APPENDIX B:

School PPP Risk Allocation Matrix
### PURPOSE OF MATRIX

This appendix contains a matrix of risks typically found in a school PPP transaction, together with guidance on how these risks are typically allocated between the Contracting Authority and the Private Partner, the rationale for such risk allocation, mitigation measures and possible government support arrangements. It aims to provide governments (and, additionally, private sector stakeholders) with targeted guidance on the appropriate allocation of project risks in a PPP contract.

### CAUTIONARY NOTE

This matrix contains an indicative – but not exhaustive – list of the main risks typically to be considered in school PPP projects and their typical allocation between the Contracting Authority and the Private Partner. It may be used as a starting point for understanding the risk allocation issues commonly arising in school projects and for developing an individual risk matrix for the project in question. A project’s individual circumstances and its jurisdiction will influence the appropriate contractual risk allocation and there may be additional risks that need to be considered.

See Detailed Risk Identification and Analysis in the Introduction.

### TYPE OF PROJECT AND SCOPE CONSIDERATIONS

This matrix addresses the common risks for the design, build, finance, refurbishment, operation, maintenance and transfer to the Contracting Authority (at the end of the PPP contract) of new and refurbished PPP school buildings on a single site.

Scope may include provision of cleaning, catering, caretaking, ICT provision and security. Additional risk allocation considerations will be relevant if scope extends to pupil transportation or third party/community use (for example, outside normal school hours) or educational services. This may include other (mandatory) service provision to other public entities and may also permit commercial activities at the Private Partner’s option.

In some projects, scope may entail an entirely new build school, a whole refurbishment of an existing school, or a combination of both. Scope may also include batches of schools, rather than a single school and involve a combination of these elements.

### ASSUMPTIONS

The Private Partner finances the refurbishment and new development of the school and only starts to receive payment from the Contracting Authority (and/or where applicable, users) once the school is in operation.

The Contracting Authority provides the site for the new school buildings and transfers existing buildings to the Private Partner for the purposes of the project. If the Contracting Authority retains certain responsibilities in relation to the existing or new school buildings this must be factored into the risk allocation.

The school (and all related project assets) are handed back to the Contracting Authority on early termination or natural expiry of the contract, together with all consents and licences (including intellectual property licences) necessary to continue operating the school, in accordance with the contractual handback requirements.

### MARKET APPROACHES

School PPP projects may involve new build/extension or rehabilitation or a combination of all these elements and may be procured in batches of schools involving the different elements for efficiencies and cost benefit reasons and to create projects of sufficient size to attract a pool of suitable bidders. As well as PPP approaches, there are other contractual structures and procurement models that Contracting Authorities can use to deliver school infrastructure with private sector involvement. These include direct procurement of just the construction (or rehabilitation) of a school, and procurement of standalone operation and maintenance contracts.

The risks and associated guidance included in this matrix will be relevant to different contractual structures and procurement models, but will need to be adapted appropriately taking into account the scope and duration of the relevant contract and financing methods (such as whether there is a need for long term third party lending and how the pricing mechanism works).

### PROJECT REVENUES, INCLUDING PAYMENT MECHANISMS

Most social infrastructure PPP projects are funded wholly or primarily through government payments because the nature of the service provided is not compatible with transferring demand risk and there is no or limited third party/user revenue generation opportunity. It may also be national policy that the service being provided is paid for by government. In schools PPP projects, project revenues are generated through availability payments by the Contracting Authority and deductions or penalties are typically applied where the Private Partner has not met contractual availability and performance standard criteria.

Some social infrastructure PPP contracts have contained requirements for certain soft services (e.g. such as cleaning and catering) to be periodically benchmarked (e.g. through comparative data) or market tested (e.g. through competitive tendering of these services) during the operational period. The purpose is to ensure that the price the Contracting Authority pays for these elements is market competitive and not over inflated at the start of the contract as bidders price in employment and other related cost contingencies for the entire term of the contract. These processes can be disruptive to the service when it is otherwise operating smoothly with the existing sub-contractors and can result in the Private Partner being obliged to work with contractors that it has not chosen itself but is responsible for managing. This can be a particular issue where there are a number of services involved and can distract from the core service provision. An alternative is for the Contracting Authority to retain responsibility for and carry out certain soft services itself or sub-contract them to other private sector contractors on a shorter term more flexible basis (in this instance, interface issues would need
addressing). There may be third party revenue opportunities in some cases (for example, letting school facilities out of school hours to local users). The parties will need to agree appropriate risk allocation and price impact if this is the case. See Type of Project and Scope Considerations above. Other Considerations below and Performance/price risk under Operating risk.

### Key Risks

**Dealing with asset condition**: Where the Private Partner is rehabilitating existing structures and/or integrating them into new project structures, the condition of the existing structures will be a key part of the Private Partner’s due diligence. See Existing asset condition and site condition under Land availability, access and site risk, Suitability of design under Design risk, Project management and interface with other works/facilities under Construction risk and Maintenance standards under Operating risk.

**Timing and disruption**: As the school is likely to operate within fixed teaching periods and holidays, the Private Partner’s construction/refurbishment programme (and order of works) should be required to take account of this in order to minimise disruption to the day-to-day running of the school. See Works completion delays under Construction risk.

**Staffing interface**: Interface with Contracting Authority/government personnel (especially teaching staff) and the effect of their actions on risk allocation is particularly key under Operating risk and Site security. See Vandalism and Interface under Land availability, access and site risk.

**Environmental and health standards**: There will be increased sensitivity around environmental and health standards as the project affects children. This will be a focus for all parties in design, construction and performance standards for the project, as well as when considering the impact of the project on the wider community. See Design risk, Performance/price risk under Operating risk, Social risk and Environmental risk.

### Other Considerations

**Staged operation commencement**: A single operation commencement regime is more common on a single site school. In some cases, the Contracting Authority may wish to implement a multi-staged operation commencement process enabling the Private Partner to begin to receive payment once significant components of the project are substantially completed. This can help increase cash flow during the overall construction process, reduce the Private Partner’s financing costs and incentivize the phasing of construction works in order to ensure critical components are completed on time. This is likely only to be suitable where distinct sections of the school can become operational in phases and where commencement of operation will not distract from ongoing construction requirements. Similarly, in multi-school projects it may be appropriate for the Private Partner to start to receive revenue for one completed school while construction continues on others. On the other hand, staged completion dates may also increase the complexity of the construction programme, limit the Private Partner’s ability to mitigate construction delays and/or have agreed damages attached to them, which can increase the risk to the Private Partner.

If the contract requires ‘non-core’ service provision to other public entities, or permits the Private Partner to run commercial activities (in addition to the core service under the contract), the contract must allocate the risk of such activities. Broadly speaking, the Private Partner will bear the risks associated with its optional commercial activities, except (in limited cases) as regards some interface risk. If commercial activity ceases to be possible due to regulatory reasons or other factors attributable to the Contracting Authority or government, the contract will provide for the consequences (e.g. in MAGA and/or change in law provisions). This may include amending certain provisions, including price (e.g. particularly if the Private Partner has been relying on third party income to enable it to bid a lower price for the project). See MAGA risk and Change in law risk.

### Private Sector Risk Mitigation

**Allocation of risks to sub-contractors**: See Risk Allocation in PPP contracts in the Introduction and Cost increases and Works completion delays under Construction risk. As regards construction, the Private Partner will often enter into a lump sum construction contract with a construction sub-contractor to pass down its obligations under the PPP contract and to manage the risk of cost increases and delays (subject to certain relief to which the sub-contractor will be entitled under the sub-contract). The Private Partner will bear the risk of liability caps agreed under the sub-contract being reached or warranty periods under the sub-contract being shorter than the Private Partner’s defect rectification obligations towards the Contracting Authority. The Private Partner will similarly typically enter into an agreed price operating sub-contract with an operating sub-contractor to pass down its operating phase obligations to the extent practicable.

**Insurance**: See Risk Allocation in PPP contracts in the Introduction.

**Effective implementation of social and environmental management plan**: Increased standards as regards health and safety as children involved. See Environmental risk and Social risk.

**Additional equity and other funding support**: See Market Conditions in the Introduction.

### Public Sector Risk Mitigation

**Conducting detailed feasibility and ground surveys**: See PPP Project Preparation and Delivery in the Introduction. In addition, studies for schools projects should include identification of land, interface with existing buildings (where applicable) and social and environmental impact of both the construction and operation of the school. Detailed ground surveys should also be carried out where practicable. Where such information is provided to bidders to rely on in pricing their bids, Contracting Authorities may elect to guarantee accuracy but not necessarily completeness or interpretation – this will depend on project-specific factors including the experience of the bidders and the ability to obtain other relevant information.

**Running an efficient and fair procurement process**: See PPP Project Preparation and Delivery in the Introduction. Enacting enabling legislation (if required) and complying with
domestic procurement laws in relation to the project are primarily the Contracting Authority’s risk and responsibility. As the Private Partner will be affected by the consequences of breach of such legislation, it will carry out due diligence itself on these matters. Interference with the tender process and other issues attributable to the Private Partner will remain a Private Partner risk.

**Timely consultation on social and environmental impact:** It is key for the Contracting Authority to consider the effect of the project on people, wildlife and habitat and to implement effective management of stakeholder interests and public perception before and (in conjunction with the Private Partner) during the project. This will include assessing the potential increase in traffic around the site both during and after construction (e.g. if the project increases pupil capacity or third party use). See Environmental risk and Social risk.

**Having competent advisers:** See Detailed Risk Identification and Analysis in the Introduction.

**Timely involvement of internal stakeholders and contract management team:** See Detailed Risk Identification and Analysis in the Introduction.

**Careful assessment and quantification of risk:** See Detailed Risk Identification and Analysis in the Introduction.

**Taking performance security:** The Contracting Authority may seek certain security directly from the Private Partner and its sub-contractors, or their parent companies, in respect of certain contractual (or tender) obligations. This may be in the form of bid bonds during the tender stage and, following the tender stage, completion bonds, performance bonds and guarantees. As an alternative, cash reserving mechanisms could be used during the life of the contract. The Contracting Authority will be able to call on this security in certain circumstances (such as performance failures by the Private Partner). Security has a cost attached which will feed through to pricing. Disproportionate security requirements will negatively affect value for money.

**Public sector support measures**

The Contracting Authority/government may provide certain financial support to the project, in terms of subsidies or guarantees, although the consequences of such commitments and the potential liabilities for the public sector should be carefully considered, including how such support may dilute the risk/reward distribution under the PPP contract and affect value for money.

Where the Contracting Authority’s own credit is weak or uncertain, additional credit support may be sought by the Private Partner and its lenders in respect of the Contracting Authority’s contractual financial obligations. This may be the case, for example, in projects where the Contracting Authority is not part of central government or is a local authority. To mitigate this Contracting Authority counterparty risk, a sovereign or central government (e.g. finance ministry) guarantee (or equivalent support) may be needed or co-contracting required, though the full implication for the public sector should be carefully assessed, including the potential impact on the government’s contingent liabilities and fiscal sustainability. See Strength of Contracting Authority payment covenant under Early termination risk.
## Key to Matrix

<table>
<thead>
<tr>
<th>Risk category rows</th>
<th>Broadly, the first row of a particular risk category summarises the risk and its main allocation. The subsequent rows detail specific issues relevant to that risk and its allocation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk allocation symbols</td>
<td>Indicates how the main risk described in the relevant row is typically allocated.</td>
</tr>
<tr>
<td></td>
<td>Indicates how the risk (or part of the risk) may be allocated differently in the particular additional circumstances described.</td>
</tr>
<tr>
<td>Defined terms</td>
<td>Certain terms used in the matrix are defined in the Glossary. For example, the terms compensation event and relief event are used throughout this matrix with respect to how a PPP contract addresses the eventuation of certain risks. For a detailed explanation of those contractual mechanisms, refer to the definition of compensation event and relief event in the Glossary.</td>
</tr>
<tr>
<td>References to “construction”</td>
<td>These should be read to include “refurbishment” where applicable.</td>
</tr>
<tr>
<td>RISK CATEGORY</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>LAND AVAILABILITY, ACCESS AND SITE RISK</td>
<td>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.</td>
</tr>
<tr>
<td>SOCIAL RISK</td>
<td>The risk associated with the project impact on adjacent properties and affected people (including public protest and unrest); resettlement; indigenous land rights; and industrial action.</td>
</tr>
<tr>
<td>ENVIRONMENTAL RISK</td>
<td>The risk associated with pre-existing conditions; obtaining consents; compliance with laws; conditions caused by the project; external events; and climate change.</td>
</tr>
<tr>
<td>DESIGN RISK</td>
<td>The risk that the project design is not suitable for the purpose required; approval of design; and changes.</td>
</tr>
<tr>
<td>CONSTRUCTION RISK</td>
<td>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.</td>
</tr>
<tr>
<td>VARIATIONS RISK</td>
<td>The risk of changes requested by either party to the service which affect construction or operation.</td>
</tr>
<tr>
<td>OPERATING RISK</td>
<td>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.</td>
</tr>
<tr>
<td>DEMAND RISK</td>
<td>The risk of user levels being different to forecast levels; the consequences for revenue and costs; and government support measures.</td>
</tr>
<tr>
<td>FINANCIAL MARKETS RISK</td>
<td>The risk of inflation; exchange rate fluctuation; interest rate fluctuation; unavailability of insurance; and refinancing.</td>
</tr>
<tr>
<td>STRATEGIC / PARTNERING RISK</td>
<td>The risk of the Private Partner and/or its sub-contractors not being the right choice to deliver the project; Contracting Authority intervention in the project; ownership changes; and disputes.</td>
</tr>
<tr>
<td>DISRUPTIVE TECHNOLOGY RISK</td>
<td>The risk that a new emerging technology unexpectedly displaces an established technology or the risk of obsolescence of equipment or materials used.</td>
</tr>
<tr>
<td>FORCE MAJEURE RISK</td>
<td>The risk that unexpected events occur that are beyond the control of the parties and delay or prevent performance.</td>
</tr>
<tr>
<td>MAGA RISK</td>
<td>The risk of actions within the public sector’s responsibility having an adverse effect on the project or the Private Partner.</td>
</tr>
<tr>
<td>CHANGE IN LAW RISK</td>
<td>The risk of compliance with applicable law; and changes in law affecting performance of the project or the Private Partner’s costs.</td>
</tr>
<tr>
<td>EARLY TERMINATION RISK</td>
<td>The risk of a project being terminated before its natural expiry on various grounds; the financial consequences of such termination; and the strength of the Contracting Authority’s payment covenant.</td>
</tr>
<tr>
<td>CONDITION AT HANDBACK RISK</td>
<td>The risk of deterioration of the project assets/land during the life of the PPP and the risk that the project assets/land are not in the contractually required condition at the time of handback to the Contracting Authority.</td>
</tr>
</tbody>
</table>

1 Cautionary note: The summary matrix identifies typical risk allocation on an aggregated basis. For each risk allocation, however, there are generally exceptions. For the full discussion on typical risk allocation arrangements, please see the detailed guidance provided in the matrix below.
### Risk Category and Description

<table>
<thead>
<tr>
<th>Risk</th>
<th>Sub-category</th>
<th>Risk Allocation</th>
<th>Rationale and Mitigation Measures (Including Government Support Arrangements)</th>
<th>Market Comparison Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Land Availability, Access and Site Risk</strong></td>
<td>Provision of required land - general</td>
<td>- Public</td>
<td>The Contracting Authority typically bears the risk of acquiring the required land interests for the project, whether through compulsory acquisition/expropriation 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 &quot;clean&quot; accessible site, with no restrictive land title issues. See also Access to the site and associated infrastructure under Land availability, access and site risk. During the feasibility stage (see PPP Project Preparation and Delivery in the Introduction), 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 school. 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. If the Contracting Authority needs to use its legislative powers to acquire the site (e.g. through compulsory acquisition/expropriation), this may increase social risk and other opposition to the project (e.g. due to delay caused by court cases). See also Social risk. The importance of access to the school(s) (through public transport or other means) is usually an important element in the planning process.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Shared</td>
<td>If a permanent need for additional land is identified and agreed by the parties before contract signature then the associated risk is usually treated in the same way as the original land. Usually the Contracting Authority will bear the risk of acquiring/providing the additional land, unless the need for additional land is specific to a bidder (for example, due to a different design).</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Private</td>
<td>If the Co-terminating Authority will need to bear the risk of acquiring/providing the additional land, unless the need for additional land is specific to a bidder (for example, due to a different design).</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>In certain markets, land rights (in particular reliable utilities records, and land charges and third party rights to (access) land) may be less clear than in other markets where established land registries and utility records exist and risks can be mitigated with appropriate due diligence. Where reliable information is not available, this will increase the risk of delay, cost increases and disputes. This makes it more likely that the Contracting Authority will need to bear the associated risks as the Private Partner will not be able to bear them. The rights of private landowners against compulsory acquisition/expropriation might be stronger in developed markets, so the Contracting Authority may need to allow more time to acquire the land. Many schools in developed markets are built on existing school land, to minimise disruption to the opening of a new school (i.e. children, parents and teachers have committed to education services in a particular location and so the old school building will normally be kept in operation to facilitate a smooth transition to the new school building). Completion of the new school building is then often followed by demolition of the old school building.</td>
<td></td>
</tr>
<tr>
<td><strong>Timing of provision of required land</strong></td>
<td>Acquisition pre-signature</td>
<td>- Public</td>
<td>The Contracting Authority should complete the process of land acquisition before the contract is awarded so that all issues and risks are known and managed. All relevant processes will need to be carried out in a timely manner. The timeframe will depend on the issues affecting the site and the applicable processes. The risk that all necessary processes have been satisfied will be the Contracting Authority's risk.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Provision of permanent additional land</strong></td>
<td>Identification pre-signature</td>
<td>- Public</td>
<td>If a permanent need for additional land is identified and agreed by the parties before contract signature then the associated risk is usually treated in the same way as the original land. Usually the Contracting Authority will bear the risk of acquiring/providing the additional land, unless the need for additional land is specific to a bidder (for example, due to a different design).</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>In certain markets, land rights (in particular reliable utilities records, and land charges and third party rights to (access) land) may be less clear than in other markets where established land registries and utility records exist and risks can be mitigated with appropriate due diligence. Where reliable information is not available, this will increase the risk of delay, cost increases and disputes. This makes it more likely that the Contracting Authority will need to bear the associated risks as the Private Partner will not be able to bear them. The rights of private landowners against compulsory acquisition/expropriation might be stronger in developed markets, so the Contracting Authority may need to allow more time to acquire the land. Many schools in developed markets are built on existing school land, to minimise disruption to the opening of a new school (i.e. children, parents and teachers have committed to education services in a particular location and so the old school building will normally be kept in operation to facilitate a smooth transition to the new school building). Completion of the new school building is then often followed by demolition of the old school building.</td>
<td></td>
</tr>
</tbody>
</table>

---

GLOBAL INFRASTRUCTURE HUB | ALLEN & OVERY

PPP RISK ALLOCATION TOOL 2019 EDITION (SOCIAL INFRASTRUCTURE) | 25
### Risk Category and Description

<table>
<thead>
<tr>
<th>Risk</th>
<th>Sub-category</th>
<th>Risk Allocation</th>
<th>Rationale and Mitigation Measures (Including Government Support Arrangements)</th>
<th>Market Comparison Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provision of temporary additional land</td>
<td>●</td>
<td>[●]</td>
<td>Identification pre-signature: Where temporary additional land needs (e.g., for materials or equipment storage during construction) are identified in the procurement phase and are common to all bidders, then the associated risk is usually treated in the same way as the original land. Usually, the Contracting Authority will bear the risk of acquiring/providing such land, unless the need for such land is specific to a bidder (for example, due to its construction methods and equipment) – in which case the risk should be allocated to that bidder and the cost factored into its bid price. The Contracting Authority may however find it needs to provide assistance in some cases, with the cost being borne by the Private Partner.</td>
<td></td>
</tr>
<tr>
<td>Heritage / Indigenous land rights</td>
<td>●</td>
<td>[●]</td>
<td>Identification post-signature: Where temporary additional land needs (e.g., for materials or equipment storage during construction) are identified, they should be a Private Partner risk as such need should have been identified and factored into the Private Partner’s bid. The Contracting Authority may however find it needs to provide assistance in some cases, with the cost being borne by the Private Partner.</td>
<td></td>
</tr>
<tr>
<td>Resettlement</td>
<td></td>
<td></td>
<td>Land rights issues involving indigenous groups will be the responsibility of the Contracting Authority. The Private Partner will bear the risk of complying with legislation and contractual obligations imposed on it in this regard. The Private Partner’s obligations with regard to indigenous rights is well legislated for in some markets. In the absence of legislation, indigenous land rights issues and community engagement can be managed by the Contracting Authority through the adoption of internationally recognised social and environmental standards and practices for the project (e.g., compatible with the Equator Principles). This will be particularly relevant if international financing options are desirable. See also Social risk.</td>
<td></td>
</tr>
<tr>
<td>Suitability of land</td>
<td>●</td>
<td></td>
<td>General: The risk that the land is not suitable is typically shared as the Contracting Authority may be able to secure the availability of the land, but its suitability may be dependent on the Private Partner’s design and construction plan. See also Design risk.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>●</td>
<td></td>
<td>Underground: Risk with regard to stability and suitability of the underground sits with the Contracting Authority if no or unreliable data is available and the risk cannot be transferred (or transferring the risk does not represent value for money). To the extent reliable data is available in the tender phase and can be relied upon by the Private Partner, the risk sits with the Private Partner. See also Site condition under Land availability, access and site risk.</td>
<td></td>
</tr>
</tbody>
</table>

This issue is coming under increasing focus from multilateral agencies and other finance parties, as well as civil society and human rights organisations. For example, the World Bank’s commitment to sustainable development is set out in its Environmental and Social Framework which includes standards that both it and its borrowers must meet in projects it is to finance. Many finance parties (including commercial finance parties) adhere to the Equator Principles, committing to ensure the projects they finance (and advise on) are developed in a manner that is both socially responsible and reflects sound environmental management practices (as described in the Equator Principles). Examples of specific legislation are native title legislation in Australia and the equivalent First Nations law in Canada. These include a requirement to seek consent from the indigenous parties affected and to enter into indigenous land use agreements.
### Key planning consents

**Pre-signature:** In most projects, there will be a benefit if planning consent for key permits and other key approvals can be obtained by the Contracting Authority before procurement. – these may include key environmental consents. If zoning laws only allow for public services on the land, this may restrict the use of the buildings for commercial purposes. If this is important to the Contracting Authority (for example to optimise pricing or local support) the planning process needs to cater for such new / additional use.

**Post-signature:** If consents for key permits are not obtained before contract signature and the Contracting Authority wants to sign the contract, it will typically bear the risk of the consents being delayed or not obtained (subject to the Private Partner complying with any reasonable requirements) – this may be treated as a compensation event. Failure by the Contracting Authority to obtain the consents by a certain date is likely to entitle the Private Partner to terminate the contract. Permit risk may be complicated further if there are different levels of authorities involved, and interaction between levels of design and authorisations may impact the timeline. If the risk of non-availability is too great, this may deter some investors and financiers from engaging in or continuing in the bid process. See also MAGA risk, Design risk and Environmental risk.

<table>
<thead>
<tr>
<th>Risk Category and Description</th>
<th>Risk Allocation</th>
<th>Rationale and Mitigation Measures (Including Government Support Arrangements)</th>
<th>Market Comparison Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key planning consents</strong></td>
<td>Public: [●]</td>
<td>Pre-signature: In most projects, there will be a benefit if planning consent for key permits and other key approvals can be obtained by the Contracting Authority before procurement. Post-signature: If consents for key permits are not obtained before contract signature and the Contracting Authority wants to sign the contract, it will typically bear the risk of the consents being delayed or not obtained (subject to the Private Partner complying with any reasonable requirements) – this may be treated as a compensation event. Failure by the Contracting Authority to obtain the consents by a certain date is likely to entitle the Private Partner to terminate the contract. Permit risk may be complicated further if there are different levels of authorities involved, and interaction between levels of design and authorisations may impact the timeline. If the risk of non-availability is too great, this may deter some investors and financiers from engaging in or continuing in the bid process. See also MAGA risk, Design risk and Environmental risk.</td>
<td></td>
</tr>
<tr>
<td><strong>Subsequent planning approvals</strong></td>
<td>Private: [●]</td>
<td>Obtaining subsequent detailed planning consent and other approvals will be a Private Partner risk. However, the Contracting Authority will share this risk to the extent the relevant authority does not act properly or within approval process deadlines – this may be treated as a compensation event. See also Environmental risk and MAGA risk.</td>
<td></td>
</tr>
<tr>
<td><strong>Access to the site and associated infrastructure</strong></td>
<td>Public: [●]</td>
<td>The Contracting Authority will typically be required to grant the Private Partner all land rights it requires to implement the project. The Private Partner will be responsible for assessing the adequacy of the land granted (including any associated easements and access rights in relation to third party land). The Contracting Authority will then be responsible for ensuring the Private Party has these rights, whether by way of legislation/statutory powers or through contract. If the risk of non-availability of land access is too great, this may deter some investors and financiers from engaging in or continuing in the bid process. Construction phase: In principle the Contracting Authority will be responsible for ensuring the Private Partner can access the site during construction (including for example closing adjacent roads to enable construction to take place over them). This can be particularly key in densely populated areas. Either (i) it will pay the costs of providing access itself, or (ii) the Private Partner will pay such costs and be reimbursed through the contract price to the extent it has priced such costs into its bid. This will depend on the nature of the access required. Failure to provide access may be treated as a compensation event or MAGA event. See also MAGA risk. Operation phase: It is in the Contracting Authority’s interests to ensure pupils and all associated workers can get to the school entrance and typically this is a Contracting Authority risk. Preventing the Private Partner accessing the site to carry out the project may be treated as a compensation event or MAGA event. See also MAGA risk. Provision of access on the school site itself is typically the Private Party’s responsibility (e.g. keeping entrances, corridors and site walkways clear of snow/other obstacles).</td>
<td></td>
</tr>
<tr>
<td><strong>Third party rights to (access) land</strong></td>
<td>Private: [●]</td>
<td>Third party rights to (access) land may not be easily identifiable in some jurisdictions, increasing risk of delay, cost increases and disputes. This makes it more likely that the Contracting Authority will need to bear the associated risks.</td>
<td></td>
</tr>
</tbody>
</table>

In some jurisdictions, it may not be possible to obtain the requisite planning consents until such time as the Private Partner has been identified and/or detailed design is known.
<table>
<thead>
<tr>
<th>RISK CATEGORY AND DESCRIPTION</th>
<th>RISK ALLOCATION</th>
<th>RATIONALE AND MITIGATION MEASURES (INCLUDING GOVERNMENT SUPPORT ARRANGEMENTS)</th>
<th>MARKET COMPARISON SUMMARY</th>
</tr>
</thead>
</table>
| Site security                  |                | Risk allocation with respect to site security will depend on the political climate, nature of the risk and the stage of the project. Parties should aim to have a complete understanding of the risks involved in physically securing the site and those that will affect the construction and operation of the school.  
Construction phase: Ordinarily the Private Partner will be responsible for construction site security, but there may be interface issues if the site is part of an existing school site. In certain cases, the Contracting Authority may need to use statutory means to properly secure the site for the Private Partner (such as police involvement or eviction). Failure may be treated as a compensation or MAGA event. See also Force majeure risk, MAGA risk, Social risk and Vandalism under Construction risk and Operating risk. | For example, in some projects, there may be issues safeguarding school buildings and equipment. |
| Utilities and installations     | ○              | Costs or delays caused by relocation of /access to utilities: To the extent reliable data is available and shared during the tender process, the Private Partner can bear and price the corresponding risk of any costs or delays caused by statutory undertakers and utility providers in carrying out diversions or connections. Costs and delays caused by re-location of existing utilities or access to utilities for the purposes of the project which are due to the Private Partner’s design or construction plan are usually allocated to the Private Partner. For connections to existing infrastructure, see also Project management and interface with other works/facilities under Construction risk.  
The Contracting Authority will bear risk if no reliable information is available. It will also bear risk to the extent data provided by it and relied upon by the Private Partner in its bid proves inaccurate.  
Lack of data on existing utilities location can make it difficult for the Private Partner to assess (and price) the cost and time needed for relocation which can impact on the construction timetable and ultimately on meeting the operation commencement date. If the Private Partner bears this risk, the Contracting Authority may need to share the risk by capping the Private Partner’s liability or by having a cost sharing mechanism. | In some markets or challenging locations, there may be little data on location of utilities (water, sewage, oil, gas, optical fibre etc.) and the Private Partner may be unable to accept all or part of this risk. |
<p>| Site condition                  | ○              | Costs or delays caused by utility provider: Costs and delays caused by a utility provider could arise in both phases and the risk will be allocated according to the relevant circumstances and market and ownership of the utility. The risk could be shared or allocated to the Contracting Authority. | In markets where the utility provider is a private entity, this risk is likely to be treated as a relief event (and the utility company will bear the risk) – this is common in mature markets. In less mature markets, particularly where the utility provider is a state-owned entity, the risk is likely to be allocated to the Contracting Authority as a compensation or MAGA event. |
|                                | ○              | Surveyed: The Contracting Authority usually undertakes detailed geotechnical and ground/surface surveys for the relevant site during the feasibility stage (if not already publicly available) and discloses such information as part of the bidding process. It should also carry | In a mature market, the Contracting Authority normally hands over the site to the Private Partner in an “as-is” condition on the basis of the surveys |</p>
<table>
<thead>
<tr>
<th>RISK CATEGORY AND DESCRIPTION</th>
<th>RISK ALLOCATION</th>
<th>RATIONALE AND MITIGATION MEASURES (INCLUDING GOVERNMENT SUPPORT ARRANGEMENTS)</th>
<th>MARKET COMPARISON SUMMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk</td>
<td>Sub-category</td>
<td>Public</td>
<td>Shared</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existing asset condition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Risk Category and Description

<table>
<thead>
<tr>
<th>Risk</th>
<th>Sub-category</th>
<th>Risk Allocation</th>
<th>Rationale and Mitigation Measures (Including Government Support Arrangements)</th>
<th>Market Comparison Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCIAL RISK</td>
<td>The risk associated with the project impact on adjacent properties and affected people; including public protest and unrest; resettlement; indigenous land rights; and industrial action</td>
<td>Community and businesses</td>
<td>Partner will then bear the corresponding risk. The Contracting Authority will bear risk to the extent such data proves inaccurate or insufficient, and to the extent of any warranties it provides. Some Contracting Authorities will guarantee only accuracy, not completeness or interpretation. If latent defects are discovered in assets which are due to be replaced at some point in the life of the contract (e.g. the main heating boiler), the Contracting Authority may be able to mitigate its risk to some extent by having a contractual mechanism which brings forward the replacement date. See also Suitability of design under Design risk, Project management and interface with other works/facilities under Construction risk and Maintenance standards under Operating risk</td>
<td>refurbishment/demolition has begun.</td>
</tr>
</tbody>
</table>

**Partner** will then bear the corresponding risk. The Contracting Authority will bear risk to the extent such data proves inaccurate or insufficient, and to the extent of any warranties it provides. Some Contracting Authorities will guarantee only accuracy, not completeness or interpretation.

If latent defects are discovered in assets which are due to be replaced at some point in the life of the contract (e.g. the main heating boiler), the Contracting Authority may be able to mitigate its risk to some extent by having a contractual mechanism which brings forward the replacement date. See also Suitability of design under Design risk, Project management and interface with other works/facilities under Construction risk and Maintenance standards under Operating risk.

### RISK CATEGORY AND DESCRIPTION

<table>
<thead>
<tr>
<th>Risk</th>
<th>Sub-category</th>
<th>Risk Allocation</th>
<th>Rationale and Mitigation Measures (Including Government Support Arrangements)</th>
<th>Market Comparison Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCIAL RISK</td>
<td>The risk associated with the project impact on adjacent properties and affected people; including public protest and unrest; resettlement; indigenous land rights; and industrial action</td>
<td>Community and businesses</td>
<td>Partner will then bear the corresponding risk. The Contracting Authority will bear risk to the extent such data proves inaccurate or insufficient, and to the extent of any warranties it provides. Some Contracting Authorities will guarantee only accuracy, not completeness or interpretation. If latent defects are discovered in assets which are due to be replaced at some point in the life of the contract (e.g. the main heating boiler), the Contracting Authority may be able to mitigate its risk to some extent by having a contractual mechanism which brings forward the replacement date. See also Suitability of design under Design risk, Project management and interface with other works/facilities under Construction risk and Maintenance standards under Operating risk</td>
<td>refurbishment/demolition has begun.</td>
</tr>
</tbody>
</table>

**Partner** will then bear the corresponding risk. The Contracting Authority will bear risk to the extent such data proves inaccurate or insufficient, and to the extent of any warranties it provides. Some Contracting Authorities will guarantee only accuracy, not completeness or interpretation.

If latent defects are discovered in assets which are due to be replaced at some point in the life of the contract (e.g. the main heating boiler), the Contracting Authority may be able to mitigate its risk to some extent by having a contractual mechanism which brings forward the replacement date. See also Suitability of design under Design risk, Project management and interface with other works/facilities under Construction risk and Maintenance standards under Operating risk.
<table>
<thead>
<tr>
<th>RISK CATEGORY AND DESCRIPTION</th>
<th>RISK ALLOCATION</th>
<th>RATIONALE AND MITIGATION MEASURES (INCLUDING GOVERNMENT SUPPORT ARRANGEMENTS)</th>
<th>MARKET COMPARISON SUMMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk</td>
<td>Sub-category</td>
<td>Public Shared Private</td>
<td></td>
</tr>
<tr>
<td>Resettlement</td>
<td>●</td>
<td>● [e]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Depending on the nature of the project, the Contracting Authority may need to retain the risk of unavoidable interference with affected parties and mitigate this through measures such as relocation. This may include the removal of formal and/or informal housing or businesses and resettlement of communities in another location, potentially also with compensation. The Private Partner is responsible for implementing any social risk management measures contractually agreed – these should be clearly specified by the Contracting Authority in the procurement phase to enable the Private Partner to price the cost and associated risks.</td>
<td></td>
</tr>
<tr>
<td>Heritage/indigenous people</td>
<td>●</td>
<td>[e]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>As with land use rights involving indigenous groups, any other social impact risks involving such groups will usually be the responsibility of the Contracting Authority but the Private Partner will bear the risk of complying with relevant legislation and contractual obligations. In the absence of legislation, indigenous rights issues and community engagement may be managed by the Contracting Authority through the adoption of internationally recognised social and environmental standards and practices for the project, particularly if international financing options are desirable. See also Heritage/indigenous land rights under Land availability, access and site risk.</td>
<td></td>
</tr>
<tr>
<td>Industrial action</td>
<td>● ● ●</td>
<td>The Private Partner assumes the risk of labour disputes and strike action adversely affecting the project except to the extent such action falls into the category of political risk – the Contracting Authority may bear the risk (if a MAGA event) or share the risk (as a force majeure or relief event) for strikes and other widespread events of labour unrest. For example, nationwide and sector strikes are usually Contracting Authority risks but strikes at the Private Partner’s facilities will be a Private Partner risk. See also Force majeure risk and MAGA risk.</td>
<td></td>
</tr>
<tr>
<td>ENVIRONMENTAL RISK</td>
<td>Pre-existing conditions ●</td>
<td>[e]</td>
<td>See Site condition and Existing asset condition under Land availability, access and site risk.</td>
</tr>
<tr>
<td></td>
<td>Obtaining environmental consents [e]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RISK CATEGORY AND DESCRIPTION</td>
<td>RISK ALLOCATION</td>
<td>RATIONALE AND MITIGATION MEASURES (INCLUDING GOVERNMENT SUPPORT ARRANGEMENTS)</td>
<td>MARKET COMPARISON SUMMARY</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Environmental incidents caused by the project</td>
<td>●</td>
<td>The Private Partner bears the risk of environmental events caused by the project to the extent due to its failure to comply with applicable licences, laws and contractual obligations. This includes conditions affecting both the project itself and third parties. The Contracting Authority may want to satisfy itself as to the overall robustness and suitability of environmental plans proposed by the Private Partner, to ensure that such plans will be adequate to appropriately manage the risks of the project, but the Contracting Authority should not take on any risk in doing so.</td>
<td>projects in the same sector or jurisdiction. International finance parties, multilateral agencies and development finance institutions are particularly sensitive about environmental and social risks. Many finance parties adhere to the Equator Principles, committing to ensure the projects they finance (and advise on) are developed in a manner that is both socially responsible and reflects sound environmental management practices (which are described in the Equator Principles). Finance parties will look very closely at how these risks are managed at both private and public sector level and this scrutiny is helpful to mitigate the risks posed by these issues. See also Communities and businesses under Social risk.</td>
</tr>
<tr>
<td>Compliance with environmental consents and laws</td>
<td>●</td>
<td>The Private Partner bears the risk of complying with all environmental licences, detailed permits and environmental authorisations required for the project as well as applicable environmental laws. The parties should ensure that change in law provisions adequately address changes in (mandatory) environmental standards and laws to avoid disputes as to which party bears the consequences of any requirements imposed after contract signature. See also Change in law risk. In the absence of legislation, environmental obligations can be managed by the Contracting Authority through the adoption of internationally recognised standards and practices for the project, particularly if international financing options are desirable. See also Communities and businesses under Social risk.</td>
<td></td>
</tr>
<tr>
<td>External environmental events</td>
<td>●</td>
<td>Outside both parties’ responsibility: The risk of environmental events external to the project occurring which adversely affect the project (or, as a result, third parties) should be treated according to the nature and cause. They may be a form of shared risk, such as a relief event or force majeure event (e.g. if an accidental chemical escape from a nearby factory forces the school to close for a period). Within Contracting Authority’s responsibility: If environmental events adversely affecting the project are within the responsibility of the Contracting Authority or government they may be treated as a compensation event or MAGA event (e.g. where the government has failed to enforce environmental laws and a resulting environmental incident from a nearby factory requires the school to be closed for a period). See also MAGA risk and Climate change event under Environmental risk.</td>
<td></td>
</tr>
<tr>
<td>Climate change</td>
<td>●</td>
<td>Market practice is developing with greater focus on events caused by climate change and the</td>
<td></td>
</tr>
</tbody>
</table>

Post-signature: Except as specifically identified otherwise, the Private Partner typically bears the risk of obtaining all environmental licences, detailed permits and environmental authorisations required for the project after contract signature. However, the Contracting Authority will share this risk to the extent the relevant authority does not act properly or within approval process deadlines – this may be treated as a compensation event or MAGA event. See also MAGA risk. In some countries, there may be different levels of governmental approval required. Local authorities may interpret certain requirements in their own way after the contract price has been submitted and impose unexpected conditions on the Private Partner. This could adversely affect the project’s financial model. The parties should ensure that the contract sets out clearly how any such interpretation or unexpected requirement is addressed to avoid disputes as to which party bears the consequences. See also Key Planning Consents under Land availability, access and site risk, Change in law risk and Compliance with environmental consents and laws under Environmental risk.

In the absence of legislation, environmental obligations can be managed by the Contracting Authority through the adoption of internationally recognised standards and practices for the project, particularly if international financing options are desirable. See also Communities and businesses under Social risk.
Contracting Authority should consider the risk and impact of climate risk events on the infrastructure (both one-off external weather events and more gradual effects, such as rising sea levels or temperatures). It may be appropriate to treat certain events as force majeure events if they occur beyond certain thresholds (e.g., temperatures outside certain ranges). Design resilience is also an important mitigating factor, for example, for projects with seasonal weather such as monsoon or where earthquakes are common.

An alternative may be to consider a separate contractual mechanism to address these type of risks over the long term life of the contract. As with other variations required by the Contracting Authority, any changes to the project scope to mitigate climate change effects are likely to need to be funded by the Contracting Authority where the Private Partner cannot foresee such developments and has no means of passing on the cost (and no other agreement as to cost sharing is in place). As it is likely to be more costly to retrofit measures, it is essential that the Contracting Authority consider this risk during the feasibility phase, and that both parties continue to consider this issue further during the tender process.

See also Force majeure risk and Operational risk.

**Market Comparison Summary**

- different bidders taking this risk into account in different ways. To avoid speculation and disputes, post-contract award, these issues should be clearly set out in the tender documents and negotiated throughout the tender process.

In more developed PPP markets, the Contracting Authority typically drafts a broad output specification, unless permit or other regulatory requirements oblige it to provide more detailed and descriptive specifications (e.g., as described under Prescriptive output specification under Suitability of design). Projects in some less established PPP markets may be particularly dependent on availability of reliable resources necessary for construction and operation, which has implications for the Private Partner’s ability to meet the reliability requirements in the performance specification and take full design risk.

The quality of the information provided by the Contracting Authority and the Private Partner’s limited ability to verify such data can hinder the Private Partner’s ability to unconditionally take full design risk in some markets. Attempts to transfer the risk in such circumstances may also lead the Private Partner to price in expensive risk premiums that do not represent value for money for the Contracting Authority.

<table>
<thead>
<tr>
<th>Risk Category and Description</th>
<th>Risk Allocation</th>
<th>Rationale and Mitigation Measures (Including Government Support Arrangements)</th>
<th>Market Comparison Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Risk</strong></td>
<td><strong>Sub-category</strong></td>
<td><strong>Public</strong></td>
<td><strong>Shared</strong></td>
</tr>
<tr>
<td><strong>Design Risk</strong></td>
<td><strong>Suitability of Design</strong></td>
<td>• Generally the Contracting Authority should aim to transfer design risk to the Private Partner but the extent to which this is possible will depend on how involved the Contracting Authority wants or needs to be in specifying design requirements in the tender documentation. Alternative approaches are described below. <strong>Output specification:</strong> Where possible, the Contracting Authority usually aims to set a broad output driven specification in the tender documents, requiring the Private Partner to design and build the project in a way which satisfies the performance specifications and ensures compliance with applicable legal requirements, good industry practice standards and, where applicable, minimum quality standards. This allows for private sector innovation and efficiency gains in the design. With this approach, the Private Partner will have principal responsibility for adequacy of the design of the system and its compliance with the output / performance specification. A design review process during the contract will allow for increased dialogue and cooperation between the Contracting Authority and the Private Partner, but care should be taken to ensure that the mutual review process does not reduce or limit the Private Partner’s overall liability. In limiting how prescriptive it is in the performance specification, the Contracting Authority may wish to request a degree of cooperation and feedback during the bidding phase to ensure that the bidding consortia’s expectations in terms of an appropriate risk allocation for design responsibility are taken into account when finalizing the performance specification. If the Contracting Authority provides bidders with a basic design, bidders will typically be responsible for any errors, if they assume this basic design in developing their detailed design. An alternative is to provide (more) detailed design, but to contractually oblige the bidders to comment on and subsequently accept the (amended) design. The Contracting Authority should bear the risk of technical information provided by it proving inaccurate to the extent the Private Partner was allowed to rely on it for design purposes (e.g., inaccurate existing building/site condition surveys). See also Changes to design under Design risk. <strong>Prescriptive specification:</strong> A prescriptive specification can ensure the Contracting Authority receives bids on a particular (and similar) basis. However, the disadvantage of this approach is that it will restrict private sector innovation and efficiency gains in the design and may not result in best value for money. The Contracting Authority may also retain some design risk in afterwards.</td>
<td></td>
</tr>
<tr>
<td><strong>Market Comparison Summary</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk Category and Description</td>
<td>Risk Allocation</td>
<td>Rationale and Mitigation Measures (Including Government Support Arrangements)</td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------------</td>
<td>--------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Approval of designs</td>
<td>[●]</td>
<td>The Private Partner will bear the risk of obtaining design approvals as it will have principal responsibility for preparing the detailed design and obtaining relevant approvals from the appropriate state or other body. However, if the Private Partner has complied with all relevant conditions and time frames, the Contracting Authority will share this risk to the extent the relevant authority does not act properly or within approval process deadlines – this may be treated as a compensation event. See also MAGA risk. Where specific solutions or consultants are imposed by the Contracting Authority (e.g. architectural or technical), some risk may remain with the Contracting Authority.</td>
<td></td>
</tr>
<tr>
<td>Changes to design</td>
<td>[●]</td>
<td>The risk of changes to design after contract signature is allocated according to the reason for the change. If the original design is deficient, this will be a Private Partner risk, subject to the aspects which are the Contracting Authority’s risk (as outlined in Approval of designs and Suitability of design under Design risk). If changes are required by the Contracting Authority, this would as a rule be a Contracting Authority risk (with the consequent time and cost implications borne by the Contracting Authority on the same principles as for compensation events). See also Variations risk. Contractual amendment procedures can in practice have such process and risk impact that the Private Partner may not be willing to take the risk that comes with initiating such amendment procedures. Requesting design changes or alternative or more detailed design development during the procurement stage will delay the procurement timetable and cause bidders to incur additional costs. The lack of certainty and potential cost may deter bidders and, depending on the change in requirements, may result in the procurement process needing to be rerun to</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>certain aspects of the system or related works, if it is more prescriptive in the performance specification. For example, if the performance specification is too prescriptive (e.g. the required classroom design constrains the efficiency of the design), the Private Partner’s ability to warrant the fitness for purpose of its design solution may be impacted and the Contracting Authority will to that extent share in the design risk. Given the nature of the use of a school (extended, intense use by children), schools projects usually come with stricter requirements as regards certain aspects than in some other types of accommodation projects (for example, as regards safety) and high standards regarding size, light, materials used etc. These may be requirements by law. There will be increased sensitivity around environmental and health standards as the project affects children. Some jurisdictions allow only limited room for individual design, since all key aspects and many details are already fixed in the official planning approval decision. If the Private Partner wants to deviate from these requirements it must conduct formal amendment procedures, which in practice have such process and risk impact that bidders are not willing to take the risk that comes with initiating such amendment procedures. See also Changes to design under Design risk.</td>
<td></td>
</tr>
</tbody>
</table>

**Bidding Infrastructure:** If the project is being integrated into existing infrastructure, the Private Partner’s ability to warrant the fitness for purpose of its design solution must be considered – it may not be able to warrant defects in the existing infrastructure which may impact the project’s performance and the Contracting Authority may have to bear this risk (e.g. if relying on an existing heating or cooling system or access via other buildings). See also Existing asset condition under Land availability, access and site risk. Project management and interface with other works/facilities under Construction risk and Maintenance standards under Operating risk.
<table>
<thead>
<tr>
<th>Risk Category and Description</th>
<th>Risk Allocation</th>
<th>Rationale and Mitigation Measures (Including Government Support Arrangements)</th>
<th>Market Comparison Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Risk</td>
<td>[●]</td>
<td>Construction cost increases (i.e. costs exceeding the construction costs assumed in the project’s financial model as at financial close) can have a variety of causes, such as mistakes in construction cost estimates, increased cost of materials, actions of the Contracting Authority or government, variations, as well as delays in – or mitigating potential delays in – the construction programme. The Private Partner typically assumes the risk of cost increases to the extent these are not caused by force majeure, compensation events (such as in relation to unsurveyed site or existing asset conditions) or MAGA events, and are not addressed through other bespoke provisions (e.g. Contracting Authority variations, Change in law or provisions specifically addressing exchange rate risk during construction – see also Variations risk, Change in law risk and Exchange rate fluctuation risk under Financial markets risk) or hardship doctrines (see Glossary definition) in underlying law. The Private Partner will mitigate the risks it bears by passing them through as far as possible to its sub-contractors (for example, the construction sub-contractor). The Private Partner’s financial model will typically include contingency pricing for cost overruns (as will the sub-contractor’s assumptions). See also Force majeure risk and MAGA risk.</td>
<td>In certain markets, risk is considered manageable by the Private Partner through robust pass through of obligations to credible and experienced sub-contractors and by allowing appropriate timetable and budget contingency. The Private Partner can mitigate the risk of sub-contractor non-performance by obtaining appropriate security from the sub-contractors (for example, parent company guarantees and/or performance bonds). The Contracting Authority may sometimes seek additional security itself to ensure such costs can be met - see Taking performance security under Public Sector Risk Mitigation. Enforcement of construction budgets may be easier in markets where the Private Partner will typically have more experience and reliable access to resources.</td>
</tr>
<tr>
<td>Works completion delays</td>
<td>[●]</td>
<td>Delays in delivering the infrastructure by the relevant works completion date as at financial close can have a variety of causes, such as unavailability of construction materials, delays in shipping, variations and mistakes in programme scheduling, as well as weather events, civil unrest or industrial action and actions of the Contracting Authority or government. The Private Partner typically assumes the risk of delays to the extent they are not caused by relief, force majeure, compensation or MAGA events, and are not addressed through other bespoke provisions (e.g. in respect of Contracting Authority variations or change in law). See also Force majeure risk, MAGA risk, Variations risk and Change in law risk. In most projects, the relevant date is the scheduled operation commencement date and to achieve that the works will need to be evidenced as complete. Some projects may instead (or in addition) require separate works completion deadlines to be met. This may be the case in jurisdictions where specific acceptance processes are required by law for construction works under public contracts and/or for insurance purposes. The consequences for the Private Partner of delays to the relevant works completion date are loss of expected revenue due to arise on the relevant date and ongoing construction and financing costs. In extreme cases, there is also a risk of potential termination for failing to meet the “longstop date” (a final later date by which the Private Partner must complete the project works/commence operation to avoid the Contracting Authority being entitled to terminate). The Private Partner will pass through the risks it bears as far as possible to its sub-contractors (and may require the sub-contractors to pay it agreed damages to compensate for the delay to and loss of its overall project income and act as an incentive for timely completion). With a school, the need to ensure completion during school holiday periods, to be able to start operation at the start of a new school year, can give rise to particular issues. Penalties and agreed damages may be tied into the importance of meeting school calendars (as it will often be crucial for the school to be operational before the start of the school year). The Contracting Authority may also consider imposing agreed delay damages on the Private Partner to compensate it for delay to the start of the operating phase. However, imposing</td>
<td>Enforcement of construction deadlines may be easier in markets where the Private Partner will typically have more experience and reliable access to resources. In less mature markets, the management of completion risk is typically addressed by having either: (i) a scheduled completion date (with attached agreed damages for delay) followed by a fixed period for operation; or (ii) a scheduled construction period forming part of the overall contract term which is itself fixed, subject to extensions for certain events such as force majeure. With the latter scenario, the Contracting Authority may attempt to additionally impose agreed delay damages on the Private Partner. The difference between the two structures is that the former preserves the project’s revenue generating operation phase and the Contracting Authority relies on the agreed delay damages to incentivise timely completion of the works and operation commencement. In the latter case, the incentive to complete the works and meet the scheduled operation commencement date is that any delay at the Private Partner’s risk will reduce the revenue-generating operating phase.</td>
</tr>
</tbody>
</table>

Compliance with procurement laws or risk later challenge.
such agreed damages will typically result in the Private Partner building additional contingency time and cost into the project’s construction plan and the Private Partner should already be sufficiently incentivised to meet the relevant works completion date on time so that its revenue streams can commence.

Some jurisdictions require certain criteria to be met in contractual provisions imposing delay damages if they are to be legally enforceable. Broadly speaking, if the damages exceed the Contracting Authority’s likely real losses (taking into account that it is not yet having to make availability payments), they may be seen instead as a disproportionate penalty and the provisions may be unenforceable.

Input the table data below.

<table>
<thead>
<tr>
<th>RISK CATEGORY AND DESCRIPTION</th>
<th>RISK ALLOCATION</th>
<th>RATIONALE AND MITIGATION MEASURES (INCLUDING GOVERNMENT SUPPORT ARRANGEMENTS)</th>
<th>MARKET COMPARISON SUMMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk</td>
<td>Sub-category</td>
<td>Public Shared Private</td>
<td>In both remote and densely populated areas, public transport access can be crucial to the successful use of the school if pupils and staff commute to it.</td>
</tr>
<tr>
<td>Project management and interface with other works/facilities</td>
<td>Project management; Typically, the Private Partner assumes project management risk. Interface with other works/facilities; Interdependence with other projects or services may also affect contract obligations and risk allocation. If some or all of the project is dependent either on the Contracting Authority carrying out particular works or making available an existing facility, or on related infrastructure work being completed by a third party, that interface risk will be the Contracting Authority’s risk (for example, access roads to the site being ready at certain key dates). Similarly, the school may be relying on the Contracting Authority procuring the construction of electricity lines to provide power to the school. If the operation commencement date will be delayed due to such works not being carried out on time or the Contracting Authority otherwise failing to meet its obligations, this will be a compensation event or MAGA event. See also Utilities and installations and Access to the site and associated infrastructure under Land availability, access and site risk, Suitability of design under Design risk, Maintenance standards under Operating risk and MAGA risk.</td>
<td>In some markets the Private Partner may be allocated the risk of third party work being properly and timely completed, particularly if the Private Partner has the opportunity to enter into interface arrangements with the third party. These interface arrangements will result in the interface risk being shared between the Private Partner and the third party. The Contracting Authority should facilitate such agreements where it has an existing relationship with the third party.</td>
<td></td>
</tr>
<tr>
<td>Quality assurance and other construction regulatory standards</td>
<td>Meeting relevant quality standards will be a Private Partner risk, but where standards or codes are revised after the bid submission date this risk allocation will depend on whether the changes are mandatory and whether the Private Partner has priced the risk of such changes into its bid. The Contracting Authority may consider increasing the contract price to account for increased costs of compliance or the Private Partner may be excused from compliance with the new standard if it is not mandatory. This may be dealt with through the change in law provisions. See also Change in law risk.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health and safety compliance</td>
<td>Responsibility for health and safety compliance on the construction site is typically a Private Partner responsibility. The Private Partner typically bears the risk of complying with health and safety laws/requirements and indemnifies the Contracting Authority in respect of any breach of such requirements. Subject to applicable law, the Private Partner’s liability may be mitigated to the extent the health and safety incident was caused or contributed to by the Contracting Authority or other government entity and/or the affected party. Some projects require an annual safety review which enables the parties to assess relevant performance and safety management. Otherwise, the engagement of an experienced contractor with a strong safety record is also a mitigant.</td>
<td>In some jurisdictions with developed construction legislation, the Private Partner’s responsibilities in the construction phase will be set out in law with strict liability for certain incidents. There may be specific bodies which will sanction it for breaches of applicable health and safety legal obligations. A breach of applicable health and safety obligations may give rise to criminal liability for one or both parties (and/or their personnel), including the risk of fines.</td>
<td></td>
</tr>
<tr>
<td>Liability for death, personal injury, property damage and third party liability</td>
<td>Except where arising due to a breach or fault by the Contracting Authority, the Private Partner will usually bear the risk of personal injury, death and property damage to either the Contracting Authority (and its employees and other personnel) or third parties arising due to the construction works. The Private Partner will usually indemnify the Contracting Authority against any liabilities it incurs as a result of such personal injury, death and property damage. The Private Partner should take out appropriate insurance to cover its potential liabilities, but</td>
<td>In certain jurisdictions, it may be appropriate for the Contracting Authority to bear certain risks relating to what are ultimately state responsibilities or other factors outside of the Private Partner’s control, for example a failure or lack of intervention by emergency services.</td>
<td></td>
</tr>
</tbody>
</table>
### PPP Risk Allocation Tool 2019 Edition (Social Infrastructure)

<table>
<thead>
<tr>
<th>Risk Category and Description</th>
<th>Risk Allocation</th>
<th>Rationale and Mitigation Measures (Including Government Support Arrangements)</th>
<th>Market Comparison Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Defects and defective materials</strong></td>
<td>![public] ![shared] ![private]</td>
<td>The Private Partner should be required to design and construct the project in accordance with good industry practice, and bears the risk and responsibility for completing the project free of defects. Defects are typically categorised as (i) visible and (ii) latent/hidden defects and are treated differently under the contract. The risk of visible defects is sometimes covered by an interim acceptance at completion of the works (and may result in a one off payment of agreed damages). As latent defects may not be noticeable for some years, the Private Partner is typically liable for such defects for a number of years following completion and the Contracting Authority may request a performance bond from the Private Partner to support this obligation (which the Private Partner will require from the relevant construction subcontractor). The Contracting Authority may retain latent defects risk in existing structures. See also Existing asset condition under Land availability, access and site risk and Maintenance standards under Operating risk.</td>
<td>In allocating this risk, it should be borne in mind that in many jurisdictions by law it is not possible to exclude (or cap) a party’s liability in respect of death and personal injury.</td>
</tr>
<tr>
<td><strong>Intellectual property</strong></td>
<td>![private]</td>
<td>The Private Partner takes the risk of obtaining all relevant licences for the construction and operation of the school and for intellectual property infringement except to the extent that the Contracting Authority imposes certain design or other technology solutions on the Private Partner, in which case the corresponding risk may be shared or borne by the Contracting Authority. The Private Partner must ensure that all required licences are able to be transferred to the Contracting Authority (or its nominee) at the end of the contract to enable it to continue construction and/or operation/maintenance. See Industrial action under Social Risk.</td>
<td>Defects liability periods and responsibilities vary between legal systems and jurisdictions and may be set contractually or in some cases by law. Market practice also varies between sectors. Some jurisdictions impose strict liability for defects and may compulsorily require corresponding insurance. In the Middle East, for example, decennial liability may apply as a matter of law for ten years from completion of certain (commonly civil) works.</td>
</tr>
<tr>
<td><strong>Industrial action</strong></td>
<td>![private]</td>
<td>See Industrial action under Social Risk.</td>
<td></td>
</tr>
<tr>
<td><strong>Vandalism</strong></td>
<td>![private]</td>
<td>Vandalism will often be a Private Partner risk, sometimes with a threshold/cap above which the Contracting Authority will bear/share the risk. This will depend on the nature of the risk and the extent to which the Private Partner can effectively have an impact on/mitigate risk, design choice, use of materials, site access and security during construction, etc. See also Site Security under Land availability, access and site risk and Social risk.</td>
<td>Vandalism may be more of a risk due to being a school or where circumstances in the area are such that vandalism and petty crime are more prevalent.</td>
</tr>
<tr>
<td><strong>Variations Risk</strong> The risk of changes requested by either party to the service which affect construction or operation.</td>
<td>![private]</td>
<td>Contracting Authority change; The Contracting Authority typically bears the risk and cost of service changes implemented following its request. The contract will specify the extent to which it is entitled to require changes and the reasonable grounds on which the Private Partner may refuse. The Contracting Authority will also bear the risk of ensuring it can meet its cost liabilities. Private Partner change; The Private Partner will bear the risk and cost of service changes implemented following its request, unless the parties have agreed a sharing mechanic as part of their discussions of the change. A sharing mechanic may be appropriate where the Contracting Authority wants to incentivise the Private Partner to introduce innovative or environmentally-friendly solutions. If the Contracting Authority is liable for costs, it should mitigate its risk by requiring a transparent costing review process, which it can delegate. This is likely to be particularly a concern during the construction phase. As with any potential liabilities under the PPP contract see also Unavailability of insurance under Financial markets risk.</td>
<td>Some jurisdictions have detailed change protocol templates to follow for variations to ensure that costing is fair and transparent. Due to the impact changes can have on construction or operation (e.g. in terms of timing, cost and delivery), there may be restrictions placed on the ability to request changes of certain types or in certain phases. The Contracting Authority’s ability to request and meet any changes costs will also be a concern, particularly where it has a weak credit.</td>
</tr>
<tr>
<td>RISK CATEGORY AND DESCRIPTION</td>
<td>RISK ALLOCATION</td>
<td>RATIONALE AND MITIGATION MEASURES (INCLUDING GOVERNMENT SUPPORT ARRANGEMENTS)</td>
<td>MARKET COMPARISON SUMMARY</td>
</tr>
<tr>
<td>------------------------------</td>
<td>----------------</td>
<td>-------------------------------------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Risk</td>
<td>Sub-category</td>
<td>Public</td>
<td>Shared</td>
</tr>
</tbody>
</table>

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.

- Increased operating costs and affected performance
  - Increased costs and delays in the operating phase can have a variety of causes, ranging from mistakes in maintenance cost estimates or variations to extreme weather events. Aside from adjustments for inflation, the Private Partner broadly assumes the risk of events which inhibit performance and/or give rise to cost increases beyond modelled costs, to the extent these are not relief, force majeure, compensation or MAGA events, and are not addressed through other bespoke provisions (e.g. in respect of Contracting Authority variations or changes in law) or hardship doctrines (see Glossary definition) in underlying law. See also Variations risk, Change in law risk, Force majeure risk and MAGA risk.

- Performance/price risk
  - The Private Partner bears the risk of meeting the performance specification under the contract (i.e. by ensuring that the works and the operational performance are of the necessary quality and level). In an availability based payment structure the Private Partner’s payment may be subject to abatement if availability criteria and performance-based standards are not met. For example, availability criteria may be linked to the number of classrooms and area open and operational in particular periods and performance standards may be linked to room temperature and cleanliness key performance indicators or graffiti removal response measures. Where certain availability criteria or performance indicators cannot be met due to actions by the Contracting Authority (or other government entities) or unforeseen circumstances, the Private Partner may be entitled to relief (e.g. if caused by a relief, force majeure, MAGA or compensation event). For example, this may be where the Contracting Authority’s teaching staff have failed to adequately supervise pupils who have damaged school property. See also Interface under Operating risk, Force majeure risk and MAGA risk.

The Contracting Authority is responsible for enforcing the performance regime and for ensuring that the performance specifications are attainable and properly tailored to what the Private Partner can deliver based on relevant market data and policy objectives. The appropriateness of the metrics can be assessed by reference to standards of similar services provided by the Contracting Authority (or other government body), value for money, the nature of the project and the relevant markets. Performance monitoring also enables the Contracting Authority to monitor service levels generally and potentially to receive early warning of matters requiring improvement or remediation.

If the school facilities are required by the Contracting Authority to be used for alternative/additional purposes (e.g. for community use in the holiday periods or evening classes, sports, parking etc.) then the performance and payment regime must take this into account as appropriate. Optional commercial activities carried out by the Private Partner will typically be documented separately between the Private Partner and its commercial counterparts.

In mature markets, the Contracting Authority should have access to various data sources to develop realistic and attainable performance specifications and models.

For other markets, particularly in the case of market first projects, the preparation of attainable standards by the Contracting Authority is complicated by the lack of relevant market data. The Contracting Authority should set standards which are achievable in the relevant market, taking into account, for example, applicable maintenance standards. These may vary across different markets.

In less mature markets, the Private Partner may require the Contracting Authority to reduce the performance requirements during the settling in period and possibly readjust the performance metrics once performance has stabilized. This can mitigate the risk of long-term performance failure.
<table>
<thead>
<tr>
<th>RISK CATEGORY AND DESCRIPTION</th>
<th>RISK ALLOCATION</th>
<th>RATIONALE AND MITIGATION MEASURES (INCLUDING GOVERNMENT SUPPORT ARRANGEMENTS)</th>
<th>MARKET COMPARISON SUMMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational resources or input risk</td>
<td></td>
<td>The Private Partner bears the principal risk and responsibility of ensuring an uninterrupted supply of resources for the project (such as maintenance equipment and materials) and to manage the costs of those resources. It will need to consider this when structuring its supply arrangements. As regards utility provision and cost, typically this is a Contracting Authority risk, but the payment mechanism may include cost reduction incentivisation measures (a prime example being to encourage energy efficiency). The Contracting Authority may have umbrella agreements with utility suppliers and it is likely to be difficult for the Private Partner to accept this cost risk to the extent consumption depends on the behaviour of parties outside its control (e.g. teachers and pupils leaving windows open). If the project scope includes provision of utilities (e.g. a captive energy supply) then this will be a Private Partner risk, subject to any applicable relief. To address control over consumption, the contract may need to include a threshold above which the Contracting Authority is responsible for utility cost, as the Private Partner will have limited control over the behaviour of the users. In some markets, there may be specific instances where the risk needs to be shared (e.g. in relation to availability of energy supply or reliance on local source materials) where resources may be affected by labour disputes, embargos or other political risks. These may be treated as relief, force majeure, compensation or MAGA events. See also Force majeure risk and MAGA risk.</td>
<td>Certain markets are generally more susceptible to market volatility and major cost variations. Mature markets generally do not experience market volatility to the extent of less mature markets, and resource availability is less of a concern. However, energy costs may still vary significantly over the course of a project which may make transferring such risk to the Private Partner inappropriate (and/or not without a mechanism which shares the risk with Contracting Authority over certain thresholds). Some projects have required the cost of certain soft services to be periodically benchmarked (e.g. through comparative data) or market tested (e.g. through competitive tendering of those services) during the operational period. See more detailed discussion in Project Revenues, Including Payment Mechanisms.</td>
</tr>
<tr>
<td>Intellectual property</td>
<td>[●]</td>
<td>The Private Partner takes the risk of obtaining all relevant licences for the construction and operation of the school and for intellectual property infringement except to the extent that the Contracting Authority imposes certain design or other technology solutions on the Private Partner, in which case the corresponding risk may be shared or borne by the Contracting Authority. The Private Partner must ensure that all required licences are able to be transferred to the Contracting Authority (or its nominee) at the end of the contract to enable it to continue construction and/or operation/maintenance.</td>
<td></td>
</tr>
<tr>
<td>Health and safety compliance</td>
<td>[●]</td>
<td>The risk allocation for health and safety will, in part, depend upon operating responsibility for the asset. The Private Partner will typically bear this risk in respect of its operational responsibility, as well as in respect of maintenance/repair works and other health and safety aspects related to the services provided by the Private Partner during this phase. Subject to applicable law, the Private Partner’s liability may be mitigated to the extent the health and safety incident was caused or contributed to by the Contracting Authority or other government entity and/or a third party. See also Liability for death, personal injury, property damage and third party liability. To the extent that the Contracting Authority has operational control of the asset, the Contracting Authority would typically retain “day to day” operational health and safety responsibility. There may also be strict legislative requirements around health and safety in schools which must be complied with.</td>
<td>In some jurisdictions with developed construction and working practices legislation, certain of the Private Partner’s responsibilities will be set out in law with strict liability for certain incidents. There may be specific bodies which will sanction it for breaches of applicable health and safety legislation. In some cases, for example, in relation to maintenance work being carried out in the operating phase. A breach of applicable health and safety obligations may give rise to criminal liability for one or both parties (and/or their personnel), including the risk of fines.</td>
</tr>
<tr>
<td>Liability for death, personal injury, property damage and third party</td>
<td>[●]</td>
<td>The risk allocation for these liabilities will depend upon operating responsibility for the asset. Except where arising due to a breach or fault by the Contracting Authority, the Private Partner will usually bear the risk of personal injury, death and property damage to either the Contracting Authority (and its employees and other personnel) or third parties arising due to</td>
<td>In certain jurisdictions, it may be appropriate for the Contracting Authority to bear certain risks relating to what are ultimately state responsibilities or other factors outside of the Private Partner’s control, for</td>
</tr>
</tbody>
</table>
## Risk Category and Description

<table>
<thead>
<tr>
<th>Risk</th>
<th>Sub-category</th>
<th>Risk Allocation</th>
<th>Rationale and Mitigation Measures (Including Government Support Arrangements)</th>
<th>Market Comparison Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liability</td>
<td></td>
<td>Public</td>
<td>Shared</td>
<td>Private</td>
</tr>
<tr>
<td>Maintenance</td>
<td>standards</td>
<td>Private</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RISK CATEGORY AND DESCRIPTION</td>
<td>RISK ALLOCATION</td>
<td>RATIONALE AND MITIGATION MEASURES (INCLUDING GOVERNMENT SUPPORT ARRANGEMENTS)</td>
<td>MARKET COMPARISON SUMMARY</td>
<td></td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>---------------------------</td>
<td></td>
</tr>
<tr>
<td>Risk</td>
<td>Sub-category</td>
<td>Public</td>
<td>Shared</td>
<td>Private</td>
</tr>
<tr>
<td>Interface</td>
<td>[●]</td>
<td>[●]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial action</td>
<td>[●]</td>
<td></td>
<td>[●]</td>
<td>[●]</td>
</tr>
<tr>
<td>Vandalism</td>
<td>[●]</td>
<td></td>
<td></td>
<td>[●]</td>
</tr>
<tr>
<td>Demand risk</td>
<td></td>
<td></td>
<td></td>
<td>[●]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Financial Markets Risk

#### Inflation

<table>
<thead>
<tr>
<th>Risk Category and Description</th>
<th>Risk Allocation</th>
<th>Rationale and Mitigation Measures (Including Government Support Arrangements)</th>
<th>Market Comparison Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inflation</strong></td>
<td></td>
<td>The risk of construction costs increasing due to inflation is typically borne by the Private Partner, who will generally price in this risk in markets where such risk can be projected and quantified. Where this is not possible the Contracting Authority is likely to be asked to bear some risk.</td>
<td>The fluctuation of inflationary costs is a greater risk in less mature markets than it is in other markets and the Private Partner’s expectation will be that this risk is borne and managed by the Contracting Authority during the contract term.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Construction phase</strong>: Inflation risk in the operating phase is typically borne by the Contracting Authority. The Private Partner will look to be kept neutral in respect of both international and local inflationary costs through an appropriate inflation uplift regime. There is always a time lag in how quickly the indexation price increase is available to the Private Partner. This is achieved by the availability payment typically including both a fixed component (where debt has been hedged) and a variable component which includes an escalation factor that accounts for rises in costs.</td>
<td>The variable component of the availability payment is typically defined by the consumer price index in mature markets. In other markets, the selected indexation method will need to reflect variable financing costs and variable inputs such as staff and materials. It will be more crucial in less mature markets to find appropriate indicators which mirror the project needs rather than a general consumer price index.</td>
</tr>
</tbody>
</table>

#### Exchange rate fluctuation

<table>
<thead>
<tr>
<th>Risk Category and Description</th>
<th>Risk Allocation</th>
<th>Rationale and Mitigation Measures (Including Government Support Arrangements)</th>
<th>Market Comparison Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exchange rate fluctuation</strong></td>
<td></td>
<td>The risk of exchange rate fluctuation for a specific time period (e.g. 90 days) between submission of bid and financial close, where there is a prolonged period between bid submission and financial close, the Contracting Authority may need to bear the risk. Where exchange rates are volatile or long term currency swap markets are illiquid, the Private Partner may have limited ability to accept the risk of exchange rate fluctuation and will seek to transfer the exchange rate risk to the host country by requiring that some or all of the contract price is linked to a foreign currency, such as USD.</td>
<td>Although not recommended, there can be a significant period between prices submitted at bid stage and financial close. This may be more typical in less experienced markets and will make it difficult for the Private Partner to bear the risk of a change in exchange rate. Exchange rate risk can be substantial in markets where exchange rates are more volatile or long term debt or swap markets are more illiquid (such as in countries with less developed capital markets).</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Rate change between bid and financial close</strong>: The Contracting Authority may expect the Private Partner to bear the risk of an exchange rate fluctuation for a specific time period (e.g. 90 days) between submission of bid and financial close. Where there is a prolonged period between bid submission and financial close, the Contracting Authority may need to bear the risk. Where exchange rates are volatile or long term currency swap markets are illiquid, the Private Partner may have limited ability to accept the risk of exchange rate fluctuation and will seek to transfer the exchange rate risk to the host country by requiring that some or all of the contract price is linked to a foreign currency, such as USD.</td>
<td>Exchange rate risks are more substantial in markets where exchange rates are more volatile or long term debt or swap markets are more illiquid (such as in countries with less developed capital markets). In more mature markets, the risk of currency fluctuations is typically not substantial enough to require the Contracting Authority to provide support and exchange rates risks are addressed solely through the Private Partner’s own hedging arrangements. Where the exchange rates are more volatile, access to long term hedging may be either unavailable or too expensive. The likelihood of debt being dominated in a foreign</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Rate changes during project</strong>: Allocation of exchange rate fluctuation risk over the life of a project will depend on the relevant project jurisdiction and the nature of the project costs. In most PPPs, the Private Partner will bid and be paid by the Contracting Authority in the domestic currency of that country. It may, however, incur costs in a foreign currency and such costs are translated into the bid price in the domestic currency on the basis of a particular exchange rate. In some PPPs, the Private Partner (and its lenders) may seek to transfer the exchange rate risk to the host country by requiring that some or all of the contract price is linked to a foreign currency, such as USD. <strong>Construction phase</strong>: Exchange rate risk can arise where some or all of the construction costs are denominated in a currency different to the domestic currency. For example, where construction of the asset requires equipment that is manufactured overseas, adverse exchange rate movements may result in such equipment becoming more expensive than anticipated when converting domestic currency. This may use up the contingency the Private</td>
<td></td>
</tr>
</tbody>
</table>
**Risk Category and Description**

<table>
<thead>
<tr>
<th>Risk</th>
<th>Sub-category</th>
<th>Public</th>
<th>Shared</th>
<th>Private</th>
</tr>
</thead>
</table>

**Interest Rate Fluctuation**

- **Rate change between bid and financial close**: The Contracting Authority normally expects the Private Partner to bear the risk of a change in the reference interest rate between submission of bid and financial close, for a specific time period (e.g., 90 days). Any rate changes after this time period will be a Contracting Authority risk.

- **Rate changes during projects**: The Private Partner will typically bear the risk of interest rate fluctuations over the life of the project, but this will depend on the specific project and its jurisdiction. The Private Partner will seek to mitigate this risk through hedging arrangements, to the extent possible or necessary in the relevant market. These should ensure the interest rate the Private Partner is required to pay is effectively fixed instead of fluctuating, and protects it against adverse rate movements. The cost of such hedging will be part of the contract price bid.

**Unavailability of Insurance**

- The responsibility for placing required insurances and the cost of doing so is typically borne by the Private Partner. However, PPP contracts typically also include provisions to address the risk of insurance becoming unavailable or only available at a cost which exceeds a level at which the Private Partner is able to price in reasonable contingency. This only applies if the unavailability is due to factors unrelated to the Private Partner. Where neither party can better control the risk of insurance coverage in respect of the core services becoming unavailable or more expensive, this is typically a shared risk. How this is addressed will depend on the specific project and jurisdiction. For the purposes of PPP projects, insurance is generally deemed unavailable to the extent (a) it is no longer available in the international insurance market from reputable insurers of good standing or (b) the premiums are prohibitively high (not just more expensive) such that contractors in the project jurisdiction are commonly not

**Rationale and Mitigation Measures (Including Government Support Arrangements)**

- Partner has provided for in its financial arrangements (and priced into its bid) and/or require the Private Partner to take on additional borrowing in the construction phase to finance these costs.

Operating phase: As with construction costs, a similar risk may arise if the Private Partner incurs operating costs in a currency different to the currency of the PPP contract. Adverse exchange rate movements during the operating phase where the debt is being repaid will result in debt repayment in the foreign currency requiring a larger proportion of the Private Partner’s revenue. This may result in the Private Partner having insufficient funds to service its debt and/or may eat into its projected equity return.

Mitigation: The Private Partner typically looks to mitigate exchange risk through hedging arrangements, to the extent possible or necessary in the relevant market. These should ensure the costs the Private Partner incurs are effectively fixed instead of fluctuating, and protects it against adverse rate movements. The cost of such hedging will be part of the contract price bid. Evaluator of a local currency beyond a certain threshold may also trigger a non-default termination, or a “cap and collar” subsidy arrangement from the Contracting Authority.

**Market Comparison Summary**

- Although not recommended, there can be a significant period between prices submitted at bid stage and financial close. This may be more typical in less experienced markets and will make it difficult for the Private Partner to bear the risk of an adverse change in interest rate.

- In mature markets, the risk of interest rate fluctuations is not substantial enough to require the Contracting Authority to provide support and is typically addressed solely through the Private Partner’s own hedging arrangements.

- In other (less stable) markets this may not be possible due to interest rate volatility or lack of long-term hedging availability and in some circumstances it may be more appropriate for the Contracting Authority to retain interest rate risk if it can bear the risk more efficiently than the private sector.

- The standard approach as regards unavailability is common in mature markets. In some less mature markets, if insurance becomes unavailable, the Private Partner is typically relieved of its obligation to take out the required insurance but, unlike the mature market position, the Contracting Authority does not become insurer of last resort and the Private Partner bears the risk of the uninsured risk occurring. If the uninsured risk is fundamental to the project (e.g., physical damage cover for major project components) and the parties are unable to agree on suitable
<table>
<thead>
<tr>
<th>Risk Category and Description</th>
<th>Risk Allocation</th>
<th>Rationale and Mitigation Measures (Including Government Support Arrangements)</th>
<th>Market Comparison Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk</td>
<td>Sub-category</td>
<td>Public</td>
<td>Shared</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PPP RISK ALLOCATION TOOL 2019 EDITION (SOCIAL INFRASTRUCTURE) | 44
only financing option available to (or desirable for) the project initially. This is typically a Private Partner risk. Mitigation measures can include, in the case of mini perm financing, raising debt capital that has a repayment schedule that is matched to the PPP contract and project revenues available over the period of the PPP contract or by structuring the debt in several tranches of different tenors so that refinancing risks are smaller but arise more frequently.

Refinancings may also occur where the Private Partner wants to take advantage of better financing terms available in the market (e.g. where the market recovers after a global financial crisis or after construction completion when the project is perceived to be less risky by funders).

The risk of a refinancing creating additional project risks will be a risk for both the Private Partner and the Contracting Authority. The Contracting Authority needs to ensure that a refinancing does not adversely affect it (e.g. by increasing the level of its potential liability for termination compensation above what would have been the case under the original financing documents/financial model or increasing the risk of such liability falling due if the financial stability of the Private Partner is affected). To mitigate this risk, the contract should specify that the Contracting Authority’s consent to refinancing is required in specified carefully drafted circumstances.

Where the result of a refinancing is that the Private Partner’s debt costs are reduced, resulting in greater profit and in turn a higher equity return (typically known as “refinancing gain”), it may be appropriate for the shared between the parties (e.g. to the extent it increases the original forecast equity return in the financial model). The Contracting Authority may expect to share a percentage of the refinancing gain (e.g. 50%) and this is particularly important given the use of public funds to pay for the PPP project. To ensure it does not miss out on an anticipated share of any refinancing gain, the Contracting Authority should ensure that all relevant definitions are carefully drafted. The way the Contracting Authority receives its share of the gain will depend on the nature of the refinancing and discussions at the time. Options include: (a) a lump sum upon the refinancing to the extent the Private Partner receives such amounts at the time of the refinancing; (b) a lump sum or periodic sums at the time of receipt of the relevant payments; (c) a reduced availability payment; or (d) by a combination of the above.


However, banks globally already face greater regulatory pressure which affects the loan tenor they can offer, and it is possible they will face increased constraints even in developed markets which may lead to shorter initial debt tenors and increased refinancing needs.

It has become increasingly acknowledged in mature PPP markets that it would not be fair for the Private Partner to enjoy the entire benefit of a refinancing gain where it is not entirely responsible for the availability of improved financing terms (e.g. where the market recovers after a global financial crisis).

In emerging markets, there may be limited scope for potential bidders. Refinancing provisions may not be included. This is more likely in untested “riskier” markets where the prospect of refinancing gain is a key driver to bidders’ participation (as has been the case, for example, in the Philippines). As with more mature markets, the potential for sharing refinancing gain should increase as the PPP market becomes more established and perceived risks decrease.

<table>
<thead>
<tr>
<th>RISK CATEGORY AND DESCRIPTION</th>
<th>RISK ALLOCATION</th>
<th>RATIONALE AND MITIGATION MEASURES (INCLUDING GOVERNMENT SUPPORT ARRANGEMENTS)</th>
<th>MARKET COMPARISON SUMMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk</td>
<td>Sub-category</td>
<td>Public</td>
<td>Shared</td>
</tr>
<tr>
<td>Strategic Partnering Risk</td>
<td>Private Partner</td>
<td>failure/insolvency</td>
<td>However, banks globally already face greater regulatory pressure which affects the loan tenor they can offer, and it is possible they will face increased constraints even in developed markets which may lead to shorter initial debt tenors and increased refinancing needs.</td>
</tr>
</tbody>
</table>

**Private Partner failure/insolvency**

The Private Partner essentially bears the risk of failing to have the requisite technical or financial capability to deliver the project in accordance with the contract. However, as the consequences of such failures can lead to interruption in service and inconvenience to the Contracting Authority and users, as well as potential termination liabilities for the Contracting Authority, the Contracting Authority must carry out a thorough evaluation of each bidder to ensure that it selects the right partner to deliver the project, with whom it can develop the necessary long term partnership and meet any aspirations it may have as regards community engagement and local employment and skills development. See also Risk Allocation in PPP contracts in the Introduction.
The Private Partner is responsible for its sub-contractors and bears any associated risks, unless the Contracting Authority imposes mandatory sub-contractors, in which case it may need to bear, or share, certain sub-contractor-related risks. However, the sub-contractors should form part of the Contracting Authority's evaluation of each bid for the reasons highlighted in relation to the Private Partner.

In less mature markets, there is typically more risk. The Contracting Authority wants to ensure that the Private Partner to whom the project restriction on the Private Partner's ability to restructure or change ownership. Overly restrictive provisions may deter investment, so this needs to be assessed in terms of the benefits to the Contracting Authority of both ensuring sufficient competition in the bid phase, and enabling parties to recycle their investment into other projects in the jurisdiction. Once the project is operational, for example, it may be reasonable for financial investors seeking regular returns to invest in place of certain of the initial (e.g. construction party) sponsors.

In some jurisdictions (e.g. France), step-in is only contemplated in a breach situation and the Private Partner typically bears all cost up to a certain percentage (e.g. 15%) of project costs. A termination right may arise if the situation subsists for a certain period (e.g. 6 – 12 months). In some jurisdictions, the Private Partner may receive full payment as if it was performing the service in full or partial payment to reflect the affected obligations. In each case this will be subject to deductions and could result in zero payment.

In some jurisdictions (e.g. in some EU countries and Australia), the Contracting Authority may not accept any liability when stepping in due to a Private Partner or event it is responsible for, the Private Partner essentially bears the risk of costs incurred by the Contracting Authority (and itself). In some jurisdictions this liability may be capped. The Private Partner is usually given relief from performance of its affected obligations and may receive some payment in respect of its obligations.

The scope and terms of the Contracting Authority step in is a key bankability point due to the potential impact on the parties’ liability.

The risk associated with Contracting Authority step-in depends on the grounds for stepping in and whether due to the Private Partner’s fault or not. Step-in circumstances include emergencies involving the emergency services, intervention to protect against social and environmental risks and fulfilling a legal duty to provide essential public service and has the potential effect on the delivery of the PPP project. It will be entitled to full payment subject to certain deductions and may also require a cost indemnity from the Contracting Authority.

### RISK CATEGORY AND DESCRIPTION

<table>
<thead>
<tr>
<th>Risk</th>
<th>Sub-category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Change in Contracting Authority ownership/status</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disputes</td>
</tr>
</tbody>
</table>

### RISK ALLOCATION

<table>
<thead>
<tr>
<th>Risk</th>
<th>Sub-category</th>
<th>Public</th>
<th>Shared</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### RATIONALE AND MITIGATION MEASURES (INCLUDING GOVERNMENT SUPPORT ARRANGEMENTS)

- **Change in Contracting Authority ownership/status**
  - The Contracting Authority should bear the risk of any change to its ownership/status which adversely affects the project, for example, where its financial covenant and credit are adversely impacted. The Private Partner will typically have a right to terminate if certain criteria are not met and be entitled to compensation.

- **Private Partner/Contracting Authority disputes**
  - The risk of disputes is a shared risk and the consequences will depend on the outcome of the dispute. To minimise the risk of uncertain and costly outcomes, the contract should expressly include a clear governing law (typically the domestic law of the Contracting Authority’s jurisdiction) and choice of dispute resolution forum (courts or arbitration). Efficient and fair dispute resolution processes should be included which provide for an escalated procedure where matters cannot be resolved between the parties’ senior management, resolution of technical disputes by an independent expert, and recourse to the chosen forum. If the contract does not contain appropriate procedures this is likely to deter potential bidders and their lenders as efficient dispute resolution is a key bankability issue. A failure by the Contracting Authority to follow contractually agreed processes may also have an adverse effect on private sector interest in other PPP projects in that jurisdiction.

  - There may be investment treaties applicable to the PPP arrangements with foreign parties, but these are no substitute for proper dispute resolution provisions in the contract itself. The Contracting Authority may be expected to waive any privileges and sovereign immunities which it enjoys before local and foreign courts (such as immunity from any suits by the Private Partner).

  - Transparency and public access to information about disputes may be an important factor in choice of forum. In some jurisdictions the legal process is public which contrasts with arbitration which is generally a confidential and private process. Where additional agreements govern the relationship between the parties themselves, consolidation of related disputes and the joinder of related parties may be appropriate. To reduce the risk of concurrent processes, the agreements should include similar dispute resolution clauses agreeing to this.

  - The Private Partner should be obliged to continue with performance of the contract while the dispute is resolved and, if so, will bear the risk of failing to do so.

- **Sub-contractor disputes**
  - The Private Partner is responsible for disputes with its sub-contractors. The Contracting Authority should avoid the risk of getting involved in expensive and time-consuming peripheral disputes with other parties. However, it may want to consider allowing certain disputes it has with the Private Partner to be joined with disputes on the same matter between the Private Partner and its sub-contractor where the forum for resolving the dispute is appropriate. Any assessment of the need for joinder provisions is likely to be

### MARKET COMPARISON SUMMARY

- **demonstrable experience in such delivery**

- **Contracting Authorities will typically select domestic law and local courts as the forum for disputes. This is for a variety of reasons including familiarity and compatibility with any concession/PPP legislation. It also minimizes the risk that local users and other stakeholders will bring claims in a different court.**

- **In jurisdictions with a less established and experienced legal system, the Private Partner is likely to want an established dispute resolution forum (such as a recognised arbitration centre for the particular region), rather than to rely on local courts. There may be circumstances where this option needs to be considered by the Contracting Authority as a necessary compromise in order to ensure the project is bankable. For the same reason, there may be certain cases where the Contracting Authority will consider having a foreign law as the governing law of the contract.**

- **Choice of forum may be restricted in some jurisdictions due to local law requirements (e.g. prohibiting referral of disputes to a foreign court or international arbitration, or being subject to a “foreign” law). This is particularly common in certain civil law countries where solely specific administrative courts are able to judge public authority decisions and/or contracts. Additionally, there may be local law limitations (under constitutional arrangements, public policy or otherwise) on contractually agreeing to waive sovereign immunity. There may also be reputational and political issues if a Contracting Authority is seen to exempt public sector projects from the jurisdiction of domestic courts.**
**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.

<table>
<thead>
<tr>
<th>Risk Category and Description</th>
<th>Risk Allocation</th>
<th>Rationale and Mitigation Measures (Including Government Support Arrangements)</th>
<th>Market Comparison Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disruptive Technology Risk</td>
<td>Public</td>
<td>Responsibility for disruptive technology risk depends on the project circumstances. The Private Partner’s obligation is to meet the output specification. If it fails to do so due to obsolescence of equipment or materials it is likely to suffer payment deductions and, above a particular threshold, may be at risk of termination. In this case it bears the risk of potentially having to replace relevant technological solutions (e.g. if the solution it has chosen is no longer supported). However, if it is performing above that threshold, the Contracting Authority cannot require it to replace technology simply because more efficient technological solutions are available unless there is an agreed contractual mechanism for doing so. To address this, the Contracting Authority may consider imposing obligations on the Private Partner to adopt and/or integrate with new technologies or to allow for other foreseeable developments, such as remote teaching via internet link to pupils unable to get to school in person. It may be appropriate additionally to agree a specific cost sharing mechanism under which the Contracting Authority can request technological upgrades with appropriate cost sharing according to the reason for the request (e.g. if the replacement solution will improve health and safety or have social/environmental benefits). The same considerations apply if the Private Partner wants to make a technological change which is not strictly necessary and it may be appropriate for the Contracting Authority to consider incentivising the Private Partner to propose changes which will be of public or environmental benefit. The Private Partner will seek to mitigate its potential exposure through clear contractual cost and improvement parameters, beyond which any changes will be treated as a Contracting Authority variation of the PPP contract and entitle the Private Partner to relief in accordance with the contractual variation mechanic. See also Variations Risk. It is important to take into account that some disruptive technologies may have both upside and downside effects on a project, as well as efficiency or social and environmental benefits. It may therefore be appropriate to consider mitigating mechanisms in any contractual solution. For example, increased use of remote teaching via internet may have social and environmental benefits but may increase technology provision and maintenance costs. In many jurisdictions changes can be made only in accordance with pre-agreed contractual mechanisms, to avoid third party challenges on the basis that the amendments are so substantial that the existing contract should be retendered.</td>
<td>Disruptive technology risk is becoming under increasing focus in all markets. This is particularly the case in relation to technological changes relating to environmental protection and this area may require its own treatment in the contract (e.g. through specific treatment under the contractual variations mechanism and/or through other specific contractual obligations).</td>
</tr>
</tbody>
</table>

**Force Majeure Risk**
The risk that unexpected events occur that are beyond the control of the parties and delay or prevent performance.

<table>
<thead>
<tr>
<th>Risk Category and Description</th>
<th>Risk Allocation</th>
<th>Rationale and Mitigation Measures (Including Government Support Arrangements)</th>
<th>Market Comparison Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Force Majeure Risk</td>
<td>Force majeure events</td>
<td>Force majeure is typically treated as a shared risk where neither party is better placed than the other to manage the risk or its consequences. <strong>Scope:</strong> Force majeure is an event (or combination of events) outside the reasonable control of the contracting parties which prevents one or both parties from performing all or a material part of their contractual obligations. In some – typically civil law jurisdictions – the definition may require the event to be unforeseeable or not reasonably avoidable. Many jurisdictions have a concept of force majeure under general law and, particularly in civil law jurisdictions, this can limit the freedom of the parties to derogate from the scope of the legal concept and agree something different in the contract. However, most PPP contracts include specific force majeure provisions, whether they are civil law or common law governed, as this provides contractual certainty. The contract should be clear to what extent underlying law applies. <strong>Approach:</strong> Depending on the jurisdiction, the definition of force majeure may be an open-</td>
<td>The scope of force majeure will depend on the particular project and jurisdiction. In France, for example, the affected party is relieved from its obligations if force majeure prevents performance and French jurisprudence has defined the characteristics of a force majeure event as (i) beyond the control of the parties, (ii) unforeseeable and (iii) impossible to overcome.</td>
</tr>
</tbody>
</table>
ended catch-all definition, an exhaustive list of specific events, or a combination of both.

The open-ended catch-all definition is often seen in civil law-governed contracts and may also be more appropriate in markets which are less developed or stable and where there is little precedent or certainty. A non-exhaustive list of events may also be included. Qualifying events may be "natural force majeure" events (such as natural disasters and severe weather events, and possibly climate change events) and certain "political force majeure" events (such as strikes, war, government action etc.).

The exhaustive limited list approach is more common in developed and stable markets where the Private Partner has more certainty as regards the risk of events occurring and how it can manage them. It may be comfortable that events which might be force majeure in a less mature market (e.g. some types of industrial action) may instead be treated as relief events in a developed and predictable market. Under this approach, force majeure events are typically (but not necessarily exclusively) events which are uninsurable. Typical events include: (i) war, armed conflict, terrorism or acts of foreign enemies; (ii) chemical or biological contamination; and (ii) discovery of any species-at-risk, fossils, or historic or archaeological artefacts. As market practice develops, certain climate change events might also be included. See also Site Condition under Land availability, access and site risk and Climate Change event under Environmental risk.


**Risk qualification:** The Contracting Authority should consider whether it can limit its risk by carefully defining the events which qualify as force majeure, and/or qualifying or excluding them as appropriate. For example, in some projects earthquakes may only qualify as force majeure if they are above a specified seismic intensity. Alternatively, an event may only qualify if it has subsisted for a particular length of time. In some projects, risk is allocated to the Private Partner and/or shared for the first few months, and subsequently becomes a shared risk or Contracting Authority risk (with entitlement to terminate if the force majeure event continues for more than a defined time period (e.g. 6 – 12 months)). Using an open-ended definition of force majeure widens the risk shared by the Contracting Authority, but may be appropriate in some markets.

The availability of insurance for certain events will be one of the main criteria in determining the extent to which an event should qualify as force majeure and/or how the consequences should be addressed. Certain risks may be more likely to constitute a force majeure event if they occur in one phase than another (e.g. events in the construction phase affecting materials supply).

- **Contracting Authority political risk:** In some markets, certain political risk events may need to be allocated in full to the Contracting Authority because the Private Partner cannot reasonably be expected to bear any of the risk and/or because the Private Partner may price in such a high contingency in respect of the risk that it makes the contract unaffordable. Where the Contracting Authority bears the full risk of these risks, this may be addressed under the force majeure provisions but with "political force majeure" receiving different treatment to the shared risk force majeure events. Alternatively, these political risks may be treated in a separate provision under the heading of "material adverse government action" or similar (which may also include other forms of event for which the Contracting Authority is deemed solely responsible). See also MAGA risk.

**Force majeure consequences:** The basic principle of force majeure is that the risk is shared and each party bears its own losses. However, there may be circumstances where it is appropriate for the Contracting Authority to bear all or part of the risk if the impact is dire or the contract would otherwise become economically unviable. Where an open-ended catch-all definition is used, the risk may be limited to an event (but not necessarily exclusively) events which are uninsurable. Typical events include: (i) war, armed conflict, terrorism or acts of foreign enemies; (ii) chemical or biological contamination; and (iii) discovery of any species-at-risk, fossils, or historic or archaeological artefacts. As market practice develops, certain climate change events might also be included. See also Site Condition under Land availability, access and site risk and Climate Change event under Environmental risk.

In less mature markets, the list of specific events is likely to be more limited and include natural risks which typically cannot be insured (e.g. strikes / protest, terror threats / hoaxes, emergency services action etc.). The extent to which the risk will be shared or allocated to one of the parties will depend on its nature and on the particular jurisdiction.

- **In certain markets, it may be necessary to differentiate how similar types of risk events are treated, depending on where they occur. For example, in more politically volatile jurisdictions, war events might be wholly a Contracting Authority risk where they occur within the country, but a shared risk otherwise. See also MAGA risk.**
### Material Adverse Government Action Risk (MAGA) - Governing Law

**The risk of actions within the public sector’s responsibility having an adverse effect on the project or the Private Partner**

<table>
<thead>
<tr>
<th>Risk Category and Description</th>
<th>Risk Allocation</th>
<th>Rationale and Mitigation Measures (Including Government Support Arrangements)</th>
<th>Market Comparison Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority to provide relief to the Private Partner, provided the Private Partner has made reasonable efforts to mitigate the force majeure effects and to the extent it was not responsible for the event. In addition to granting the Private Partner relief from breach of its affected obligations, certain time or cost relief may be granted (sometimes where a particular threshold of costs or time delay has been reached). This will depend on the phase in which the event occurs and should be considered at the time, together with the impact of the event on the Contracting Authority and the options available to it. Termination following prolonged force majeure (e.g. 6 – 12 months) may also be available. If the Private Partner has the ability to terminate the PPP contract on the basis of a prolonged force majeure event, the Contracting Authority may want to include an option to require the PPP contract to continue, provided that the Private Partner is adequately compensated. This approach is more likely to be encountered in a more established PPP market.</td>
<td>Authority to provide relief to the Private Partner, provided the Private Partner has made reasonable efforts to mitigate the force majeure effects and to the extent it was not responsible for the event. In addition to granting the Private Partner relief from breach of its affected obligations, certain time or cost relief may be granted (sometimes where a particular threshold of costs or time delay has been reached). This will depend on the phase in which the event occurs and should be considered at the time, together with the impact of the event on the Contracting Authority and the options available to it. Termination following prolonged force majeure (e.g. 6 – 12 months) may also be available. If the Private Partner has the ability to terminate the PPP contract on the basis of a prolonged force majeure event, the Contracting Authority may want to include an option to require the PPP contract to continue, provided that the Private Partner is adequately compensated. This approach is more likely to be encountered in a more established PPP market.</td>
<td>(particularly some civil law jurisdictions) Contracting Authorities may be more willing to make compensation payments during a force majeure event. In some jurisdictions, the contract will expressly identify only specific force majeure risks for which the Contracting Authority will grant financial relief (e.g. raw materials price volatility). It may not be as common in less mature markets for cost compensation to be paid during force majeure unless caused by an event deemed to be a political risk for which the Contracting Authority is wholly responsible (e.g. a MAGA event). See also MAGA risk.</td>
<td></td>
</tr>
</tbody>
</table>

**Construction phase** The consequences for the Private Partner of a force majeure event in the construction phase are that it may be unable to meet all or part of its contractual obligations, in particular key dates (such as the operation commencement date); may suffer delayed and/or lost revenue; and may incur additional financing and other costs (e.g. in relation to mitigating the event), both during and after the force majeure event. As well as relief from breach of the affected obligations, the Contracting Authority may decide to grant certain cost relief (either while the force majeure event subsists or through the operating phase if the contract continues) on the basis that the Private Partner has limited means to absorb additional costs and it may be in both parties’ interests to avoid the Private Partner going insolvent. For example, it may elect to make a compensation payment at the time or, if the contract continues, grant extensions of time and/or an extended operating period so that the Private Partner has the opportunity to recoup lost revenue and costs. Alternatively, availability payments could be increased.

**Operating phase** The consequences for the Private Partner of a force majeure event in the operating phase are that it may be unable to meet all or part of its contractual obligations (including failing to deliver the service); may suffer delayed or lost revenue; may incur additional financing and other costs; and may possibly be unable to service its debt repayment obligations. Again, in addition to relief from breach of its affected obligations, the Private Partner may be granted grant certain cost relief on the same principles as described in the construction phase. In an availability payment model, it may also grant payment deductions relief or relaxed performance standards.

**Insurance** Project insurance (physical damage and loss of revenue coverage) will be a key mitigant in respect of physical damage, to the extent it is available, and an important consideration in respect of compensation and how to continue the project. For example, if the school is destroyed prior to handover as a result of force majeure, the Private Partner will typically be obliged to re-build it at its own cost, to the extent the risk is insurable. Design resilience is also an important mitigating factor, for example, for projects with seasonal weather such as monsoon or where earthquakes are common.

In projects where a MAGA provision is appropriate, the Contracting Authority bears the risk of specific “political” actions having a material adverse effect on the Private Partner’s ability to perform its contractual obligations, or on its rights or financial status. The Contracting Authority is responsible for costs and delays and is typically at risk of termination for prolonged MAGA events. Although not all jurisdictions use the term "MAGA", many have equivalent provisions under different terminology. MAGA type clauses are more likely in less predictable and stable markets where the Private Partner (and its lenders) may require a clear regime to address specific government-related actions for which the Contracting Authority is responsible. This may be because of an actual or perceived likelihood of certain MAGA events occurring (e.g. war or civil unrest), or a lack of track record of PPP contracts being run.

MAGA events typically include: deliberate acts of state such as outright nationalisation or
expropriation in relation to the PPP project; a moratorium on international payments and foreign exchange restrictions; certain governmental acts (such as not granting essential approvals where the Private Partner is not at fault or failing to ensure utility connection to the project); and politically-inspired events such as national strikes. Change in law is also a form of MAGA. Although some of these events may not seem as obviously within the Contracting Authority’s control itself as others (e.g. if they relate to other arms of government), market practice is that they are accepted by the Contracting Authority. This is because passing them to the Private Partner may result in it being unable to enter into the contract or pricing in such contingency that the contract is unaffordable. The list of events will depend on the individual project circumstances and the position agreed on force majeure events, and the Contracting Authority can limit its risk by qualifying relevant events by reference to a clearly defined materiality threshold.

The process and consequences of MAGA are broadly similar to force majeure as regards the parties trying to find a solution and how the Private Partner may be compensated. The key difference is that the underlying principle behind MAGA relief is to put the Private Partner back into the position it would have been in had the MAGA event not occurred. The parties may terminate for prolonged MAGA, with compensation payable on a similar basis to Contracting Authority default termination. The Contracting Authority may be able to reduce its liability in some cases if it can negotiate different treatment for MAGA events which are not as clearly within its own control and influence.

For a more detailed analysis of typical MAGA provisions and sample drafting, see the World Bank’s Guidance on PPP Contractual Provisions 2019 Edition. See also MAGA/Change in law termination under Early Termination risk.

### Market Comparison Summary

- Successfully free from political interference over long periods of time and across political cycles.
- In mature politically stable markets, the Private Partner (and its lenders) are often comfortable that the type of MAGA risks likely to arise are limited. Instead of being detailed in a specific Contracting Authority risk clause, they can be addressed through the shared risk force majeure provisions and compensation event type provisions (and the general right to terminate for Contracting Authority default in limited circumstances).
- Investors and lenders may be able to obtain political risk insurance in respect of some of these types of risks. This is more common in politically young or unstable markets.
- Some jurisdictions are more politically volatile internally than others and certain political risks will be treated differently. For example, war events may be treated as MAGA if they occur within the country, and shared risk force majeure if outside it.

### Compliance with applicable law

<table>
<thead>
<tr>
<th>Risk Category and Description</th>
<th>Risk Allocation</th>
<th>Rationale and Mitigation Measures (Including Government Support Arrangements)</th>
<th>Market Comparison Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance with applicable law</td>
<td>Compliance with applicable law</td>
<td>Compliance with applicable law and mandatory regulation is each party’s risk. The Private Partner is typically subject to an express contractual obligation and will be in breach if it does not comply with applicable law, subject to change in law relief. The contract must be clear what laws and other mandatory regulations and industry codes the Private Partner is obliged to comply with. This is essential not only so the Private Partner can price its compliance, but also in order to determine what constitutes a change in law so that change in law risk can be allocated effectively. Compliance by third parties is likely to be a Contracting Authority risk where it has failed to enforce compliance and there is an adverse effect on the project.</td>
<td>Change in law may be treated as a MAGA event if the treatment agreed for this form of political risk is the same as for other MAGA events. Generally speaking, where a detailed approach to risk allocation is involved and where the consequences do not lead to termination, change in law is best dealt with separately - this is more typical is established markets. See also MAGA risk.</td>
</tr>
<tr>
<td>Change in law (and taxation)</td>
<td>The Contracting Authority primarily bears the risk of unexpected changes in law which were not in the public domain before a specified cut-off date in the bid phase and which cause the Private Partner’s performance of its contractual obligations to be wholly or partly impossible, delayed or more expensive than anticipated (or impact its investors). This is because the Private Partner has contracted to provide the specific school project at a specified price based on a known legal environment and typically has limited means of offsetting adverse consequences of unexpected law changes. As change in law may also benefit the Private Partner, change in law clauses are often reciprocal, to ensure the Contracting Authority benefits from the “positive” financial consequences of a legislative change. The Contracting Authority’s risk can be mitigated by ensuring that the contract clearly defines what constitutes a change, the relevant cut-off date and what constitutes being in the public domain. This will vary according to the nature of the project and jurisdiction concerned. Changes in law which adversely affect provision of other non-core mandatory public services may require a separate regime. Changes in law which adversely affect the Private Partner’s treatment for MAGA risk are often reciprocal to ensure the Contracting Authority benefits from the “positive” financial consequences of a legislative change. As change in law may also benefit the Private Partner, change in law clauses are often reciprocal, to ensure the Contracting Authority benefits from the “positive” financial consequences of a legislative change. The Contracting Authority’s risk can be mitigated by ensuring that the contract clearly defines what constitutes a change, the relevant cut-off date and what constitutes being in the public domain. This will vary according to the nature of the project and jurisdiction concerned. Changes in law which adversely affect provision of other non-core mandatory public services may require a separate regime. Changes in law which adversely affect the Private Partner’s treatment for MAGA risk are often reciprocal to ensure the Contracting Authority benefits from the “positive” financial consequences of a legislative change. As change in law may also benefit the Private Partner, change in law clauses are often reciprocal, to ensure the Contracting Authority benefits from the “positive” financial consequences of a legislative change. The Contracting Authority’s risk can be mitigated by ensuring that the contract clearly defines what constitutes a change, the relevant cut-off date and what constitutes being in the public domain. This will vary according to the nature of the project and jurisdiction concerned. Changes in law which adversely affect provision of other non-core mandatory public services may require a separate regime. Changes in law which adversely affect the Private Partner’s treatment for MAGA risk are often reciprocal to ensure the Contracting Authority benefits from the “positive” financial consequences of a legislative change. As change in law may also benefit the Private Partner, change in law clauses are often reciprocal, to ensure the Contracting Authority benefits from the “positive” financial consequences of a legislative change. The Contracting Authority’s risk can be mitigated by ensuring that the contract clearly defines what constitutes a change, the relevant cut-off date and what constitutes being in the public domain. This will vary according to the nature of the project and jurisdiction concerned. Changes in law which adversely affect provision of other non-core mandatory public services may require a separate regime. Changes in law which adversely affect the Private Partner’s</td>
<td>In defining a change it may be appropriate for the definition to include any modification in the interpretation or application of any applicable law. This is particularly likely in common law jurisdictions. As highlighted by the different approaches, in mature legally stable markets the Private Partner will likely</td>
<td></td>
</tr>
<tr>
<td>Risk Category and Description</td>
<td>Risk Allocation</td>
<td>Rationale and Mitigation Measures (Including Government Support Arrangements)</td>
<td>Market Comparison Summary</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------</td>
<td>--------------------------------------------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Risk</td>
<td>Sub-category</td>
<td>Public</td>
<td>Shared</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approach (a) Contracting Authority risk</td>
<td>The basic approach is that the Contracting Authority bears all the risk of change in law and provides full relief to the Private Partner.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approach (b) Limited risk sharing</td>
<td>A more nuanced approach is for the Private Partner to accept a certain annual monetary threshold up to which it accepts any unexpected change in law risk and above that threshold the Contracting Authority bears the risk/cost. This enables the Private Partner to price the risk it bears.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approach (c) Advanced risk sharing</td>
<td>With this approach the Private Partner is kept whole in respect of unexpected changes in law which are: (i) discriminatory (e.g. to the project or the Private Partner); or (ii) specific (e.g. to the school sector or to investors in school businesses); or (iii) require capital expenditure after construction completion (i.e. in the operating period). (Applicable law may protect the Private Partner from unexpected changes in the construction period if the relevant legal regime provides that changes in law affecting capital expenditure during construction do not apply retrospectively.) With this more detailed approach the Private Partner bears (some of) the general business risk that applies to all businesses (including operational expenditure or taxation affecting the market equality) and can absorb this in part through the indexation provisions typically contained in the pricing mechanisms.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bespoke mechanisms</td>
<td>It may be appropriate to have bespoke mechanisms for certain changes in law, such as those relating to climate change and environmental protection – market practice is still developing in this regard. See also Climate change event under Environmental risk.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consequences</td>
<td>The Private Partner should always be entitled to relief from breach of contract where a mandatory change in law occurs which conflicts with an existing obligation or would make compliance illegal (and/or impossible). The contract typically contains a mechanism by which the Contracting Authority is deemed to request a corresponding contractual variation of the relevant obligation. The nature of the cost relief given to the Private Partner will be as described for a compensation event. Alternatively, the Private Partner may be entitled to a right to terminate (typically on a Contracting Authority default basis).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stabilisation provisions</td>
<td>Some projects may also provide for a stabilization clause that entrenches certain legal positions (such as the current tax regime) against any future changes in law. This may require a level of parliamentary ratification of the project contract. The stabilization method is generally not favoured by governments or non-governmental organisations (e.g. because the concept of Private Partner immunity from</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
changes in environmental protection laws is unsatisfactory) and the Contracting Authority should instead seek contractual mechanisms to address such matters.

In civil law jurisdictions, Private Partners may sometimes rely on underlying legal principles such as hardship doctrines (see Glossary definition) for relief. However, widespread market practice across civil and common law jurisdictions has shown that the private sector is unwilling to enter into PPP contracts on such a basis as both lenders and sponsors require express contractual certainty in relation to the potentially significant impact of changes in law.

The allocation of risk for early termination depends on the termination grounds and these also determine the financial consequences of termination. The key risks relating to the contract being terminated early are that the Private Partner is deprived of its expected revenue stream to repay the debt it incurred developing the project and the project asset or service ceases to be delivered for the Contracting Authority. The complexity and variety of termination circumstances result in parties in all jurisdictions almost always seeking to include clear contractual mechanisms in the PPP contract which set out comprehensively what circumstances may give rise to termination, who may terminate and what the consequences of termination will be for the Contracting Authority and the Private Partner, as well as for lenders or other key third parties. Without such certainty, bidders and potential lenders may be deterred from bidding.

The Contracting Authority should not be “unjustly enriched” by receiving an asset for which it has not paid the expected contractual price. This is an underlying legal principle in most jurisdictions and should be taken into account in the drafting of applicable termination compensation provisions.

The Contracting Authority, besides making a payment, will need to consider the other risks associated with termination, such as the reputational risks, continuity of service delivery, completion of the works or maintaining the asset itself, or re-tendering the project (or a mix).


The increasingly market standard approach in all jurisdictions is to include contractual termination provisions in the PPP contract. However, in some civil and common law jurisdictions there may be underlying laws addressing certain termination rights and their consequences which apply without the PPP contract having to include termination provisions. While relying on underlying law rather than express contractual provisions is an approach less likely to be seen in common law jurisdictions, there can be certain exceptions as described, for example, under Contracting Authority default termination and Voluntary termination by Contracting Authority.

Furthermore, if the transaction is financed in a shariah-compliant manner (such as through an ijara (lease) structure) consideration must be given to how ownership will be transferred following the termination. This is typically achieved through a Purchase Undertaking or Sale Undertaking of the underlying assets.

In less developed PPP markets, it may not be easy to re-tender a project if there is no pool of alternative contractors to take on the project.
<table>
<thead>
<tr>
<th>RISK CATEGORY AND DESCRIPTION</th>
<th>RISK ALLOCATION</th>
<th>RATIONALE AND MITIGATION MEASURES (INCLUDING GOVERNMENT SUPPORT ARRANGEMENTS)</th>
<th>MARKET COMPARISON SUMMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contracting Authority default termination</td>
<td>● Public</td>
<td>Termination right: The Contracting Authority bears the risk of termination for breaches which have a material adverse effect on the Private Partner or the project (e.g. expropriation in relation to the PPP project and failure to pay). The test is typically that the default event has made it impossible for the Private Partner to perform the contract or rendered the continued relationship untenable and any materiality threshold should be clearly defined. See also MAGA risk. To mitigate the risk of termination, the Contracting Authority should ensure that grace periods are built in (e.g. for non-payment) so that it has the opportunity to rectify the default and reduce the risk of a termination right arising purely from, for example, administrative error. Compensation: Although the exact approach depends on the relevant jurisdiction, the underlying principle is that the Private Partner should be fully compensated by the Contracting Authority as if the PPP contract had run its full course. The Private Partner would typically receive an amount in respect of senior debt (including where applicable hedge break costs), junior debt, equity investment and a level of equity return which from the Contracting Authority’s perspective should where possible reflect the actual performance level of the Private Partner. Redundancy and sub-contractor break costs will also be included. The Contracting Authority should mitigate the amount it pays out by setting off deductions available to the Private Partner in respect of, for example, insurance proceeds, bank accounts, hedge break entitlements and surplus maintenance funds.</td>
<td>There are some common law jurisdictions (e.g. Australia) where the Private Partner is expected to rely on its common law rights to terminate for Contracting Authority default instead of having an express contractual right. This may be because termination for Contracting Authority default is such a fundamental step with enormous business and other ramifications for the Private Partner that the focus is instead on the enforceability of the contractual payment and time/cost compensation provisions applicable to breaches by the Contracting Authority. Similarly, in civil law jurisdictions the PPP Contract may be silent, and the Private Partner may need to apply to an administrative court to request contract termination (as was the case in earlier PPP contracts in France). Relying on underlying law is likely to deter bidders in markets where there is insufficient legal precedent and certainty.</td>
</tr>
<tr>
<td>MAGA / Change in law termination</td>
<td>● Public</td>
<td>Termination right: Some PPP contracts may contain specific MAGA provisions which entitle the parties to terminate the PPP contract if there is a protracted MAGA event. The type of political risk events addressed by a MAGA provision may include the type of Contracting Authority defaults outlined under Contracting Authority default termination and also change in law where there is no solution agreed to continue the contract. This could mean that a PPP contract (i) only has a MAGA provision, (ii) only has a Contracting Authority default provision, or (iii) has a combination of the two and/or separate provisions addressing specific political risk matters such as changes in law. See also MAGA risk and Change in law risk. Compensation: The same principles will apply as outlined for Contracting Authority default termination but some jurisdictions may only allow the Contracting Authority to terminate for protracted MAGA-style events by implementing a voluntary termination. The Contracting Authority may be able to negotiate a reduced termination payment in respect of “no fault” MAGA events. See also MAGA risk and Voluntary termination by Contracting Authority under Early termination risk.</td>
<td>Markets which are politically and legally stable are less likely to have separate MAGA termination provisions as the Private Partner and its lenders will be comfortable relying on a Contracting Authority default termination provision, combined with a shared risk force majeure provision and other contractual provisions (e.g. compensation events) which provide time and/or money relief to the Private Partner in relevant circumstances of Contracting Authority responsibility.</td>
</tr>
<tr>
<td>Voluntary Termination by Contracting Authority (Also commonly referred to as termination for convenience, public policy or interest, termination at will or unilateral)</td>
<td>● Public</td>
<td>Termination right: In return for having the right to terminate for convenience, the Contracting Authority bears the risk of this event. It should have fully considered and prepared for termination before deciding to exercise its right to terminate. The notice period should be the minimum sufficient for both parties to make appropriate arrangements in respect of the handback of the project and to facilitate compliance with handback obligations. Compensation: The Private Partner’s prime concern will be to ensure it is fully compensated for such early termination and able to comply with its handback obligations. The termination payment will be based on the same principles as for Contracting Authority default.</td>
<td>In some jurisdictions (more typically civil law) the Contracting Authority may be entitled to terminate the PPP contract on the grounds of public interest even without an express contractual right. This inalienable right is rarely invoked but the private sector (Private Partner, sub-contractors and lenders) will still require the PPP contract to cater for this low probability but high risk event as comprehensively as possible. The Contracting Authority may be required to substantiate the validity of the public interest ground (for instance, termination may not be permitted purely on financial grounds). In some jurisdictions (e.g. France) it is not possible to...</td>
</tr>
</tbody>
</table>
### Risk Category and Description

<table>
<thead>
<tr>
<th>Risk</th>
<th>Sub-category</th>
<th>Rationale and Mitigation Measures (Including Government Support Arrangements)</th>
<th>Market Comparison Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Risk allocation: Public, Shared, Private</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Termination right: The risk of a force majeure termination arising is shared by the parties. Typically it will arise after 6-12 months of prolonged force majeure where the parties are unable to agree a solution to continue with the project. Compensation: The Contracting Authority pays termination compensation to the Private Partner reflecting the principle that force majeure events are neither party's fault and the financial consequences should be shared. This is not &quot;full&quot; compensation as this would result in the Contracting Authority bearing all the financial pain. Typically outstanding senior debt (including where applicable hedge break costs), initial equity, redundancy payments and subcontractor break costs will be paid, less any applicable deductions as on Contracting Authority default termination. The Private Partner will lose all its forecast equity return (i.e. its anticipated profit) but the payment will be sufficient to repay all of its outstanding senior debt which will help address bankability concerns as to whether the debt will be kept whole in this termination scenario. The equity element will serve as a buffer for lenders if the termination payment does not cover 100% of the outstanding debt. Contractually waive the right to unilaterally terminate in the public interest, but it is possible for parties to agree in advance the procedure and consequences of such termination. In practice, these are usually identical to voluntary termination, or even a Contracting Authority default scenario. This is because the Private Partner is not responsible for, nor capable of mitigating, a public policy-driven decision to terminate unilaterally.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Force Majeure and Uninsurability termination</td>
<td>●</td>
<td>In some (typically less developed) markets, the Contracting Authority may succeed in negotiating paying no termination compensation in respect of certain natural risks which are insurable (and would reasonably be expected to be insured against as good operating practice), or a reduced amount reflecting insurance payments received (or receivable) by the Private Partner. This to some extent reflects the practice in more developed markets where these types of events may instead be classified as relief events which entitle the Private Partner to time relief only (but no ultimate right of termination). This will of course depend on the risk assessment by the Private Partner and its lenders.</td>
</tr>
<tr>
<td></td>
<td>Private Partner default termination</td>
<td>●</td>
<td>In less mature markets it is not uncommon for the senior debt to be guaranteed as a minimum in every termination scenario, and for rights of set-off below that figure to be restricted.</td>
</tr>
</tbody>
</table>

In some civil law jurisdictions, insolvency laws may have an impact on the right to terminate the PPP in the event of insolvency of the Private Partner (or its shareholders). A debt-based compensation method is the most common approach in emerging markets and availability-based PPP projects in jurisdictions such as France and is also seen in Germany. The market value retendering approach is more likely in a mature PPP market where there are likely to be a number of potentially interested purchasers in the relevant sector. Lenders to PPP projects in certain jurisdictions or in relation to certain assets may be reluctant to rely on a market-based valuation method for fear of undervaluation or underpayment. This is particularly likely to be the case in emerging markets where there is a limited PPP track record and a limited market. Some European jurisdictions have followed a book value approach but this may not accurately reflect sums owed and is not as common. In less mature markets it is not uncommon for a high
monitoring and step-in rights to ensure the Private Partner delivers the project satisfactorily so that it avoids termination and can repay the whole of the lenders’ outstanding debt. Alternatively, a market value retendering of the contract may take place (or be deemed to take place) and the compensation paid to the Private Partner will be the price tendered (or deemed tendered), less applicable deductions. A third alternative is for the Private Partner to receive a payment based on book value.

The Contracting Authority bears the risk of making the relevant termination payment on time and in the amount required. To mitigate the risk of failure, it will need to assess whether it will be able to pay a lump sum if such a large payment is not budgeted for or does not have backing from its government treasury department. Payment over time may be preferable and the Contracting Authority should in any event try to negotiate a reasonable grace period long enough to raise the necessary funds. The Private Partner and its lenders will typically want to close off their exposure to a terminated PPP project and avoid Contracting Authority credit risk as soon as possible. It is likely that they will favour a lump sum payment, particularly on Contracting Authority default termination where the most likely cause of termination is failure to pay. In some cases, the Contracting Authority may be asked to provide credit support of its payment obligations.

Lenders may be reluctant to release security interests held over the PPP project assets until compensation payments have been made in full. This may make the transfer of relevant assets back to the Contracting Authority difficult. In certain circumstances, the Contracting Authority may be able to negotiate an interim solution at the time of the termination, such as an arrangement whereby it has a right to access the PPP project assets during the period from the termination date until all termination compensation is paid, so long as the Contracting Authority complies with the payment terms with respect to such compensation. This approach is unlikely to be agreed at contract signature and certain issues will need to be clearly addressed (such as liability for damage to the asset while in the Contracting Authority’s use).

In jurisdictions where the Contracting Authority’s credit is weak or uncertain, additional credit support may be sought by the Private Partner and its lenders. This may be the case, for example, in less stable regimes or emerging markets or in projects where the Contracting Authority is not part of central government. Support may be available via multilateral or export credit agencies or central government or sovereign guarantees. Lenders and investors may seek political risk insurance to cover the risk of the Contracting Authority or any government guarantor defaulting on its payment obligation.

A key concern for lenders in some jurisdictions relates to the requirement for parliamentary approval of appropriations in respect of contingent liabilities under project contracts. In the Philippines, for example, the government requires a two-year grace period for the payment of termination compensation as this is the maximum period of time for the parliamentary appropriation process.

In less mature markets, issues of convertibility of currency and restrictions on repatriation of funds are also bankability issues upon termination. Release of security interests may not be a relevant concern in some jurisdictions, such as France, where

<table>
<thead>
<tr>
<th>RISK CATEGORY AND DESCRIPTION</th>
<th>RISK ALLOCATION</th>
<th>RATIONALE AND MITIGATION MEASURES (INCLUDING GOVERNMENT SUPPORT ARRANGEMENTS)</th>
<th>MARKET COMPARISON SUMMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strength of Contracting Authority payment covenant</td>
<td>●</td>
<td>- The Contracting Authority bears the risk of making the relevant termination payment on time and in the amount required. To mitigate the risk of failure, it will need to assess whether it will be able to pay a lump sum if such a large payment is not budgeted for or does not have backing from its government treasury department. Payment over time may be preferable and the Contracting Authority should in any event try to negotiate a reasonable grace period long enough to raise the necessary funds. The Private Partner and its lenders will typically want to close off their exposure to a terminated PPP project and avoid Contracting Authority credit risk as soon as possible. It is likely that they will favour a lump sum payment, particularly on Contracting Authority default termination where the most likely cause of termination is failure to pay. In some cases, the Contracting Authority may be asked to provide credit support of its payment obligations. Lenders may be reluctant to release security interests held over the PPP project assets until compensation payments have been made in full. This may make the transfer of relevant assets back to the Contracting Authority difficult. In certain circumstances, the Contracting Authority may be able to negotiate an interim solution at the time of the termination, such as an arrangement whereby it has a right to access the PPP project assets during the period from the termination date until all termination compensation is paid, so long as the Contracting Authority complies with the payment terms with respect to such compensation. This approach is unlikely to be agreed at contract signature and certain issues will need to be clearly addressed (such as liability for damage to the asset while in the Contracting Authority’s use).</td>
<td>- percentage or the full senior debt to be guaranteed as a minimum in every termination scenario, and for rights of set-off below that figure to be restricted. The higher percentage haircut is seen in markets where the risks in respect of project failure and of the ability to rescue it are considered low (e.g. from a technical or resourcing perspective, or because the market is known), and the overall security package available to lenders is otherwise sufficient to cover their debt. Lenders in such markets (e.g. in some projects in the US) may alternatively accept no compensation for the same reason but this is not common practice. If available in the relevant jurisdiction, lenders will seek a direct/tri-partite agreement with the Contracting Authority. The purpose of this is to give lenders step-in rights if the Contracting Authority serves a default termination notice or if the Private Partner is in default under the loan documentation. The lenders would typically be given a grace period to gather information, manage the Private Partner and seek a resolution to rescue the project and the right to ultimately novate the project documents to a suitable substitute private partner.</td>
</tr>
</tbody>
</table>
The Private Partner bears the risk of the project assets and land being handed back to the Contracting Authority in accordance with the contract and meeting the required handback conditions. This is linked to maintenance of the assets during the contract and may be complex given the need to define relevant asset standards. The circumstances around handback will vary from one PPP contract to another and will depend on matters including: the Contracting Authority’s intentions with regard to post PPP usage, the nature of the asset (e.g. the useful life of the school buildings beyond the initial PPP project duration), the stage at which the PPP contract comes to an end, whether termination occurs during construction or operation and any requirements under underlying laws in the relevant jurisdiction. To mitigate the risk of unexpected consequences, the contract should set out the requirements and process, including the Private Partner’s obligations to facilitate an effective handover, hand over relevant licences and documentation and cooperate with the Contracting Authority so that the asset can continue the service.

To mitigate the risk of the assets not being returned in the expected condition, the contract should include a mechanism for surveying conditions in advance of expiry and requiring relevant remediation. Typically the contract will provide for a retention fund to be established to fund remediation a certain period in advance of contract expiry, or for the Private Partner to provide some form of financial bond. Any funds remaining in existing lifecycle funds should be used/shared appropriately.