

Strategic Infrastructure Initiative

# Mitigation of Political & Regulatory Risk in Infrastructure Projects Introduction and Landscape of Risk

Prepared in collaboration with The Boston Consulting Group

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## Preface

The fourth report of the World Economic Forum's Strategic Infrastructure Knowledge Series – *Mitigation of Political & Regulatory Risk in Infrastructure Projects* – will be published in the first quarter of 2015. As an input for discussion, this document includes the *Executive Summary* of the report, as well as the first chapter, *Introduction and Landscape of Risk*. The remaining chapters on *Public Sector Measures*, *Private Sector Measures*, *Joint Public-Private Measures* and *The Way Forward* will be part of the upcoming full report.

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# Executive Summary

One prerequisite for sustainable and inclusive growth worldwide is a modern and efficient infrastructure. The required investment for reaching the optimal level is enormous, estimated at 5% of global gross domestic product (GDP) (or \$4 trillion) per year until 2030 – an amount that the public sector would find almost impossible to raise on its own. The gap will have to be filled by the private sector, but private investors are cautious when it comes to large and long-term infrastructure investments. In particular, they are concerned about political & regulatory risk, because an infrastructure asset typically has a lifetime much longer than political cycles, and the investors' revenues and cost base depend heavily on regulation.

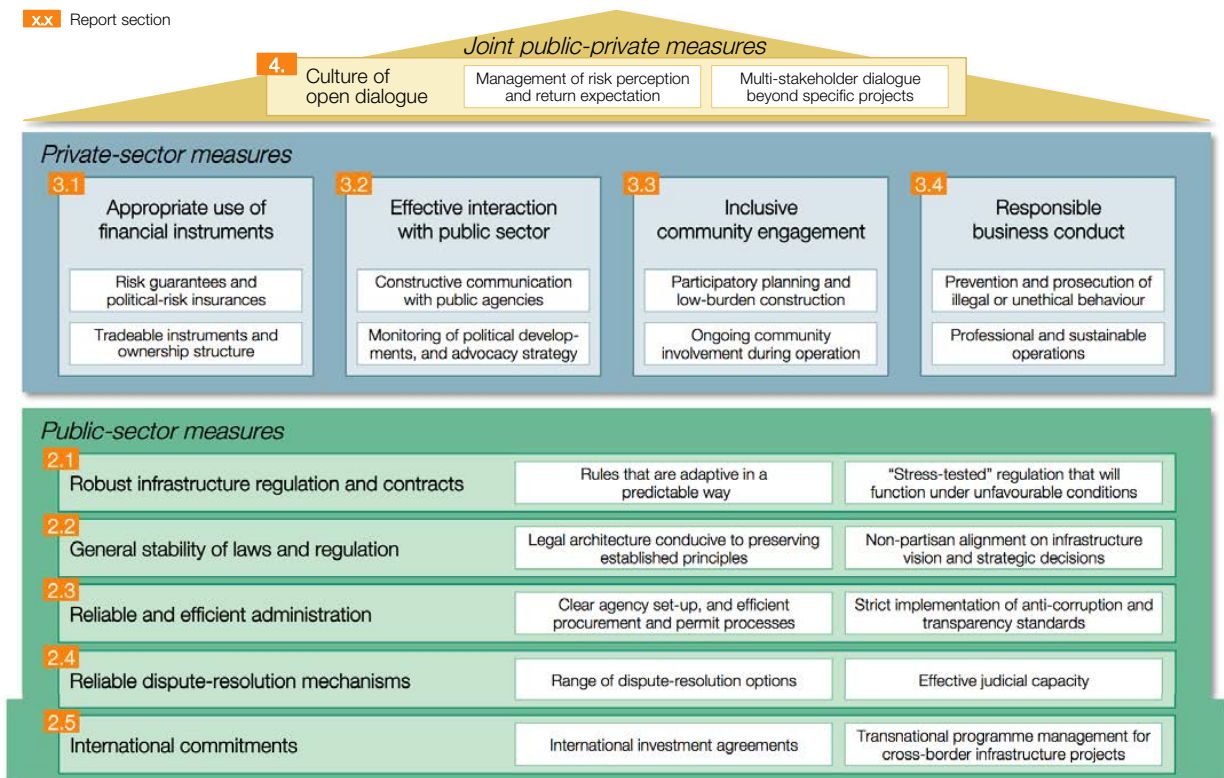
## Political & regulatory risk has many facets

During the different stages of a project's life cycle, infrastructure projects are exposed to very different types of political & regulatory risk. Among the risks are, for example: during the planning and construction phase – delayed

construction permits, and community opposition; during the operating phase – changes to various asset-specific regulations, and outright expropriation; towards the end of a contract – the non-renewal of licences, and tightened decommissioning requirements. In addition, some broader risks apply throughout the life cycle, and can affect an entire infrastructure sector (or even the entire national economy) – changes to sector regulation or taxation laws, for instance, and endemic corruption.

To address all these political & regulatory risks, this report presents a risk-mitigation framework, listing 20 measures that can be taken by the public sector, by the private sector, and jointly by the various stakeholders (see Figure 1). The framework enables policy-makers and companies to take a holistic view of the potential levers, and hence to undertake a comprehensive effort to mitigate political & regulatory risk. Further guidance is provided in the form of international best practices from the different infrastructure sectors surveyed in this report.

Figure 1: Risk-Mitigation Framework



Source: World Economic Forum; Boston Consulting Group



## The public sector has to create a stable regulatory environment

The public sector, in particular the national government, can enhance political & regulatory stability by enacting and enforcing appropriate laws and regulation. The specific regulation of each infrastructure sector should be robust, with changes to sector rules that are as predictable as possible. In that regard, it helps to have automatic adaptation mechanisms in place – for example, linking photovoltaic energy feed-in tariffs to the development of module cost, or adapting the duration for a highway concession according to the actual revenue collected from road users. Beyond specific sector regulation, the overall legal architecture must also be considered: it should be conducive to a stable regulatory environment, by providing constitutional guarantees or dedicated investment stability laws.

Legislation alone is not enough, however. The laws and regulation need to be stringently implemented, by the country's executive branch. To mitigate the risk of unexpected and adverse administrative decisions, governments need to ensure a reliable agency set-up, with efficient procurement and permit processes that never compromise on their integrity, as well as strong anti-corruption measures. Investors and the government also need to have confidence in the available dispute-resolution mechanisms, so countries must ensure a judicial capacity that administers the law in an independent, timely and efficient way.

Further protection for investors can be provided by international commitments – hence the ongoing effort to (re-)negotiate bilateral investment treaties (BITs) and investment protection clauses in free trade agreements. Although BITs have been in place for a long time, some countries are still making very little use of them. And many BITs have shortcomings, such as vague protection clauses and controversial arbitration procedures, that cause concern to policy-makers and the public. Those issues are being addressed, however, by emerging new standards and by innovative clauses. So countries might consider increasing their involvement in equitable international commitments as a way of mitigating political & regulatory risk and fostering private investment in infrastructure projects.

## The private sector also has means to manage and mitigate political & regulatory risk

Within the framework set by the public sector, the private sector has to find ways of managing and mitigating the political & regulatory risk. For “hard” risks, such as expropriation or currency inconvertibility, companies can make use of financial instruments such as political-risk insurance or guarantees, issued by multilateral organizations, national providers and the private market. In addition, political & regulatory risk could be mitigated by a carefully-crafted ownership structure: international co-owners and co-financiers – such as multilateral development banks or institutions from an investor's home country – can have a “deterrence” effect on political intervention, and joint ventures with local partners can enable an infrastructure operator to be viewed as more than just a “foreign investor”.

Private companies should also put particular effort into effective communication, both with public agencies and with affected communities. That will help manage the “soft” risks, by preventing misunderstandings and building a culture of trust. And when it comes to operating the asset, the more companies maintain professional and sustainable operations, the less likely they are to induce political or regulatory interference.

## Comprehensive multi-stakeholder action is needed

There is no silver bullet for addressing the many facets of political & regulatory risk. The risk-mitigating measures presented in this report all have their uses, and they complement one another. Public and private stakeholders should cooperate, to prioritize areas for action and to create a culture of open dialogue.

It will always be a challenge to get the balance right – between the investors' need for regulatory stability and governments' freedom to adjust regulation in line with national priorities. But reasonable stability must be achieved to boost private investment, to increase the quality and quantity of infrastructure projects, and hence to benefit society at large.



# 1. Introduction and Landscape of Risk

For inclusive and sustainable growth, one of the crucial requirements is modern and efficient infrastructure. In many emerging markets, the infrastructure remains inadequate in quality and quantity – a situation that severely limits the countries' potential to develop and increase their population's well-being.<sup>1</sup> Many advanced economies are facing infrastructure issues now as well. In the wake of the global financial crisis, they have been suffering from low growth, and the quality of their existing infrastructure is deteriorating. So they too would benefit from further infrastructure investment. According to a 2014 IMF estimate, if advanced economies invested an extra 1% of GDP into infrastructure, they would achieve a 1.5% increase in GDP four years later.<sup>2</sup>

Improved infrastructure will also be a crucial factor in achieving sustainable development goals. In fact, the 2015+ sustainable development goals proposed by the United Nations imply a massive investment need into infrastructure assets.<sup>3</sup> These new assets should be resilient to the impact of climate change and, at the same time, meet new environmental standards: the increase in traffic on new highways, for instance, will ideally be offset by an even greater increase in efficiency, to reduce overall carbon emissions.<sup>4</sup>

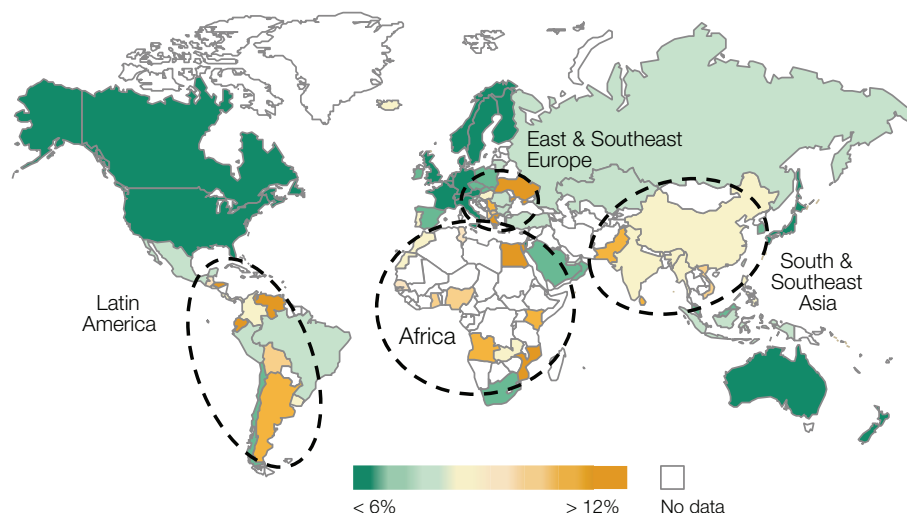
## The infrastructure gap and private investment

Overall, the investment required globally for infrastructure projects is at least \$4 trillion (or 5% of global GDP) per year until 2030.<sup>5</sup> Given fiscal constraints, the public sector can raise barely half of that amount.<sup>6</sup> Private investment is essential for bringing in the required resources and is expected to fill the gap: one well-established delivery mode for private-sector participation in some countries is that of public-private partnerships (PPPs) and related arrangements.<sup>7</sup> Given their relatively stable long-term cash flows and low correlation to other asset classes, infrastructure investments could also be very attractive to the private sector – especially to institutional investors, such as pension funds, insurance companies and sovereign wealth funds.

However, supply and demand do not always fit well together, in part because the risk–return profile of projects does not really match the expectations of potential investors.<sup>8</sup> As Figure 2 shows, market risk premiums differ substantially between countries and are especially high in regions that have a high infrastructure investment need – notably, Africa, Latin America, South and South-East Asia, and South-East Europe.

Of course, the private sector is not generally averse to risk and will venture to make risky investments provided that the risks are manageable – and provided that the expected returns are in proportion to the level of risk. High risk premiums translate into high return expectations, and if those expectations appear unrealizable, the result will be that the proposed projects fail to attract any private investment whatsoever.

Figure 2: Required Market Risk Premium 2014 (Survey Data)



Source: Fernandez et al. (2014); BCG analysis

Note: Market Risk Premium = difference between the expected return in a market and the risk-free rate.

Survey conducted among finance and economics professors, analysts and managers of companies



## Political & regulatory risk as an impediment to additional private investment

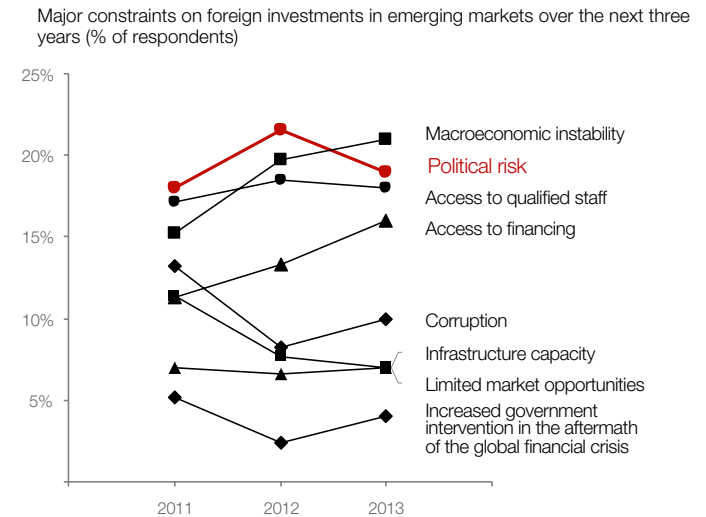
Investment risk is attributable to many factors – construction challenges, demand uncertainty and macroeconomic conditions, for example. One of the highest-ranked factors, however, is political & regulatory risk, which represents a major constraint on investment decisions. Approximately 20% of executives regard political risk as the greatest disincentive for any investments into emerging markets, more important than any other constraint except for macroeconomic instability (see Figure 3). It is the main reason why some investors, even when urgently seeking investment opportunities, will simply not consider infrastructure assets in emerging and developing countries.

Of course, a well-designed system of regulation is advantageous for society, and infrastructure investors have no problem with regulation per se. Rather, their concern is that laws and regulation can change unexpectedly; that is how political & regulatory risk arises, and the risk applies particularly strongly to infrastructure investments. Such investments typically involve a very long asset lifetime and contractual relationship, and payback well beyond the term of any individual government. Given this mismatch between political cycles and the infrastructure cycle, infrastructure investors are understandably cautious: they want to be fairly sure not only that the current government meets its commitments but also that the decisions of a future parliament or administration will not affect their investment too severely.

Originally, political risk was primarily caused by uncertainty about overall political stability, so its relevance was limited mainly to developing economies and young states. However, political risk is now affecting the developed world as well, owing to various political or regulatory decisions taken by several industrialized countries – for example, the special taxes introduced in some countries because fiscal stability had been weakened, in the wake of the recent financial crisis. Witness the current profile of international arbitration: in about 30% of the cases following the rules of the International Centre for the Settlement of Investment Disputes (ICSID), investors cite a developed country as respondent (see Figure 4).<sup>9</sup> The cases now cover such diverse topics as sector tax changes and changes to renewable energy feed-in tariffs.

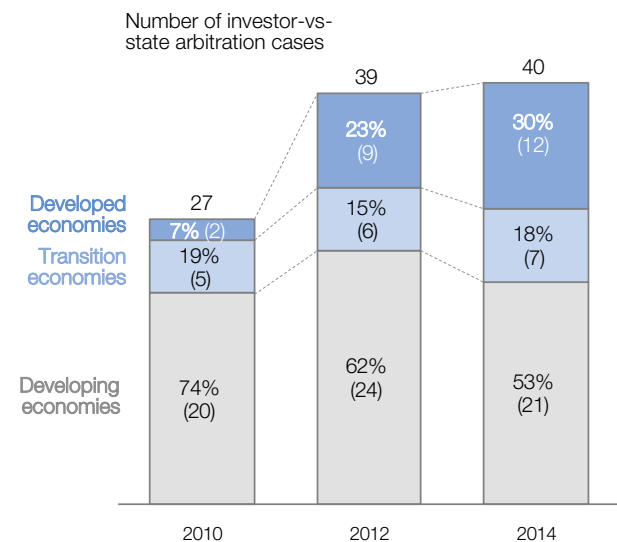
In addition, regulation plays an especially important role in many infrastructure sectors. In some cases, the market involves a natural monopoly: assets such as power grids, for example, clearly require attentive regulating to prevent abuse of pricing power.<sup>10</sup> In other cases, such as public transportation, the assets may not be fully user-funded but would rely partly on subsidies, so the magnitude of investor returns depends directly on money from the public purse, and regulation therefore becomes a highly political and controversial topic.

Figure 3: Political Risk vs Other Constraints on Investment



Source: MIGA-EIU annual political risk surveys; BCG analysis  
Note: Global survey; ranking might differ between regions

Figure 4: Investor-vs-State Arbitration Cases by Respondent Country



Source: ICSID Annual reports; BCG analysis  
Note: Newly registered cases based on ICSID rules (in ICSID financial years, July–June); numbers might not add up to 100% due to rounding

## Report scope and structure

This report discusses various ways of mitigating political & regulatory risk in infrastructure projects. The analysis proceeds in two stages:

- A risk landscape (presented in section 1.1) that clarifies the different facets of political & regulatory risk along an infrastructure project's life cycle
- A framework of risk-mitigation measures (introduced in section 1.2) that includes steps by the public sector (chapter 2), the private sector (chapter 3), and by multiple stakeholders jointly (chapter 4); it describes how to implement the recommended risk-mitigation measures (chapter 5) and presents examples of international best practices (marked as **EXAMPLE** each time).

Two notes on the focus of the report: first the emphasis is on economic infrastructure, i.e. transport, energy, telecommunication and water/wastewater. However, many of the risks and mitigation measures apply to social infrastructure as well – to schools and hospitals, for example. (In fact, much of the discussion is relevant to other large investments too, such as steel or cement plants.); second, the focus is on the risk faced by private-sector parties when dealing with governments or public agencies – and that kind of risk occurs mainly in projects involving PPPs or privatized assets.

### BOX 1: The Strategic Infrastructure Knowledge Series

This report forms part of the World Economic Forum's Strategic Infrastructure Knowledge Series. While previous reports addressed infrastructure challenges along the life cycle (from project prioritization to preparation to operations & maintenance), this report complements the series by covering the cross-life-cycle topic of political & regulatory risk. The reports in this series are:

I. Steps to Prioritize and Deliver Infrastructure Effectively and Efficiently (October 2012)

II. Steps to Prepare and Accelerate Public-Private Partnerships (May 2013)

III. Steps to Operate and Maintain Infrastructure Effectively and Efficiently (April 2014)

IV. Mitigation of Political & Regulatory Risk in Infrastructure Projects (February 2015)

This report also draws on the Infrastructure Investment Policy Blueprint that was published by the World Economic Forum in February 2014. It derived actions for policy-makers based on interviews with infrastructure investors, identifying policy and regulatory enablers as an important area.<sup>11</sup>

### Audience of the report

This report is intended primarily for senior government leaders and for officials in national and international bodies who influence the political environment of infrastructure projects. It will help them assess the political-risk situation and will support their efforts to improve the investment environment. As for specific policy recommendations, these will typically depend on the country-specific context – to help identify the relevant recommendations for any given country, the report provides a framework to assess possible levers, and alerts the reader to global best-practice examples that address political & regulatory risk.

This report should also be helpful to private infrastructure investors, developers and operators, as it outlines what private companies can do to mitigate any political & regulatory risk they are exposed to.

Finally, this report will be of interest to academics, the donor community and members of civil society engaged in or concerned about infrastructure development.

## 1.1 Landscape of political & regulatory risk

For the purpose of this report, risk is to be understood as “unpredictable variation of project or asset value to a private party” – the private party being an investor, developer or operator. The discussion focuses on adverse risk.<sup>12</sup>

In infrastructure projects, private actors are subject to a wide variety of risks. These risks, as shown in Figure 5 (and in a magnified version in the appendix), can be differentiated in two ways: by the phase of the infrastructure life cycle in which they occur, and by the specific risk factor that causes the uncertainty. In PPP contracts, for instance, the different risks are allocated to a private party, or to the public, or they are shared between the private and the public parties – ideally, each risk should be allocated to the party that is best able to manage the risk.<sup>13</sup>

*Political & regulatory risk* refers to those risks that arise when individual political or regulatory decisions affect an infrastructure project or asset.<sup>14</sup> Such risks are hard for private companies to manage (and often cannot be allocated to the public sector), so the question is about mitigating them as far as possible. Fourteen risks of this type are differentiated in this report; some are project-specific, while others impact on the entire infrastructure sector. A differentiated understanding of political & regulatory risk is a prerequisite for its mitigation, so a brief description of each type of risk is provided.

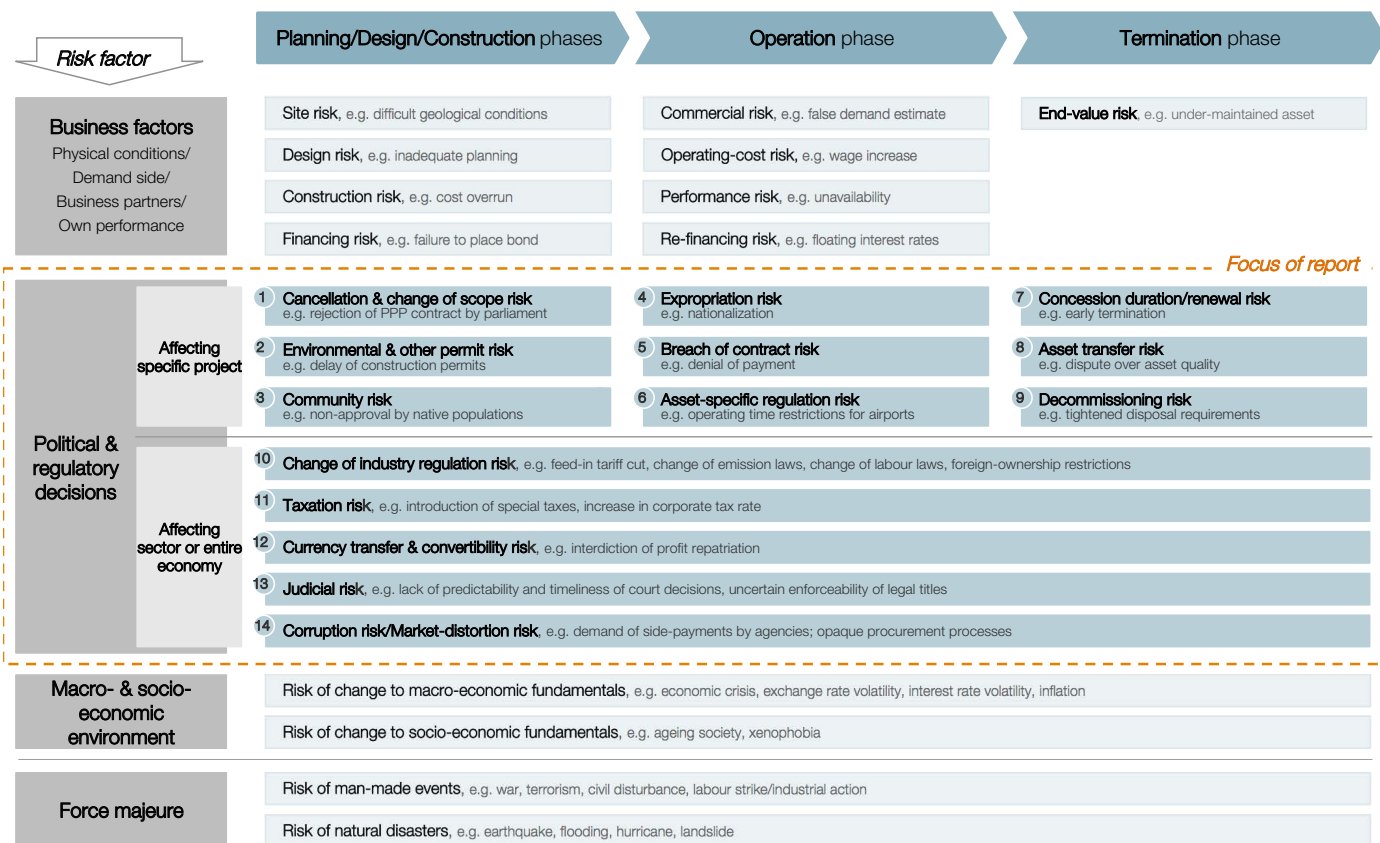
### Risks affecting specific projects

The first group of risks consists of those that affect a specific project, such as a toll road, airport or power plant. The risk profiles of infrastructure assets differ greatly from one phase to another, as very different items of regulation and quite different public-sector agencies may be involved. Accordingly, it is worth differentiating between life-cycle phases: specifically, between the planning/design/construction phases, the operation phase and the termination phase.<sup>15</sup>

- The *planning/design/construction phases* include all activities prior to the commissioning of an asset, i.e. planning and permits, design, procurement and construction.
- The *operation phase* includes operation and maintenance of the asset.
- The *termination phase* includes decommissioning or other end-of-contract activities, such as contract extension or asset transfer.

Specific examples of each risk type are presented in Figure 6.

**Figure 5: Risk Landscape for Infrastructure Projects**



Source: World Economic Forum; Boston Consulting Group

### Risks during the planning/design/construction phases

- Risk of cancellation or change of scope.** A project is vulnerable to cancellation if a new government sets different priorities from those set by the previous government, or if parliamentary approval is needed before major PPP contracts may proceed. Such a cancellation could hurt private companies, as they might already have made significant investments in the project to prepare their proposal. In addition, a decision on the part of public authorities to change the project scope at a late stage could have costly consequences for the private participants delivering the project.
- Risk concerning environmental and other permits.** Construction permit delays can have a severe impact on a project's profitability, as cash flows start later than anticipated. Such delays are often due to the unexpected outcomes of environmental and social-impact studies. Even permits issued promptly can contain unforeseen and costly conditions, such as compensation requirements or usage restrictions.<sup>16</sup>
- Risk of community opposition.** Local communities can affect projects in ways that do not just influence permit procedures. Native populations, for example, can have formal or informal veto rights over such projects within their territories; action groups can organize protests that prompt politicians to withdraw permission, and so on. Community risk is especially high if the project involves land expropriations or relocation of local inhabitants.

### Risks during the operation phase

- Risk of expropriation.** One fundamental political risk faced by private infrastructure owners is the risk of outright confiscation or nationalization of their asset. More subtly, a series of renegotiations or regulatory changes can result in de facto expropriation, or "creeping expropriation".
- Risk of breach of contract.** In a PPP concession arrangement, the government might breach its contractual obligations on the grounds of safety, health or other public concerns. Whether these concerns are justified or not, the value of the asset would be adversely affected.
- Risk of asset-specific regulation.** For assets that could seriously impact on communities or on the natural environment – assets such as airports or dams – the operating regulations are obviously very specific. Any small change to the details – to permissible noise levels, for example, or water-quality requirements – can have a hugely detrimental effect on revenues or cost. The same is true for price caps, which might retroactively reduce toll-road charges, for instance, and thereby lower expected revenues.

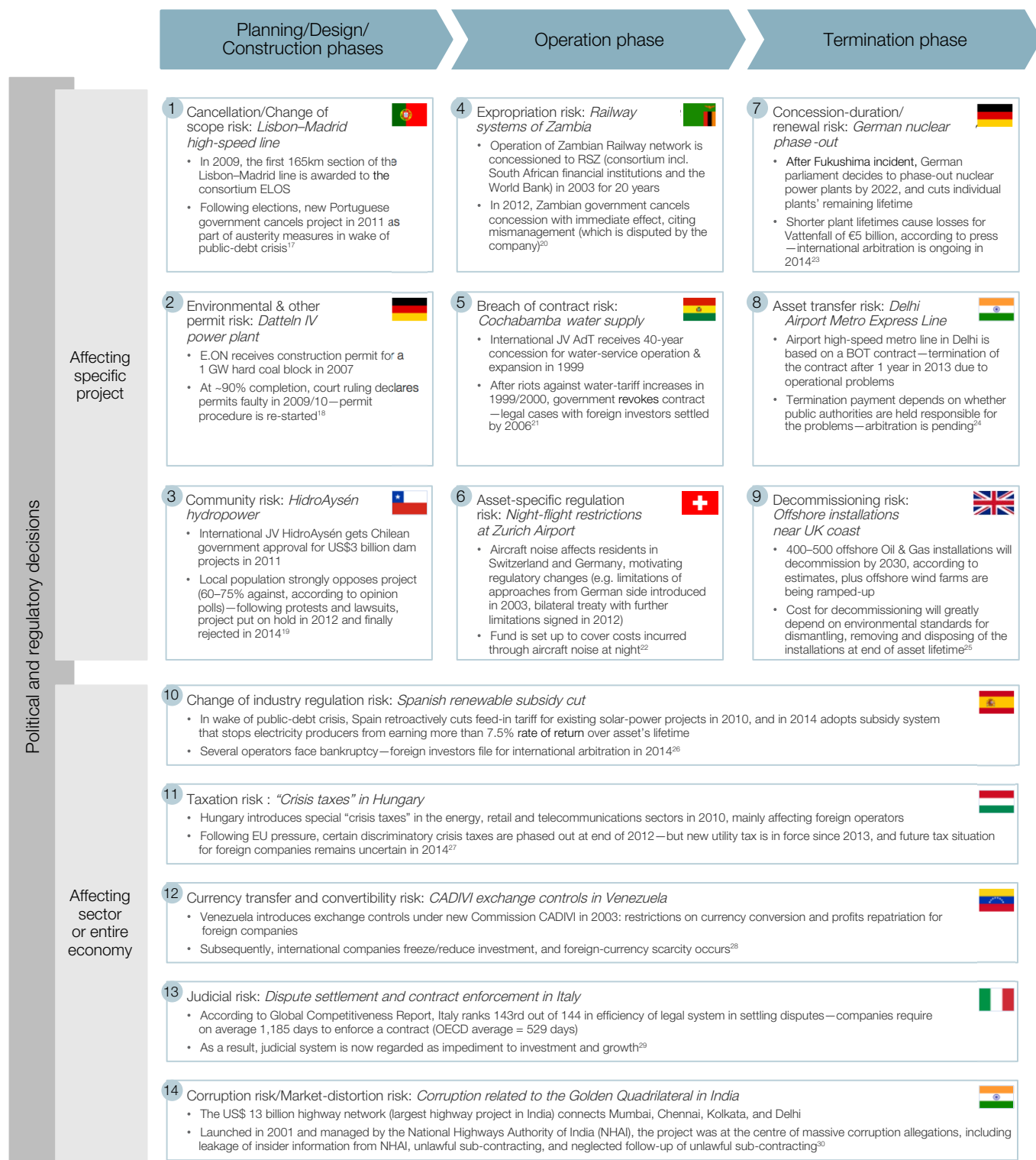
### Risks during the termination phase

- Risk concerning the duration or renewal of the concession.** When the expiry of a concession is near, uncertainty can be high: will the concession be extended or will it be put out for renewed tender? The risk also exists that concessions will be terminated early.

8. Risk relating to the transfer of the asset. Some concessions explicitly include the requirement or an option to transfer the asset to the state or to a new concessionaire. In such cases, there is a risk of disputes over the transfer price, for instance based on disagreements on how to measure asset quality or on which valuation rules to apply.

9. Risk related to the decommissioning of the asset. If an asset has to be dismantled and disposed of at the end of its lifetime, the related cost will depend heavily on the environmental standards imposed, for example for the recultivation of open pits or the restoration of contaminated sites. If the standards are tightened during the operation phase, the predicted decommissioning costs will increase, and provision will have to be made for that increase well before the actual decommissioning.

Figure 6: Examples of Political & Regulatory Risks



Source: Press reports and public company information



## Risks affecting the sector or entire economy

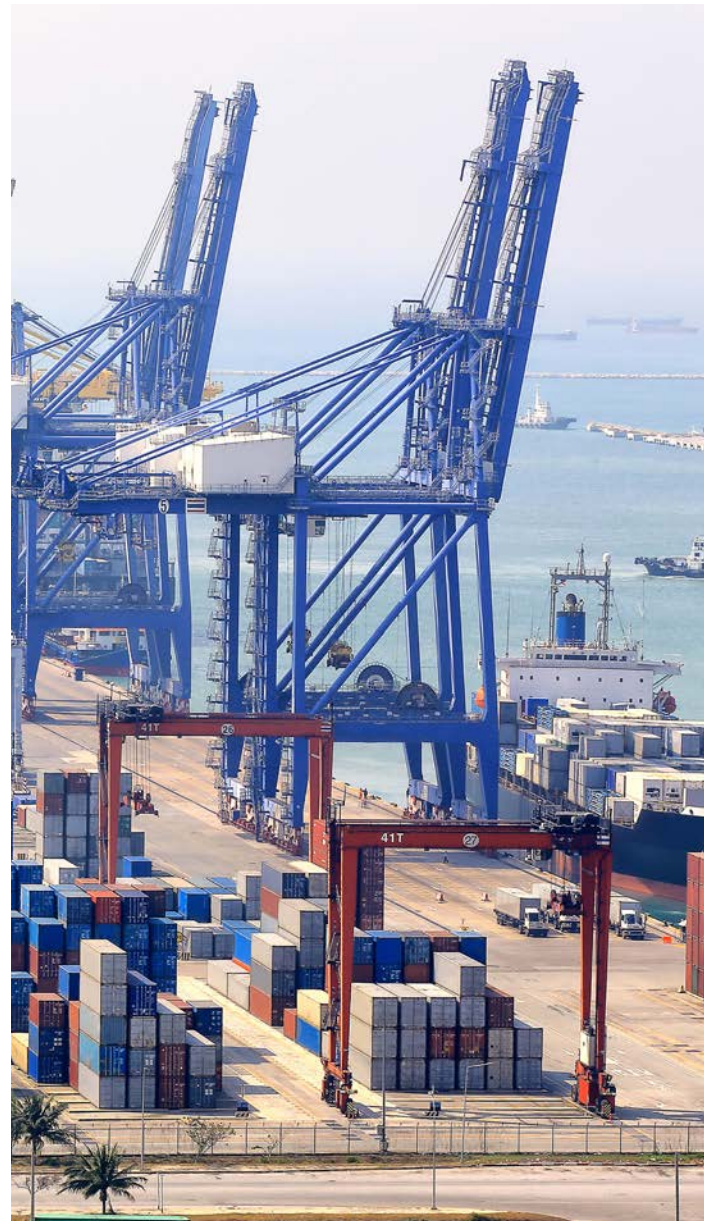
Project-specific decisions are only part of the risk profile. Equally important are sector laws determining the profitability of an entire industry, and general laws that set the rules for the national economy as a whole.

10. *Risk of changes to the regulation of the industry.* The economic performance of an infrastructure asset is closely linked to many regulations and is therefore affected by changes to them. The regulations in question might be sector-specific, such as rules on the feed-in of renewable energy or on road usage, or they might be general laws, relating to labour relations or immigration quotas, for instance. Changes of industry regulations can also put the preservation of a level playing field at risk, if those changes lead to incumbent or new players being disadvantaged.
11. *Risk of taxation changes.* Changes to tax rates are a special case of regulatory changes with a direct and immediate financial impact. The taxes affected might again be specific to the sector, or they might be general corporate taxes.
12. *Risks associated with currency transfers and convertibility.* International investors expect the liberty to convert local currency and repatriate profits to their home countries. They are troubled by the risk that new legal restrictions might be introduced. This risk is to be differentiated from the general exchange-rate risk. Exchange-rate fluctuations – a potentially serious risk for investors – do depend to some extent on political decisions, but also on many other macroeconomic developments that are beyond the control of the national government.
13. *Judicial risk.* A further risk to investors is that the judicial system does not function in a timely, efficient and fully independent way. The effects can be lengthy legal processes, unpredictable rulings and the unenforceability of favourable court decisions.
14. *Risk of corruption and market distortion.* Corruption and market distortion are underlying causes of inefficient political & regulatory decisions, of course, but they also represent a risk in themselves. For instance, there might be a demand for side-payments or under-the-table-arrangements, which in turn might later lead to the (legitimate) prosecution of any companies involved.

The risks listed above and addressed in the rest of this report are not isolated from the other risks that infrastructure investment is subject to. In particular, political & regulatory risk as a whole can be intensified by fundamental risks that affect the entire economy – such as the risk of macroeconomic shocks or the risk of natural disasters. Such risks if they materialize could undermine a country's fiscal strength and have repercussions on political decisions. Natural disasters are increasingly overburdening countries economically, especially developing countries. And the evidence shows such disasters can also trigger momentous political decisions

in response to increased societal concerns – a move away from nuclear power stations, for instance, or a drastic tightening of building codes. Some business risks (such as commercial risk stemming from false demand estimates) are related to very early decisions by public authorities – decisions taken during project prioritization and preparation, even before tendering. These risks – as well as their mitigation through a rigorous project-preparation process – are described in detail in an earlier report in this series.<sup>31</sup>

Finally, it should be noted that the typical risk profile can differ significantly between sectors and sub-sectors, some of which tend to use different delivery modes. For instance, concessions and PPP contracts are prevalent in road transport, whereas private delivery (often via foreign direct investment) is common in telecommunication. In addition, the risk exposure might depend on the origin of an investor: while most risks affect both domestic and foreign investors, the latter group can be more strongly affected by discriminatory regulatory decisions or currency convertibility risk. On the other hand, some mitigation measures are available only to foreign investors, as explained in the next section.





## BOX 2: Root Causes of Political & Regulatory Risk

By drawing on the social sciences and taking a more theoretical look at political & regulatory risk, greater insight can be gained into the underlying causes.

The starting premise is that some degree of political uncertainty is intrinsic to democratic systems – unavoidable, and even desirable in some respects. Consider the following constraints:

### A. *The evolving structure of public interests*

The “public interest” as such is not necessarily constant over time. Instead, it might change, owing to two factors.

- Societal concerns that are inconsistent over time: during the long lifetime of an infrastructure asset, the perception of technological safety or environmental responsibility might change, so the risk arises that regulation would change too.<sup>32</sup>
- Government incentives that are inconsistent over time: for instance, before the signing of the contract, the government has the incentive to offer high user-tariffs (for electricity or train tickets, say) so that investors will be attracted by the prospect of a high return on their investment; after the asset has been completed, the government will favour low user-tariffs, to benefit the public (the asset will continue operating regardless, as long as revenues exceed marginal costs).<sup>33</sup>

### B. *The functional limitations of the public sector*

The “public interest” as an abstract concept does not necessarily translate directly into political & regulatory decisions, even if public-sector actors intend it to. This

difficulty is caused by functional limitations inherent in political systems:

- The need to maintain the sovereignty of future parliaments: so law-makers cannot easily make commitments that extend beyond the next election. Moreover, politicians will tend to avoid making any substantial decision during the last few months before an election.
- The continuous power struggle between different governmental levels or agencies (including NIMBY-ism).<sup>34</sup>
- The limited capacities of ministries and public agencies: for instance, a shortage of talent and tools (especially in fast-growing countries with a quick ramp-up of infrastructure programmes), and the presence of corruption. These challenges create political & regulatory risk on sub-national levels as well, for example, in local and departmental administrations.

### C. *A misperception by private actors*

Political & regulatory risk can also be caused by private rather than public participants. The investors or developers might perceive political decisions as unpredictable and hence “risky”, even though such decisions are almost inevitable. The reasons for this faulty perception are:

- Investors’ inadequate sensitivity to shifting societal concerns: so the investors would find it surprising when political decisions are made in response to public pressure or are motivated by a new understanding of socially desirable policies.<sup>35</sup>
- Deliberate misrepresentation by the contractors during bidding, for example, underestimating the environmental impact or the cost of publicly-funded sections of an asset: so government intervention is almost certain, yet the investors would again be taken by surprise.<sup>36</sup>

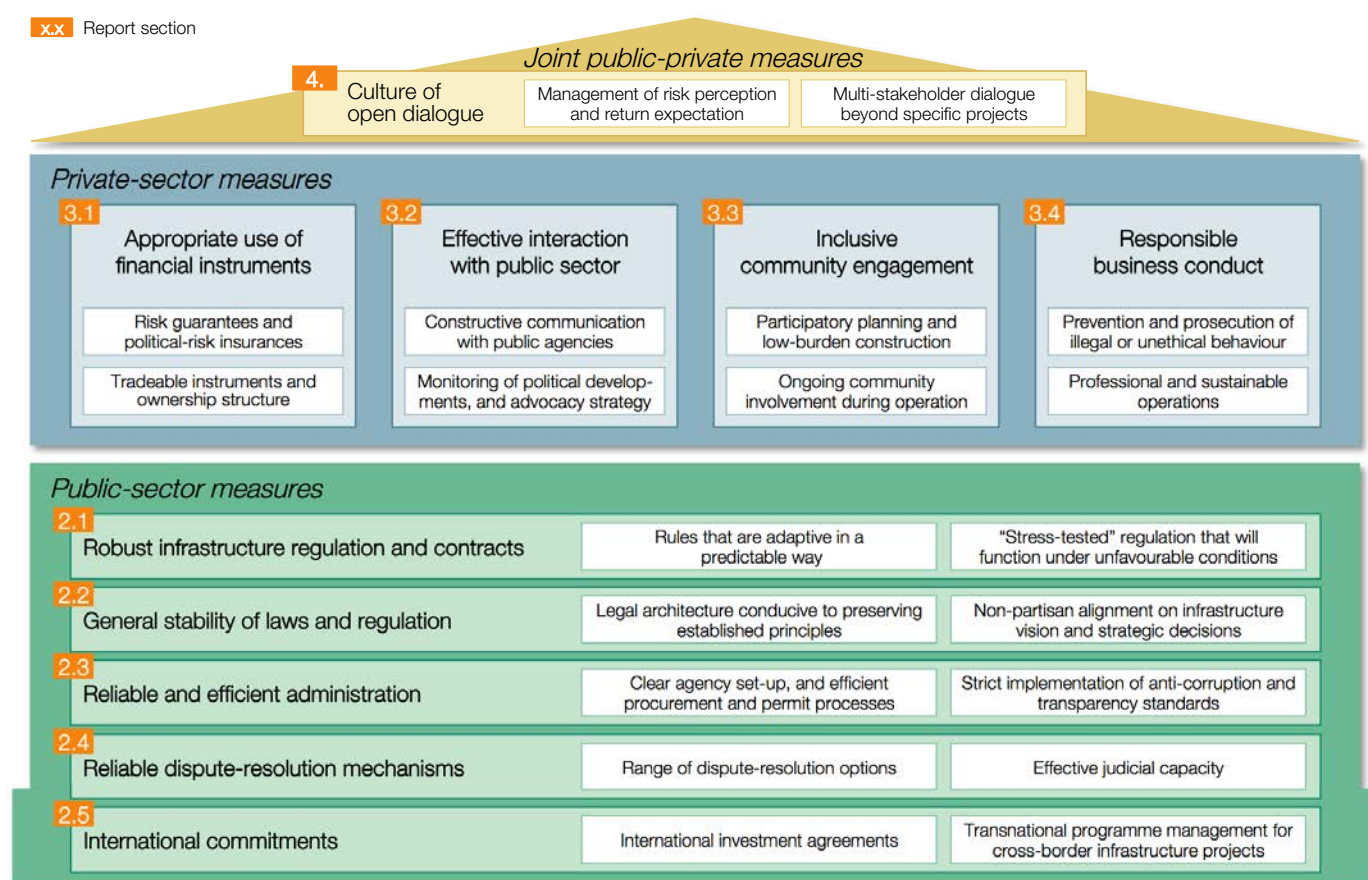


## 1.2 Best-practice framework for risk mitigation

The landscape of political & regulatory risk is a diverse one, so a multilayered approach is required for mitigating the risk (i.e. reducing the likelihood or severity of adverse events) – multilayered in the sense that both the public and the private sectors have to take action. This multilayered approach is reflected in the political & regulatory Risk-Mitigation Framework shown in Figure 7.

The framework structures the various measures according to responsibility: the public sector is responsible for laying the foundations of a low-risk environment; the private sector has to manage risks efficiently based on those foundations; and both the public and private sectors are responsible for a culture of open dialogue.

Figure 7: Risk-Mitigation Framework



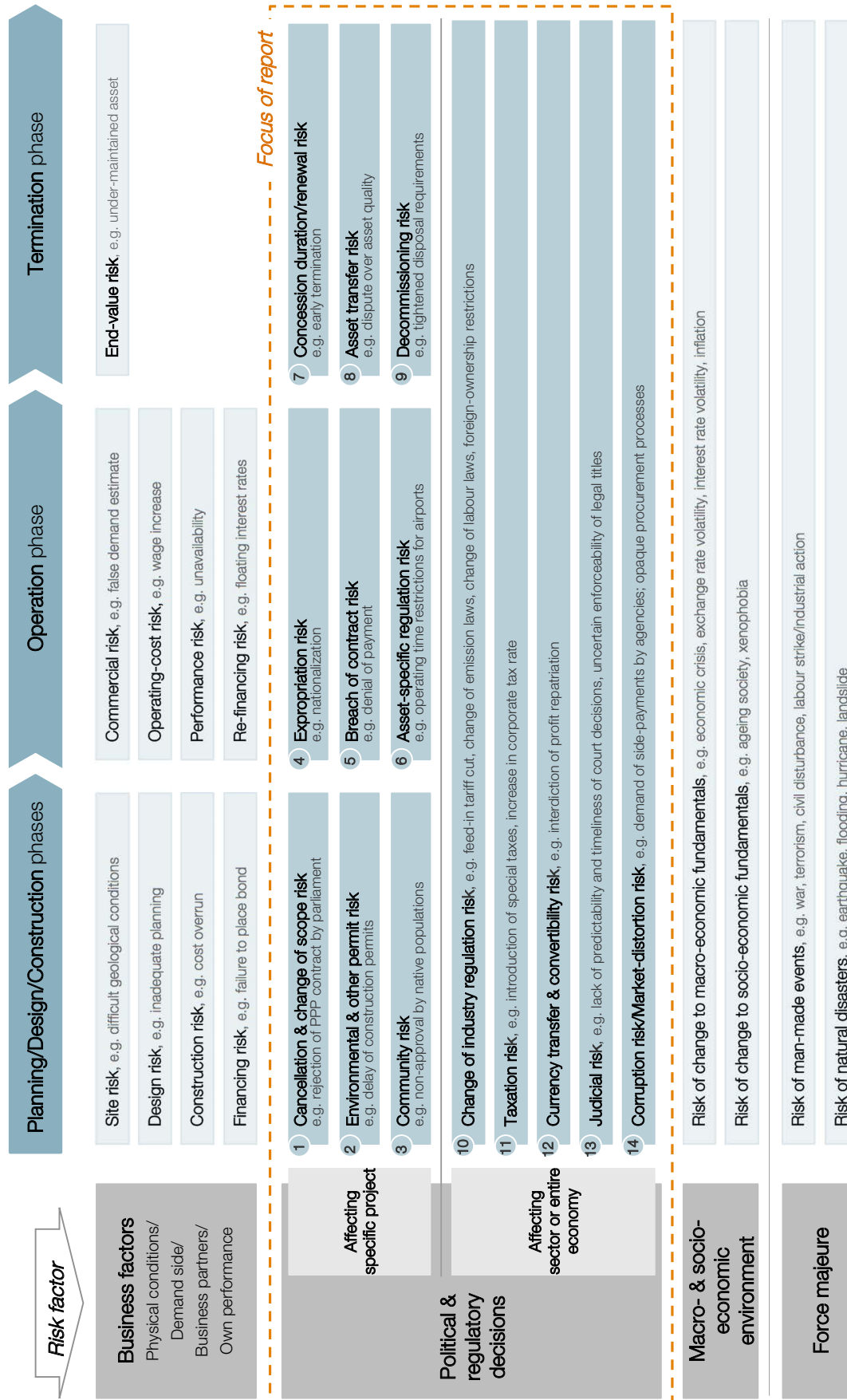
Source: World Economic Forum; Boston Consulting Group

The full report – including chapters 2 through 4 that discuss the steps all actors must take – will be launched in February 2015.

# Abbreviations

4G	Fourth Generation (of road concessions programme – Colombia)
ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
BCG	The Boston Consulting Group
BIT	Bilateral Investment Treaty
Cat bonds	Catastrophe bonds
CCC	Canadian Commercial Corporation
CAFTA	Central America Free Trade Agreement
CETA	Comprehensive Economic and Trade Agreement
EBRD	European Bank for Reconstruction and Development
ECA	Export Credit Agency
EIB	European Investment Bank
EPC	Engineering-Procurement-and-Construction
FDI	Foreign Direct Investment
FET	Fair and Equitable Treatment
FTA	Free Trade Agreement
GDP	Gross Domestic Product
HLRM	High Level Reporting Mechanism
HSE	Health, Safety and Environment
IATA	International Air Transport Association
ICSID	International Centre for the Settlement of Investment Disputes
IFC	International Finance Corporation
IIA	International Investment Agreement
IPA	Investment Promotion Agency
ISO	International Organization for Standardization
LPVR	Least Present Value of Revenue
MPMO	Major Projects Management Office
MIGA	Multilateral Investment Guarantee Agency
NAFTA	North American Free Trade Agreement
NGO	Non-Governmental Organization
NIMBY	“Not in my back yard”
OECD	Organisation for Economic Co-operation and Development
OPIC	Overseas Private Investment Corporation
PACI	Partnering Against Corruption Initiative
PIDA	Programme for Infrastructure Development in Africa
PPA	Power Purchase Agreement
PPP	Public-Private Partnership
PV	Photovoltaic
RFP	Request for Proposal
SDG	Sustainable Development Goal
TEN-T	Trans-European Transport Network
TTIP	Transatlantic Trade and Investment Partnership
UNCITRAL	United Nations Commission on International Trade Law
UNCTAD	United Nations Conference on Trade and Development
UNECE	United Nations Economic Commission for Europe
USAID	United States Agency for International Development
WAIPA	World Association of Investment Promotion Agencies

# Appendix: Landscape of Political & Regulatory Risk



Source: World Economic Forum; Boston Consulting Group



# Endnotes

<sup>1</sup> That is why multilateral development banks such as the Asian Development Bank or the World Bank spend up to 50% of their resources on infrastructure development. See Adam Smith International (2012).

<sup>2</sup> These estimates apply specifically to public-sector investment into infrastructure. The effect is lower in emerging markets, because of the generally lower efficiency there of public-sector investment. See International Monetary Fund (2014).

<sup>3</sup> The Sustainable Development Goals (SDGs), being prepared by the international community, are due to succeed the Millennium Development Goals, and should be approved by 2015. See UNCTAD (2014a).

<sup>4</sup> See the recommendations in The Global Commission on the Economy and Climate (2014).

<sup>5</sup> See the detailed discussion in World Economic Forum (2013a), in the “Introduction: The PPP Project Preparation Gap” section.

<sup>6</sup> B20 Australia (2014).

<sup>7</sup> For a detailed description of PPPs and their variants, see World Economic Forum (2013a).

<sup>8</sup> Other reasons include a lack of bankable projects, and financial regulations’ limiting investment into the infrastructure asset class.

<sup>9</sup> If other arbitral rules, such as United Nations Commission on International Trade Law (UNCITRAL), are taken into account, the figure is even higher. Almost half of all these cases were filed against developed states in 2013. See UNCTAD (2014b).

<sup>10</sup> See Berg and Tschirhart (1988) for a comprehensive overview of the regulation of natural monopolies.

<sup>11</sup> See World Economic Forum (2014e).

<sup>12</sup> This definition of risk is more specific than the ISO conceptualization, which defines risk broadly as “effect of uncertainty on objectives”; see the risk management standard 31000 (ISO, 2009). In this report, the terms “risk” and “uncertainty” are used interchangeably.

<sup>13</sup> See World Economic Forum (2013a), section 3.3.

<sup>14</sup> More specifically, *political* risks result from decisions by legislative bodies (i.e. laws), and regulatory risks result from decisions by executive authorities. The borderline between these two decision-making groups varies from country to country, so this report examines the two types of risk together.

<sup>15</sup> The structure and naming of life-cycle phases vary according to the sector and the organization managing the project (see Project Management Institute (2008)); the nomenclature used in the risk landscape is a simplified version of that used in Prieto (2013).

<sup>16</sup> In certain cases, environmental-impact studies are necessary not only for individual projects but also for a larger ecosystem – for example, for an entire series of linked hydro dams. See USAID et al. (2010).

<sup>17</sup> See The Guardian (2011); Railway Gazette (2012a).

<sup>18</sup> See E.ON (2014); Frankfurter Allgemeine (2014); Handelsblatt (2012).

<sup>19</sup> See Cossio (2014); The Wall Street Journal (2014a).

<sup>20</sup> See Hoffman (2012); Railway Gazette (2012b).

<sup>21</sup> See The Democracy Center (2007).

<sup>22</sup> See Stuttgarter-Zeitung (2013); Zeit Online (2012).

<sup>23</sup> See German Government (2011); Spiegel Online (2014).

<sup>24</sup> See The Hindu (2013); The Telegraph India (2013).

<sup>25</sup> See Tscherning (2011).

<sup>26</sup> See Bloomberg (2014a); Bloomberg (2010); Energy Charter (2014).

<sup>27</sup> See KPMG (2013); TeleGeography (2013).

<sup>28</sup> See Esposito et al. (2014); World Bank (2014); World Economic Forum (2014d).

<sup>29</sup> See Bloomberg (2014b).

<sup>30</sup> See Ghani et al. (2013).

<sup>31</sup> See World Economic Forum (2013a).

<sup>32</sup> The perception of technological, societal, geopolitical, environmental and economic risks is discussed in the World Economic Forum’s annual *Global Risks* reports. See World Economic Forum (2014a).

<sup>33</sup> For a detailed discussion of the “time inconsistency problem”, see Helm (2010); Kydland and Prescott (1977).

<sup>34</sup> The “not in my back yard” (NIMBY) principle is opposition to new developments that are close to a particular municipality, neighbourhood or the like.

<sup>35</sup> This inadequate understanding of changes in societal concerns has two broad causes: *organizational* malfunctioning and *individuals’* cognitive biases, such as projection bias, optimism bias or selective perception. See Baron (2007).

<sup>36</sup> On the phenomenon of strategic misrepresentation in megaprojects, see Flyvberg et al. (2002); Flyvberg (2005).

<sup>37</sup> In this report, “risk mitigation” is understood in a broad sense, involving measures to reduce the likelihood of risk events as well as measures to reduce the severity or impact of such events. In the classical schema, risk management consists of three steps: (i) identification of risks; (ii) assessment of risks; and (iii) solution to risks (risk mitigation is one option in step (iii); the other options are avoidance, transference and acceptance). For further discussions, see ISO (2009); Dorfman (2007).



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