



**Capacity building package to accelerate infrastructure development and financing
in APEC economies**

**SELECTED EFFECTIVE APPROACHES TO FINANCING INFRASTRUCTURE IN
APEC ECONOMIES: AN APEC/OECD SURVEY OF APEC ECONOMIES**

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At the Finance and Central Bank Deputies' Meeting in Port Moresby on 15-16 March 2018, Deputies indicated their support for Papua New Guinea's proposal to develop a capacity building package to accelerate infrastructure development and financing in APEC economies. At the Senior Finance Officials' Meeting (SFOM) held in Madang on 7-8 June 2018, it was then agreed that the package shall comprise a selected set of effective approaches to financing infrastructure, including blended finance, which are to be drawn from responses to an APEC/OECD survey of policies that facilitate the implementation of the voluntary and non-binding recommendations contained in Annex A to the 2017 APEC Joint Ministerial Statement.

Since then, Papua New Guinea and the OECD have been leading the development of this package, building on an already existing international data collection exercise on the topic of infrastructure financing, undertaken through the framework of G20/OECD work in 2017. For the purpose of the APEC capacity building package, broadening this existing survey to include and focus entirely on APEC economies aimed at strengthening the functionality, international consistency, synergy and relevance of the data collection exercise.

The OECD has prepared the survey and collated APEC economy responses through the FMP 2018 Chair. As chair, Papua New Guinea has facilitated economy responses to the survey and worked closely with the OECD to prepare the draft package as well as coordinated efforts to finalise the package in consultation with APEC economies. The present document now includes the first draft synthesis report of the collected answers to the survey, drawing together and analysing the most effective approaches applied by economies to implement Annex A to the 2017 Joint Ministerial Statement. The report highlights and distinguishes between common and emerging or innovative approaches and also presents relevant examples of economies. These identified effective approaches are examples of practices that have been adopted and are regarded as having been successful in achieving the intended objective of improving the financing of infrastructure.

APEC economies are now invited to review and provide feedback to this first draft. If possible, **comments are sought by 17 September 2018, Paris COB time**. A second round of reviews will be held in the second half of September, with the aim of finalising the package by the 2018 APEC Finance Ministers' Meeting in October 2018.

For further information, please contact:

Mr. André Laboul [Tel: +33 1 45 24 91 27; Email: andre.laboul@oecd.org];

Mr. Christoph Weigl [Tel: +33 1 45 24 87 37; Email: christoph.weigl@oecd.org];

Ms. Lena Schreiner [Email: lena.schreiner@oecd.org].

The FMP 2018 Chair can be contacted at fmp2018@treasury.gov.pg.

Box 1. Key findings

The *Capacity building package to accelerate infrastructure development and financing in APEC economies* presents selected effective approaches to financing infrastructure in APEC economies based on a survey covering 11 APEC member economies. It furthers the identification and analysis of good practices and effective approaches to diversifying financing sources and fostering private sector involvement in infrastructure investment in APEC economies as called for in Annex A to the Joint Ministerial Statement of the 2017 APEC Finance Ministers' Meeting. The Capacity Building Package thus provides guidance and support to the voluntary implementation of policy messages presented in Annex A.

Following Annex A voluntary policy recommendations, Governments have taken action to *enable and incentivize optimum private sector and institutional investor involvement, targeted at an increased and efficient provision and finance of infrastructure*. Therefore, Governments implement measures to provide a functioning regulatory framework and additional incentives, which shall enable optimal private sector and institutional investor engagement, based on well-functioning market mechanisms.

In the Capacity Building Package, effective Governmental approaches related to Annex A have been identified. Effective approaches have been further classified Common and Emerging/Innovative, distinguishing measures that have been widely endorsed in a number of jurisdictions and are considered to effectively implement key aspects of Annex A (common) from measures adopted to address new or emerging challenges or draw on alternative or novel policy approaches (emerging/innovative).

Effective approaches taken by Governments were identified at this stage to mainly focus on four key areas: (i) long-term infrastructure strategy setup, (ii) enabling infrastructure finance, (iii) information and coordination between the parties involved and (iv) risk reduction and mitigation measures.

- (i) Governments set up long-term infrastructure strategies in order to guarantee a stable investment environment and take action to assess and plan future infrastructure requirements and priorities. Common approaches inter alia include the involvement of private sector stakeholders when setting up strategies to profit from their expertise and leverage their financing and project delivery capabilities. Emerging/Innovative approaches for instance are the inclusion of new financing structures in long-term infrastructure strategies and the monitoring of strategy implementation and reforms.
- (ii) Governments enable efficient infrastructure finance. Measures generally aim at the creation and improvement of relevant market mechanisms and may also include targeted political, regulatory or institutional incentives fostering specific infrastructure investments. Common approaches include market development and further deployment of debt and equity instruments. Emerging/Innovative approaches incentivize and enable new investment structures. Inter alia, infrastructure investments are increasingly promoted as an asset class, especially by drawing on capital market instruments such as securitization and project bonds.
- (iii) Governments reduce information gaps and coordination constraints between the parties involved in infrastructure development by providing centralized information and coordination structures. In common approaches, coordinated Public Private Partnerships and Project Pipelines are established. Emerging/Innovative approaches increasingly aim

at a centralized provision of information, including comprehensive databases gathering project data.

- (iv) As efficient risk-allocation is crucial to maximize welfare and business implications of infrastructure investment, governments explicitly incentivize risk mitigation and provide risk reduction instruments. Common approaches include guarantees and contract standardization. Emerging/Innovative approaches enable new risk-allocation mechanisms by promoting for instance the setup of project pooling structures and the application of risk-based capital charges.

Overview of identified effective approaches

I. Diversified sources and instruments for the finance of infrastructure	
I.1. Analysis and implementation of innovative and diversified instruments	
Common	<ul style="list-style-type: none"> - Innovative financing strategy development by governments - Innovative financing strategy development by governments under private sector involvement - Innovative financing strategy development by public or private sector coordinated by governments - The cost of pioneering alternative financing channels
I.2. Equity instruments	
Common	<ul style="list-style-type: none"> - Equity injections
Emerging/Innovative	<ul style="list-style-type: none"> - Improved banking facilities for infrastructure companies
I.3. Debt instruments diversification through capital markets development	
Common	<ul style="list-style-type: none"> - Debt financing channels - Syndicated loans - Infrastructure project bonds - Sub-sovereign bonds - Fostering mature capital markets - Promoting financial market reforms to increase coherence, transparency, confidence and stability in capital markets - Deepening capital markets and facilitating access to infrastructure financing - Competitive debt markets - Promoting the use of highly-structured project bonds
Innovative/Emerging	<ul style="list-style-type: none"> - Improved banking facilities for infrastructure companies - Promoting public information disclosure through listing on capital markets - Small-project finance solutions autonomously developed by smaller banks
I.4. Promotion of a reliable long-term funding basis	
Common	<ul style="list-style-type: none"> - Applying innovative financing to provide a more diversified and sustainable funding basis - Developing strong contractual frameworks for legal certainty and transparency - Simplifying and standardising infrastructure development procedures - Fostering competition and protecting the public's right to know and monitor - Provide stable, long-term, transparent and credible policy commitments to investors - Promoting issuance of project bonds - Streamlining issuance and placement procedures for project bonds
Innovative/Emerging	<ul style="list-style-type: none"> - Reallocation of taxes between governmental levels - Combination of central and decentral infrastructure provision - Establishing long-term infrastructure strategies for sustainable project planning and prioritisation - Strengthening enabling conditions for loan syndication
II. Institutional investors and promoting infrastructure as an asset class	
II.1 Adjustment of financial regulations	
Common	<ul style="list-style-type: none"> - Institutional arrangements - Appropriate regulatory design - Targeted infrastructure programmes

	–	Competitive mechanisms
Emerging/Innovative	–	Streamlining Securitization
II.2. Asset structuring and analysis		
Common	–	Fostering investor participation
Emerging/Innovative	–	Privatization goals
	–	Incentivizing asset recycling
	–	Setting financial incentives for re-investment
	–	Leveraging the appetite from private investors for brownfield projects
	–	Tendering or selling mature infrastructure assets
	–	Leveraging private investor capabilities
II.3. Policy measures promoting stable and diversified financing of infrastructure		
Common	–	Targeted programmes
	–	Assuring project performance and sustainability
Emerging/Innovative	–	Development of overarching cross-sectoral central regulations for project pooling
	–	Supporting asset securitization to channel capital into infrastructure
	–	Increasing the efficiency of the securitization process
	–	Exploring the use of asset-backed notes and project revenue notes
	–	Supporting standardization efforts by establishing infrastructure databases to collect, store, search, analyse and publish project information
III. Public-Private Partnerships (PPP), effective transaction design and risk allocation		
III.1. PPP support		
Common	–	PPP specific regulation and legislation
	–	Using PPP models for public goods and service supply projects
	–	Identifying financial stakeholders' comparative advantages for PPP models
	–	Aligning financing instruments with project risk and return characteristics
Emerging/Innovative	–	PPP certificates
	–	Information platforms and market places
IV. Risk mitigation instruments and techniques		
IV.1. Development of risk mitigation techniques and finance institutions		
Common	–	Accounting for risk and return characteristics
	–	Allocating risks to the parties best capable to bear them
	–	Allocating risks to private stakeholders under transparent risk pricing
	–	Optimising risk sharing among public and private stakeholders
	–	Clear and transparent risk allocation in PPP contracts
	–	Leveraging the capabilities of NDBs and MDBs to de-risk projects
	–	(Quasi-)equity contributions to enhance financing structures and risk profiles
Emerging/Innovative	–	Setup of enabeling structures for project pooling
	–	Risk-based capital charges
IV.2. Specific measures and instruments for APEC developing economies		
Common	–	Providing guarantees and government funding to assure sustainable cashflows
	–	Supporting alternative infrastructure financing models through financial structures that contain governmental de-risking factors
Emerging/Innovative	–	Supporting the alignment of domestic bond markets with international markets

V. Infrastructure project pipelines	
V.1. Enabling structures and competency building	
Common	<ul style="list-style-type: none"> - Well structure project pipelines - Creating independent infrastructure agencies to enhance governance expertise and capacities - Strategically approach infrastructure shortcomings
Emerging/Innovative	<ul style="list-style-type: none"> - Enhancing information disclosure, data collection and sharing of best practices - Offering of external dispute resolution services
V.2. Identification of viable and priority projects	
Emerging/Innovative	<ul style="list-style-type: none"> - Monitoring the impact of reforms on infrastructure financing - Identification and promotion of high social content projects

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Addendum

Background information

The APEC Annex A on Diversification of Financial Instruments and Private Sector involvement in Infrastructure

With the aim of further advancing on the policy recommendations for infrastructure, in October 2017, at the APEC Finance Ministers Meeting in a Joint Ministerial Statement, Leaders endorsed the Annex A¹ on infrastructure investment.

Annex A contains voluntary and non-binding policy recommendations that focus on the improvement of financing of infrastructure via the diversification of financing sources with a special focus on private sector involvement. In the five categories (I) Diversified sources and instruments for the finance of infrastructure, (II) Institutional investors and promoting infrastructure as an asset class, (III) Public-Private Partnerships, Effective transaction design and Risk Allocation, (IV) Risk mitigation instruments and techniques and (V) Infrastructure project pipelines a set of voluntary recommendations has been identified. (cf. box 1)

Also, Annex A calls for further work to identify and analyse good practices and approaches in APEC economies, relevant to the issues addressed in the Annex A statements, which can guide and support the voluntary implementation of these policy messages; and asks the OECD, in cooperation with other international organizations including MDBs, to report on these good practices in 2018/19.

Based on this, the FMP 2018 Work Plan includes the development of a capacity building package of tools to help APEC economies adopt measures to accelerate infrastructure development and financing. At the Senior Finance Officials' Meeting (SFOM) held in Madang on 7-8 June 2018, it was agreed that the package should comprise a selected set of effective approaches to financing infrastructure in APEC economies, including blended finance, which are being drawn from responses to an APEC/OECD survey of policies that facilitate the implementation of the voluntary and non-binding recommendations contained in Annex A.

It was further agreed that this survey will build on an international data collection exercise undertaken through the G20/OECD framework surveying effective approaches to implementing the G20/OECD Guidance Note on the Diversification of Financial Instruments for Infrastructure and SMEs. Broadening this survey to include and focus on APEC economies strengthened the functionality, international consistency, synergy and APEC relevance of the data collection on this important topic. The survey of APEC economies was conducted throughout July and August 2018 and answers were received from 12 economies.

This document now includes a draft synthesis report of the collected answers, drawing together and analysing the most effective approaches applied by economies to implementing Annex A. It highlights and distinguishes between common and emerging or innovative effective approaches and also presents relevant examples of member economies.

¹ See https://www.apec.org/Meeting-Papers/Sectoral-Ministerial-Meetings/Finance/2017_finance/AnnexA

Box 2. Summary of Contents of Annex A

I. Diversified sources and instruments for the finance of infrastructure

1. Analysis and implementation of innovative and diversified instruments: Effective financing approaches, instruments, and vehicles which shall increase the availability and diversity of financing options shall be identified in order to (i) enable investment, (ii) increase investment efficiency and (iii) reduce investment risk. For instance, the formation of local capital markets in order to reduce local financing gaps and blended finance approaches, meaning the strategic use of public finance, shall be fostered.
2. Equity instruments: The deployment of equity instruments such as trusts and open- and closed-end funds shall enable the establishment of robust unlisted infrastructure equity markets and the ability of equity funds to access infrastructure assets in the local market.
3. Diversified debt financing through the development of capital markets: Encouraging the development of capital markets shall enable a complementation of traditional lending by diverse market mechanisms aiming at a diversification of financing sources and a reduction of risk for the banking system.
4. Promotion of a reliable long-term funding basis: Private investment shall be incentivized by ensuring adequate revenue streams through the promotion of a reliable long-term funding basis for infrastructure projects.

II. Institutional investors and promoting infrastructure as an asset class

5. Fostering institutional investment through a renewal of financial regulations: Institutional investment shall be incentivized by a reduction of regulatory barriers, taking into account prudential, investor protection, and overarching financial stability objectives.
6. Fostering institutional investment through asset structuring: A provision with structured information on investment opportunities, revenue streams and risk-return profiles that match investors' return expectations and liability structures.
7. Identification of policy measures promoting stable and diversified financing for infrastructure: For instance, measures catalyzing long-term involvement of private sector in financing infrastructure projects such as cooperation frameworks shall be explored.
8. Analyses of infrastructure assets: A full understanding of drivers and impediments of infrastructure investment shall promote infrastructure as an asset class.

III. Public-Private Partnerships (PPP), Effective transaction design and Risk Allocation

9. Support PPP: Expertise on PPP shall be built up in order to create a supportive institutional environment addressing the three elements (i) clear, predictable and legitimate institutional framework, (ii) PPP selection according to value for money criteria and (iii) budgetary process transparency.
10. Efficient risk allocation in PPP: An improved understanding of risk shall enable efficient risk transfers to the party best able to manage them, for instance to the private sector through PPP, and shall be laid down in effective contractual arrangements.

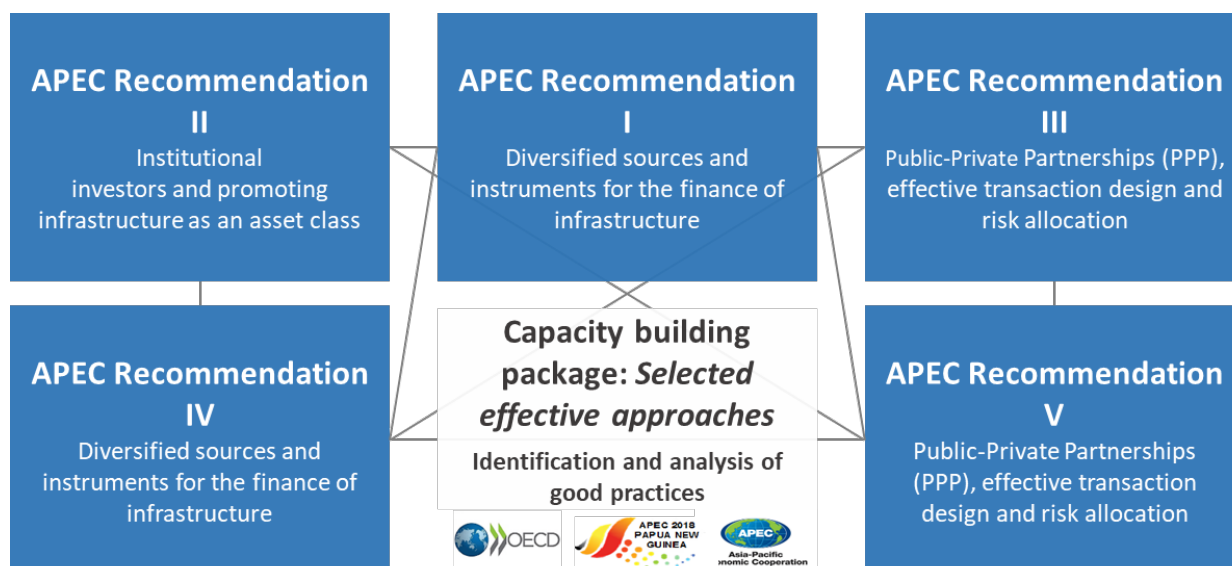
IV. Risk mitigation instruments and techniques

11. Risk mitigation techniques and the development of finance institutions: The viability of infrastructure projects shall be increased in order to enable private investment. This is particularly important in APEC developing economies where investment is sometimes further hindered by inadequate policy frameworks and governance.

12. *Focus on specific effective instruments for heterogeneous APEC economies:* Inter alia contractual arrangements, insurance, guarantees, co-investment platforms and funds have been identified the most effective instruments for mitigating or transferring commercial risks. In developing APEC economies, tools for managing currency risk such as hedging instruments or matching cash flows are important.

V. Infrastructure project pipelines

13. *Enabling structures and competency building:* Project pipelines shall provide project preparation facilities, technical assistance, standardized documentation, training programs, information dissemination and communication strategies which shall increase project viability and help to implement projects on the ground.
14. *Identification of viable and priority projects:* A robust system for project evaluation, pricing and analysis should be in place so that the pipeline is aligned with member economies' development goals and the most appropriate financing scheme is chosen.



Importance of considering an ensemble of practices and approaches recommended in the categories I to V:

It is important to note that recommended measures from the categories I to V shall be mutually considered as they impact highly interdependent aspects of infrastructure investment. Governments shall hence well align their practices and approaches to set up an efficient ensemble of measures.

It is important to note that the ensemble of measures from the categories I to V not only need to be mutually aligned but must also be tailored to the needs of the specific economy in which they are deployed. For instance, implemented measures need to be tailored to the particularities of *local markets*, the *political, regulatory and legal environment*, as well as to the *interaction with foreign economies*.

In particular, markets in emerging economies might exhibit a lower coverage and maturity and higher levels of fragmentation compared to markets in developed economies. This leads to necessary improvements in fundamental accessibility and functionality. Instruments introduced by governments

hence need to be tailored to and targeted at those specific needs, and market-improving measures are highly important. Those measures should be backed by a regulatory and legal environment, which optimally frames and enables the well-functioning of markets, inter alia by guaranteeing contractual enforceability. Also, risk and information constraints in emerging economies might differ from those in developed economies. For instance, the desired investor portfolio in emerging economies might include a larger share of foreign investors. This implies that risks for investors, such as those arising from exchange rate fluctuations and uncertainties due to unavailable or non-standardized and hence poorly comparable information on projects and market structures, might considerably decrease the attractiveness of infrastructure investments to potential investors. Also, the type of investment plays an important role, as in some economies greenfield investment needs prevail whereas in others predominantly the upgrading or recycling of brownfield investment is required. Furthermore, when intending foreign investment, governments should soundly consider long-term ownership structures resulting from the investor portfolio attracted.

Methodology

For the purpose of this report, the following terms are used throughout the document:

Common approaches: Regulatory, supervisory or industry-based measures and practices that have been widely endorsed or adopted in a number of jurisdictions and are considered to effectively implement key aspects of Annex A.

Emerging approaches: Measures adopted or used specifically to address a new or emerging challenge.

Innovative approaches: Policy approaches that undertake a different, alternative or novel approach to an issue.

Policies are qualified as **effective** when they are considered to be effective by implementing economies, and when experience, results and evidence suggest that this is the case.

The effective approaches identified in this report are not comprehensive; they are illustrative and non-binding. They are intended as examples to assist policy makers and other relevant stakeholders in improving access to finance for infrastructure.

Ultimately, as summarised in the overview table on page 5 effective approaches were identified and categories following the structure of Annex A, which is divided into the following five sections:

- I. Diversifying sources and instruments for the finance of infrastructure
- II. Institutional investors and promoting infrastructure as an asset class
- III. Public-Private Partnerships (PPP), effective transaction design and risk allocation
- IV. Risk mitigation instruments and techniques
- V. Infrastructure project pipelines

Next steps and action required

APEC economies are now invited to **review and provide feedback** to this first draft.

Comments are sought by **16 September 2018**, with a second round of review to be held end of September and the aim of finalising the package by the 2018 APEC Finance Ministers' Meeting in October 2018.

Identified Effective Approaches

Annex A – Category I.

Diversified sources and instruments for the finance of infrastructure

Effective financing approaches, instruments, and vehicles which shall increase financing options availability and diversity shall be identified in order to (i) enable investment, (ii) increase investment efficiency and (iii) reduce investment risk. Therefore, innovative and diversified instruments shall be analyzed and implemented. For instance, equity instruments as well as capital markets shall be developed. Also, private investment shall be fostered through strengthening of policy frameworks and regulations.

Underlying Assumptions

Governments can maximise the benefits of scarce public resources by developing and applying innovative financing approaches that can help reduce costs of funding projects and attract a more diversified investor base, inter alia from the private sector or institutional investors. Adopting innovative financing approaches will assist with the provision of infrastructure and in effectively allocating the risks and returns from a project. A key aspect is flexibly, determining the most effective capital structure and mix of private and public funding through the life cycle of the project from the greenfield into the brownfield phase.

To attract investments into infrastructure from a diversified investor base, governments can introduce a variety of innovative instruments. A comprehensive list of existing financial instruments and incentives has been mapped by the OECD in the Infrastructure Financing Instruments and Incentives Report (OECD, 2015). Table 1 provides an overview over those instruments.

Table 1. Taxonomy of instruments and vehicles for infrastructure financing

Modes		Infrastructure Finance Instruments		Market vehicles
Asset Category	Instrument	Infrastructure Project	Corporate Balance Sheet / Other Entities	Capital Pool
Fixed Income	Bonds	Project Bonds	Corporate Bonds, Green Bonds	Bond Indices, Bond Funds, ETFs
		Municipal, Sub/sovereign Bonds		
		Green Bonds, Sukuk	Subordinated Bonds	
	Loans	Direct/Co-investment lending to infrastructure project, syndicated project loans	Direct/Co-investment lending to infrastructure corporate	Debt Funds (GPs)
Syndicated Loans, Securitized Loans (ABS), CLOs			Loan indices, loan funds	
Mixed	Hybrid	Subordinated Loans/Bonds, Mezzanine Finance	Subordinated Bonds, Convertible Bonds, Preferred Stock	Mezzanine, Debt Funds (GPs), Hybrid Debt Funds

Equity	Listed	YieldCos	Listed Infrastructure & Utilities stocks, closed end funds, REITs, IITs, MLPs	Listed Infrastructure Equity Funds, Indices, Trusts, ETFs
	Unlisted	Direct Co-Investment in Infrastructure project equity, PPP	Direct/Co-investment in infrastructure corporate equity	Unlisted Infrastructure Funds

Source: OECD, 2015

When deciding on the portfolio of instruments, well-aligned and diversified instruments bear the potential to improve efficiency of the governmental approach. The instrument portfolio may optimally address (i) specific needs of the respective economy which they are targeted at, such as regional differences in financing infrastructure and local capital markets, (ii) the specific 'blended finance' mix of private and public funding desired and (iii) efficient interaction amongst the diversified instruments implemented. Therefore, governments may *analyse innovative instrument portfolios* with regard to their suitability for their specific needs and develop strategies to optimize their intended results. Setting up those strategies, governments have to decide on the level of centrality on which those strategies shall be developed and implemented as well as on the distribution of competencies and responsibilities.

Equity instruments foster equity finance of infrastructure projects, referring to all financial resources that are provided in return for an ownership interest. Project investors may sell shares in the investment if a market exists or they may get a share of the proceeds if the asset is sold. Therefore, equity instruments promote the feasibility of (re-)financing large-scale projects performed by diverse investors through enabling the acquisition of external risk capital. In order to exploit the full potential of equity instruments, a well-functioning capital market and therefore, if defective or inexistent, a targeted development of infrastructure equity markets is crucial. Depending on the specifications of the investment, and particularly in the case of PPP contracts and concessions, those instruments may have debt-like characteristics due to contracted cash flows.

As infrastructure investment projects exhibit considerable risk characteristics, a *diversification of sources for debt financing through the development and improvement of capital markets* reduces concentrated risk exposure. For instance, as in most economies commercial bank lending is the dominant source of debt financing which may result in an overexposure to risk of the banking system, well-functioning capital markets enable a complementation of traditional lending by (i) the syndication of bank loans through capital markets, allowing banks to recycle capital for new projects, (ii) the development of a robust project finance market (such as project bonds) as an alternative to traditional infrastructure loans, (iii) the formation of lending consortia through debt funds, direct investment by institutional investors, and other key stakeholders such as Multilateral Development Banks (MDBs) and governments, and (iv) securitization which supports the bundling of small-scale loans in order to reach scale and diversification.

Instable policies and regulations are a considerable source of risk infrastructure investment is exposed to. Therefore, a strong policy framework and a stable regulatory environment promoting a *reliable long-term funding basis for infrastructure projects* reduce risk exposure of all parties involved and hence increase the attractiveness of related investments for a diversified investor base.

Effective Approaches

I.1. Analysis and implementation of innovative and diversified instruments

Common

Innovative financing strategy development by Governments: Governments establish central bodies encouraging jurisdictions from all governmental levels to look for new revenue sources in order to address funding shortfalls. Central bodies are further able to provide technical assistance concerning financing strategies.

Innovative financing strategy development by Governments under private sector involvement: Governments explore and develop innovative financing strategies in cooperation with the private sector. Private sector involvement is realized via public feedback processes, e.g. through discussion papers and public events. Private sector involvement shall ensure an optimized alignment of innovative financing strategies and a full exploitation of the private sector expertise. Based on the financing strategy development, Governments set up long-term financing strategy planning.

Innovative financing strategy development by private sector coordinated by Governments: Governments create a framework in which financing strategies are developed by private sector actors. The framework awards non-federal public sponsored funding to public or private sector entities on a competitive basis. Evaluation criterion is the commercial viability of projects including welfare and distribution aspects. New ideas may be tested in pilot programs under Governmental surveillance. If approaches are found to be effective, they may be incorporated into law and can be used on a wider basis.

The cost of pioneering alternative financing channels: Governments acknowledge that alternative financing channels can bring additional capital to the infrastructure sector often at a lower cost, but also point out that pioneering new financing channels might at the beginning result in higher costs as investors first have to gain trust in certain instruments.

I.2. Equity instruments

Common

Equity injections: Equity or quasi equity participation by the government in an infrastructure project allows governments to maintain policy control and oversight over the project whilst transparently dealing with project risk and benefiting from the imposed commercial diligence on the project, including performance monitoring, reporting and accountability. In addition, equity participation models contemplate the role of institutional investors when the business and its assets are privatised.

I.3 Debt financing diversification through capital markets development

Common

Debt financing channels: In most surveyed jurisdictions diverse channels of debt financing for infrastructure are available, including the syndication of bank loans through capital markets, local currency infrastructure project bonds, sub-sovereign bonds and the use of lending consortia. However, these instruments require the underlying project to generate stable revenues and to be accompanied by a strong business case.

Syndicated loans: Governments support bank loan syndication by strengthening the enabling conditions for syndication, such as fostering infrastructure pipelines that facilitate planning and pooling,

and supporting rule of law to facilitate contract enforcement. For banks, syndicated loans can centralise interbank credit funds to minimise the risk of lending. For borrowers, syndicated loans can allow for the raising of funds that meet their long-term and usually large-sum money requirements. In addition, loan syndication simplifies lending procedures compared to engaging separately with multiple banks to raise similar amounts of finance. Governments therefore also consider the need to open syndication markets to smaller banks, as syndication is currently mostly accessible to only very large, international banks. An example to build syndication capacity is the so called Project Finance Factory in Russia which was set up in 2018 in order to develop project finance and syndication markets.

Infrastructure project bonds: Governments support the use of project bonds as important instruments to bring beneficial dynamics to capital markets and to enable a more productive use of institutional funds for long-term investment. However, in particular in developing economies, local currency bonds are often characterised by lower liquidity due to heightened currency risk. Governments streamline issuance and placement procedures, provide clear definitions for “infrastructure” project bonds as well as provide tax incentives. Traded project bonds can also be included in quotation lists and mainstream market indices, therefore attracting institutional investors, such as pension funds, asset managers, and insurance companies. The use of existing, revenue generating projects as collaterals for project bonds or project refinancing has also proven an effective way to improve a bond’s credit rating.

Box 3. Indonesia – Project bond collateralisation

A good example of an infrastructure project bond in Indonesia is PT Jasa Marga’s (Indonesia Toll Road Company) Project Bond. After its success in launching Indonesia’s first asset securitization, which raised a total of IDR 2 Trillion and was 2.6 times oversubscribed, PT Jasa Marga is now on its way to introducing Indonesia’s first project bond under PT Marga Lingkar Jakarta named MLJ BondsI/2017.

PT Marga Lingkar Jakarta is the concessionaire of the Jakarta Outer Ring Road (JORR)-W2N, which is majority-owned by PT Jasa Marga (65%), with the remainder owned by PT Jakarta Marga Jaya (Jaya Group).

JORR-W2N is considered a newly-operated toll road that opened for operation in late-2014. Though relatively new, given its strategic location in Greater Jakarta, traffic is already sufficient to cover interest charges proven by its ICR level of 2.05x as of December 2016.

In 2016, PT MLJ generated daily traffic of 74k vehicles with revenue IDR 337 Billion and an EBITDA of IDR 271 Billion with a >60% EBITDA margin.

The project bond targets to raise a total of IDR 1.5 Trillion and will use JORR-W2N section as collateral. The project bond is specifically chosen by JSMR as part of its refinancing strategy to trade-in the existing IDR 1.3 Trillion debt in a 9.5-10% floating bank loan rate for a cheaper and fixed rate cost.

As opposed to the ordinary bond which is issued at parent level, the project bond is issued in subsidiary level, i.e. PT MLJ. The bonds have idAAA rating from Pefindo compared to PT Jasa Marga rating of idAA. In today’s public disclosure, JSMR revealed the coupon rate from 7.0% to 9.0% for five tranches with a tenor from 3-12years.

Box 4. Russia – Advancing the domestic project bond market

Infrastructure project bonds are a common financing source in Russia. However, this instrument is accessible only for large public companies as at the moment there is no definition and specific features of infrastructure bonds in Russian legislation. The Decree of the Federal Financial Markets Service No.08-59/PZ-N of December 23, 2008 introduced a simplified procedure for offering on the stock exchange bonds from Russian issuers guaranteed by the Russian Federation, or a warranty or bank guarantee of Vnesheconombank. It enables SPV bonds to be included in quotation lists and therefore to be able to receive financing from pension funds and other institutional investors. At the moment, the list of issuers is limited to large public companies such as Russian Railways, Federal Road Agency, Gazprom, Federal Grid Company or concessionary companies related to them. In 2015, the Russian infrastructure project bonds market totalled more than USD 9 billion. However, the Financial Market Development Strategy up to 2020 contains measures aimed at developing legislation to boost infrastructure bonds issuance both in numbers and in volume.

In addition, the Federal law No. 379-FZ dated 21 December 2013 "On Amendment of Certain Legislative Acts of the Russian Federation" enables the issuance of highly structured project bonds involving special bankruptcy and remote project finance vehicles. These vehicles may be used to raise bond financing in infrastructure PPPs, concessions, leasing and other potential investment projects. Also, the new legislation introduced revised procedures for changing the terms and conditions of domestic bonds based on votes at the bondholder meetings which therefore provides a platform for restructuring, consent solicitation and liability management for domestic bonds.

Box 5. US – Private Activity Bonds

The Transportation Infrastructure Finance and Innovation Act (TIFIA) helps finance surface transportation projects through direct loans, loan guarantees, and lines of credit. The Private Activity bonds (PABs) program allows the U.S. DOT to allocate authority to issue tax-exempt bonds on behalf of private entities constructing highway and freight transfer facilities. PABs have been used to finance many public private partnership projects.

The amount of Federal credit assistance through TIFIA may not exceed 33 percent of total reasonably anticipated eligible project costs, meaning projects need to meet funding costs through different channels of investment. Recent TIFIA-funded projects include:

- i. Capital Beltway High Occupancy Toll (HOT) Lanes in Fairfax County, Virginia: The Capital Beltway High Occupancy Toll (HOT) Lanes project (officially the 495 Express Lanes) is a public-private partnership between Virginia DOT and Capital Beltway Express, LLC (a joint venture of Fluor and Transurban) that opened in November 2012. In addition to TIFIA loans, this project was funded by PABs, private equity, state grants, and interest income.
- ii. Crenshaw/LAX Transit Corridor Project in Los Angeles, California: Estimated at \$2.1 billion, TIFIA loans cover \$545.9 million of the cost. The rest of the project is funded by federal grants, state and local bonds, and local options sales tax increases voted by local residents.

In addition to Federal funding, the fixed-income financing channels, including bank loans, local currency infrastructure project bonds, sub-sovereign bonds, and securitisation, are all available to infrastructure financing. In particular, sub-sovereign bonds on the state and local level are issued through a well-developed municipal bond market. The market, totalling approximately \$3.8 trillion, offers a variety of mutual funds and exchange-traded funds (ETFs) and is easily accessible by domestic and foreign investors.

Sub-sovereign bonds: To match the development of infrastructure on sub-national level, governments support the development of municipal bond markets through which sub-sovereign bonds can be issued. Governments further support these markets to be easily accessible to domestic and foreign investors in order to channel sufficient liquidity into these markets.

Fostering mature capital markets: Mature capital markets allow institutional investors to diversify their debt and equity portfolios to include stock exchange certificates, real estate trusts, development capital certificates, and private equity funds. These instruments allow investors to invest during different stages of infrastructure projects as well as to differentiate between brownfield and greenfield financing according to their appetite. By regulating these instruments under domestic and international securities laws, governments further support the establishment of infrastructure as an asset class. Ultimately, securitisation on capital markets allows for the aggregation of assets or money flows from assets making also smaller-size assets more valuable and attractive for investors, while spreading the risk on numerous projects.

Promoting financial market reforms to increase coherence, transparency, confidence and stability in capital markets: Governments strongly promote financial market reforms to increase coherence among rules and regulations applicable to participants, securities, financial vehicles, and markets, with the aim to secure transparency, confidence and stability in capital markets.

Deepening capital markets and facilitating access to infrastructure financing: Governments seek the deepening and strengthening of capital markets to facilitate access for infrastructure projects to additional financing, to promote the development of new financial instruments, reduce the cost of credit and fund allocation and to foster international financial integration. The latter is considered particularly important to attract foreign investors and increase domestic liquidity.

Competitive debt markets: Governments aim to provide strong legal frameworks and support competition among lenders in order to drive down lending costs.

Promoting the use of highly-structured project bonds: Governments support the use of highly-structured project bonds, which for instance involve special bankruptcy and remote project finance vehicles, to help further de-risk infrastructure projects.

Innovative/Emerging

Improved banking facilities for infrastructure companies: An innovative approach of improving investor trust in infrastructure projects also includes the provision of more sophisticated banking facilities for infrastructure companies. For instance, transaction limits, the use of a bank as a monitoring agent over transactions but also the use of escrow accounts that are managed by escrow agents who are assigning funds and transactions to counterparties upon fulfilment of services are effective instruments to improve bond security or assure the payment of liabilities.

Promoting public information disclosure through listing on capital markets: Governments support the strengthening of capital markets to promote public information disclosure, given that stricter disclosure requirements are commonly applicable to publicly traded companies and certificates. This also further supports developing economies' approximation to global financial standards.

Small-project finance solutions autonomously developed by smaller banks: Governments acknowledge that financing small-scale infrastructure projects could be performed by smaller, decentral banks as well as other financial and non-financial organizations. For instance, some banks adopt model concession agreements ("boxed solutions") for certain industries (social, public utilities) with standardized terms and risk matrices. This allows, if the bank requirements are satisfied, even small projects to access debt financing on favorable terms. Some "boxed solutions" are developing now for infrastructure projects in the social sphere which are more or less standardized.

I.4. Promotion of a reliable long-term funding basis

Common

Applying innovative financing to provide a more diversified and sustainable funding basis: Governments commonly agree that innovative financing, including equity injections, concessional loans and guarantees, can not only enable more infrastructure projects to be delivered but also provide a more sustainable, long-term funding basis.

Developing strong contractual frameworks for legal certainty and transparency: Governments are taking steps to develop strong contractual frameworks that bring to participants legal certainty, transparency and clarity, by means of contractually establishing criteria and measures for fulfilling delivery standards, including risk allocation roles, expected compensation to each participant, funding sources, contingency clauses, and by spelling out all infrastructure functions in each stage of the project.

Simplifying and standardising infrastructure development procedures: Governments increasingly aim at simplifying and standardising infrastructure development procedures by applying standardised contractual frameworks, consistent definitions of relevant concepts, core functions and responsibilities and clarifying the risks and rewards linked to specific functions. In particular, governments seek standardisation in PPP contracts to improve coordination and collaboration among the involved stakeholders and seek to establish dedicated contact points for private sector participants to streamline communications. These elements are considered important building blocks for increased private sector participation and competition.

Fostering competition and protecting the public's right to know and monitor: Governments share consent on the importance of ensuring timely and full disclosure of information relevant to project implementation, tendering and bidding, procurement, project contracts, project progress, and operational performance, so as to enhance competition and protect the public's right to know and monitor.

Providing stable, long-term, transparent, and credible policy commitments to investors: Governments seek to increase private sector participation by presenting stable, long-term, transparent, predictable, and credible commitments to investors as well as by strengthening the long-term certainty in policy and legal frameworks. In particular, retroactive changes to existing support schemes damage investor confidence, threaten private investor participation and are sought to be avoided.

Innovative/Emerging

Reallocation of taxes between governmental levels: Governments reallocate taxes to the governmental levels bearing the competency of infrastructure investment. As a reallocation mechanism, governments may use grants between the governmental levels such as 'special purpose' grants to fund particular activities or general purpose 'untied' grants. This assures sufficient project funding at lower government levels.

Combination of central and decentral infrastructure provision: In many cases, infrastructure can either be provided or coordinated centrally by the government or decentrally. For instance, the way in which potable water is managed and supplied may vary from systems serviced by a single governmentally owned utility to others in which systems are serviced by a number of small, mostly local government-owned and operated utilities.

Establishing long-term infrastructure strategies for sustainable project planning and prioritisation: Governments are establishing long-term infrastructure strategies, programmes and plans to assure clear and sustainable long-term planning and project prioritisation as well as to assure the development of credible project pipelines. Concrete examples in this context include economies' efforts in establishing dedicated, government-funded infrastructure banks that not only promote private investor participation in infrastructure financing but also aim to structure and support the establishment of project pipelines. The establishment of such entities and the elaboration of long-term infrastructure strategies and plans are commonly part of wider structural and economic reforms.

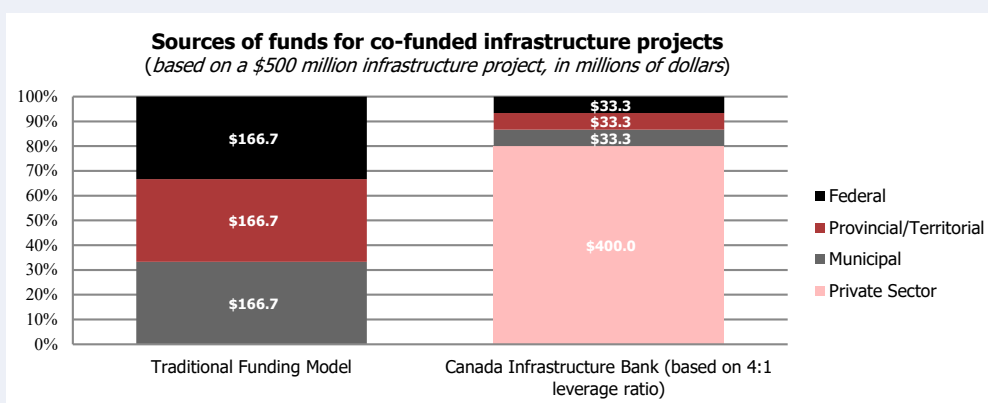
Box 6. Canada – The Canada Infrastructure Bank (CIB)

As a key component of the Government of Canada’s \$180B long-term infrastructure plan, the Canada Infrastructure Bank (CIB) was established to help public dollars go further and be used more strategically by attracting private investment to help more infrastructure projects get built. The CIB will work collaboratively with public and private sector partners to plan, fund and deliver on a wide array of infrastructure projects that otherwise would not have been undertaken in Canada.

The CIB model will push the involvement of the private sector in Canadian infrastructure one step further by having them invest directly in infrastructure where the project has revenue-generation. The key benefits include bringing private capital to large-scale projects that are within the public interest; reducing fiscal pressure on governments at all levels for managing their infrastructure; capital costs, operations by sharing the associated risks and rewards with private investors. Under this mechanism, the private sector is incentivized to take on a significant portion of the demand and revenue risk for the project. The CIB’s key functions will be to a) work with project proponents to structure, negotiate and deliver federal support for infrastructure projects with revenue generating potential; b) provide capital through innovative financial tools and attract private sector capital to public infrastructure projects; c) serve as a single point of contact for unsolicited proposals from the private sector; d) manage the federal government’s infrastructure investment portfolio; and e) improve evidence-based decision making and advise governments on the design of revenue generating infrastructure projects.

The CIB will use a wide breadth of financial instruments such as repayable contributions; debt (e.g., loans, loan guarantees), both unsubordinated and subordinated; c) equity investments, unsubordinated and subordinated; as well as d) hybrid instruments.

The CIB provides equity investment, lending and other innovative financial participation to mobilise private sector participation in revenue generating projects to make public capital go further and free up public capital for investment in non-commercial infrastructure.



Source: economies’ responses

Annex A – Category II.

Institutional investors and promoting infrastructure as an asset class

Adequately adjusted financial regulations and the promotion of infrastructure investments as an asset class through asset structuring shall incentivize institutional investment into infrastructure. Also, enabling policy measures shall be designed aiming at a stable and diversified provision of infrastructure. In order to adequately design policy measures, drivers and impediments of infrastructure investment as an asset class shall be analyzed and addressed.

Underlying Assumptions

The ***promotion of infrastructure investments as an asset class*** can enable institutional investors such as multilateral and National Development Banks, pension funds, insurance companies, Sovereign Wealth Funds (SWFs) and mutual funds to be brought into infrastructure brownfield and greenfield investment. Firstly, institutional investment in brownfield infrastructure assets previously held by public entities allows the government to recover infrastructure funds and create additional fiscal room to deploy (effectively recycle) these funds into other government activities, whether infrastructure or other services. In particular asset recycling, which can involve the monetisation of existing infrastructure assets by public entities to free up capital to invest in new greenfield infrastructure, is a process that can be useful to ameliorate strained public finances. In this way, public entities continue to be key sponsors for the procurement and delivery of new infrastructure assets, while investors can step-in and finance operational assets, perpetuating the cycle of development and advancement of the infrastructure pipeline. Secondly, an increased direct institutional investment into greenfield infrastructure projects can be enabled.

The current market for infrastructure assets is characterized by a wide-ranging lack of information and high levels of uncertainty. For instance, institutional investors may struggle to identify attractive investments in emerging economies where central or even regional markets often exhibit individual characteristics and reliable and comparable information is scarce. As a result, investments in different economies have to be assessed at a fragmented basis which significantly increases transaction cost, and even then, an identification of appropriate returns is difficult. Political and regulatory uncertainties are challenging to clarify and impose a considerable barrier to attracting institutional capital.

Therefore, in order to promote investments into infrastructure assets by public and private institutional investors, a ***review and adjustment of financial regulations*** is expedient, aiming at a reduction of political and regulatory uncertainties and hence barriers to those investments. Financial regulations shall create a framework guaranteeing stability and predictability of infrastructure assets and revenue streams. Therefore, regulators need to have a better understanding of the investment channels for infrastructure investment and related risks in order to calibrate regulatory frameworks accordingly. Also, in order to address the lack of information related to infrastructure investment, comparable and standardized data and information on assets needs to be easily accessible and ***structured information*** shall be provided, allowing assets to be analysed and benchmarked. ***Additional policy measures*** improving investment conditions such as the setup of a framework for cooperation amongst the main stakeholders can further attract institutional investment and promote infrastructure assets as an attractive asset class.

Effective Approaches

II.1. Adjustment of financial regulations

Common

Institutional arrangements: Governments establish Infrastructure Banks as an additional tool to support infrastructure needs through a mobilization of private and institutional capital. Therefore, infrastructure banks implement inter alia innovative financial instruments and loans and credit assistance enhancement products. Further, infrastructure banks may execute oversight functions.

Appropriate regulatory design: Governments establish appropriate regulatory frameworks that foster privatization, taking into consideration economic efficiency effects as well as distribution effects. For example, governments support the participation of institutional investors in the financing of infrastructure projects through financial markets regulation and eliminating tax distortions and barriers. Further, governments ensure that the regulatory design includes specifications from lower level governments by explicitly considering those specifications and implementing targeted regulations.

Competitive mechanisms: Governments provide infrastructure incentives by establishing competitive grants and awarding incentives to private and institutional investors demonstrating innovative approaches that have the potential to generate new revenue streams, prioritize maintenance, modernize procurement practices, and generate a social and economic return on investment.

Innovative/Emerging

Streamlining and standardising infrastructure securitization: Governments support asset securitisation as an instrument to channel capital more effectively into the infrastructure sector as well as to align domestic investment procedures to international standards. In particular, they seek to promote the development of asset securitisation by increasing the efficiency of securitisation processes such as by making approval procedures more transparent, standardised and simpler. Commonly promoted instruments include above all Asset Backed Securities (ABS) or Notes and to a lesser extent revenue-based instruments, such as project revenue notes. Ultimately, infrastructure securities can be included in quotation lists and mainstream market indices, therefore attracting institutional investors, such as pension funds, asset managers, and insurance companies. In fact, various governments have sought to include infrastructure-related securities in investment quotation lists for insurance companies, and less so for pension companies.

Box 7. Chinese Taipei – Real Estate Securitisation

In Chinese Taipei, next to financial asset securitisation options, infrastructure projects may also be securitized according to the Real Estate Securitization Act. Thereunder real estate includes land, construction improvements, roads, bridges, tunnels, rails, wharfs, parking lots, as well as other structures of economic value affixed to land and appended facilities thereto, provided such facilities, if separated from the land and structures affixed to land, cannot create value alone, thereby resulting in impairment of value of the land and structures affixed to it (Subparagraph 1, Paragraph 1 of Article 4 of the Real Estate Securitization Act). Infrastructure projects that fit the aforementioned definition may be securitized according to the Act.

Privately-placed REIT funds are allowed to invest 100% of its property in infrastructure projects: Considering the high risk of infrastructure during the construction period, REIT funds that are publicly placed in many foreign countries are mostly not allowed to invest in development-oriented real estate. In the places where such investments are allowed, specific limits for the investment percentages are imposed. According to the Real Securitization Act (before the amendment on June 30, 2017), the investment of a REIT fund in development-oriented real estate shall not exceed a certain percentage (of the value of the fund's trust property) (15% for a publicly offered fund and 40% for a privately placed fund). However, considering that professional investors have better professional capabilities of risk assessment and higher risk tolerance, the FSC introduced amended the authorization order of Paragraph 6 of Article 17 of the Real Estate Securitization Act on June 30, 2017. According to the amendment, a privately-placed REIT fund is now not subject to the limit of 40% of the value of the fund's trust property for its investment in development-oriented real estate or their related rights when it participates in infrastructure projects defined in the Act for Promotion of Private Participation in Infrastructure Projects or public construction in which REIT funds may invest as approved by the central competent authority in charge of the target enterprise concerned. In other words, the amendment allows a REIT fund to invest 100% (of its trust property) in infrastructure projects, in order to encourage private sector to invest in infrastructure projects.

Summary of securitisation procedures in Chinese Taipei:

- Financial asset securitization involves the originator entrusting their creditor's rights and their security interests to a trustee or transferring them to a special purpose company with a special objective and then issuing beneficiary securities or asset-based securities on the basis of these creditor's rights and security interests.
- Real estate securitization involves a trustee issuing beneficiary securities to an investor for investment in real estate and other subjects or the trustor transfers its real estate or real estate-related rights to the trustee and receives beneficiary securities issued by the trustee.

II.2. Asset availability, structuring and analysis

Common

Fostering investor participation: Governments actively seek to enable pension funds and insurance companies, as well as their subsidiaries through for instance PE funds, to invest in alternative, infrastructure-related assets. This allows broadening the spectrum of sources of financing for infrastructure, allowing a greater diversification towards higher-yield instruments, while limiting overall risk by introducing caps to alternative investments.

Innovative/Emerging

Privatisation goals: Governments are aware of the fact that private markets can provide many infrastructure products and services currently delivered by public assets, and in many cases can provide them more efficiently. Governments increasingly aim to only hold infrastructure assets if there is a clear case for the achievement of public policy objectives.

Incentivising asset recycling: Governments consider asset recycling models an effective instrument to free up dormant capital in mature infrastructure assets with the aim of fostering a re-investment of this capital in greenfield infrastructure investment. In many cases, those mature infrastructure assets are held by the government on different levels. Depending on the outset asset ownership structure, governments perform differently designed asset recycling models.

Setting financial incentives for re-investment: In case assets as well as re-investment competencies are held by lower governmental levels, governments financially incentivize lower-level governments to monetize mature assets by providing support payments if the freed up capital is reinvested in greenfield projects.

Box 8. Australia – Asset Recycling Initiative (ARI)

The Australian Asset Recycling Initiative (ARI) provides States and Territories with financial incentives if they sell assets and recycle the capital into additional economic infrastructure. Under the ARI, the Commonwealth Government will make an incentive payment equal to 15 per cent of the proceeds from an asset divestment, if the State government reinvests the proceeds from the asset divestment into additional productivity enhancing infrastructure.

The ARI recognises that private sector demand for brownfield infrastructure assets which have proven, stable revenues remains very high, so divestment of these brownfields assets is an effective way for State governments to fund greenfield infrastructure without reliance on taxes or debt.

Privatisation can have wide productivity benefits (e.g. introducing new competitors) and can release dormant government funds. However, privatisation can also raise community sensitivities. In this respect, it is important to ensure that privatisations occur with the appropriate regulatory arrangements in place.

Leveraging the appetite from private investors for brownfield projects: Governments design financing strategies that, for a given stage of a project, help to ensure that the targeted amount of resources is raised and that the financing costs are the lowest among available alternatives, as well as help to efficiently allocate risks among participants. Governments actively seek to leverage the appetite from private investors for brownfield projects with stable and low-risk revenue streams to design more efficient financing methods.

Tendering or selling mature infrastructure assets: In case assets are held by central governments, governments tender or sell mature infrastructure assets to private investors and re-invest the proceeds in new infrastructure projects either directly or by channelling proceeds to infrastructure investment funds.

Leveraging private investor capabilities: By applying asset recycling models, governments are transferring mature projects to private investors and thereby match these projects' return structures with the comparative advantages and preferences of private sector participants. Asset recycling models take advantage of private investors' appetite for mature infrastructure assets which can provide stable and long-term cash-flows.

II.3. Policy measures promoting stable and diversified financing of infrastructure

Common

Targeted programmes: Governments implement targeted programmes inter alia in order to establish standardized processes and frameworks to attract institutional and private sector investments.

Assuring project performance and sustainability: Governments further provide supporting policies to ensure project sustainability and frequently use performance-based payments to assure the effectiveness of public funding as well as to assure adequate project performance. On the other hand, the private sector optimizes overall planning and efficiency and provides innovative technology to be applied to infrastructure development.

Innovative/Emerging

Development of overarching cross-sectoral central regulations for project pooling: Governments address difficulties due to different regulation regimes and "sectoral ego" of different sectors resulting in regulation and coordination challenges. Hence, investor security and stability of investment environment are increased.

Incentivising the use of new financial vehicles: Streamlining issuance Governments support the use of project bonds by streamlining issuance and placement procedures, as well as by some governments providing tax incentives. In particular, project bonds are mostly being traded in regulated markets, facilitating access by domestic and international investors to the domestic infrastructure market and hence enhancing the sources of financing. Furthermore, traded project bonds can be included in quotation lists and mainstream market indices, therefore attracting institutional investors, such as pension funds, asset managers, and insurance companies. Governments reported a visible, but slow migration from bank loans to project bonds, which was argued to relate to prevailing investors' inexperience in the asset class as well as to the lack of data and performance benchmarks. Progress in this context, however, is slowed down not only by the complexity and high transaction costs for involved procedures, but asset securitization also faces issues related to moral hazard and asymmetric information (lack of transparency) which must be addressed. Ultimately, this market also still suffers from crisis-linked stigma and faces competition from other, simpler and cheaper alternatives.

Supporting standardization efforts by establishing infrastructure databases to collect, store, search, analyse and publish project information: Governments are increasingly establishing and using infrastructure project databases to collect, store, search, analyse, and publish information on infrastructure investment projects.

Annex A – Category III.

Public-Private Partnerships (PPP), Effective transaction design and PPP Risk Allocation

Public Private Partnerships (PPP) shall be supported by (i) building up adequate infrastructure, (ii) enabling sound PPP selection and (iii) improving budgetary process transparency. Further, efficient risk allocation shall be reached amongst the parties involved.

Underlying Assumptions

Public Private Partnerships (PPP) are an important tool governments deploy to fund infrastructure assets, particularly those assets that do not generate revenues through user fees. Compared to pure public sector or private sector infrastructure financing, PPPs maintain public ownership while allowing a **risk transfer away from public budget**. Also, private involvement exhibits potential for **increased project efficiency**, which is especially due to a reduction in construction delays, cost-overruns and long-term performance failure, as private investors are inherently incentivized to minimize project cost and delivery times in order to maximize the returns of their upfront investment. Also, if well-functioning asset markets exist, private investors can refinance projects and further optimize their risk profile.

However, in order to exploit the full potential of PPPs, governments have to make sure that enabling preconditions are met and efficiency gains through private involvement exceed the cost of attracting and involving private sector capital into investments. Firstly, an attraction of sophisticated private financial investors needs to be guaranteed, which increases both the likelihood of a successful project closure and competition for projects, which leads to efficiency improvements in PPPs. Therefore in the PPP market, **sound risk identification, classification, measurement and mitigation mechanisms** are crucial, as private investors are more likely to submit proposals if their expected returns are likely to be satisfied. Secondly, a **regulatory and institutional environment** is needed which enables an adequate execution and enforceability of contractual agreements. This is especially relevant, as governments can be put in a risky position if private partners fail to deliver. Both preconditions are especially relevant in emerging economies.

Hence, sound PPP models which adequately ensure private sector returns on investment and compliance with contracts can be an impactful means to attract private capital into infrastructure investment, reduce cost and improve risk allocation efficiency. Nevertheless, governments have to decide which specific infrastructure sectors or investments shall be subject to PPPs. The specific efficient design of PPPs is highly dependent on project, sector and domestic economic, regulatory and political specifications. Annex A highlights **three key elements of PPP** which are essential to create an optimally enabling institutional environment: Firstly, a clear, predictable and legitimate institutional framework supported by competent and well-resourced authorities shall be set up. Secondly, specific PPP taken by the private sector shall be based on Value for Money as selection criterion, meaning that a government's decisions on funding should aim to minimise costs, including contingent liabilities and transaction costs, taking into consideration the fiscal sustainability over the long-term. Thirdly, the budgetary process shall be used transparently to minimize fiscal risk and ensure the integrity of the procurement process.

Effective Approaches

III.1. PPP support

Common

PPP specific regulation: Governments establish PPP enabling regulatory frameworks and legislation allowing, including organising auctions and pooling projects within one infrastructure programme in order to promote their bankability. Also, governments act as part of concession agreements guaranteeing stability of the tariff regime in case of municipal PPP projects in public utilities (such as water supply).

Using PPP models for public goods and service supply projects: Governments use PPP models for public goods and service supply projects with relatively flexible price adjustment mechanisms, high degrees of marketization, large investment scales and long-term, stable demand.

Identifying financial stakeholders' comparative advantages for PPP models: Governments seek to identify financial stakeholders' comparative advantages to bear risks and rewards and play differentiated roles in financing infrastructure projects at different stages of development.

Aligning financing instruments with project risk and return characteristics: Governments seek to choose appropriate financing instruments according to a project's risk and return characteristics. This allows to efficiently distribute risks across financial stakeholders according to their risk bearing capacities and appetite; to attract private capital at an adequate price and to incentivise the proper planning and delivery of the project.

Box 9. China – Waste Interception around Erhai Lake (PPP Project)

Erhai Lake, whose basin area is 2,565 square kilometers with 117 rivers flowing into the lake, is the main drinking water source of the City of Dali, covering 16 villages and towns of Dali with a population of 833,000 people. In recent years, the pollution of the water source has become increasingly severe and the water quality has been declining. In order to control the pollution and protect the water quality, Dali decided to carry out this project via PPP model.

The total estimate investment of Dali Waste Interception around Erhai Lake PPP Project is RMB 3.49 billion according to the project construction plan. The construction period is expected to be 3 years. The project needs a large amount of capital investment and has a long cycle. The previous project plan has been optimized through systematic research and scientific test based on the expertise and experience of the private sector after adopting PPP model. The total investment decreased to 2.98 billion RMB from 3.49 billion RMB of the planned investment. The first phase of the project has been under construction currently, and it is expected to be completed at the end of 2017, which will be 6 months ahead of schedule. Benefiting from adopting PPP model, the project full-life cycle cost from the planning, design, construction to operation has been reduced, the quality and efficiency of the environment management has been improved, and the short-term fiscal burden has been alleviated, which fully reflects the essence of Value for Money of PPP. This project highlights are as follows:

I. Government provides supporting policies to ensure the project sustainability

In order to reduce its fiscal burden, Yunnan provincial government has given a strong support to this project by allowing Dali municipal government to charge a fee for Erhai Lake sights protection to expand its fiscal revenue, and has also promised to provide a certain amount of subsidy to the project. Dali municipal government makes full use of such fiscal resources and allocates subsidies before and after the construction completion to alleviate its fiscal pressure and ensure the project be financially sustainable.

II. Government makes performance-based payment to improve the performance of fiscal fund

In this project, the investment cost and the corresponding reasonable return can not be fully recovered when reaching the final acceptance. It is calculated that the operation and maintenance cost and the corresponding reasonable return account from 5% to 7% of the annual services payment from the government, while the investment cost and the corresponding reasonable return account for 93% to 95% of the annual services payment from the government. Through the competitive consultation, the SPV could only get 85% of services payment from the government while the remaining 15% needs to be linked to its operation and maintenance performance. This kind of arrangement could motivate the SPV to provide good operation and maintenance over the full project cycle.

III. Using competitive consultation as the procurement method achieves full competition

The procurement method of this project is competitive consultation, which helps to achieve full competition over the procurement process. One of the key factors for the project success is conducting several rounds of market testing at the early stage. More than 20 corporate partners expressed their interests during the market testing. The private

sectors have helped optimize the previous feasibility study by bringing their expertise to the project, and save the investment. The outstanding private sector has replaced the government to provide the environment management service with good quality and efficiency to the public, which reflects the original purpose of adopting PPP model.

IV. The private sector optimizes overall planning and provides innovative technology

During half a year, the successful bidder (CITIC Water Industry Fund Management Co., Ltd.) has figured out the pollution factors, pollution load and pollution contribution for the entire region through scientific and systematic research and analysis. A comprehensive business case of water ecological environmental management has been made considering the development plan, tourism plan and ecological plan of Dali. At the meantime, the successful bidder has the independent intellectual property of the fifth-generation subsidence-type renewed water technology that is particularly environment-friendly. This technology has been applied to the project. All six sewage treatment plants along the lake are underground, which cuts off noise and odor. On the ground of the plant, it will build high-quality flowing water parks, tourist service centers, hotels, electricity charging piles and other tourist facilities. It will become a water ecological complex that combines science education, ecological landscape, recreation, culture and tourism together, which will greatly improve the tourism quality along the lake. The tourism service revenue can be the supplementary income to effectively reduce the fiscal pressure, improve investment efficiency, and achieve Value for Money.

Innovative/Emerging

PPP Certificates: The securitisation of PPP project certificates is also emerging as an effective tool to channel additional capital into the PPP market as well as to provide the securities market with additional infrastructure investment opportunities.

PPP information platforms and market places: Governments set up information platforms in order to promote PPP market transparency. Further, governments hold other events such as promotional events and business matching forums.

Box 10. Taipei – PPP central information system and investor flexibility

In Taipei, lack of information related to PPP is addressed as the authority in charge is required to post basic information of PPP projects on a designated information system. Also, the government holds promotional events every year to solicit private investment for PPP projects and further holds a business matching forum.

With respect to the identification of financing needs and efficient financing instruments, the private institution will decide on its own, regardless of the size of the infrastructure project. Applying this flexible approach allocating decision-making competencies at the private level, governments increase PPP attractiveness as private investors scope of action is improved and related specifications can optimally be tailored to the investors specific needs and requirements.

Annex A – Category IV.

Risk mitigation instruments and techniques

To efficiently allocate and mitigate risk from infrastructure investments, risk mitigation techniques and finance institutions shall be developed to increase the viability of infrastructure projects. Doing so, specifications from APEC developing economies shall be explicitly considered.

Underlying Assumptions

The infrastructure project life cycle can be described as having various stages, which is a useful framework for examining different points in the infrastructure value chain, providing also insights where potential policy interventions and market opportunities may enhance bankability. This lifecycle includes project identification and prioritisation, design and planning, tendering and contract awarding, financing and construction, operation and maintenance, as well as potentially revamping, expansion and transfer. In each of the stages there are underlying risks, including inter alia technological, operational, political, regulatory, social, environmental and economic. Risks in infrastructure projects need to be identified and quantified in order to appropriately allocate them to the party best able to manage risks, and to utilise various tools (such as risk mitigants) that can enhance project bankability. These risks may arise in more than one of the stages and can overlap with other risks, and can also strongly influence the cost of capital for an infrastructure project and determine the minimum return investors seek when investing and agreeing to bear some of these risks.

Governments have greater chances of attaining their infrastructure objectives when taking a holistic and coherent view of the entire infrastructure project lifecycle, considering the various outcomes and risks over the various stages. At the heart of a successful infrastructure delivery lies the determination of what infrastructure functions will be executed by the government itself or allocated to private participants.

Roles of financial intermediaries in the development phases of infrastructure may vary. If corporates and banks still play a predominant role in infrastructure, non-bank private capital (i.e. institutional investors) may play a role in financing infrastructure across multiple stages of projects, particularly when project revenues are available to meet private capital costs. MDBs and NDBs are major actors in infrastructure financing increasingly seeking to partner with the private sector. As different types of investors are willing to take on different types of risks, risk allocation is a crucial factor in determining the pool of willing investors and the cost of capital for the public sector.

The volatility of foreign exchange rates can increase the risk to service liabilities denominated in foreign currencies, as currency valuation generally evolves with independent dynamics from infrastructure cash flows, and thus debt financing in local currency is most likely to be preferred by infrastructure owners.

In particular, the outcome for society as a whole can be better if government abides by the principle of allocating risks to the parties best positioned to manage them. Governments can harness the skills of private participants based, inter alia, on risk management capabilities and capacities of each participant. An adequate lifecycle allocation of risks contributes to deliver the expected outcomes, including economic and broader goals. Governments need to ensure that private partners understand risks, their interrelations over the entire lifecycle and have the capacity and capability to manage them efficiently. Risk allocation

can also include mechanisms to incentivise private participants to internalise costs and benefits that may not be observable by authorities.

Effective Approaches

IV.1 Development of risk mitigation techniques and finance institutions

Common

Accounting for risk and return characteristics: Governments take into account the relevant risk and return characteristics of projects as well as of involved participants when providing financing and funding for infrastructure. In Canada, a very mature PPP market, for instance, PPP deals are frequently structured in a manner in which the design and construction would be privately financed, and compensated by the public sector following significant milestones or substantial completion of a project. This structure allows the associated risks to be transferred to the parties who are best able to manage them as well as to put in place funding mechanisms to ensure the maintenance and operation of infrastructure assets are assured.

Allocating risks to the parties best capable to bear them: Governments commonly seek partnerships with the private sector with the intent to allocate project risks to the parties best able to bear such risks.

Allocating risks to private stakeholders under transparent risk pricing: As far as possible and appropriate, governments actively seek to transfer risks to private stakeholders. Where risk is borne by the private sector, governments seek to transparently price risks and assure value for money for the public.

Optimizing risk sharing among public and private stakeholders: Governments commonly follow the principle that risks are to be shared among stakeholders and that the party best placed to manage a certain type of risk is the one that should do so. To this end, governments are taking steps to identify financial stakeholders' comparative advantages with regards to bearing risks and rewards and playing differentiated roles in financing infrastructure projects at different stages of development. Financing structures and risk allocation mechanisms are structured accordingly. Governments widely assess on a case-by-case basis which risks are to be handled by which party, but generally consider political and regulatory risks better to be managed by public stakeholders, while technical and business risks are better managed by private stakeholders.

Clear and transparent risk allocation in PPP contracts: Governments seek to clearly specify and define the allocation of risks between public authorities and private stakeholders and transparent risk allocation clauses are required to be inserted in all PPP contracts.

Leveraging the capabilities of NDBs and MDBs to de-risk projects: Governments are taking steps to support the de-risking of infrastructure especially through promoting collaboration with and participation of NDBs and MDBs. The various roles of these institutions are being leveraged in this context, including performing project due diligence, financial structuring, equity co-investments and insurance and the provision of guarantees (e.g. social, political, investment, debt assumption and (re-)financing guarantees). Some of these tasks or instruments can also be provided by other (specialised) public authorities or private entities.

(Quasi-)equity contributions to enhance financing structures and risk profiles: Governments frequently use equity or quasi-equity contributions to enhance a project's financing structure and risk

profile. This instrument also allows governments to maintain political control and oversight over infrastructure projects and programmes as well as to participate in potential returns from a project.

Innovative/Emerging

Setup of enabling structures for project pooling: Governments encourage the pooling infrastructure projects in order to diversify long term risk factors of individual infrastructure projects, thus enhancing their attractiveness to long-term investors.

Risk-based capital charges: Governments support bank loan syndication by strengthening the enabling conditions for syndication, including applying risk-based capital charges that decrease with increased diversification in infrastructure projects, fostering infrastructure pipelines that facilitate planning and pooling, and supporting rule of law to facilitate contract enforcement. Banks, through their internal due diligence processes and monitoring of loan performance also play a role in managing risks over a project's various lifecycle stages.

IV.2 Specific measures and instruments for APEC developing economies

Common

Taking advantage of international banks and their liquidity capabilities: Governments consider the presence of (large) foreign/international banks essential to provide liquidity to domestic syndication markets.

Supporting alternative infrastructure financing models through financial structures that contain governmental de-risking factors: Governments support alternative infrastructure financing models by facilitating financial structures that contain governmental de-risking factors, including government guarantees, risk sharing arrangements with the government which may entail hybrid structures of debt and equity, direct risk transfer to the government via wraps executable under specific eligibility conditions, and bespoke government interventions and fiscal tools.

Providing guarantees and government funding to assure sustainable cash flows: Governments commonly provide guarantees and use government funding, including availability payments, and infrastructure funds (e.g. PPP funds) as funding and de-risking tools to attract private investors and provide a project with sustainable cash flows. In particular, PPP and infrastructure funds are common tools to provide long-term/closed-ended funding for infrastructure projects, in particular to those with low economic profitability to increase bankability. Such funds can provide flexible funding, both non-reimbursable and reimbursable products, across the whole project cycle. Reimbursable products aim mostly to reduce credit risk in financially viable projects through subordinated debt, partial credit and financial guarantees.

Box 11. Mexico – The National Bank of Public Works and Services (BANOBRAS)

The National Bank of Public Works and Services (BANOBRAS), as the Mexican Development Bank in charge of financing infrastructure through the National Infrastructure Fund (FONADIN), offers specific products to promote private investment in projects with high social benefits but low economic profitability.

FONADIN is a fund created by a Presidential Decree in 2008 as a vehicle to address market gaps in the highest risk segments of socially relevant projects. FONADIN is a very flexible vehicle offering non-reimbursable and reimbursable products across the whole project cycle. When a socially profitable project does not generate a financial return required to attract investors, the fund provides financial grants subordinated to the equity in order to enhance the project's risk and return profile. Reimbursable products aim mostly to reduce credit risk in financially viable projects and include subordinated debt, partial credit and financial guarantees.

The fund also seeks to support medium sized Mexican concessionaires in the energy and construction sector through equity investments. This is aimed to help them compete with international or larger sponsors. FONADIN also seeks to enhance the mobilisation of capital from institutional investors by participating in private capital funds. As of the end of 2016, FONADIN had supported on a cumulative basis 117 projects with almost USD 8 billion, mobilizing a total of USD 25 billion, mostly in highway projects.

Also financial guarantees can be used to de-risk infrastructure projects, offer private investors certain cash-flows and can diminish construction risk. Also legal amendments were introduced for enabling BANOBRAS to offer and operate new financial guarantees in order to increase private sector investment in public infrastructure projects.

BANOBRAS provides financial guarantees as schemes for both states and municipalities, as well as for projects. They are designed to enhance private participation in the financing of public infrastructure and BANOBRAS provides different variants:

- Securities Debt Guarantees: These guarantees can be used to support bonds issued to the market by project developers.
- Bank Guarantees: These guarantees support the debt service the project must pay to a bank due to contracted loans.
- Guarantees for service provision projects: These guarantees are intended to cover the periodic payment obligations of the contracting units derived from the service provision contracts signed with the suppliers of the service.
- Pari-Passu guarantees are other similar schemes with the main difference that losses are assumed pro rata between BANOBRAS and commercial banking.

The main benefit for subnational governments is the access to better financial conditions (better: fees, amounts and/ or terms), due to the improvement in its credit rating. In addition, when subnational governments access financial markets, they have incentives to adopt better accounting practices, sound public finances, accountability and transparency.

Innovative/Emerging

Supporting the alignment of domestic bond markets with international markets: Governments support international project bonds and credit enhancement initiatives and schemes to achieve higher international collaboration to better align domestic bond markets.

Annex A – Category V.

Infrastructure project pipelines

Infrastructure project pipelines are set up by governments as a means to enable a structured approach to infrastructure investment, coordinating public and private sector cooperation according to long-term infrastructure investment strategies and prioritization. Infrastructure project pipelines shall enable all potential stakeholders to build up competencies for infrastructure projects and provide information to potential private investors to identify viable projects.

Underlying Assumptions

When conducting private investment in infrastructure, infrastructure project pipelines are essential for governments to address both information and uncertainty constraints which might inhibit private investors to engage in infrastructure investment.

Amongst private investors, a trend towards a high and increasing willingness to invest in infrastructure projects in both developed and emerging markets is observable. However, as especially in emerging markets information on infrastructure projects is often not available, transaction costs remain high. Also, prevailing uncertainty about the type and scope of infrastructure projects conducted during longer-term planning horizons inhibits asset owners to include related investments in their long-term asset management plans.

In order to exploit the full potential of private investors' willingness to invest, a central and coordinated provision of information on planned infrastructure projects is beneficial, enabling a linking of private investors with public infrastructure projects. Therefore, infrastructure project pipelines shall provide a consolidated list of all infrastructure projects that are underway or planned across the economy over a certain planning horizon.

Prerequisite for the provision of this information is efficient governmental long-term strategic infrastructure planning, deciding on which projects shall be included and prioritized. This planning can be allocated at different governmental levels and a potential consultation process may include different public and private stakeholders and shall be in line with overall governmental goals. Planning conducted on regional or central governmental levels can be further complemented with an inclusion in international infrastructure project pipeline setups, in order to increase the private investor base by providing international investors with standardized and hence comparable project information.

In addition to the development of a pipeline of commercially viable projects and strategic planning and surveillance, project pipelines may also provide pooled assistance to operational project implementation through capacity building instruments like tool-kits and training programmes, information dissemination and communication strategies.

Effective Approaches

V.1 Enabling structures and competency building

Common

Well structure project pipelines: Governments structure project pipelines according to projects' nature of investment (e.g. greenfield vs. brownfield) and maturity. This helps the market to better understand an economy's project pipeline, gives a clear idea of the involved risks and returns for each project as well as allows investors to diversify their portfolio across different projects. At the same time, a well-structured pipeline allows governments to pool funds from domestic and international investors and to bring due diligence levels to international standards.

Creating independent infrastructure agencies to enhance governance expertise and capacities: Governments are creating and facilitating the operation of independent infrastructure agencies or dedicated specialized infrastructure governmental units to develop expertise to properly manage infrastructure projects across their various stages from project identification, to prioritisation, planning, tendering, awarding, monitoring, construction and maintenance. These agencies/units are considered essential to building credible pipelines of infrastructure projects and to increase value to society when delivering infrastructure services. In addition, these agencies/units are often also charged with the collection of project data that is used to monitor and analyse project delivery and performance.

Strategically approach infrastructure shortcomings: Governments strategically approach shortcomings in infrastructure by (i) identifying fields of action, (ii) defining a target status, (iii) setting up scenarios comprising different variables (iv) implementing policy measures and (v) supervise and evaluate policy implementation. Doing so, governments make sure an alignment between all governmental levels concerned and guarantee an efficient long-term strategy approach.

Box 12 New Zealand - Auckland Transport Alignment Project

The New Zealand government in cooperation with the local and city government has introduced the Auckland Transport Alignment Project (ATAP) in order to address challenges from shortcomings in transport infrastructure.

The development and implementation process of the policy programme is presented below.

Preconditions and need for action	ATAP intended value added and responsible parties	ATAP specifications and strategy priorities	ATAP policy evaluation
<ul style="list-style-type: none"> Jointly funded transportation infrastructure: Central government and City government Population growth and urbanization Recognition of the importance of efficient transportation infrastructure for domestic economy Funding shortfalls in existing infrastructure planning Value for Money criterion for allocation of additional funding 	<p>Criteria for value evaluation: infrastructure:</p> <ul style="list-style-type: none"> Improved access to employment resp. labour as supporting growth and productivity Improvement of congestion results Improve public transport's mode share Net benefits for users in return for potential additional cost <p>Set up jointly by governmental bodies from central and local level</p>	<p>Strategic implementation of tools: Three key elements</p> <ul style="list-style-type: none"> Improving use of existing networks Targeting investment to the most significant challenges Max. new opportunities to influence travel demand, incl. smarter transport pricing Planning horizon: 30 years Goal: Improve medium and long-term ROI from transport infrastructure Additional tools needed as changing the investment mix would not deliver satisfying results 	<ul style="list-style-type: none"> Improvements in alignment between Central and local Government and City government agreement on a recommended strategic approach and priorities for investment maintaining alignment between the agencies guaranteeing a quick and effective implementation Guarantee sufficient planning flexibility to deal with changes in parameters assumed for planning

Innovative/Emerging

Enhancing information disclosure, data collection and sharing of best practices: Governments consider transparency, in particular in bidding and contract awarding phases, a key element to mobilising private participation in infrastructure financing and take steps to enhance information disclosure, data collection and the sharing of knowledge and best practices. In this context, the involvement of rating agencies and external auditors is a common measure to prove transparency through a third-party process. This ultimately also builds trust and transparency in domestic infrastructure project pipelines.

Offering of external dispute resolution services: Governments offer dispute resolution services for instance arbitration, mediation and litigation services which external parties may consult in return for payment.

Box 13. Singapore – Offering of external dispute resolution services

The Singapore Ministry of Law has been working with various stakeholders to develop Singapore into an international dispute resolution hub.

Singapore offers a full suite of dispute resolution services for parties to choose from depending on their needs (ranging from arbitration at the Singapore International Arbitration Centre to mediation at the Singapore International Mediation Centre to litigation at the Singapore International Commercial Court), and our institutions are well-regarded by parties around the world.

The Singapore International Mediation Centre (SIMC) has signed an MOU with the Asian Development Bank (ADB) to help public and private parties resolve disputes that may arise in infrastructure public-private partnership (PPP) projects, under ADB's Infrastructure Referee Program (IRP). SIMC will work with ADB to establish a panel of international mediators and experts with experience and skills in dispute resolution of infrastructure PPPs. Through the IRP, these panellists will provide an independent third party opinion to help public and private parties resolve disagreements that may arise over the life of a PPP project.

Additionally, Singapore accepts the rule of law as a universal value. It is the foundation upon which our nation was built and provides the framework for the economy's proper functioning. We have an independent judiciary and functioning legal system with laws that are publicly known and enforced.

V.2 Identification of priority projects

Innovative/Emerging

Monitoring the impact of reforms on infrastructure financing: Governments increasingly monitor the impact of financial reforms on infrastructure financing, project pipeline development and related market dynamics to assure that policy measures are effective in securing sustainable financing for infrastructure. To this end, governments are taking into account feedback from market participants, collect relevant information, and use analytical models as well as external and internal consultants to have an objective assessment of the impact of financial reforms on infrastructure investment levels. Often the ministry of finance is in charge of the monitoring processes, which also include the monitoring of National Development Bank performance as well as the active engagement of municipalities in infrastructure development. Other monitored elements include economic impact of infrastructure development and existing project pipelines, funds availability, investor appetite, fiscal and macroeconomic policy development and capital market developments. This allows identifying potential mismatches between demand and supply before pushing for further, more targeted reform.

Identification and promotion of high social content projects: Governments explore ways to foster infrastructure investments with high social impact. Therefore, governments establish tools to support infrastructure projects which are socially valuable but financially challenged. Also, governments develop markets for infrastructure investments with high social impacts.

Box 14 Mexico – Support of infrastructure projects with high social content

The Mexican government has established a set of tools to support infrastructure projects with high social content that are financially challenged, meaning that projects face financial constraints which make them unattractive to commercial banks. Those projects are mostly allocated at municipalities characterized by high levels of poverty.

- Municipalities identify the projects with social and development content that are financially challenged and need to be supported.
- To the municipal projects identified, financing is provided through federal transfers and enabled through financial vehicles allowing small infrastructure projects to be executed by giving financial profitability to projects that have high social impacts.
- Private participation ensures a certain level of quality and availability of public services. PPPs have had significant impact at local levels, while the government takes advantage of the private sector's expertise and in exchange the private sector receives a payment that covers their costs and generates profits.

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