INVESTMENT POLICY FOR LOCAL DEVELOPMENT
INVESTMENT FUNDS IN VIETNAM

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Final Report

Investment Policy & Guidelines

Submitted by:

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1. **INTRODUCTION**

These draft investment policy and guidelines are submitted as part of our work on establishing a unified investment policy for the Vietnam’s Local Development Investment Funds (LDIFs). This draft report presents our findings and recommendations related to the LDIF strategic objectives, principles and the investment policy guidelines. The investment guidelines cover investment eligibility criteria, investment analysis, investment products and pricing, safeguard assessment guidelines and high-level principles related to the code of professional ethics, prevention of fraud and corruption, disclosure of client information, etc.

Where the report recommends numerical thresholds/ suggestions – these are indicative best estimates based on international experience. The intention is for the LDIFs to move towards these good practices and benchmarks, as they grow in size, develop a larger performing portfolio, and become mature Funds. It is recognised that the implementation of these policies are subject to the legal and regulatory framework provided by the Ministry of Finance (MoF) – to that extent, the recommended policies seek to inform the development of MoF draft laws/ decrees for the LDIFs. Also, it is recognised that some of the LDIFs may need to further develop their skills and capacities to implement the recommended policies and guidelines – in that regard, these policies may guide any technical assistance intervention that the Funds may receive in the future.

1.1. **Purpose of the investment policy and guidelines**

Currently, each of the LDIFs adopts its own home-grown investment principles and procedures, drawing on lending guidelines of its Provincial People’s Committee (PPC), State Owned Enterprises (SOEs), State Owned Commercial Banks (SOCBs) or the relevant aspects of Government investment regulation or decrees.

The purpose of this report is to provide a comprehensive, consistent and practical investment policy and operating guidelines for the different LDIFs operating in Vietnam, consistent with international best practice, and adapted to the Vietnamese context. As such, they are anchored in the mandate and existing capacity of the LDIFs, the specific infrastructure needs, and the local context and laws in Vietnam; and draw upon the successful international best practices in infrastructure development and financing. They are expected to provide specific guidance to the LDIFs in unifying and standardising their infrastructure investment procedures, while ensuring that adequate flexibility and innovation is retained in their operations.

The investment policy and guidelines set out the overall principles and procedures that shall govern the investment of the LDIF capital for provincial infrastructure development in Vietnam and assist in assessing whether or not to support a particular infrastructure development and/ or investment opportunity. The policy includes typical commercial investment criteria such as investment hurdle rates, investment analysis, and social and
environmental assessment guidelines. It also provides guidance on the project and borrower eligibility criteria such as the geographies and sectors that are included and excluded from the remit of LDIF investments. To the extent that some of the LDIFs are not yet of the size and position to benefit from these commercially driven investment policies, this document also provides some high-level guidance on transition approaches.
2. **LDIF OBJECTIVES AND PRINCIPLES**

2.1. **Economic context**

Vietnam today faces the classic concerns of rapid economic growth – a growing urban population and infrastructure service capabilities that are unable to keep pace with the rising demand. In order to support the projected economic growth rates of 8% per annum, the Government of Vietnam (GoV) estimates an infrastructure investment requirement of at least 10% of the Gross Domestic Product until 2010.

However, in the face of the significant investment gap vis-à-vis the state budget for urban infrastructure and housing, the GoV has initiated a series of steps to bolster the finances for urban development. One of the initiatives to mobilise additional resources has been to decentralise responsibilities to the provincial governments to develop and improve public infrastructure and services. In this context, the LDIFs provide useful financing mechanisms to help the provincial governments mobilise private sector financing and attract private sector participation in urban infrastructure. This section summarises our views on the potential market gaps in provincial infrastructure financing in Vietnam.

As in several other emerging markets with infrastructure development needs, Vietnam is confronted with some of the typical demand and supply side market gaps in infrastructure financing.

On the demand side, there is a need to develop the capability to structure revenue-backed ‘bankable’ projects with appropriate levels of risk mitigation, in order to attract private sector financing. The risk management must include political, regulatory, market, currency, credit and operational risks.

On the supply side, the key market issues are:

- There is a clear need to develop long term sources of infrastructure financing in Vietnam as the domestic banks and financial institutions do not as yet extend long tenor debt.

- Infrastructure provides a major challenge to private and public equity investors/ fund managers as the investment size and gestation period for infrastructure assets are much longer than the resources and life of a typical fund. Hence, most often, the potential investors come together as a syndicate or consortium to jointly invest in an opportunity.

- There has generally been limited private sector financing and participation in provincial infrastructure development, with the exception of a few select local and foreign fund management companies (such as Dragon Capital), insurance companies and commercial banks (such as Vietcombank). One of the key market requirements is to develop a consolidated local private investor community as well as the private
sector financial intermediaries such as third party valuation firms, investment brokerages, etc.

- Foreign lenders/investors are averse to accept the credit and operational risks of provincial infrastructure projects without government guarantees.
- The Vietnam financial markets are relatively less liquid and diversified, reducing the products available for infrastructure investments. Also, there is currently no benchmark rate of interest or risk-free rate and an absence of scientific/established pricing norms for debt and equity instruments.

The LDIFs have the backing of, including chartered capital contribution from, the PPCs and are strategically well-placed to address some of the market gaps identified above.

### 2.2. LDIF objectives

The LDIFs have been established and operationalised at provincial government levels to serve the following key objectives, namely to:

- support a conducive legal and operational framework at the provincial level to develop municipal infrastructure and services;
- attract private sources of financing, equity and debt capital, for developmental infrastructure; and
- enter into contracts and various forms of public-private partnerships to increase private sector participation in infrastructure development.

These objectives underpin the scope of the investment policy, which focuses on the LDIFs’ infrastructure development and financing goals.\(^1\)

### 2.3. Overview of current LDIF operations\(^2\)

The LDIFs have been established by the Charters of the respective PPCs that provide each Fund’s equity capital and wholly own them. The main activities that the LDIFs are

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\(^1\) Our understanding of the activities and operations of the LDIFs have been based on the four most developed LDIFs - Ho Chi Minh City Infrastructure Fund for Urban Development (HIFU), Hanoi Development Investment Fund (HANIF), Binh Duong Development Investment Fund (BDIF), and Dong Nai Development Investment Fund (DNIF). These four Funds constitute more than 2/3rd of the total LDIF chartered capital to date.

\(^2\) Our understanding of the LDIF activities is based on the detailed meetings and the information gathered during our visits to Vietnam in August and October 2006 and March 2007. It covers the LDIFs’ objectives and activities, their investment portfolio and investment appraisal processes currently in practice. As mentioned earlier, our study has been informed by the four most developed LDIFs – HIFU, BDIF, DNIF and HANIF. Annex A of this report sets out the list of meetings that we have undertaken during the field visits.
authorised to undertake by their Charters, and in accordance with the regulations and laws of Vietnam, are:

- Mobilising medium and long term capital.
- Undertaking direct and indirect investments in projects/companies that assist in the socio-economic development of the province.
- Providing investment consultancy and financial services.
- Participating in the financial market and securities trading and related services.
- Managing and investing entrusted capital on behalf of the PPC to develop infrastructure and public services.³

The four most active LDIFs were all incorporated in the last decade and are entrusted with broadly similar mandates as presented above. In addition to the chartered capital contributed by the PPC, the LDIFs mobilise loan capital from domestic banks and SOEs. These have typically been short term (up to 12 months maturity with roll-over features) to medium term (typical maturity of 3-5 years) loans. The MoF and the PPCs are currently deliberating the appropriate gearing ratio for the LDIFs, which has been no higher than 2:1 in practice to date.

- HIFU was the first LDIF established in 1996. It has the most diversified operations among the existing LDIFs and has the largest portfolio of infrastructure investments. Its current activities include providing debt and/or equity for infrastructure projects, financial and consultancy services, share trading and investments, managing the PPC’s trust funds, and establishing and financing joint stock companies for infrastructure financing or the development of financial markets.
- BDIF was started at the end of 1999 and primarily invests in infrastructure projects. It also manages the trust funds of the PPC.
- DNIF started operations in 2000. Its activities include infrastructure investments, managing the trust funds of the PPC, providing basic consulting services to sponsors for infrastructure development, and investing in equitised companies.
- HANIF was established in late 2005 and upgraded from the Hanoi Housing Development Fund to mobilise capital for socio-economic programs and infrastructure projects in Hanoi. It has primarily provided debt financing for infrastructure projects in Hanoi.

Given the burgeoning infrastructure requirements for provincial development, the active LDIFs are all viable and rapidly growing. In accordance with the latest decree of the MoF

³ The LDIF does not undertake any project appraisal and adheres to the PPC’s decisions for the investment of trust funds. In return, it receives a management fee from the PPC.
and the Charters of the LDIFs, they are permitted to retain any profits/surpluses to finance either reserves or supplement the chartered capital of the Fund.

### 2.3.1. LDIF investment portfolio

The portfolio of the four active LDIFs includes direct (a term used to denote equity financing) and indirect investments (a term used to denote debt financing). The LDIF investments are typically in revenue-backed projects within the province in sectors such as transport, water supply, industrial park infrastructure, real estate, residential property development, health and education.

The LDIFs are often the lead equity investor in the project and attract further equity from other private and state-owned companies.

- **HIFU** has the largest direct investment portfolio and has mostly invested in infrastructure development joint stock companies such as Ho Chi Minh City Infrastructure Investment Company (CII) for the operation of toll roads, Kenh Dong and Thu Duc BOO for water supply, Saigon medical investments to build hospitals, and Ho Chi Minh Securities Company to develop Vietnam’s financial markets.

- **BDIF** has primarily invested in the equity of residential/housing projects to date.

- **DNIF** has also invested in residential property projects. In addition, it holds equity in real estate and industrial park infrastructure companies.

- **HANIF** is relatively newly established and is currently evaluating potential direct investment opportunities.

LDIFs also provide medium-term (typical maturity of 3-5 years) senior debt to economic and social infrastructure projects that range across transport, water supply, industrial parks, residential zones, public health and education. For specific creditworthy projects, they may provide long-term loans of 7-10 years tenure, including the construction period. The LDIFs often provide syndicate loans with state owned and commercial banks in order for the loan size to meet the project’s debt financing requirements. Most of the target projects are commercially viable and borrow at market rates.4

### 2.3.2. Investment process

The LDIFs have credit and investment committees staffed with independent qualified professionals. Their current investment appraisal processes and principles are based on a combination of lending guidelines from the MoF, the PPC, the SOCBs and SOEs. Hence, the investment policies are not uniform and comprehensive across the LDIFs. Also, some 4 Some of the LDIF project loans in the past have been at ‘concessional’ rates of interest. However, in these exceptional cases, the subsidy element is financed by the PPC to the LDIF.
elements of the current investment process may specifically require further development such as the investment eligibility criteria, risk analysis, portfolio management, reporting and monitoring.

The LDIF investment rules and guidelines that are currently in practice are:

- Infrastructure projects have a typical debt equity structure of 70:30. The preferred approach of the LDIFs has been to invest in infrastructure development by setting up a joint stock company or an SPV that would be responsible for project structuring, implementation and operation. Once operational, these joint stock companies, in turn, may act as co-investors in the LDIFs’ future projects. For example, CII, the joint stock company set up by HIFU, has co-invested with HIFU in the Thu Duc and Kenh Dong water supply projects. Similarly, DNIF established and co-financed a joint stock company with Sonadezi and other sponsors to develop industrial park infrastructure.

- The investment appraisal comprises evaluating the financial capacity, capability and experience of the project sponsor; the size, purpose and financial feasibility of the project; and the legal basis for project implementation. For direct investments, the LDIFs invest only in revenue backed projects with an internal rate of return (IRR) of about 3.75 - 4% above market rates. For indirect investments, the interest rate is usually fixed by the PPC by type of project, at a rate that is no higher than the prevalent medium or long term lending rate of the State Bank; the pricing is not set based on a scientific risk assessment of the investment.

- The approval limits for direct and indirect investment decisions, as defined in the LDIF charters, are presented in Table 1 below.

<table>
<thead>
<tr>
<th>Approval authority</th>
<th>Direct investments</th>
<th>Indirect investments</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Director</td>
<td>Up to 2% of the Fund’s chartered capital</td>
<td>Up to 5% of the Fund’s chartered capital</td>
</tr>
<tr>
<td>Board of Management of the Fund</td>
<td>2% - 10% of the Fund’s chartered capital</td>
<td>5% - 15% of the Fund’s chartered capital</td>
</tr>
<tr>
<td>PPC</td>
<td>Over 10% of the Fund’s chartered capital</td>
<td>Over 15% of the Fund’s chartered capital</td>
</tr>
</tbody>
</table>

*Source: LDIF Charters, LDIF Briefing Paper by the World Bank*

- Subject to the above investment limits vis-à-vis the chartered capital, the typical equity investment by an LDIF is about 30% of the project’s total equity i.e. the LDIFs seek minority holding interest but with representation on the Board of Directors. Where the LDIFs have invested at an earlier stage of project development

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5 The current market interest rate in Vietnam is 8.25% per annum. The expected IRR thresholds are indicative and based on our discussions with the LDIFs and the private sector investors in Vietnam.
(such as pre-construction), they may invest 50-60% of the total project equity with the intention to dilute their stake to 20-30% of the project equity after financial close.

- The typical security/ collateral arrangements for the LDIF investments are either a pledge on the project assets or other assets of the project owner, and controlled bank accounts with the direct credit of project revenues to the Fund. There are usually no provisions for sovereign or sub-sovereign guarantees, although HIFU at times, has received interest rate guarantees from the HCMC PPC.

2.4. LDIF guiding principles

In the sub-sections below, a number of high level recommendations are made which are pertinent to the overall parameters of the investment policy and guidelines. These range from guidelines regarding the objectives, operational focus and governance of the LDIFs, through to their capital structure and potential offering of infrastructure investment products.

2.4.1. LDIF mission

The strategic mandate of the LDIFs is to promote infrastructure development and the overall economic growth in their provinces, and specifically leverage private capital in infrastructure projects. Given this charter, two elements of the LDIFs’ overall objectives are critical for their future growth and continued success:

- First, the LDIFs should play a catalytic role in infrastructure market development. They provide financing (debt or equity) tailored for a particular opportunity, with the aim to ‘crowd in’ additional private sector co-financing. Similarly, their role and involvement in the actual project structuring and implementation should be ‘minimalist’ and targeted more at guiding and overseeing overall project progress. Private sector participation should be encouraged in terms of actual project execution as well as the appropriate levels of risk acceptance.

- Secondly, the LDIFs must promote commercially viable infrastructure projects, in order to be sustainable and self-financing. This implies that there shall be no subsidies offered by the LDIFs for their target investments. The challenges and market need to structure ‘bankable’ projects cannot be underestimated.

2.4.2. The need for infrastructure specialisation

The Charters of the LDIFs permit them to undertake, as also reflected in their current portfolio, a wide range of operations. These include activities relating to infrastructure development and finance, but also financial and consultancy services and financial market activities, separate from core infrastructure activities.
These multifarious activities are all extremely important contributors to the development and growth of a healthy economy. However, as the LDIFs develop each of these areas – albeit to different extents in different provinces – it is increasingly important to recognise the different skills required to undertake them and, more importantly, the different risk profiles of each which has implications particularly in terms of required capital structure and provisioning policies. Moreover, as each LDIF seeks to attract additional capital – some of it international – it is increasingly important to recognise the views of investors who are likely to see such a wide range of activities undertaken by one entity without some minimum form of segregation both incongruous and worrying.

As each LDIF develops, a suggested solution is to ring fence infrastructure activities, establishing such activities as separate subsidiaries within each LDIF. This will potentially increase the confidence of other investors, specifically the private sector, to provide financing to the LDIFs and their infrastructure investments. In the same way, it is also important to separate out other activities with differing economics, a process that has already began. For example, HIFU has established a separate joint stock company, Ho Chi Minh Securities Company (HSC), to provide brokerage, trading and underwriting services. Over time, it may be likely that the current LDIF’s will become ‘holding companies’ for a range of differentiated growth oriented activities.

2.4.3. Project finance versus project developer activities

Even within the ‘infrastructure space’, there are a number of activities that each LDIF could potentially undertake. Figure 1 below provides a summary of the infrastructure project cycle and possible strategic interventions, i.e. the role of project financier (debt/ equity) and/ or project developer.

The developer role begins with project definition and involves undertaking activities such as pre-feasibility and feasibility studies, commercial, legal and financial structuring. The project financing role is much narrower, focusing purely on issues relating to financing.
These roles are very different. Project development – of Greenfield activities – is extremely risky and involves considerable levels of entrepreneurial skills, combined with strong judgement capabilities as to when to kill off an opportunity which is going nowhere. Project financing, whether it is equity or debt, is a relatively more conservative evaluation activity.

The mandated role of the LDIFs is to finance the development of growth-oriented infrastructure projects, with the aim to crowd in additional financing from the private sector. The LDIFs can leverage their strategic advantages in terms of the financial and operational backing of the PPCs and their professional management in order to provide equity and long-term debt finance for qualified infrastructure investments. It would seem sensible that this remains the LDIFs’ continued core area of expertise – assisting in structuring and financing ‘bankable’ infrastructure projects to attract further commercial financing.

A more difficult issue is the extent to which the LDIF’s should sponsor – in effect develop – infrastructure projects on behalf of provincial government departments, involving the funding of all pre-financial close project development activities. It is important to recognise the difference between the developer’s highly ‘promotional’ role and the financial investor’s more cautious one – particularly when it comes to lending. This can represent something of a conflict of interest as the developer is unlikely to be the largest provider of finance to a project. Further, project development is a much more resource and time intensive activity than financing, and requires a different set of ‘technical’ skills. Also, it demands certain changes in the LDIFs’ institutional mindset and approach, specifically with respect to opportunity assessments and their risk appetite.

Currently, the LDIFs do not as such undertake full project development activities (e.g. technical design, feasibility studies, etc.) - these are performed either by a government department or a private developer. A recommended approach to deal with this issue is for
the LDIFs, where necessary, to advise the government on which developers (government department or a private sector player) to appoint to sponsor a particular opportunity. Where appropriate, the LDIF can coach the identified project sponsors in the activities of project preparation in order to structure a commercially viable project that can attract private capital. For example, DNIF currently provides some consulting/advisory services to potential project sponsors in developing and structuring commercially viable projects. Similarly, BDIF also provides some advice to project sponsors and potential investors in preparing and structuring projects. Such advisory services may be provided for a fee. However, where the LDIF provides such advisory services in addition to its investment activities, the LDIF shall clearly segregate the two sets of activities to prevent any conflict of interest or moral hazards.

An alternate recommendation is for the LDIFs, particularly the larger/more mature LDIFs, to establish a separate project developer entity staffed with individuals with the appropriate skills. In the past, the LDIFs have helped to establish specialist ‘developer’ joint stock companies; for example, HIFU has invested and assisted in the establishment of CII, which commenced operations with the toll roads project but now also structures and develops commercially viable projects for co-investment with HIFU and the private sector. These specialist entities should focus on developing and promoting infrastructure opportunities, whereas the LDIFs need to mainly focus on whether it is appropriate to finance the opportunities that they develop.

Finally, there have been several successful international approaches for infrastructure financing and development. While none of these are directly applicable to the LDIF context, they provide interesting lessons by way of their successful operational strategy and infrastructure interventions. Annex B of this policy sets out some of the successful international project developer and financier (debt and equity) approaches that are relevant to the LDIFs.
3. **TRANSITION GUIDELINES**

Whilst the main focus of our guidance, as requested within our terms of reference, has been to provide appropriate commercially driven investment policies and operating guidance (i.e. that focus on financing commercially viable projects), it is recognised that many LDIFs are not yet in a position to benefit from this. To take into account the position of all Funds, we provide the following additional high-level guidance to enable the transition of less developed/mature Funds.

An LDIF can be in one of three stages:

- it can be of a size where the adoption of a detailed Investment Policy and Operating Guidelines is imperative, particularly in the context of raising debt finance and portfolio and risk management;
- it can be below this size but the Fund’s management team and PPC are committed to ultimately adopting the discipline of the above; or
- the Fund can remain embryonic where the adoption of such detailed guidelines is deemed to be inappropriate.

Each Fund needs to be allocated to only one category. We set out the implications for each of the categories of the Funds in the descriptions below.

*‘Mature’ Funds*

Mature funds should adopt the Investment and Financial Policies, and Operating Guidelines in full. In particular, such an approach enforces a portfolio approach to fund management which reduces the risks to the Fund as a whole of a default or loss of any one loan or equity investment. The adoption of such an approach will greatly enhance the potential to raise commercial and development finance debt in the markets.

*‘Transitional’ Funds*

We believe that Funds seen to be in transition to the desired level of discipline should, in effect, ‘shadow’ what happens in the case of the Mature Funds. This is best achieved through the adoption of a “Target” Fund size. Such a target would be the size at which the Fund might be seen as being mature; however, this must be seen as being achievable within up to a five year time horizon. The estimate would be based upon the projections of the average of the last three years’ commitment of equity by the relevant PPC. This will establish the target for equitisation to which the maximum 2:1 gearing could be applied.

The net effect of this will be to expand the size of the target Fund over the existing actual paid-in capital quite considerably. The application of the Investment and Financial Policy guidelines will then be relatively straightforward in that the target Fund size will be substituted for the actual. In other words, wherever a financial covenant or recommendation
mentions the Fund’s paid-in capital, the Transitional Funds will use the target Fund size instead of the current actual paid-in capital. On the positive side, this will assist the Funds to adopt the disciplines of the policies much earlier than they would otherwise. As the Funds grow larger and acquire a performing portfolio, the risk of any one investment failing will be felt less. Against this, the actual Fund sizes are still sub-optimal for the type of investments envisaged and over concentration in one investment could lead to potential problems if it is lost. To some extent, however, as the Funds grow to the target Fund size, the enhanced appraisal techniques envisaged in the guidelines will reduce the risks of poor investment and loan choices being made.

As regards the ability to raise debt capital (i.e. leverage its capital), the more that the PPCs are able to commit to future equity contributions to the Funds, the greater the chances that lenders will allow a higher level of gearing than they otherwise would do.

‘Embryonic’ Funds

The third category is that of the Embryonic Funds which are below the scale required even to adopt a transitional policy. The way that each operates is more along the lines of a subsidy fund, provided to deserving projects, rather than funds allocated on a commercial basis. We believe that this is the way in which they should be managed i.e., as a development aid budget, rather than commercial investments. This is entirely different to a more narrow financial approach. In making such investments, it is important to look to the wider economic and social returns from contributing to a project, rather than just the pure financial.

Put another way, most of the financial guidance provided for commercial projects does not apply to such investments. This needs to be replaced with appropriate economic appraisal, in terms of when to provide such funds, how to do it and what to look for in terms of economic and social returns. This is a very wide topic covering areas such as externalities, approaches to subsidy, and social returns, and it is only possible to provide an introduction to the topic in terms of this project.

In principle, the same equity and debt products can be employed, whilst it is recognised that there is a strong element of grant or subsidy element in each, in terms of the likely financial returns. Grants may also be applicable in some instances, perhaps paid out of the re-flows from subsidised loans that are repaid or any financial returns on realised investments. It is important to clearly identify/ quantify the subsidy or grant element in the project financing structure, particularly if it is intended to attract private sector investment.

The extent to which such Embryonic Funds can gear up will likely be negatively correlated with the extent of any subsidy integral to any loans or investments. The working assumption should be for a low level of gearing. Moreover, the cost of finance should not be greater than the returns made by any investments – that is, the Funds should only look for subsidised finance themselves, so that they do not operate at a loss.
The recommendations relating to good governance in the operating guidelines; investment eligibility criteria and appraisal and safeguard assessment processes, fraud and corruption, code of professional ethics, guidelines for transacting with the private sector, etc. in the investment policies; however, do remain extremely relevant even for Embryonic Funds. In certain, limited places in the report, where there is an Embryonic Fund alternative that is directly applicable, this has been set out – for example, the transitional or alternative approach (Method 2) to estimate equity return targets in Annex E.

Table 2 below sets out the extent to which the recommendations in the investment and financial policies and operating guidelines apply to the Embryonic Funds. Please note that all of the recommendations/ guidelines apply for the transitional and mature funds – however, for the transitional funds, the ‘target’ fund size would apply instead of the actual paid-in capital.

**Table 2**

<table>
<thead>
<tr>
<th>Section reference</th>
<th>Guidelines</th>
<th>Embryonic Funds</th>
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<tbody>
<tr>
<td><strong>Investment policy and guidelines</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td>Investment eligibility criteria</td>
<td>Applicable</td>
</tr>
<tr>
<td>4.2</td>
<td>Investment analysis</td>
<td>All aspects of the investment analysis process need to be undertaken. However, the commercial guidelines are applicable to a more limited extent - commercial analysis of project investments needs to be replaced with a more appropriate economic appraisal for provision of subsidy funds, as the case merits.</td>
</tr>
<tr>
<td>4.4</td>
<td>Safeguard assessments</td>
<td>Applicable</td>
</tr>
<tr>
<td>4.5</td>
<td>Project level debt to equity ratio</td>
<td>Applicable. However, there may be an additional grant element to the project finance structure</td>
</tr>
<tr>
<td>4.6</td>
<td>Investment products and pricing</td>
<td>The same debt and equity products may be employed – however, these Funds may offer elements of grant/ subsidy in the investment, which need to be identified as such in the project financing structure. The subsidy would affect the pricing of the debt/ equity products - for example, an alternative method 2 has been specified for estimating equity return targets.</td>
</tr>
<tr>
<td>5</td>
<td>Fraud and corruption</td>
<td>Applicable</td>
</tr>
<tr>
<td>6</td>
<td>Code of professional ethics</td>
<td>Applicable</td>
</tr>
<tr>
<td>7</td>
<td>Others (Business continuity plan, Guidelines to transact with private sector, confidentiality and information disclosure)</td>
<td>Applicable</td>
</tr>
<tr>
<td>Section reference</td>
<td>Guidelines</td>
<td>Embryonic Funds</td>
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<tr>
<td><strong>Operating guidelines and procedures</strong></td>
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<tr>
<td>2</td>
<td>Project pipeline</td>
<td>Applicable</td>
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<tr>
<td>3</td>
<td>Project/ investment appraisal (stages)</td>
<td>Applicable</td>
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<tr>
<td>4</td>
<td>Portfolio monitoring/ tracking</td>
<td>Applicable</td>
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<tr>
<td>5</td>
<td>Staffing guidelines for investment appraisal and portfolio management</td>
<td>Applicable</td>
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<tr>
<td><strong>Financial policies</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Finance and risk management governance structure</td>
<td>Applicable – however, recognising that not all investments will be on strictly commercial terms.</td>
</tr>
<tr>
<td>3</td>
<td>Capital structure and gearing</td>
<td>Applicable. The maximum gearing of 2:1 applies, however – in reality, these Funds will likely have a lower gearing, given the subsidy elements of the loan or equity investments.</td>
</tr>
<tr>
<td>4</td>
<td>Funding strategy</td>
<td>Applicable. Given the grant element of financing, these Funds should seek a higher degree of concessional/ subsidised finance. The principle is to ensure sustainability – i.e. that the cost of finance is no greater than the returns made by the investments.</td>
</tr>
<tr>
<td>5</td>
<td>Financial products and investment terms</td>
<td>The same debt and equity products may be employed – however, these Funds may offer elements of grant/ subsidy in the investment, which need to be identified as such in the project financing structure. The subsidy would affect the pricing of the debt/ equity products – for example, an alternative method 2 has been specified for estimating equity return targets.</td>
</tr>
<tr>
<td>6</td>
<td>Liquidity policy and management</td>
<td>Applicable</td>
</tr>
<tr>
<td>7</td>
<td>Risk management</td>
<td>The risk ratios/ covenants (such as single obligor or debt/ equity investment limits) will apply to a lesser extent. However, as these Funds grow in size, it is worth keeping in mind these target ratios to ensure proper choice of investments and a robust performing portfolio.</td>
</tr>
<tr>
<td>8</td>
<td>Capital adequacy guidelines</td>
<td>Applicable. These Funds should risk rate their investments, based on the various components of the investment analysis.</td>
</tr>
</tbody>
</table>
4. INVESTMENT GUIDELINES

4.1. Investment eligibility criteria

Eligible investment opportunities for the LDIFs can be determined according to a number of key criteria such as investee/borrower characteristics, infrastructure sectors and geographic coverage. This section sets out these criteria/guidelines. The subsequent sections of the investment policy are structured around the most difficult or risky end of the eligible financing entities i.e. ‘project’ investments (debt and equity), specifically for Greenfield projects. Most of these guidelines would also be applicable for other borrower/investee entities (as listed in Section 4.1.1 below); however, some elements of the policy would need to be adapted for the specific opportunity and client.

4.1.1. Investee / borrower characterisation

The LDIFs are able to provide the full range of debt and equity instruments i.e. no contingent products such as guarantees can be provided. These can be made to a range of borrowers/investees:

- Projects – particularly special purpose vehicles (SPVs);
- Corporates - joint stock companies i.e. entities regulated by Vietnamese corporate law, which can be either listed (quoted) or unlisted entities;
- Publicly owned SPVs/entities - providers of infrastructure and public services operating on either a fully commercial or subsidised basis, which can be either listed or unlisted entities;
- Financial intermediaries such as private equity or other asset management entities, focused on infrastructure development and/or investment.

Each opportunity of these entities has a number of characteristics which alter their risk profile, specifically as to whether:

- earnings are generated solely by the investee/borrower, or whether there is a reliance on local or national government funds;
- the opportunity is Greenfield (i.e. more or less completely new build) or an established entity (receiving a revenue stream);
- the entity is engaged in infrastructure development and preparation or in the provision of infrastructure and public services;
- the entity is quoted on a stock market, providing potential immediate liquidity or whether there is no/limited opportunity for an early exit;
• there is a recourse to the project sponsor in the event that a project defaults or becomes insolvent, or whether the project is on a non or limited recourse basis;
• the entity is single or multi-purpose i.e. undertakes a single or range of activities.

The above characteristics have considerable implications as to how the opportunity should be approached. Table 3 sets out some of the key parameters to consider when assessing the eligibility of a potential investment opportunity.

*Table 3: Borrower/ investee characterisation*

<table>
<thead>
<tr>
<th>Characterisation of opportunity/ borrower/ investee</th>
<th>Investment considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project</strong></td>
<td>• Likely to be greenfield</td>
</tr>
<tr>
<td></td>
<td>• Single rather than multiple opportunity investment</td>
</tr>
<tr>
<td></td>
<td>• Limited opportunity for early exit (equity)</td>
</tr>
<tr>
<td></td>
<td>• Likely to be limited recourse financing (i.e. no sponsor support)</td>
</tr>
<tr>
<td><strong>Company quoted</strong></td>
<td>• Greater opportunity for early exit (equity)</td>
</tr>
<tr>
<td></td>
<td>• Viability demonstrated by existing business</td>
</tr>
<tr>
<td></td>
<td>• Higher demands of corporate governance and disclosure</td>
</tr>
<tr>
<td><strong>Publicly owned SPVs/ entities</strong></td>
<td>• Possible partial reliance on public finances</td>
</tr>
<tr>
<td></td>
<td>• Lower involvement in management decisions (equity)</td>
</tr>
<tr>
<td><strong>Fund/ Financial intermediary</strong></td>
<td>• Less exposure to a single default – portfolio risk rather than individual project performance risk</td>
</tr>
<tr>
<td></td>
<td>• Likely to be a more diverse portfolio across sectors/ geography/ investees</td>
</tr>
</tbody>
</table>

Based on the above considerations, the following guidelines may be adopted by the LDIFs in selecting eligible borrowers/ investees, particularly where they are established entities:

• The entity has a strong financial capacity in terms of its profitability, asset coverage (net fixed assets/ total debts) and cash flows over the last few years of its operation. There is judged to be no/ limited risk to the financial viability and solvency of the entity in the near to medium term. In cases of debt financing, the entity should have a strong Debt Service Coverage Ratio.

• It has a proven track record of and the institutional capacity to finance and implement similar infrastructure projects in the past.

• It has sound corporate governance mechanisms (e.g. no conflict of interests within the entity/ consortium, adequate internal controls, accounting, financial management
and reporting systems, and a credible track record of adhering to the required social and environmental safeguards).

- Other financial and/or strategic investors are willing to co-invest with the LDIF in the identified entity.

- Where the entity is a specialist project developer or financial intermediary, it has a good portfolio/pipeline of commercially viable investment opportunities, which are deemed to be of low/acceptable risk.

It is important that the LDIFs undertake an independent and professional evaluation of the investee/borrower and maintain an arms-length relationship with GoV and the provincial governments; they should not approve an entity that has been sanctioned by the GoV.

4.1.2. Investment sectors

The LDIFs shall focus on developing and investing in socio-economic developmental infrastructure projects in the following sectors:

- civil and municipal infrastructure which benefits the province’s development such as residential properties, agro-industrial facilities and industrial parks;
- water supply, distribution and/or treatment;
- solid waste management;
- sewerage disposal and/or treatment;
- toll roads and bridges;
- transport logistics;
- ports (air and sea ports);
- fixed infrastructure in support of telecommunications and data/information technology;
- electricity generation and/or distribution;
- energy transport infrastructure (pipelines, bulk terminals); and
- health and education infrastructure.

The LDIFs shall not invest in sectors that are prohibited by the Vietnam laws and regulations and/or the respective PPC decrees. For the sake of clarity, the sectors that are excluded from the LDIFs’ development and investment activities are non-developmental in nature. These are:

- oil and gas exploration and production;
- nuclear power generation;
nuclear waste treatment; and
military/security infrastructure.

### 4.1.3. Geographic coverage

The LDIFs will primarily focus on developing and financing the local infrastructure in their respective provinces. However, as the LDIFs grow in size and identify potential infrastructure investment opportunities that meet the specified investment criteria, they may consider investments outside their province. These may be on a single or co-investment basis, and include projects that:

- provide regional economic benefits (and hence may ‘spill over’ into other LDIF/provincial areas);
- are multi-jurisdictional; or
- are of national priority as determined by the Government and Ministry of Finance (MoF).

For example, a highway that connects economic zones in two or more provinces may potentially be a multi-jurisdictional investment. In certain exceptional cases, the LDIFs may consider investments that ‘spill over’ into a neighbouring country’s territory, as approved by the respective Governments and the Ministries of Finance. For example, HIFU has invested in some hospital infrastructure in Phnom Penh.

### 4.2. Investment analysis

This section provides a structured and comprehensive framework for evaluating the credit risk profile of projects. This credit risk evaluation framework is applicable to debt and equity investments, and the results of the assessment may be used to develop or refine pricing of the risk elements for the cost of equity calculations. The evaluation guidelines cover the following areas:

- project contract analysis;
- technology and construction and completion risk;
- operating risk;
- competitive market position and exposure;
- sponsor strength;
- counterparty credit strength;
- cash flow, financial strength, financial structure; and
- legal, collateral, and other factors.
Further, this section also provides guidelines for performing social impact and environmental impact analysis.

4.2.1. Project contract analysis

The primary objective of analysing project contracts is to determine the level of protection from market and operating conditions provided by each agreement. In general, project agreements that reduce uncertainty and/or shift risk away from the project to counterparties will lower the project’s overall credit risk profile.

The key aspects of evaluation include, but are not limited to, the following:

- **Term.** The primary term of the agreement should exceed the final maturity date of the loan by at least one year and preferably two or three years, if not more.

- **Take-or-pay obligation.** The off-take (or concession) contract should require that the buyer take and pay or pay for a minimum contracted quantity that provides sufficient revenues to cover fixed and variable costs, taxes and debt service, except in the event the seller (project) fails to perform. Further, the project should be able to produce or deliver the minimum contracted quantities within acceptable technical and operating limits (e.g., technically acceptable availability, production levels, etc.). The base case projections should use this minimum contracted quantity unless a higher (or lower) amount is justified. For certain projects such as toll roads that are exposed to volume (traffic) risk, concession agreements that provide for a floor or other revenue support expose the project to less risk compared to agreements that expose the project to full volume (traffic) risk.

- **Price arrangements.** Off-take agreements that limit uncertainty in prices for the project’s output or that otherwise provide strong revenues reduce credit risk compared to commercial arrangements that set the price based on market reference quotations (i.e., price set by the market based on transactions between buyers and sellers). Further, price “re-opener” clauses should be limited or avoided as these clauses introduce price uncertainty and may lead to a dispute with the project’s counterparties. Similarly, supply agreements that limit uncertainty in price are preferable to those that use market reference quotations.

- **Supply-or-pay obligation.** The supply agreement (as applicable) for a key raw material should provide for security of supply by obligating the seller to deliver an agreed contractual amount sufficient to meet the project’s obligations under the off-take agreement (i.e., the supply and off-take agreements should match as closely as possible) and also meet the base case requirements.

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*Some agreements, referred to as “hell or high water” contracts, require the buyer to pay the contracted amount even in the event the seller fails to perform its obligations (e.g., maintenance problems curtail production). This type of contractual arrangement is very favourable to lenders, but is increasingly less common.*
• Output specifications. For certain infrastructure projects, such as in the water sector, the buyer is subject to delivering the project’s output in accordance with pre-agreed specifications. In such instances, the agreement should clearly indicate the consequences of delivering “off spec” product and associated liabilities.

• Non-performance penalties. The supply agreement(s) should include performance penalties in the form of liquidated damages in the event the seller fails to make available or deliver the contracted quantities. Performance penalties for the project’s failure to deliver or make available contracted quantities should be limited to instances only where the project’s performance deficiency was caused by its own actions/inactions and not due to force majeure. As a general matter, performance damages owed by a non-performing supplier to the project should enable the project to cover performance deficiency penalties owed to buyers.

• Credit support. The purchase obligations of buyers and suppliers should be supported by adequate credit strength either due to the counterparty’s financial strength or through the posting of credit support, such as a letter of credit or bank guarantee, in favour of the project for the buyer’s/supplier’s obligations. The party’s financial strength should be carefully analysed taking into account the net financial and/or performance obligations imposed under the agreement.

• Force majeure. The force majeure clauses should be reviewed to ensure that definitions and consequences are consistent across project agreements, such that force majeure under an off-take agreement, for example, triggers a force majeure event under a supply agreement.

• Termination. The project should be able to terminate an off-take or supply agreement in the event that the non-performance of the counterparty persists. Termination payments sized to cover outstanding debt and possibly some equity recovery reduce the credit risk of non-performing counterparties. For project non-performance that gives rise to termination of a material agreement, the LDIF as lender along with the other senior lenders, as applicable, should have the ability to “step in” and cure the default giving rise to the termination. The ability of the lenders to exercise such step in rights and cure defaults on behalf of the project may be limited by existing laws governing the rights of creditors.

4.2.2. Technology, construction and completion risk

The technology proposed to be implemented should be thoroughly assessed to determine to what extent it is fully proven. Newer processes and technologies with limited historical operating experience pose greater risk and may require additional risk mitigation in the form of completion support and extended warranties. Further, the engineering design also should be conservative and proven. Generally, the services of a third-party, qualified technical
advisor hired or working for the benefit of the lenders should be retained to provide the
technical and design assessment.

Construction and completion risk involve an assessment of a number of elements including:

- Transparency in allocation of responsibility for securing permits and related
  authorizations.

- Existence and quality of a fixed-price, date-certain, turnkey engineering,
  procurement, and construction (“EPC” contract).

- Specific minimum and guaranteed performance levels that the contractor must
  achieve.

- Existence and adequacy of liquidated damages for schedule and performance
  deficiencies. Liquidated damages should be sized to cover reasonable worst-case
  performance deficiencies and schedule delays based on financial analysis.

- Clear allocation of responsibilities between the construction contractor and project
  sponsor.

- Guarantee provided by the lead construction contractor covering the performance of
  subcontractors and equipment suppliers.

- Experience and track record of the contractor in performing comparable work in
  similar country environment conditions.

- Realistic estimate of the construction cost and appropriate budgeted contingency
  incorporated into the project’s overall financing plan.

- Insurance arrangements to cover risk of loss to works in progress (typically this
  insurance is taken out by the construction contractor and included as part of the
  cost).

- Adequate financial strength or credit support for the lead construction contractor
  obligations.

Certain more complex projects that require various segments to be successfully constructed
on time by different parties, where the technology is less well proven, or for challenging
construction site conditions may require a completion guarantee provided by the project
sponsors that covers part or all of the debt service shortfall in the event construction is
delayed or due to lower than expected revenues, and ultimately the full repayment of the
outstanding debt in the event that completion is not achieved by a certain date.
4.2.3. Operating risk

An assessment of the operating risk involves the analysis of a number of elements including:

- For projects whereby certain or all of the operations and maintenance activities are provided by a separate entity through a contract:
  - term of contract (should extend at least until the final maturity date);
  - experience and track record of operator;
  - reasonableness of fee for services negotiated on an “arms-length” basis;
  - performance incentive payments, as applicable;
  - extent of liquidated damages for performance deficiencies; and
  - clear scope of responsibilities.

- For projects operated and maintained by project staff:
  - management experience, adequacy and appropriateness of staffing levels;
  - ability of project shareholders to replace the project team with a third party contractor in the event of persistent underperformance.

- General considerations:
  - existence and adequacy of maintenance or major overhaul reserve accounts;
  - availability and security of key raw materials and/or services;
  - warehousing or timely access to key spare parts;
  - reliability of budget projections;
  - variability in the operating costs due to material;
  - availability;
  - reliability of production levels; and
  - delay impact of critical system failure.

As with construction risk, the services of a third-party, qualified technical advisor hired or working for the benefit of the lenders, should be retained to provide the technical analysis of operating risk.

4.2.4. Competitive market position and exposure

The competitive position of a project or company and vulnerability to changing market conditions depends on a range of factors including:
• Project and industry cost structure. A project’s cost structure is a significant indicator of its long-term viability given the inevitable changes in market conditions driven by shifting consumption patterns, substitution, competition, technology, and regulatory developments. Projects in the lowest or second lowest cost quartile for their market or industry have a significant advantage. Even projects with contracted revenue streams where price and volume are contractually fixed may be vulnerable over time in the event that production costs decrease significantly as the buyer of the project’s output may seek to renegotiate what is now viewed as an onerous “off-market” deal.

• Site location. For some projects such as a toll road, the site location or corridor may provide significant competitive advantage or vulnerability, depending on the availability of substitute routes or new road projects.

• Demand outlook. Multi-year projections in certain sectors, such as transportation and energy, are highly uncertain as a number of variables drive demand growth that are inherently difficult to predict over several years. Consequently, significant effort is required to understand the basis of such projections and the sources of uncertainty in order to develop alternative (down-side) projections to evaluate the long-term viability of a project.

• Competition, supply, and barriers to entry. Projects exposed to price and/or volume risk may be adversely affected by competitors with similar or lower cost structures. For certain industries, technological advances lower unit cost and increase plant production capacity, which provide a threat to the project over time. A project may enjoy a competitive advantage due to its location or by securing commitments by the government to provide for an exclusivity period.

4.2.5. Sponsor strength and risk sharing

The following areas should be reviewed to evaluate the impact of the project sponsor on the project’s risk profile:

• Experience. Extent of sponsor experience in developing, financing, constructing, and operating similar projects located in comparable environments. Further, to what extent is the project considered strategically important to the sponsor?

• Track record. How well has the sponsor performed in developing, constructing and operating similar projects? What problems arose and how did the sponsor react?

• Financial capabilities. How do the sponsor’s financial resources compare to the financial obligations required by the project? What other activities of the sponsor may adversely impact its financial position and compromise its ability to fulfil its financial and performance obligations to the project. This analysis should focus on the cash reserves available to the sponsor and the cash flow generating potential of
its business (not simply accounting profits). As a general matter, consideration should be given to requiring the sponsor to credit enhance its equity obligation (and completion obligations as applicable) through the use of bank letters of credit or guarantees for all but the strongest credits.

- **Risk sharing.** The risk sharing between the LDIF in its role as lender and the sponsor should be balanced. The sponsor should commit a significant amount of equity in relation to the amount of debt contributed by the lenders, the simple equity payback should not be too fast (e.g., sponsor should not receive 100% of its initial equity investment with two or three years), and the sponsor’s target equity return is not achieved too early in order that the sponsor remains “at risk” well into the debt repayment period.

### 4.2.6. Counterparty credit strength

Counterparty analysis involves a consideration of the following:

- **Financial capabilities.** How does the financial strength of the counterparty compare with the financial obligations it is assuming under the applicable project agreement? For less capable counterparties, is credit support being provided by the posting of a letter of credit, bank guarantee, or corporate guarantee from a creditworthy entity?

- **Performance obligations.** How do the technical capabilities and experience of the counterparty compare to the performance obligations it is assuming under the applicable project agreement?

- **Track record.** What has been the track record of the counterparty in performing similar obligations for other projects or entities?

- **Replacement of counterparty.** Consideration should be given to whether it would be feasible to replace the counterparty in the event of persistent non-performance or deteriorating financial strength.

- **Considerations for Government/parastatal counterparties.** In the event a governmental entity is serving in a significant role as buyer of the project’s output or supplier of a key input, it will be necessary to understand how the entity’s payment or performance obligations will be satisfied given that its funding and authority may be controlled by another governmental entity. Generally, the obligations of the parastatal may need to be guaranteed by the governmental entity with authority over its budget resources and activities.

### 4.2.7. Cash flow, financial strength, financial structure

The following areas should be reviewed to evaluate the adequacy of the project’s cash flows, overall financial strength, and financial structure:
• Equity return: The following valuation and return metrics should be calculated - the net present value of the net cash flow to (from) equity (after debt service) using the equity cost of capital calculated pursuant to this policy; the internal rate of return of the net cash flow to (from) equity (after debt service); and the simple payback period, which is the amount of time from the initial investment until the project returns the same nominal amount (through distributable cash).

• Debt-to-equity ratio. The appropriateness of a project’s debt-to-equity ratio should be evaluated based on its commercial structure and market considerations, as well as the strength of its debt service coverage ratios and equity returns. Generally, projects with contracted revenue streams and low business risk are able to carry more debt than projects exposed to price and volume risk. While a project’s debt service coverage ratios may be viewed as strong, these ratios are a function of financial and operating projections which are based on a range of assumptions that are inherently uncertain. Consequently, conservative assumptions should be used wherever possible.

• Debt repayment profile. The project’s senior secured debt should amortize such that the profile does not include “balloon” payments (or spikes in principal). Projects with significantly back-end weighted amortizing debt or with balloon payments that require refinancing are exposed to increased financial risk. Generally, the final maturity of the debt should end well before the end of the useful life of the asset (i.e., the buffer or “tail” should be equal to at least 7 to 10 years).

• Debt Service Coverage Ratios (DSCR). The DSCR is the primary quantitative metric for assessing the project’s financial credit strength. The definition of this ratio typically is defined as cash from operations to principal and interest for a given period (e.g., three months or six months corresponding to the frequency of scheduled debt service payments). Cash from operations is calculated by taking cash revenues (not receivables) and subtracting operating expenses, taxes, and on-going capital expenditures (if not separately reserved for), and excluding any cash balances that the project could draw on to service debt such as a debt service reserve fund or maintenance reserve account.

For projects with contracted revenue streams that are not exposed to price or volume risk and that have low business risk, the minimum DSCR may be lower (e.g., minimum DSCR of 1.7x to 1.5x for a strong/ good credit rating) where as projects operating in highly competitive environments and/or that are exposed price or volume risk require significantly higher coverage ratios. Para 7 of Annex C provides quantitative benchmarks for this important ratio.

In addition to the DSCR, the loan life or project life coverage ratios are also useful metrics for certain projects to measure the ultimate loan recovery potential, although these are secondary to the DSCR. The loan life coverage ratio is equal to the present
value of cash from operations (same definition as for the DSCR ratio) discounted at the weighted average cost of debt to the outstanding debt amount. The project loan life coverage ratio is calculated using the same definition but discounts cash from operations over the project’s expected life.

- **Stress testing (sensitivity analysis).** The project must be shown to fully cover debt service under a range of applicable stress tests, including: higher capital costs; delayed completion; lower prices, higher operating costs; lower availability; lower production levels; higher interest rates; higher taxes (if not otherwise compensated for through the project agreements or direct agreement with the government); foreign currency risk (in the event there is foreign currency denominated debt); and combined cases.

- **Limitations on additional indebtedness.** The loan covenants (or common terms agreement) should prohibit the project/ borrower from incurring any additional senior secured debt during the loan repayment period without the consent of the lenders.

- **Restrictions of dividends.** Dividend restrictions should be imposed on the project such that available free cash is trapped in the project (or diverted to prepay debt) during periods of adverse project performance through the use of appropriate historical and projected financial ratios (e.g. 12-month forwarding and historical DSCR not less than 1.2x/ 1.3x).

- **Cash reserves.** Cash reserves such as a debt service reserve account (holding the next six months of scheduled debt service), debt service accrual accounts, and major maintenance reserve accounts (where cash builds up over a period of time) provide the project with significant cushion to absorb operating problems without triggering a payment default and, therefore, significantly reduce financial risk.

- **Financial model.** The financial model for the project should be sufficiently detailed to address the key technical, operating, commercial, and financial parameters, be consistent with the project agreements and financial documents, and be developed using best modelling practices. The financial model structure should include the: assumptions tab where all inputs are listed along with notes as necessary; results page; escalation page; operating and technical projections; revenue projections; operating cost projections; taxes and depreciation; cash flow, income statement, and balance sheet; detailed sources and uses by month (or quarter) during the construction period, including draw down assumptions; and financing.

### 4.2.8. Legal, collateral and other factors

- **Legal.** The legal structure of the project will be determined to a significant extent by the existing commercial and bankruptcy laws. Customarily, a project should be held by a bankruptcy remote special purpose entity (in order that the
sponsor/shareholder bankruptcy does not trigger a bankruptcy of the project special purpose company whose business purpose is strictly limited to: owning the project assets, entering into project documentation, entering into financing documentation, and operating the defined business.

- Lender collateral security. The Fund should have a comprehensive security package that includes: a security interest in the land; security interest of all bank accounts held by the project company; assignment of insurances (lender as co-insured); assignment of material project agreements and associated consents of contractual counterparties; and pledge of equity of sponsors, subject to existing law.

- Other factors. The project may have other attributes which justify either a lower or higher risk rating, such as pending litigation, possible environmental claims, and regulatory uncertainty.

Based on the credit evaluation framework set out above, Annex C presents a risk rating matrix for use in: (a) evaluating whether the transaction meets the minimum investment requirements; (b) pricing debt margins based on credit risk considerations; and (c) allocating capital against loans at origination, and adjusting the capital allocation in response to changes in credit quality during periodic reviews.

4.2.9. Social impact analysis

This analysis evaluates the social impact of the proposed project, including displacement and resettlement, and the effects on indigenous and ethnic minority population, by reference to existing local regulations and laws and the World Bank standards. The objective of this analysis is to ensure that the livelihoods and standards of living of the affected people are better off or at least not worse off as a result of the project. The social impact assessment requires consultations with the key stakeholders and any plans for resettlement or for ethnic minorities need to be cleared before the project appraisal. The intention is to prepare and execute sustainable development programs.

The social impact analysis involves the development and approval of the following key policies and plans before project appraisal. The level of analysis for each of these policies and plans is specific to each project.

- Resettlement policy framework: This policy seeks to consult and involve displaced persons in planning and implementing resettlement programs, and providing any compensation.

- Resettlement plan: Each sub-project needs to prepare a comprehensive resettlement plan that is consistent with the resettlement policy framework. This must include relocation options/arrangements, rehabilitation measures, implementing arrangements, site clearance, entitlement and compensation policies, socio-economic surveys and consultations.
• Ethnic minorities planning framework: This framework aims to ensure that the indigenous peoples are respected and receive social and economic benefits that are culturally appropriate and inclusive. The objective is to avoid or minimise any adverse impact on ethnic minorities.

• Ethnic minorities plan: Each sub-project prepares a plan that identifies the impacted ethnic minorities, undertakes consultations and social assessments, and suggests action plans, cost estimates, grievance procedures and monitoring mechanisms.

4.2.10. Environmental impact analysis

The environmental impact assessment seeks to ensure that the proposed projects are environmentally sound and sustainable, and inform decision makers of the nature and extent of environmental risks. The typical factors that affect environmental screening are:

• Type of project: whether the project or any of its specific components have inherent environmental hazards or risks.

• Location: whether the project site is proximate to environmentally important areas.

• Sensitivities: whether there are any potential impact areas that may be irreversible or environmentally sensitive to changes.

• Scale: the magnitude of the environmental issues, if any.

The World Bank environmental impact analysis involves the categorisation of potential investment opportunities into four areas. Each area specifies the nature of environmental assessment required. The category areas are set out in Table 4 below.
Table 4: Environmental impact analysis

<table>
<thead>
<tr>
<th>Project category</th>
<th>Description</th>
<th>Environmental assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>The project is likely to have significant adverse environmental impacts that are sensitive, diverse or unprecedented. These impacts may affect an area broader than the sites or facilities subject to physical works.</td>
<td>A full environmental assessment is required.</td>
</tr>
<tr>
<td>B</td>
<td>The potential adverse impacts are less adverse than those of Category A projects; the impacts are site specific; few, if any, of them are irreversible; and in most cases mitigation measures are readily designed.</td>
<td>A more targeted environmental assessment is required.</td>
</tr>
<tr>
<td>C</td>
<td>The project is likely to cause minimal or no adverse environmental impact.</td>
<td>Only screening. No further environmental action is required.</td>
</tr>
<tr>
<td>FI</td>
<td>The project involves the investment of Bank funds through a financial intermediary, in sub-projects that may result in adverse environmental impact.</td>
<td>A full or targeted environmental assessment is required for the sub-project.</td>
</tr>
</tbody>
</table>

Source: The World Bank

4.3. Differences in the investment analysis process for debt and equity investments

Generally, the LDIF analysis process for debt and equity investments will address the same core areas. However, as highlighted in Table 5 below, the appraisal process for equity investments may “weight” certain areas differently, compared to debt financing.

Table 5: Equity versus debt investment analysis

<table>
<thead>
<tr>
<th>Investment analysis area</th>
<th>Differences for appraisal of equity investments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project contract analysis (Section 4.2.1)</td>
<td>Similar, except that for certain commercial agreements, terms may automatically change upon the final maturity of any expected debt financing.</td>
</tr>
<tr>
<td>Technology, construction and completion risk (Section 4.2.2)</td>
<td>Similar to debt investments</td>
</tr>
<tr>
<td>Operating risk (Section 4.2.3)</td>
<td>Similar to debt investments</td>
</tr>
<tr>
<td>Competitive market position and exposure (Section 4.2.4)</td>
<td>More emphasis on the competitive position of the project and threats to this position; equity investors may also have a different (more optimistic) view regarding forecasts priceings and/or sales volumes compared to debt investors, which customarily adopt a more conservative view.</td>
</tr>
<tr>
<td>Sponsor strength and risk sharing</td>
<td>Similar to debt investments</td>
</tr>
</tbody>
</table>

This also reflects our understanding of HIFU’s current appraisal processes for debt and equity investments.
<table>
<thead>
<tr>
<th>Investment analysis area</th>
<th>Differences for appraisal of equity investments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counterparty credit strength (Section 4.2.6)</td>
<td>Similar to debt investments</td>
</tr>
<tr>
<td>Cash flow, financial strength, financial structure (Section 4.2.7)</td>
<td>Similar to debt investments</td>
</tr>
<tr>
<td>Investment returns and related (Section 4.2.7)</td>
<td>More emphasis on the strength of the equity investment returns, uncertainty in realising the returns, and opportunities for sell down or exit. More emphasis on tax and accounting issues affecting the project, particularly with respect to distributions to shareholders.</td>
</tr>
<tr>
<td>Legal, collateral/ security (Section 4.2.8)</td>
<td>Less emphasis on lender collateral security issues, except to the extent the project will be seeking debt financing.</td>
</tr>
<tr>
<td>Social impact analysis (Section 4.2.9)</td>
<td>Similar to debt investments</td>
</tr>
<tr>
<td>Environmental impact analysis (Section 4.2.10)</td>
<td>Similar to debt investments</td>
</tr>
</tbody>
</table>

### 4.4. Safeguard assessments

Safeguard policies are mechanisms for the integration of environmental and social issues into the investment decision process. The LDIFs shall seek to ensure that their activities only support projects that comply with the local laws and regulations or the appropriate World Bank guidelines, whichever is more stringent, on the environment and social safeguard issues. Refer Annex D for a reference of the World Bank safeguard policies, disclosure of information, and a comparison of the World Bank and the Government of Vietnam requirements.

Where prudent or necessary, a satisfactory Environmental Impact Assessment and/or Social Impact Assessment will be required prior to first investment disbursement by the LDIFs and prior to any third party costs of the LDIFs in relation to a particular infrastructure project. These will be undertaken in accordance with the World Bank guidelines and, where applicable, the requirements of the local environmental agency of Vietnam and/or the province.

In the event that certain areas of the project fall short of the relevant World Bank guidelines on the environment and social safeguard issues, these areas should be clearly identified and disclosed in the project appraisal document together with the proposed mitigating measures and the required actions for compliance. Should the analysis show that the project is unlikely to meet the required standards within a reasonable timeframe, the project may be deemed inappropriate for investment by the LDIFs.
4.5. **Project level Debt-to-Equity ratio**

The appropriate proportion of debt and equity funding for a project is a function of its commercial and contractual structure as well as many of the other risk considerations outlined in the investment analysis. For the purposes of this section, debt means senior secured project debt and equity means common equity, preferred equity and subordinated debt if contributed by the project sponsors (and subject to a subordination agreement with the senior secured lenders).

The following broad guidelines are provided below:

- Project sponsors should be required to invest a significant amount of equity to fund project costs, both in absolute and percentage terms, consistent with the principle that the risk sharing be balanced between project sponsors and lenders. Generally, project leverage should not exceed 80 percent.

- Projects with contracted revenue streams that significantly mitigate volume and price uncertainty generally are able to support higher leverage. For example, contracted bulk water supply projects, power projects selling electricity under long-term power purchase agreements, and certain toll roads for which traffic risk is eliminated or significantly mitigated may be able to support debt-to-equity ratios in the range of 70:30 or perhaps 80:20. In contrast, projects exposed to market risk, such as telecommunications projects, may only be able to support debt-to-equity ratios in the range of 40:60 to 60:40. The acceptable amount of leverage must reflect all key project-specific factors.

- Generally, the prudent debt-to-equity ratio should be established based on project-specific considerations rather than according to sector/industry considerations. For example, the appropriate debt-to-equity ratio for a toll road may be as high as 80:20 if traffic and price risk are significantly mitigated but closer to 50:50 if such risks are not mitigated.

Generally, the LDIF should avoid providing 100 percent of the project’s debt requirement and solicit the participation of other local financing institutions to further broaden the project lending base and spread risk. The LDIF should strive to provide not more than 50 percent of the project’s debt requirement when there is sufficient interest from other financing institutions, except in case where the absolute debt requirement is low in relation to the transaction costs incurred to evaluate the opportunity. This will also enable crowding-in of private sector capital and participation in provincial infrastructure projects.

4.6. **Investment products and pricing**

Pursuant to their charters, the LDIFs may provide either structured equity or debt instruments for infrastructure development (i.e. not any contingent finance products such as guarantees or insurance). The investment products that can be offered by the LDIFs are a
function of market demand - infrastructure market requirements – and their own capital structure and strategic objectives. With a fully paid in (equity) capital base, the LDIFs are in a position to assume full commercial risk through the provision of a range of debt and equity products. However, the precise balance of such a portfolio will need to reflect the extent of each LDIF’s own capital structure and gearing. In terms of ensuring appropriate asset liability matching for each of the LDIFs, the higher the amount of gearing, the lower the share of equity type risk within each LDIF’s target investment portfolio.

With respect to infrastructure market needs in Vietnam, the key financial products that are required for provincial infrastructure development, are sizeable long-term investments, both equity and debt. The sub-sections below set out the terms and conditions of the various equity and debt instruments that the LDIFs may offer. However, the exact investment product will need to be tailored/adapted to each individual investment requirements such as the size of investment, risk levels and ongoing management demands. The LDIF strategic objectives to facilitate private sector financing and participation in infrastructure may also influence its mix of investment products. This is in with respect to the LDIFs’ assessment of specific investment opportunities in terms of risk exposure, emphasis on growth versus cash flows of the project, availability of co-investment/lending, and interests in Board representation. Clearly debt financing is less risky than equity. However, where the project is in need of equity support, and the LDIF is satisfied with the risk levels and growth potential of the investment and is interested in gaining voting rights and Board representation, it may invest equity capital.

4.6.1. Terms and conditions of equity

Types of equity

Equity investment refers to the provision of risk or ownership capital to the project/entity. Equity and equity-type products include common stock, preferred stock or other mezzanine/quasi-equity products, which have a mix of debt and equity characteristics.

By acquiring the ownership of ordinary/common stock, the investor acquires some rights in the company such as voting at shareholder meetings, receiving dividends and board representation. The exact rights and responsibility of common equity often depend on the percentage of share holding and negotiations with the investor. Preferred equity, as the name suggests, has a ‘preferential’ or senior claim on the earnings and assets, compared to a common equity holder. For example, dividend obligations of a preferred share holder must be satisfied before declaring dividends on common shares. Also, preferred share holders usually have priority in liquidation on the winding up of the company. However, since they bear a lower risk, the return/rate of dividend to preferred share holders is usually less than common equity holders. Mezzanine instruments combine elements of equity and debt such as convertible bonds, debt with warrants and subordinated loans with revenue/profit
sharing arrangements. These may be offered as stand-alone financial products or along with traditional senior debt and common equity instruments.

As provided in the Investment Law of Vietnam and the PPC’s decree, the LDIFs predominantly offer common equity. However, as they grow in size and the financial markets and products increase in sophistication, the LDIFs may consider the other equity and quasi-equity instruments such as preferred equity and subordinated debt.

The guidelines for the terms and conditions of common equity shares are provided below:

**Investment size**

As the LDIFs grow in size and operations, the typical investment size for each equity investment must not exceed 5% of the LDIF paid-in capital. However, on an exception basis where deemed appropriate, the LDIF may exceed the 5% threshold, but on no account should the equity investment exceed 10% of the LDIF paid-in capital.

The purpose of this threshold is to require the LDIFs to diversify their equity investments and thereby reduce portfolio risk. However, it is recognized that initially, the LDIFs may need to exceed this threshold because the number of investment opportunities is relatively low in the current market and the capital requirements for infrastructure projects typically is quite large given their capital intensive nature.

**Shareholding**

In general, the LDIFs should take minority shareholding (not a controlling stake) and depending on the shareholding of other investors, may or may not be the largest share holder in the project. For projects that are in the implementation stage, the LDIFs may invest or hold a maximum of 49% of the project equity, although they should strive to hold a lower percentage, wherever practical.

**Voting rights and Board representation**

The LDIFs are entitled to one voting right for every common share held. They should be entitled to Board representation on all their equity investments, in order to be able to contribute to the entity’s growth and value creation and exercise their fiduciary obligations. Since the LDIF will generally be a minority share holder, it may generally appoint one

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8 Convertible bonds are bonds that can be converted into a predetermined amount of the company's equity at certain times during its life, usually at the discretion of the bondholder. Warrants are a derivative security that gives the holder the right to purchase securities (usually equity) from the issuer at a specific price within a certain time frame. Subordinated loans are of higher risk than senior loans as they are of lower ranking to other debt obligations, and are paid after the claims of senior debt holders are met.

9 It is not anticipated that the LDIFs invest in projects at the development/preparation stage, i.e. prior to financial close. However, in select cases, they may invest in established specialist project developer entities with some prior successful track record and a good portfolio of project investments.
Director to the Board. In exceptional circumstances where the LDIF may hold majority share, it may appoint two or three Directors to the Board, including the Managing Director.

**Dividends**

The investment return on common stock shall not be lower than that on any preferred stock.

**Holding period**

The holding period for each equity investment may vary based on the project investment. The maximum holding period for the LDIF’s equity investment is 10 years, post project completion. As the LDIFs achieve their objective of crowding-in other, specifically private sector, investments, they should target to reduce their holding gradually.

**Exit strategy**

In general, based on the investment horizon, the LDIFs should have a clearly defined exit strategy. This may be through private sale or public offering.

**Anti-dilution provisions**

The LDIF stock must have proportional anti-dilution provisions for stock splits, stock dividends, combinations, recapitalisations etc. They shall have the right to subscribe to any future issues of the company.

**Non-recourse provisions**

There shall be no recourse to the assets and earnings of the LDIFs, i.e., the LDIF as a financial investor shall have no obligation to make payments on the project loans if revenues generated by the project are insufficient to cover the principal and interest payments on the loan.

**Equity return targets**

This section provides guidelines on estimating equity investment hurdle rates for infrastructure and related investments. The guidelines are intended to generate commercial investment hurdle rates rather than social investment hurdle rates. The difference between the market rate and the social rate charged would represent an effective subsidy to the project, as applicable. The LDIFs shall provide financing on a commercially sustainable basis, i.e. without the support of subsidies.

Projects or eligible entities in which the LDIF makes an equity investment shall provide for a risk free rate of return of the original equity investment and an adequate risk-adjusted equity return (equity cost of capital or “Ke”).
The Ke may be used to discount the equity cash flows to determine the net present value (NPV). A positive NPV would indicate that the project provides an adequate risk-adjusted return. Alternatively, the internal rate of return of the equity cash flows may be compared to Ke. An IRR in excess of Ke also would indicate that the project provides an adequate risk-adjusted return.

A number of different methods exist for determining the equity cost of capital for an investment, including the widely known capital asset pricing model (“CAPM”), international capital asset pricing model (“ICAPM”), build-up method, multi-factor model, and credit model. These asset pricing models vary principally in terms of the level and amount of data required.

At the time of publication of this policy, it is recommended that the cost of equity be determined using the build-up method given that the Vietnamese stock market and capital market are not sufficiently broad or deep to derive market betas from the local stock market for different types of projects or sectors. Unlike the other methods, the build-up model does not rely exclusively on broad, aggregate market measures of risk nor the theory underlying the CAPM model, but rather requires the explicit pricing of each risk element.

As the country markets evolve, more quantitative data becomes available, and financial reporting and disclosure improve, the use of the CAPM or other “top-down” asset pricing approaches may be more applicable.

Annex E of the Investment policy and guidelines describes the build-up approach and presents a worked example on how to apply it to an investment. In addition to the build-up method, the Annex provides a simplified approach as a transition or alternative method in the event that sufficient information is not available to apply the build-up approach.

4.6.2. Terms and conditions of debt finance

The LDIFs may provide debt products to eligible borrowers/ projects subject to the following general terms and conditions:

*Tenor*

Maximum repayment period should be in the range of 10 to 12 years, not including the construction period. Longer tenors may be provided if there is an adequate justification, for example, the revenue/ tariff profile and/ or the capital cost require longer amortisation periods. In making such a determination, the LDIFs should ensure that the risk sharing between themselves as lenders and the sponsors is balanced. For example, the LDIFs should calculate the sponsors’ simple and discounted pay back period to ensure that the

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10 Beta is a quantitative measure of the volatility of a given stock or portfolio, relative to the overall market. A beta above 1 is more volatile than the market and a beta less than 1 is less volatile than the market.
sponsors are not achieving a significant equity return prior to the repayment of a substantial amount of the LDIF debt.

**Seniority**

In general, senior secured debt shall be provided. However, in exceptional circumstances, as required for the specific opportunity and subject to the detailed investment analysis and appraisal, the LDIFs may provide subordinated debt. In this case, subordinated debt providers shall have a second position in respect of the collateral security once the claims of the senior secured lenders have been satisfied.

**Collateral security**

The LDIFs shall enter into appropriate and comprehensive collateral security arrangements, subject to applicable law, that mitigate the risk of loss in the event of a project payment default or bankruptcy and provide defensive security against other creditors from making claims on the project’s assets.

The following types of security shall be obtained in connection with a secured loan to a project, subject to the applicable law:

- Pledge of all material physical assets.
- Security interest in the land.
- Security interest of all bank accounts held by the project company.
- Assignment of insurances (lender as co-insured).
- Assignment of material project agreements (as and when permitted by law) and associated consents of contractual counterparties.
- Pledge of equity of sponsors (as and when permitted by law).

**Amortisation**

Amortisation of principal shall be as required for an investment opportunity – it may typically be instalment style over the period. In specific cases, flexible amortisation may be allowed, provided that there is adequate justification for it. For example, principal payments may be lower in the initial years to accommodate uncertainty in usage and/or revenues or to allow for staged build out of infrastructure.

**Delayed start of principal repayment (Grace period)**

Since LDIFs are commercial finance entities, typically no grace period is to be provided. Grace period is defined as the period between the start of commercial operations on the project and the date of the first principal repayment. However, where deemed appropriate, a
grace period of 12 to a maximum of 18 months is permitted; i.e. the first principal payment may be scheduled to commence 12 months after the start of commercial operation up to a maximum of no more than 18 months, provided that there is adequate justification. For example, certain projects require a period of time to address technical issues before the performance or availability reaches long-term expectations. Other projects that assume significant market risk may require some additional time before a sufficient number of users utilize the project’s services or products. As with making decisions in respect to tenor, the LDIFs must ensure that there is an adequate balance of risk sharing between the LDIFs (as lenders) and the sponsors (e.g., the LDIF should not provide a grace period if it can be demonstrated that the project is capable of fully servicing its debt upon the commencement of commercial operation).

Deferral of principal payments

In the unlikely event of a cash flow short fall (i.e. available cash flow is not sufficient to cover 100% of the scheduled principal payments on the senior secured debt facilities), up to 15% of the total outstanding principal may be deferred to the next scheduled principal payment date. Principal deferral may not exceed the amount of principal scheduled to be repaid in any period. Further, principal should not be deferred within 2 years prior to the final maturity date. The reason for providing a deferral is to accommodate projected volatility in the project’s revenues due to market or other reasons. As with establishing a loan tenor or grace period (pursuant to the above sections), the LDIFs must ensure that the risk sharing between the LDIFs (as lenders) and sponsors is balanced.

Rights to lender collateral and inter-creditor arrangements

All senior secured lenders shall have pari passu rights to the available security package. The rights of each lender shall be documented and agreed in an inter-creditor or similar financing document that provides for the voting regime, procedures for calling events of default, procedures of taking enforcement action and issuing remedy instructions, and other matters, such as sharing of recoveries.

Debt margin pricing

In general, the method for pricing debt provided by the LDIF to a project should incorporate the following: (1) the cost of funds for the LDIF; (2) a cost recovery component to pay for origination costs and administration and monitoring costs (if not charged separately through an up-front fee and commitment fees); (3) a premium to cover expected loss (i.e., equal to the probability of default multiplied by the loss given default); and (4) a return on invested capital. Each LDIF has information available to determine its cost of funds, and administration and monitoring costs. The expected loss premium may be determined by multiplying the probability of default (based on the risk rating determined
from these policy guidelines) by the loss given default, which is assumed to be 45 percent for project finance loans.

As with the equity cost of capital rate, the LDIFs should make adjustments to reflect project-specific information and investment experience as appropriate to determine the debt pricing margin. The price of debt also must incorporate market considerations as with equity risk premiums.

The LDIFs should generally lend only on a commercial basis. In the event the project requires “social” or concessional debt pricing, the subsidy element should be explicitly calculated and recorded and financed through alternative sources such as the PPC or donor concessional funding.

4.7. Management of portfolio

Sound management of the LDIF investments as a unified portfolio is vital to achieve the appropriate balance and diversification in its asset mix in order to limit the overall risk exposure of the Funds.

Portfolio management and monitoring guidelines are provided as part of the Operating Guidelines and Procedures. These refer to the asset management activities that commence after financial close for a transaction and include asset monitoring, capital allocations, reporting on overall portfolio performance, remediation where necessary, and provisioning and write-offs to cover potential losses.
5. **Fraud and Corruption**

The avoidance of corruption is necessary to ensure that the LDIFs’ investments are successful, their resources are used effectively, and their infrastructure development objectives are met. This is also essential to develop confidence in the private sector to invest in infrastructure.

Guidelines to prevent fraud and corruption shall be employed at every stage of the investment process. The LDIFs may refer to the World Bank group guidelines regarding prevention of corruption and fraud.

These may involve activities such as:

- **Due diligence on the project sponsor(s) and investors:** The LDIF must check the identity, credibility and financial and economic standing of the project sponsor(s). Where the sponsor/operator may be controlled by an undisclosed third party, or sponsored directly or indirectly by individuals holding public office, the LDIF must not invest.

- **Fair pricing:** The LDIF shall not finance a project unless it is satisfied with the fair and appropriate pricing in line with the sector’s best practices, technologies and capital costs. The LDIF shall not provide financing where material deviations from fair pricing cannot be explained by specific, acceptable circumstances.

- **Transparency:** The LDIF must ensure transparency in all its contracts where the private sector is involved. Business should be conducted on an arms-length basis between the LDIF, government and the project entity.

- **Periodic disclosure and monitoring:** The LDIFs, in their capacity as lenders/investors, should regularly review the project entity’s financial statements (quarterly/annual, as appropriate) and performance reports in order to monitor the entity’s financial and operational performance. Where there is any suspicion of fraud or corruption, the LDIF should undertake the necessary action to avoid the occurrence of corrupt or fraudulent practices.

Some of the above activities may require suitable institutional strengthening of the LDIFs, which will be covered under the LDIF operating guidelines.
6. **CODE OF PROFESSIONAL ETHICS**

The LDIFs shall develop a Code of Professional Ethics and Business Conduct, which will ensure staff awareness to the Fund’s core values and ethical standards. The LDIFs shall remain committed to fostering a workplace free of harassment and intimidation, where all staff can work together in an atmosphere of trust and openness where differences are respected. Harassment on any basis - including but not limited to race, gender, religion, nationality, color, sexual orientation, disability or age - shall be unacceptable. Staff are expected to conduct themselves in accordance with the high ethical standards of honesty and integrity articulated in the LDIF’s Code of Professional Ethics. Where required, the LDIF management may provide guidance to the staff on actions that might constitute misconduct or clarify grey issues and provide training on ethics awareness and integrity. The LDIFs may refer to the World Bank group Code of Professional Ethics for guidance, as necessary.

7. **OTHERS**

7.1. **Business continuity plan**

Risk management and mitigation measures of the LDIFs should incorporate elements of business continuity planning. Business continuity management is a process that helps manage risks to the smooth running of an organisation or delivery of a service, ensuring continuity of critical functions in the event of a disruption, and effective recovery afterwards. This shall be a part of contingency and disaster recovery planning, and is fundamental to ensuring that the essential functions of the LDIF operations can carry on despite an emergency. These may include events such as the failure of a project, high unexpected bad debts, government action or the discovery of a serious fault in a product or process.

A business continuity plan shall include the types and nature of various emergencies that may disrupt smooth operations as well as the measures and resources to be put in place to maintain critical functions after a disruptive event or a major commercial risk. These remedial measures shall include, but not be limited to, the following elements:

- persons with the necessary expertise and motivation earmarked to lead and manage the organisation;
- access to key records and IT systems;
- reliable means of communication, especially with staff;
- the ability to carry on paying staff, to ensure their safety and to provide them with welfare and accommodation, where necessary;
- the ability to procure goods and services; and
- the ability to respond to urgent demands from clients, the government or other key stakeholders.

Good business continuity planning may require both generic and specific plans. A generic plan is a core plan which enables the LDIF to respond to a wide range of possible scenarios, setting out the common elements of the response to any disruption (e.g. invocation procedure, command and control, access to financial resources). Within the framework of the generic plan, specific plans may be required in relation to specific risks, sites or services. Specific plans provide a detailed set of arrangements designed to go beyond the generic arrangements when these are unlikely to prove sufficient.

These plans should be based on systematic identification and assessment of the significant risks of an emergency. Identifying the risks threatening the performance of critical functions in the event of an emergency will enable the LDIFs to focus resources in the right areas, and develop appropriate plans.

7.2. Guidelines for transacting with the private sector

The LDIF-funded companies may obtain development rights from government or government owned entities, either through procurement or through negotiation of a joint development agreement. Else, development rights may be offered to the LDIF-funded companies by private sponsors, either in the form of a joint development agreement or as a green-field investment opportunity. In all these instances, the LDIFs will seek to ensure that these opportunities have been procured:

- without any bribery of public officials; and

- through a competitive process; except where:
  - no material ‘natural monopoly rights’ are at stake; and / or
  - value for money can be ascertained by reference to clear comparable services.

Similarly in transacting with private sector participants for public-private partnership (PPP) models, the LDIFs will adopt clear rules for the selection of private sector partners. Some of the key rules to be adopted are:

- Designing competitive tender procedures to identify the best value for money or the most economically advantageous offer from the private sector participants. This includes defining the output based specifications of the infrastructure or public services, developing an optimal risk allocation framework, and setting out the various stages involved in the tendering process (for example, expression of interest, short-listing of bids and final evaluation of technical and financial offer).
• Ensuring that the evaluation criteria and the assessment of bids are fair, transparent and cost-effective. The evaluation criteria must assess the financial and economic capacity of the bidders, the proposed technical specifications and implementation approaches, financial offer, proposals for risk sharing, legal and regulatory compliance, and the contractual terms and conditions.

• Developing clear financial/commercial disclosure policies and practices.

7.3. Confidentiality agreement

The LDIFs shall not disclose any non-public business or commercial information provided to it by its clients or third parties unless the source of such information consents to such disclosure. The LDIF shall develop a Disclosure Policy (as mentioned in Section 6.4 below) so that any client that has concerns about the treatment of information can be referred to it.

If a client nevertheless wishes to enter into a confidentially agreement with the LDIF, it shall do so in circumstances where the Investment Committee/Department concerned concludes that certain confidential information, which it believes is essential for project appraisal, will otherwise not be made available to the LDIF, and the Investment Committee/Department has adequate arrangements in place to meet the Fund’s obligations under such agreements.

7.4. Disclosure of client information

In general, client (investee/borrower) information will be provided to the LDIFs on the basis that they are a separate independent entity. In general, client information may be disclosed to interested parties (such as the PPC or project developer), after consideration of whether (a) the disclosure of information is restricted; and (b) any actual, potential or perceived conflict of interest exists. After such consideration, the decision whether to disclose should be made at the appropriate level of the LDIF management. The LDIFs may refer to the World Bank group procedures as a guideline when developing its own policy on the disclosure of client information and the rules to consider whether client information may be disclosed or not. In addition, client information that is not publicly available may be disclosed with the client’s prior consent.
ANNEXES

Annex A: List of meetings/ interviews in Vietnam

I. Meetings held in August 2006

<table>
<thead>
<tr>
<th>Date</th>
<th>Organisation</th>
<th>Attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 Aug. 06</td>
<td>Ministry of Finance</td>
<td>Mr Dzung Pham Pham (Director General, Banking and Financial Institutions Department), Mr Kamran Khan (World Bank Task Manager), Mr Dang Duc Cuong (Senior Operations Officer, The World Bank), Mr Mark Cockburn (CEPA), Ms Pritha Venkatachalam (CEPA)</td>
</tr>
<tr>
<td>9 Aug. 06</td>
<td>HANIF</td>
<td>Dr Nguyen Khoa Binh (General Director), Ms Le Thi Hoa (Deputy General Director), Mr Ha Anh Tuan (Expert, Investment Department), Mr Kamran Khan (World Bank Task Manager), Mr Dang Duc Cuong (Senior Operations Officer, The World Bank), Mr Mark Cockburn (CEPA), Ms Pritha Venkatachalam (CEPA)</td>
</tr>
<tr>
<td>10 Aug. 06</td>
<td>HIFU</td>
<td>Ms Giao Thi Yen (General Director), Mr Nguyen Tri Dung (Investment Director), Mr Ha Ngoc Lam (Investment Vice Director), Mr Phan Quynh Anh (Investment Officer), Ms Nguyen Thi Quynh Mai (Secretary to General Director), Ms Phan Quynh Anh (Investment Officer), Ms Phan Thi My Trang (Appraisal Specialist), Mr Nguyen Manh Ha (Investment Analyst), Mr Kamran Khan (World Bank Task Manager), Mr Dang Duc Cuong (Senior Operations Officer, The World Bank), Mr Mark Cockburn (CEPA), Ms Pritha Venkatachalam (CEPA)</td>
</tr>
<tr>
<td>10 Aug. 06</td>
<td>DNIF</td>
<td>Ms Nguyen Thi Thu Huong (Director), Mr. Phan Trong Dung (Deputy Director), Mr. Phan Anh Tuan</td>
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<tr>
<td>Date</td>
<td>Organisation</td>
<td>Attendees</td>
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<tr>
<td>11 Aug. 06</td>
<td>HIFU</td>
<td>Mr Ha Ngoc Lam (Vice Director, Investments), Ms Phan Thi My Trang (Appraisal Specialist), Mr Nguyen Manh Ha (Investment Analyst), Chief Accountant, HIFU, Ms Pritha Venkatachalam (CEPA)</td>
</tr>
<tr>
<td>11 Aug. 06</td>
<td>BDIF</td>
<td>Mr Le Van Thanh (Director), Mr Phan Van Chien (Vice Director), Head - Investments, Head - Direct Investments, Head - Indirect Investments, Mr Nguyen Manh Ha (Investment Analyst, HIFU), Ms Pritha Venkatachalam (CEPA)</td>
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<tr>
<td>14 Aug. 06</td>
<td>Ho Chi Minh City Infrastructure Investment Joint Stock Company (CII)</td>
<td>Ms Nguyen Mai Bao Tram (Business and Investment Manager), Business and Investment Executive, Mr Nguyen Manh Ha (Investment Analyst, HIFU), Ms Pritha Venkatachalam (CEPA)</td>
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<tr>
<td>14 Aug. 06</td>
<td>Ho Chi Minh City Securities Corporation (HSC)</td>
<td>Mr Pham Minh Phuong (Country Market Director), Ms Pritha Venkatachalam (CEPA)</td>
</tr>
<tr>
<td>14 Aug. 06</td>
<td>DNIF</td>
<td>Ms Nguyen Thi Thu Huong (Director) and her team, Mr Nguyen Manh Ha (Investment Analyst, HIFU), Ms Pritha Venkatachalam (CEPA)</td>
</tr>
<tr>
<td>Date</td>
<td>Organisation</td>
<td>Attendees</td>
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<td></td>
<td><strong>Meetings with the key private investors in Vietnam</strong></td>
<td></td>
</tr>
<tr>
<td>15 Aug. 06</td>
<td>VinaCapital</td>
<td>Mr Pham Uyen Nguyen (Managing Director), Ms Pritha Venkatachalam (CEPA)</td>
</tr>
<tr>
<td>15 Aug. 06</td>
<td>Dragon Capital</td>
<td>Mr Le Hoang Anh (Associate Director), Ms Pritha Venkatachalam (CEPA)</td>
</tr>
<tr>
<td>15 Aug. 06</td>
<td>VietFund Management</td>
<td>Mr Pham Khanh Lynh (Director, Business Development), Ms Pham Nguyen Mai Tram (Business Development Executive), Ms Pritha Venkatachalam (CEPA)</td>
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<td></td>
<td><strong>II. Meetings held in October 2006</strong></td>
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<td></td>
<td><strong>The World Bank</strong></td>
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<tr>
<td>24 Oct. 06</td>
<td>The World Bank</td>
<td>Mr Noritaka Akamatsu (Lead Financial Economist, Finance and Private Sector Coordinator, The World Bank), Mr Dang Duc Cuong (Senior Operations Officer, The World Bank), Ms Pritha Venkatachalam (CEPA), Mr Paul Ameer (Greengate)</td>
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<tr>
<td></td>
<td><strong>Banking Sector</strong></td>
<td></td>
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<tr>
<td>23 Oct. 06</td>
<td>BIDV (Bank for Investment and Development of Vietnam)</td>
<td>Mr Cao Ngoc Tuan (Officer, Correspondent Banking Division, International Banking Department), Mr Phuong Tran (Manager, Research &amp; Development Division, Corporate Planning Department), Mr Paul Ameer (Greengate), Mr Dang Duc Cuong (Senior Operations Officer, The World Bank), Ms Dang Ngoc Dung (Mekong Economics). Contact details: <a href="mailto:tuancn@bidv.com.vn">tuancn@bidv.com.vn</a>; <a href="http://www.bidv.com.vn">www.bidv.com.vn</a></td>
</tr>
<tr>
<td>23 Oct. 06</td>
<td>VDB (Vietnam Development Bank)</td>
<td>Ms Dao Dzung Anh (Deputy General Director), Mr Paul Ameer (Greengate), Mr Dang Duc Cuong</td>
</tr>
<tr>
<td>Date</td>
<td>Organisation</td>
<td>Attendees</td>
</tr>
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</tr>
<tr>
<td>30 Oct. 06</td>
<td>Vietcombank</td>
<td>Mr Lam Viet Son (Deputy Director), Mr Huynh Song Hao (Deputy Director), Ms Pritha Venkatachalam (CEPA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contact details: <a href="mailto:lamvietson@yahoo.com">lamvietson@yahoo.com</a></td>
</tr>
<tr>
<td>31 Oct. 06</td>
<td>Sacombank</td>
<td>Mr Thanh (Chairman of Board of Directors), Ms Pritha Venkatachalam (CEPA)</td>
</tr>
</tbody>
</table>

### LDIFs and their Joint Stock Companies

<table>
<thead>
<tr>
<th>Date</th>
<th>Organisation</th>
<th>Attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>23 Oct. 06</td>
<td>HANIF</td>
<td>Ms Le Thi Hoa (Deputy General Director), Mr Nguyen Van Binh (Expert, Plan &amp; R&amp;D Department), Ms Pritha Venkatachalam (CEPA), Mr Paul Ameer (Greengate), Ms Dang Ngoc Dung (Mekong Economics)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contact details: <a href="mailto:drlethihoa@yahoo.com">drlethihoa@yahoo.com</a>; <a href="mailto:binhhanif@yahoo.com">binhhanif@yahoo.com</a></td>
</tr>
<tr>
<td>25 Oct. 06</td>
<td>HIFU (Appraisal Department)</td>
<td>Mr Nguyen Huu Nam (Manager), Tran Buu Long (Deputy Manager), Nguyen Quang Thanh (Deputy Manager), Nguyen Tri Dung; Ms Pritha Venkatachalam (CEPA), Mr Paul Ameer (Greengate)</td>
</tr>
<tr>
<td>25 Oct. 06</td>
<td>HIFU (Investment Department)</td>
<td>Mr Ha Ngoc Lam (Vice Director), Ms Tran thi My Hanh (Vice Director), Ms Phan Thi My Trang (Appraisal Specialist), Mr Nguyen Manh Ha (Investment Analyst), Ms Pritha Venkatachalam (CEPA), Mr Paul Ameer (Greengate)</td>
</tr>
<tr>
<td>26 Oct. 06</td>
<td>CII</td>
<td>Ms Nguyen Mai Bao Tram (Business and Investment Manager), Mr Nguyen Manh Ha (Investment Analyst, HIFU), Ms Pritha Venkatachalam (CEPA), Mr Paul Ameer (Greengate)</td>
</tr>
<tr>
<td>Date</td>
<td>Organisation</td>
<td>Attendees</td>
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</tr>
<tr>
<td>26 Oct. 06</td>
<td>BDIF</td>
<td>Mr Le Van Thanh (Director), Mr Phan Van Chien (Vice Director), Dr Ngo Hoang Minh (Vice Director), Head - Investments, Head - Direct Investments, Head - Indirect Investments, Ms Pritha Venkatachalam (CEPA), Mr Paul Ameer (Greengate)</td>
</tr>
<tr>
<td>27 Oct. 06</td>
<td>DNIF</td>
<td>Ms Nguyen Thi Thu Huong (Director), Mr. Phan Trong Dung (Deputy Director), Mr. Phan Anh Tuan (Deputy Director), Mr. Cao Tien Dung (Vice Manager, Construction Department, Dong Nai Planning and Investment Department), Mr. Le Duc Thuan (Investment Officer), Ms. Nguyen Thi Thu Van (Vice Manager, Accounting Department), Mr. Nguyen Van Tho (Vice Manager, Investment Department), Ms Pritha Venkatachalam (CEPA), Mr Tran Vu Anh (Mekong Economics)</td>
</tr>
</tbody>
</table>

**The People’s Committees (PCs)**

<table>
<thead>
<tr>
<th>Date</th>
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<th>Attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>27 Oct. 06</td>
<td>Binh Duong PC</td>
<td>Mr Nguyen Thanh Tai (Director, Department of Finance, The People’s Committee of Binh Duong Province), Mr Le Van Thanh (Director, BDIF), Mr Phan Van Chien (Vice Director, BDIF), Dr Ngo Hoang Minh (Vice Director, BDIF), Mr Dang Duc Cuong (Senior Operations Officer, The World Bank), Ms Pritha Venkatachalam (CEPA), Mr Tran Vu Anh (Mekong Economics)</td>
</tr>
<tr>
<td>30 Oct. 06</td>
<td>Dong Nai PC</td>
<td>Mr Dinh Quoc Thai (Vice Chairman, Dong Nai PC), Ms Nguyen Thi Thu Huong (Director), Mr Dang Duc Cuong (Senior Operations Officer, The World Bank), Ms Pritha Venkatachalam (CEPA), Mr Hao (Mekong Economics)</td>
</tr>
<tr>
<td>31 Oct. 06</td>
<td>Ho Chi Minh City PC</td>
<td>Mr Nguyen Van Dua (Vice-chairman of HCMC People's Committee), Ms Nguyen Thi Hong (Vice-</td>
</tr>
</tbody>
</table>
Meetings with the key private investors in Vietnam

<table>
<thead>
<tr>
<th>Date</th>
<th>Organisation</th>
<th>Attendees</th>
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<tbody>
<tr>
<td>15 Aug. 06</td>
<td>VinaCapital</td>
<td>Mr Tran Vu Anh (Manager), Mr Hao (Associate), Ms Pritha Venkatachalam (CEPA)</td>
</tr>
<tr>
<td>15 Aug. 06</td>
<td>Dragon Capital</td>
<td>Mr Dominic Scriven (Director), Mr Le Hoang Anh (Associate Director), Ms Pritha Venkatachalam (CEPA)</td>
</tr>
</tbody>
</table>

III. Meetings held in March 2007

<table>
<thead>
<tr>
<th>Date</th>
<th>Organisation</th>
<th>Attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 Mar 07</td>
<td>HANIF</td>
<td>Ms Le Thi Hoa (Deputy General Director), Mr Ha Anh Tuan (Expert, Investment Department), Mr Tri Pham (The World Bank), Mr Mark Cockburn (CEPA), Ms Pritha Venkatachalam (CEPA), Mr Paul Ameer (Greengate)</td>
</tr>
<tr>
<td>14 Mar 07</td>
<td>HIFU</td>
<td>Mr Ha Ngoc Lam (Vice Director, Investments), HIFU Investment and Appraisal team members, Mr Tri Pham (The World Bank), Mr Mark Cockburn (CEPA), Ms Pritha Venkatachalam (CEPA), Mr Paul Ameer (Greengate)</td>
</tr>
<tr>
<td>15 Mar 07</td>
<td>BDIF</td>
<td>Mr Le Van Thanh (Director), Mr Phan Van Chien</td>
</tr>
<tr>
<td>Date</td>
<td>Organisation</td>
<td>Attendees</td>
</tr>
<tr>
<td>------</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>(Vice Director), Dr Ngo Hoang Minh (Vice Director), Head - Investments, Head - Direct Investments, Head - Indirect Investments, Mr Tri Pham (The World Bank), Mr Mark Cockburn (CEPA), Ms Pritha Venkatachalam (CEPA), Mr Paul Ameer (Greengate)</td>
</tr>
</tbody>
</table>
Annex B: Relevant international experience

This annex presents some of the relevant international approaches for infrastructure development and financing. Four models are presented here: (a) project developer; (b) equity investor; (c) debt financier; and (d) contingent financier.

Project Developer

‘Project developers’ bear the high upfront costs and risks of developing infrastructure transactions, with the objective of structuring ‘bankable’ investment opportunities to attract private sector sponsors. Developers may invest part of the start-up equity capital for the project and/or participate in the debt financing syndicate.

<table>
<thead>
<tr>
<th>Institution</th>
<th>Sponsors</th>
<th>Role / Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>InfraCo</td>
<td>Privately managed infrastructure project development company sponsored by the Governments of Netherlands, Sweden, Switzerland, the UK and the World Bank (through the Private Infrastructure Development Group).</td>
<td>Develops infrastructure projects, primarily in water, transport and power sectors, in Asia &amp; Sub-Saharan Africa, and structures investment opportunities to attract private financing. This includes feasibility studies, economic viability studies, supply and off-take arrangements and project structuring.</td>
</tr>
</tbody>
</table>

Equity Investor

‘Equity investors’ provide risk or ownership capital for infrastructure projects that have been developed and are typically ready for implementation. The exact stage of an entry investment will depend on the overall risk/return profile of each investment.

<table>
<thead>
<tr>
<th>Institution</th>
<th>Sponsors</th>
<th>Role / Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emerging Markets Partnership Funds</td>
<td>Private equity funds by region (Asia, Africa, Europe, Latin America and the Middle East) sponsored by corporate investors such as AIG, Prudential and GE Capital.</td>
<td>Provides equity and mezzanine products to infrastructure projects and industries such as telecoms, transport, power and water in emerging markets. Structures innovative partnerships with the private sector, including appropriate institutional incentives.</td>
</tr>
</tbody>
</table>

Debt Financier

‘Debt financiers’ provide loan capital for infrastructure projects, i.e. money lent at either a fixed or variable rate of interest for a specified term. Debt can be senior or subordinated, and either secured or unsecured. ‘Senior debt’ has priority with respect to interest and principal over other obligations by the same borrower. ‘Subordinated debt’ is of higher risk.
as it is of lower ranking to other debt obligations, and is paid after the claims to holders of senior debt are met.

<table>
<thead>
<tr>
<th>Institution</th>
<th>Sponsors</th>
<th>Role / Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tamil Nadu Urban Development Fund, India</td>
<td>71% equity by state, 29% from private sector. Debt includes a World Bank loan on-lent by the state government and municipal bonds issued. TNUDF also operates grant funds for capacity building and poverty alleviation that the qualifying municipalities can access.</td>
<td>Provides senior debt to municipal physical infrastructure projects and facilitates PPPs. Has a detailed investment policy to qualify borrowers/ projects.</td>
</tr>
<tr>
<td>Parana State Urban Development Fund (FDU), Brazil</td>
<td>100% by state and municipalities.</td>
<td>Provides loans to municipalities and special utility companies. Has stringent criteria for debt servicing (commitment of municipality’s sales tax revenue).</td>
</tr>
</tbody>
</table>

%Contingent Financier%

‘Contingent financiers’ provide financial products such as insurance or guarantees against the actual costs of the infrastructure transaction, in addition to the equity and debt finance secured for the project. These products enhance the credit-worthiness of the investment and help to attract private sector investment.

<table>
<thead>
<tr>
<th>Institution</th>
<th>Sponsors</th>
<th>Role / Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Government Units Guarantee Corporation, Philippines</td>
<td>38% Bankers Association of Philippines, 37% Development Bank of Philippines, 25% Asian Development Bank, 30% USAID credit guarantee.</td>
<td>Provides project guarantees to municipal investors as well as municipal bond guarantees for borrowers that meet specified minimum credit rating criteria. LGUGC has the right to intercept municipal revenue transfers.</td>
</tr>
<tr>
<td>FINDETER, Columbia</td>
<td>86% MoF, 14% regional governments.</td>
<td>Provides rediscounting/ buy-back facility to municipal lenders, thereby increasing the liquidity and maturity of loans.</td>
</tr>
</tbody>
</table>
Annex C: Risk-rating matrix

This annex sets out the risk-rating matrix. The risk rating criteria are organised into eight areas corresponding to the areas identified in Section 6.1. - 6.8. For each area, the following sub ratings are provided:

- R1: very strong;
- R2: strong;
- R3: good;
- R4: satisfactory; and
- R5: weak.

Generally, the lowest rating for any one category will set the overall rating for the project. For example, a project with three R1 ratings, four R2 ratings, and one R3 rating will be designated with an overall rating of R3. As noted in other sections of this policy, project-specific conditions may justify a deviation from these guidelines. LDIFs should not consider making either a debt or equity investment in projects that receive a risk rating of R5.

1. Project Contracts

<table>
<thead>
<tr>
<th>Score</th>
<th>Criteria</th>
</tr>
</thead>
</table>
| R1    | • Contract for revenues eliminates volume and price uncertainty. Price changes are contractually specified and cannot be changed by the counterparty, including the Government, without the consent of the project (and lenders).  
  • Capacity or similar payment received whether or not buyer is prepared to take project output.  
  • Project revenues (or capacity payment) sufficient to cover all fixed costs, and debt service, including a return to equity.  
  • No mismatch between supply and off-take contracts.  
  • All risks shifted to counterparties. |
| R2    | • Contract for revenues eliminates volume and price uncertainty.  
  • Capacity or similar payment received whether or not buyer is prepared to take project output.  
  • Project revenues (or capacity payment) sufficient to cover all fixed costs, and debt service, including a return to equity.  
  • Project exposed only to clearly defined risk related to its operations. |
| R3    | • Contract for revenue strong but does not fully protect lenders from market, inflation, or other risks.  
  • Capacity or similar payment received whether or not buyer is prepared to take project output.  
  • Adequate supply agreements with some increased risk.  
  • Potential for cost and revenue mismatch. |

11 Please note that the risk rating matrix does not include social and environmental impact factors.
Adequate liquidated damages for performance deficiencies.

**R4**  
- Contract for revenue satisfactory but does not fully protect lenders from market, inflation, or other risks.
- Certain key commercial elements not specifically or clearly addressed.
- Inadequate liquidated damages for performance deficiencies.
- Contract term only matches debt final maturity date.
- Potential for cost and revenue mismatch.

**R5**  
- Contract for revenue only partially covers fixed costs.
- Certain key commercial elements not specifically or clearly addressed.
- Contract term shorter than debt final maturity date.
- No liquidated damages for performance deficiencies.

### 2. Technology, construction and completion risk

<table>
<thead>
<tr>
<th>Score</th>
<th>Criteria</th>
</tr>
</thead>
</table>
| R1    | Fully proven technology.  
- Fixed, price, date certain contract, superior liquidated damages for performance and delay deficiencies, 12 to 18 month warranties.  
- Contractor very strong credit.  
- Sponsor completion guarantees or very strong credit support to cover cost overruns.  
- Conservative construction cost estimate with ample budgeted contingency.  
- Thorough review by lender independent engineer of plan and supervision during construction. |
| R2    | Fully proven technology.  
- Fixed, price, date certain contract, strong liquidated damages for performance and delay deficiencies, 12 to 18 month warranties.  
- Contractor strong credit.  
- Strong credit support to cover cost overruns.  
- Conservative construction cost estimate with adequate budgeted contingency.  
- Thorough review by lender independent engineer of plan and supervision during construction. |
| R3    | Proven technology.  
- Fixed, price, date certain contract, some liquidated damages for performance and delay deficiencies, 12 month warranties.  
- Contractor credit adequate.  
- Reasonable construction cost estimate with adequate budgeted contingency.  
- Moderate amount of review by lender independent engineer of plan and supervision during construction. |
| R4    | Proven technology, with some start up issues likely.  
- Cost plus contract.  
- Significant responsibility allocated to sponsor.  
- Aggressive construction cost budget and/or schedule.  
- Little to no review by lender independent engineer. |
| R5    | Unproven technology.  
- No overall contract; sponsor contracting with several independent entities.  
- No cost overrun protection. |
3. Operating risk

<table>
<thead>
<tr>
<th>Score</th>
<th>Criteria</th>
</tr>
</thead>
</table>
| R1    | - Long-term operations and maintenance contract, all operating risk shifted to contractor, strong performance guarantees and associated liquidated damages.  
- Contractor highly experienced with very strong credit.  
- High levels of availability, superior performance.  
- Operating costs highly predictable, and stable.  
- Ample maintenance reserve account. |
| R2    | - Long-term operations and maintenance contract, all operating risk shifted to contractor.  
- Contractor experienced with strong credit.  
- If operated by project personnel, management team very experienced, adequate staffing.  
- High levels of availability, superior performance.  
- Operating costs predictable, and stable.  
- Ample maintenance reserve account. |
| R3    | - Adequate operations and maintenance contract.  
- Reasonably strong levels of performance matching or slightly exceeding base case levels.  
- Operating costs generally predictable.  
- Adequate maintenance reserve account. |
| R4    | - No third party maintenance contract.  
- Operating personnel satisfactory.  
- Satisfactory performance, although not always at base case levels.  
- Operating costs volatile.  
- No maintenance reserve account. |
| R5    | - Weak operating arrangements.  
- Performance consistently lower than base case projections.  
- Highly volatile operating costs with no mitigation.  
- No maintenance reserve account. |

4. Competitive market position and exposure

<table>
<thead>
<tr>
<th>Score</th>
<th>Criteria</th>
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</thead>
</table>
| R1    | - Lowest quartile production costs for sector/industry.  
- Superior site/corridor location.  
- Regulation provides higher barriers to entry for competitors.  
- Strong demand for product output, no threat from substitutes. |
| R2    | - Lowest quartile production costs for sector/industry.  
- Superior site/corridor location.  
- Strong demand for product output, low risk of substitutes. |
| R3    | - Second lowest quartile production costs for sector/industry.  
- Site/corridor location provides competitive advantage. |
• Strong demand for product output over debt term.
• Pricing likely to be economical to off-taker over debt term despite potential changes in technology.

R4  
• Third quartile production costs for sector/industry.
• Project possesses few if any competitive advantages.
• Project only marginally economical to off-taker.

R5  
• Weak, uncertain demand for product output.
• No competitive advantage.
• Fourth quartile production costs for sector/industry.
• Project competing against much stronger competitors.

5. Sponsor strength and risk sharing

<table>
<thead>
<tr>
<th>Score</th>
<th>Criteria</th>
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</thead>
</table>
| R1    | • Highly experienced, successful track record, strong technical capabilities.  
• Project of strategic importance to sponsor.  
• Financial (cash) resources very significant in relation to project requirements and other projected needs.  
• Sponsor-lender risk sharing very balanced. |
| R2    | • Very experienced, successful track record, strong technical capabilities.  
• Project of strategic importance to sponsor.  
• Financial (cash) resources significant in relation to project requirements and other projected needs.  
• Sponsor-lender risk sharing balanced. |
| R3    | • Experienced, limited but successful track record, good technical capabilities.  
• Project related to sponsors’ other businesses.  
• Financial (cash) resources adequate in relation to project requirements and other projected needs, or adequate credit support provided.  
• Sponsor-lender risk sharing balanced. |
| R4    | • Limited experience with project development, little track record.  
• First project of its kind for sponsor.  
• Financial (cash) resources minimally acceptable in relation to project requirements and other projected needs. |
| R5    | • No prior experience.  
• Financial (cash) resources not sufficient to cover financial obligations.  
• Uncertain commitment to project development process. |

6. Counterparty credit strength

<table>
<thead>
<tr>
<th>Score</th>
<th>Criteria</th>
</tr>
</thead>
</table>
| R1    | • Highly experienced, successful track record.  
• Project’s output necessary to counterparty’s business.  
• Financial resources very significant in relation to contractual obligations. |
| R2    | • Very experienced, successful track record.  
• Project’s output necessary to counterparty’s business.  
• Financial resources significant in relation to contractual obligations. |
R3
- Experienced, limited but successful track record.
- Project’s output necessary to counterparty’s business.
- Financial resources adequate in relation to contractual obligations, or adequate credit support provided.

R4
- Limited experience with project development, little track record.
- Financial (cash) resources minimally acceptable in relation to contractual obligations.
- Concern about long term viability of off-taker.

R5
- No prior experience.
- Weak financial strength, no credit support.

7. Cash flow, financial strength, financial structure

<table>
<thead>
<tr>
<th>Score</th>
<th>Criteria</th>
</tr>
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</table>
| R1    | • Conservative debt-to-equity ratio.  
• Amortizing debt.  
• Very strong debt service coverage ratios: minimum DSCR greater or equal to 2.0 for contracted volume and price; and at least 3.0x for projects exposed to price or volume risk.  
• Project shown to fully cover debt service under full range of sensitivity cases with significant cushion on as measured by the coverage ratios.  
• 6 or 12 month debt service reserve account, debt service accrual account, major maintenance reserve account.  
• Dividend restrictions; no additional debt permitted. |
| R2    | • Conservative debt-to-equity ratio.  
• Amortizing debt.  
• Strong debt service coverage ratios: minimum DSCR greater or equal to 1.75x for contracted volume and price; and at least 2.25x for projects exposed to price or volume risk.  
• Project shown to fully cover debt service under full range of sensitivity cases with adequate coverage ratios.  
• 6 month debt service reserve account, debt service accrual account, major maintenance reserve account.  
• Dividend restrictions; no additional debt permitted. |
| R3    | • Acceptable debt-to-equity ratio.  
• Amortizing debt.  
• Strong debt service coverage ratios: minimum DSCR greater or equal to 1.5x for contracted volume and price; and at least 2.0x for projects exposed to price or volume risk.  
• Project shown to fully cover debt service under full range of sensitivity cases with acceptable coverage ratios; some stress tests may trigger withdraws from the debt service reserve account.  
• 6 month debt service reserve account, debt service accrual account, major maintenance reserve account.  
• Dividend restrictions; no additional debt permitted. |
| R4    | • Somewhat aggressive (high) debt-to-equity ratio.  
• Amortizing but back end weighted with some refinancing risk.  
• Minimally acceptable debt service coverage ratios: minimum DSCR greater or...
8. Legal, collateral, and other factors

<table>
<thead>
<tr>
<th>Score</th>
<th>Criteria</th>
</tr>
</thead>
</table>
| R1    | • Project bankruptcy remote from sponsor(s).  
        • Covenants strictly limit project operations.  
        • Very strong lender security package, including pledge of physical assets, bank accounts, control over insurance proceeds, assignment of key project agreements.  
        • Strong, comprehensive, financial documentation (inter creditor agreement, security agreement, common terms agreement).  
        • Comprehensive project reporting requirements to lenders.  
        • No pending litigation or environmental issues. |
| R2    | • Project bankruptcy remote from sponsor(s).  
        • Covenants strictly limit project operations.  
        • Strong lender security package, including pledge of physical assets, bank accounts, control over insurance proceeds, assignment of key project agreements.  
        • Strong, comprehensive, financial documentation (inter creditor agreement, security agreement, common terms agreement).  
        • Comprehensive project reporting requirements to lenders.  
        • No pending litigation or environmental issues. |
| R3    | • Project bankruptcy remote from sponsor(s).  
        • Covenants strictly limit project operations.  
        • Reasonably strong lender security package, including pledge of physical assets, bank accounts, control over insurance proceeds.  
        • Well developed financial documentation.  
        • Reasonable project reporting requirements to lenders.  
        • No pending litigation or environmental issues. |
| R4 | • Covenants only provide limited protection over operating discretion of project.  
    • Weak lender security package (pledge of only some of the physical assets, no control over bank account).  
    • Limited project reporting requirements to lenders.  
    • Potential litigation, fines. |
|---|---|
| R5 | • Weak lender security package (pledge of only some of the physical assets, no control over bank account).  
    • No project reporting requirements to lenders.  
    • Potential litigation, fines. |
Annex D: Safeguard assessment guidelines

This annex provides, at a high level, the safeguard policies and information disclosure guidelines of the World Bank and compares some of these requirements to those of GOV.

The World Bank safeguard policies and guidelines

The following are the key relevant policies and guidelines for social and environmental safeguard assessments. More information regarding these can be obtained on the website of the World Bank.

- Environmental Policies
  - OP 4.01 Environmental Assessment
  - OP 4.04 Natural Habitats
  - OP 4.11 Cultural Resources
  - OP 4.36 Forestry
  - OP 4.09 Pest Management
  - OP 4.39 Safety of Dams

- Social Policies
  - OP 4.30 Involuntary Resettlement
  - OP 4.20 Indigenous People

- Legal Policies
  - OP 7.60 Disputed Areas
  - OP 7.50 International Waterways

- Guidelines
  - Pollution prevention and Abatement handbook
  - Occupational health and Safety Guidelines
  - Environmental Assessment Sourcebook (and updates)
  - WB Participation Sourcebook (1996)
  - Electronic Resettlement Guidebook
  - BP 17.50 Bank Disclosure Policy

Disclosure of Information

The disclosure of information regarding the World Bank safeguard assessments is mandated by OP 4.01 Environmental Assessment and BP 17.50 Disclosure of Operational Information. It is intended to support decision making by the Borrower and the Bank by allowing the public access to information on environmental and social aspects of projects. Typically, the documents disclosed include Environmental Assessment, Resettlement Action Plan and Indigenous Peoples Development Plan. These are generally disclosed at the World Bank InfoShop and in country appropriate locales and in local languages.
### High-level comparison of the World Bank and the Vietnam Government safeguard requirements

<table>
<thead>
<tr>
<th>Issue</th>
<th>World Bank</th>
<th>Government of Vietnam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening</td>
<td>A, B, C, FI</td>
<td>Decree 175, 490, 143</td>
</tr>
<tr>
<td>EA scope and TOR</td>
<td>Approval</td>
<td>No requirement</td>
</tr>
<tr>
<td>EA Preparation</td>
<td>Independent Experts</td>
<td>Project proponent responsibility</td>
</tr>
<tr>
<td></td>
<td>Client Responsibility</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Emphasis on Alternative analysis and EMP</td>
<td></td>
</tr>
<tr>
<td>Public Consultation</td>
<td>Twice for A, compulsory for all</td>
<td>No requirement but encouraged under the new law</td>
</tr>
<tr>
<td>Public Disclosure</td>
<td>Compulsory for all, in English at World Bank and in local languages at sites</td>
<td>Required under the new law but awaiting specific guideline</td>
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<td>Project proponent responsibility to report to DONRE</td>
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Annex E: Equity return targets

This annex describes the two approaches to estimate equity investment hurdle rates for infrastructure and related investments:

- Method 1: Build-up method, with a worked example
- Method 2: Transition or alternative model

Method 1: Build-up method

The build-up method involves identifying and “pricing” each element of equity risk associated with the investment. The general form of the equation is shown below:

\[ Ke = RFR + EI + BR + FR + LR + CR \]  

Where:

- **RFR**: Economy’s long-term real rate of growth
- **EI**: Expected long-term rate of inflation
- **BR**: Business risk of the project
- **FR**: Financial risk of the project
- **LR**: Liquidity risk of the project
- **CR**: Country risk of the project

The definition and approach for calculating each of these elements is described below.

- **RFR**: This is the base rate equal to the long-term real rate of growth of the economy.
- **EI**: The nominal equity return should compensate for expected long-term inflation.
- **BR**: Business risk is the uncertainty of income flows due to the nature of the business. A project with very predictable revenues would have lower business risk compared to a project with highly volatile revenues. BR may be calculated in one of two ways:

  **Operating income variability**

  BR may be estimated by determining the variability of historical operating income for similar projects or companies, where operating income is defined as revenues less operating expenses and before depreciation, interest and taxes. Business risk may be estimated by dividing the standard deviation of historical operating income by the average of operating income over the same period. The variability in operating income incorporates a range of factors affecting business risk, including sales volumes growth, pricing, market competition, operating expenses, and related factors. It may be the case that there is not sufficient operating experience or an adequate number of projects available to measure business risk using this method.
Unlevered Beta\textsuperscript{12}

In the event that information is not sufficient to determine business risk through an analysis of operating income variability, business risk may be estimated using beta estimates for an industry or derived from a group of companies similar to the project or company. The unlevered beta is a measure of the systematic business risk of the underlying business with zero leverage. The approach is outlined below.

BR may be estimated from the following equation:

\begin{equation}
(BR) = B_U \times MR
\end{equation}

Where:

- $B_U$: Unlevered beta for companies or the industry to which the project relates. The unlevered beta is a measure of the business risk of a project or company and does not change with leverage.
- $MR$: Historical market risk premium.

The unlevered beta and MR may be derived using stock market data from the U.S. While the result is a measure of BR for projects operating in this market, a country risk premium shown in C.1 is included to adjust for the increased operating risk due to political, regulatory, and related factors of the country.

The unlevered beta is calculated from the following equation:

\begin{equation}
B_U = \frac{B_L}{1 + (1-t) \times B/S}
\end{equation}

Where:

- $B_L$: Levered Beta observable in the market.
- $B$: Percent of debt in capital structure of project or company.
- $S$: Percent of equity in capital structure of the company.
- $T$: Corporate tax rate for the sector or group of companies used for the comparison.

FR: Financial risk is the risk caused by increased levels of borrowing, which in turn increases the probability of default. Projects are structured to carry more leverage compared to corporations so higher leverage does not necessarily imply high financial risk. A project may have very low financial risk despite a high debt-to-equity ratio because it has strong debt service coverage ratios, contracted revenues subject only to satisfaction of commercially reasonable operating performance standards, and possesses strong economic fundamentals (e.g. low tariff in relation to the sector overall). As a practical matter, financial risk must be

\textsuperscript{12} The use of the unlevered beta measures systematic business risk rather than total business risk; the latter is measured through the estimation of the standard deviation of operating income. In theory, use of the unlevered beta would tend to underestimate business risk; however, given the overall approximate nature of the analysis and data limitations, this underestimate is not viewed as material.
assessed on a project-specific basis. The following guidelines are provided to assist in evaluating and pricing financial risk:

FR = 0. Projects with very strong debt service coverage ratios (e.g., minimum DSCR not less than 2.0x for contracted revenue streams and 3.0x for projects exposed to volume or price risk), moderate to low variability in operating costs, and reserve accounts such as a debt service reserve account containing the next six months of debt service.

FR = 1%. Projects with strong debt service coverage ratios (e.g., minimum DSCR not less than 1.75x for contracted revenue streams and 2.25x for projects exposed to volume or price risk), moderate variability in operating costs, and a debt service reserve account containing the next six months of debt service.

FR = 2%. Projects with average (but still acceptable) debt service coverage ratios (e.g., minimum DSCR not less than 1.5x for contracted revenue streams and 1.75x for projects exposed to volume or price risk) and moderate to high variability in operating costs.

It is important to emphasize that the actual FR assigned to a project or entity may be different based on project-specific considerations and that the guidelines provided above should be considered only indicative.

LR: Liquidity risk is the uncertainty introduced by the secondary market for an investment. Assets that are more difficult to sell due to the nature of the asset possess greater liquidity risk. As with financial risk, liquidity risk is project specific and will depend on the attractiveness of the project to other investors. Proxy measures of liquidity risk include determining the bid-ask spread between thinly traded stocks and transaction fees on the sale of privately held companies. For purposes of the Policy, a possible range for LR could be 0.5 percent for highly attractive assets to up to 2 percent for less desirable assets.

CR: Country risk is intended to adjust the business risk measure to account for the political, regulatory, and market environment in which the project operates. Currently, country or political risks as they related to the operation of a project, such as a toll road) in Vietnam are considered to be greater than for a similar project operating in Western Europe. As noted above, when business risk is estimated using the unlevered beta approach based on stock market data from developed countries (or operating or the operating income variability approach using financial data from companies operating in developed countries), the country risk premium should be included in equation C.1.

One widely used approach for pricing country risk is to calculate the bond spread between a sovereign issue from Vietnam and the U.S. of the same tenor. This method is more accurate when the yield for the Vietnamese sovereign bond(s) are determined by the market (through trading activity by investors). In the event tradable sovereign bond pricing data are not available, it may be possible to use the credit rating of the country to obtain proxy sovereign bond pricing from one group of countries with similar ratings and similar structural features.
Worked example: Build-up method

Project Information Summary

Project: Bulk Water Project
Contractual Structure: Strong, take or pay agreement, strong counterparty credit support, essential service, highly competitive tariff, predictable operating expenses
Debt to equity ratio: 60:40
Coverage ratios: Minimum debt service coverage ratio 1.6x
Risk Rating: R2/R3

Supporting Data

B: 0.64, levered beta derived from US capital market data on the water utility sector; insufficient information available to determine BR from operating income data on comparable projects
T: 31%, corporate tax rate
B/S: 49%, debt to equity ratio
MR: 4.8%, U.S. long-term stock market risk premium

Calculation

RFR: 6.5 percent, assumed long term sustainable real GDP growth rate
ER: 5.5 percent, assumed long term local inflation rate
BR: 2.3%, \[ B_u = \frac{0.64}{1 + (1 - 0.31) \times 0.49} = 0.48 \]
\[ BR = 0.48 \times 0.048 = 0.023 \]
FR: 0.5%, Financial risk assumed to be low given the relatively low debt-to-equity ratio, strong credit of counterparty, highly competitive tariff
LR: 0.5%, Low liquidity risk given low variability in projected net operating income, predictable earnings, relative attractiveness of asset
CR: 1.5%, While the bond spread would imply a higher CR risk premium, a somewhat lower premium is used reflecting the nature of the business and project specific factors.

\[ K_e = 16.8\% \]

As a comparison, using the transitional approach, \( K_e \) would be equal to 11% (debt cost) + 5% (R3) or 16%.
Method 2: Transitional or alternative approach

In the event that information is not sufficient to apply the build-up method, this section provides a simplified approach that may be used to assist in developing a cost of equity rate for a project.

The rate under this approach is estimated by summing the following components: (1) a base rate equal to the total debt cost for the project (or similar projects); and (2) a risk premium calculated depending on the risk rating of the project using the methodology provided in the following Annex D as follows: R1 = 3%; R2 = 4%; R3 = 5%; R4 = 7%; and R5 = 10%. As noted throughout this policy, these figures should be viewed as only indicative; the risk premium should also reflect overall market conditions including the equity risk premiums that investors are demanding across a range of assets within the country.
Annex F: Glossary of key financial terms

Callable capital: The portion of the subscribed capital that is not paid-in but callable; i.e., it will only be provided in the event that it is needed and is therefore contingent.

Capital asset pricing model (CAPM): An economic theory that describes the relationship between risk and expected return, and serves as a model for the pricing of risky securities. The CAPM asserts that the only risk that is priced by rational investors is systematic risk, because that risk cannot be eliminated by diversification. The CAPM says that the expected return of a security or a portfolio is equal to the rate on a risk-free security plus a risk premium multiplied by the asset's systematic risk.

Collateral: Additional security pledged to support the project financing.

Common stock/share capital: In general, a public corporation has two types of shares, common and preferred. The common shares have a discretionary dividend and usually entitle the shareholders to vote at shareholders meetings. Common shareholders typically have the last claim on earnings and also generally on assets in the event of liquidation.

Contingent finance: Financial products such as insurance or guarantees against the actual costs of the transaction, in addition to the equity and debt finance secured for the project.

Debt: Loan capital or borrowings of an entity.

Debt service coverage ratio: Earnings before interest and income taxes, divided by interest expense plus the quantity of principal repayments divided by one minus the tax rate.

Equity: Ownership or risk capital in an entity.

Gearing: The ratio of total debt and other long term liabilities, including contingent liabilities, to the paid-in equity capital. Also known as leverage.

Grace period: The time lag between the start of commercial operations of the project and the date of first principal repayment.

Liquid asset: Asset that is easily and cheaply turned into cash – notably, cash itself and short-term securities.

Liquidated damages: The amount payable for delays and sub-standard performance under a construction, equipment supply, or Operations & Maintenance contract.

Mezzanine finance: Security that has characteristics of both debt and equity capital. It is the layer of funding in an entity that has lower risk than common equity stock and higher risk relative to fixed income debt.

Paid-in capital: The proportion of the subscribed capital that is paid-in by the shareholder(s).

Preferred stock/share capital: Share capital that shows ownership in an entity and gives the holder a claim, prior to the claim of common stockholders, on earnings and also
generally on assets in the event of liquidation. Most preferred stock pays a fixed dividend that is paid prior to the common stock dividend, stated in a dollar amount or as a percentage of par value. This stock does not usually carry voting rights. Preferred stock has characteristics of both common stock and debt.

**Reserve:** A separate amount of cash or letter of credit to service a payment requirement such as debt service or maintenance.

**Risk:** Often defined as the standard deviation of the return on total investment. Degree of uncertainty of return on an asset.

**Risk free interest rate:** Describes return available to an investor in a security somehow guaranteed to produce that return. The risk-free interest rate compensates the investor for the temporary sacrifice of consumption.

**Risk management:** The process of identifying and evaluating risks and selecting and managing techniques to adapt to risk exposures.

**Secured debt:** Debt that has first claim on specified assets in the event of default.

**Senior debt:** Loan capital that has priority with respect to interest and principal over other obligations by the same borrower.

**Subordinated debt:** Loan capital that is of higher risk as it is of lower ranking to other debt obligations, and is paid after the claims to holders of senior debt are met.

**Subscribed capital:** The total share capital or equity of the entity.