



Global Roundtable on Infrastructure Using the Right Tools Risk Allocation Tool

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Introduction

- Part 1: Overall presentation of the Tool/ Lessons learned from implementation of the Tool's first edition
- Part 2 Main challenges that the Tool aims to address/How does the Tool contribute to better infrastructure governance
- Part 3: How the Tool aligns with the PPP Contractual Provision of World Bank
- Part 4: Risk allocation in PPPs: understand the rationale – Main Features of the Tool and Examples

Global Infrastructure Hub

The **Global Infrastructure Hub (GI Hub)** is an independent organisation, established by the **G20** to increase the flow and quality of infrastructure investment opportunities in all countries.

We share **data, knowledge and leading practices**, and help the public and private sectors work more closely to deliver crucial public infrastructure projects.

The GI Hub is staffed by international infrastructure specialists from the public and private sectors.

Leading Practice Tools across the project lifecycle

Governmental Processes facilitating
Project Preparation

PPP Risk Allocation Tool

Guidance on National Infrastructure
Banks

Output Specifications for Quality
Infrastructure PPPs

PPP Contract Management Tool



Inclusive Infrastructure Tool

Future of Infrastructure

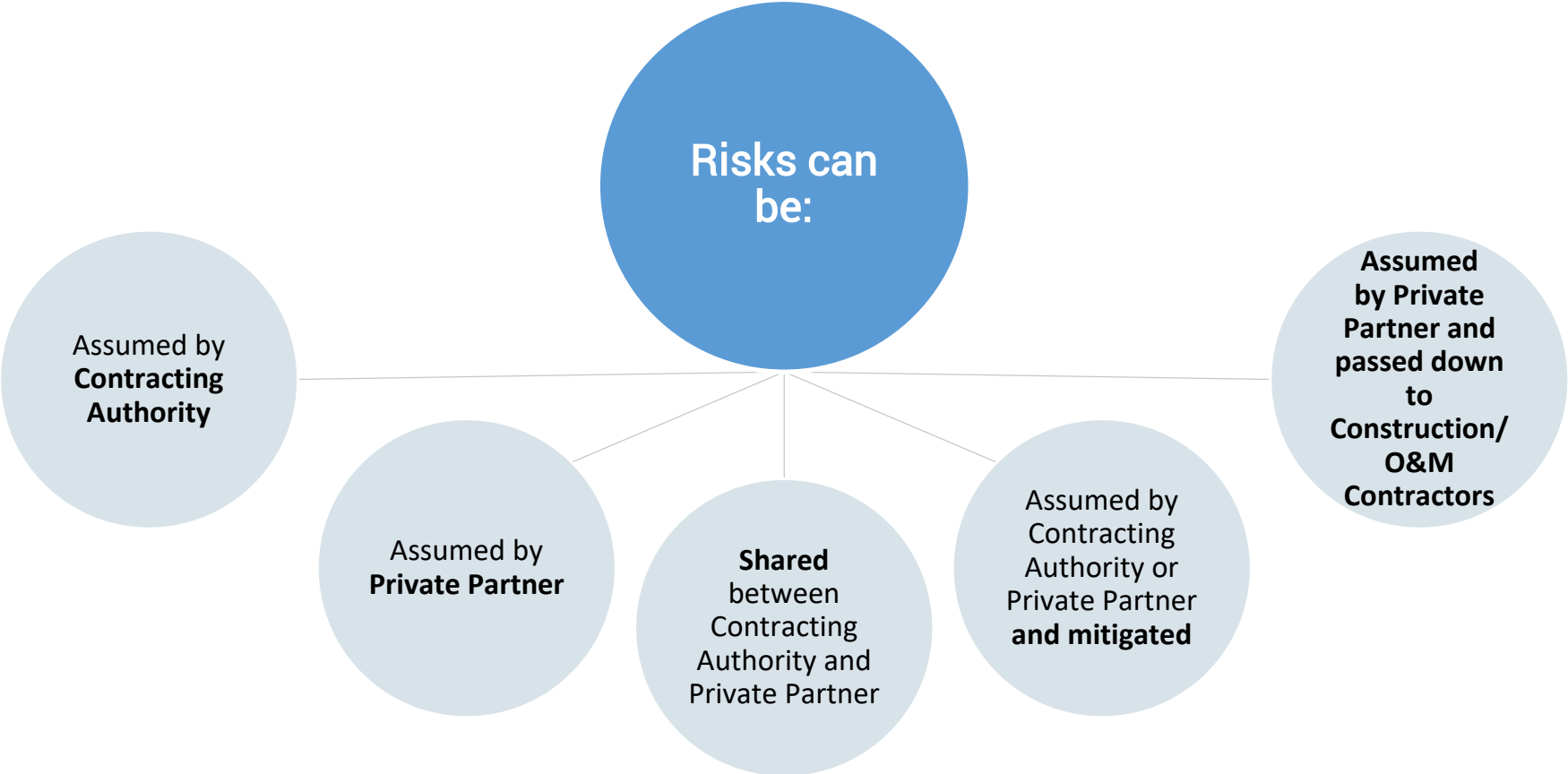
Cross-border infrastructure



Part 1

Overall presentation of the Tool
Lessons learned from the Tool's first edition

Principles of Risk Allocation



PPP Risk Allocation Tool 2016 Edition

First Edition of the tool 2016:

- Very detailed matrices
- First tool of its category – in coordination with the World Bank in its development of Guidance on PPP Contractual Provisions
- Based on global experience and case studies
- **Economic infrastructure only**



PPP Risk Allocation Tool 2019 Edition

Lessons learned from the Tool First Edition:

→ Feedback regional consultative workshops (Thailand, Tanzania, Colombia, Italy, Nigeria, Turkey, Singapore)

Considering feedback received, the 2019 Edition addresses:

- Expansion to **Social Infrastructure**
- New structure; easier to read, more practical (Sector specific **key risks**)
- **Greater detail of key risks** (e.g. social risk, environmental risk, currency exchange, financial risks and **specifically on demand risk**)
- Emphasis on Market Comparison Summary
- **Focus on the two main legal system** (civil law & common law)

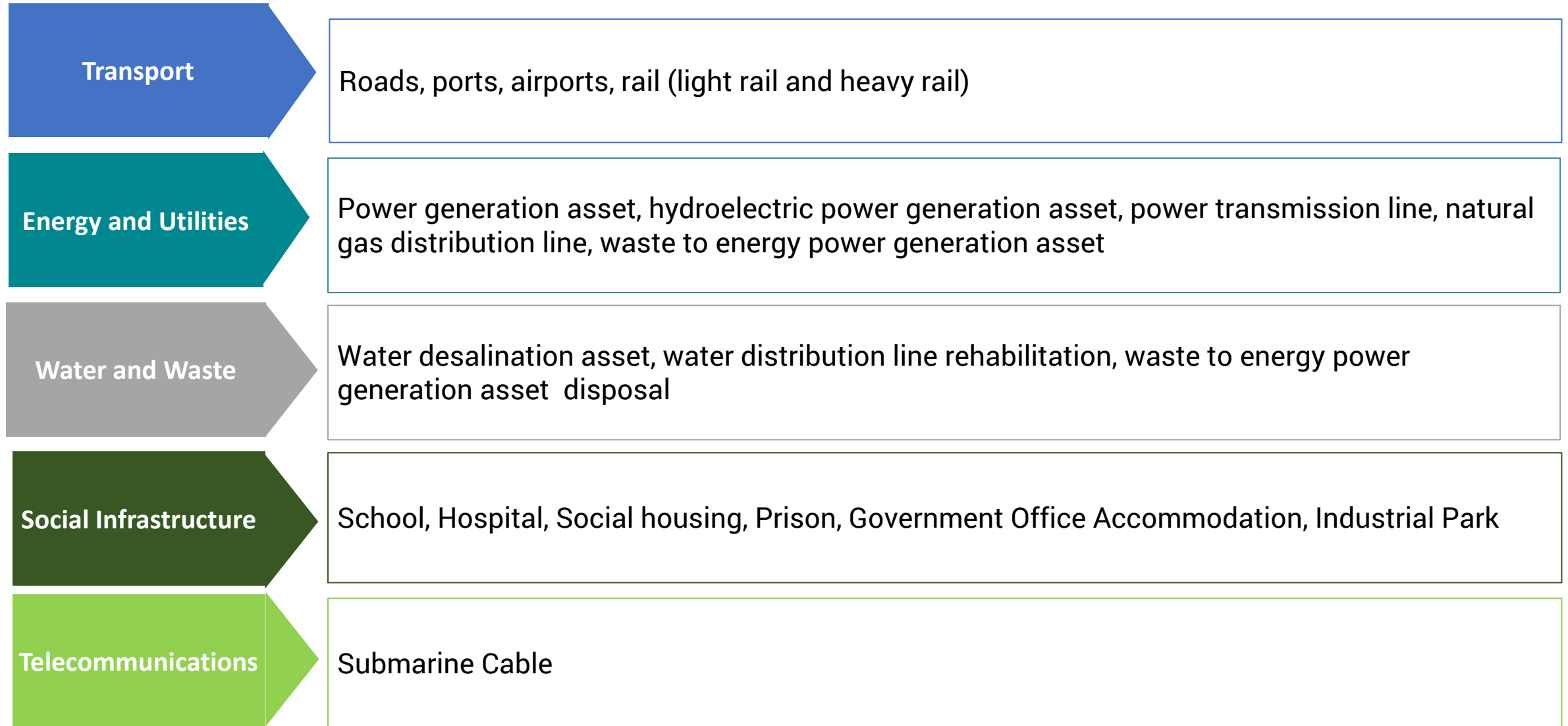
PPP Risk Allocation Tool 2019 Edition – Available June 2019

Engaged law firm Allen & Overy and working closely with the World Bank on its Guidance on PPP Contractual Provisions

Specific matrices for:

- Transport (Road, Heavy Rail, Light Rail, Airport and Port)
- Social Infrastructure (Schools, Hospitals, Social Housing, Prison and Government Offices)
- Energy, communications and industrial parks (Solar, Hydro, Transmission, Waste-Energy, Gas Distribution and Submarine Cable)
- Water and Waste (Desalination, Water Distribution and Waste Treatment)

Sectors covered by the new Tool



PPP Risk Allocation Tool 2019 Edition – Available June 2019







Sector specific Key risks – Roads

<p>PROJECT REVENUES, INCLUDING PAYMENT MECHANISMS</p>	<p>Project revenues are generated either through availability payments by the Contracting Authority or user payments through tolls (i.e. in a demand/revenue risk-based project) or a combination of both. Deductions or penalties are typically applied to availability payments where the Private Partner has not met contractual availability and performance standard criteria. In a demand/revenue risk-based project, where user revenues are unlikely to be <u>sufficient</u> to cover the cost of the project, they may be supported by minimum traffic/revenue guarantees from the Contracting Authority. <i>See Performance/price risk under Operating risk and Demand risk.</i></p>
<p>KEY RISKS</p>	<p>Land acquisition and site risk: Due to the length and nature of a road, it may be challenging to acquire a suitable corridor of land, free of any restrictions, and with necessary planning consent. This is typically a Contracting Authority risk. <i>See Land availability, access and site risk.</i></p> <p>Demand/revenue risk, if user payment: If any demand risk is transferred to the Private Partner and its financial model is reliant on toll payments by users, then the risks associated with user demand will be closely assessed by the Private Partner and its lenders. <i>See Demand risk.</i></p> <p>Environmental/social risk: The impact of a road on habitat, (social) infrastructure and communities generally, as well as on adjacent properties and industries, must be carefully assessed and managed by the parties. Issues such as pollution and noise, as well as the potential need for resettlement of affected parties and the impact on indigenous land rights, should be addressed in accordance with internationally recognised standards. <i>See Environmental risk and Social risk.</i></p> <p>Completion/operation commencement risk: Completion of works on time and on budget will be a <u>particular challenge</u> for the Private Partner in difficult terrain and where design involves tunnelling and bridges. <i>See Cost overruns and Works completion delays under Construction risk.</i></p>

Snapshot of one Matrix - 2019 Edition

RISK CATEGORY AND DESCRIPTION		RISK ALLOCATION			RATIONALE AND MITIGATION MEASURES (INCLUDING GOVERNMENT SUPPORT ARRANGEMENTS)	MARKET COMPARISON SUMMARY
Risk	Sub-category	Public	Shared	Private		
<p>LAND AVAILABILITY, ACCESS AND SITE RISK</p> <p><i>The risk associated with selecting land suitable for the project; providing it with good title and free of encumbrances; addressing indigenous <u>rights</u>; <u>obtaining</u> necessary planning approvals; providing access to the site; site security; and site and existing asset condition.</i></p>	<p>Provision of <u>main land</u> – general</p>	<p>●</p>	<p>[●]</p>	<p>Private</p>	<p>The Contracting Authority typically bears the risk of selecting the corridor and acquiring the required land interests for the project, whether through compulsory acquisition or other powers, because it has powers to do so which the Private Partner does not. It is also in the Contracting Authority’s interest because on expiry of the contract the asset will typically revert to public ownership and operation (and/or the contract will be subsequently re-tendered). The Contracting Authority is generally responsible for providing a “clean” accessible site, with no restrictive land title issues. This is can be a key risk as due to the length and nature of a road, it may be challenging to acquire a suitable corridor of land, free of any restrictions (and with necessary planning consent). In some instances, the Private Partner may be able/required to assist with payment in the expropriation phase or with stakeholder involvement procedures.</p> <p>During the feasibility stage (see <i>PPP Project Preparation and Delivery in the Introduction</i>), the Contracting Authority should undertake detailed assessments as regards ownership of the relevant land and ensure that it has a complete understanding of the risks involved in acquiring the site and those that will affect the construction and operation of the road. Such information should be disclosed to bidders as part of the bidding process. This includes consideration of matters such as rights of way, covenants affecting use or disposal and historic encroachment issues that may encumber the land, as well as how the Contracting Authority is addressing such issues and the extent to which bidders are required to price certain risks. To the extent the Private Partner has relied on information provided and priced any such risks, it will share in those risks provided that the information relied on was accurate. Some Contracting Authorities will guarantee only correctness of data provided, not completeness or interpretation.</p>	<p>In certain markets, land rights (in particular reliable utilities records, and land charges) may be less clear than in other markets where established land registries and utility records <u>exist</u> and risks can be mitigated with appropriate due diligence. Where reliable information is not available, the Private Partner will not be able to take the risk.</p> <p>The rights of private landowners against forced sales or expropriation might be stronger in developed markets, so the Contracting Authority may need to allow more time to acquire the land.</p> <p>Third party rights to (access) land may not be easily identifiable in some jurisdictions, increasing risk of delay, cost overrun and disputes. This makes it more likely that the Contracting Authority will need to bear the associated risks.</p>

PPP Risk Allocation Tool 2019

 Energy	Photovoltaic Power Generation Asset	Large-scale Hydroelectric Power Generation Asset	Power Transmission Line
	Natural Gas Distribution Line	Waste to Energy Power Generation Asset	
 Social	School	Hospital	Social Housing Properties
	Prison	Government Office Accommodation Building	
 Transport	Road	Airport	Municipal Light Rail
	Intercity Railway	Port Terminal for Containers	
 Water & Waste	Water Desalination Asset	Water Distribution Line Rehabilitation	Waste to Energy Power Generation Asset
 Communication	Submarine Cable		
 Other	Industrial Park		

PPP Risk Allocation Tool 2019

Compare Risks

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Compare Project Types

Risk

Risk Sub-Category



Part 2

Main challenges that the Tool aims to address
How does the Tool contribute to better infrastructure governance

Main Challenges the Tool aims to address

Statement:

“Risks should be allocated to the party best able to manage them” (both in terms of effect and likely occurrence) – also depends on the market

Appropriate risk allocation means:

- Increased market participation and competition – lower financing costs
- Better value for money

Inefficient risk transfer will mean unnecessary risk premiums are charged by the private partner reducing value for money

Poor risk allocation may result in project failures – renegotiations, insolvencies, terminations – the appropriateness is not necessarily known at financial close

Effective Risk Allocation in PPPs

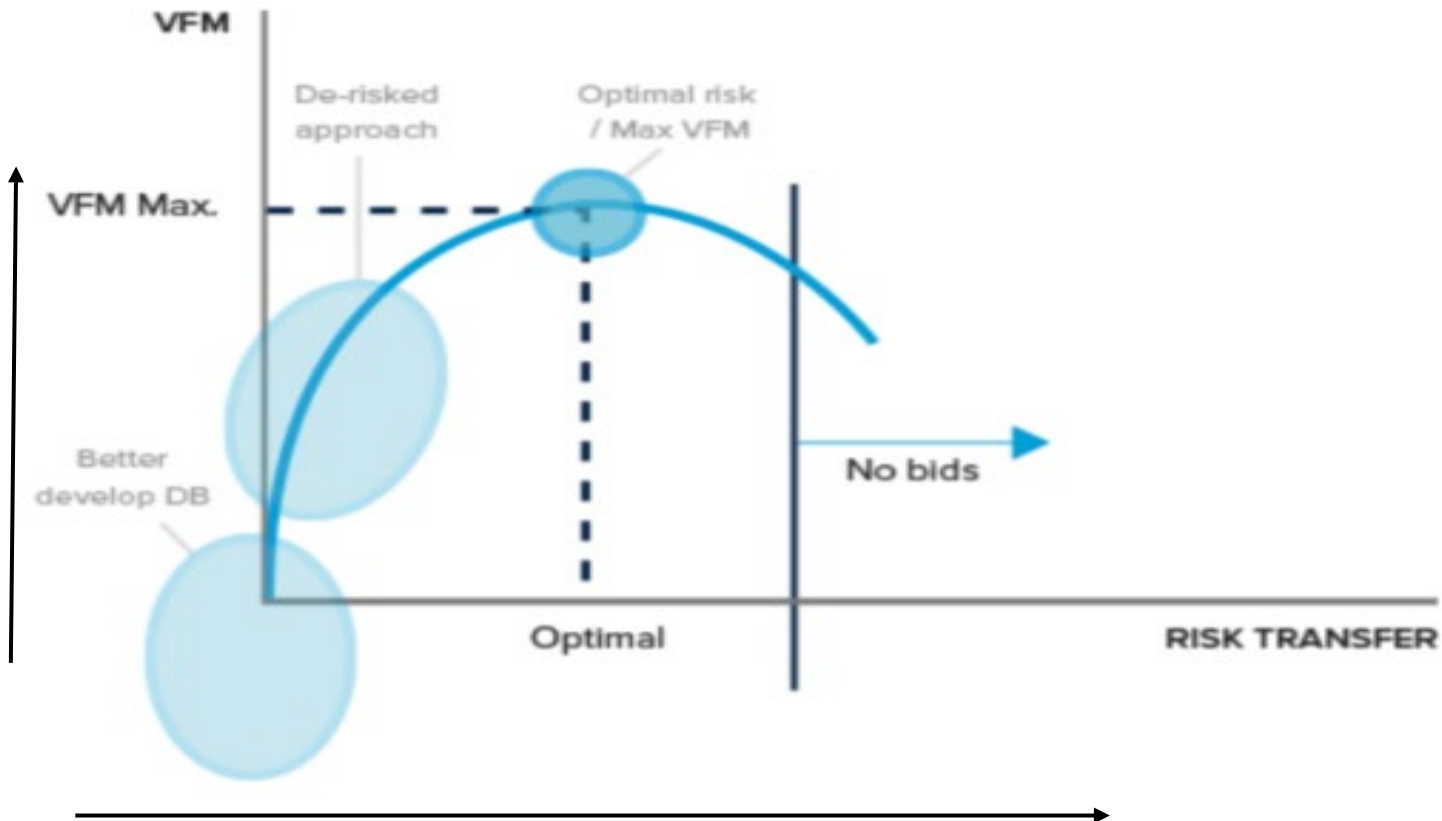


Image credit APMG PPP Certification Guide

Main challenges the Tool aims to address

Appropriate risk allocation means also:

- **Better project structure**
- Bankability and viability of the project:
 - e.g. **Demand Risk** for greenfield Railway Project or Highway Project
- **Market practices standards**/transparency and creating market comfort
 - To attract more market participation e.g. MDBs, international investors (where applicable)...
 - Greater competition

Additional challenges the Tool aims to address

Using a common approach on risk allocation means also in:

- **Reduction of the negotiation time** and procurement processes
- “Standardization” or at least “**Greater Consistency**” in the risk allocation approach
- **Greater understanding of key risks** and how their allocation may have financial impact on the project
- Reduction of the transaction costs

Contribution to a better infrastructure governance

The **risk allocation** Tool is above all a **project preparation Tool** for Governments:

- During the feasibility studies and readiness assessment, it can be a useful first approach on the key risks (“macro risk”)
- Later on, it can help the government to decide on the best contractual option

It can be also a comparative Tool for the **procurement process**:

- During the tender procurement process, it can be a useful tool for the procuring authority to compare the proposals of the consortia



Part 3

How the Tool aligns with the PPP Contractual Provision of the World Bank

WB Guidance on PPP Contractual Provisions

- First edition in 2015, then in 2017
- New Edition in 2019 includes new chapters related to contracting authority step-in rights, termination events, handback of the assets and new themes such as climate change



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Library >> Guidance on PPP Contractual Provisions (2019)

Guidance on PPP Contractual Provisions (2019)

Region: Global
Country: Global
Publication Year: Feb,2019
Document Link: [Guidance on PPP Contractual Provisions](#)

The draft updated **Guidance on PPP Contractual Provisions** is open for public consultation to capture inputs and recommendations by all relevant stakeholders to feed into the new edition.

The PPP team, within the World Bank Group's Infrastructure Vice Presidency, is working with other development partners on the updated edition, expected to be released during summer 2019. The goal of the Guidance is to assist its target audience, namely contracting authorities—and particularly those in emerging PPP markets—with obtaining a better and more comprehensive understanding of a number of essential provisions in a PPP agreement, such as force majeure, termination payments and dispute resolution.

Following up on the **2017 edition**, this new version will include:

- An update of the existing eleven chapters in accordance with stakeholder feedback received on the 2017 edition, including the consideration of themes such as climate change and environmental/social issues in the context of PPP agreements.
- Three additional chapters, including both sample drafting and commentary highlighting differences in legal systems and considerations relevant due to different levels of PPP transactional experience.

The new chapters will cover the topics of:

- contracting authority step-in rights;
- termination events, and;
- handback of assets at the end of the PPP agreement.

We appreciate your input and feedback by April 30, 2019.

While all comments received will be reviewed and documented, comments and recommendations may not necessarily be incorporated into the final version of the Guidance. A comprehensive table will be released at the end of the consultation phase listing all feedback, comments and recommendations without attribution to the person, organization or entity that submitted it.

If you and/or your organization are interested in collaborating with the team to enhance the updated edition of the Guidance on PPP Contractual Provisions, please submit your comments and feedback by April 30, 2019.

Thank you in advance for your feedback.

Tracking Reference:

Guidance_on_PPP_Contractual_Provisions_2019_EN

Contribution to better infrastructure governance: using the Tools together

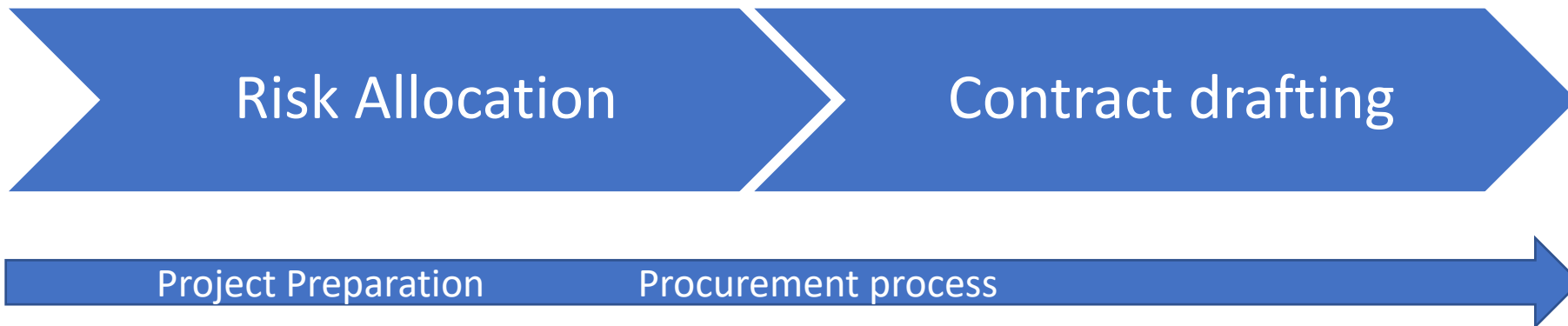
WB Guidance on PPP Contractual Provisions:

- Assisting contracting authorities in particularly emerging PPP markets obtain a better and comprehensive understanding of selected contractual provisions that are typically key to a project's bankability
- Fostering discussion among all relevant stakeholders on contractual language usually found in PPP agreements with a view of further iterations to be developed as consensus/market practice evolves
- Contract Level with samples of drafting clauses

Contribution to better infrastructure governance: using the Tools together

Complementary Tools for Governments:

- Once an appropriate allocation of risks between a Contracting Authority and a Private Partner is decided upon, **the Parties need to appropriately document that risk allocation in an agreement or contract** to ensure that each party can effectively enforce their rights



Contribution to better infrastructure governance: using the Tools together

GIH RAT 15 Risks

1. Land availability
2. Social Risk
3. Environmental Risk
4. Design Risk
5. Construction Risk
6. Variation Risk
7. Operating Risk
8. Demand Risk
9. Financial Market Risk
10. Strategic Partnering Risk
11. Disruptive Technology Risk
12. Force Majeure Risk
13. Material Adverse Government Action Risk
14. Change in Law Risk
15. Early Termination Risk

WB CP 11 Clauses

1. Force Majeure
2. Material Adverse Government Action
3. Change in Law
4. Contracting Authority Step-in Rights
5. Refinancing
6. Termination Events
7. Lenders' Step-in Rights
8. Termination Payments
9. Handback of assets at end of contract
10. Confidentiality, Disclosure and Transparency
11. Governing Law and Dispute Resolution
12. Bond Financing
13. Corporate Financing

Contribution to better infrastructure governance: using the Tools together

Global Infrastructure Hub PPP Risk Allocation Tool 2016...2019

Sector-specific guidance on key risks and allocation in a variety of sectors, according to:

- Markets of varying maturity in PPP or other domestic arena
- Different legal systems

World Bank Guidance on PPP Contractual Provisions 2015... 2017... 2019

Generic guidance on selected topics, comparing:

- Civil and common law systems
- Mature and less experienced PPP markets
- Markets with varying legal/political/economic stability

Generic example drafting



Part 4 -1

Risk allocation in PPPs: understand the rationale

PPP and Risk Allocation

To better understand the “risk allocation” concept:

- Need to understand **what is a PPP, the Contractual Scheme** and the **interests of each parties**
- Need to understand the **rationale** behind the allocation of a specific risk
- Need to understand the **finance structure** and the **payments mechanisms**
- Need to understand that a risk allocation may **evolve** over time and may be also **market dependent**

PPP and Risk Allocation


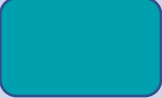










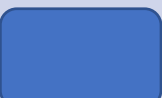



PPP Knowledge Lab World Bank

A long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility and remuneration is linked to performance.

Key drivers regarding the Risk Allocation approach

- What **functions** the private party is responsible for
- How the **PPP Contractual Scheme** influence the risk allocation and what are **the stakeholders interest**
- **Type of asset** involved (Social, Economic, greenfield, brownfield...)
- How the private party is **paid** (government payments, user payments...)

PPP is a procuring model -Type of Functions

	DESIGN	BUILT	MAINTAIN	OPERATE	FINANCE
TRADITIONAL PUBLIC PROCUREMENT <i>Design-Bid-Built</i>					
DESIGN AND BUILT					
DESIGN BUILD FINANCE					
DESIGN BUILD FINANCE MAINTAIN <i>DBFM or PFI Model</i>					
DESIGN BUILD FINANCE MAINTAIN OPERATE <i>DBFOM CONCESSION Model</i>					

Traditional Procurement vs PPP Procurement: Functions and related risks

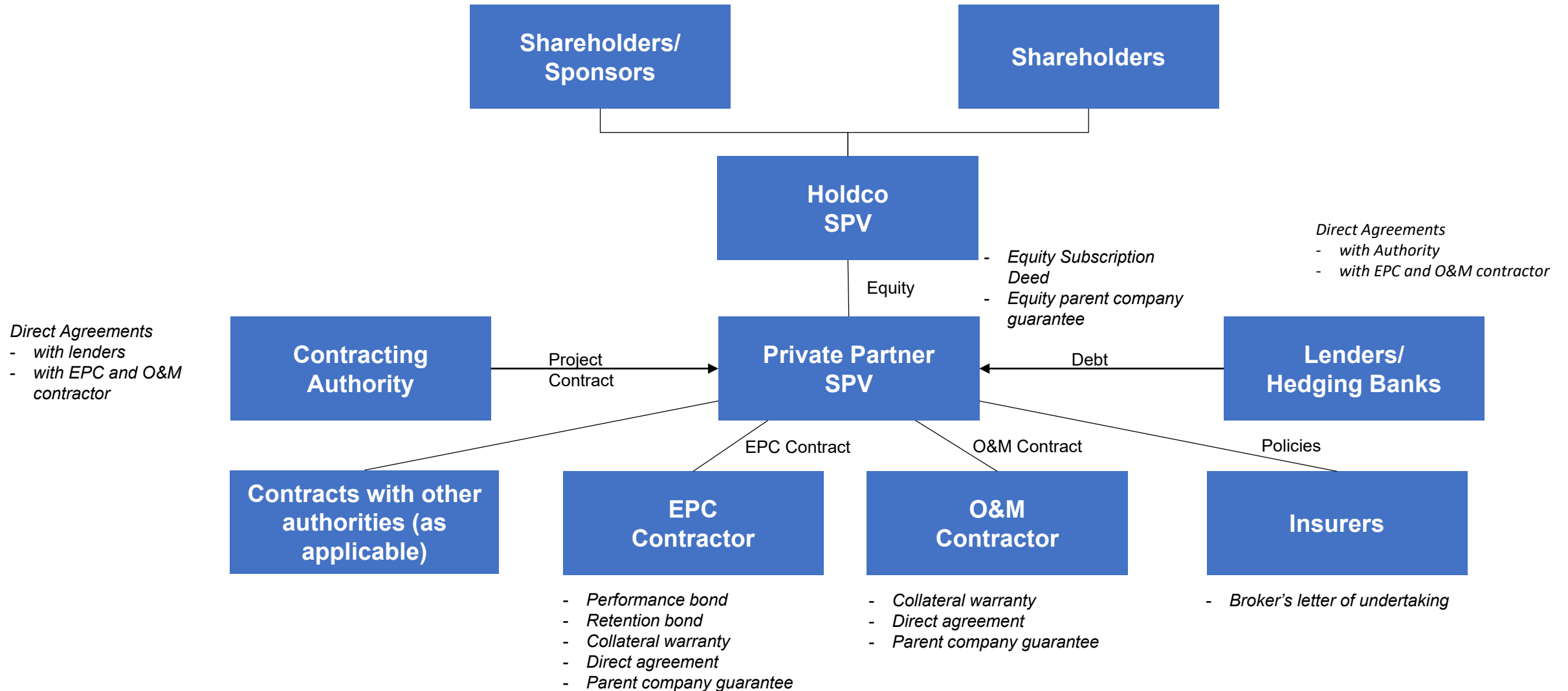
Traditional Procurement

PPP

	Contracting Authority develops detailed specification of needs – “input basis”		Requirements based on outputs to maximise private sector innovation	
	Contracting Authority enters into and manages multiple contract packages to deliver construction works and services (e.g. design, maintenance, operation) and financing		Contracting Authority enters into one contract with the Private Partner SPV and the SPV manages these contracts	
	Contracting Authority usually holds the risk of construction delays and cost overruns		Private Partner holds the risks of construction delays and overruns – this incentivises delivery as to time and costs	
	Contracting Authority pays for the capital asset upfront and service on an ongoing basis		Contracting Authority does not pay until asset constructed and operation commenced	
	Payments for maintenance and service are not generally linked to performance		Unitary charge payments are linked to availability criteria and/or a performance regime	

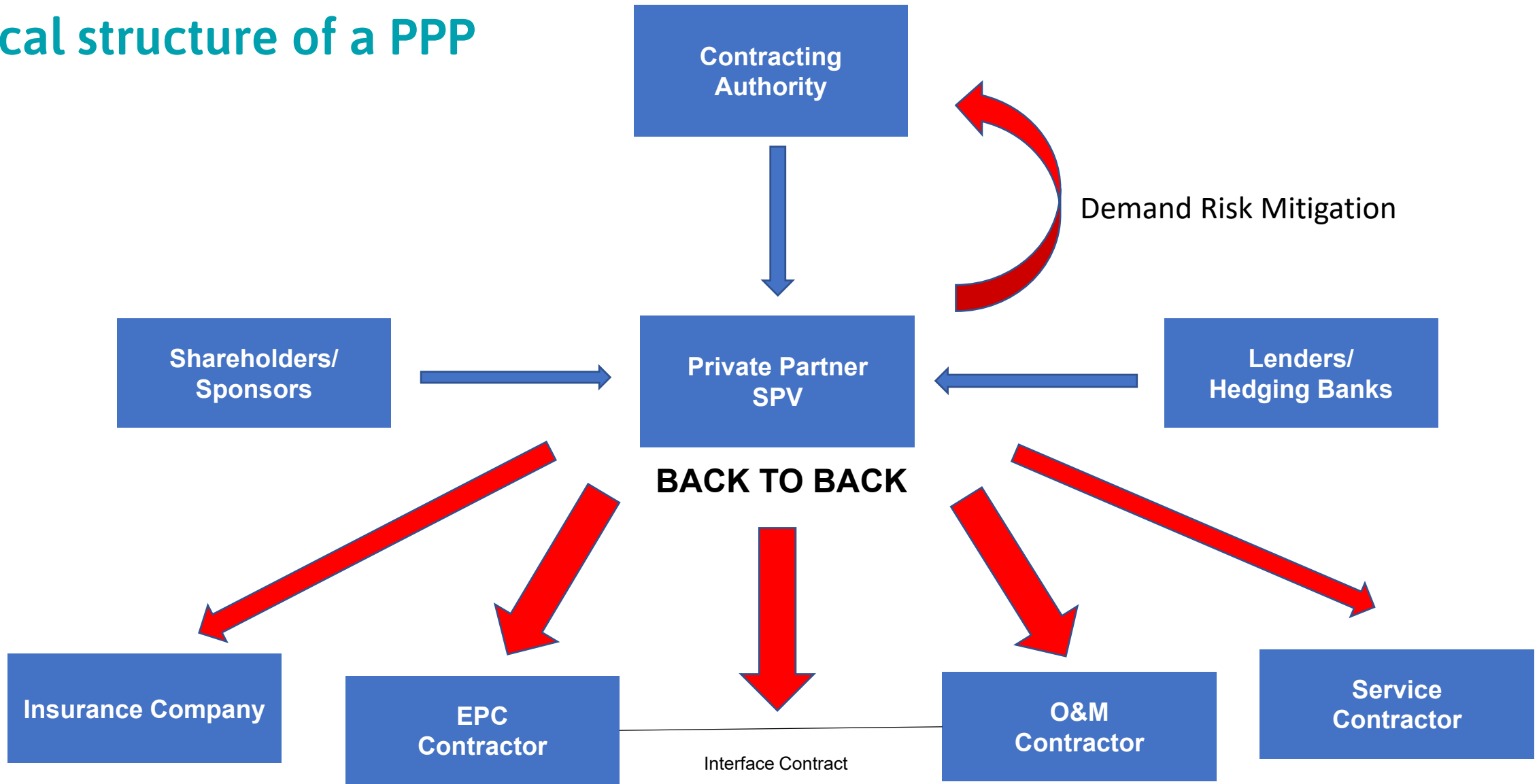
PPP Risk Allocation Tool

Typical structure

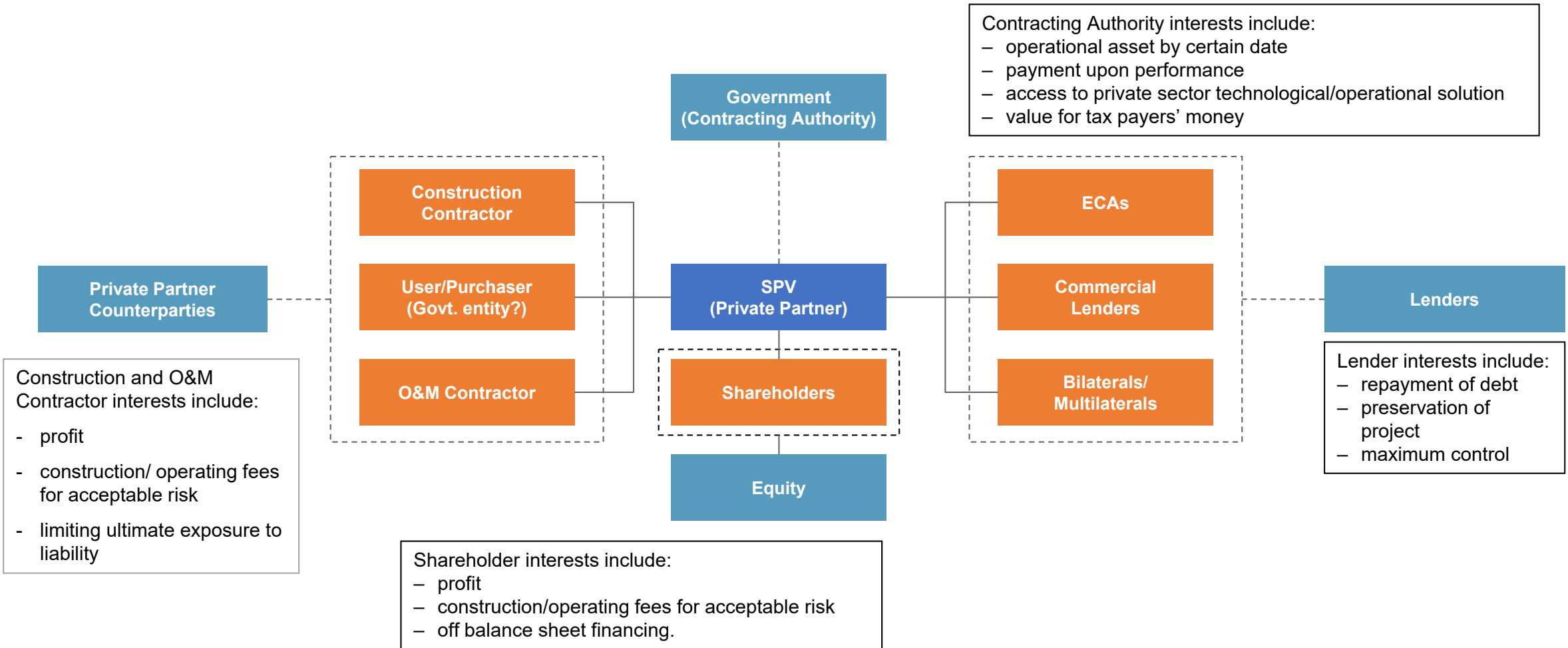


PPP Risk Allocation Tool

Typical structure of a PPP



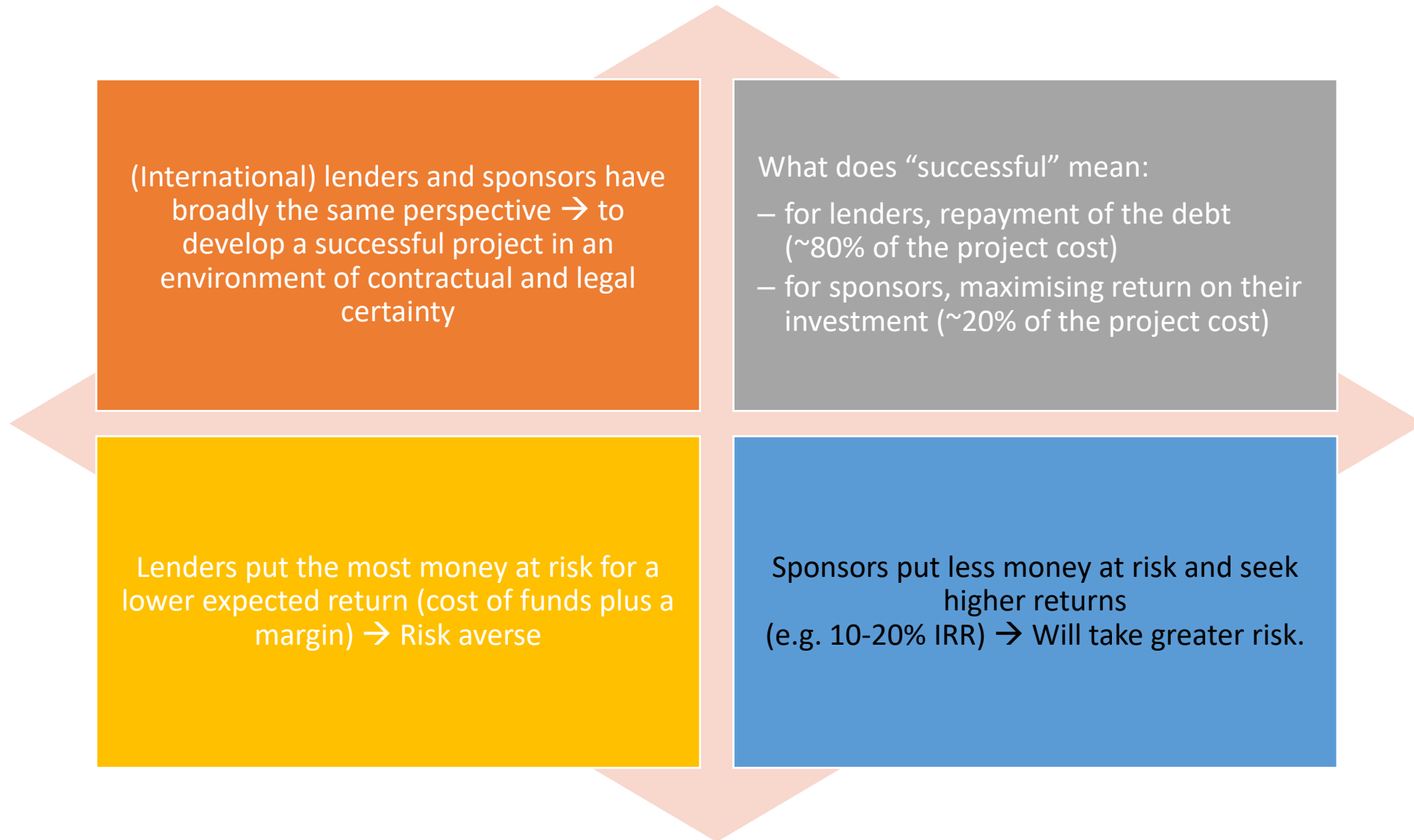
Stakeholder interests



Stakeholder interests

Contracting Authority	Sponsor/Shareholder	Lender
To achieve “value for money”	To extract profit – “investment return”	To make profit – “margins and fees”
To have adequate safeguards and assurances the project will be operated properly	To minimise interference with the project	To exercise control – (i) to maintain project profile and protect cashflow (ii) to manage key project decisions
To regain control of the project as a matter of last resort	To retain control of the project for as long as possible in times of hardship	To take control over the project as soon as possible in times of hardship
Generally to transfer risk from public to private sector	To share the risk in carrying out the project	To limit risks transfer to the SPV

Stakeholders' interests




Risk Allocation, revenues stream and payment mechanism

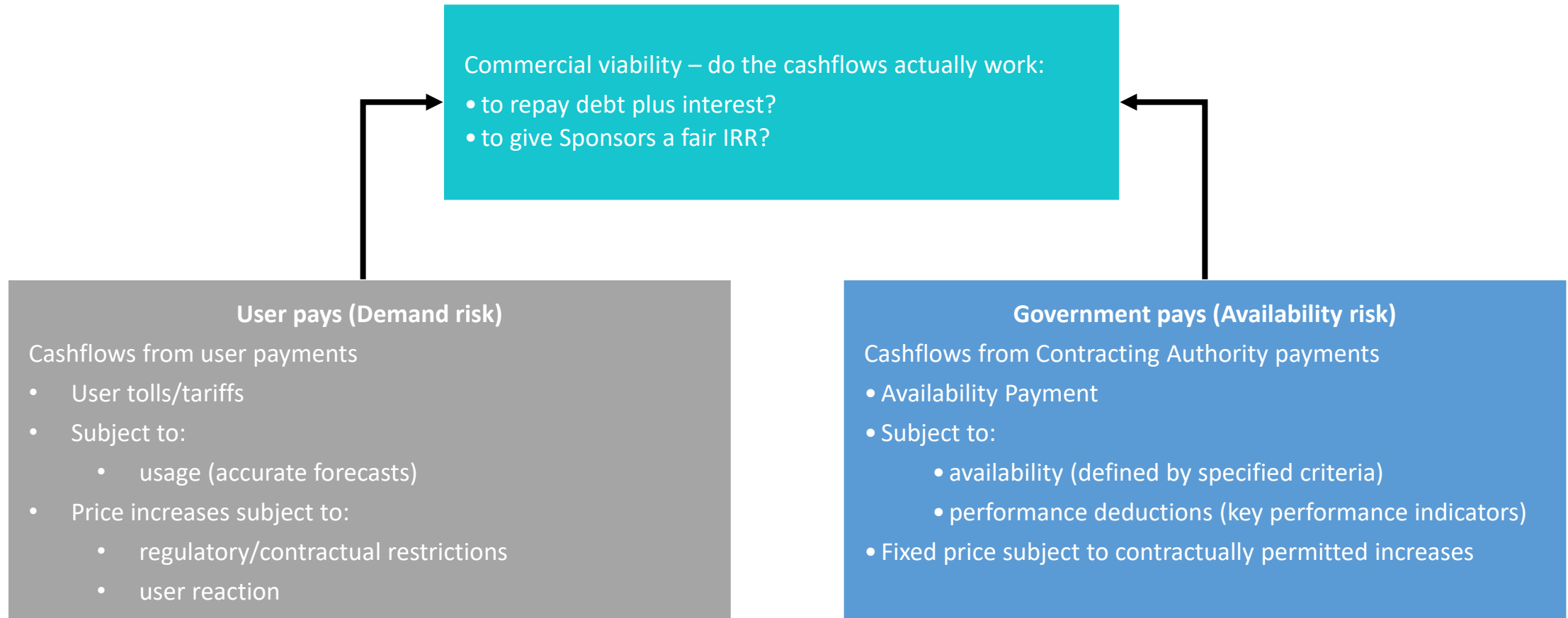
The PPP revenues stream and payment mechanism are key.

Two main system, that can be combined.

- **User-pays PPPs:** the private party provides a service to users and generates revenue by charging users for that service. These fees can be supplemented by government payments or subsidies to investment at the completion of construction or specific construction milestones
- **Government-pays PPPs,** the government is the **sole source** of revenue for the private party. Government payments can depend on the asset or service being available at a contractually-defined quality → availability payments

Risk Allocation, revenues stream and payment mechanism

 Typically only starts post construction





Part 4 -2

Risk Allocation – Keys questions and examples

Key Questions - Type of asset

Greenfield or brownfield Infrastructure:

- Land risk issues
- Historical data for Demand Risk
- Revenues structure

Social or Economic Infrastructure:

- Operating risk (interfaces...as the public authority is the user)
- Prescriptiveness and transfer of the design risk
- Revenue structure (availability payment, user payment...)
- Willingness to pay, public perception

Key Questions – Sector

Transport:

- Land issues (linear infra), demand risk (rail, roads, airports...), technology

Energy:

- Land issues, demand risk (energy prices...), climate change and resilience

Social Infrastructure

- Hospitals (design risks, complexity, safety...), prisons (social risk, design risk, disruptive technology....), schools (maintenance and operating risk, vandalism...)

Key Questions – “scope of the contract”

Typical functions include:

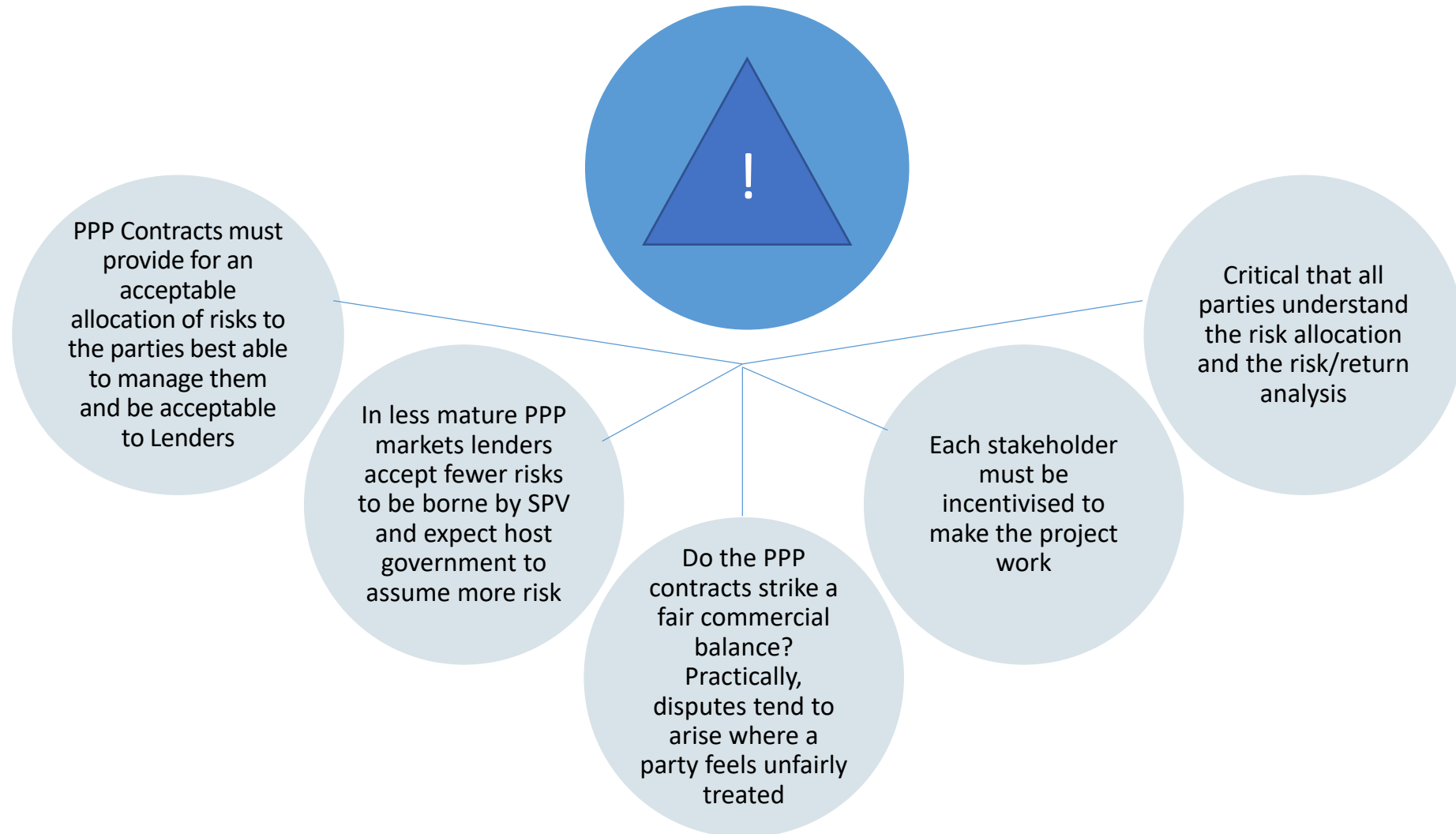
- **Design:** Developing the project from initial concept to construction ready design specifications → risk that the project design is not suitable for the purpose required
- **Build or rehabilitate:** require the private party to construct the asset and install all equipment → risk of construction costs exceeding modelled costs, completion delays, project management interface
- **Finance:** required to finance all or part of the necessary capital expenditure → inflation rises, change in law, adverse exchange rate and interest rate fluctuations, refinancing...
- **Maintain:** responsibility for maintaining an infrastructure asset → operating risk, risk of events affecting performance or increasing costs beyond modelled costs, vandalism...
- **Operate:** the operating responsibilities may include technical operation of the asset, providing services... → demand risk...

Each function is related to specific risks

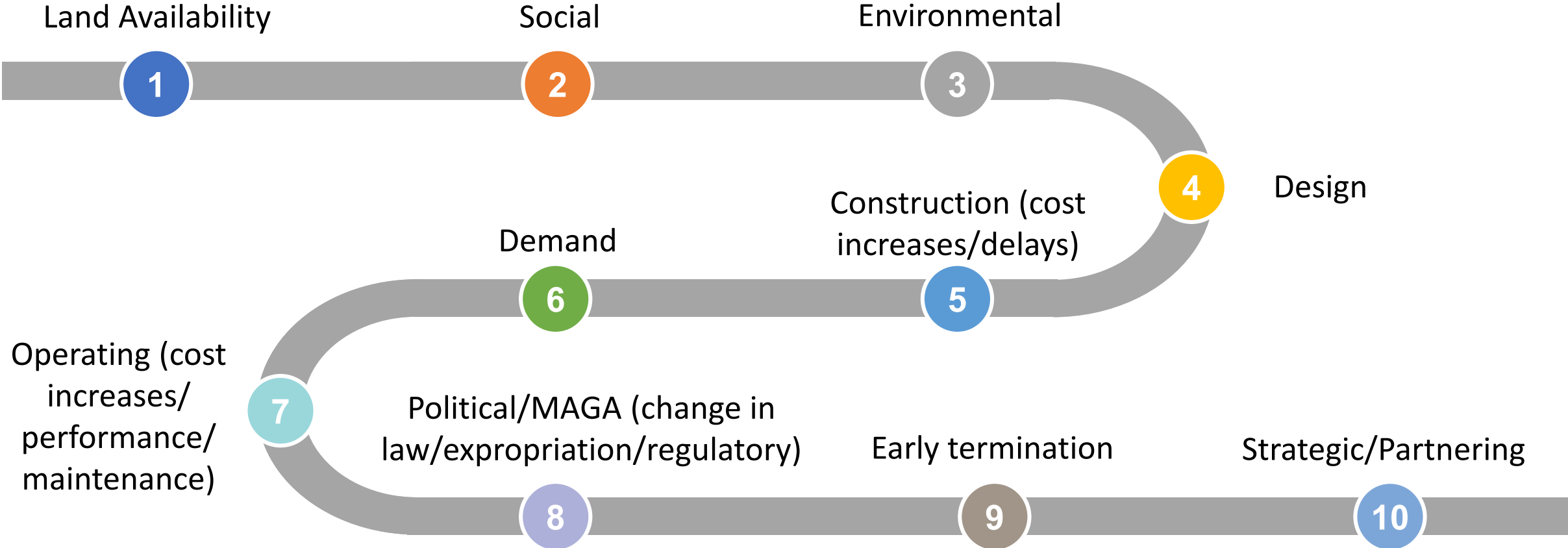
Key questions : what are the key risks for my project ?

LAND AVAILABILITY, ACCES AND SITE RISK	The risk of acquiring title to the land to be used for a project, the selection of that site and the geophysical conditions of that site
SOCIAL RISK	The risk associated with the project impact on adjacent properties and people: resettlement, indigenous land rights and industrial action.
ENVIRONMENTAL RISK	The risk with pre-existing conditions affecting the project and the subsequent risk of damage to the environment or local communities
DESIGN RISK	The risk that the project design is not suitable for the purpose required; approval of design; and changes.
CONSTRUCTION RISK	The risk of construction costs exceeding modelled costs; completion delays; project management; interface; quality standards compliance; health and safety; defects; intellectual property rights compliance; industrial action; and vandalism.
VARIATION RISK	The risk of changes requested by either party to the service which affect construction or operation.
OPERATING RISK	The risk of events affecting performance or increasing costs beyond modelled costs; performance standards and price; availability of resources; intellectual property rights compliance; health and safety; compliance with maintenance standards; industrial action; and vandalism.
DEMAND RISK	The risk of traffic levels being different to forecast levels; the consequences for revenue and costs; and government support measures.
FINANCIAL MARKETS RISK	The risk of inflation; exchange rate fluctuation; interest rate fluctuation; unavailability of insurance; and refinancing.
STRATEGIC/PARTNERING RISK	The risk of the Private Partner and/or its subcontractors not being the right choice to deliver the project; Contracting Authority intervention in the project; ownership changes; and disputes.
DISRUPTIVE TECHNOLOGY RISK	The risk that a new emerging technology unexpectedly displaces an established technology or the risk of obsolescence of equipment or materials used.
FORCE MAJEURE RISK	The risk k that unexpected events occur that are beyond the control of the parties and delay or prohibit performance.
MAGA RISK	The risk of actions within the public sector's responsibility having an adverse effect on the project or the Private Partner.
CHANGE IN LAW RISK	The risk of compliance with applicable law; and changes in law affecting performance of the project or the Private Partner's costs.
EARLY TERMINATION RISK	The risk of a project being terminated before its natural expiry on various grounds; the financial consequences of such termination; the strength of the Contracting Authority's payment covenant; and the asset condition at handback at the end of the PPP contract.

Appropriate Risk Allocation



Key Risk Considerations



Risk example: Land availability and acquisition

Description	The risk associated with selecting land suitable for the project; providing it with good title and free of encumbrances; addressing indigenous rights; obtaining necessary planning approvals; providing access to the site; site security; and site and existing asset condition
Who is bearing the risk	The Public Party but might be shared
Key Considerations	Sector considerations (linear infra), country specificities (specific legal regime for public ownership) Greenfield or Brownfield infrastructure Expropriation procures in the country – legal framework Responsible for providing a “clean” accessible site, with no restrictive land title issues Existing infrastructure (issues about pollution)
Examples	Heavy rails, light rails, highways, roads...

Risk example: Design Risk

Description	The risk that the project design is not suitable for the purpose required; approval of design; and changes
Who is bearing the risk?	The Private Party but might be shared (circumstance dependent)
Key Considerations	Sector considerations, country specificities Greenfield or Brownfield infrastructure Buildings (architecture) or infrastructure (telecom cable) Broad or more prescriptive specifications, level of technical specifications draft by the Public Contracting Authority Level of technical complexity of the building, end-user requirements (change in design) Change in design following environmental authorizations

Risk example: Demand Risk

Description	The risk of traffic levels being different to forecast levels; the consequences for revenue and costs; and government support measures
Who is bearing the risk ?	The Private Party but is mostly shared
Key Considerations/ Mitigating measures	Sector considerations, country specificities Greenfield or Brownfield infrastructure Regulated sector – Tariffs imposed by the regulator – articulation with the contract Revenue structure (partly guarantee by the Contracting authority, tax affected to the project, upfront subsidies, availability payment)
Examples	Heavy rails, light rails, roads...

Demand Risk – Australian Toll Road Project

- Traffic forecast bias
- Greenfield or brownfield?



Demand risk snapshot of the Tool

<p>DEMAND RISK</p> <p><i>The risk of traffic levels being different to forecast levels; the consequences for revenue and costs; and government support measures.</i></p>	<p>General principles</p>				<p>Allocation of demand risk (the risk of traffic being higher or lower than forecast and total revenue subsequently being higher or lower than expected) is an evolving area. While there are general principles, the solution for any project depends on the <u>particular project</u> and its circumstances. Experience in projects to date is also key in informing subsequent market practice.</p> <p>Where the Contracting Authority is considering allocating any demand risk to the Private Partner, it should do a full assessment of the risk as part of its feasibility studies, including independent traffic forecasting. If there is high uncertainty over traffic projections and uncertainty over revenues (for example, due to toll limitations and/or currency volatility), this may be one reason to structure the project on an availability payment basis. In <u>addition</u> there may be political and other reasons which favour an availability-based contract over a toll based scheme. For example, there may be public resistance to the idea of paying tolls which could result in the road being unused. Availability-based structures or a hybrid structure may be more viable. This could involve the Private Partner receiving some form of government payment or support, as well as user tolls. <i>See also Government support measures under Demand risk.</i></p> <p>If any demand risk is to be allocated to the Private Partner, bidders should want to carry out their own assessment of the risk and extensive traffic analysis in order to price their bids. The contract should appropriately address and allocate the risk for all factors that impact on demand, including social issues, and the parties should develop a comprehensive strategy to deal with the implementation of the project. Opportunities for additional <u>third party</u> revenue streams through roadside facilities (to the extent these are permitted) should also be assessed and addressed under the contract.</p>	<p>It has become more common for toll road projects in all markets to provide for the Contracting Authority to retain at least some of the demand and toll revenue risk and to pay the Private Partner some availability-based payment. This trend has been observed in mature markets which have seen some Private Partner insolvencies in earlier demand-based projects, despite the perceived access to data sources to help develop realistic and attainable traffic and revenue forecasts. It is also likely in less mature markets and even projects which purport to transfer demand risk typically involve some level of government revenue support underpinning the risk transfer (such as a minimum revenue guarantee). Broadly speaking, the trend across markets seems to be more for availability-based projects except where there are compelling reasons why a demand-based project will be viable.</p> <p>Sharing demand risk may be particularly difficult in less mature markets, particularly in the case of market first projects, where there is likely to be a lack of relevant comparative market data to begin with. In some markets, the lack of any other viable traffic solutions on a <u>particular corridor</u> may give the private sector greater confidence to accept demand risk. Similarly, the private sector may be willing to accept demand risk where the capacity for – and anticipated pace of – economic growth is perceived to be high. This may counteract the comparative lack of data sources to develop traffic and revenue forecasts.</p> <p>A number of mature markets tender gas stations and service stations separately and this removes additional potential revenue streams from the Private Partner.</p>
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Demand risk occurrence: HSR Perpignan Figueiras Concession



- 2004 Concession contract signed with TP Ferro (ACS-Dragados-Eiffage) for 50 years
- 1120 M€ : 600 M€ Public Subsidies, 500M€ Private Financing
- 2013 Operating full train service
- 2013/2014 : Traffic risk occurred (70% overestimated traffic forecast) – arbitration – liquidation of the SPV 2016 (payment default)
- Termination of the contract pronounced by Public Authorities for breach of the obligation to operate the train service
- Public Company created to operate the service

Demand risk mitigation: HSR Tours-Bordeaux Concession



- Concession contract signed between SNCF Réseau and LISEA (VINCI Concession, CDC, Meridiam, Ardian) in June 2011 (302 km of new track Tours – Bordeaux)
- LISEA responsible for financing, designing, building, operating and maintaining the line for 50 years
- Mixed Funded:
- 7,8 billion euros estimated :
- 3 billion debt : 1 060 M Debt Guaranteed by French State, 600 M commercial debt, 400 M EIB debt guarantee, 200 M EIB commercial debt, 700 M CDC guaranteed by SNCF Réseau/
- 4 billion subsidies (French State, regional/municipal authorities, SNCF Réseau...)
- 772 million equity
- Commissioned in July 2017
- Refinancing in 2018: State Guarantee released

Risk example: Early Termination Risk

Description	The risk of traffic levels being different to forecast levels; the consequences for revenue and costs; and government support measures
Who is bearing the risk	The Private Party or the Contracting Authority depends who initiates the termination
Key Considerations/ Mitigating measures	Compensation (debt repayment) even in Private Partner default termination Calculation of the compensation: based on outstanding debt or market value, quid for social infrastructure or less mature market ? Strength of Contracting Authority payment covenant Handback issues
Examples	Heavy rails, light rails, roads...

GIH Risk Allocation Tool – Summary Matrix Example - Road

Risk	Public	Shared	Private
Land availability, access and site risk	•		
Social risk	•		
Environmental risk		•	
Design risk		[•]	•
Construction risk			•
Variations risk		•	
Operating risk			•

GIH Risk Allocation Tool – Summary Matrix Example - Road

Risk	Public	Shared	Private
Demand risk	•	[•]	•
Financial markets risk		•	
Strategic/Partnership risk		•	•
Disruptive technology risk		•	
Force Majeure risk		•	
Material Adverse Government Action risk	•		
Change in law risk	•		
Early termination risk		•	