Asian Infrastructure Investment Bank

Structuring a successful PPP Project and Identifications and Allocation of Key Projects Risks in the Middle East

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Introduction to PPP projects

- In infrastructure circles in the Middle East PPP has garnered a great deal of attention. One could be surprised for thinking it's a brand new financing tool for the region.
- But PPP's have existed very successfully in the Middle East for over 20 years. The first PPP was the Manah power project in Oman in 1994.
- But to-date most of the PPP projects in the Middle East have been in the utility sectors (power, water and wastewater). More than 50 such projects have reached financial close.
- In other sectors the PPP model has been conspicuously less successful. There have been some notable failures, perhaps the most high profile being the Mashreq - Al Ghweifat highway. Having announced that it had selected a preferred bidder for the USD 2.7bn road, it was cancelled. The Saudi Landbridge project was another high profile casualty.
- So what is different now? First, the economic climate brought about by the lower oil price regime has driven regional governments to look at attracting private sector finance for key infrastructure; second, the utilities boom is nearing its initial end so lenders have less choice and so are looking, more favourably at PPPs; and third projects generally have had a good track record in the Middle East attracting new sponsors and lenders keen to get involved.

What is a Public-Private Partnership (PPP) Project?

PPP does not have a particular legal meaning. It can be used to describe a wide variety of arrangements involving public and private sectors working together in some way.

Rationale for use → (1) Utilisation of private sector capital and expertise for efficient procurement of projects

(2) Certainty for project delivery and budgets

(3) Sharing and allocation of risk between the Government and private sector parties

(4) Easing of Governments' balance sheets and freeing capital to be directed towards other needs

(5) Fast tracking of project delivery

Comparing key elements of projects procured using traditional methods to the PPP model

Traditional method	PPP method
Government awards contract to private sector parties	Government awards contract to private sector parties
Government pays private sector parties by milestones or upon completion	Private sector parties arrange upfront financing of the project
Government responsible for operation and maintenance	Private sector parties responsible for construction, operation and maintenance for concession period
Private sector parties walk away on completion	Concessionaire recoups upfront costs over life of concession period and makes profit
Government takes majority of building and operations risk	Private sector parties incentivized to achieve standards, otherwise penalized
Usually cheaper procurement method	Private sector takes on many development, operational and maintenance risks. Also, financing risk.

Forms of PPP Structures in the Middle East

There is no single or standard form of PPP project or structure. A few of the more common forms are:

- Build, operate and transfer (BOT)
- Build, own and operate (BOO)
- Build, transfer and operate (BTO)
- Rehabilitate, operate and transfer (ROT)
- Build, lease and transfer (BLT)

Project Parties - Setting the Scene 1

Government
- Concession/license grantor
- Offtake/output purchaser
- Supply of utilities
- Sovereign guarantees
- Implementation Agreements (e.g. taxes, consents, currency issues)

Shareholders/Sponsors
- Shareholders
- Sponsors / developers
- Project Company
- Contractors
- Government

Sub-contractors
- EPC Contractors
- Operators
- Equipment suppliers
- Fuel and utility suppliers
- Technology providers

Financiers
- Commercial lenders
- Export Credit Agencies
- Multilateral agencies
- Development banks
- Local lenders
- Working capital lenders
- Hedging providers

Others
- Insurers
- Technical, financial, legal, environmental, market and other advisors

Key Project Financing Contracts - Setting the Scene 2

Shareholders/ sponsor documents

Pre-development Agreements/

Shareholders' Agreement/

Sponsor Support Agreement

Equity Agreements

Host government agreements

Concession

Land

Utility

Implementation

Guarantees

Project documents

Construction contract, Operation and maintenance agreement, Fuel & raw materials supply agreement, Sales/offtake agreement

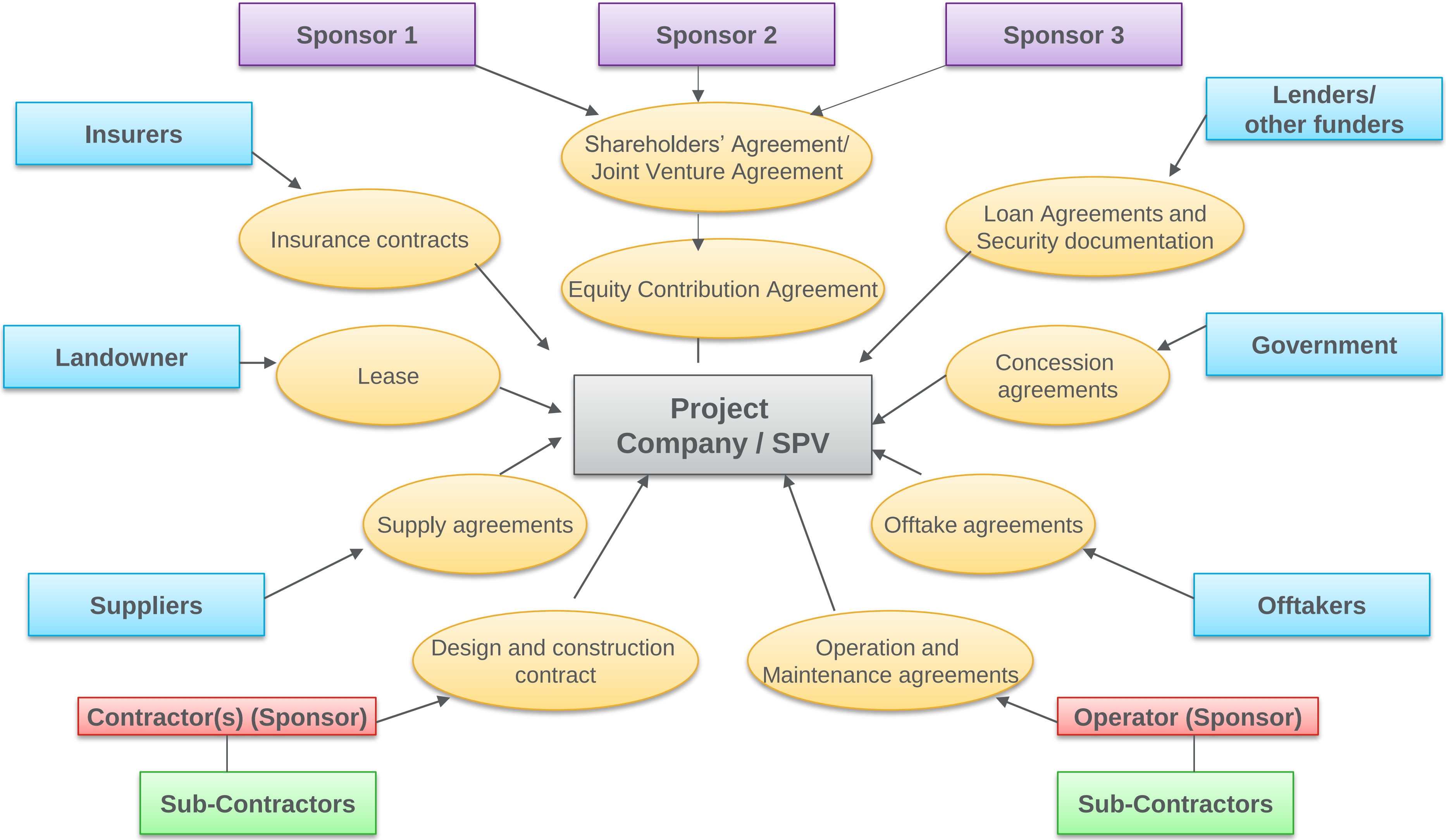
Lending and security documents

loan agreements with:

bank/export credit agencies/multilaterals

Project / Special Purpose Vehicle

Contractual Matrix



Prerequisites of a Successful PPP Project

Basic fundamentals:

- A project that is robust technically, economically and commercially (e.g. IPP or IWP with contracted offtake). Merchant plants (no offtake) are much more difficult to finance
- The key parties-sponsors, contractor, operator, suppliers and offtakers must:
  - have a successful track record of similar projects in same region
  - be creditworthy
  - experienced management
  - be bankable
- The Project's economics must be sufficiently robust so that in certain downside scenarios the project can still service its debts (e.g. oil or commodity prices).
- The technology, if relevant, must be proven
- There must be a proper and fair allocation of all legal, commercial, technical, political and financial risks associated with the Project
- The key project documents (Concession, Construction, O&M and offtake) must be comprehensive, clear and as watertight as possible. Documentation risk is considered a very important consideration in PPP projects.

Prerequisites of a Successful PPP Project (cont.)

Government and political risks:

- The host country should be politically and economically stable (NB Middle East examples).
- In emerging markets particularly, there should be direct or implicit government backing for the Project. Could be partial ownership interest, concession grantor, offtaker (e.g. utilities projects) or land owner.
- Ideally the host country should have a track record itself of hosting successful PPP (or similar) projects. Nobody likes to be the first!
- The host country of the Project should have an investment friendly legal regime (risks of change in law, taxation, expropriation and nationalisation, currency stability).

Financial Risks:

- Mitigation of currency, convertibility and transferability risks.
- Acceptable Debt/Equity ratio in range of 70% to 80% with equity paid in up-front or pro-rata with debt.
- Transparent and fair tax regime with protection against changes in tax laws.
- Creditworthiness of key parties (particularly "buyers" and "suppliers").
- Management of payments and associated risks.

Prerequisites of a Successful PPP Project (cont.)

Bankability issues:

- The Project must be "bankable". Lenders crave predictability and hate surprises, so
  - will accept e.g. reserves risk and oil price risk or demand risk (roads) (use of "experts")
  - will accept delay or cost overrun risks (EPC/liquidated damages/standby facilities)
  - but cannot accept change in law or demand risks that cannot be predicted or measured (except for general taxation changes e.g. Oman 10% WHT issue)
- Lenders general approach to risk, i.e. "bankability":
  - Lenders will only assume measurable or measured risk
  - Analysis and allocation of risk at an early stage
  - They will want to have control over key project decisions ("reserved discretions")
  - They will want to take control of the project as soon as possible when the project hits “difficulties”
  - They will want comprehensive and enforceable security over all Project's assets and property
  - The ability of the project to generate cashflow available to repay the debt is fundamental
  - The underlying contractual and regulatory matrix is more important than the creditworthiness of the project sponsors
  - Lenders’ recourse is limited to project assets and cashflow so any risk left with the project vehicle is regarded as lender risk
  - Counterparty risk usually very important

Risk Allocation & Mitigation

Basic Rules for Sharing of Risk

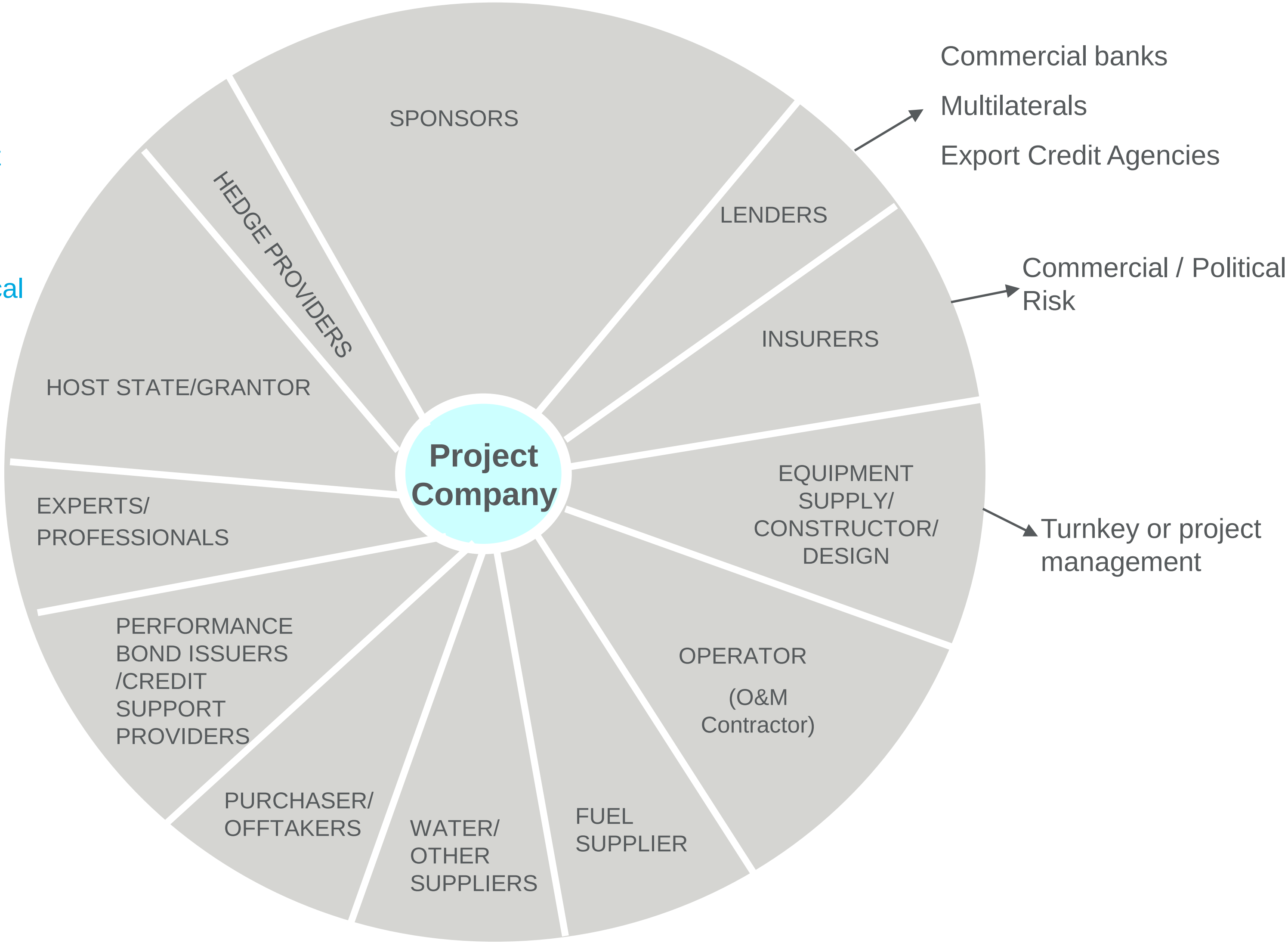
Best practice is that risks should be borne by the party best able to quantify, control and manage the risk.

- Analyse risks at the outset of the Project (Risk Matrix)
- Allocate key risks among the Project Parties
- But risk allocation directly related to cost/price and equity returns (e.g. Turnkey Construction Solution)
- Do not "park" risks in the Project Company
- Will lenders share in risks?
- Review contractual matrix – does it reflect correct allocation?

The project parties amongst whom risks may be allocated

Notes:

- Number of parties
- Robust structures (Direct Agreements)
- Liability caps
- Role of Insurance (Political risk and commercial)
- Multiple parties liable
- Residual SPV risks and mitigants



Risk Identification - Due Diligence

- A project's value is essentially based on its ability to generate revenues during its operating phase.
- Important for Sponsors and Lenders to know that project is technically and economically feasible.
- Role of advisors - Technical, legal, financial. But also environmental, safety, marketing, insurance etc.
- Key issues for both Sponsors and Lenders are:
  - whether the facility can be constructed and operated within the projected budgets;
  - whether the project company has the requisite skills and experience to operate and maintain the project;
  - the acceptability and cost of utilities such as gas, water, electricity, and waste treatment and disposal;
  - whether the project can meet the terms and conditions of operating licenses, environmental approvals, and construction permits;
  - the acceptability of the Project Site; and
  - the environmental and social impact of the Project (particularly where ECAs are involved).

Key Project Risks

- Risks may be classified on the basis of a number of different parameters, including timeframe, Project participation or Project function (such as financing, input, offtake or operation). No single classification will be suitable for all projects. Our approach in our standard Risk Matrix is:
  - inter-governmental;
  - project-specific new domestic legislation;
  - procurement;
  - regulation/change of law/political risk;
  - environmental;
  - land acquisition;
  - planning;
  - design, construction & commissioning;
  - operation & maintenance;
  - connection to utilities;
  - fuel/feedstock supply;
  - product offtake;
  - financial;
  - employment; and
  - general.

A given risk may be relevant to more than one of these headings.

Allocation of risks – key risk groups

Finance risks

Construction risks

Political and regulatory risks

Market risks

Operating risks

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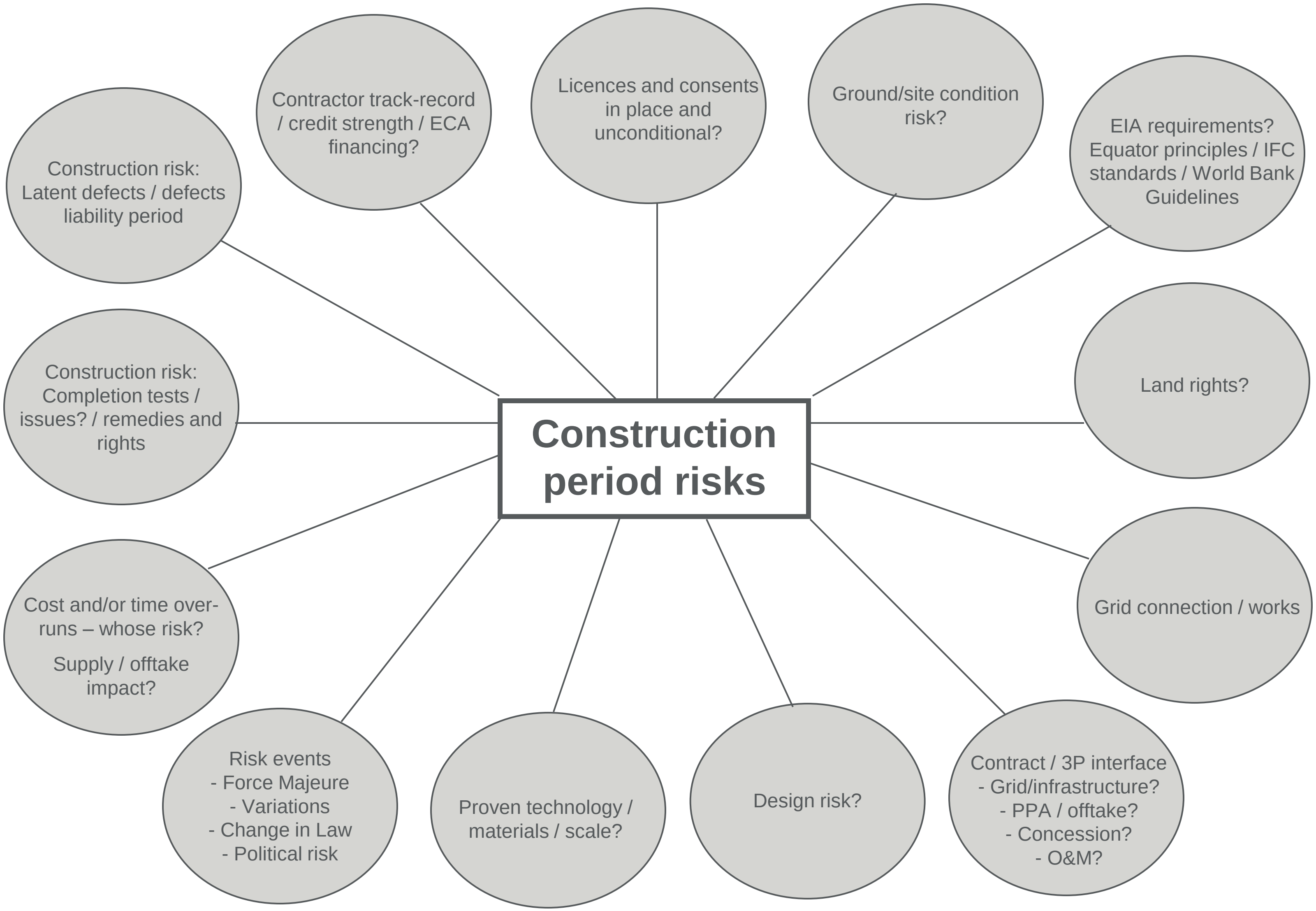
Construction period risks



Managing construction period risks

Contracting strategy …

EPC Contract → Turnkey wrap →
- Fixed Price
- Date certain
- Limited reopeners
- LDs sized for loss

→
- SPV risk events
- Loss > liability caps

Multi-contract strategy → No wrap →
- Project management
- Programme float
- Contingent equity
- LDs sized for contract, not SPV loss

→
- Lower cost, more risk
- Loss > liability caps
- Interface risk

Key risks and treatment include …

Cost over-run → Fixed price / Contingency / Completion Support → SPV Risk Events and price re-openers

Delay → Date certain / LDs →
- Extensions of time
- LD caps
- PPA: completion long-stop

Design / performance risk → Design process / proven technology / counterparty completion tests / Defects liability period / Warranties / Technical advice →
- Failed Performance tests
- Liability caps
- PPA: Completion testing requirements / min. performance?

Force Majeure / Risk Events →
- Insurance
- ECA Cover
- Contract mechanics/risk allocation

→
- Uninsurable risk
- Prolonged FM

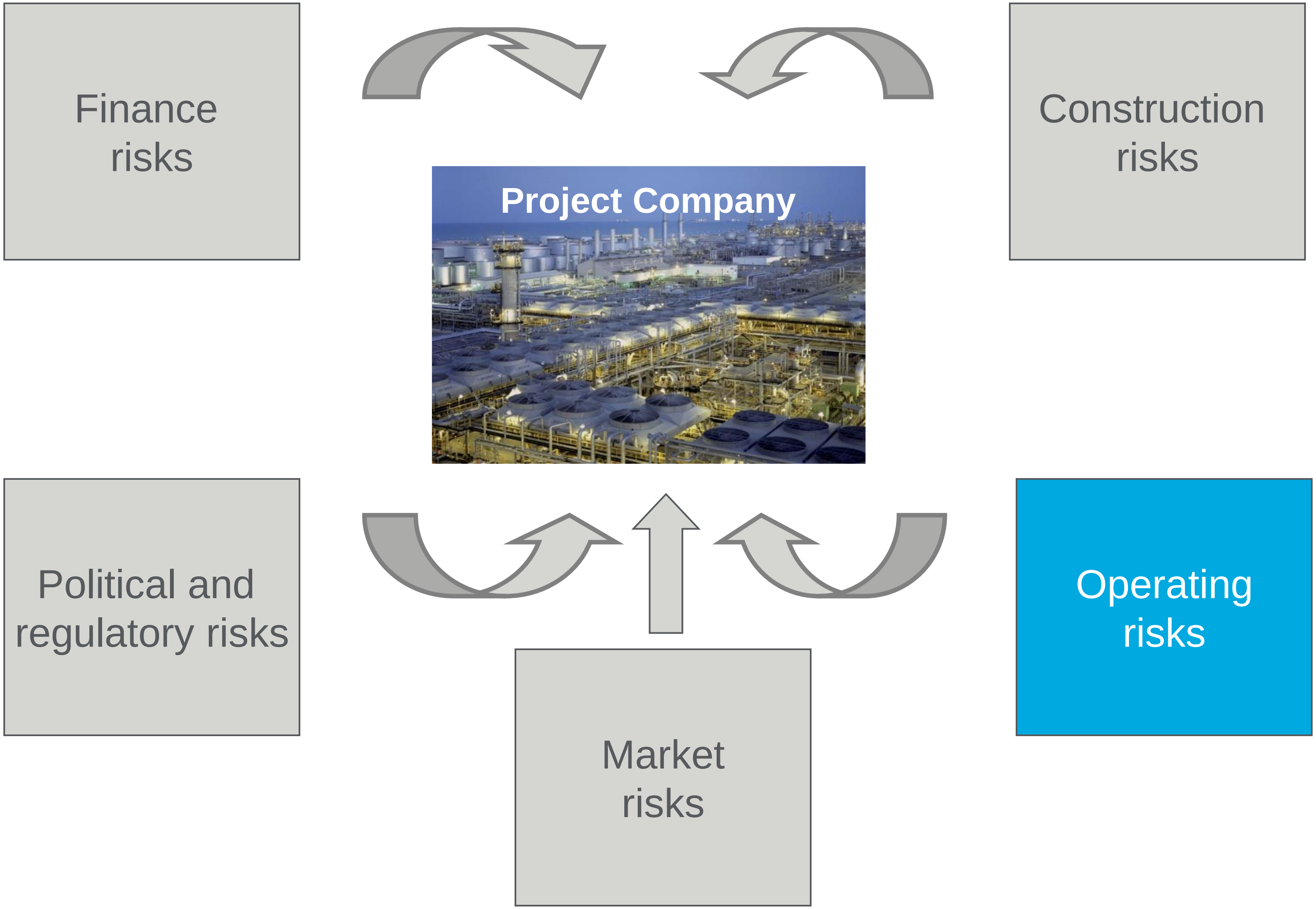
Credit risk →
- Contractor strength
- PCGs
- Performance bonds

→
- Liability caps
- Insolvency

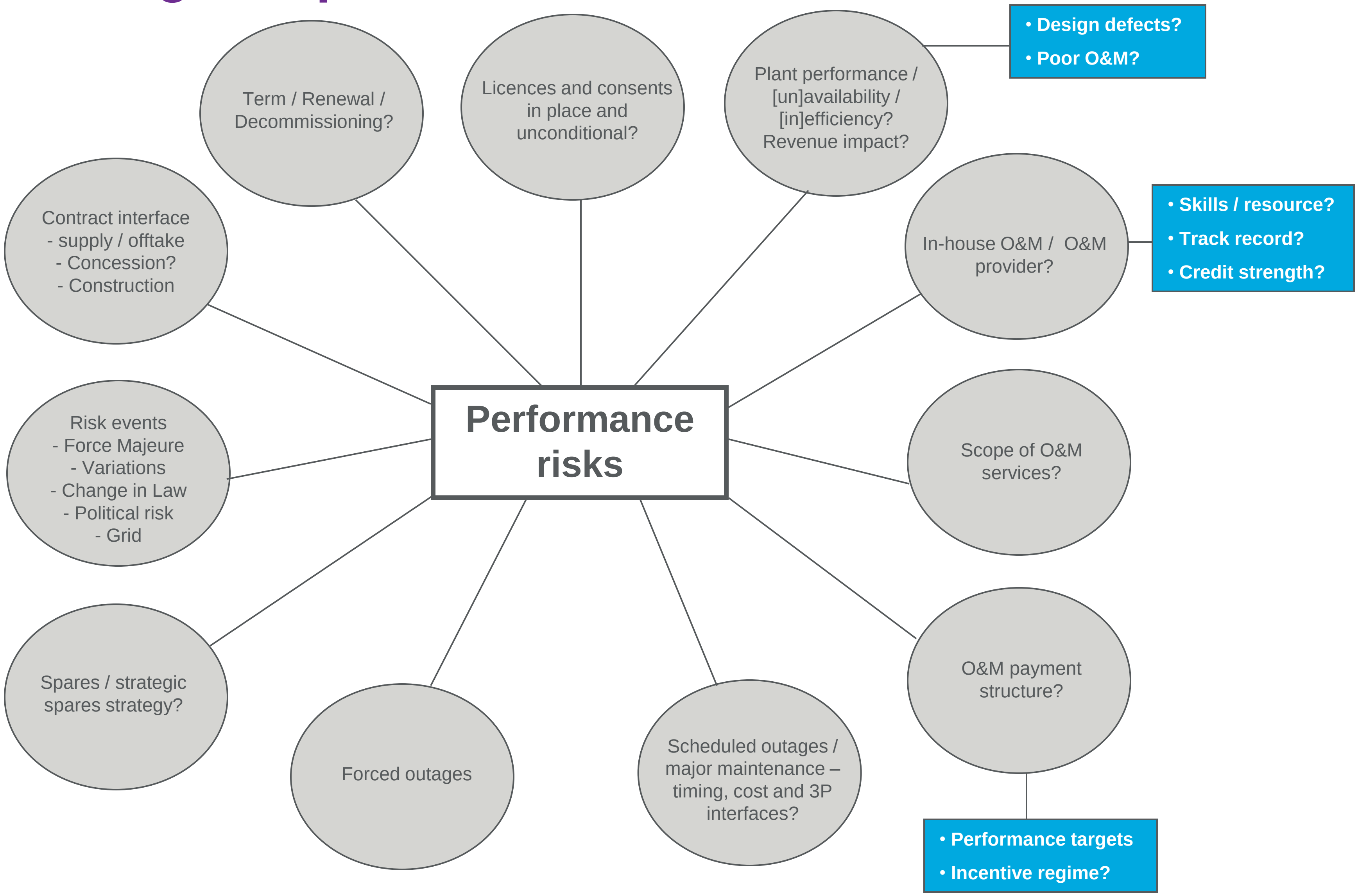
Default →
- Termination rights
- Comp. on term
- Direct agreement

→
- Liability caps
- Project impact

Allocation of risks – key risk groups



Operating and performance risks



Managing operating and performance risks

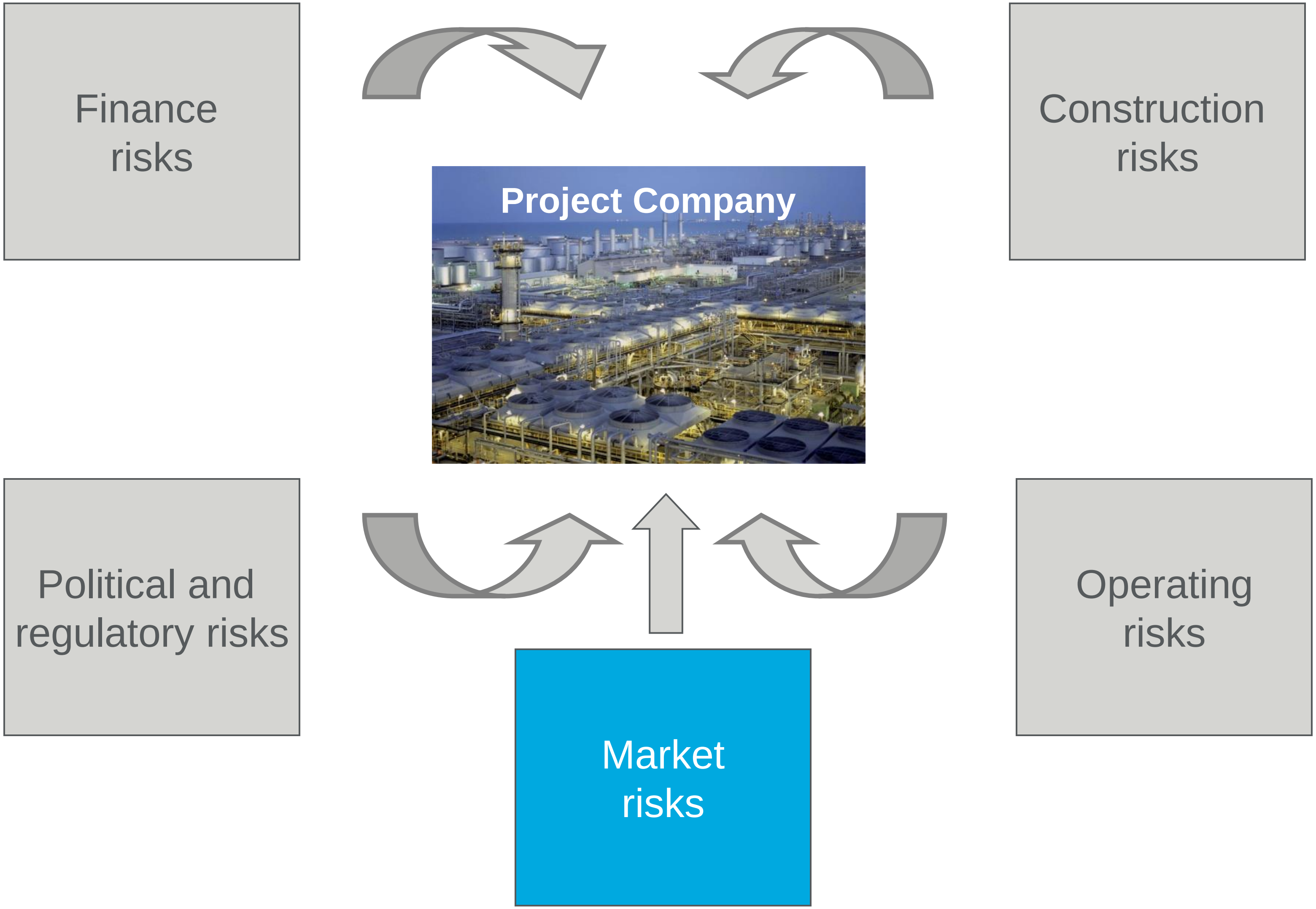
Contracting strategy …

LTSA (Turbines)	+	O&M Agreement	OR	In-house team

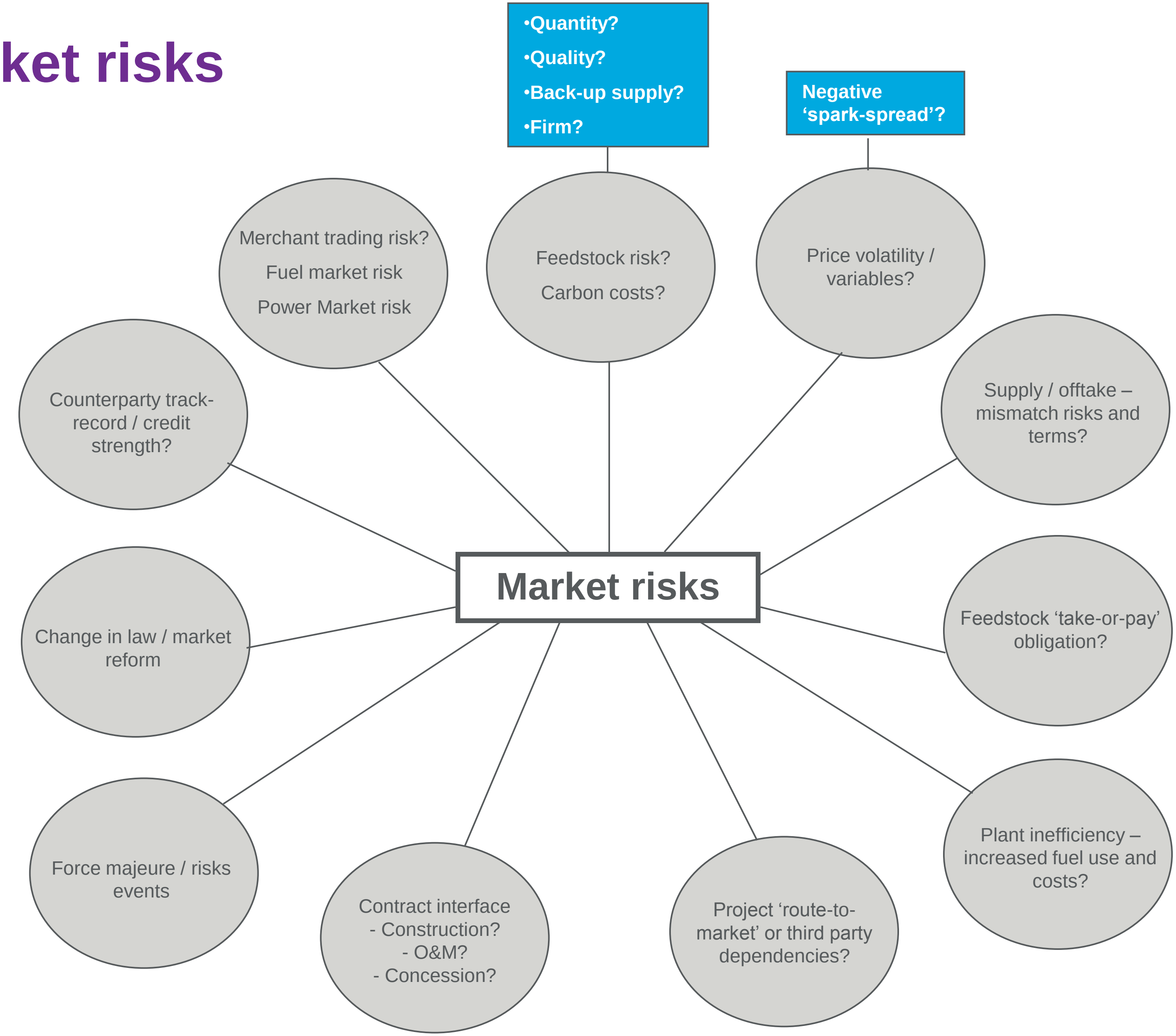
Key risks and treatment include …

Risk	Treatment	Issues
Performance	•Service scopes •Contractor track-record •Resourcing	•"Gaps" •Poor performance
Poor Performance	•Cause : EPC or O&M? •Service standards •Payment incentives/penalties?	•Cost up, revenue down? •Liability caps •Remediable? •Plant value?
Outages	•Scheduled v Forced •Cost / cost reserving •Spares / strategic spares •Insurance	•Revenue/cost impact? •Liability caps
Technology	•Licensing arrangements	
Force Majeure	•Insurance •ECA Cover •Contract mechanics / risk allocation	•Uninsurable risk •Prolonged FM
Credit risk	•Contractor strength •PCGs	•Liability caps •Insolvency
Default	•Termination rights •Comp. on term •Direct agreement	•Liability caps •Project impact
Term	•Term v Finance tenor •Renewal mechanism/controls?	

Allocation of risks – key risk groups



Market risks



Managing market risk

Contracting strategy …

Long-term fuel supply and PPA → Contracted output from plant → •Back to back terms •Risk mitigation •Generator owns and sells power → •Counterparty credit risk •COD conditions not met

Direct Agreement

Tolling Agreement → Capacity / energy conversion agreement – mitigates market risk → •Effectively provision of a service for a fee •Toller provides fuel, has title to power and instructs Plant despatch •Fee covers fixed and variable cost •Lower risk, lower reward → •Counterparty credit risk •COD conditions not met •Some risk "re-transfer" linked to plant availability/performance

Merchant trading → •Short term trading •Market optimisation → •Regulatory and market risk •Spot/short term trades and multiple counterparties •Trading strategy control •Most risk, most reward → •Reliant on "route to market" arrangement? •Full market risk – demand, volume and price

Key risks and treatment include…

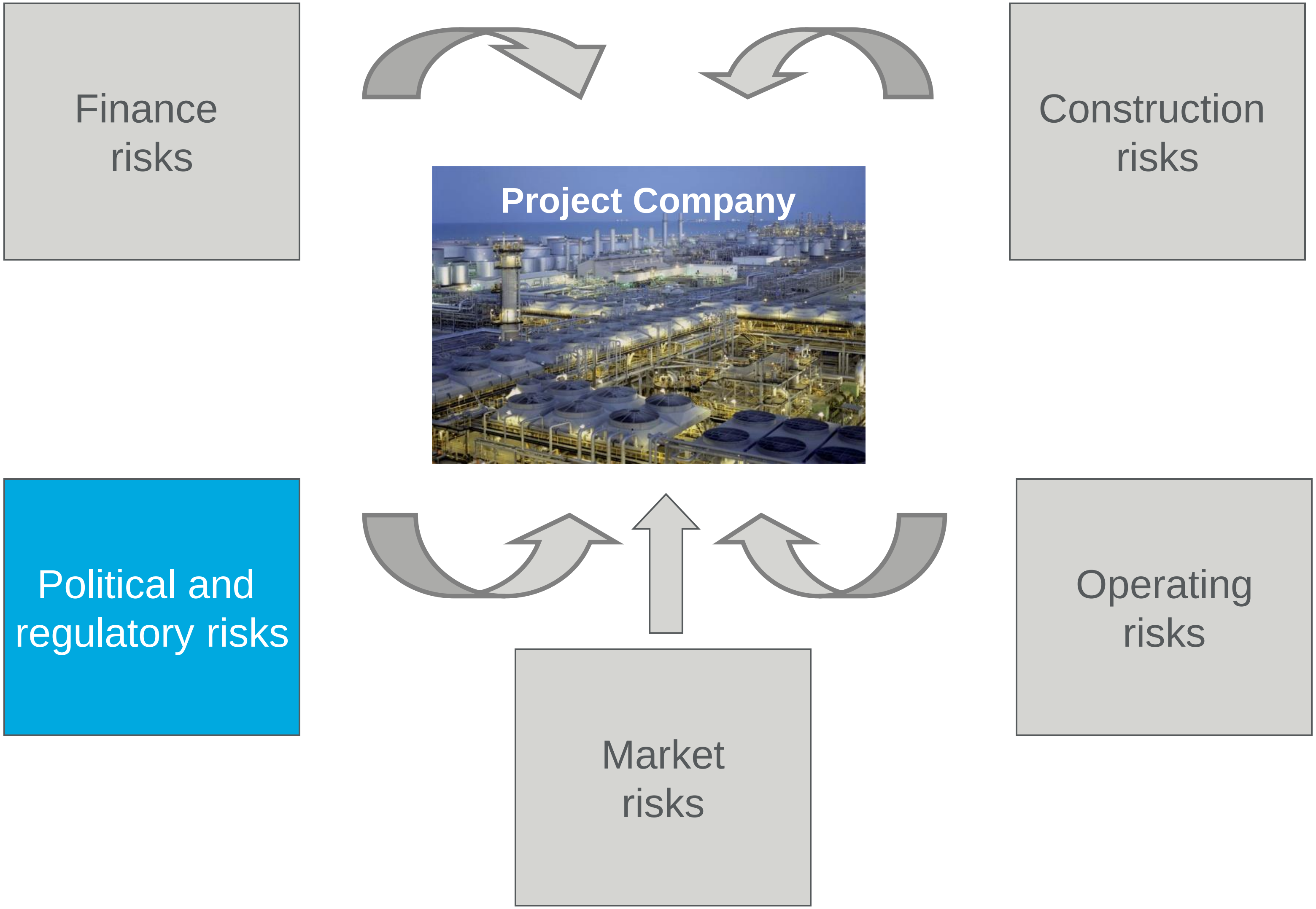
Counterparty credit risk → Credit support

Change in law / risk events → •Harmonise across project documents •Risks can be allocated to others (Government)? •BI Insurance

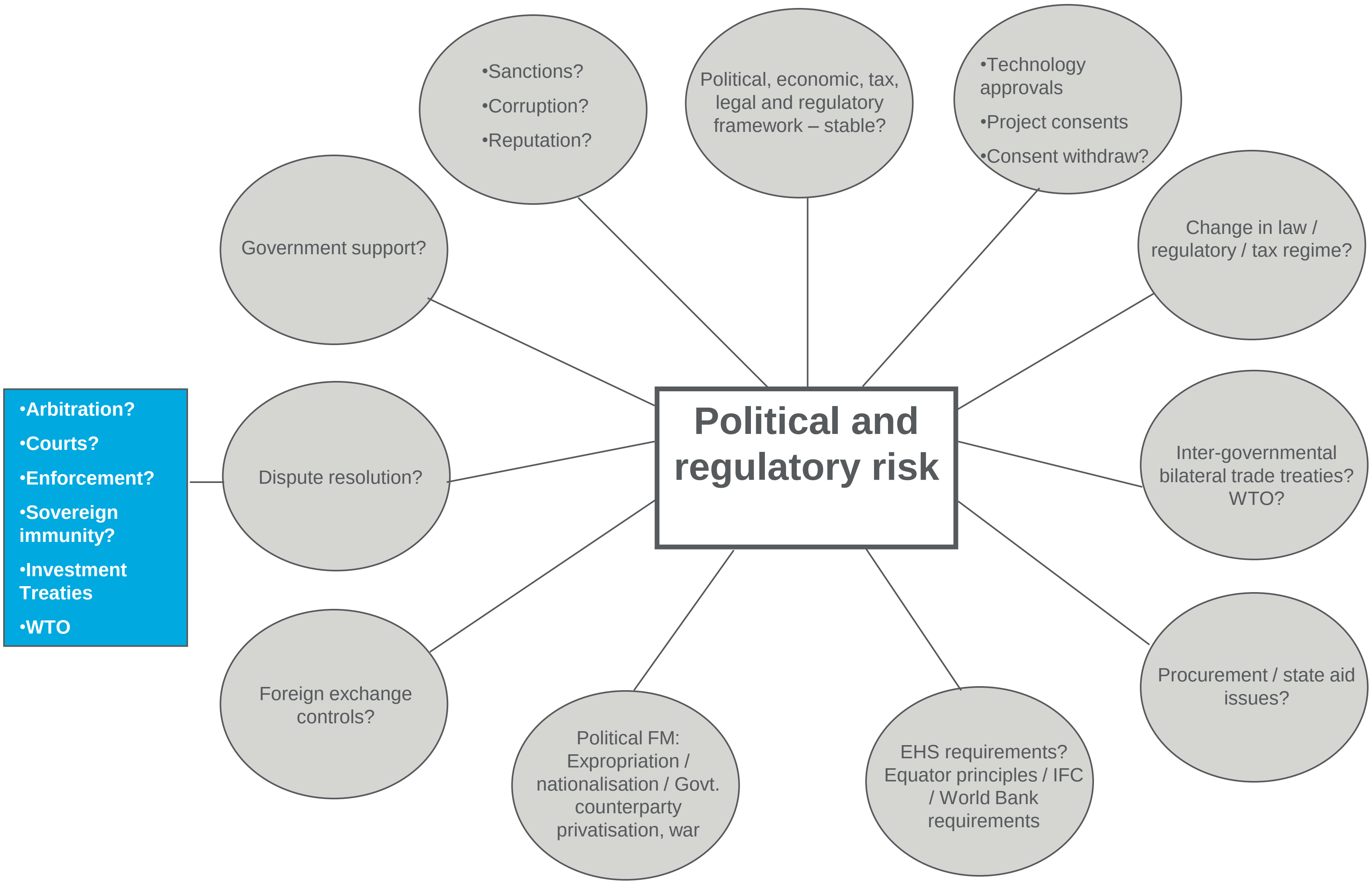
Construction delays / performance → •Calibrate EPC/PPA long-stops, COD regime and LD regime

Seasonal revenue and costs → •Maintenance reserving •Debt repayment profile •DSRA •"Take-or-pay" profiling

Allocation of risk - key risk groups



Political and regulatory risks



Managing political and regulatory risk

- Government
  - ➢Legal / tax stabilisation / concession agreement?
  - ➢Compensation for defined risks and events
  - ➢Revenue stabilisation (including for clean technologies)?
- Bilateral investment treaty in place?
- WTO?
- ECA / IFC / World Bank involvement in project
- Political risk insurance
- Waiver of sovereign immunity?
- Enforcement of court judgments? Arbitration – signatory to New York Convention? Local or international resolution?
- JV with local partner

Allocation of risk - key risk groups

Finance risks

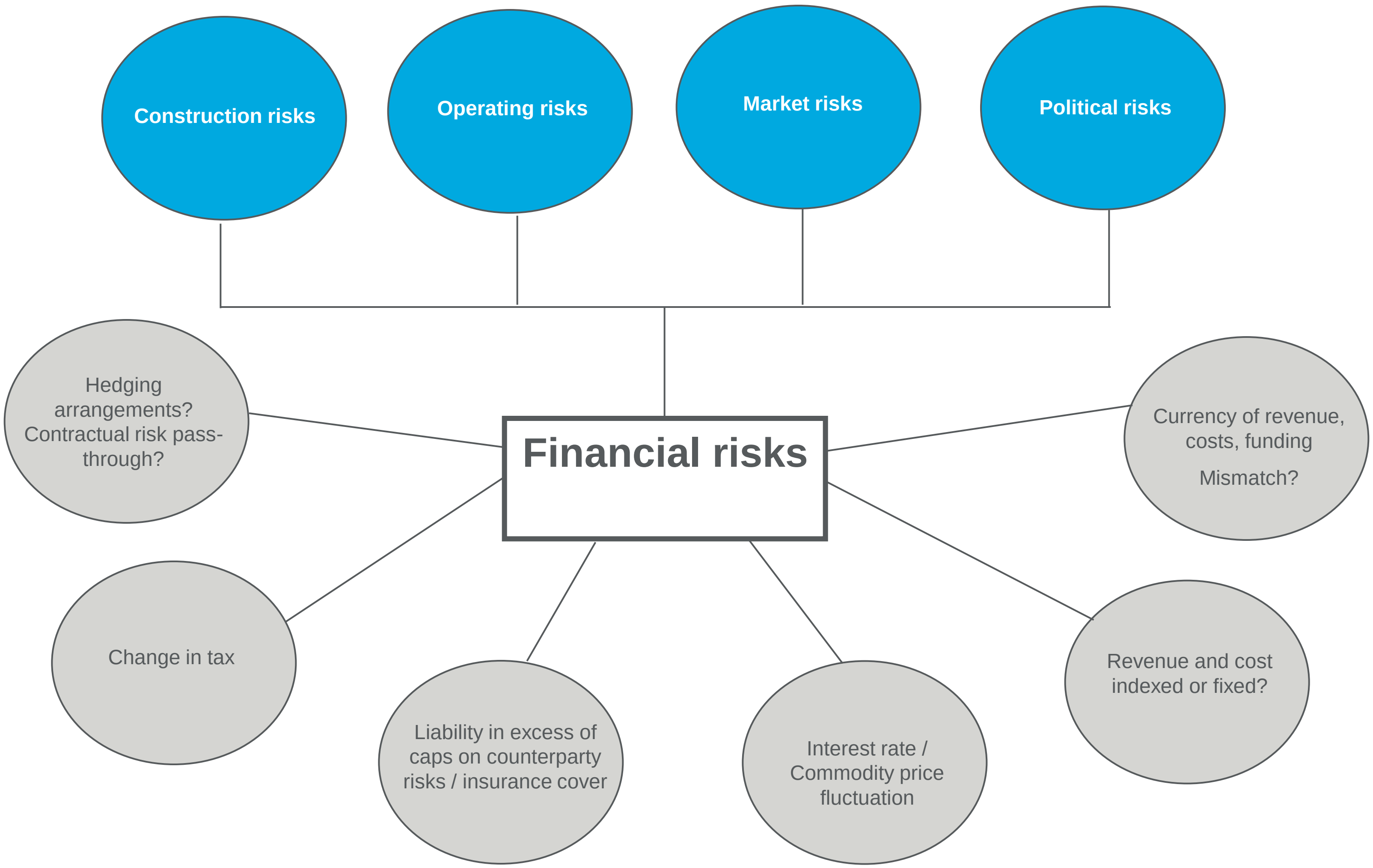
Construction risks

Political and regulatory risks

Market risks

Operating risks

Financial risks



Sponsors' and Banks' approach to Risk Contrasted

Are the interests of the Sponsors and Banks the same?

- In terms of allocation of risk – YES broadly speaking
- Both groups share goal of allocating risks to parties best able to manage and deal with risks (..not the Project Company)
- Both groups share goal of identifying and mitigating all key project risks
- Both groups do not want the project exposed to unquantifiable or unknown or "uncovered" (i.e. hedged, insured, contracts, security) risks
- BUT:
  - Sponsors getting "equity returns" so will take more risks than Banks
  - Sponsors will be able to better understand, appreciate and manage some technical, industry and market risks – they may have a track record
  - If Sponsors are also sub-contractors on the Project then they have a different perspective (but NB conflict of interest issues)
  - Sponsors' exposure generally limited, i.e. to equity and/or completion/cost overrun guarantees
  - Banks generally more risk averse
  - Banks will expect the project to be financially robust in "downside scenarios"

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Neil Cuthbert is a banking and finance partner specialising in project and infrastructure financings. He has been based in Dubai since 2001. He has extensive experience of advising banks, governments, borrowers, sponsors and others in project financing transactions covering a wide range of industries, including the oil and gas, electricity, water, mining, leisure, transportation and telecommunications industries.

Neil also has a general banking practice that includes advising banks, borrowers and others on a wide range of banking products, including lending, structured finance, derivatives, trade finance, development finance and restructurings. He has lectured extensively on a wide range of banking subjects including at the Euromoney Winter and Summer Schools of Project Finance. He is the author of the firm's Standard Introduction to Project Finance and is a past leader of its International Projects Group.

Neil was head of the Dubai office from 2001 to 2010. He was Managing Partner of the firm's Middle East offices from 2005 to 2011 and is currently Senior Partner of the firm's Middle East Practice. He is also a member of the Policy and Planning Board of Dentons UKMEA LLP and sits on the General Advisory Committee of Dentons. He was a member of the Global Board of Dentons from 2011 to 2015.

Neil has been a frequent speaker at the China International Contractors Association (CHINCA) annual conferences from 2011 to 2016. Attached are four recently published articles Neil has written about PPP projects and infrastructure finance.

Selected Experience

- **China Harbour Engineering Company:** Advising on a roads PPP project in Jamaica.
- **China Harbour Engineering Company:** Advising on a roads PPP Project in Africa.
- **Chinese State Owned Enterprise:** Advising on its bid for the Big Almaty ring road BTO Project (BAKAD).
- **Chinese State Owned Enterprise:** Advising on the financing of roads projects in Zambia and Madagascar.
- **Chinese State Owned Enterprise:** Advising on a hotel and leisure resort in the Maldives.
- **Sumitomo Corporation:** Advising the sponsors on a US$5.6 billion BOT power and water project in Saudi Arabia.
- **Sumitomo Chemicals:** Advising a sponsor on a world scale US$10 billion+ refining and petrochemical project in Saudi Arabia.
- **Emirates Steel:** Advising the sponsor on a US$2.5 billion steel project in Abu Dhabi.
- **Government of Oman:** Advising on a new MW550 independent BOT power and water project at Sohar.
- **Qurayyat desalination BOO Project:** Advising the sponsors on the bid for and implementation of the Qurayyat desalination BOO project in Oman.
- **Government of Philippines:** Advising on the Plaridel roads PPP Project in the Philippines.
- **Lenders:** Advising the lenders on the provision by a syndicate of banks of a $606 million guarantee issuance facility, structured to include both conventional and Shari'ah compliant tranches, in connection with the development of the Al Dabb'iya oil treatment plant in Abu Dhabi .
- **Lenders:** Advised on a dual conventional and Islamic financing facility of up to US$275 million to Royal Jordanian Airlines. The transaction encompassed a conventional tranche and an Islamic tranche, based on a wakala arrangement, with all financiers sharing in common security.
- **Sponsors:** Advising the sponsors on all JV, construction, property and finance aspects the US$ 1.5 billion "Atlantis" resort project at The Palm Island, Dubai.

Key Project Insights

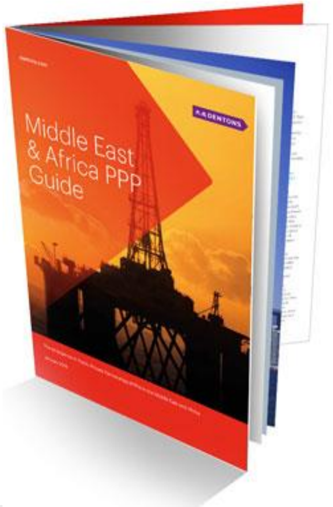
Please find links to three articles written and published by Neil Cuthbert about issues relevant for this project.

"Middle East and Africa PPP Guide: The emergence of Public-Private Partnerships (PPPs) in the Middle East and Africa"

July 2016

The purpose of this article is to analyse and summarise the emergence of the public-private partnership (PPP) model in the Middle East context (with a focus on the Gulf Cooperation Council (consisting of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates) (GCC)) and also in the context of selected emerging markets in Africa that have recently looked to introduce the PPP model. Although Governments and the private sector have a history of working together to procure energy, infrastructure and other projects in these regions, they have largely done so in the absence of codified or other clear PPP legal frameworks of the kind seen in more developed jurisdictions.

Download the Guide
(The Guide is available in English and Mandarin version)



"Global Project Finance Risk Guide"

November 2015

This guide analyses the key risks associated with the development and implementation of large-scale international energy and infrastructure projects. It assumes that the project will be financed on limited recourse terms, by one or more bank(s) or financial institution(s). Specifically, it looks at what makes, or does not make, a project "bankable" (or financeable) and how a project's risk allocation must be adjusted in order to make it bankable.

Download the Guide
(The Guide is available in English and Mandarin version)

Key Project Insights (cont.)

"One Belt One Road: PPP Alchemy - is the Silk Road Paved in Gold?"

December 2016

The "One Belt One Road" project (OBOR) is one of China's key initiatives as part of its plan to assert its position as one of the world's strongest economic powers. OBOR was initially launched by China's President Xi Jinping in late 2013 as one of the Asian superpower's ambitious plans to accelerate outbound investment and to consolidate its position generally across the globe. This article explores what OBOR is, its objectives, current investment in OBOR, key challenges OBOR faces and how the PPP project model can be utilised to support OBOR projects.

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