



cutting through complexity

UNECE International Center of Excellence

PPP Masterclass

Funding and Financing

Alexander Seleznyov

July 8, 2014

Agenda

- Definitions
- Funding
- Financing
- Payment mechanisms
- P3 projects' capital structure
- Types of investors
- Value for Money
- Contingent liabilities
- Summary and takeaways
- Q&A

Introduction

KPMG Infrastructure Advisory

Infrastructure Advisory Practice

- KPMG serves as strategic and financial advisor to both public and private clients globally and within the US
- 500 advisors specializing in infrastructure globally with approximately 70 dedicated professionals in the US
- Our team offers experience and insights on innovative infrastructure delivery
- KPMG has broad experience across all infrastructure sectors
 - Transportation (rail, transit, highways, toll roads, airports and seaports)
 - Social Infrastructure (schools, universities, healthcare, housing)
 - Water and Utilities

North American P3 Financial Advisors (January 2005- December 2013)				
Rank	Company	Deal Value (US\$m)	Deal Volume	Market Share
1	KPMG	21,196.0	28	17.1%
2	Macquarie	12,733.9	11	10.2%
3	PwC	7,755.6	12	6.2%
4	Royal Bank of Canada	7,532.3	10	6.1%
5	Ernst & Young	7,483.1	17	6.0%
6	Goldman Sachs	6,263.6	3	5.0%
7	Deloitte	6,140.5	13	4.9%
8	JPMorgan	4,962.4	3	4.0%
9	Taylor DeJongh	4,635.8	5	3.7%
10	Scotiabank	3,975.5	7	3.2%

Source: *Infrastructure Journal*, December 2013

#1 Financial Advisor for P3 projects by number of deals and transaction value for 2010, *Infrastructure Journal*

PPP Project Experience

Long Beach Judicial Partners
Long Beach Courthouse

California Department of Transportation
Presidio Parkway

Virginia Department of Transportation
Midtown Tunnel

Industry Awards and Recognition

Ohio River Bridges East End Crossing
Americas Transportation Deal of the Year 2013

Midtown Tunnel Deal of the Year 2012

North America P3 Financial Advisor of the Year
2013
2012
2010

Infrastructure Financial Advisor of the Year
2008
2007

Alexander Seleznyov



ALEXANDER SELEZNYOV

Manager/Vice President

KPMG Corporate Finance LLC

1801 K Street NW

Suite 1200

Washington, DC 20006

Tel 703-286-6036

Cell 202-247-7910

aseleznyov@kpmg.com

Education, Licenses & Certifications

- MBA, Georgetown University, Washington, DC
- B.A. Westminster College, Fulton, MO
- FINRA Licenses – Series 79 & 63
- Project Management Professional (PMP)

For over a decade, he has consulted various public sector clients in the US and around the world, specializing in economic development, infrastructure finance, and public-private partnerships. Alex is currently assisting North Carolina's Department of Transport (DOT) to develop a strategy and implement an initiative for reducing service cost, increasing efficiencies in service delivery, and improving transparency of passenger rail operations through a long-term, full-service concession. In Michigan, he is advising the DOT on a long-term O&M contract for street lighting and the Department of Community Health on a P3 contract for new public health laboratory facilities. In Virginia, Alex is providing commercial and financial advice to Virginia's Department of Rail and Public Transport in developing a project pipeline for over \$1 billion of projects; advising VDOT on a land swap and new campus development project, as well as Virginia's Commercial Space Flights Authority on options analysis for the new launch pad.

Prior to joining KPMG, Alex was one of the founding leaders of Deloitte's P3 integrated market offering for the US market, where he played a key role in developing the practice and securing several significant client accounts. Alex started his career in economic development, serving public sector clients, via World Bank, USAID, IMF, and EU projects across the emerging markets.

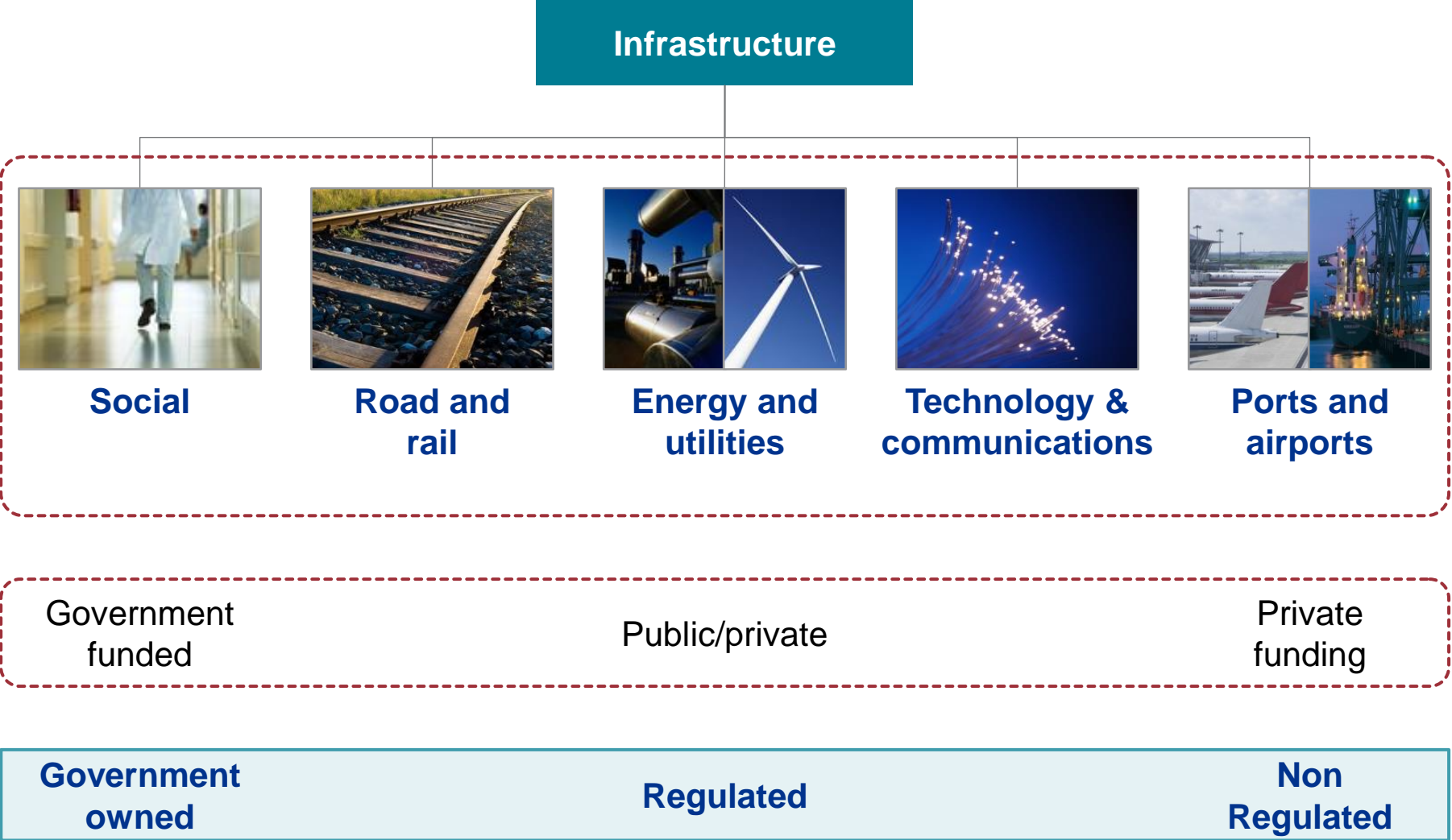
As part of the EU-funded project in Kazakhstan, Alex provided technical assistance for the establishment of an organizational structure and developing capacity of Kazakhstan's PPP Unit. He completed a pre-feasibility study and initial project structuring for a pilot PPP transaction in social sector (hospital) for the Ministry of Healthcare.

Alex has advised public authorities in setting up successful P3 programs, including project screening, developing project pipelines, as well as institutional structuring. On project level, he has conducted demand studies, feasibility studies, Value for Money, funding and financing options analyses for public sector clients on a variety of public infrastructure transactions in the transport, and social sectors.

Alex holds an MBA from Georgetown University's McDonough School of Business and is a Financial Industry Regulatory Authority (Finra) registered Investment Banking Representative and Uniform Securities Agent. He is also a Project Management Professional (PMP) licensed by the Project Management Institute (PMI).

What is Project Finance

The infrastructure spectrum

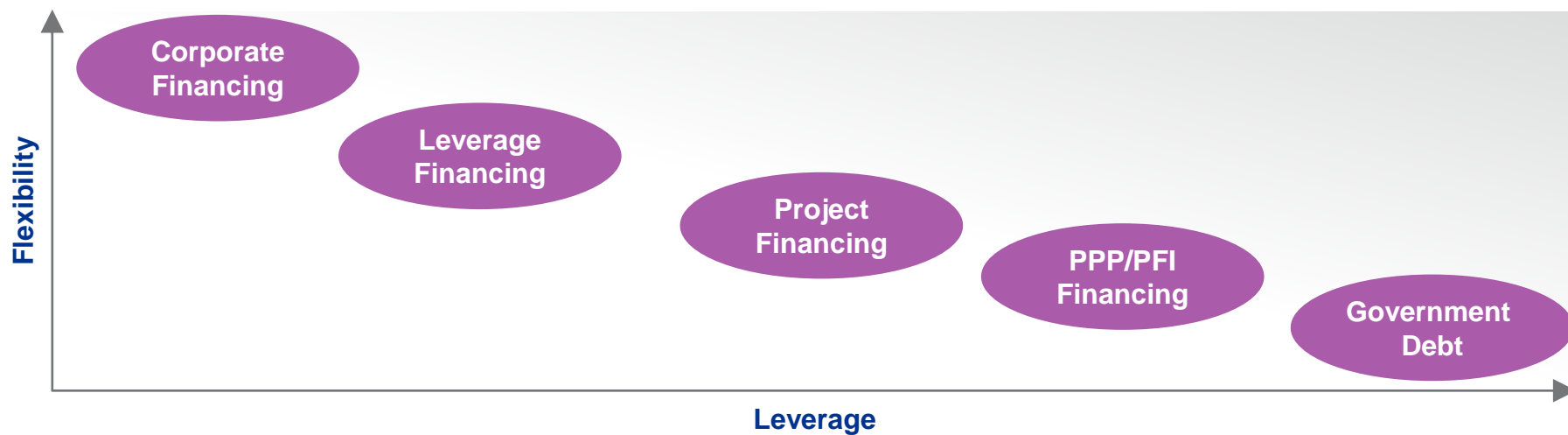




“Project finance is generally used to refer to a non-recourse or limited recourse financing structure in which debt, equity and credit enhancement are combined for the construction and operation or the refinancing of a particular facility in a capital intensive industry.”

Introduction to Project Finance – By Andrew Fight

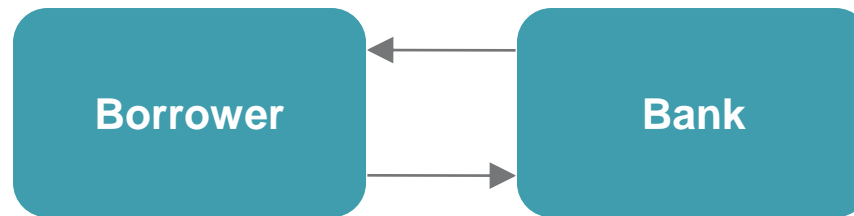
Characteristics of debt financing instruments



Characteristics	
Corporate	<ul style="list-style-type: none"> ■ Loan facilities and/or bonds issued to capital markets; on balance sheet with full recourse; simple structuring
Leveraged	<ul style="list-style-type: none"> ■ Debt on balance sheet with recourse; structuring can include senior, subordinated, and mezzanine tranches ■ Key ratio is debt to EBITDA; traditional bullet repayment has been replaced with cash sweep/amortisation
Project	<ul style="list-style-type: none"> ■ Project finance which can be on or off balance sheet with limited recourse ■ Key ratio is loan to project life coverage; ring-fenced security with cash sweep/amortisation
PPP/PFI	<ul style="list-style-type: none"> ■ Project finance whereby the underlying asset is underpinned by contracts between public and private entities

Corporate lending example

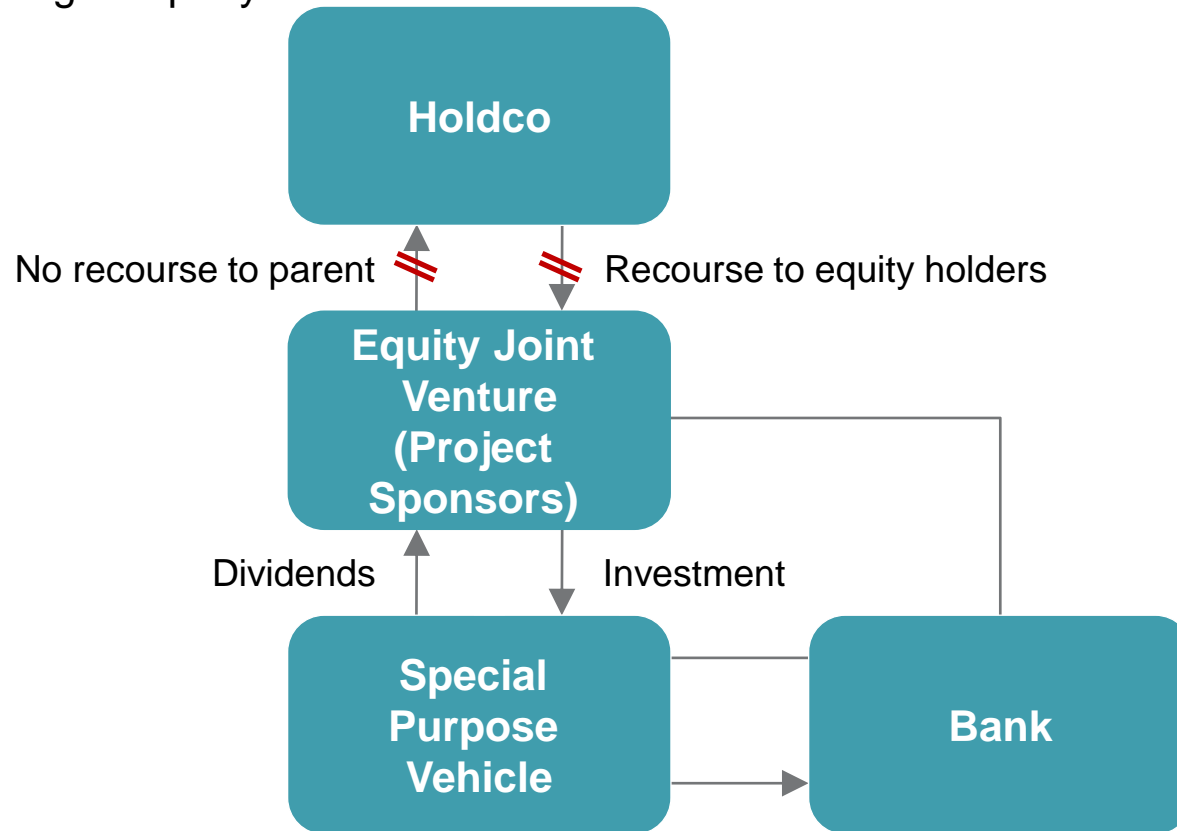
- On balance sheet
- Direct recourse to holding company



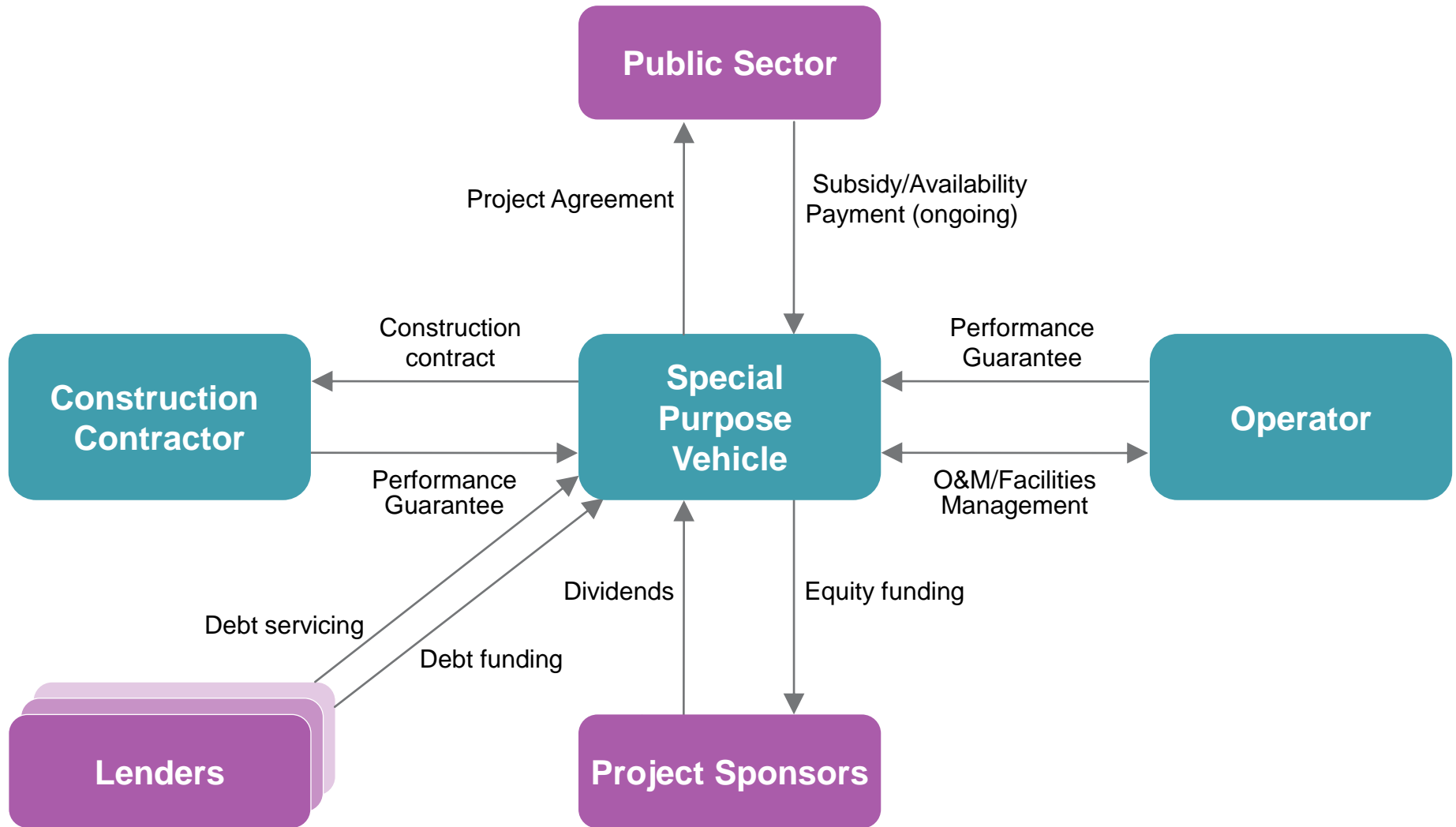
Project Finance

Project financing example

- Off balance sheet
- Non-recourse to holding company



Private Finance Model in PPP



Comparisons between project finance and corporate finance

Features		
	Project Finance	Corporate Finance
Financing	<ul style="list-style-type: none"> Financiers look at <i>cash flows</i> of a single asset (the project) for repayment 	<ul style="list-style-type: none"> Financiers look to the overall <i>strength of a company's balance sheet and projections</i>, which is usually derived not from a single asset but a range of assets and businesses
Security	<ul style="list-style-type: none"> <i>No/limited guarantees</i> for project finance debt Project contracts are usually the main security for lenders; project companies' physical assets are likely to be worth much < the debt 	<ul style="list-style-type: none"> <i>All assets of the company</i> can be used for security Has <i>access to whole cash flow from spread of business as security</i>, thus even if project fails, corporate lenders can be repaid
Duration	<ul style="list-style-type: none"> Project has a <i>finite life</i>; as such the debt must be repaid by the end of this life 	<ul style="list-style-type: none"> Company assumed to remain in business for an <i>indefinite period</i> and losses can be rolled over.
Control	<ul style="list-style-type: none"> Lenders <i>exercise close control</i> over activities of Project Company to ensure value of project is not jeopardized 	<ul style="list-style-type: none"> <i>Leaves management</i> of company to run business <i>as they see fit</i>

Types of projects financed

Utilities	Transport	Communications	Social Services
Pipelines	Roads	Cable systems	Education
Water (distribution and treatment)	Airports	Broadband and wireless	Health Care facilities
Power (transmission and distribution)	Sea ports	Satellites	Assisted living
Renewables	Bridges		Senior housing
	Rail		Criminal justice
	Public transport		Military housing
	Tunnels		Public housing
	Parking		Municipal facilities (e.g. courthouses)

Sources of Project Finance

Bank Debt

Capital Markets

Investment Funds

Government

Multilateral Agencies

Islamic Financing

Subordinated Debt

Mezzanine Debt

Reserve Facilities

Equity Bridge



Why Project Finance?

Benefits for Investors

- Projects are highly leveraged → leads to a **higher return on equity** (ROE)

$$\text{ROE} = \text{Net income after tax} / \text{Shareholder's equity}$$

- **Risk spreading** – enables risk of investment to be divided up between investors
- **Limited 'risk contamination'** between the project and the rest of the investor's business (risk is confined to invested equity)
- **Increased borrowing capacity** of investors with the reallocation of project risks to other contracting parties
- **Avoids restrictive covenants** on the corporate balance sheet arising from a project's debt financing
- Small amount of equity commitment required **enables parties with different financial strengths and skills to work together**
- **Matches** each commercial undertaking with the specific assets and skills required to build and operate it
- **Off balance sheet financing** where equity represents a minority investment

Why Project Finance? (cont.)

Benefits for a Public Authority (PA)

- The increase in investor's financial capacity creates a **more competitive market for projects**, to the benefit of the PA
- Involvement of 3rd parties (lenders and advisers) would mean that a **rigorous review of the risk transfer is carried out and any weaknesses exposed (independent due diligence undertaken by financiers)**
- High leverage inherent in a project-finance structure helps to ensure the **lowest cost** to PA
- There is **transparency** as project financing is self-contained and the true costs of the service can more easily be measured/monitored

Risk allocation

Project Finance is more about structuring the commercial deal than optimising the debt package. In fact you can't even begin to implement the financing strategy until you:



Understand the commercial risks within the deal

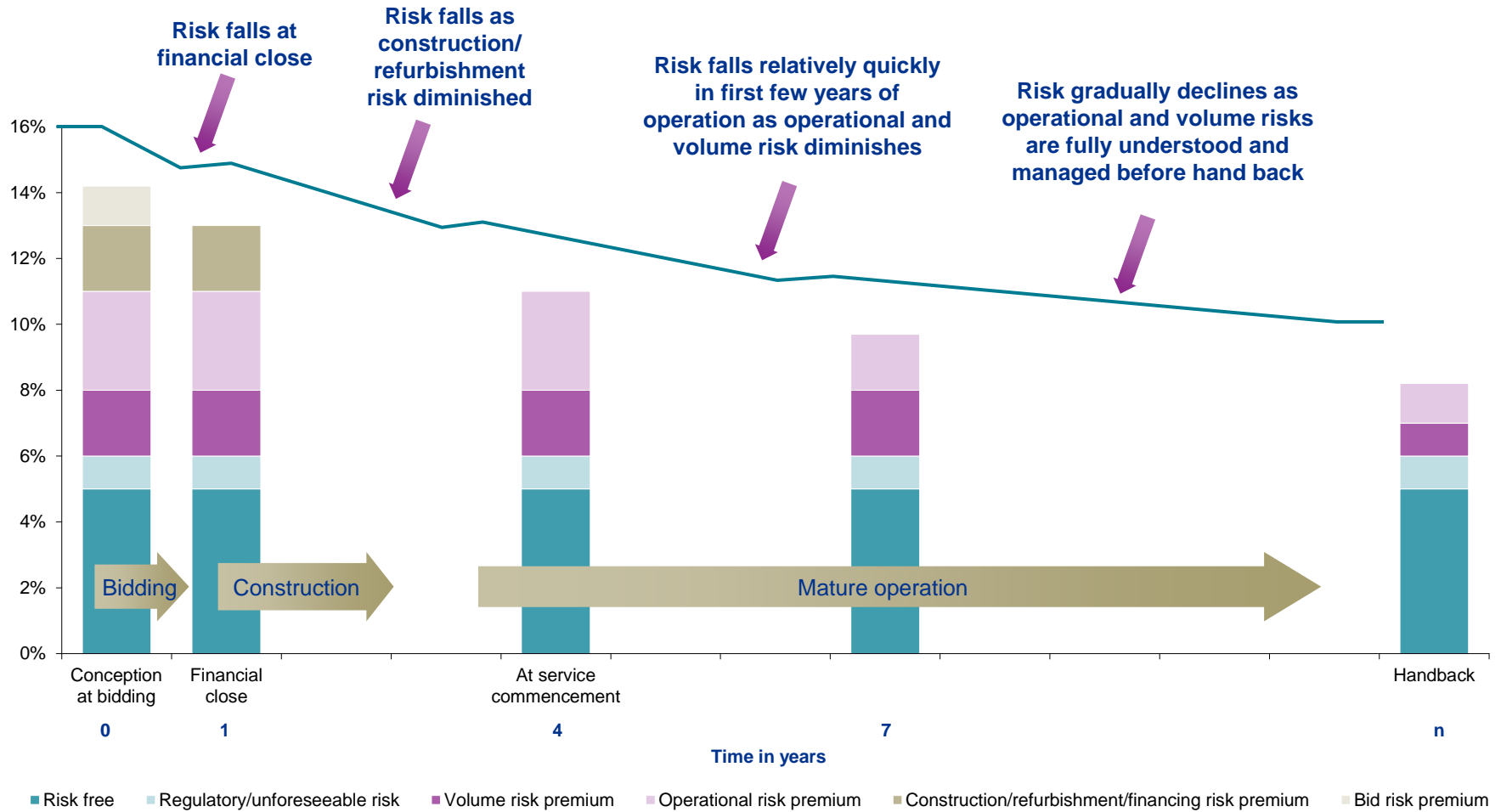


Explore the commercial risk mitigation strategies available, and



Determine the residual project risk exposure

Project risk profile and cost of capital



Measuring risk

Ratios



Annual Debt Service Cover Ratio (ADSCR) – Cashflow available for debt service divided by annual debt service



Loan Life Cover Ratio (LLCR) – NPV of future cashflow available for debt service over tenor of the loan divided by debt outstanding



Project Life Cover Ratio (PLCR) – as LLCR over whole life of contract/concession








Key covenants – minimum for base case/lock-up/default



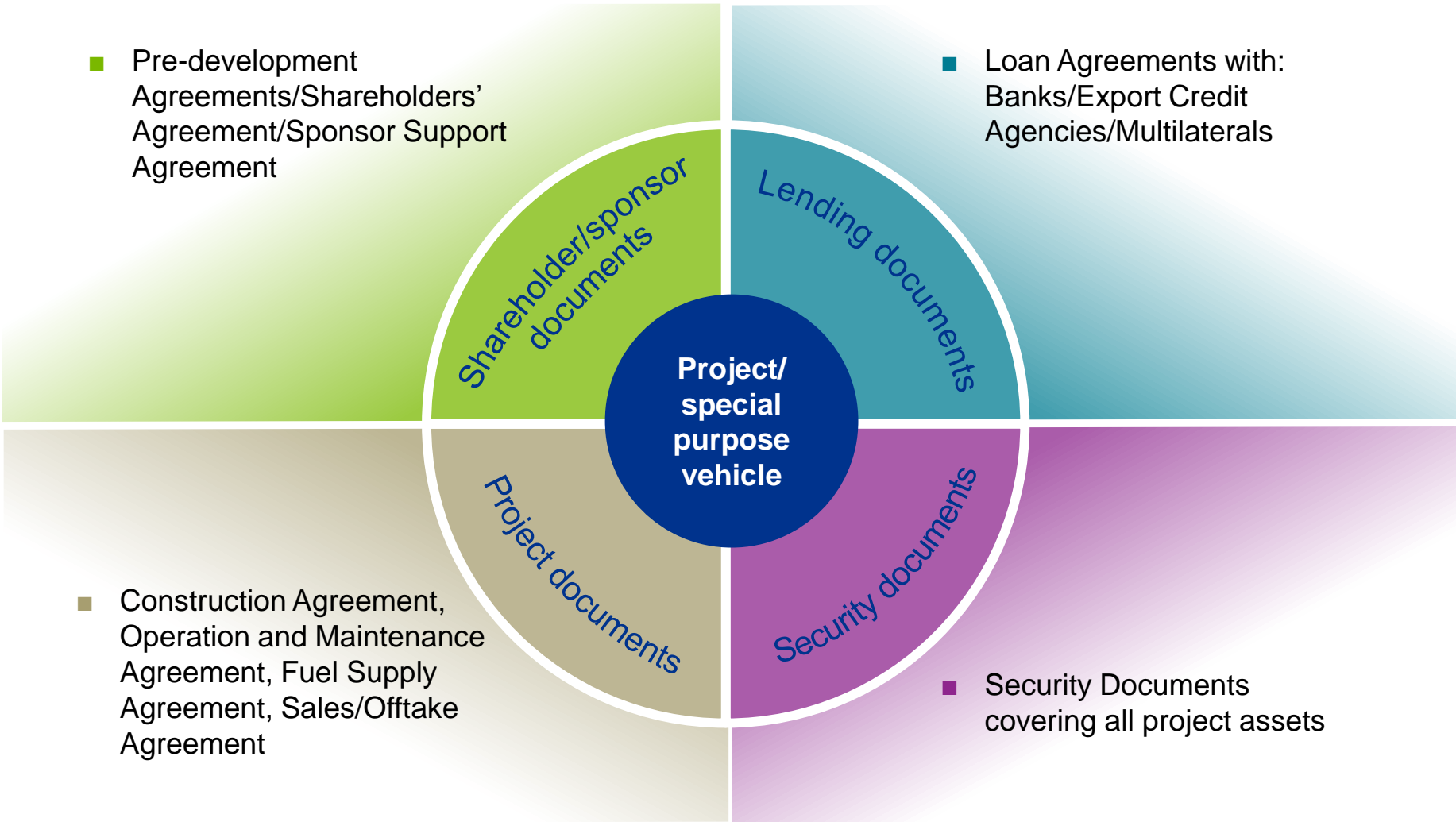
Breakeven and sensitivities

Understanding risk

Advice

-  Legal
-  Technical
-  Financial Model – accounting and tax
-  Insurance
-  Market

Typical documentation



Typical project risks

Construction/Delivery

Operation

Revenue

Macroeconomic

Typical project risks (cont.)

Design and build

- Planning/consents
- Design
- Technology
- Ground conditions
- Protestor action
- Construction price
- Construction programme
- Interface
- Performance/availability
- Utilities

Operations

- Operating cost
- Operating performance
- Maintenance cost/timing
- Raw material cost
- Insurance premiums/availability
- Vandalism

Typical project risks (cont.)

Macroeconomic

- Interest rates
- Inflation
- FX exposure
- Tax exposure

Revenue

- Output volume
- Usage
- Output price
- Toll levels
- Accidents
- Competition
- Force majeure

Protecting against risk

Support packages

- Construction
- Operation
- Equity bridge
- Standby equity

Contractual structure

- Flow down
- Direct Agreement/step-in

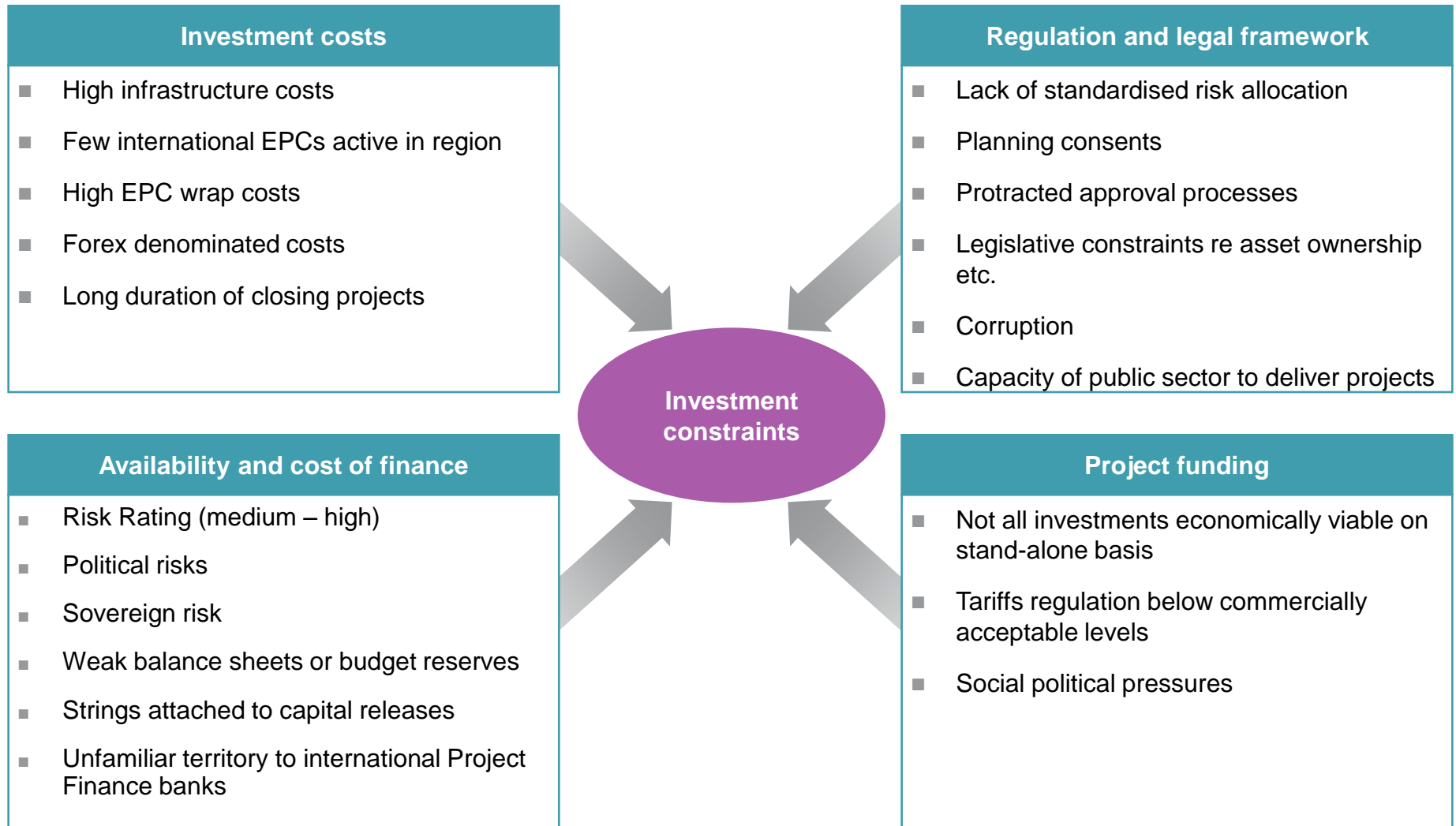
Reserving mechanisms

- Debt service/maintenance/change in law/insurance/tax

Hedging

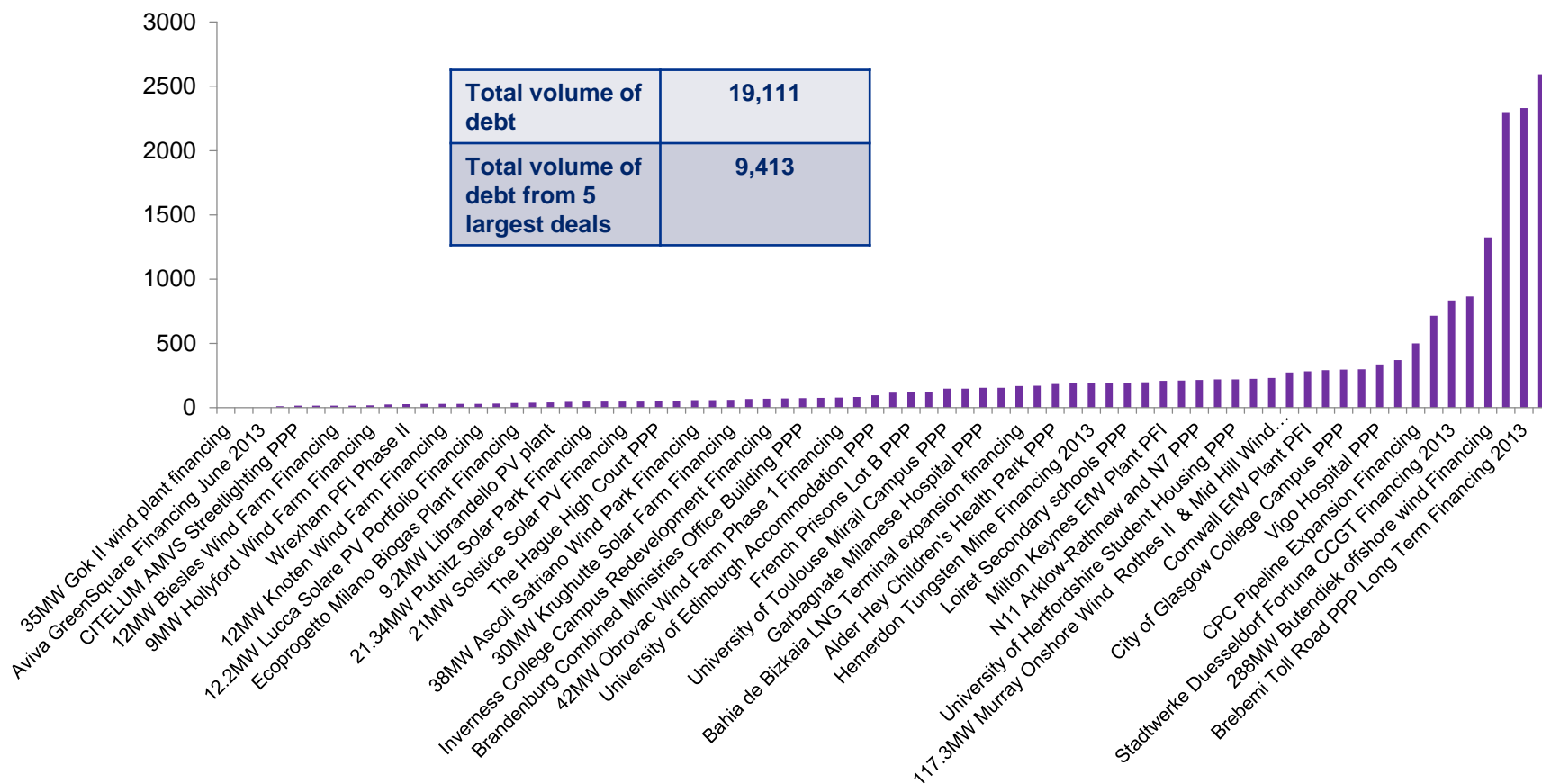
- Interest rates/foreign exchange/inflation

Constraints to investment

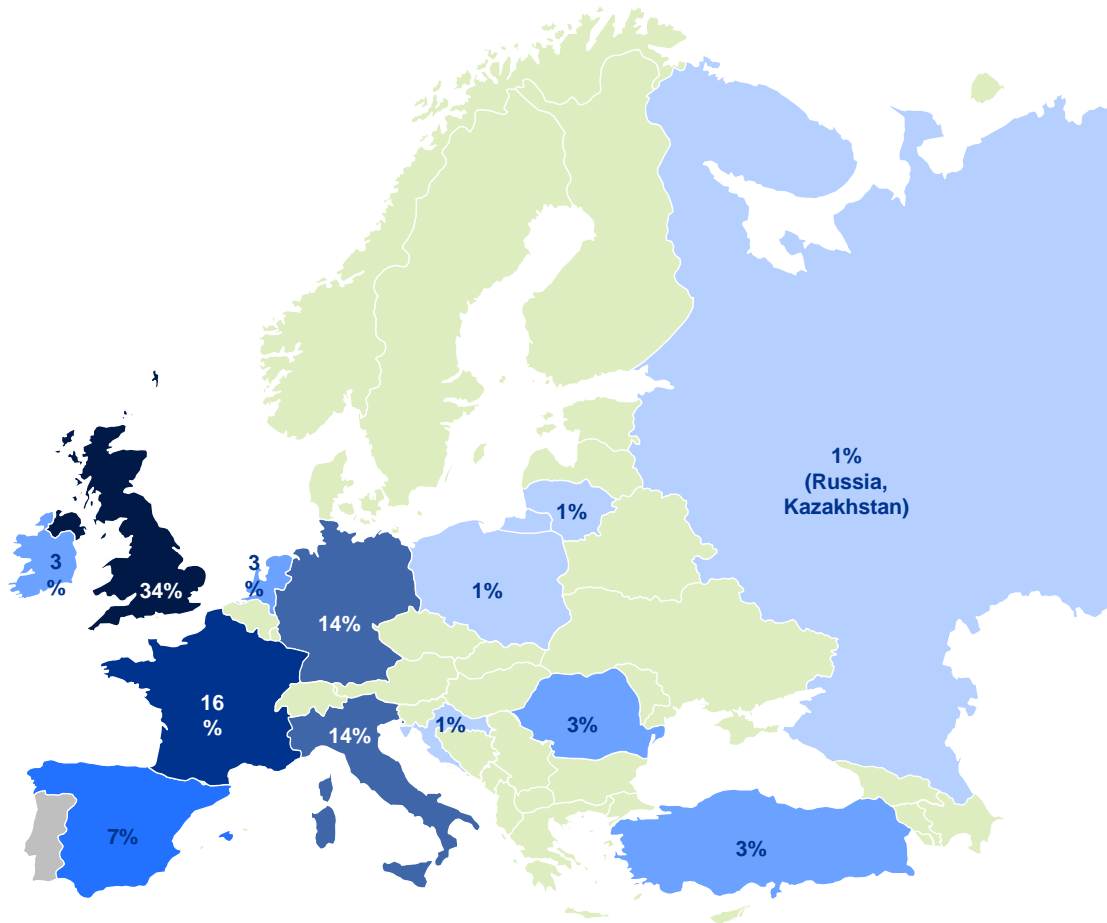


Closed project finance deals in Europe during 2013

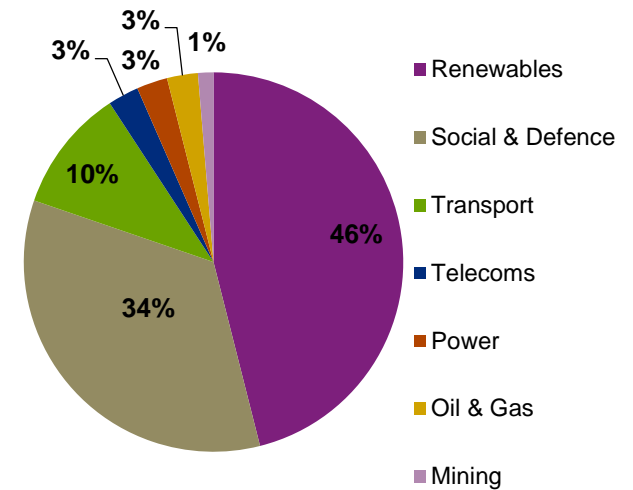
Total debt (USD million)



Geographic spread of closed project finance deals (by volume)



Project finance deals by sector



P3 Funding & Financing Framework

Key Drivers of Public-Private Partnerships

Driving the need

Public Sponsors facing numerous problems:

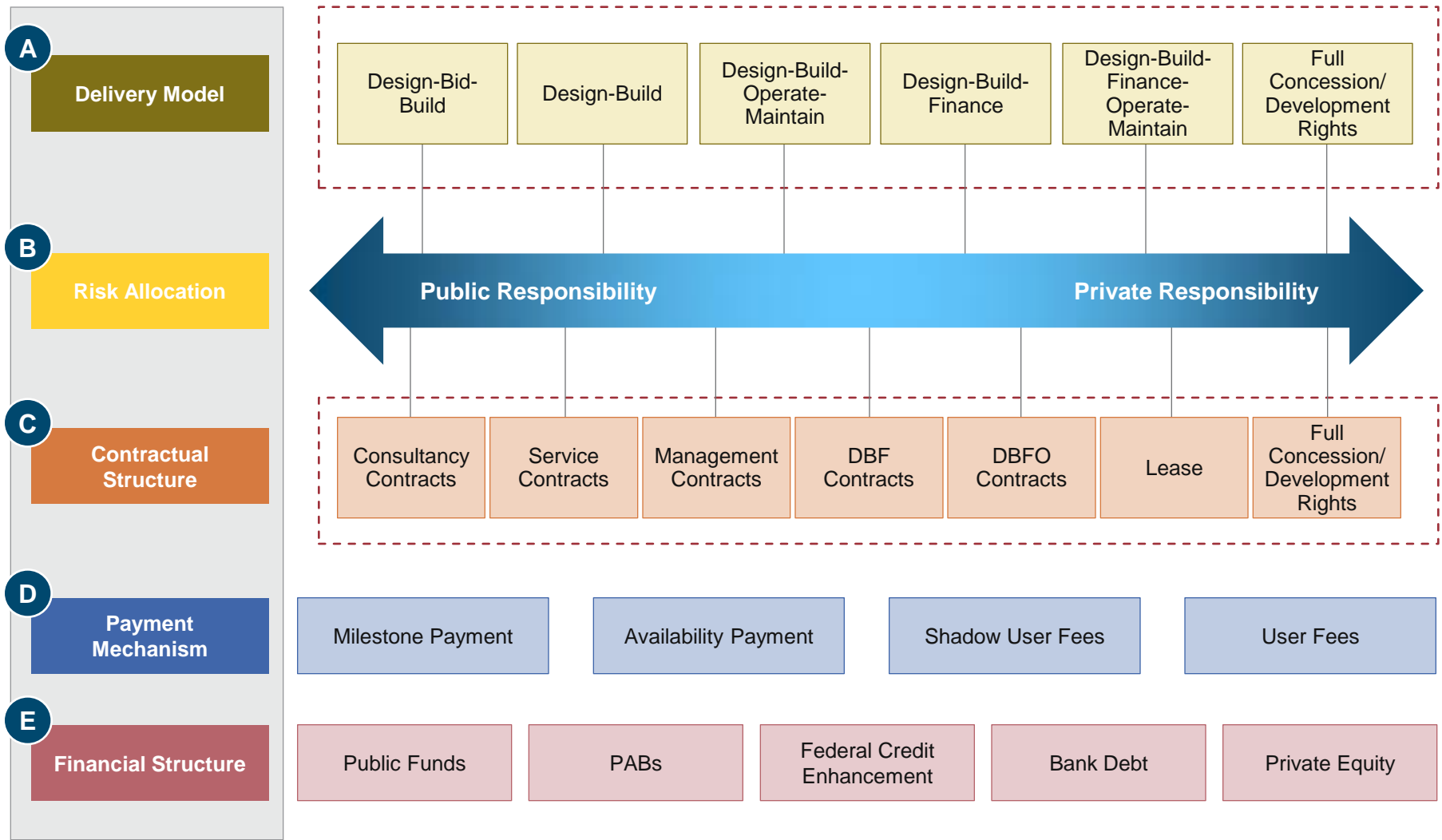
- Aging infrastructure
- Growing population in urban centers
- High level of services
- Construction costs increases
- Budgetary constraints:
 - Slower revenue growth
 - Resistance to tax increases
- Cost overruns and delays in traditional procurements
- Budget imbalances



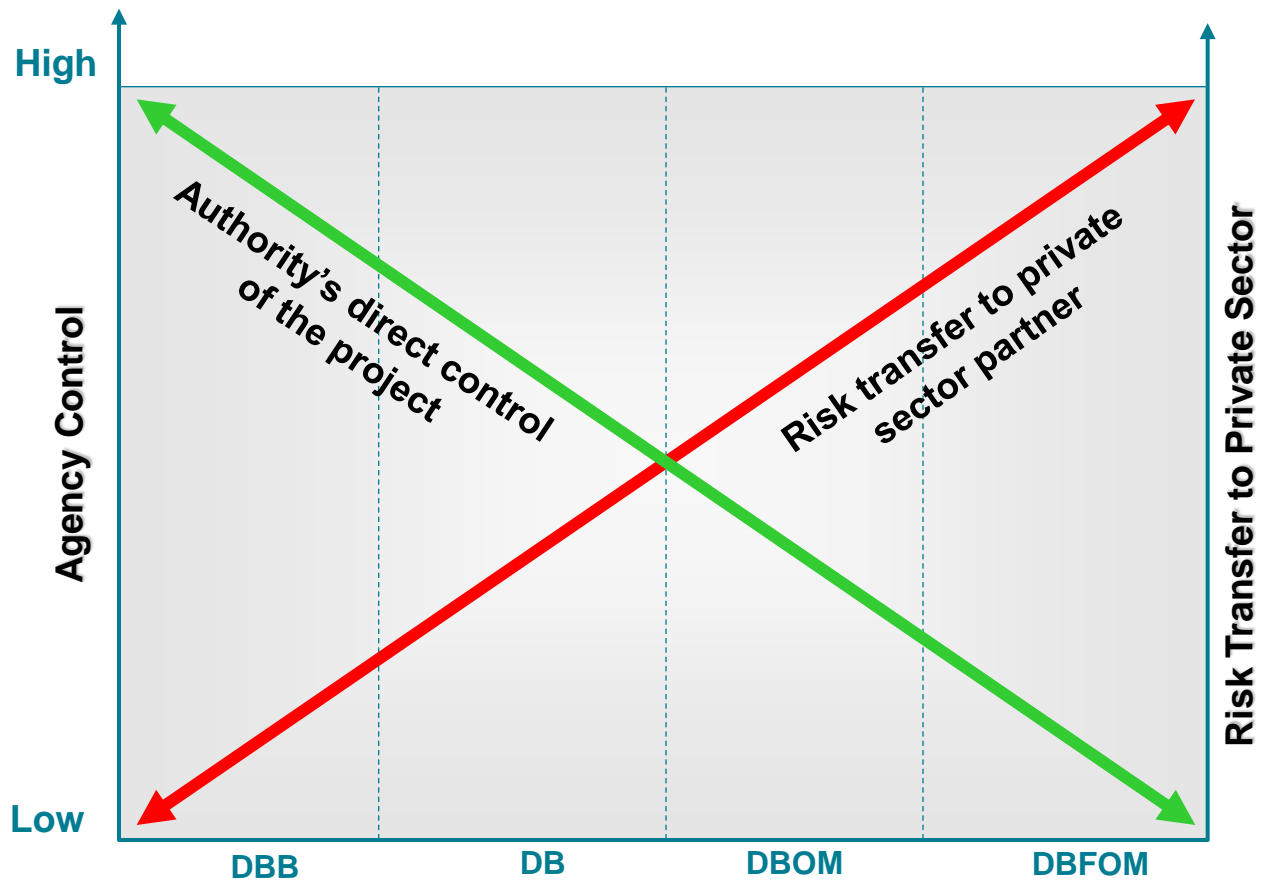
Meeting the need with Public-Private Partnerships

- Leveraging limited public funds to attract private capital
- Affordability
- Value for money (cost and time saving)
- Whole-life costing approach
- One tool in the box
- Output/outcome driven solution
- Risk allocation
- Innovation
- Competition
- Off-balance sheet financing

Project Delivery and Contracting Options



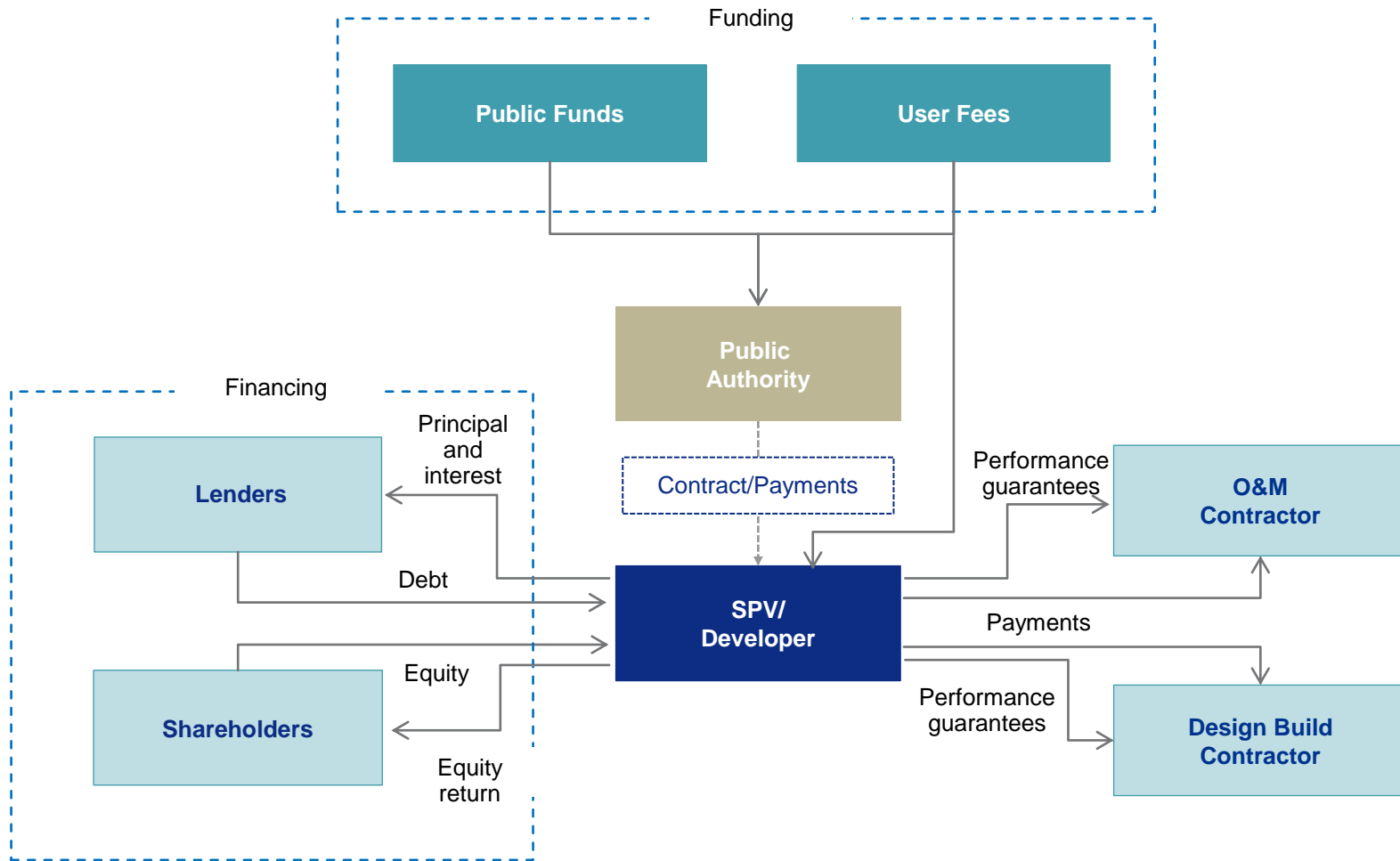
Risk Transfer



- Example Project Risks**
- Planning, design, engineering
 - Regulatory approvals and permits
 - Latent defects
 - Geotechnical / Site conditions
 - Hazardous substances
 - Financing risk
 - Project costs and schedule delays
 - Construction and materials
 - Construction defects
 - Contractor insolvency
 - Operations risk
 - Performance risk

Funding and Financing

Basic P3 deal structure



Funding versus financing

- **Funding** is the real challenge in PPP transactions
 - Infrastructure can be paid for by
 - The Government (using tax revenues), or
 - User charges
 - Ancillary income – real estate development, advertising etc. is not likely to be high and may distract from service delivery
- **Financing** models need to take into account
 - Domestic debt market
 - Credit rating of country and project

Funding (do not have to pay back)

In basic terms, there are three chief sources of funding/revenues available for public infrastructure projects. From the concessionaire's perspective, project revenues could include some combination of these sources of funding. Affordability and willingness to pay are some of the common challenges.

1) Public funds

- Grants (upfront capital contributions, etc.)
- Milestone payments
- Subsidies
- Availability payments
- Shadow tolls
- Minimum revenue guarantees
- Tax proceeds
 - Property tax assessments
 - Special developer assessments
 - Tax increment funding

2) User fees

- Tolls and tariffs (utility bills, toll roads)
- Passenger facility charges
- May be supplemented with public subsidy

3) Ancillary (third party) revenues

- Retail
- Advertising
- Development rights (land, air)
- Sponsorship

Affordability

PPP projects should provide services that are affordable to:

- Users of the services (tariffs)
- Government paying for the services (availability payments, subsidies)

- Affordability for users is assessed by willingness to pay for the specific services provided
- Affordability for Government is based of expected payments during life of project and budget assumptions during same period
- Determination of project costs and available budget should be as accurate as possible
- Collaboration with budget planning bodies is essential

If project is not affordable:

- For users → tariffs are too high and can result in:
 - Negative social impact if users don't have alternatives
 - Reduced benefits or even project failure if alternatives exist (ex. use of parallel road)
- For Government → available budget is not sufficient to honor commitments to private partner
- If project is not affordable, Government has several options:
 - Reducing the scope/quality of services
 - Abandon the project
 - Obtain additional financing from budget

Financing

- Once you identify the funding sources, the financing becomes much easier
- Financing will be attracted to well structured, commercially viable transactions
- Key considerations for long term financing are political risk and demand risk in transportation projects
- Government support is imperative – politically and commercially
- Local financing always remains critical to infrastructure investment
- Long term objective should be to develop a sustainable financing market using local and international banks/capital markets
- Government support to financing ie guarantees can be used where necessary (there are many models in use)

Financing (have to pay back)

Financing is done against the afore-mentioned funding streams (follow the cash waterfall), based on their credit profile. E.g. cash flows from an brownfield utility will have a much better credit profile than a greenfield highway with uncertain future cash flow profile. The cash flow waterfall defines the order of priority for project cash flows as established under the loan and financing documents.

Cash Waterfall

Gross Revenue

- Operating Costs

Net Operating Revenue

- Taxes and Regulatory Fees

Cash Available for Debt Service

- Debt Service Payments

Cash Available for Reserve Funds

- Reserve Fund Payments

Net Equity Cash Flow

Financing sources

- **Senior debt**
 - Bank Debt – maybe difficult to secure due to Basel II & III capital requirements
 - Project bonds – may face rating concerns
- **Concessionary finance**
 - State infrastructure banks
 - Credit programs
 - Development banks – maybe a viable avenue for Belarus during initial stages of developing its P3 program (EBRD, IFC, etc.)
- **Equity**
 - Public – government may take an ownership share in the project
 - Private – sponsor, strategic buyers equity, infrastructure funds

European bank market

- Many European banks have established infrastructure as a core sector and have asset allocation/budgets
- Generally banks giving mixed messages on what they can/can't do
- Previously major banks are now gone – Bol/Dexia/West LB
- Banks primarily focusing on home markets and key clients
- French banks have significantly reduced appetite which is slowly increasing
- Japanese banks very aggressive
- Long term amortising structures becoming less attractive
- pricing increasing to L+300bp with step-ups and cash sweeps
- return of project bond market?
- Bank portfolios beginning to enter market – who's buying and at what price?

Equity investors

Strategic buyers / Concessionaires

- Traditionally, sector operators, developers or contractors
- Benefit from sector expertise, which can enhance the VfM
- Long-term investment strategy
- Always take part in consortium (to control results)

Infrastructure Funds

- Equity funds focused on infrastructure investments
- Strong liquidity awaiting investment opportunities
- Lower equity returns than for financial sponsors
- Typically look to take part in a Consortium
- Medium to long-term investment
- Smaller investments than financial sponsors

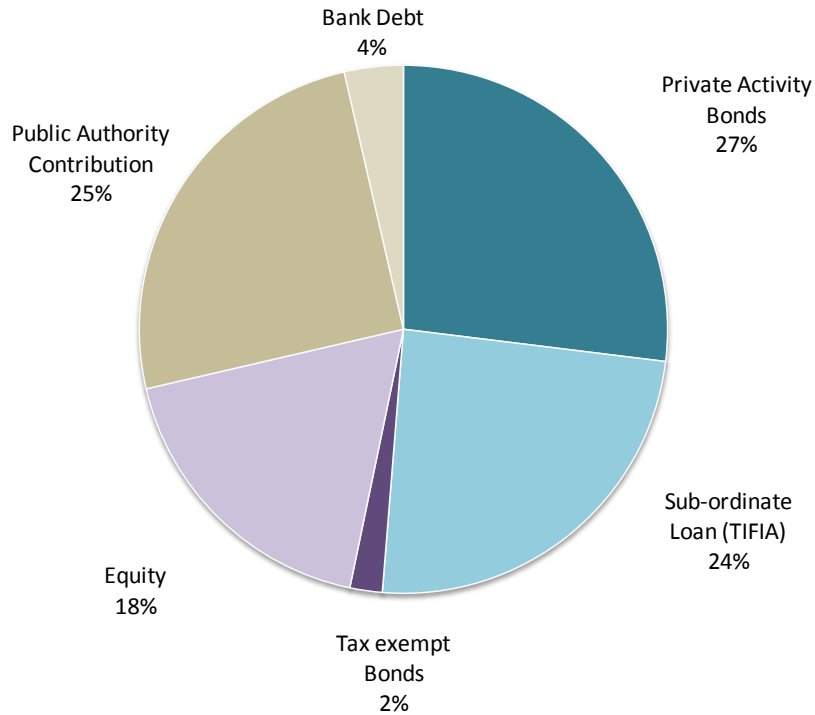
Financial Sponsors

- Equity firms with short exit strategies
- High equity returns may limit value-for-money
- Normally look for short-term investments with clear exit strategies
- Typically take part in a consortium

Equity (summary)

- Contractors still seeking to minimise capital into projects – utilities increasingly capital constrained
- Significant capacity in infrastructure funds
- Increasing interest from pension funds in direct investors following Australian/Canadian model
- ...but mismatch between projects supplied by Governments and demanded by investors
- many adverse to construction and significant operating risk + requirement of cash yield other than small number of experienced specialist funds
- Is there a mismatch between investors interests and structures on offer?
- Potential development of a secondary market in which projects promoted by traditional developers or Governments are sold, when mature, to financial investors

Overall Project Capital Structure



Capital Beltway I-495 (VA) (June 2008)
<ul style="list-style-type: none"> \$589 million PABs \$589 million TIFIA \$470 million VDOT grant \$350 million equity

North Tarrant Express (TX) (December 2009)
<ul style="list-style-type: none"> \$400 million PABs \$650 million TIFIA \$573 million TxDOT grant \$427 million equity

IH 635/LBJ (TX) (June 2010)
<ul style="list-style-type: none"> \$615 million PABs \$850 million TIFIA \$496 million TxDOT grant \$665 million equity

Midtown Tunnel (VA) (April 2012)
<ul style="list-style-type: none"> \$664 million PABs \$422 million TIFIA \$310 million VDOT grant \$272 million equity

Presidio Parkway (CA) (June 2012)
<ul style="list-style-type: none"> \$150 million PABs \$150 million TIFIA \$45 million equity

Long Beach Courthouse (CA) (December 2010)
<ul style="list-style-type: none"> \$442 million bank debt \$49 million equity

I-95 HOT/HOV Lanes (VA) (July 2012)
<ul style="list-style-type: none"> \$245 million PABs \$300 million TIFIA \$330 million equity \$64 million VDOT grant

Route 460 (VA) (December 2012)
<ul style="list-style-type: none"> \$903 million VDOT grant \$250 million Port Authority Grant \$243 million 460 tax-exempt bonds

Ohio River Bridges (IN) (March 2012)
<ul style="list-style-type: none"> \$640 million PABs \$82 million equity

New Developments in the PPP Market

- Hybrid PPP structures; i.e. where risk transfer is not driven by off balance sheet treatment
- Upfront capital contributions
- Improved contract management and achievement of operational savings
- The need to design flexibility into contractual mechanisms
- Public sector equity
- Greater intervention by Governments in debt provision
- More variety in multilateral support mechanisms
- Joint ventures

The Current Financing Market

Bank Finance

Long Term Debt	Simple structures; experienced lenders
Soft Mini – Perm	Greater amount of active banks
Short Term Debt / Hard Mini-Perm	Greater amount of active banks but Sponsors take refinancing risk

Institutional Investors

Private Placement	Pricing similar to bank debt, long term tenor. Investors with resource and experience to analyse risk in short supply
Public Bond Offering	Rating required

Credit Enhancement

UK Government Guarantees	Available throughout the term of the project, flexible approach
EU Project Bond (PBI)	Available throughout the term of the project, flexible approach
Assured Guaranty –monoline wrap	Investor acceptance post financial crisis
Pan European Bank to Bond Loan Equitisation (PEBBLE)	Alternative credit-enhancement proposition

How will infrastructure be financed moving forward?

- Banks are not the natural home of long-term infrastructure finance – exit strategy still needs to be developed
- Government may revert or continue to fund infrastructure directly and look to sell assets on completion
- Alternative models:
 - government backed funding vehicles funded in capital markets
 - government takes refinancing risk as bank debt tenor shortens
 - involvement of institutional investors remains the holy grail

So where are we...

- Lack of deal flow is masking the true market conditions
- Currently financing is not an issue for projects but Sponsors need to consider a wider range of options
- Current deal flow is not consistent with the forecast European infrastructure demand
- Scenario planning:
 - Basle III really hits banks – we need a liquidity crisis to be the mother of invention (definitely not a Sovereign debt crisis!)
 - Institutional investors increase appetite for debt, EIB PFI closes more deals and we have a true alternative to bank debt
 - Bank market recovers sufficiently and project bonds never really gain momentum
 - State funding becomes the default funding option

Financing summary

- If you sort out the funding the financing becomes much easier
- Financing will be attracted to well structured, commercially viable transactions
- Key considerations for long term financing are political risk and demand risk in transportation projects
- Government support is imperative – politically and commercially
- In near term, Development Finance Institutions (DFI) financing remains critical to infrastructure investment
- Long term objective should be to develop a sustainable financing market using local and international banks/capital markets
- DFIs can play a key role by developing a wider range of products i.e. guarantees, first loss tranche financing etc. to encourage private finance

Payment Mechanisms

Compensation

- The private partner must be compensated for assuming risks and providing services
- The greater the risks assumed by the Private Partners, the higher the required return in investment.
- Cash flow requirements from a project are greater than simply “cost recovery”, which is why some criticize and oppose PPP.
- Revenue structuring is one of the key elements in transaction design and the primary determinant of “bankability.”
- The payment mechanism is one of the most important tools for risk allocation.
- Payment mechanism reflects both the levels of service required, and the most cost-effective transfer of risk to the private sector.
- The payment mechanism should give the Contractor an incentive to perform well and should provide the Contracting Authority with remedies in the event that the Contractor does not meet its obligations.

PPP RISK-REWARD CURVE



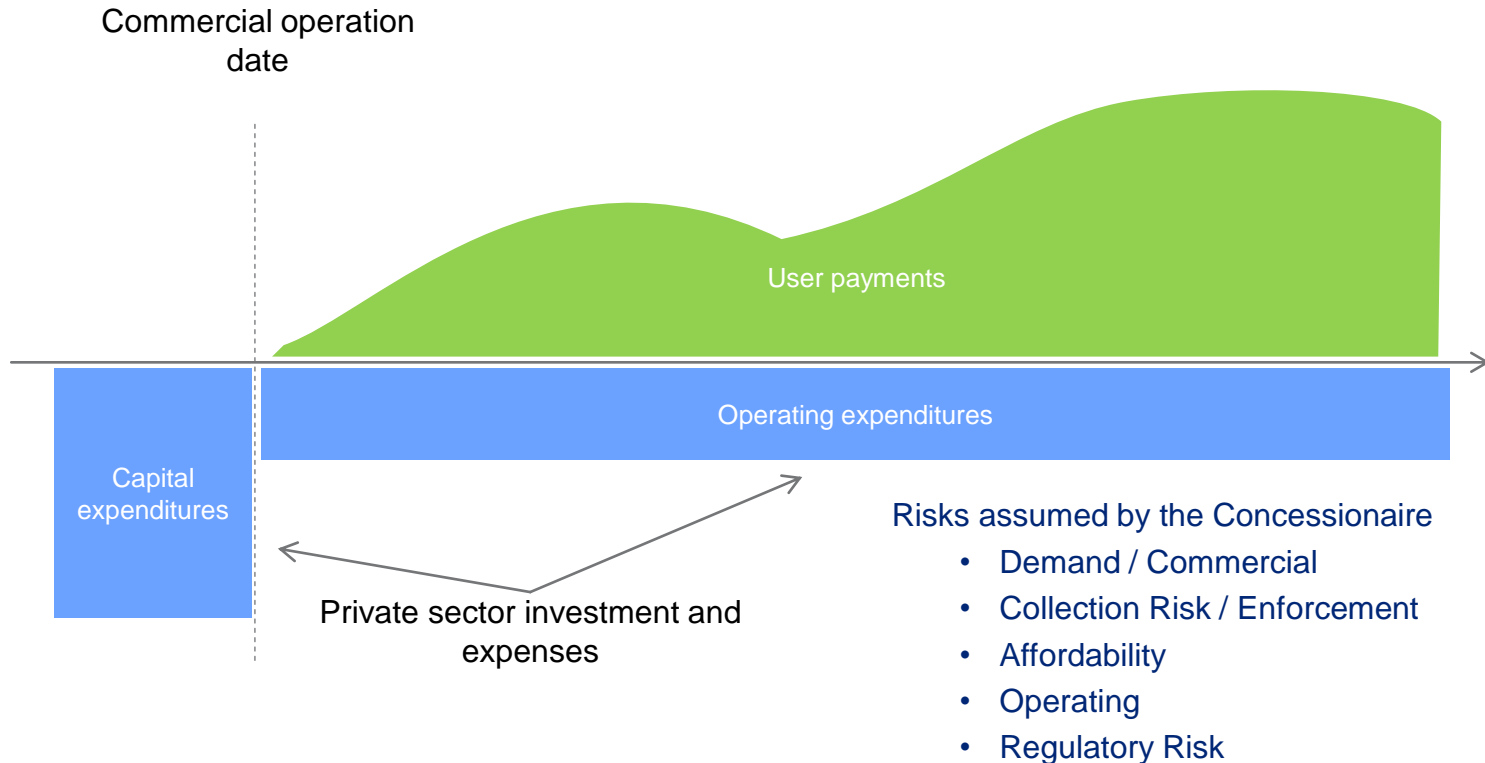
Payment Mechanisms

Type	User	Application	Risk Considerations	Comment
User Charges	Customers	Toll roads, ports, airports, water, electricity, etc.	Demand risk, affordability issues, collection risks, enforceability, cost-recovery	<ul style="list-style-type: none"> • Need for clear economic regulation. • Risks can be mitigated with guarantee structures.
Usage Payments	Public entity	Shadow tolls	Demand risk, performance risk, credit risk of paying agent.	<ul style="list-style-type: none"> • Need for usage, availability, and performance monitoring
Off-take payments	Utility	Utilities (energy, water, etc.)	Availability and performance risks, credit risk of payment agent	<ul style="list-style-type: none"> • Need for detailed off-take contracts • Price regulations
Availability Payments	Public entity	PFI, infrastructure assets	Availability risk, credit risk of paying agent.	<ul style="list-style-type: none"> • Need for detailed availability criteria.
Performance Payments	Public entity	PFI, infrastructure assets, facilities management	Performance risk, credit risk of paying agent	<ul style="list-style-type: none"> • Need for detailed availability criteria
Grants & Guarantees	Public entity	All infrastructure assets	Mechanisms to mitigate risks	<ul style="list-style-type: none"> • Government capital payments or contributions • Minimum revenue guarantees
Ancillary Revenue	Customers	Commercial activities	Commercial risks	<ul style="list-style-type: none"> • Typically subject to minimal or no regulation

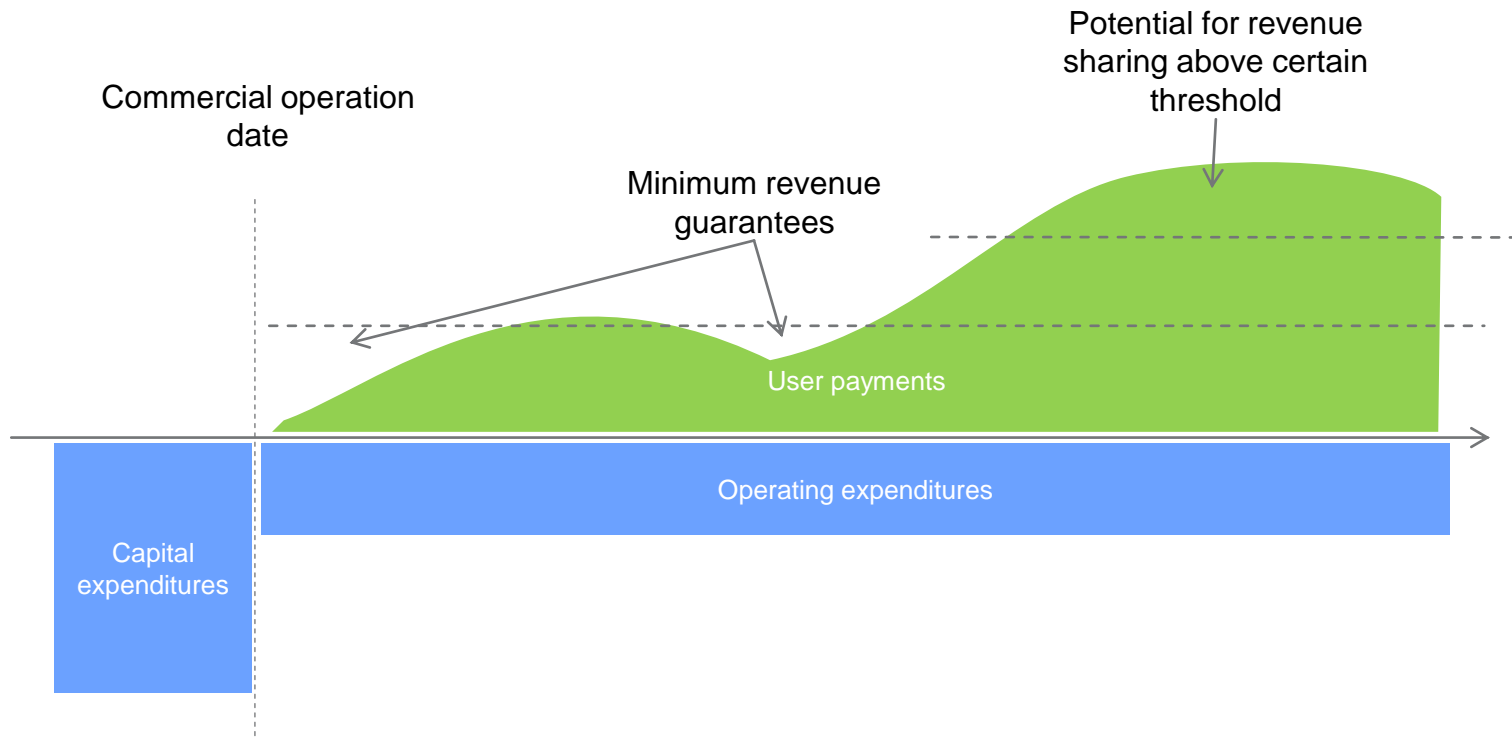
Payment Mechanisms – User pay

- Revenue stream based on usage can allow for full cost recovery (might require government grants or subsidies in Belarus)
- If demand risks or price sensitivity are too high, the government can mitigate or assume risks through “shadow tolls”, minimum revenue guarantees, economic contributions, etc.
- Under user-pay model, the private sector designs, builds, finances, operates and maintains an infrastructure asset for the life of the contract and receives compensation directly from the users of the facility at pre-established and regulated prices.
- Opportunities for ancillary/third-party revenues
- Usage-pay PPP present some common risks, such as:
 - Demand / Commercial
 - Collection Risk / Enforcement
 - Affordability
 - Regulatory Risk
- Government subsidies and guarantees can be used to minimize demand risk and affordability issues:
 - Minimum revenue guarantees

Payment Mechanisms – User pay



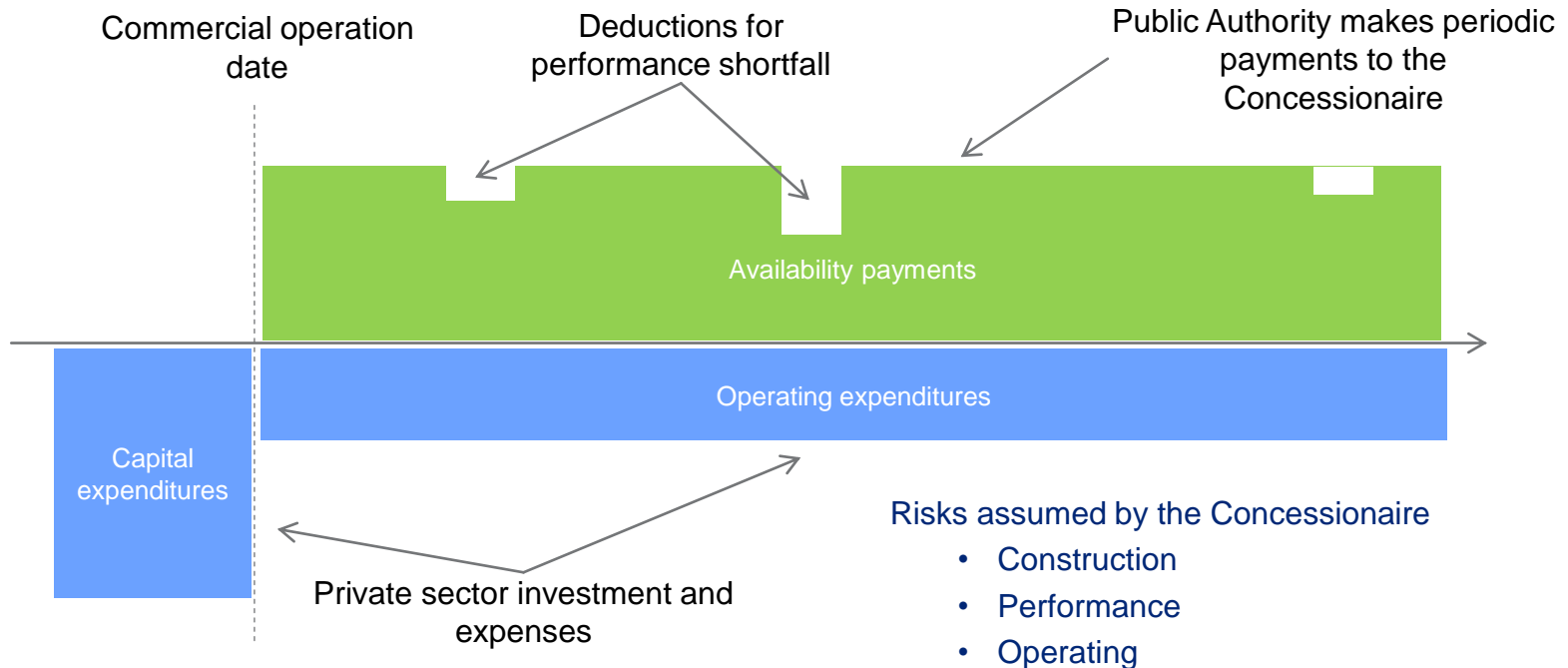
Payment Mechanisms – Minimum Revenue Guarantees (MRG)



- MRG reduces the risk to the private partner of lower than forecasted revenue
- Government contribution can be significant, especially given frequently over-optimistic traffic forecasts
- Affordability calculation for Government should include sensitivity analysis on lower revenue's impact on Government payments
- Affordability calculation for Government is extremely sensitive to quality of demand forecasts and user willingness to pay

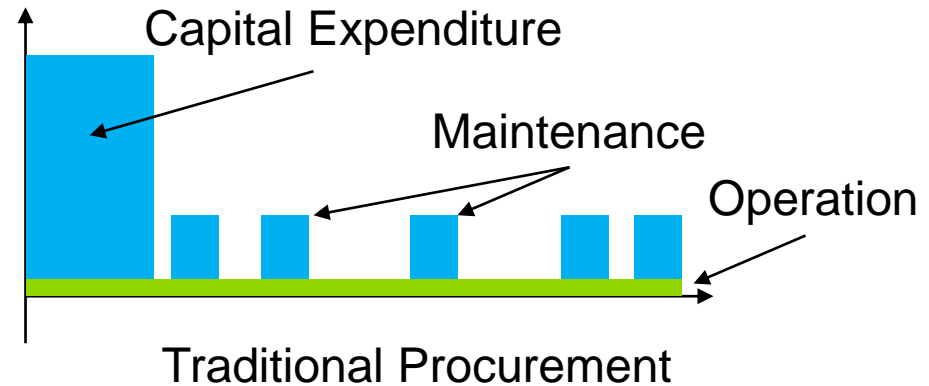
Payment Mechanisms – Availability Payments

- With some PPP (such as energy and social sector PPP), the private sector is compensated through fees paid by public authorities (independent of usage)
- The payment amount is calculated to fit investor costs
- Payments are adjusted according to availability and service levels



Payment Mechanisms – Availability Payments

- From a budget perspective, availability payments replace capital expenditure with recurring payments
- Moreover, demand risk is transferred to Government, bearing the cost of any downturn in usage/demand
- Affordability assessment should include future payments and take into consideration the net cost of lower than expected demand/usage

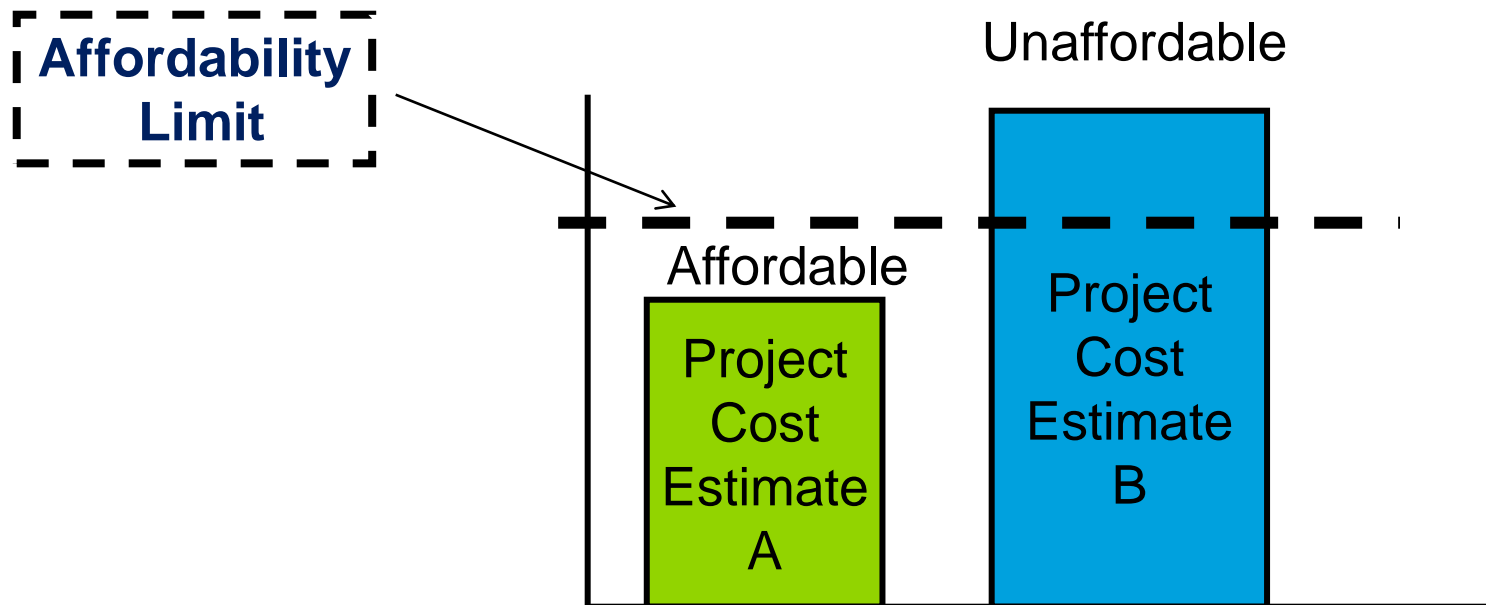


Value for Money

- Value for Money (VfM) refers to the marginal economic and social benefit derived from utilizing PPP instead of the purely public provision of infrastructure and services.
- Formal evaluation ought to be used to assist in assessment of whether bids received from the private sector offer better VfM than government procurement
- The calculation of VfM does not only refer to the price or cost of goods or services, but also reflects the quality, effectiveness, timeliness of implementation, risks, and other factors which influence the determination of the best economic value from amongst multiple options.
- Value for Money is calculated on the basis of Net Present Value (NPV) or Economic Internal Rate of Return (EIRR) of an asset delivered using PPP relative to that of 100% public sector provision of the same asset

Value for Money Objectives

1. To establish that the public investment project is affordable to the Public Authority – is there enough money in the relevant budget(s)?
2. To establish whether a traditional procurement or a PPP procurement offers the best Value for Money
3. To recommend / confirm best option to Public Authority (and serve as record of decision for future audit)



Value for Money

Public authorities conduct VfM analysis to select delivery model

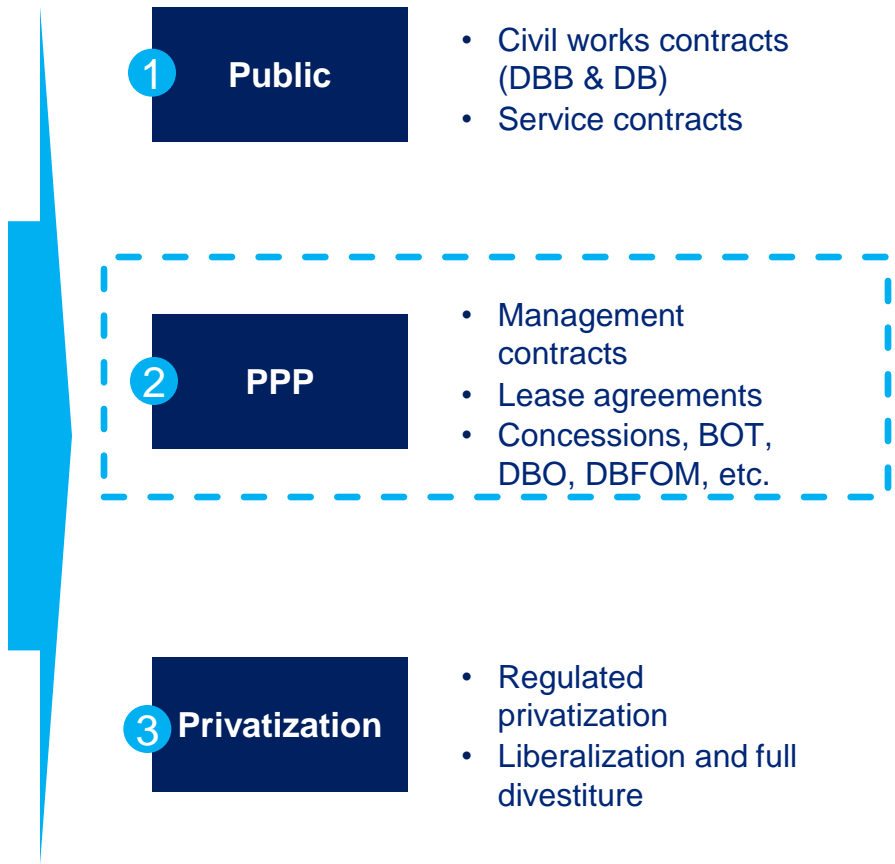
Value for money analysis needs to consider both costs and benefits of the various delivery mechanisms

Costs	Benefit
<ul style="list-style-type: none"> • Efficiency in investment, operations, and maintenance (PPP advantage) • Financing, transaction, and oversight costs (PPP disadvantage) 	<ul style="list-style-type: none"> • Life-cycle cost savings due to bundling of design, build, finance, operate, and maintain project phases • Accelerated delivery • Sometimes the only way to deliver the project due to public sector constraints

Outcome of value for money analysis typically depends on a number of factors

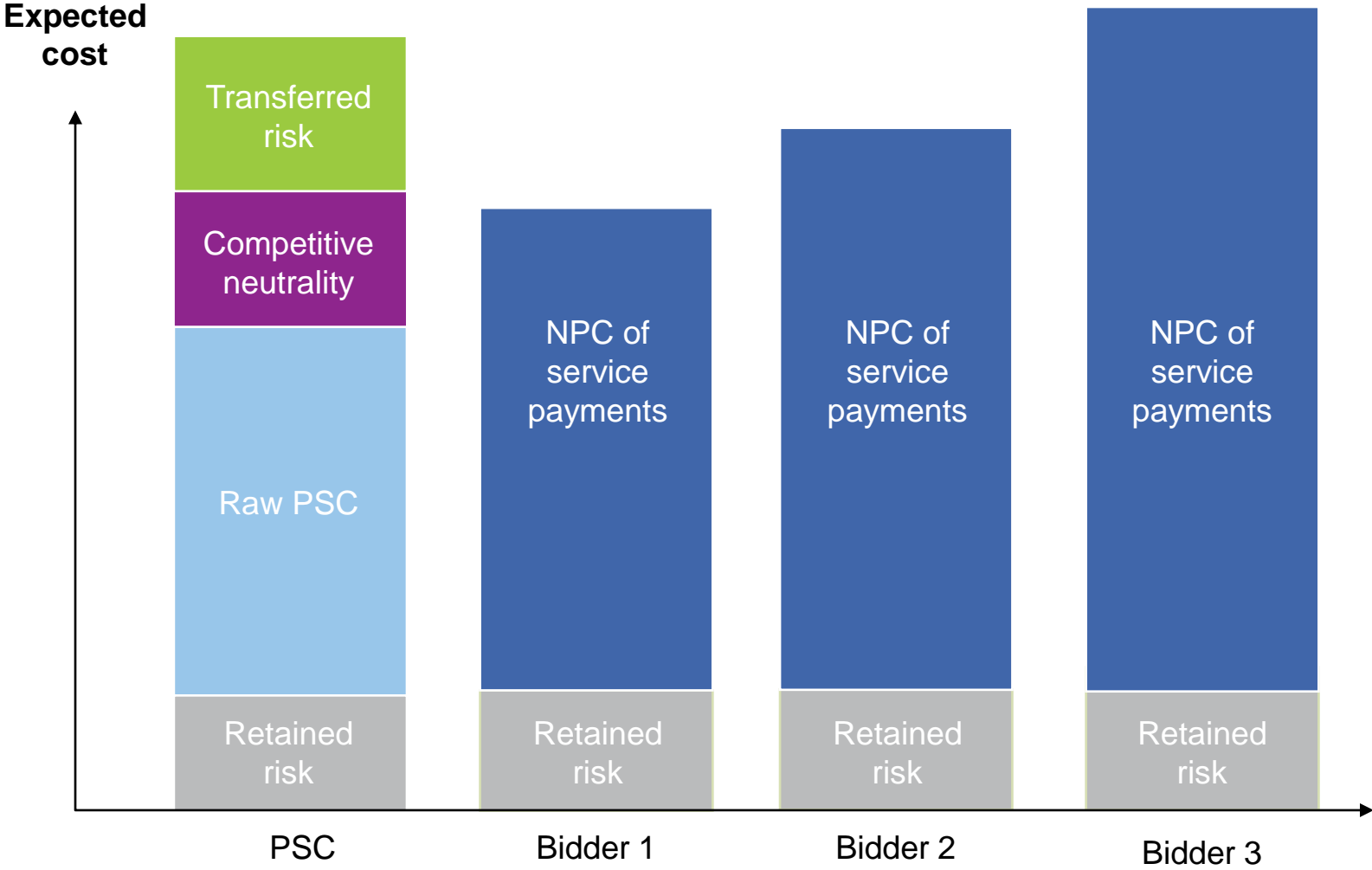
- Size of capital expenditure involved
- Project size relative to transaction costs
- Design/implementation expertise of the private sector
- Feasibility of risk identification and allocation
- Specification of service needs as outputs
- Possibility to estimate long-term asset costs
- Stability of technological aspects

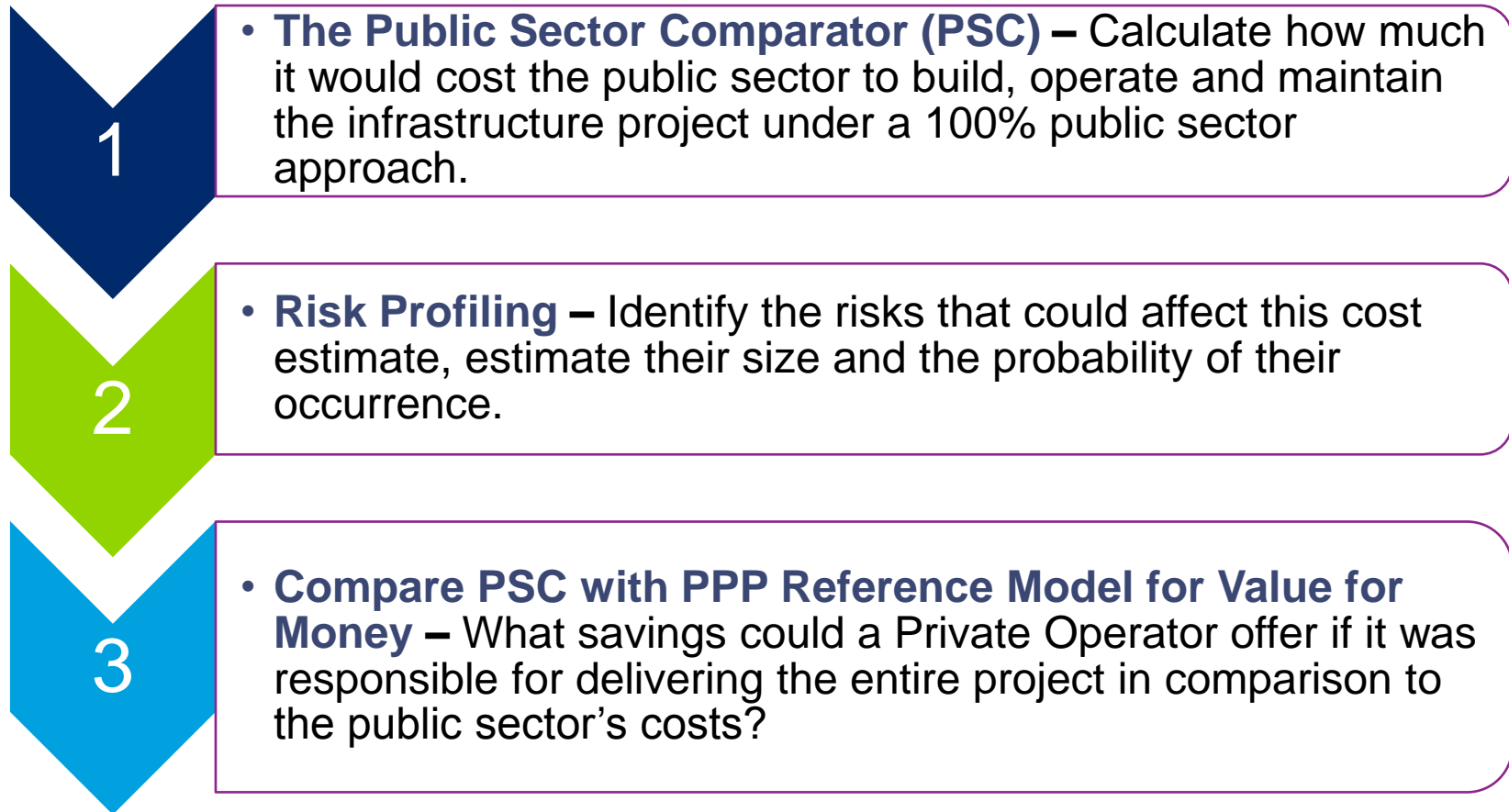
Possible options include public, P3, and private delivery



A P3 project yields value for money if it delivers net positive economic gain greater than that of any alternative delivery mechanism, adjusted for risks an

Value for money assessment





Public Sector Comparator

- The PSC is the Public Sector's own estimate – represented in Net Present Value terms - of how much money it would cost to provide the required infrastructure based service using traditional procurement, operating and maintenance contracts.
- PSC serves as baseline or reference case for comparing other options

Public Sector Comparator

Estimate **cost** / **income** elements over the project Life Cycle

Planning

- Pre Feasibility
- Feasibility
- Permissions
- Detailed Design and Costing

Procurement

- Pre Qualification
- Bidding and Evaluation
- Selection
- Negotiation

Contracting

- Turn Key Construction Contract
- Construction to design specification
- Other contracts (supervision,

Finance

- Budget
- Public Sector Borrowing

Construction

- Land acquisition
- Construction Cost

Operation

- Service Contracts
- Depot, Equipment and Staffing

Maintenance

- Whole life maintenance
- Maintenance contracts

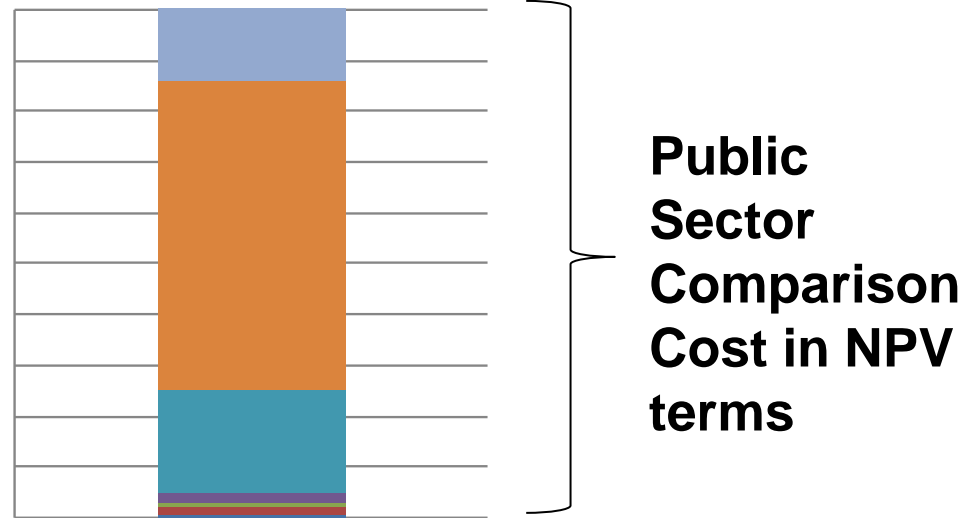
Asset Operating Income

- Collections / Losses or subsidies

Public Sector Comparator

- Costs occur over future years but we need a single number with a value today for an easy and meaningful comparison. We therefore use NPV (i.e. Present Cost)

**Government's
Affordability Limit**



Public Sector Comparator

- Ask for Advice – ask experienced people in Ministries for data from similar projects in the same sector; ask transaction advisors / consultants
- Sensible Costing (i.e. estimates of costs should be accurate and detailed)
- Beware Optimism Bias – Many public sector estimates of costs, completion times and performance levels are too optimistic

Table 3.2: Time and Cost Overruns		
	Conventional Procurement	PFI
Constructed on Time	30%	76%
Constructed to Budget	27%	78%
<i>Source: NAO:PFI Construction Performance</i>		

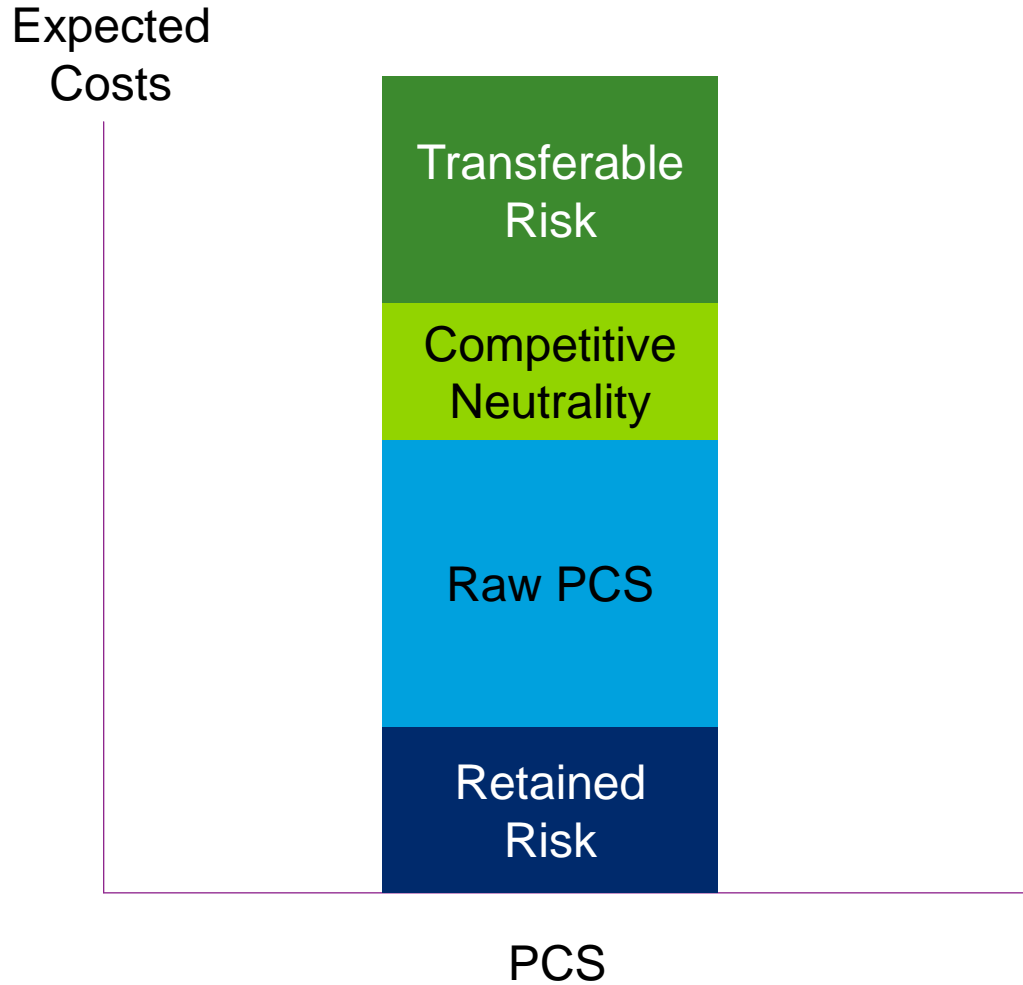
Public Sector Comparator

- Use established public sector discount rate when calculating NPV for these costs
- Use methodical & consistent analysis
- Record assumptions within the model. (Subsequent PSC analyses may be required based upon new, changed or more specific assumptions.)
- PSC models are a formal record to justify a public infrastructure delivery choice when audited
- PSCs can be used to negotiate internally and externally.

$$\text{PSC} = \text{Raw PSC} + \text{Competitive Neutrality} + \text{Transferable Risk} + \text{Retained Risk}$$

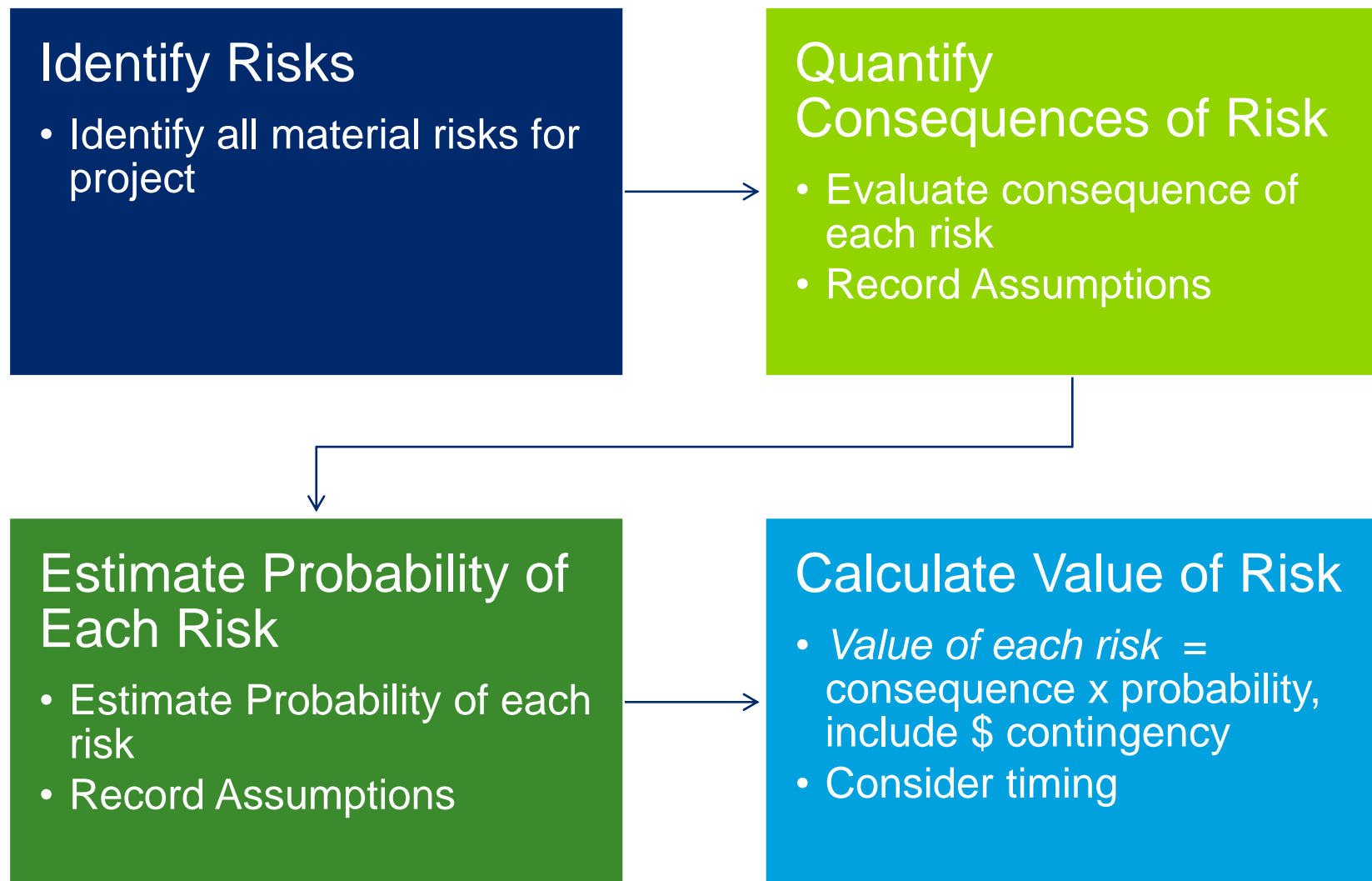
- Raw PSC: government's base case
- Competitive Neutrality adjustments remove any net competitive advantages that accrue to a government
- The value of Transferable Risk to government needs to be included to allow for a comparison
- Any risk not to be transferred to a bidder under a PPP is Retained by government

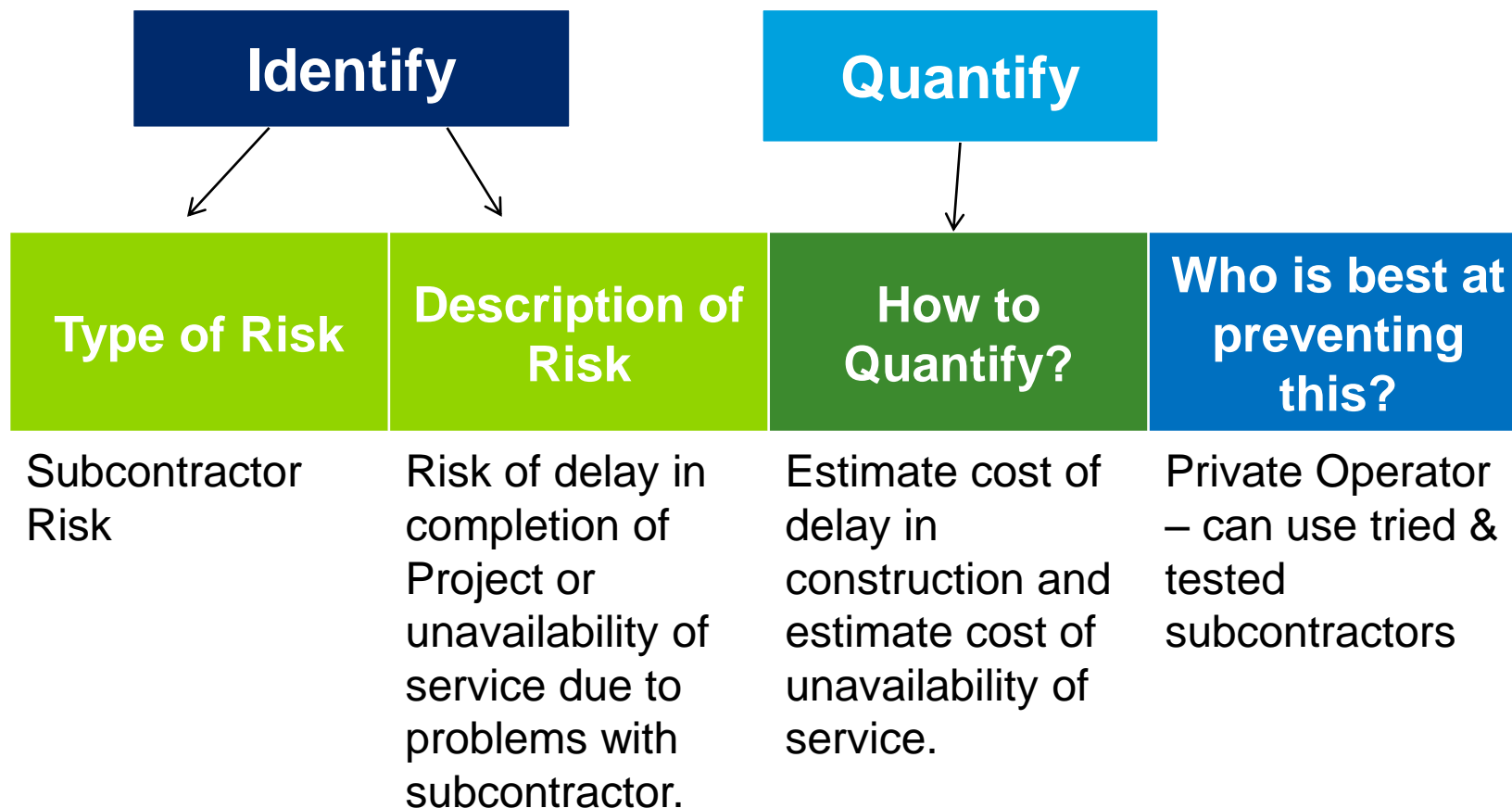
Public Sector Comparator



Risk profiling

- Governments are not good at identifying, analyzing and managing risks in public infrastructure projects.
- Public infrastructure projects usually take longer to complete and cost more to operate than expected.
- Additionally, assets are not properly maintained and they cost more to rehabilitate and renew than expected.
- Risk Profiling identifies and analyzes these and other relevant risks to realistically estimate their cost in \$ terms.
- By identifying and valuing these risks, a more accurate estimate of the likely cost of the public infrastructure project to the government can be made.
- Risk Profiling also allows analysts to select specific risks that could be better managed by the private sector, providing more “Value for Money”





Estimate probability

- Estimating likelihood that a given risk will occur enables you to determine how much a public infrastructure project is exposed to a specific risk event.
- The probability level is expressed as a percentage (%) of a specific risk event occurring. Note that this process is not a precise science:
- Some probabilities can be determined from known historical statistics (e.g. likelihood of adverse weather disrupting construction)
- Some are speculative & not provable but there are expert forecasts available (e.g. probability of oil prices > \$120/barrel, or exchange rates)
- Some can be derived from historical experience but need seasoned judgment & outside expertise to assess useful probability levels

Calculate value of risk

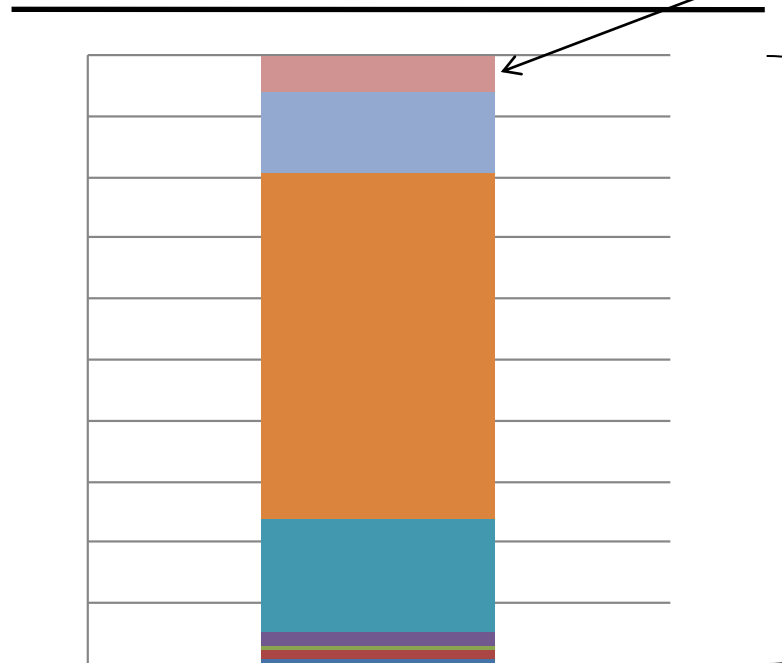
- Multiply estimated size of each risk's impact by estimated probability to produce a value for each risk
- This is an additional cost to the baseline PSC
- Adding a value of risk to the PSC provides a more accurate estimation of the actual likely full costs of the project. This also indicates which risks might then be selected for transfer to a Private Operator to provide better VfM for public funds
- Also consider timing – in which year during the project lifecycle is the risk likely to occur?

- Project risks do not disappear because the Private Operator is providing the service.
- However, the same risks are typically less expensive under private sector management.
- This is because risk is generally managed better by Private Operators, because of:
 - Benefits of economies of scale and familiarity generated by integrating the design, building, financing and operation of assets
 - Focus on managing for service delivery
 - Innovation
 - Managerial expertise.

Calculate value of risk

**Government's
Affordability
Limit**

**Estimated
Cost of Risk**



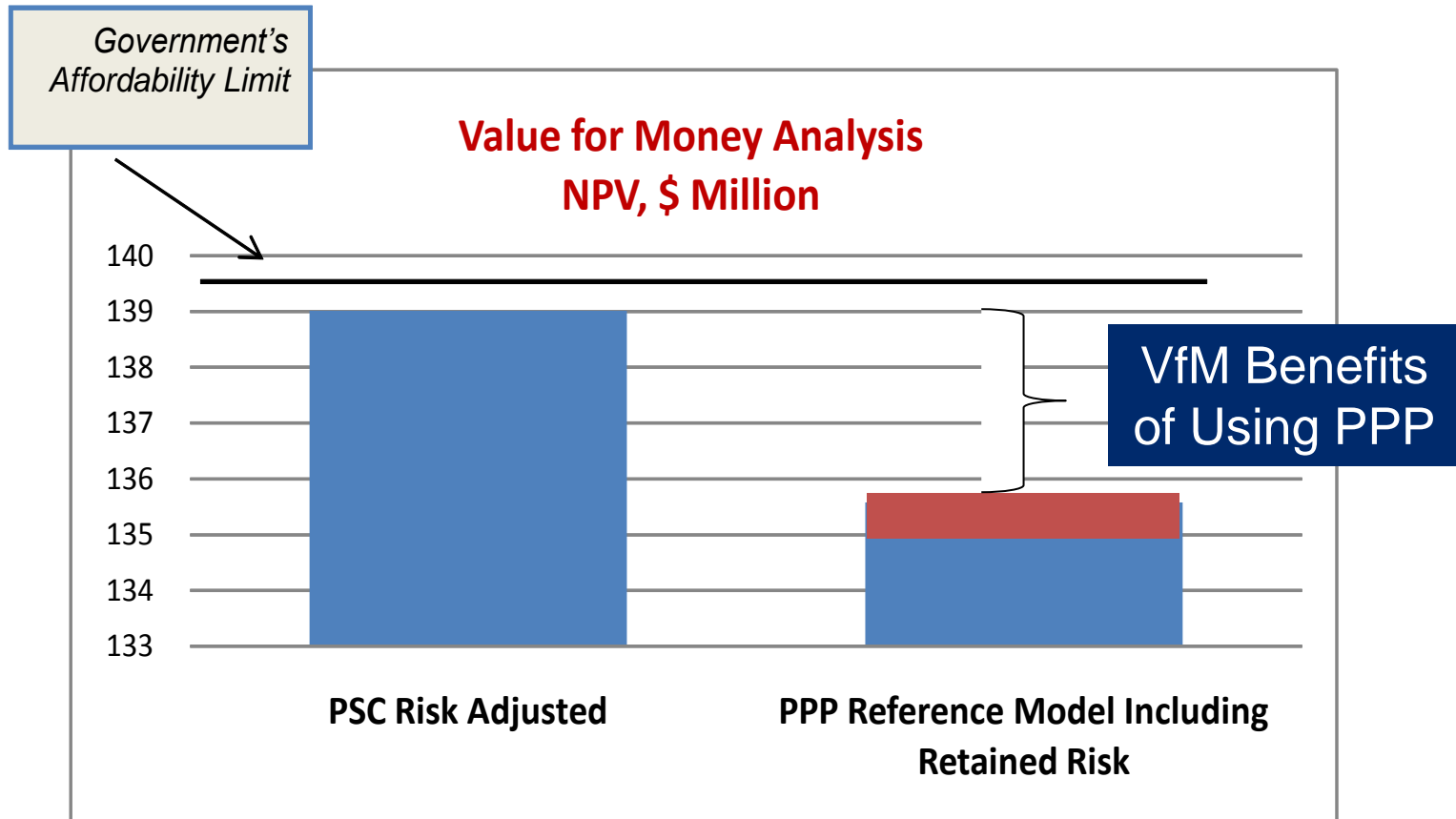
**Risk
Adjusted
Public
Sector
Comparison
Cost, in
NPV terms**

- Estimated Cost of Risk
- Maintenance
- Operation
- Construction
- Finance
- Contracting
- Procurement
- Planning

Value for Money Analysis

- Comparing the NPV of the risk-adjusted PSC model with the NPV of the risk adjusted PPP reference model indicates whether service delivery by government or by a Private Operator gives best Value for Money.
- The PPP reference model must be developed using the identical output specifications as those used in the PSC model, but technically and financially it is very different.
- The analyst must have the necessary expertise, market knowledge and experience to construct a market-related PPP reference model.

Value for Money



Contingent liabilities

Institutional investor market

- Credit enhancement is the only practical way to deliver the liquidity required although this can be structured in many ways
- Project rating needs to be at BBB+ and above
- EIB Project Bond Initiative gaining momentum – Castor refinancing pilot project is closed and product being offered on PPP deals i.e. Belgium/Germany but still to be used
- Increasing number of debt funds showing interest in debt but generally for operational projects
- UK using Government Guarantees aimed at easy access to financing – key link to institutional investors?
- Banks trying to develop their own products to connect to funds – fight for survival

Credit Enhancements

- Credit enhancements and guarantees aim to facilitate investment in infrastructure projects by improving the ability of the borrower to service senior debt, particularly during the initial operating period or “ramp-up” phase of a project.
- These financial instruments can substantially enhance the credit quality of senior credit facilities, thereby encouraging a reduction of risk margins.
- Credit enhancements are designed principally to improve the credit worthiness of projects by protecting senior debt against specified risks.
- Credit enhancements can also include smart subsidies designed to address affordability issues and viability gap funding.

Examples of Credit Enhancements

- Standby liquidity facilities / Minimum revenue guarantees
- Maturity payment guarantees
- Contingent mezzanine debt
- Local government loan guarantees
- Partial Risk Guarantees
- Viability gap funding / smart subsidies

Government guarantees

- Government guarantees reduce the financial costs of risks faced by the private sector and/or by other public sector entities, should they materialize. The use of government guarantees in PPPs and elsewhere raises some important issues related to the apportionment of risk, fiscal transparency, incentives, and governance, among others.
- A government guarantee legally binds a government to take on an obligation if a clearly specified uncertain event should occur. Thus with a loan guarantee, the government is committed to making loan repayments on behalf of a non-sovereign borrower should that borrower default.
- Guarantees are part of a broader set of obligations on a government that give rise to explicit contingent liabilities.

Contingent liabilities

- Guarantees are part of a broader set of obligations on a government that give rise to explicit contingent liabilities. Implicit contingent liabilities arise when there is an expectation that the government will take on an obligation despite the absence of a contractual or policy commitment to do so.
- Such an expectation is usually based on past or common government practices, such as providing relief in the event of uninsured natural disasters and bailing out public enterprises, public financial institutions, subnational governments, or strategically important private firms that get into financial difficulties.
- A defining characteristic of guarantees and other contingent liabilities is uncertainty about whether the government will have to pay and, if so, about the timing and amount of spending.

Contingent liabilities

- Contingent liabilities create management problems for governments. They have a cost, but the cost is uncertain, so judging whether it is worth incurring is difficult.
- And a contingent liability seldom requires budgetary approval or recognition in the government's accounts, so a government may prefer contingent liabilities to other obligations. It is well known that PPPs create contingent liabilities, and the IMF, the World Bank, and others often warn of the risks.
- Management problems also arise once a government has incurred a contingent liability. Projects need to be monitored so that things can be done to reduce risks if possible. Spending must sometimes be forecast, despite the difficulty.

Case studies – South Africa, Australia, Chile

- All three countries rely on careful project preparation, competitive bidding, and review of proposed PPPs by a specialized unit in the ministry of finance.
- South Africa, for example, requires that PPP proposals be approved by the Treasury at four stages before a contract is signed, and the reports that seek the Treasury's approval discuss contingent liabilities. A PPP manual and a set of standard contractual terms guide the development of the PPPs and thus limit contingent liabilities.
- Chile is notable for measuring and valuing contingent liabilities associated with revenue (and previously exchange-rate) guarantees for toll-road and airport concessions, and for publishing the results of the valuation every year.
- Australian governments are notable for restricting their risk bearing in recent projects to a narrow set of risks that they can control, thus minimizing their contingent liabilities. They also publish PPP contracts and prepare financial reports according to International Financial Reporting Standards (IFRS), which reduces the temptation to use PPPs to disguise fiscal costs.

Case studies – South Africa, Australia, Chile

- Cost-benefit analysis should be used to select projects and value-for money analysis should be used to choose between PPPs and public finance.
- The costs and risks of contingent liabilities should be quantified.
- PPPs should be approved by the cabinet, the minister of finance, or some other body in charge of future spending. The ministry of finance should review proposed PPPs.
- Governments should bear only those risks that they can best manage, which are generally those that they can control or at least influence.
- Modern accrual-accounting standards should be adopted for financial reporting, to reduce the temptation to use PPPs to disguise fiscal obligations.
- PPP contracts should be published, along with other information on the costs and risks of the financial obligations they impose on the government.
- Budgetary systems should be modified so that they capture the costs of contingent liabilities and a guarantee fund should be used to encourage recognition of the cost of guarantees when they are given, or to help with payments when guarantees are called.

Summary and key takeaways

Summary

- Importance of programmatic approach to P3 – VfM
 - One-off transactions will lead to a high risk premium from the private sector
- Professional and credible advisors
 - Lack of credible, experienced advisors will pose concern in the market and will, once again, be reflected in the risk premium
- Committed, transparent, and accountable public authority
 - If the public authority is not deemed credible, the private sector will demand a higher return on the project.
- Important to look at P3s comprehensively, as every component of the program and project(s) ties back to the cost of capital

Thank you

Alexander Seleznyov
KPMG Corporate Finance LLC
1801 K Street NW
Washington, DC 20006

Tel 703-286-6036
aseleznyov@kpmg.com