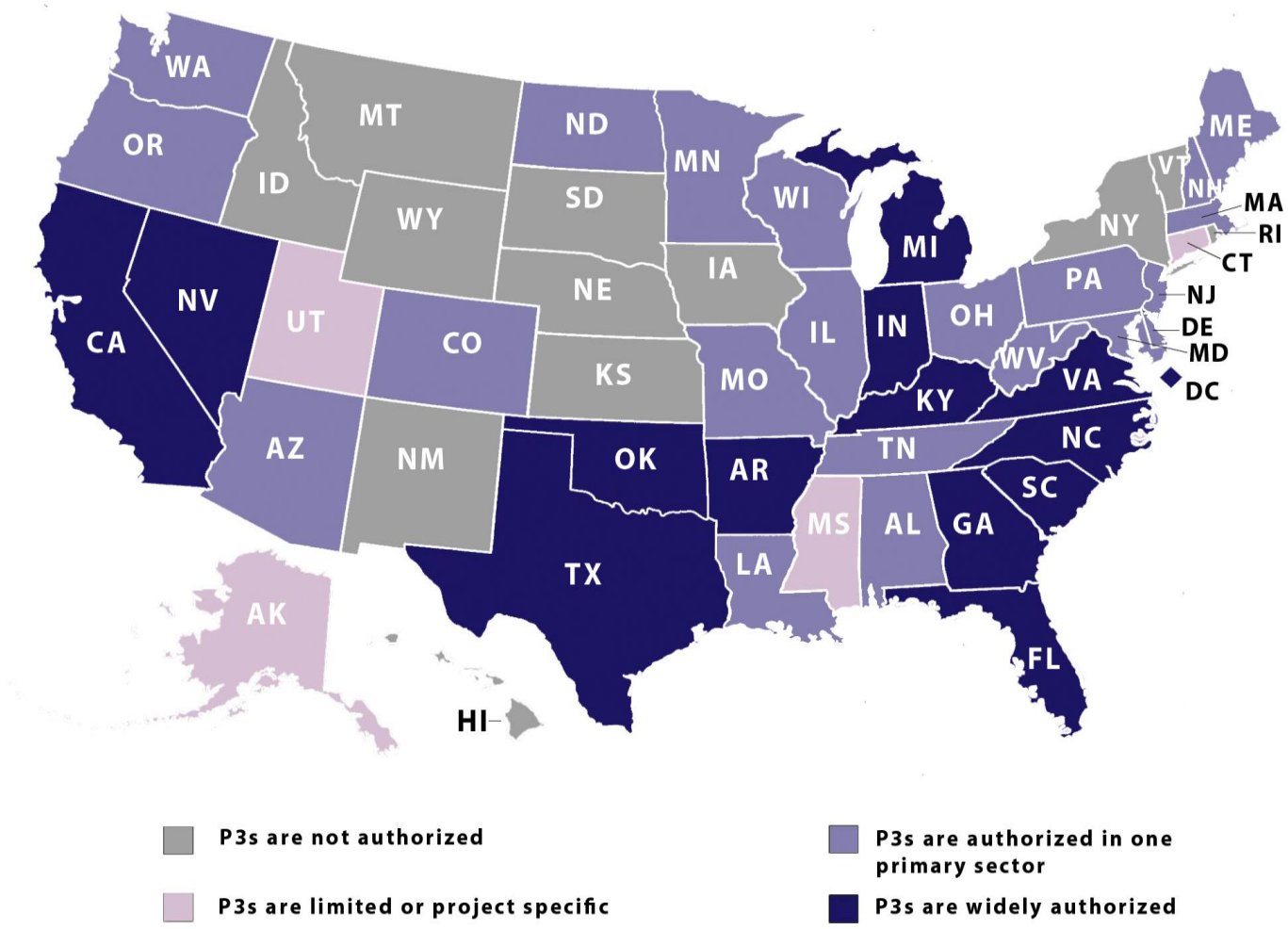
Source: The Canadian Council for Public Private Partnerships

P3 Markets: State of U.S. Infrastructure

- ***Governments continue to face increasing budgetary shortfalls amid a stock of aging infrastructure in dire need of investment.***
- The American Society of Civil Engineers' (ASCE's) 2017 Infrastructure Report Card overall infrastructure grade = D+
  - estimates in excess of $4.5 trillion needed by 2025 to fix the country's roads, bridges, dams, and additional infrastructure across broad sectors.
- Congressional Budget Office (CBO) has indicated nominal spending on American infrastructure has increased by 44 percent since 2003, while the real purchasing power of that spending has decreased by 9 percent.
  - states and localities provide the lion's share of infrastructure funding in the United States, providing $320 billion as compared to $96 billion from the federal government.
- Surplus of infrastructure investment from private capital available in 2017:
  - too few "bankable" deals,
  - lack of commitment on P3s,
  - competition from the municipal market,
  - need for additional infrastructure enabling legislation.
- Investor appetite remains at historic levels – willing to deploy capital across all classes of US infrastructure assets (majority have been power, renewable energy assets, midstream).
- Demand for traditional assets (roads, airports, bridges) remains high; along with (transportation and telecom) sectors they experienced lower activity in 2017.
- Trump administration's proposed $1 trillion infrastructure plan continues to drive interest in the sector.

Existing 3P Legislation

- **Legislation currently in over 39 states, including Puerto Rico**



As of January 2018

(Source: DBIA)

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Selected Legislation Updates for 2018

State/Territory	Details	Status
Massachusetts	▪ DOT authorized to enter into P3s for transportation projects ▪ Authorizes broad 3P authority for building, facilities, or distribution infrastructure for public water supply or treatment, waste water treatment and disposal, or flood control	▪ Pending ▪ Pending
Maryland	▪ Adds Design-construct-operate-maintain-finance arrangements to the list of authorized alternative financing methods for county boards	▪ Passed
Michigan	▪ Created a P3 investment fund for investments in capital asset improvements, energy resource exploration extraction, generation, sales, infrastructure construction, maintenance and operation, among others	▪ Passed
Minnesota	▪ Authorizes P3 for infrastructure projects including waste water treatment and water conservation facilities, public transportation, education, oil and gas pipelines, technology, public housing, and other public infrastructure	▪ Pending
Oklahoma	▪ Allows governmental entities to enter into P3 contracts for provision of a public service	▪ Passed
Puerto Rico	▪ Central Recovery and Reconstruction Office, or CRRO, a unit of the P3 Authority that was created to lead the coordination, development and execution of the recovery plan required by Congress.	▪ The Puerto Rico government is pushing ahead with a handful of priority public-private partnership, or P3, projects that are scheduled to go out for bid this quarter and are targeted to close in less than a year.

Emerging Trends and Sectors

- Energy/utility and operational savings
- Public universities (dormitories/Master Energy and Sustainability Plans)
- Social infrastructure
- Expansion of services (Smart City Initiatives)
- Resiliency (Microgrids, Islanded Combined Heat and Power Systems)
- Water/wastewater/storm water
- 3rd party ownership models (PPA, distributed generation, asset monetization)
- Reuse/repurpose real estate assets

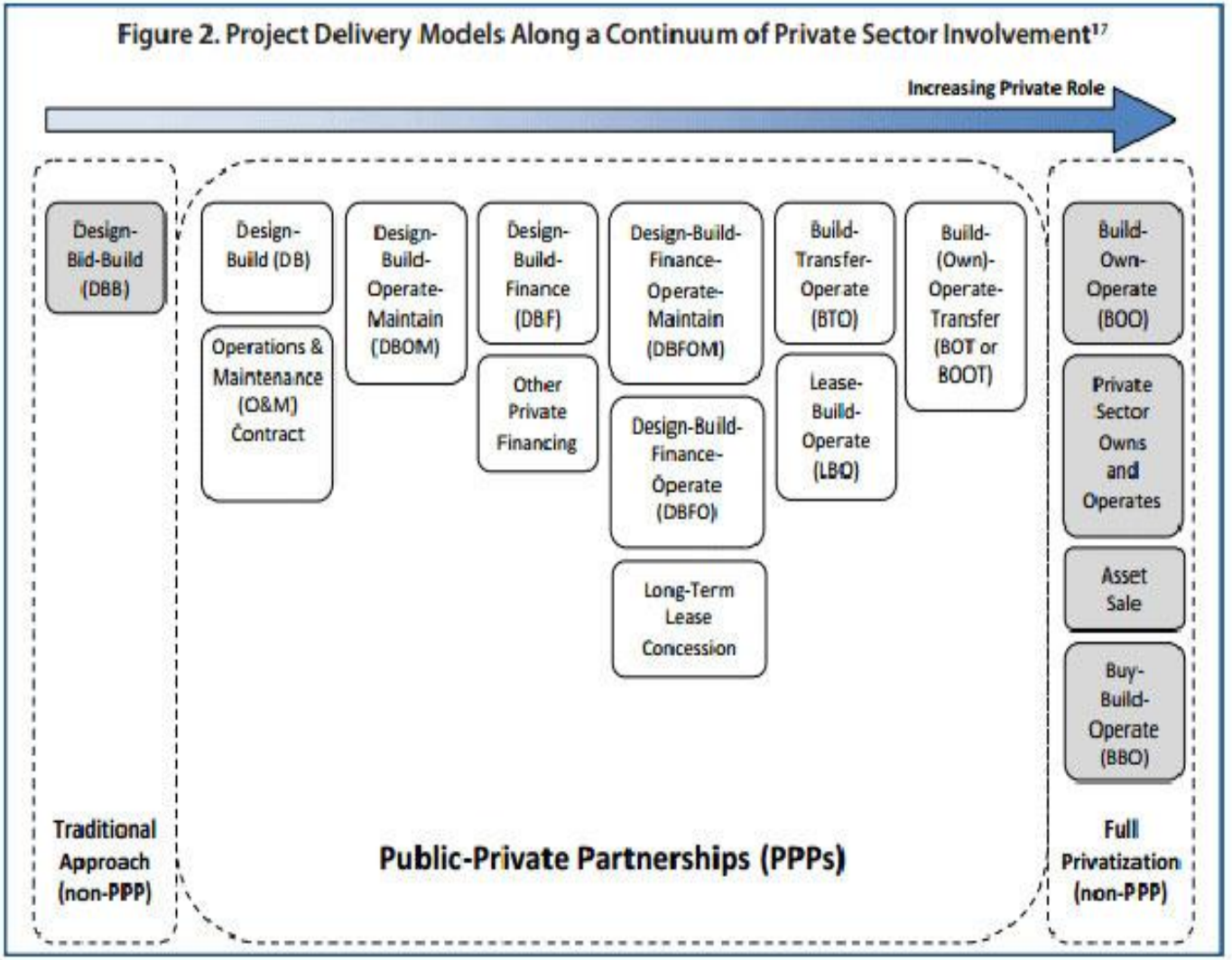
P3 Delivery Models

Characteristics:

- Brownfield/Greenfield Developments
- Availability Payments vs. Revenue Generation
- Budgetary Limitations
- Opportunity Costs
- Project Delays and Deferred Maintenance

Drivers:

- Taxable vs. Tax-Exempt Debt
- Borrowing Capacity Constraints
- Ownership/Accounting/Tax Considerations
- End of Term Considerations



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Other P3 Challenges

- Lack of political champion
- Credit quality
- Effectively valuing indirect benefits (e.g. resiliency, energy security, and cybersecurity)
- Willingness to pay a price for innovation
- Competitive and long procurement process
- Staffing plans and labor-related issues
- Maximizing flexibility

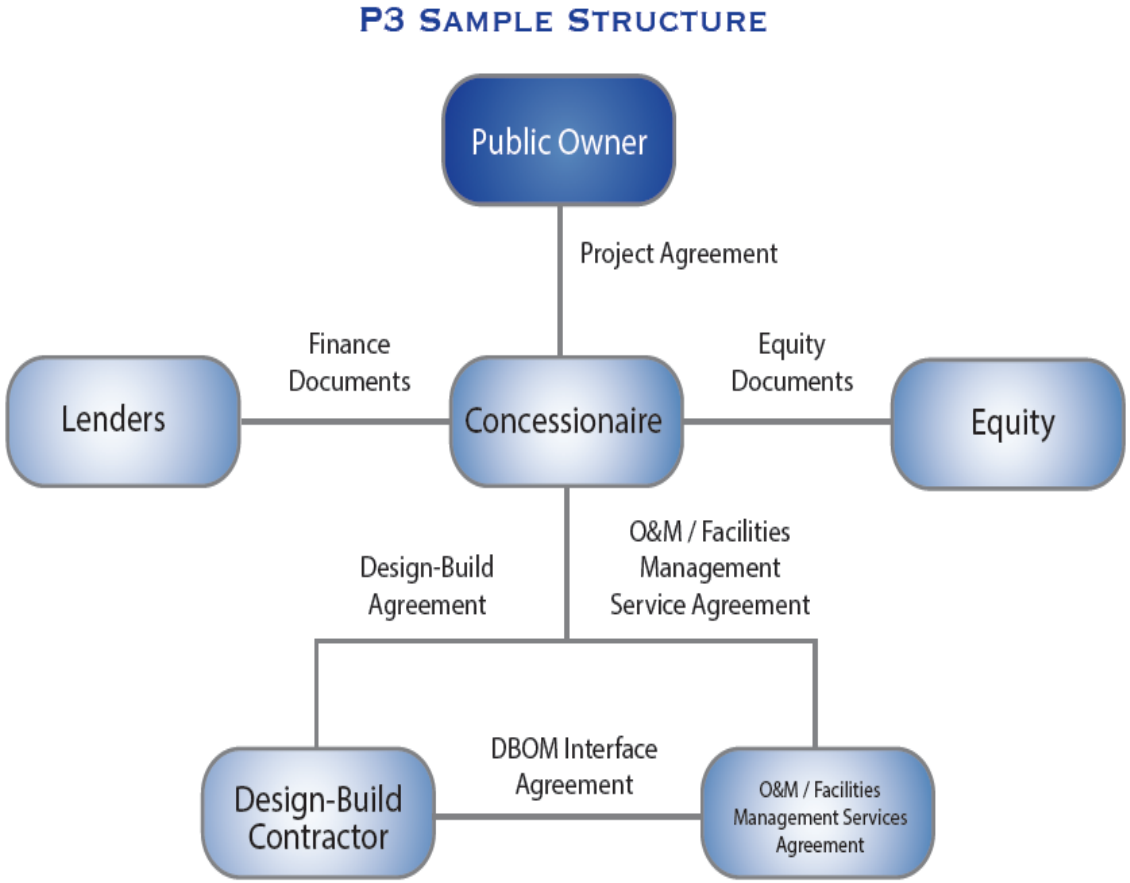
Regulatory, Tax and Accounting Considerations

Regulatory	▪ P3 authorizing legislation in regions projects are targeted ▪ Local regulatory environment for specific projects (e.g. energy distribution/generation) ▪ Procurement legislation for long-term services ▪ Local utility interconnect requirements ▪ State and local technology incentives
Tax Reform	▪ Reduced Corporate Tax Rate ▪ Interest Deduction Limitation ▪ Cost Recovery and Expensing ▪ Investment Tax Credits / Accelerated Depreciation
Accounting Standards Codification (ASC 842)	▪ Under new accounting standards taking effect in 2019 (ASC 842), structures will be evaluated to determine if it contains an imbedded lease. ➢ ASC 842- all leases, including operating leases will be recorded on the lessee's balance sheet as a Right of Use Asset ("ROU"). Operating leases under GAAP will continue to meet "off-debt" and "off-credit" recognition. ➢ International Accounting Standard IFRC 16 treats operating and capital leases alike. ➢ True Service Agreement ("off-balance sheet") treatment still possible but may require multiple off-takers or sufficient 3rd party revenue sources to meet economic benefits test. ➢ ESA structure for energy efficiency measures must consider impact of variable and contingent payments and savings guarantees on ROU value. ➢ Fair market value determination required for purchase option.

Sample P3 Financing Structure

Financing/Contracting Options:

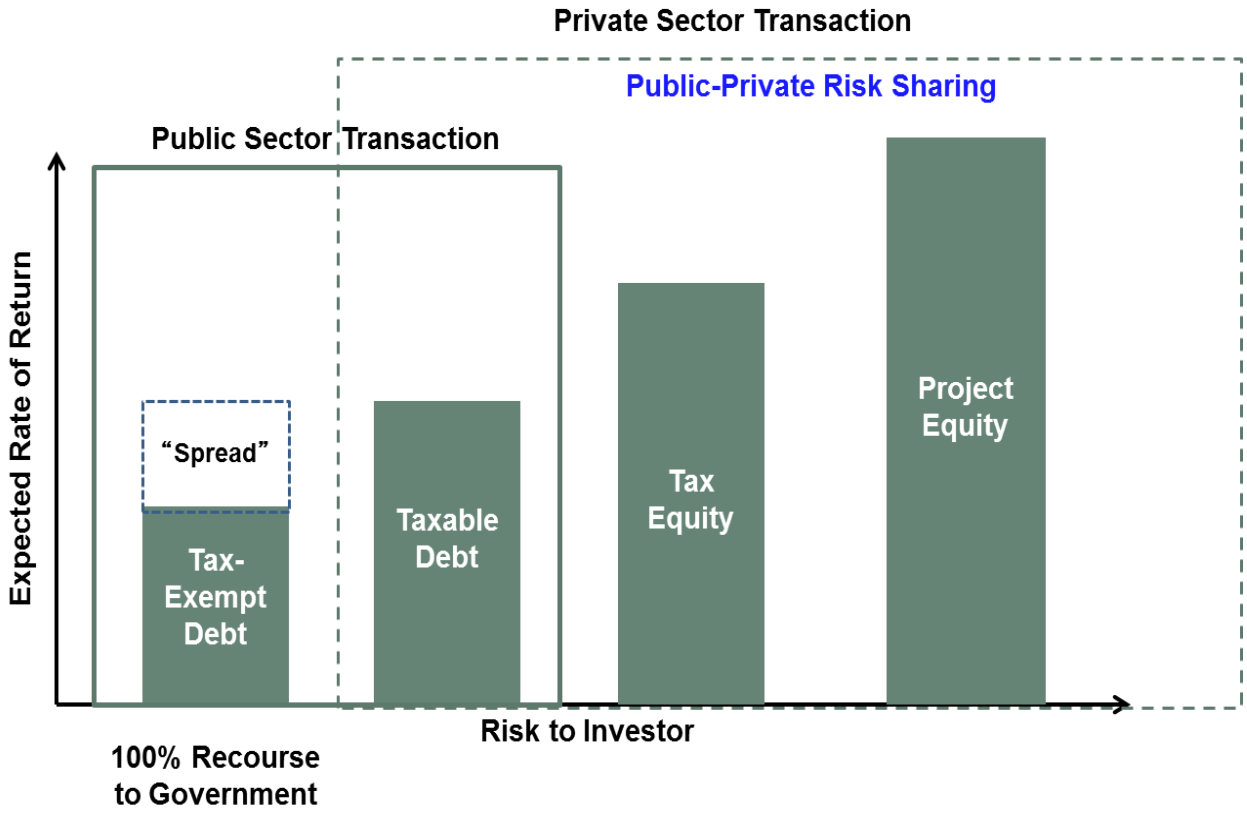
- Services Agreements
- Power Purchase and Supply Agreements
- Concession Agreements
- Leases (Capital/Operating)



Source: DBIA

Cost of Capital

- P3s have higher costs of capital as a general rule:
  - P3 debt is typically taxable while interest on municipal bonds is tax exempt
  - Private Sector pays taxes on revenues and certain assets
  - 3rd Party ownership models may be able to monetize incentives/tax benefits (e.g. renewable energy technologies)
  - Private Equity investors with ownership in P3 Projects, share in the profits, and expect to earn higher rates of return for the risk they undertake



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Evaluating 3P's - Value for Money (Vfm) Analysis

- Common misperception is that PPPs are always a more expensive form of project delivery for state and local governments and authorities
- As highlighted by the National Council for Public-Private Partnership's (NCPPP) white paper, *"Testing Tradition: Assessing the Added Value of Public-Private Partnership"*, a thorough and proper evaluation involves several analyses:
  - Costs of deferred maintenance, repair, replacement
  - Project timing
  - Complete financial analysis using Value for Money (Vfm) assessment on Net Present Value (NPV) basis

- Establish Public Sector Cost Comparator (PCC) as baseline to compare to PPP or privatized options
- Conduct full Life-Cycle (FLC) cost and revenue analysis for each option
- Value and assess transfer of risk more effectively

Financing costs for projects may be higher for PPPs however FLC analysis often shows savings over time due to risk allocation, design, construction, and long-term O&M.

Sample Risk Transfers

Risk	Traditional Public Procurement	Public/Private Partnership
Construction Cost & Design	Public Owner/Contractor	Contractor
Project Schedule	Public Owner	Contractor
Permitting	Public Owner/Contractor	Contractor
Performance	Public Owner	Operator
Operations & Maintenance	Public Owner	Operator
Financing	Public Owner	Financier
Revenues	Public Owner	Financier
Demand Risk	Public Owner	Public Owner

Value for Money Analysis – Public Cost Comparator

- ***The public sector Cost Comparator (PCC) analyzes costs as if public sector was to distribute the good or service on its own; a financial benchmark used against all bids of a project***

1) Raw PCC:

- =(operating costs – third party revenues) + Capital costs

2) Competitive Neutrality PCC:

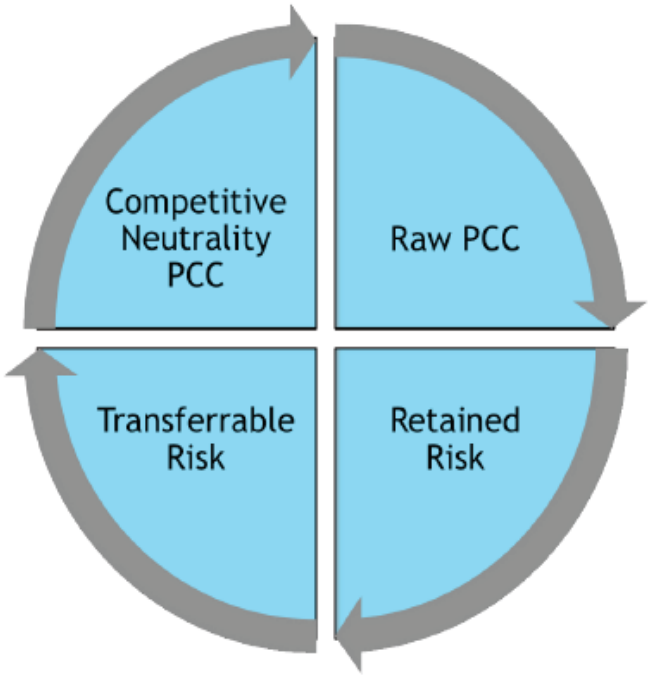
- Calculation that removes all advantages and disadvantages of public sector ownership. Quantified potential advantages are then treated as costs and disadvantages as benefits

3) Transferred Risks PCC:

- Optimal transfer of risk Identified by valuing each risk. Sector best able to manage them, should be allocated those risks

4) Retained Risks:

- Value the costs from risks that remain with public sector in P3
- Manage risks willing to assume, define a threshold for risk
- Should be calculated and added to private sector bids received



Total Value of PCC=
Raw PCC+Competitive Neutrality PCC+Transferable Risk PCC+Retained Risk PCC

Source: Public Cost Comparator for PPPs.
American University of Public Policy on behalf of NCPPP

Sample VfM analysis Results

- Project Scope: $100M Combined Heat and Power and Solar Development for a University

Option	Cost Comparator (Tax-exempt)	3P – Capital Lease (Taxable)	3P – Services Agreement / Operating Lease (Taxable)
Capital Cost	$100 Million	$90 Million	$90 Million
Ownership	Public	Public Owner	3rd Party
Payments	Fixed	Contingent	Contingent
O&M	Public	Operator	Operator
Performance Risk	Public	Operator	Operator
Taxes	N/A	N/A	ITC MACRs depreciation Property taxes owed
End of Term	N/A	N/A	Purchase EQ at FMV or agreement renewal
Cost of Capital	4%	5%	6.5%
Balance Sheet Impact	On-Balance Sheet	Off-debt/off-credit possible, Contingent Payment Offsets	Off-debt/off-credit possible, Contingent Payment Offsets
NPV of Savings/Revenues	$30M	$35M	$20M

Conclusions

P3 Markets:

- Surplus of private capital available for investment in US infrastructure
- Require new legislation to continue to broaden 3P authority and establish well-defined, streamlined processes spearheaded by political champions and use of best practices

A P3 is not:

- A new funding source or form of procurement
- Appropriate for every project
- Privatization
- A structure that assigns all risks to the private sector

A successful P3:

- Allocates the optimal level of risk among the parties best suited to bear the risk
- Has clearly defined project scope, needs and objectives, and a transparent process
- Shares revenues or cost savings with government/not-for profit
- Contains Incentives for the private sector to maximize performance
- Evaluates options using Value for Money analysis

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