Final Report
Annex 8
Study on Mobilizing Private International Financing for Toll Road Projects in Vietnam Report
January 2011
# TABLE OF CONTENTS

EXECUTIVE SUMMARY ..................................................................................................................... 1

1 Introduction ............................................................................................................................. 1

2 Purpose of the Report ............................................................................................................ 1

3 Findings, Issues and Recommendations ............................................................................ 2
  3.1 Legal and Institutional Aspects .............................................................................................. 2
  3.2 Financial and Private Participation Aspects .......................................................................... 9

Part I – Legal Aspects of Mobilising Private Investment in Toll Road / Bridge Development Projects in Vietnam ................................................................. 16

1 Legislative Framework ......................................................................................................... 16
  1.1 Investment Law ......................................................................................................................... 16
  1.2 BOT Legislation ......................................................................................................................... 17
  1.3 New BOT Decree ....................................................................................................................... 17
  1.4 Law on Road Traffic .................................................................................................................. 17
  1.5 Other laws ............................................................................................................................... 18

2 Private Participation in Road Infrastructure .................................................................... 19
  2.1 Public Private Partnerships (PPP) ............................................................................................ 19

3 Form of Investment ............................................................................................................... 20

4 BOT Concession ................................................................................................................... 20
  4.1 Project Agreement .................................................................................................................... 20
  4.2 Selection of Investors through Competitive Bidding ............................................................ 21
  4.3 Appointment of Investors ...................................................................................................... 21
  4.4 Approved List of BOT Projects.............................................................................................. 21
  4.5 Projects Proposed by Investors .............................................................................................. 21
  4.6 Licensing Authority ............................................................................................................... 22
  4.7 Term of BOT Projects .............................................................................................................. 23
  4.8 BOT investment incentives ................................................................................................... 23
  4.9 Equity Funding Ratio ............................................................................................................. 23
  4.10 Performance Bond ............................................................................................................... 23
  4.11 Governing Law ..................................................................................................................... 23
  4.12 Disputes ............................................................................................................................. 23
  4.13 Cap on Road Tolls ................................................................................................................. 24
  4.14 User-Pays Toll Structure ...................................................................................................... 26
  4.15 Road Toll Collection Network Planning ............................................................................. 27

5 Approval Process .................................................................................................................. 27
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>6  Land Acquisition</td>
<td>28</td>
</tr>
<tr>
<td>6.1 Land Use Right Certificate</td>
<td>28</td>
</tr>
<tr>
<td>7  Land Compensation</td>
<td>29</td>
</tr>
<tr>
<td>8  Construction</td>
<td>30</td>
</tr>
<tr>
<td>9  Tendering for Construction in the Transport Sector</td>
<td>30</td>
</tr>
<tr>
<td>10 Damages for Breach of Contract in Vietnam are Limited</td>
<td>31</td>
</tr>
<tr>
<td>11 Sovereign Immunity</td>
<td>31</td>
</tr>
<tr>
<td>12 Enforcement of foreign arbitral awards in Vietnam</td>
<td>31</td>
</tr>
<tr>
<td>12.1 Provisions of the New BOT Decree</td>
<td>32</td>
</tr>
<tr>
<td>12.2 Bankruptcy</td>
<td>32</td>
</tr>
<tr>
<td>13 Vietnamese Law – General</td>
<td>32</td>
</tr>
<tr>
<td>Part II – Institutional Framework</td>
<td>33</td>
</tr>
<tr>
<td>1  Institutions</td>
<td>33</td>
</tr>
<tr>
<td>1.1 Ministry of Transport (MOT)</td>
<td>33</td>
</tr>
<tr>
<td>1.2 Vietnam Road Administration (VRA)</td>
<td>33</td>
</tr>
<tr>
<td>1.3 Vietnamese Expressway Corporation (VEC)</td>
<td>34</td>
</tr>
<tr>
<td>1.4 Foreign Investment Agency (FIA)</td>
<td>35</td>
</tr>
<tr>
<td>2  Road Infrastructure Planning</td>
<td>35</td>
</tr>
<tr>
<td>3  Approval Processes and Procedures</td>
<td>36</td>
</tr>
<tr>
<td>3.1 Publication of the approved list of BOT projects</td>
<td>36</td>
</tr>
<tr>
<td>3.2 Selection of Investor(s)</td>
<td>36</td>
</tr>
<tr>
<td>3.3 MOU on Site Use Agreement</td>
<td>37</td>
</tr>
<tr>
<td>3.4 Negotiation of a BOT Contract</td>
<td>37</td>
</tr>
<tr>
<td>3.5 Negotiation of Other Project Documents</td>
<td>38</td>
</tr>
<tr>
<td>3.6 Investment Licence</td>
<td>38</td>
</tr>
<tr>
<td>3.7 Post Licensing</td>
<td>38</td>
</tr>
<tr>
<td>3.8 Execution of Project Agreements</td>
<td>38</td>
</tr>
<tr>
<td>3.9 Selection of Contractors</td>
<td>38</td>
</tr>
<tr>
<td>3.10 Land Acquisition</td>
<td>38</td>
</tr>
<tr>
<td>3.11 Environment</td>
<td>39</td>
</tr>
<tr>
<td>3.12 Financing</td>
<td>39</td>
</tr>
<tr>
<td>3.13 Construction</td>
<td>39</td>
</tr>
<tr>
<td>3.14 Completion of Construction/Commissioning</td>
<td>39</td>
</tr>
<tr>
<td>3.15 Toll Collection Network Master Planning</td>
<td>39</td>
</tr>
<tr>
<td>3.16 Road Tolls</td>
<td>40</td>
</tr>
<tr>
<td>3.17 Operations</td>
<td>40</td>
</tr>
</tbody>
</table>
3.18 Transfer of Toll Road/Bridge Infrastructure

Part III – Financing the Construction of Toll Roads and Bridges

1 Domestic Capital Sources

2 Foreign Capital Sources
   2.1 Issuance of International Bonds
   2.2 Foreign Loans
   2.3 Loan registration
   2.4 Step-in Rights

3 Vietnamese Security Issues
   3.1 Loan Security in BOT projects

4 Government Support

5 Foreign Exchange Control
   5.1 Foreign Currency Risk
   5.2 Foreign Exchange Balancing
   5.3 Foreign Exchange Surrender
   5.4 Key Vietnamese Taxes Applicable to the Foreign Investor

6 Issue and Recommendations

Part IV – Key Vietnamese Legislation

1 Investment

2 BOT Project

3 Road Traffic and Transportation Plan

4 Toll collection

5 Land

6 Construction

7 Environment

8 Finance

9 Secured Transactions

10 Tendering

11 Bankruptcy

12 Others

13 Definitions
Part V – Permits and Approvals for toll road / bridge projects in Vietnam

1  Private Sector Investor / Project Company Permits and Approvals

2  Construction Contractors Permits and Approvals

Part VI – Proposed Toll Road Projects calling for Foreign Investment

Part VII – List of approved National Expressway Projects to the year 2020 with a vision beyond the year 2020

PART VIII – Financial Aspects of Mobilizing Private Investment in Toll Road / Bridge Development Project in Vietnam

1  International Financing Modalities in Use: Private Investment Options

1.1  Introduction

1.2  Financing Modalities Presently in use in Vietnam and Variations on those Options for Consideration

1.3  Joint Ventures (JV) and Build Operate Transfer (BOT) Options

1.4  Other Financing Instruments

1.5  Incentives and other Cooperative Arrangements

1.6  Long-Term Prospects – Internationally

1.7  Long-Term Prospects – Vietnam

1.8  Management of Private Operators in a Tolling System

1.9  Recommendations

1.10  Recommended Incentives and other Cooperative Options

2  The Issue of Risk Mitigation in Transport Projects

2.1  Public Risk and Private Risk

2.2  Risk Allocation

3  International Experience in Tolling and its Relationship to Vietnam

3.1  Purpose of Tolling: for Repayment of Debts

3.2  Master Plans for Toll Roads – International Experience

3.3  Financing Toll Road Construction (By Country)

3.4  Toll Road Evaluation

3.5  Importance of Traffic Forecasts for Private Sector Investors

3.6  Toll Rates and Willingness to Pay

3.7  Methods and Procedures for Toll Adjustment

3.8  Modifying Toll Rates through Changes in Condition of Payment

3.9  Other Toll Road Income Sources

3.10  Choosing the Appropriate Incentives for Private Sector Investment

3.11  Considerations Relating to Competing Highways

3.12  The Principle of Free Access after Costs have been Recouped

3.13  Management of Toll Roads by Public / Private Bodies, or by Purely Private Enterprises

3.14  Key Factors Affecting Future Toll Road Investment

3.15  The Future of Toll Roads in Vietnam
3.16 Recommendations .................................................................................................................. 146

Part IX - Annuity Based Versus Capital Subsidy BOT ................................................................. 148

1 Annuity BOTs .......................................................................................................................... 148

List of Appendices

Appendix 1: Example Concession Agreement
Appendix 2: The Public / Private Roads Investment Screening and Selection Model (PPRISS)

List of Tables

Table 1 Legal and Institutional Issues and Recommendations ...................................................... 5
Table 2 Financial Aspects .............................................................................................................. 10
Table 3 Restriction Caps Prices ............................................................................................... 25
Table 4 Issues and Recommendations ....................................................................................... 48
Table 5 Private Sector Investor / Project Company Permits and Approvals ................................ 56
Table 6 Construction Contractors Permits and Approvals .......................................................... 68
Table 7 Approved National Expressway Projects ....................................................................... 72
Table 8 Summary of Recent Recommendations on Financing .................................................. 95
Table 9 Range of Incentives and Guaranteed Recommended for Consideration under both the World Bank Study and the present TA .......................................................... 96
Table 10 Key Risks ....................................................................................................................... 98
Table 11 Risk Matrix .................................................................................................................... 102
Table 12 Master Plans for Intercity Motorways and Operational Lengths in 18 Countries .......... 118
Table 13 Financing Means for Toll Road Projects ................................................................... 120
Table 14 Classification of Toll Roads by Operators & Role in Toll Road Network1 .................. 125
Table 15 Tolls used to Promote Use and Countries where they are Used ................................. 131
Table 16 Comparison between Direct Government Management of Toll Roads & Hybrid or Private-Sector Management ................................................................................. 137
Table 17 Ferry Fee Rates and Toll Rates in VN ......................................................................... 142
EXECUTIVE SUMMARY

1 Introduction

1. As part of the ongoing ADB financed project preparatory TA: Central Mekong Delta Region Connectivity Project (the Project), a study was commissioned to investigate the options for "Mobilizing Private International Financing for Toll Road Projects in Vietnam".

2. Vietnam has experienced high economic growth during more than 10 years, driven primarily by export processing and tourism. To sustain continued growth the country’s transport infrastructure needs to be expanded and upgraded in step with economic requirements. The investments required for this exceed the combined resources of the Government, available official development aid and a small but rapidly developing domestic capital market. Tapping international capital markets is therefore required. Vietnam already enjoys investment grade status among direct overseas investors into the country’s rapidly expanding export processing industries but attracting international investments for toll road infrastructure projects remain difficult because initial traffic on such roads typically is low and initial toll revenues therefore small. This creates an initial cash-flow constraint, which, if bridged by intermediate short-term credits, lengthens the maturity of project financing. Unfortunately this also limits the range of potential international financiers because short-term investors willing to accept commercial risks, such as banks, typically require maturity within 5 to 10 years while long-term institutional investors, that do accept long maturities, are deterred by the commercial risks associated with lending against a future cash-flow that depends on predicted traffic growth.

3. According to a recent assessment of the potential for private investment in the road sector in Vietnam, the MOT requested assistance to further explore approaches that would leverage private sector know how, efficiency, and resources for managing and financing road infrastructure. Although the government has changed its legal and regulatory framework and succeeded in attracting private foreign investment in the energy sector and in road construction, few operations have materialized in infrastructure. MOT has itself established tolls on a series of road sections on congested urban and inter-urban corridors, and on bridges, but these are operated by the Vietnam Road Administration (VRA), or through SOEs through BOT construction contracts. The government has not been able to take full advantage of the potential of public-private partnerships. And the present focus on BOTs in the road sector is unlikely to attract foreign investors given that at the present at least, few transport projects in Vietnam offer sufficient traffic volumes to make the projects financially viable as a pure private investment, unless some incentives are offered as well. Added to this the fact that Vietnam still appears to lack a framework for revenue and cost sharing between the public and private sectors, and existing government policies do not sufficiently address investors concerns about regulatory and political risk as well as project risks in general, the need to look at other options, including a range of public-private partnership (PPP) options was deemed necessary.

2 Purpose of the Report

4. Building on Vietnam’s overall framework for PPP, recent historical experience in the road sector, lessons learned from those sectors in Vietnam where there has been interest in private investment, and global best practices for attracting private participation, the consultant's were asked to:

(a) Review the existing legal and regulatory environment as it affects private sector investment in road and bridge projects and identify gaps which need to be addressed;

(b) Review the process and procedures for approving private sector investment projects and identify areas where existing government practices discourage private investment;

(c) Assess the realistic extent and forms of private participation in the development and management of Vietnam’s road and bridge network and identify a variety of government support measures, which would enhance the finance-ability of transport projects and encourage private participation. Determine the range of existing private sector investment options in the road and bridge sector in

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1 This is particularly pronounced in developing economies where overall traffic grows rapidly from a low base; and is further aggravated by spreads typically being higher for private sector borrowers than for government.

Vietnam and identify a range of other options which have had global success. Including subsidies, grants and other approaches which would attract private participation; and
d) Assess the toll rate structure in existence, the willingness/affordability of the public to pay tolls and the likelihood of diversion as a result of tolling;

5. The other part of the study includes the development of a user friendly financial model based on structured use of loans, guarantees, grants and equity investments by the Government and ADB, which would make financing a broad range of toll road projects in Vietnam acceptable to a broad range of international financiers, wherein various options can be programmed and results immediately viewed. The purpose of this model is twofold: (a) for use by the government in determining PPP investment options which would be attractive to the private sector; and (b) to allow the government to assess private sector proposals for their acceptance. The overall purpose of this model is as a financial screening model to test various PPP options for any given road or bridge project. This part of the TA Study is being undertaken separately.

6. The report itself has been broken up into two specific parts. The first deals with legal aspects of mobilizing private Investment in toll road/bridge development projects in Vietnam. In this section the focus is on three main areas, including:

- a review of the existing legal and regulatory framework for investment, operation and ownership of toll roads and infrastructure projects generally;
- a commentary on the institutions responsible for the funding, management and maintenance of toll roads/bridges in Vietnam; and
- an analysis of the current legal environment for financing of toll road/bridge projects in Vietnam.

7. The second part deals with the financial aspects of mobilizing private investment in toll road/bridge development projects in Vietnam. The focus in this section is on:

- a review of international financing modalities in use and the private investment options for Vietnam;
- analyzing the issue of risk mitigation in transport projects and their potential impact on private investment in Vietnam; and
- international experience in tolling and its relationship to Vietnam

3 Findings, Issues and Recommendations

3.1 Legal and Institutional Aspects

8. Private investors (in particular, foreign private investors) wanting to participate in toll road infrastructure projects in Vietnam face various legal issues arising from the existing legal, regulatory, process and financing frameworks in Vietnam.

3.1.1 Legal framework

9. The legislative framework governing privately financed toll road infrastructure projects in Vietnam is not well developed. Whilst the Government has enacted some laws (such as, the Law on Investment) to incentivize investment in infrastructure projects, such laws are found by private infrastructure investors to be overly complicated and difficult to administer in practice.

10. Certain remedies for contractual breach or other causes of action that are normally available in other jurisdictions may not be available in Vietnam and orders for specific performance (while theoretically available) are not generally given.

11. In order to manage these legal issues, the Government should look to:

- develop specific public private partnerships (PPP) guidelines on the allocation and management of risks and contractual issues (which are commonly encountered between the authorized state body and project investors) so that the relevant risks are allocated to the parties that are best positioned to bear and manage the specific risk;
• develop a model concession or project agreement for build, own and transfer (BOT) or PPP structures to standardize the documentation used in toll road infrastructure projects;
• include provisions in the New BOT Decree to provide for the selection of private investors through transparent and efficient competitive bidding procedures; and
• establish an education program for government officials, the Judiciary and the Vietnamese legal profession to create greater certainty and consistency in the interpretation and application of Vietnamese law.

3.1.2 Regulatory and Process Framework

12. There have been major delays by the relevant government ministries and people’s committees in finalizing and publishing approved BOT portfolios, and the process to obtain the requisite approvals and permits for the development of a toll road infrastructure project in Vietnam can be (and are often found to be) cumbersome and time-consuming.
• This process should be streamlined to reduce any time gaps between seeking the relevant approvals. Private investors often have to bear the costs and risks of the land acquisition process and face major delays in the completion of the site clearance and compensation processes necessary for the commencement of construction works; and
• An alternative form of land use right certificate should be developed to evidence land tenure and the statutory compensation mechanism should be revised to respond to market sentiments.

3.1.3 Financing Framework

13. Toll road infrastructure projects in Vietnam have to date adopted the more traditional “user-pays” model in accordance with the cap on toll pricing imposed under Vietnamese law. Under this “user-pays” funding model, the private investors’ economic return from the project relies on toll revenue stream payments and projections, which in turn creates revenue uncertainty to the private sector investors.

14. The difficulty associated with establishing and enforcing security over immoveable assets in favour of a foreign lender, coupled with the recognition of only a very limited range of forms of security and financing structures in Vietnam, presents a significant impediment to foreign financing of infrastructure projects in Vietnam. In practice, security interests and guarantees provided by borrowers or otherwise in respect of loans in Vietnam can be very difficult to enforce in the event of loan default.

15. Despite the importance of Government’s guarantees for the viability and successful project financing of most large scale infrastructure projects in Vietnam, unless the proposed infrastructure project is of particular importance and size, it is generally difficult to obtain a Government guarantee.
• Thus, in order to encourage private investment in toll road infrastructure projects in Vietnam, alternative payment mechanisms (such as “shadow tolling” and “availability payments”) should be employed to provide more revenue certainty to private sector investors.
• Further, the Government should also look at expanding the range of security and financing structures by legislation to recognise security concepts (which are adopted in the more developed jurisdictions) so as to provide more comfort and certainty to the foreign private sector investors and their financiers, and implement a more detailed and transparent set of criteria for the provision of Government guarantees so as to minimise the current discretionary element.

16. The following table presents a list of 20 issues and recommendations pertaining to the legal environment and institutional situation. These are divided into eight specific sections including:
• Framework for Private Investment in Infrastructure;
• Toll Pricing;
• Development of Laws Relating to Toll/Bridge projects;
• Rights Relating to Land;
• Dispute Resolution and the Legal System;
• Sources of Capital;
• Securities; and
• Foreign Exchange Control.
17. Each part identifies specific key issues and offers recommendations for consideration. The following summarizes these issues and recommendations.

**Table 1 Legal and Institutional Issues and Recommendations**

<table>
<thead>
<tr>
<th>No</th>
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<tr>
<td><strong>FRAMEWORK FOR PRIVATE INVESTMENT IN INFRASTRUCTURE</strong></td>
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<tr>
<td>1.</td>
<td>Vietnam lacks a clear and comprehensive PPP framework governing private investments major infrastructure projects (including transport projects).</td>
<td>Specific PPP guidelines need to be put in place in relation to project risks and allocation, management of common risks and contractual issues commonly encountered between the ASB and project investor(s). This could also include a model concession/project agreement for BOT/PPP structures to standardize PPP documentation and allocate risks to the parties that are best positioned to bear and manage such risks.</td>
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<td>2.</td>
<td>In many cases, project investors are major State-owned enterprises that are selected by appointment in toll road/bridge (BOT) projects without the involvement of a competitive bidding process.</td>
<td>The provisions of the New BOT Decree need to be “fleshed out” by further legislative instruments dealing with selection of project investors through transparent and efficient competitive bidding procedures to the greatest extent possible, including further clarity on methods of selection of project investors, bidding invitation documents, evaluation criteria and award proceedings.</td>
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<td>3.</td>
<td>There have been, in practice, major delays by the relevant government ministries and people’s committees in finalizing and publishing approved BOT portfolios.</td>
<td>The process to obtain approval for BOT portfolios should be streamlined to reduce any time gaps between seeking the relevant approvals (for e.g. there should be 1 central committee which coordinates the approval and publishing process). There should also be a designated annual deadline by which the approved BOT portfolios must be published.</td>
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<td>4.</td>
<td>Where a new project is proposed by a potential investor for inclusion in the master plan that party is given no priority in relation to that project in the selection process. This acts as a disincentive to private sector input at the early stages of project identification.</td>
<td>Priority should be given to the proposing investor during the bidding evaluation stage to encourage private participation from the project identification stage.</td>
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<td><strong>TOLL PRICING</strong></td>
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<td>5.</td>
<td>Toll rates for privately invested roads projects may not exceed twice the toll rates for road projects invested with State budget capital. By imposing caps by reference to the applicable toll rates levied on road projects invested with State budget capital, this restriction presents a major obstacle for encouragement of private participation in road infrastructure projects in Vietnam.</td>
<td>Independent pricing regulation should be developed for toll road/bridges involving private investment.</td>
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<td>6.</td>
<td>Any changes in tolls, fees and charges other than those contemplated in the BOT contract must be approved by the ASB (being the MOT) and the project company must notify the MOT at least 30 working days prior to that change. This may cause difficulties for, and pricing exposure to, investors and financiers of toll road/bridge infrastructure projects.</td>
<td>Independent pricing regulation and streamlining of approvals processes should be developed for toll roads and bridges involving private investment.</td>
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<td>7.</td>
<td>The “user-pays” model of funding traditionally used in Vietnam means that the economic return for investors is subject to the level of traffic using the toll road or bridge from time to time and therefore provides limited revenue certainty.</td>
<td>Vietnam should consider the use of alternative payment mechanisms which have been used on toll roads and bridges in more developed countries, including “shadow tolling” and/or “availability payments” which give the private sector investors added revenue certainty.</td>
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<td>DEVELOPMENT OF LAWS RELATING TO TOLL/BRIDGE PROJECTS</td>
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<td>8.</td>
<td>The process for obtaining various approvals and permits for the development of a toll road/bridge project in Vietnam can be cumbersome and time-consuming. Any delay in obtaining any of these approvals or permits can cause significant delay or inability to commence in construction or failure to commence construction of the project. In addition, applicable procedures and formalities that must be complied with for private sector investors to take advantage of new regulations which open up new sectors to them, are in many instances yet to be specified and in many instances are inconsistently interpreted or applied by relevant government authorities.</td>
<td>Where possible, approvals processes should be streamlined and powers vested in a more centralised way (minimising the number of government departments and authorities involved in the approvals process).</td>
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<td>RIGHTS RELATING TO LAND</td>
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<td>9.</td>
<td>There are significant legal obstacles for foreign investors in relation to land acquisition for toll road/bridge projects in Vietnam, including whether foreign investors will be able to secure land use right certificates to facilitate external debt funding from financiers, whether foreign investors can acquire the project land by way of a land allocation (other than acquisition by way of land lease), and whether foreign investors may acquire the project land by way of land lease (and then secure a land use right certificate in relation thereof).</td>
<td>An alternative form of land use right certification could be developed in order to evidence land tenure.</td>
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<td>10.</td>
<td>The relevant procedures for obtaining and calculating compensation for land resumed by the government of Vietnam are time consuming and lack transparency and the quantum of compensation usually falls beneath the market value of the land. As a result, investors allocated with land need to provide for the costs of compensation, assistance, resettlement and funds for organization of</td>
<td>Statutory compensation mechanisms require revision to allow for greater market responsiveness.</td>
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<td>compensation, assistance, resettlement in accordance with approved plan in the investment capital of the project.</td>
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<td><strong>DISPUTE RESOLUTION AND THE LEGAL SYSTEM</strong></td>
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<td>11.</td>
<td>Certain remedies for contractual breach or other causes of action that may normally be available in other jurisdictions may not be available in Vietnam and orders for specific performance (while theoretically available) are not generally given (and are rarely awarded to foreign claimants). This can have a material adverse effect on a foreign investor's business, financial condition, performance and prospects.</td>
<td>Continued capacity building and legal education within the Vietnamese legal profession and judiciary is necessary.</td>
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<td>12.</td>
<td>There is uncertainty whether arbitration under the New BOT Decree includes arbitration by a foreign arbitration body. Further the interpretation sometimes adopted by courts in Vietnam of the term, “fundamental principles of the laws of Vietnam” when determining whether to enforce a foreign arbitral award in Vietnam has often made such enforcement an inherently difficult undertaking.</td>
<td>Clarification should be provided by way of a ministerial circular or other subordinate legislation implementing the New BOT Decree.</td>
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<td>13.</td>
<td>Due to the stage of development of the law in Vietnam, the broad discretion of the courts to imply fairness terms into contracts, and the absence of a system of binding case law or precedents, foreign investors are often faced with recognizing that Vietnamese law can be subject to broad interpretation and that different lawyers and courts can have contrasting views on the application and interpretation of different laws and regulations.</td>
<td>Enhance and accelerate legal education of profession and judiciary.</td>
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<td><strong>SOURCES OF CAPITAL</strong></td>
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<td>14.</td>
<td>A condition of a Vietnam domiciled joint stock company being entitled to issue corporate bonds is that the production and business operation for the year immediately preceding the year of the issuance has been profitable.</td>
<td>The “profitable” requirement needs to be addressed since a BOT company will normally seek external debt funding by way of issuance of corporate bonds to finance the construction of the road infrastructure at the construction stage.</td>
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<td><strong>SECURITIES</strong></td>
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<td>The statutory obstacles to establishment and enforcement of security over immovable assets in favour of a foreign lender coupled with recognition of only a very limited range of forms of security and financing structures presents a significant impediment to foreign financing of infrastructure projects in Vietnam.</td>
<td>The range of security and financing structures should be expanded (by issue of further legislation) to recognise concepts familiar in more developed jurisdictions (e.g. fixed and floating charges, security trustee/agent concepts)</td>
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<td>In practice, security interests and guarantees provided by borrowers or otherwise in respect of loans in Vietnam can be very difficult to enforce in the event of loan default.</td>
<td>Streamlining of court systems and continued legal education for security interests and guarantees in Vietnam.</td>
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<td>defaults.</td>
<td>government officials, legal professionals and judiciary is required.</td>
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<td>17.</td>
<td>In practice, it is generally difficult to obtain a Government guarantee unless the proposed infrastructure project is of particular importance and/or size, despite the importance of such guarantees for the viability and successful project financing of most large scale infrastructure projects in Vietnam.</td>
<td>A more detailed and transparent set of criteria for provision of Government guarantees should be legislated (minimising current discretionary element).</td>
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</table>

**FOREIGN EXCHANGE CONTROL**

| 18. | As project assets are often expressed in USD, exchange rate fluctuations and VND devaluation can have a material effect on the value of the assets and may adversely affect the US Dollar value of investments, interest and dividends received by the (foreign) private sector investors for which protection may not be able to be achieved through hedging transactions. | This is a commercial risk which all investors bear. |
| 19. | While the (BOT) project company in a toll road/bridge project would have a right to buy foreign currency to meet permitted current and capital transactions, this does not automatically mean that sufficient foreign currency will be readily available at their financial institution for conversion from VND toll revenue streams. | This is a commercial risk which all investors bear. The Government through current legislation allows for some risk mitigation. For high priority projects, a guarantee of availability of foreign exchange could be given. |
| 20. | At present, it is necessary to sell foreign currency sourced from current income to an authorised bank at 0%, however this percentage could be changed by a subsequently-issued Government decision (and has previously been as much as 40%). | Reassurance in respect of applicable/potential rate range should be legislated. |
3.2 Financial and Private Participation Aspects

18. Internationally there is presently a significant body of experience in terms of financing options for private investment which augers well for those countries considering the development of private sector options for financing transport activities. It is into this arena of international knowledge and experience that Vietnam is entering and the first section deals with a series of these options and identifies the most promising ones for Vietnam. Specifically the areas include:

(i) loans and other forms of debt;
(ii) joint ventures and BOT (various) options;
(iii) other financing instruments in which are identified short, medium and long terms options for consideration;
(iv) a wide range of incentive options and other cooperative arrangements; and
(v) ends with a discussion on long term prospects internationally and those of potential interest to Vietnam. It details a number of recommendations including a summary of those presented in recent analyses by the World Bank and the ADB.

19. The second section deals with the issue of risk mitigation in transport projects, exploring risk categories, the concept of risk both for the government (public sector) and the private sector in financing road/bridge projects. It discusses risk allocation, identifying which risks are most likely to affect both public and private financiers, and presents a risk matrix which itemizes the most significant types of risks, gives a detailed description of each risk and its consequence. This table also presents a risk limiting strategy for each risk identified, specifying the risk to government (public sector) as well as to the private sector, indicating incidence and severity. The issue of risk is one area which is of pertinent importance to the private sector as this is a sector that is risk averse, so minimizing any risk is of prime concern. Recommendations on actions to be considered for risk mitigation are presented at the end of this section.

20. The final section dealing with financial aspects focuses on international experience in tolling and its relationship to Vietnam. It begins with a discussion on the general purpose of tolling, explores international experience with respect to the preparation of master plans for toll roads, and presents international experience in financing toll road construction for a select number of countries. It further discusses the importance of toll good road evaluation including the importance of sound traffic forecasting to private investors, and explores the concept of willingness to pay and tolls rates. Given the importance of applying appropriate toll rates, this section presents methods and procedures for toll adjustment in various countries as well as the option of modifying toll rates through changes in condition of payment. As there is always potential along tolled roads for other income sources, this concept is discussed briefly, followed by an assessment of choosing the appropriate incentives to encourage private sector participation in project financing. The section also deals with considerations relating to competing highways, the principle of free access, options for the management of toll roads, ending with a discussion on some key factors affecting future toll road investment, both generally and more specifically as it relates to Vietnam. A series of recommendations is presented at the end of this section.

21. Below in Table 2 is a composite of those recommendations presented in the financing part.
Table 2 Financial Aspects

<table>
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<th>RECOMMENDATIONS</th>
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<td><strong>FINANCING MODALITIES</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Both syndicated loans and mezzanine debt are presently beginning to “creep” into Vietnam’s financial system, and it is recommended that these be left to develop further naturally on their own.</td>
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<td>2.</td>
<td><strong>Pursuit of the Annuity BOT option.</strong> A set of options will need to be drawn up, including how to deal with the inflation issue. There could be a number of alternatives developed to suit a series of situations. For example, fixed or variable interest rates, including higher rates at the beginning with progressively lower rates as time goes on, balloon payments at strategic points with tolling a partial payment option, variations in time frames, from 10 years to 50 years, with option for renewal. Re-financing option as well as option for full payback with or without penalty, etc, etc. it is recommended that the domestic banking sector including financial institutions (such as insurance companies, pension funding institutions, etc) be approached to (i) assist in the development of an acceptable strategy and (ii) identify a pilot project for implementation. This is one option that should be considered for implementation in the short term.</td>
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</table>
| 3. | **Pursuit and augmentation of the Government Bond Option.** There is significant interest right now in this option and that should be further explored. However this should be developed with significant care and attention to several details. The bonds issued to date have been very small and short-term. A good example for Vietnam to consider is that of China. Of particular interest is their development of an overall bond issuing strategy - by the Ministry of Finance, not the banks or security exchanges - which would set a limit to the number of bonds to be issued annually, by provinces and municipalities, and in this context by sector as well. As in the case of annuity BOTs inflation will need to be taken into consideration when setting the interest rates and repayment time frame. These bonds would need to have government guarantees backing their issue so that investors are assured that repayment will be made. This should be pursued in the short term. Access should however ensure that the credit worthiness of Vietnamese bonds is maintained by:  
  - Ensuring that applicants for bond issue are capable of repaying bonds on time;  
  - preparing strict rules concerning non performing bonds;  
  - reducing quotas respecting issuance of bonds, using strict criteria for acceptance;  
  - introducing the use of municipal bonds for road projects; and  
  - taking measures to reduce the extent to which government bonds “crowd out” corporate bond issues. |
<p>| 4. | <strong>Further encouragement of Co-operative Joint Ventures and Joint Venture financing,</strong> especially those between domestic private companies (other than SOEs only) and foreign investors. These may be formed for the purpose of construction only, for the purpose of operation and maintenance only (a leasing concession as it were), or for the entire BOT period. Also, as indicated elsewhere these may be formed for the period of pre-construction, or Approvals stage (as has been done in the USA). A number of legal issues will need to be resolved (see legal report), and the length of time it takes for approvals and permits, but these should not be an impediment to this use of this modality. Two specific sub-recommendations apply here: |</p>
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<td></td>
<td>(i) that it be determined which government authorities and entities are key in the approvals process and that these be the only ones from which approvals are required. No peripheral or non-pertinent departments and agencies should be involved in the approval process; and</td>
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<td></td>
<td>(ii) that joint ventures should be allowed to “sell” their concession during the contracted concession period, given certain stipulations. This would allow the elimination of some of the risk factors perceived by the private sector, particularly in Greenfield projects where so many assumptions need to be made prior to commitment.</td>
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5. The **pursuit of pure BOTs** in Vietnam is likely too early as there are too few success stories that investors can relate to, in the roads sector at least. This is not to say that the BOT concept should be dropped, no, rather it should be nurtured but left to develop at its own pace. If this is an area, however, where the government would like to speed up progress, then it will need to consider a range of “incentives” (as noted in the study’s toll road report), to decrease the private investor’s perceived range of risks. 

**Issues related to both JVs and BOTs** - Critical legal and regulatory issues still need to be addressed before achieving optimum success. These include the need to:

- (i) establish clear and consistent taxation laws;
- (ii) fully standardize currency conversion and repatriation of funds;
- (iii) develop collective bargaining and labour laws;
- (iv) provide clear definition of foreign investment limits and market entry rights;
- (v) provide reliable information to prospective investors regarding capital expenditure requirements for road operation and maintenance;
- (vi) establish secure laws governing initial toll rates and toll rate increase allowances; and
- (vii) develop government capacity and reliability in providing limited traffic and/or revenue guarantees for specific projects.

**RISK MITIGATION**

6. **Contract an Independent Engineer** to undertake all critical technical reviews. This would include compliance monitoring at the point of development of the concession document to ensure that all the standards for reporting, data collection, maintenance operations and adherence to standards are included in concessions.

7. **Hire a Professional Contracts Specialist**, with significant legal expertise in contract development, to help prepare and concession, leasing, or other contractual agreements. A proper writing of the concession agreement will transfer most if not all risks wholly to the side of the concessionaire if standards are set according to performance criteria.

8. **Concession Agreement**: Ensure that the concession agreement developed follows the standard outline format of all concession agreements and includes formal review by expert technical staff and independent legal counsel.
   - Build step in rights into the concession agreement to pre-specify the consequences of taking over the concession;
   - Set a clear process in place in the concession document to manage the increased cost of operation and congestion pricing. Higher traffic volumes
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<td>trigger higher tolls. An alternative is to let the market set the toll rate and allow the concessionaire to maximize revenue by setting tolls directly;</td>
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<td>• Clarify in the concession document the conditions under which compensation for loss of traffic will and will not be paid. This can be done by specifying the level of permitted improvements of parallel roads and the timing of those improvements;</td>
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<td>• Review the concession agreement to determine the limits of Government liability. Agree to modifications to the agreement that mitigate the impact of changes such as changes to the term of the concession;</td>
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<td>• Work with Concessionaire to ensure that refinancing risk is covered by MIGA or similar insurance. If not coverage available, provide guarantee of assumption of loan by Government;</td>
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<td>• Specify in the concession agreement the implications of currency devaluation. Agree currency conversion levels of rate of return guarantees at the outset to ensure that the risk of currency devaluation remain with the Government;</td>
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<td>• Require all licenses and permits and any discharge from the road to be explicitly included in the concession agreement;</td>
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<td></td>
<td>• Provide for an orderly process of revision of the agreement based on a recognized list of possible government changes which affect operating cost. Cost changes of Government decisions should be explicitly covered in the concession agreement; and</td>
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<td></td>
<td>• Ensure that full and adequate insurance exists to cover off force majeure and Act of God events.</td>
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<tr>
<td>9.</td>
<td><strong>Condition Assessment:</strong> Carry out full condition survey of assets to be transferred and build into the concession a program of asset value recovery and reconstruction. Build condition assessment into annual or bi-annual testing cycle and agree an allocation of additional funds to concessionaire to reconstruct any section deemed substandard by the independent engineer.</td>
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<td>10.</td>
<td><strong>Design Review:</strong> Carry out a design review of the current road and compare it to the current standard design. Specify a gradual replacement of poor design with updates over time to improve the existing carriageway and furniture to current standards. Prepare new design and operations standards based on performance. For instance, the concessionaire is responsible for safe design and operation of the road at 120 km an hour and for all road conditions. Prepare any new design and operations standards based on performance.</td>
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<td>11.</td>
<td><strong>Environmental Assessment:</strong> Government contracts for full environmental impact assessment and full environmental mitigation plan including expected costing and incorporate this plan into the concession agreement. Government should further require the concessionaire to pay for the above study and plan retroactively as part of the concession fee.</td>
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<td>• Prepare environmental screening and testing of the current alignment to identify any known risks and development of a mitigation plan to deal with those risks;</td>
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<td>• Begin land acquisition with sufficient lead time to ensure that there are no delays to the construction schedule. As an alternative, provide guarantees to Concessionaire that the land acquisition will not be delayed beyond a certain time limit. This would be wholly the responsibility of the government;</td>
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|     | • Acquire all land prior to the commencement of the concession. Another alternative is to provide an upset limit for land cost above which the
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<td>12.</td>
<td><strong>Approval Process</strong>: Develop a one stop clearance assistance process to coordinate all Government responsibility for approvals. Where possible obtain prior clearances for all critical elements of the concession and include those prior clearances in the concession documents. Also, create an official “PPI” agency or authority with power to control the PPI process for all departments and to ensure that impacts, risks and approvals are planned, programmed and the approvals process is well monitored.</td>
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<td>13.</td>
<td><strong>Legal Imperative</strong>: Review all laws involved in development and operation of concessions to ensure that the allocation of responsibility is clear and unambiguous. If laws cannot be changed or improved, ensure that the concession agreement contains explicit reference to all key issues of compliance and authority.</td>
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</table>
| 14. | **Guarantees and Incentives**: Where necessary be flexible enough to provide a series of guarantees and other incentives to the investor including:  
- allowing the concessionaire to borrow on Government terms and on-lend to the concessionaire or provide capital inducements to reduce the amount of loan needed; and  
- making provisions for exchange rate guarantees, sovereign guarantees, substitute financing, guarantee of minimum traffic levels, shadow tolls, capital support to construction, etc (see section on financing modalities for a detailed description of recommended incentives and guarantees). |
| 15. | **TOLLING**: Prepare a national tolling development strategy and tolling implementation plan to address issues at all levels of government. Such a plan would need to be continuously updated to reflect reality. It is imperative that such a plan be developed to complement the roads master plan and the expressway plan. Identification of those roads which are earmarked for tolling would set the stage for phased development of the entire road network system. |
| 16. | Re-evaluate the existing toll structure in Vietnam. The ADB Study recommended some basic legal changes including:  
(i) the current ceiling on tolls be abolished in respect of expressways with private investment or operation; and  
(ii) toll adjustment be automatic on the basis of a mathematical formula included in the contract between the client and the contractor. This should be adopted. |
| 17. | An economic analysis with an EIRR calculated should be undertaken for all road/bridge and tunnel projects regardless of whether they are to be financed by the public sector or private sector. For those projects which are to be tolled a financial analysis with an estimated FIRR should be mandatory. Based on these analyses a decision can then be made as to whether the particular project should be pursued for private investment. |
| 18. | For government sponsored projects, which are to be tolled, assign the responsibility for traffic forecasting to an experienced agency such as suggested by both the ADB and IBRD – such as TEDI and insist on a range of forecasts including low, medium and high. For projects where the private sector is investing, the government still needs to prepare their own forecasts, but to be sure the private sector investor will undertake due diligence and do their own forecasting as well. |
## RECOMMENDATIONS

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<td>19.</td>
<td>Develop a strategy and system for automatic annual adjustment of toll rates based, at the very least on inflation rates and other economic indicators.</td>
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<td>20.</td>
<td>Vietnamese are already paying ferry rates for crossing rivers. New bridges constructed over a certain span should be tolled at a minimum rate which a ferry crossing would cost. For medium sized bridges the rate should begin at the lower end of the ferry rate spectrum, and for large bridges the rate should be at the higher spectrum. For causeways the rates should be otherwise determined.</td>
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| 21. | For roads tolls should be set on a project by project basis and be based on a number of factors such as:  
   (i) the level of regional development, potential for economic growth, income levels which translates to affordability to pay;  
   (ii) the existing ferry and toll rates (although this latter category needs to be viewed with caution as existing listed toll rates are mostly unrealistic in certain situations and areas);  
   (iii) whether the tolling is to be issued on the basis of a not-for-profit road (simply for payback of a specified amount of debt – both loans and bonds), or a for-profit road (to include not only debt repayment but also a certain agreed level of profit);  
   (iv) the results from their feasibility analyses; and  
   (v) the comparison with the economic analysis results indicating vehicle operating cost savings (VOCs). |
| 22. | Develop an official list of government sponsored grants, subsidies and guarantees that can be considered for privately financed projects. These incentives should be developed and authorized, and the leasing of roads after construction be introduced on a pilot basis. |
| 23. | Toll road operators should be allowed to generate extra income from incidental facilities, specifically roadside developments such as placement of signage along the right of way, construction and operation of roadside restaurants, petrol stations, vehicle repair shops and mini malls leased to local entrepreneurs which would house a selection of stalls or shops including crafts, etc. The government should develop a strategy and legal basis to facilitate this. |
| 24. | It is essential to have a well-drafted, detailed concessionaire’s contract. This is best prepared by a professional experienced in contract drafting, with advice from both a lawyer and an engineer certified to do this. A Model contract should be drawn up and used as the basis for drafting of other contracts. |

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*a* There have been a series of studies conducted by both the World Bank and the Asian Development Bank, whose purpose has been to identify new financing options for consideration by the Vietnamese government. The following recommendations build on those studies.

*b* It is essential for establishing a bankable project that a well constructed concession agreement is developed which details the risks on the project and appropriately deals with each risk allocating it to the party which can manage the risk best.

22. For purposes of the financial aspects the following offers recommendations to be considered for adoption both in the short and longer terms.
3.2.1 SHORT-TERM RECOMMENDATIONS (less than 5 years):

1. Bonds – expand use of this mechanism under strict controls;
2. JVs and BOTs – continue expanding their use;
3. Leasing – introduce this facility;
4. Annuity based financing – introduce this facility; and
5. Create a list of incentives and guarantees for consideration, approval and application.

3.2.2 MEDIUM to LONGER TERM RECOMMENDATIONS (5 – 15 years):

1. Creation of an infrastructure bank focused purely on transport;
2. Creation of earmarked highway/road funds;
3. Securitization to be considered in the longer term for high revenue earning roads and bridges; and
4. IPOs to be considered in the long term when deemed appropriate.
Part I – Legal Aspects of Mobilising Private Investment in Toll Road / Bridge Development Projects in Vietnam

23. Vietnam’s transport infrastructure is underdeveloped and opportunities for investment in this sector are attracting increased foreign interest. However, as a result of various actual and perceived legal impediments, investment volumes have proven insufficient to sustain Vietnam's rapid economic growth. Development of transportation infrastructure requires Vietnam to establish a system of synchronous policies for sustainable development, including policies on land use, construction of the public transportation network and encouragement of private sector participation in the sector. To date, foreign involvement in the development of inland transportation has mainly been limited to participation in the capacity of foreign contractors for State funded transport projects.

24. This Report reviews the legal aspects of investment in toll road/bridge infrastructure projects in Vietnam. It focuses on three main areas, being:

a) a review of the existing legal and regulatory framework for investment, operation and ownership of toll roads and infrastructure projects generally;

b) a commentary on the institutions responsible for the funding, management and maintenance of toll roads/bridges in Vietnam; and

c) an analysis of the current legal environment for financing of toll road/bridge projects in Vietnam.

25. All references to primary and subordinate legislation and capitalised terms used in this Report are defined in Appendix 1 to this Report.

26. A summary of the statutory processes and permits/approvals involved in the development of a toll road project in Vietnam is contained in Appendix 2 to this Report and a list of key findings and recommendations is included in Appendix 5 to this Report.

The Existing Vietnamese Legal and Regulatory Framework

1 Legislative Framework

27. Historically, there has been no clearly defined legislative framework (other than the BOT regime) specifically governing the development of, and the grant of concessions for, privately financed toll road/bridge projects in Vietnam.

1.1 Investment Law

28. The Law on Investment regulates investment activities, investors’ rights and obligations, the allocation of incentives, State administration of investment activities in Vietnam (encouraging, guiding and supporting investors in the implementation of their projects and formulating strategies and policies for the development of investment), and offshore investment from Vietnam. Recognising the need to provide foreign investors with added comfort in respect of political risk, the Law on Investment also included guarantees against nationalization or confiscation of investors’ assets (nationalization or confiscation of assets was only possible in case of public interest and was subject to fair and adequate compensation in accordance with the law).

29. Decree 108 (which implements the Law on Investment) contains a list of projects where investment is encouraged, and where it is especially encouraged. Decree 108 also lists certain geographical regions where investment is encouraged, distinguishing between regions with difficult socio-economic conditions and those with especially difficult socio-economic conditions together with a list of sectors in which investment by foreign entities will be subject to certain conditions.

3 Appendix I(B) to Decree 108
4 Appendix I(A) to Decree 108
5 Appendix II to Decree 108
6 Appendix III to Decree 108
30. According to Decree 108\textsuperscript{7}, the construction and development of road infrastructure projects would fall within the list of sectors where investment will be incentivised. However, since passage of the New BOT Decree, transport development projects falling within the scope of the BOT regime will not be governed by the provisions of Decree 108.

1.2 BOT Legislation

31. In 2007, the Government promulgated Decree 78\textsuperscript{8}, which deals with investment in infrastructure on the basis of BOT contracts to encourage private investment particularly in the power, water and transportation sectors. Decree 78 sets out the legal framework for projects undertaken on a BOT, BTO or BT basis (collectively referred to throughout this Report, unless the context suggests otherwise, as “BOT”).

1.2.1 BOT

32. A BOT contract is a written document signed by an ASB and an investor for the construction and commercial operation of an infrastructure facility for a fixed duration not exceeding 50 years. At the end of the term the facility is transferred, at no cost, to the State.

1.2.2 BTO

33. On completion of construction of a BTO facility, the BOT facility is transferred to the State, and the Government will grant the investor the right to operate the facility commercially for a fixed term to recover its invested capital and gain reasonable profits.

1.2.3 BT

34. On completion of construction of a BT project, the facility is transferred to the State, and the Government is required to create conditions for the foreign investor to implement other investment projects to enable the investor to recover its invested capital and gain reasonable profits.

35. Decree 78 contains certain gaps and uncertainties, and was heavily criticised for being overly complicated and adding too many layers of ‘red tape’ to the implementation of BOT projects in Vietnam. There has been, in practice, no foreign invested BOT project licensed since 2001.

1.3 New BOT Decree

36. The Government has recently promulgated the New BOT Decree replacing the Decree 78 BOT framework. The provisions of the New BOT Decree take legal effect as from 15 January 2010. Going forward, where a toll road/bridge project is structured as a BOT investment, the provisions of the New BOT Decree will apply to that investment.

37. However, the New BOT Decree fails to address many of the inadequacies of Decree 78 or materially improve clarity, certainty and expediency for foreign investors. Some key legal and regulatory issues are addressed in Part I Section 4 (BOT concession) of this Report.

38. The New BOT Decree does not currently provide the legal framework for a private investor to lease an existing facility (e.g. one constructed on a BT basis) and operate that facility post-completion. An amendment to the New BOT Decree would be required to enable this to occur.

39. Currently, the Ministry of Planning and Investment (MPI) is drafting a circular to implement the provisions of the New BOT Decree in relation to the bidding process.

1.4 Law on Road Traffic

40. The main legislation specifically affecting road traffic infrastructure is the Law on Road Traffic and Decree 186. Additionally, there are specific pieces of legislation on road master planning (Decision 162

\textsuperscript{7} Appendix I(B)(33) to Decree 108

\textsuperscript{8} Decree 78/2007/ND-CP (Decree 78) of the Government dated 11 May 2007 on investment on the basis of Build-Operate-Transfer (BOT), Build-Transfer-Operate (BTO) and Build-Transfer (BT) contract (was replaced by the New BOT Decree).
Decision 1327), master planning for the development of expressway network (Decision 1734), transport development strategies (Decision 35) and lists of investment projects calling for foreign equity participation in road infrastructure (Decision 1290).

41. The Law on Road Traffic prescribes road traffic rules, road infrastructure facilities, vehicles in traffic and road users, road transportation and State management of road traffic.

42. Regarding policies on road traffic development, Article 5.3 of the Law on Road Traffic provides that the State encourages and creates conditions for Vietnamese and foreign organizations and individuals to invest in and commercially operate road infrastructure facilities and road transportation activities.

43. The Ministry of Transport is responsible for formulating master planning on national highways and expressways, and collect opinions of relevant ministries, ministerial-level agencies and provincial-level people’s committees on these master plans prior to submission to the Prime Minister for approval.9

44. In respect of road classification, the road network consists of six road systems, including national highways, provincial roads, district roads, communal roads, urban roads and special-use roads.10

45. Land funds for road infrastructure facilities will be determined in road infrastructure planning. Provincial-level people’s committees will determine and manage land funds reserved for road infrastructure construction projects according to the approved planning.11

46. Newly built, upgraded or renovated road works must ensure technical standards and conditions on traffic safety for road users and vehicles in traffic are met. Road works must be appraised in terms of traffic safety from the time of project elaboration, designing and construction and throughout the use process.12 Before being put into use, roads must be fully equipped with road sign works according to the approved designs.13

47. Article 46.2 of the Law on Road Traffic requires that investment in the construction of road infrastructure facilities:
   a) must be in line with the road transportation planning already approved by competent authorities;
   b) must comply with the process of investment and construction management and other legal provisions; and
   c) must ensure technical standards of different grades of roads, landscape and environmental protection are met.

48. Road infrastructure facilities, once constructed, upgraded or renovated, must be tested and accepted by competent agencies before it can be put into use.14

49. The provisions of the Law on Road Traffic fail to address the treatment of traffic on roads parallel to tolled roads and the potential for bundling roads for tolling.

50. The key piece of legislation on tolling is the MOF’s Circular 90 which is addressed in Section 4.13 (Cap on Road Tolls) of this Report.

1.5 Other laws

51. The Law on Enterprises regulates the formation and governance of companies in Vietnam, while the Civil Code, the Commercial Law and other subordinate legislation regulates contracts.

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9 Article 6.5 of the Law on Road Traffic
10 Article 39.1 of the Law on Road Traffic: “Expressway” is defined in Article 3.12 of the Law on Road Traffic to mean a road reserved only for motor vehicles, with median strips separating carriageways for the two opposite directions of traffic, without crossing at level with any road, furnished with adequate support equipment and devices to ensure uninterrupted and safe traffic, shorten travel time, and with certain points for vehicle exits and entries
11 Article 42.1 of the Law on Road Traffic
12 Article 44.1 and 44.2 of the Law on Road Traffic
13 Article 44.1 and 44.2 of the Law on Road Traffic
14 Article 46.5 of the Law on Road Traffic
52. Leasing (transfer of rights) under a concession may be possible in the context of toll road projects in Vietnam although it remains untested.

2 Private Participation in Road Infrastructure

53. The development and construction of toll road/bridge infrastructure projects in Vietnam does not appear to fall within any conditional business sector – that is, sectors in which enterprises can conduct business subject to satisfaction of specific requirements/conditions prescribed by relevant legislation.

54. There is no express restriction under Vietnamese law (or in Vietnam’s WTO commitments) on private sector equity participation in the development and construction of toll road/bridge infrastructure projects in Vietnam. Under Decree 108\(^\text{15}\) which implements the Law on Investment, the construction and upgrading of bridges, roads, terminals, airports, seaports, railway stations, bus stations and parking areas fall within the list of incentivised investment sectors.

55. Under Decision 1734\(^\text{16}\), the Government’s stated policy is to encourage private participation from Vietnamese and foreign investors in the development of expressway projects in Vietnam which may be structured as BOT or PPP.

56. Private participation in transport projects can:
   a) provide increased efficiency in infrastructure investment and operations;
   b) provide access to private finance and increase Government revenues; and
   c) allow the Government to divert money away from spending on infrastructure into much needed social programmes such as health and education.

57. The New BOT Decree\(^\text{17}\) specifically states that the Government encourages the development of various BOT infrastructure projects, including the construction and development of roads, bridges, tunnels and ferries.

58. Article 45 of the New BOT Decree provides added reassurance that the ownership and other legitimate interests of investors carrying out BOT projects will not be nationalised or confiscated unless special circumstances exist and such nationalisation or confiscation is subject to fair and adequate compensation in accordance with the investment legislation or the specific terms of the (BOT) project agreement.

2.1 Public Private Partnerships (PPP)

59. Vietnam lacks a clear and comprehensive PPP framework governing private investment in major public infrastructure projects (including transport projects). Specific PPP guidelines need to be put in place in relation to project risks and allocation, management of common risks and contractual issues commonly encountered between the ASB and project investor(s). The Government, acting through the MPI, is still in a relatively early stage of developing a PPP framework in social and economic infrastructure, and it has approved its “pilot” PPP program by way of an official decision of the Prime Minister.

60. The MPI (with technical support received from the World Bank) is still in the early stage of developing a regulatory framework for investment in PPP projects in Vietnam. At the time of writing this Report, the MPI’s plan is to submit the first draft to the Government for discussion and approval by May 2010.

61. The legal term “PPP” is yet to be formally recognised under Vietnamese law. Conceptually, a PPP means a concession agreement to be entered between an ASB and a private project investor whereby the ASB grants a concession right for the private project developer to develop a public infrastructure project.

62. Initially some infrastructure projects in the transport and water sectors are to be procured in the form of PPP, including the Dau Giay - Phan Thiet expressway project and Ninh Binh - Thanh Hoa expressway project.

\(^{15}\) Appendix I (A)(V)(33) to Decree 108

\(^{16}\) Article 1.6(a) of Decision 1734

\(^{17}\) Article 4.1(a) of the New BOT Decree
with a view to trialling the PPP concept as an alternative to the traditional State procurement approach for the delivery of public infrastructure projects in Vietnam.

3 Form of Investment

63. Although it may theoretically be possible (since there is no express legal prohibition under Vietnamese law) for toll road/bridge projects to be undertaken in the form of a business corporation contract or a joint venture or in the form of a 100% foreign invested enterprise under the Law on Investment, the practice for private sector participation has been to structure road infrastructure projects in Vietnam specifically as BOT investments under Decree 78.

64. Examples of road infrastructure projects being undertaken on a BOT basis are:
   a) Dau Giay - Phan Thiet (100km, 6 lane) expressway development project by the Vietnamese project investor, Bitexco (estimated US$750 million);
   b) Hanoi - Hai Phong (105.5km, 6 lane) expressway development project by Vietnamese project investor, VIDIFI (estimated US$1 billion); and
   c) New Dong Nai Bridge construction project (461m) crossing Dong Nai river.

65. The term “Vietnamese project investor” used in subclauses (a) and (b) above means a Vietnam domiciled project company with no foreign equity participation incorporated for the purpose of undertaking the BOT project.

66. Decision 1290 sets out a list of national projects calling for foreign investment capital in the 2006-2010 period. Decision 1290 list covers a large number of sectors and industries, including numerous approved transport projects for the development of new expressways and national roads which have been mandated as BOT projects. This list of such BOT projects is contained in Appendix 3 to this Report. We are not aware at the timing of writing this Report of any decision having yet been promulgated by the Prime Minister’s office to replace Decision 1290 listing projects calling for foreign participation post-2010.

67. Decision 1734 also contains a list of expressway projects which falls within the approved master plan for the development of Vietnam’s expressway network up to 2020 with a vision post 2020. This list of expressway projects is contained in Appendix 4 to this Report.

4 BOT Concession

68. Below are some of the key regulatory and legal issues which project developers and financiers need to be aware of in relation to the structuring and development of a BOT toll road/bridge infrastructure project in Vietnam.

4.1 Project Agreement

69. The New BOT Decree stipulates the sectors, conditions, order, procedures and incentives applicable to investment projects for development of infrastructure facilities on a BOT contract basis.

70. The New BOT Decree contemplates the possibility of using types of project agreement other than BOT contracts, but the use of other contractual forms would be subject to an approval by the Prime Minister on a case-by-case basis upon submission of the MPI. Although we agree that the form of project agreements to be used for projects should not be limited, unless and until further regulations are passed specifying other possible forms and the criteria upon which prime ministerial approval would be granted, it seems unlikely that investors will be motivated to pursue anything other than BOT contracts.

71. Under the New BOT Decree, a (BOT) project agreement is required to contain the following information:
   a) objectives and scope of business activities of the project; and

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18 Article 1.1 of the New BOT Decree
19 Article 16.1 of the New BOT Decree
b) rights and obligations of the parties to the project agreement in the design, construction, commercial operations, and management of the project infrastructure.

72. In our view, this basic framework would benefit from the development of a model project agreement specifically designed for the development of toll road/bridge projects in Vietnam. Such model project agreement should, in addition to the information listed in subclauses (a) and (b) above, clearly define and allocate the risks of the project to be borne by each party and provide robust mechanisms (for example, step in rights and dispute resolution procedures) to deal with such risks.

4.2 Selection of Investors through Competitive Bidding

73. According to the New BOT Decree\textsuperscript{20}, investor selection methods will include:
   a) competitive bidding for selection of the project investors; and
   b) appointment of project investors to directly enter into project contract negotiations;

74. In our view, these provisions of the New BOT Decree need to be “fleshed out” by further legislative instruments dealing with selection of project investors through transparent and efficient competitive bidding procedures to the greatest extent possible, including further clarity on methods of selection of project investors, bidding invitation documents, evaluation criteria and award proceedings.

75. Such clarifications would usually be made in the form of a ministry circular issued by the MPI.

4.3 Appointment of Investors

76. In exceptional circumstances, selective appointment and negotiations with a particular investor may occur (as opposed to a competitive bid process), subject to the Prime Minister’s approval the proposal of the relevant ministries and people’s committees and the evaluation report of the MPI.\textsuperscript{21}

77. Under Article 16 of the New BOT Decree, a project company will be established to sign the BOT contract and become, together with the project investor, one party to the BOT contract. The ASB, the project company and project investor will sign a document allowing the project company to accept and carry out the rights and obligations of the project investor pursuant to the provisions of the BOT contract.

4.4 Approved List of BOT Projects

78. Relevant government ministries and people’s committees are responsible for the formulation and approval of a list of BOT projects calling for private investment in any given year. The list is required to be published annually, by being posted on the websites of the relevant government ministries and people’s committees and published in bidding newspapers for 3 consecutive issues.

79. Interested potential investors may express their interest in a particular project in the published portfolio by way of registration with the ASB to bid. Where 2 or more expressions of interest are registered, a competitive bid must be conducted to select the investor for that project.

80. In practice, there have often been major delays by the relevant government ministries and people’s committees in finalising and publishing the approved BOT project portfolios.

4.5 Projects Proposed by Investors

81. Potential investors are not limited to pursuing projects in the published lists. They may also propose particular toll road/bridge projects not specified in the lists to the ASB for consideration and approval (or for subsequent submission to the Prime Minister for his approval) to revise the approved road infrastructure master plan to include that project.

82. Under Article 11.3 of the New BOT Decree, documents evidencing the legal status and financial and technical capability of the potential investor(s) must be submitted in support of this kind of proposal.

\textsuperscript{20} Article 13 and Article 14 of the New BOT Decree
\textsuperscript{21} Article 14.3 of the New BOT Decree
83. If the new project proposed by the ‘would be’ investor is approved for inclusion in the master plan, a
competitive bid must be held with respect to the new project. If another potential investor is also interested in
the same project, no particular preference is given to the proposing investor during the selection process. Obviously, this is a disincentive for potential investors from investing the cost and effort of pursuing inclusion of a project in a master plan.

84. In our view, priority should be given to the proposing investor during the bidding evaluation stage to
encourage private participation from the project identification stage.

85. In a joint presentation at the World Bank sponsored international conference on “Vietnam Public-
Private Partnerships (PPP) Program in Infrastructure” in Hanoi on 24 November 2009, the Centennial Group
and Indochina Capital presented an alternative way of giving priority to investors proposing a new project. They have suggested that, in accordance with processes adopted in other countries:
   a) the proposed project is screened to see if it seems viable as a PPP, serves the public interest, fits
   within the Government’s strategic plan or meets other public policy objectives;
   b) if so, the ASB hires a transaction advisor and an independent consultant to undertake a feasibility
   study (costs of which are to be paid by the proposing investor); and
   c) if found feasible, a competitive bid is undertaken, but the proposing investor is given priority
   treatment by:
      (i) adding a ‘bonus’ (for e.g. 10% increase) on the proposing investor’s bid score;
      (ii) giving the proposing investor the right to match any better offers from other competitors; or
      (iii) conducting multiple bidding rounds with the proposing investor automatically participating in
       the final round.

4.6 Licensing Authority

86. The New BOT Decree provides that the licensing authority will grant an investment certificate for the
BOT project within 45 working days from the date the licensing authority receiving a duly completed
application dossier (including obtaining opinions from ministries and provincial people’s committees). This
statutory approval period commences only when the licensing authority has received the last of any further
information or documents it may request.

87. The MPI is the authority responsible for issuing investment certificates with respect to:
   a) projects which are nationally important;
   b) projects in relation to which ministries, bodies or authorised bodies of ministries, and other State
   bodies competent to enter into project contracts; and
   c) projects which traverse different provinces or cities under the central authority.

88. The relevant provincial people’s committees are responsible for issuing investment certificates in
respect of all other projects.

89. The criteria by which the investment is appraised by the MPI includes:
   a) rights and obligations of the parties to the project contract;
   b) project implementation;
   c) the project’s land requirements;
   d) environmental issues and remedies; and
   e) recommendations of investors in relation to investment incentives and Government guarantees (if
   any).

22 Article 11.6 of the New BOT Decree
23 Article 25.4 of the New BOT Decree
24 Article 24.1 of the New BOT Decree
4.7 Term of BOT Projects
90. The New BOT Decree does not specify any particular maximum term for BOT projects but in most cases the term will not exceed 50 years (which is the usual term of an investment project in Vietnam). In special circumstances, the Government may approve a longer period, which may be up to 70 years.

4.8 BOT investment incentives
91. Road infrastructure projects in Vietnam structured as BOT investments under the New BOT Decree will be entitled to various tax and other incentives currently available under the existing Vietnamese tax legislation, including:
   a) payment of corporate income tax (CIT) at the rate of 10% (being the lowest possible tax rate under current tax legislation) for the first 15 years of the operational term of the BOT project (after the exemption and reduction referred to below);
   b) exemption from payment of CIT for the first four (4) years after taxable income is generated, followed by a 50% reduction in CIT for the next nine (9) years;
   c) exemption from land use fees for the area allocated by the State or exemption from the payment of land rentals for the entire term of the project;
   d) an import duty exemption on equipment, machinery and specialised vehicles (including spare parts, accessories etc) imported for creating assets of the project and fuel, raw materials and supplies imported for implementing the project; and
   e) protected industrial property rights, technical know-how, technological processes and technical services required to implement the project will be exempt from payment of taxes relating to technology transfer or income derived from royalties.
92. In addition to applicable tax incentives, exemption of land rental payment and import duty is available for the term of the BOT project, and the project investor may wish to consider seeking a Government guarantee for the BOT project.

4.9 Equity Funding Ratio
93. There is a restriction on the capital structure of BOT projects under Article 5 of the New BOT Decree. For projects with total investment capital of VND1,500 billion (approximately US$79 million25) or more, an investor must contribute at least 15% of the first VND1,500 billion investment capital as equity and an additional 10% over and above that threshold. This is an increase on the equity contribution requirement prescribed by Decree 78, representing a more cautious approach from the Government in respect of project gearing.

4.10 Performance Bond
94. The New BOT Decree26 requires that an investor must provide a performance bond equal to 2% of project costs up to VND1,500 billion and an additional 1% over and above that threshold until construction is completed.

4.11 Governing Law
95. The New BOT Decree27 provides that the ASB and foreign investor(s) may agree to foreign law governing the BOT contract and other (project) contracts (the obligations of which are guaranteed by the ASB), provided that the application of the relevant foreign law is not contrary to the laws of Vietnam.

25 based on an indicative exchange rate of USD1:VND19,000
26 Article 23 of the New BOT Decree
27 Article 22 of the New BOT Decree
4.12 Disputes

96. Where negotiation and conciliation fail, disputes between a foreign investor (or the project company) and the ASB under a BOT contract may be resolved by Vietnamese courts or Vietnamese arbitration, unless the contracting parties agree to an alternative forum.28

97. Disputes between the project company and a foreign or Vietnamese entity involved in the project may be resolved by:
   a) Vietnamese court;
   b) Vietnamese arbitration;
   c) foreign arbitration;
   d) international arbitration; or
   e) an arbitration tribunal established by agreement of the disputing parties.

4.13 Cap on Road Tolls

98. The primary legislation specifically governing road tolls is Circular 90 issued by the MOF.

99. Circular 90 requires toll rates for privately invested roads projects not to exceed twice the toll rates for road projects invested with State budget capital. This restriction presents a major obstacle for encouragement of private participation in road infrastructure projects in Vietnam.

100. This restriction caps prices for use of the toll way which a private sector investor can levy by reference to the applicable toll rates levied on road projects invested with State budget capital as follows:

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28 Article 44.1 of the New BOT Decree
29 Section IV(I) of Part II of Circular 90
Table 3 Restriction Caps Prices

<table>
<thead>
<tr>
<th>Vehicle</th>
<th>Ticket Price (VND)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>One time</td>
</tr>
<tr>
<td>1. Two, three wheel motorbike and equivalent</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>[This is intentionally left blank in accordance with Circular 90.]</td>
</tr>
<tr>
<td>2. Three – wheeled taxi, pull –car with under 12 seats,</td>
<td>4.000</td>
</tr>
<tr>
<td>3. Van with loading capacity under 2 tons and Public bus</td>
<td>10.000</td>
</tr>
<tr>
<td>4. Bus with from 12 to 30 seats, van with loading capacity from 2 to 4 tons</td>
<td>15.000</td>
</tr>
<tr>
<td>5. Car with over 31 seats, van with loading capacity from 4 to 10 tons</td>
<td>22.000</td>
</tr>
<tr>
<td>6. Van with loading capacity form 10 to 18 tons and 20ft container truck</td>
<td>40.000</td>
</tr>
<tr>
<td>7. Van with loading capacity over 10 tons and 40ft container truck</td>
<td>80.000</td>
</tr>
</tbody>
</table>

101. Under the New BOT Decree\(^3\), any changes in tolls, fees and charges other than those contemplated in the BOT contract must be approved by the ASB (being the MOT) and the project company must notify the MOT at least 30 working days prior to that change. This may cause difficulties for, and pricing exposure to, investors and financiers of toll road/bridge infrastructure projects due to the lack of independent pricing regulation.

102. An Asian Development Bank study completed in April 2007\(^3\) (ADB Study) reviewed the legislation of six countries on the general principles governing the toll rate structure for highways built, maintained or operated by private investors, including applicable legislative provisions on the readjustment of the original rates.

103. The ADB Study recommended amending Vietnamese legislation to remove the mandatory ceiling on the level of road-using charges which may be collected by a private investor with respect to a national highway built, maintained or operated under a BOT/BTO contract (or any other type of contract) and also to exclude VAT. This can be done fairly simply by amending Section IV of Part II of Circular No. 90/2004/TT-BTC. To date, these recommendations have not been implemented.

104. Private sector investors need the prior approval of the MOF (for national highways) or the provincial people’s council (for local roads) to charge the applicable tolls. In addition:

a) toll-collecting units have to declare and pay value added tax and business income tax, and account for business results as provided for by law; and

b) at the end of the business duration under contracts or decisions of competent state bodies, investors must transfer such roads to the State for management and the toll-collecting units must

collect, remit, manage and use road tolls according to the regime prescribed for roads invested with State budget capital as mentioned above.

105. The ADB Study has recommended changes which can be effected simply by deleting portions of the existing text and adding the following:

a) The toll rates for roads invested for business (including BOT and other forms of business) are road-using charges for use of roads, suitable to the road grade and the length of the toll road sections under the approved investment projects and investors’ proposal, which, however, shall not exceed twice the toll rates for roads invested with State budget capital;

b) The road toll amounts invested for business are business revenues of units. Toll-collecting units shall have to declare and pay business income tax, and account for business results as provided for by law; and

c) Road tolls are exempt from VAT.

106. The first point could be further amended by including, in addition to the grade and length of the road, as a basis for setting applicable rates on road-using charges in the BOT/BTO contract, some additional elements, such as those, for example, specified in Rule 3(2) of India’s National Highways Rules, 1997. Hence a new Point 1 for Section IV could read as follows:

The applicable rates on road-using charges collected on roads invested for business under a BOT or BTO project, or under any other form of private investment, are set in the relevant contract between the private investor and the authorized State body having regard to the expenditure involved in building, maintaining or operating the road, its grade and length, interest on the capital invested, reasonable return, the volume of traffic and the period for which such contract is in effect.

107. Additionally, Circular No. 90/2004/TT-BTC sets out four conditions which a national highway must satisfy in order to be eligible for toll collection, one of them being that the MOF must issue a decision prescribing the applicable toll rate for the proposed toll road.

108. MOF has issued decisions specifying toll rates for national highways or the provincial-level people’s councils have issued resolutions or decisions specifying the toll rates for local roads, suitable to the grades of roads expected for toll collection. This condition however does not apply to roads invested for business.

109. These seemingly small changes outlined above would in our view certainly be of value in helping to attract private investment in national highways, including expressways.

4.14 User-Pays Toll Structure

110. BOT toll road/bridge projects in Vietnam have to date adopted the more traditional “user-pays” model in accordance with the cap on toll pricing as provided for in Circular 90.

111. In this “user-pays” funding model, the investors’ economic return from the project relies on toll revenue stream payments, subject to traffic projection risks (i.e. the level of traffic using the licensed toll road/bridge from time to time).

112. Alternative payment structures and revenue options which may give private sector investors added revenue certainties are described below.

4.14.1 Shadow Tolling

113. Under a shadow toll system, road users do not pay tolls themselves but the government pays the operator an amount of money corresponding to the toll based on road traffic volume on the road in question.

4.14.2 Availability Payments

114. Availability payments are paid by the government according to a fixed schedule for the availability of the road for public use over the course of the project (irrespective of the traffic volume).
4.14.3 Other revenue streams

115. Private investors may seek to supplement the above mechanisms by building into the project alternative revenue streams such as pre-approval for the construction and operation (using private funds) of restrooms, advertising billboards, gas stations and restaurants along the route of the proposed road.

116. Vietnamese law does not preclude approval of such supplementary projects however it would be prudent to include those supplementary projects in the original project design for the roads in question. This is because when land use rights are granted in Vietnam, they are granted only for the specific purpose for which they have been sought.

4.15 Road Toll Collection Network Planning

117. In relation to toll collection on national highways, Section II(2) of Circular 90 requires that:
   a) the toll road/bridge project must be included in the national highway toll collection network plan; and
   b) a decision on the setting up of toll booths has been issued by the Minister of the MOT; and
   c) approval of the Minister of the MOF must be obtained.

5 Approval Process

118. Various approvals and permits are required to be obtained for the development of toll road/bridge projects in Vietnam, and the process for obtaining these approvals and permits can be cumbersome and time-consuming. Any delay in obtaining any of these approvals or permits could cause significant delay or the inability to commence construction of the project.

119. As the legal system of Vietnam develops, there are inconsistencies in laws and regulations and time delays before old laws are updated to accord with other regulations and laws. Whilst new regulations purportedly broaden the range of sectors and industries in which (foreigners) private sector investors are permitted to invest, the applicable procedures and formalities that must be complied with in many instances have yet to be specified and in many instances are inconsistently interpreted or applied by relevant government authorities.

120. Private investors would benefit from greater transparency of the processes and policies of the various decision making bodies from which various approvals and consents must be obtained. The relevant bodies should consider issuing policy statements or guidelines in Vietnamese and English to clearly explain:
   a) the relevant process and applicable timeframes;
   b) any factors or criteria that the decision making body will consider in making its decision;
   c) the decision maker’s interpretation of its powers and its position in relation to the meaning of any key phrases in the relevant legislation; and
   d) where the decision maker has discretion over a matter, any policies that it will have regard to in exercising that discretion, including an explanation of its position in relation to commonly presented situations or scenarios.

121. Policy statements and guidelines such as those outlined above are often provided by regulatory bodies in other jurisdictions. An example of such policy / guideline can be found on the Australian Foreign Investment Review Board’s (FIRB) website setting out the FIRB’s policy and procedures in relation to the review of foreign investments into Australia.

122. A list of approvals and consents required for the development of a toll road/bridge BOT project is contained in Appendix 2 to this Report. This list also includes the relevant statutory timeframes and costs for the key processes involved in the development of a toll road/bridge project in Vietnam. Where appropriate, an estimate of the likely period of informal discussions with the relevant decision making body has also been provided. The table in Appendix 2 to this Report is divided into those approvals and consents that are the responsibility of the construction contractor (where these roles are performed by different entities).
123. A description of the major steps which need to be undertaken for the development of toll road/bridge BOT projects is contained in Part II Section 3 (Approval processes and procedures) of this Report.

6 Land Acquisition

124. Land tenure is obviously a key issue for any infrastructure project. Foreign investors must initially appreciate the fact that there is no freehold title to land in Vietnam. The Land Law provides that all land belongs to the people of Vietnam and is administered by the State for long-term and stable use.

125. Although private ownership of land is not recognized, Vietnamese citizens and, subject to various rules and foreign ownership restrictions, companies incorporated in Vietnam are allowed to own, transfer and mortgage land use rights.

126. Although Vietnam has attempted to issue and implement more progressive and sophisticated land and property-related laws and regulations to attract private sector investment and to cater for private ownership and rights, to some extent, it remains unable to overcome fundamental issues related to the legal nature and rights of land ownership.

127. The State is empowered to allocate or lease land to land users for specific maximum periods of tenure. Under the Land Law, the term of a lease for a foreign invested project is generally limited to 50 years, subject to extension upon expiry of the initial term. In the case of projects with a large amount of invested capital, a long capital return or projects conducted in areas with socio-economic difficulties, the Government may grant leases with maximum 70 year duration.

128. There are essentially two ways for a foreign invested enterprise to obtain the use of land for its investment project in Vietnam:

a) by a direct lease from the State for the duration of the investment project, with rent being paid annual or on a lump sum basis; or

b) by the Vietnamese partner to a joint venture or to a business co-operation contract leasing land from the State and subsequently contributing the value of the land use rights to the joint venture or business cooperation.

129. The New BOT Decree provides that the provincial people’s committees of the locality or localities in which the project is implemented will be responsible for land clearance and for undertaking land allocation/land lease procedures for the BOT project.

6.1 Land Use Right Certificate

130. It is important to note that users of land acquired for public purposes by way of land allocation by the State, including for the construction of road infrastructure works, will not be issued with a land use right certificate. This is a major legal impediment which needs to be addressed to facilitate external debt funding from financiers for the development of toll road/bridge projects in Vietnam.

131. Pursuant to Article 66.1 of Decree 88, as from 1 January 2008, land users have been unable to exercise their land rights or grant a mortgage over the relevant land use rights unless they possess a land use right certificate.

132. It is unclear under the Land Law whether it is possible for foreign investors to acquire the project land by way of a land allocation (other than acquisition by way of land lease).

32 Article 67.3 of the Land Law
33 Article 30 of the New BOT Decree
34 Article 91.3(a) (land used for public purposes) of Decree 181/2004/ND-CP dated 29 October 2004 of the Government to implement the Land Law
36 Article 33 and Article 35 of the Land Law
133. Further, it remains debatable whether the foreign investors may acquire the project land by way of a land lease (and then secure a land use right certificate in relation thereof) specifically relevant to the development of a toll road/bridge project in Vietnam.

7 Land Compensation

134. The main circumstances in which the Government has statutory authority to recover land are as follows:

a) if the Government wants to use the land for objectives of national defence and security, national interest, public interest, or economic development;

b) if it is used in an inefficient way or incorrect purpose;

c) if it has not been used for twelve (12) consecutive months, or the project schedule has been delayed for more than twenty four (24) months from the time of taking-over the site to implementing an investment project;

d) if the land user intentionally destroys the land; and

e) if the land user intentionally fails to discharge financial obligations to the Government.

135. Among the above circumstances, the circumstance described in subclause (i) above is the most commonly exercised power.

136. Although Vietnamese law provides for compensation mechanisms and formulae for calculation of compensation if land is resumed by the Government, in circumstances of the kind described above, these procedures are time consuming and lack transparency. The quantum of compensation usually falls beneath the market value of the land.

137. In practice private sector investors have to bear the costs and risks of the land acquisition process, although Article 30 of the New BOT Decree states that the relevant provincial people’s committee is responsible for site clearance and completion of land allocation/land lease procedures to implement a BOT project. Private sector investors have often been faced with major delays in completion of the site clearance and compensation processes necessary for commencement of construction works.

138. To minimise these delays, project developers often need to deal directly with the existing land occupants to relocate them. It may take years for the project developers to clear the project site before construction can commence. Under Article 30.2 of the New BOT Decree, costs of site clearance and relocation compensation payable by the BOT company will constitute part of the total investment capital of the BOT project.

139. Investors allocated with land for which land use fee is collected by, or leasing land from, the State, who have advanced money for compensation, assistance, resettlement and funds for organisation of compensation and site clearance in accordance with approved plans will be refunded from the State budget by way of deduction from the land use fee or land rental payable.

140. Where investors are allocated with land with or without collection of land use fee, or lease land from the State and are exempted from land use fees or land rental, the amount for compensation, assistance, resettlement and funds for organisation of compensation, assistance, resettlement in accordance with approved plan will need to be accounted for in the investment capital of the project.

141. Circular 14 provides that the land prices for compensation purposes will be based on land prices in respect of the purpose of recovered land in accordance with the provisions of provincial people’s committee announced on 01 January of each year. Where the land prices provided by the provincial people’s committee are not close to the market price under normal conditions, the provincial people’s committee may permit the authorised body to re-determine specific land prices and those prices will not be limited by the price ranges for types of land.

37 Article 15 of Decree 69
38 Article 5 of Circular 14
142. According to Circular 14\textsuperscript{39}, a general plan for compensation, assistance, and resettlement must be prepared by the investors with the assistance of the organisation in charge of compensation and site clearance, and must be approved at the same time as the investment project approval is obtained.

143. The contents of the general plan for compensation, assistance, and resettlement comprise of the:
   a) area of land to be recovered;
   b) total number of households in the area of land to be recovered;
   c) proposed amounts of compensation and assistance; and
   d) details of the resettlement.

8 Construction

144. Toll road and bridge construction must comply with the provisions of the Law on Construction (as amended on 19 June 2009) and Decree 12 (as amended on 15 October 2009) on management of investment project for construction works.

145. Decree 12 (amended by Decree 83) implements the Law on Construction with regard to the formulation, evaluation, approval and implementation of investment projects for construction of works, design for construction of works, construction permits, management of execution of works, and conditions applicable to capacity of organizations and individuals to engage in construction activities. All construction, rehabilitation and upgrading road projects must be managed in accordance with Decree 12 and other subordinate legislation.

146. All investment in construction projects must also comply with the master plan for socio-economic development, with master planning for branches and with the construction master plan.

147. In relation to projects not yet included in master plan, the investor must submit a report to the ASB (MOT and VRA for toll road/bridge projects) for consideration and approval to include the relevant project in the existing master plan (or for submission to the Prime Minister for his approval) prior to the formulation of the investment project for construction of works\textsuperscript{40}.

148. Article 62.1(b) of the Law on Construction expressly states that investors in a construction investment project (including a toll road or bridge project) which has been approved by an ASB (by way of issuance of an investment certificate by the licensing authority) are exempted from applying for a construction permit to commence construction activities.

9 Tendering for Construction in the Transport Sector

149. The Law on Investment\textsuperscript{41} specifies that tendering must be conducted to select contractors to supply consultancy services, for the procurement of goods, and for construction and installation in the case of investment projects funded by State-owned capital, in accordance with the Law on Tendering.

150. Under the Law on Tendering, numerous forms of tender processes are contemplated, including:
   a) open tendering;
   b) limited tendering;
   c) direct appointed of contractors;
   d) direct procurement;
   e) competitive tendering in procurement of goods; and
   f) self-implementation.

\textsuperscript{39} Article 20 of Circular 14
\textsuperscript{40} Article 6.3 of Decree 12
\textsuperscript{41} Article 73 of the Law on Investment
151. The Law on Tendering requires that selection of contractors for “investment and development projects financed by the State” to the extent of 30% or more, must be done by tender in accordance with the provisions contained in that Law.

152. “Financed by the State” means the use of State budget funds, credit facilities guaranteed by the State, credit facilities for investment and development of the State, investment and development funds of State owned enterprises, and other capital funds managed by the State. In particular, “financed by the State” also includes payment of expenses by way of purchase, lease or hire-purchase.

153. Decree 58 provides further clarification of the phrase “financed by the State” as used in the Law on Tendering. Decree 58 states that the percentage of the charter capital of an enterprise contributed by the State is not the determining factor, but rather the percentage of the total investment amount or total investment capital invested in any given project that derives from the State budget.

10 Damages for Breach of Contract in Vietnam are Limited

154. If private sector investors pursue remedies in Vietnam for a breach of contract or other conduct causing loss or damage (such as negligence), they often find their ability to do so relatively limited. This is because, certain remedies for contractual breach or other causes of action that may normally be available in other jurisdictions may not be available in Vietnam. Compensation in Vietnam is calculated and awarded based on actual and measurable damages, including loss of income. However, orders for specific performance (while theoretically available) are not generally given (and are rarely awarded to foreign claimants). If the investor is unable to pursue such remedies successfully, its financial position may be substantially impacted and this may have a material adverse effect on its business, financial condition, performance and prospects.

11 Sovereign Immunity

155. The express provisions of Vietnamese law (including the New BOT Decree) do not establish a principle of sovereign immunity or indicate any right of Vietnamese government authorities to claim for themselves or their assets immunity from suit, attachment, execution or other legal process.

12 Enforcement of foreign arbitral awards in Vietnam

156. Theoretically, foreign arbitral awards have been recognisable and enforceable in Vietnam since January 1996, after Vietnam had joined the 1958 New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards, and passed the Ordinance on the Recognition and Enforcement of Foreign Arbitral Awards in September 1995, which was replaced by the Civil Proceedings Code in 2004. The Civil Proceedings Code contains detailed procedures applicable to the recognition and enforcement of foreign arbitral awards in Vietnam.

157. The Civil Proceedings Code provides that a Vietnamese court will consider the recognition and enforcement in Vietnam of a foreign arbitral award in circumstances where:

a) the foreign arbitral award is made in a country that together with Vietnam has signed or acceded to a relevant international treaty; or

b) on a reciprocal basis even if neither country has signed or is a party to a relevant international treaty.

158. A foreign arbitral award, which is recognised and enforced by a Vietnamese court, has the same legal effect as a legally valid decision made by a Vietnamese court.

159. Under the Civil Proceedings Code, a Vietnamese court can also deny the recognition and enforcement of a foreign arbitral award in Vietnam, if the award is contrary to the fundamental principles of the laws of Vietnam.

160. Courts in Vietnam have sometimes taken a wide interpretation of the term, “fundamental principles of the laws of Vietnam” which has often made enforcement of foreign arbitral awards in Vietnam an inherently difficult undertaking.
12.1 Provisions of the New BOT Decree

161. As mentioned in section 4 the New BOT Decree specifies that disputes between a foreign investor or the BOT company and an ASB (in the case of a toll road/bridge project, being the MOT) can be resolved by an arbitration body or a Vietnamese court. In our view, it is unclear whether “arbitration body” refers to Vietnamese arbitration body only or it may arguably include a foreign arbitration body.

12.2 Bankruptcy

162. The Bankruptcy Law - and relevant subordinate legislation sets out a process for conducting bankruptcy proceedings in Vietnam.

13 Vietnamese Law – General

163. Vietnamese law is not fully developed, nor does it have a system of binding case law or other interpretive aids of binding precedent value, and Vietnamese courts have broad powers to imply fairness terms into contractual obligations.

164. Accordingly, foreign investors are often faced with recognising that Vietnamese law can be subject to broad interpretation and that different lawyers and courts can have contrasting views on the application and interpretation of different laws and regulations.
Part II – Institutional Framework

1 Institutions

165. The Ministry of Transport, Vietnam Road Administration and Vietnamese Expressway Corporation are responsible for road networks and projects in Vietnam.

166. This section sets out an overview of the responsibilities of each of the above institutions and the Foreign Investment Agency.

1.1 Ministry of Transport (MOT)

167. Transport affairs in Vietnam fall under the jurisdiction of the MOT which assumes the functions of the State management of investment, construction and operations of the road network in Vietnam. The main functions of the MOT are as follows:

a) to formulate and submit the national master plan for transport development to the Government;

b) to instruct specialized administrations to draft laws and by-laws (laws, ordinances), policies on transport management to submit to the government for approval or for promulgation by the MOT in accordance with its authorization;

c) to issue national standards and classify categories of road networks in accordance with the laws and regulations, and to give instructions to specialized administrations to implement these standards;

d) to submit to the government for approval or to approve works, transport construction projects, technical designs, and implementation methods, check & hand-over of transport construction projects in accordance with the laws and regulations on infrastructure construction management;

e) to supervise the approval of projects of specialized administrations within authorization of the administrations;

f) to manage the quality of transport infrastructure construction works in accordance with the national standards;

g) to give guidance and supervise the issuance, extension and withdrawal of certificates and licenses of construction, operation regarding traffic and protection of transport structures in accordance with the laws and regulations;

h) to stipulate technical standards for imported or locally produced transport means, equipment and spare parts in accordance with technical specifications, economic condition and traffic safety of Vietnam; and

i) to be responsible for supervision of the enforcement of laws, policies and the ministry’s regulations on state management of road, railway, inland waterway and maritime transport nation-wide.

1.2 Vietnam Road Administration (VRA)

168. The VRA, which sits under the MOT, is responsible for policy formulation, planning, guidelines, control and operation on a national level of public roads and highways. The VRA is also responsible for road management, operation, repairs and maintenance, and collection of road/bridge tolls.

169. The Government is in the relatively early stages of utilising private investors and funding to expand and rehabilitate strategic portions of its road network, and now allows domestic and foreign organisations and individuals operating in Vietnam to invest in construction of roads and to manage and operate roads in accordance with VRA’s regulations and guidelines.

170. The Government continues to negotiate with potential investors and has planned additional ring roads, highways and bridges that may be opened up for investment under BOT contract arrangements. The ASB empowered to enter into such arrangements in respect of privately financed (national highway) toll roads will be the MOT (or the VRA acting under delegated authority of the MOT).
171. While MOT has slated several engineering, design and consulting divisions for equitisation, the conversion of existing roads or bridges into privately owned or operated infrastructure does not appear to be progressing quickly.

1.3 Vietnamese Expressway Corporation (VEC)

172. Pursuant to Decision No 3033/QĐ-BGTVT dated 6 October 2004 issued by the MOT, the VEC was established as a State owned company, and has the following responsibilities:

- investment, operation, maintenance and handling of toll collection in national expressway routes;
- construction of other transport facilities in all modes;
- management and operation of services adjacent to the expressway like motels, restaurants, advertisement, and construction materials;
- transport technical consultation: R&D of national highway system, Pre FS, FS, design, supervision of transport facility work; and
- R&D of services in areas adjacent to expressways.

173. The VEC is a major investor in the development of expressway projects in Vietnam.

1.3.1 Expressway projects under implementation:

- Cau Gie - Ninh Binh expressway construction project (56 km) with an estimated total cost of VND 5,422 billion (approximately US$338 million).

1.3.2 Proposed expressway projects:

- Ho Chi Minh City - Long Thanh - Dau Giay Expressway construction project (54.9 km) with an estimated total cost for Phase 1 of VND 9,890.62 billion;
- Hanoi - Lao Cai expressway construction project (264 km) with an estimated total cost for Phase 1 of VND 12,000 billion;
- Trung Luong - My Thuan - Can Tho expressway construction project (81.964 km) with an estimated total cost for Phase 1 of VND 11,912 billion;
- Noi Bai - Mai Dich expressway construction project (20.2 km) with an estimated total cost of VND 8,640.6 billion; and
- Ninh Binh - Thanh Hoa expressway construction project (96 km) with an estimated total cost of VND 7,500 billion.
1.4 Foreign Investment Agency (FIA)

174. FIA sits within the MPI, and assists the Minister of MPI to implement state management functions on foreign direct investment (FDI) in Vietnam and Vietnam’s direct outward investment.

175. The FIA’s responsibilities include:
   a) assisting the Minister of MPI manage FDI and outward investment, including collaborating with MPI departments, ministries, agencies, provincial bodies to draft strategies, plans, and lists of projects calling for FDI for the whole of Vietnam to submit to authorized bodies for approval;
   b) making and implementing laws and policies, including as necessary, proposing solutions to problems in the implementation of the regimes, policies and laws on FDI and outward investment; and
   c) for BOT, BTO and BT projects:
      • receiving submissions and assessing BOT, BTO and BT projects; hosting amendments made to these projects; and
      • on approval of a BOT, BTO or BT project, recommending to the Minister of MPI that an investment certificate be granted, or, in the event that the investor is not eligible for an investment certificate, responding to that investor.

2 Road Infrastructure Planning

176. Under Decree 108\(^\text{42}\), road construction projects with investment capital of VND1,500 billion (approximately US$79 million\(^\text{43}\)) or more require the Prime Minister’s in-principle approval unless the relevant project has already been included in the approved master plan. This requirement will not apply to BOT projects being structured under the New BOT Decree.

177. According to the Law on Road Traffic\(^\text{44}\) and Article 11.4 of the New BOT Decree, a proposed toll road/bridge project which is not already included in the approved development master plan, may be considered for inclusion by the ASB or otherwise submitted to the Prime Minister for consideration and approval.

178. The master plan for Vietnam’s road transport and communications sector up to 2010 which was issued (and approved by the Prime Minister under Decision 162) in November 2002, states the following main aims:
   a) to meet social demands for the high quality transportation of cargo and passengers at reasonable prices and with assured safety;
   b) to create a healthy competitive environment in the road transport sector;
   c) to encourage transport in urban, rural and outlying areas; and
   d) to upgrade and improve existing roads and construct new ones.

179. The master plan envisages raising capital from the State budget and Official Development Assistance (ODA) funding but also attracting foreign investment using the BOT and other methods of investment.

180. Responsibilities of the State’s authorities to formulate and approve road traffic infrastructure planning are prescribed as follows:
   • the MOT is responsible for formulating national road traffic infrastructure development strategies and planning, regional road traffic infrastructure planning, the national highway system’s infrastructure development planning and certain special planning for submission to the Prime Minister for his approval; and

\(^{42}\) Article 37.2(b) of Decree 108
\(^{43}\) Based on an indicative exchange rate of USD1:VND19,000
\(^{44}\) Article 6.5 and 6.6 of the Law on Traffic Road
• the provincial people’s committees are responsible for formulating strategies and planning on development of provincial, district, commune or urban roads systems in line with the national and provincial road traffic infrastructure plan.

181. Newly constructed, upgraded or renovated roads and roads already put into operation are required to be evaluated in terms of traffic safety.

3 Approval Processes and Procedures

182. In this section, we outline the major steps for approval to the development of a BOT toll road/bridge project in Vietnam being undertaken under the New BOT Decree on a competitive tender basis. This is an indicative ‘roadmap’ only and variations may flow from the particular characteristics of each BOT project and the extent to which various project stakeholders, lenders and contractors are involved in the whole process.

3.1 Publication of the approved list of BOT projects

• Step 1: Relevant ministries and people’s committees to publish the approved list of BOT projects in January every year;

3.2 Selection of Investor(s)

a) Selection of investors in the approved list of BOT projects:

• Step 2: Interested investors register to bid for a BOT project within the approved list within 30 working days from the last day of publication of the approved list in the Vietnam Public Procurement Review and on the websites of ministries or people’s committees;

• Step 3: The ASB publishes the list of interested investors who have registered to bid for a particular BOT project in the Vietnam Public Procurement Review and on the websites of ministries or people’s committees;

• Step 4: The ASB prepares a feasibility study report or a project proposal which serves as a basis for preparing the invitation to bid;

• Step 5: If 2 or more potential investors register their interest in a project, the selection of investors is subject to a competitive bid process (the appointment of the project developer will be made if there is only 1 investor interested in the relevant project);

The New BOT Decree is not clear as to the particulars of the tender invitation documents to be provided to interested bidders, however, Decree 78 expressly requires provision of the following items:

(i) instructions for tenderers;

(ii) minimum technical, commercial and financial requirements of the project; criteria for assessment; preferential conditions; taxation and other conditions;

(iii) proposal for the project;

(iv) draft project contract; and

(v) other relevant documents as determined by, and submitted in accordance with the tender requirements of, the ASB.

The evaluation criteria are not expressed in the New BOT Decree. The criteria used in any given case will depend on the feasibility study report proposal prepared by the ASB and the Vietnamese standards applicable to the sector.

• Step 6 – 8: Nil

OR

b) Proposal by potential investors in a BOT project not contained in the approved list:
- **Step 2**: Potential investor prepares a project proposal for a new BOT project other than those published in an approved list;

  A project proposal should cover the following main items: analysis of the grounds for structuring the proposed project as a BOT investment (compared to other forms of investment), projected capacity and location of the investment, total investment capital, types of fees and charges to generated from the project operations, the schedule for construction and implementation of the project, the conditions for the infrastructure transfer, land use requirements, and technological and environmental solutions, basic technical design of construction, site clearance plan, and a proposal for investment incentives and support and provision of a Government guarantee for the project.\(^{45}\)

- **Step 3**: The potential investor submits the project proposal for the new BOT project to relevant ministries and/or people’s committees for approval;

- **Step 4**: Relevant ministries and/or people’s committees consider and approve the investor’s project proposal (or seek the Prime Minister’s approval) for the proposed project to be included in the approved master plan;

- **Step 5**: Relevant ministries and/or people’s committees publish details of the new BOT project and to issue invitations to bid;

- **Step 6**: The potential investor registers to bid for the new BOT project which it has proposed;

- **Step 7**: The potential investor’s bid is subjected to a competitive bid process if there are 2 or more investors interested in the relevant project (the appointment of the project developer will be made if there is only 1 investor interested in the relevant project);

- **Step 8**: If the potential investor’s bid is successful, it is selected as the project developer of the toll road/bridge project;

According to Article 11.4 and 11.5 of the New BOT Decree, after receiving the project proposal, the ASB shall consider and approve in accordance with the following process:

- For proposals that are not in the branch development planning, the ASB will consider and supplement the planning pursuant to the authority thereof or report it to the Prime Minister for consideration and approval for supplementation of planning;

- In the event that the project proposal is approved, the ASB shall supplement such project into the list of projects and will publish the main items of the project on its website and on the Vietnam Public Procurement Review in three consecutive issues. Within the minimum time-line of 30 working days as from the date of the last publication, the ASB will appoint the investor who has the approved project proposal for negotiation of the project contract if there are no other investors registering for participation; and

- in the event that there are other investors registering for implementation of such project, the ASB will organise a bid to select the investor.

### 3.3 MOU on Site Use Agreement

- **Step 9**: The investor enters into a Memorandum of Understanding on site use in relation to the land lease;

### 3.4 Negotiation of a BOT Contract

- **Step 10**: The investor prepares, negotiates and enters into the BOT contract with the ASB. The ASB can be the MOT, relevant people’s committee or other State agencies acting under delegated authority;

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\(^{45}\) Article 12.2 of the New BOT Decree
3.5 Negotiation of Other Project Documents

- **Step 11:** The investor prepares and negotiates a government guarantee (if applicable) with the Government/MOF;
- **Step 12:** The investor prepares and negotiates an Engineering Procurement and Construction (EPC) contract with an EPC contractor;
- **Step 13:** The investor prepares and negotiates an Operation and Maintenance (O&M) contract with an O&M contractor;

3.6 Investment Licence

- **Step 14:** The investor prepares an application dossier (including the initialled BOT contract) for the issuance of an investment certificate;
- **Step 15:** The investor submits the application dossier to the relevant licensing authority;
- **Step 16:** The relevant licensing authority considers the application and grants the investment certificate to the investor within 45 working days from the date of receipt of valid and complete application documents;

3.7 Post Licensing

- **Step 17:** The investor obtains a corporate seal for the project company from the authorised police department within 7 working days from the date of receipt of valid and complete application documents;
- **Step 18:** The investor registers the tax code of the project company. Within 10 working days from the date of issuance of the investment certificate, the project company must submit an application to the tax department to register tax code. The time frame for obtaining the certificate of tax code registration is approximately 10 working days as from the date of receipt of valid and complete application documents;

3.8 Execution of Project Agreements

- **Step 19:** The investor and the project company sign the BOT contract with the ASB;
- **Step 20:** The project company finalises and executes other project documents (including the EPC contract, O&M contract and other relevant ancillary documents) with the relevant third parties;

3.9 Selection of Contractors

- **Step 21:** The project company selects advisers, vendors, service providers and other contractors;
- **Step 22:** The project company must notify the ASB within 15 working days from the date of selection of contractors;

3.10 Land Acquisition

- **Step 23:** The project company must agree with the relevant people’s committee on a land clearance and relocation compensation plan (if applicable);
- **Step 24:** The relevant people’s committee issues a decision to recover, allocate or lease the land from existing land users;
- **Step 25:** The relevant people’s committee approves the land clearance and compensation plan;
3.11 Environment

- **Step 26**: The investor must prepare an environmental impact assessment report (EIAR);
- **Step 27**: The investor submits the EIAR to the Ministry of Natural Resources and Environment (MONRE) for approval;
- **Step 28**: MONRE considers and issues its approval to the EIAR within 45 working days from the date of receipt of the complete and valid application documents;

3.12 Financing

- **Step 29**: the project company completes negotiations with onshore/offshore lenders on financing and security documents;
- **Step 30**: the project company must obtain approval of the ASB on the step-in rights of the lenders;
- **Step 31**: the project company must obtain approval of the ASB to the grant of security interests over the project company’s assets and land use rights;
- **Step 32**: the project company registers foreign loan facilities (if applicable) with the SBV. Within 15 working days from the date of receipt of complete and valid application documents, the SBV will issue a certificate of foreign loan registration;
- **Step 33**: the project company registers the Vietnamese law governed securities over movable assets and contractual rights with the National Registration Agency for Secured Transactions (NRAST);
- **Step 34**: the project company attends to other conditions precedent in order to achieve financial close;

3.13 Construction

- **Step 35**: The project company submits a technical design of construction to the ASB;
- **Step 36**: In applicable cases, the project company must obtain approval of the ASB to any proposed changes in the technical design as compared to the initially agreed feasibility study report;
- **Step 37**: The project company notifies the competent authority of the commencement of construction;
- **Step 38**: The project company commences construction;

3.14 Completion of Construction/Commissioning

- **Step 39**: The project company completes construction and commissions the toll road/bridge;
- **Step 40**: The project company prepares a capital construction finalisation report on the completed construction works within 6 months from construction completion;
- **Step 41**: The project company discusses and agrees the selection of a reputable qualified auditing firm to audit the capital construction finalisation report with the ASB;

3.15 Toll Collection Network Master Planning

- **Step 42**: The project company submits its proposed toll collection booth plan to the MOF and/or MOT for approval unless that plan falls within the approved master plan for toll collection booths;
• **Step 43**: The MOF (and MOT) approves the project company’s proposed toll collection booth plan (no later than 30 days from the date of receipt of complete and valid application documents);

### 3.16 Road Tolls

• **Step 44**: The project company submits documents evidencing proposed road/bridge tolls to the MOF (for national highways) or the provincial people’s council (for local roads) for approval (no later than 60 days before the date of starting the toll collection);

• **Step 45**: MOF (or the provincial people’s council as appropriate) considers and approves road/bridge tolls proposed by the project company (no later than 30 days before the date of commencement of toll collection) by way of issuance of a MOF decision specific to the particular BOT project;

### 3.17 Operations

• **Step 46**: The project company commences commercial operation of the toll road/bridge for the BOT project term;

• **Step 47**: The project company must give 30 working days prior notice to the ASB of any proposed changes in tolls, fees and other charges for the ASB’s approval;

### 3.18 Transfer of Toll Road/Bridge Infrastructure

• **Step 48**: The project company must publicise the transfer of the BOT toll road/bridge infrastructure in local newspapers one year prior to the agreed transfer date (unless otherwise provided in the BOT contract);

• **Step 49**: The ASB arranges tests on quality, value and construction conditions (the project company may be required to undertake repairs or maintenance); and

• **Step 50**: The project company transfers the toll road/bridge infrastructure to the ASB on the agreed transfer date at the end of the operational term.
Part III – Financing the Construction of Toll Roads and Bridges

1 Domestic Capital Sources

184. Under Decision 1734\textsuperscript{46}, the Government has stated that its policy is to finance various roads projects by mobilising multiple sources of funds. In particular, those sources will be:

   a) State budget in the form of borrowings by the Government, Government underwritten loans or issuance of bonds for a specific project;

   b) ODA funding; and

   c) private sector investments (foreign or domestic capital) in the form of BOT or PPP.

185. The Government has recently introduced a scheme for issuing bonds for nationally important transport projects but there still remains a substantial gap between what the Government can raise from the issue of bonds, budget funds and ODA funding and the amount it needs to spend annually on infrastructure. This makes encouragement of private sector investment critical to the necessary development of transport infrastructure in Vietnam.

186. Bonds able to be issued in Vietnam range from Government bonds, SBV bonds, SOE bonds, bank bonds, listed bonds and international bonds.

187. The main legislation governing the issuance of corporate bonds (non-public offering) in Vietnam is Decree 52. A Vietnam domiciled joint stock company is entitled to issue corporate bonds upon satisfaction of certain prescribed conditions, including:

   a) operation for at least one year from the date on which it officially commenced operations;

   b) audited financial statements for the year immediately preceding the year of the issuance; and

   c) the production and business operation for the year immediately preceding the year of the issuance having been profitable.

188. This “profitable” requirement is another major legal obstacle which needs to be addressed since a project company will normally seek external debt funding by way of issuance of corporate bonds to finance the construction of the road infrastructure at the construction stage.

2 Foreign Capital Sources

2.1 Issuance of International Bonds


190. Decree 53 defines international bonds as interest bearing loan certificates with fixed terms and par value, which are used for the purpose of raising capital from international capital markets in order to finance the demands of business development.

191. Under Decree 53, there are two types of international bonds which enterprises are entitled to issue, including:

   a) corporate bonds with a Government guarantee; and

   b) corporate bond without a Government guarantee.

192. Decree 53 provides that an enterprise wishing to issue international bonds is required to satisfy the following conditions:

   a) it must be incorporated and be operating in accordance with the laws of Vietnam;

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\textsuperscript{46} Article 1.6 of Decision 1734
b) the proposed bond issuance must be assessed and approved by the relevant Government authority;

c) the value of the bonds to be issued must be consistent with the overall quota for national foreign commercial loans, as confirmed in writing by the SBV within 15 business days from the date of receiving the proposed issuer's request for approval;

d) the project to be funded by the proposed bond issuance must be considered to be of national importance, or be a project which has been assessed to be an efficient project that has complied with all investment procedures required at law (in this regard, we note that Decree 53 contains no provisions specifying which authorities are empowered to assess the efficiency of the relevant investment project);

e) the proposed issuing enterprise must comply with the law relating to convertible bonds or secured bonds, if applicable;

f) the proposed issuing enterprise must satisfy the requirements of the international capital markets relating to credit ratings (where credit ratings are required); and

g) the proposed issuing enterprise must follow the prescribed issuance procedure in respect of each stage of the bond issue, in accordance with the requirements of both foreign and Vietnamese laws.

193. Decree 53 specifies that Government guarantees in respect of the issuance of corporate international bonds will only be granted for enterprises which urgently require capital for implementing State investment projects, but are not in a position to be able to issue international bonds of their own accord without Government-provided security. In addition, applicants for Government guarantees must comply with the following conditions:

a) the issuing enterprise must obtain the approval of the Prime Minister in respect of the proposed bond issuance;

b) the issuing enterprise must have an international credit rating being the equivalent to or one level lower than the national credit rating;

c) the issuing enterprise’s audited financial reports of the 3 most recent financial years must evidence that the enterprise has not suffered business losses, nor have any overdue loans;

d) the issuing enterprise must comply with the regulations on issuance and management of guarantees in respect of foreign loans; and

e) the value of each bond issuance stage must be less than US$100 million.

194. The international bond issue may be implemented after only after the proposed issuance project is approved by the competent Government authorities.

195. Decree 53 will provide Vietnamese enterprises with greater opportunity to source foreign funding and, potentially, lower cost of funds (as compared to VND-denominated loans), although they will obviously need to be careful of foreign exchange risks. It may also provide Vietnamese enterprises with a source of funds which may not necessarily impact upon the equity ownership and voting control of such enterprises (until such time as any convertible bonds are converted into equity).

2.2 Foreign Loans

196. Decree 134 governs borrowing by the State, the Government and enterprises operating in Vietnam (including foreign invested enterprises) from foreign credit institutions, multilateral financial institutions, foreign governments and other foreign lenders. Currently, there is no implementing legislation for Decree 134. Thus, although Circular 09 implements Decree 90 which was replaced by Decree 134, Circular 09 is still considered by the SBV to be applicable.

197. A distinction is made between short term loans of up to one year and medium and long term loans exceeding one year.
198. Foreign borrowing includes loans with a Government guarantee, loans with a bank guarantee or certain other forms of security, and unsecured lending. Foreign loans may be in the form of cash, the issue of bonds overseas, finance leasing or by way of import of goods and services with deferred payment under a letter of credit or other methods of deferred payment.

2.3 Loan registration

199. The loan agreement and terms of repayment for a medium or long-term foreign loan must be registered with the SBV within 30 days from the date of signing the loan agreement and before any drawdown is made. An enterprise can only enter into a medium or long-term foreign loan agreement if:
   a) the enterprise has an investment project or plan for production and business that has been approved by an authorised investment body;
   b) the maturity date, grace period and loan expenses comply with SBV regulations; and
   c) in the case of an foreign invested entity, the loan does not have the effect of increasing its total invested capital.

200. Additionally, a foreign invested entity must comply with prevailing Vietnamese laws relating to:
   a) obtaining SBV approval to open an offshore account;
   b) security by way of pledge or mortgage in favour of the foreign lender;
   c) the use of the foreign loan; and
   d) the assignment or conversion of debt into equity or other forms of investment.

201. The disbursement and repayment of foreign loans may only be carried out through an authorised bank. Where a foreign loan is registered with the SBV, the timetable for repayment and the amounts to be repaid are also registered so that the repayments under the loan agreement must be made in those amounts and in accordance with that timetable. Any variation (including acceleration) must be registered with the SBV.

2.4 Step-in Rights

202. Lenders’ step-in rights are specifically contemplated in the New BOT Decree.  

203. In the context of a concession based project financing, step-in rights is a contractual right which a lender has under a direct agreement/tripartite agreement to “step in” to assume the rights (and obligations) of the project company under a BOT contract if the project company defaults in the performance of its obligations under that BOT contract.

204. Under Article 17 of the New BOT Decree, the lender can “step in” part of or the whole of the rights and obligations of the project company if the project company or the investor is unable to perform its obligations in accordance with the BOT Contract or the financing agreement.

205. Step-in rights will need to be included in each of the relevant project documents. The relevant provisions will need to:
   a) provide for a suspension period during which a lender may “look and see” without incurring liability before checking whether or not to step in and without the relevant contracts being terminated;
   b) provide for a suitable length of step-in period or suspension period;
   c) give the lender the ability to “step-out”; and
   d) provide consistency as to what liabilities are undertaken by the lender or a substitute entity when it steps in.

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47 Article 17 of the New BOT Decree
206. So that the step-in provisions are enforceable by a lender, each of the parties to the respective project agreements needs to acknowledge that it will enter into a direct agreement with the lender incorporating the provisions for step-in contained in the relevant project agreements.

207. The conditions, procedures and substance of the step-in rights must be stipulated in the loan agreement, security agreements and other agreements signed between the project company and/or investors and the lender(s), and must be approved by the relevant ASB.

3 Vietnamese Security Issues

208. Pledges and mortgages of property are the two main types of recognised security over assets which may be offered under Vietnamese law. The Civil Code also provides for security by way of performance bond, security deposit, escrow deposit, guarantees and reputation based collateral.

209. Pledges and mortgages will be distinguished by who holds the secured assets - a secured transaction will be a mortgage when the secured party does not hold the secured assets, and it will be a pledge when the secured party holds the secured assets. A pledge or a mortgage must be evidenced in writing.

210. Forms of security interests which are generally available in other jurisdictions, such as assignments by way of security, charges, trusts and liens, are not recognised under Vietnamese law and are thus not appropriate to be proposed as Vietnamese-law governed securities.

211. Vietnamese law also recognises the granting of security interests over future assets and security interests may be granted to secure the performance of obligations arising in the future, but there is not the flexibility that is available under an ‘all assets’ fixed and floating charge. A mortgage of Vietnamese listed dematerialised securities is also acceptable under Vietnamese law.

212. Vietnamese law does not expressly permit the creation of security interests over land use rights in Vietnam in favour of foreign lenders. Under the Law on Land, only credit institutions licensed to operate in Vietnam (e.g. a Vietnamese commercial bank or a foreign bank branch or joint venture bank) are entitled to take a mortgage over land use rights and/or assets attached to land. Vietnamese law is unclear as to whether a credit institution licensed to operate in Vietnam may validly act as a security agent to hold the security interests on behalf of the foreign lender (although in practice we are aware of several such structures having been put in place).

213. Vietnamese law does not clearly prohibit the creation of security interests over immovable assets such as buildings, facilities and plant in favour of a foreign lender. However, these interests are often of little value without the foreign lender also being able to secure the land to which they are affixed. When granted as security together with a mortgage over the relevant land use rights, the Law on Land only officially recognises that a mortgage or pledge of those assets can be granted to domestic credit institutions.

214. Moreover, there is no provision for registration of a mortgage/pledge over the land use right and assets attached to the land in favour of a foreign lender, so no statutory protection of priority of that security.

215. The statutory obstacles to establishment and enforcement of security over immoveable assets in favour of a foreign lender coupled with recognition of only a very limited range of forms of security and financing structures presents a significant impediment to foreign financing of infrastructure projects in Vietnam.

3.1 Loan Security in BOT projects

216. A project company under a BOT project can grant security over its assets, including fixed assets, land use rights and rights under project agreements.

217. Subject to the limitations discussed above, a project company under a BOT project can mortgage or pledge the following:

   a) plant and equipment, buildings and other assets purchased or constructed with the invested capital of the project company (invested capital includes loan capital);
   b) other assets owned by the project company;
   c) the value of the land use rights (as referred to above); and
d) the property rights of the project company e.g. rights in project agreements and receivables arising from the project agreements (to the extent that the rights can be valued in money terms). In our view, granting security over the right to collect road tolls is permissible under this category.

218. However, any mortgage or pledge must be approved by the ASB with whom the project company has entered into the BOT contract.

219. Additionally, the BOT company is entitled to provide security over onshore and offshore accounts approved by the SBV, and any foreign sponsor can pledge its interests in the legal capital of the project company. Parent guarantees and security are often required, as available onshore security on the basis of recourse only to the project assets is likely to be inadequate in the eyes of a foreign lender.

220. In practical terms, security interests and guarantees provided by borrowers or otherwise in respect of loans in Vietnam can be very difficult to enforce in the event of loan defaults.

4 Government Support

221. It is very important for the viability and successful project financing of most large scale infrastructure projects in Vietnam for the investors to have a government guarantee which basically “guarantees”:

a) contractual performance of a Vietnamese counterparty;

b) legal and tax stability; and

c) foreign exchange convertibility and availability.

222. The New BOT Decree provides that in certain projects, the Government may authorise an ASB, which would normally be the MOF, to provide, on behalf of the Government, a guarantee for performance by the project company of its obligations under loans, provision of raw materials, sale of products and other contractual obligations of the investor, the project company or other enterprises participating in the implementation of the project, off-take purchase agreements and also to provide a guarantee for performance by the State-owned supply or off-take companies.

223. This is to some extent consistent with Article 66 of the Law on Investment which contains a general provision that the Government may provide guarantees for important projects and to guarantee loans, supply of raw materials, sale of products, payment and performance of other contractual obligations to projects, and shall also appoint the ASB to act as guarantor.

224. It is important that the Government should take a long-term view to ensure delivery of major infrastructure projects in Vietnam. In practice, it is generally difficult to obtain a Government guarantee unless the proposed infrastructure project is of particular importance and/or size.

5 Foreign Exchange Control

225. Foreign exchange transactions and the foreign exchange market generally are highly regulated in Vietnam.

226. Overseas remittance and currency conversion must comply with the Ordinance on Foreign Exchange Control of the Standing Committee of the National Assembly and Decree 160. Remittance of investment capital in foreign currency into Vietnam and the remittance of profits and other lawful revenue to foreign countries are expressly permitted, provided that all such transactions are effected via special-purpose direct investment capital foreign currency accounts opened at authorised credit institutions in Vietnam and registered with the SBV.

227. It is necessary to show that all tax and other financial obligations to the State have been discharged before funds can be remitted.

5.1 Foreign Currency Risk

228. Private sector investors may make investments in USD, and earn income from road toll revenues denominated in the local currency VND which is not freely convertible into other currencies. Exchange rate fluctuations and VND devaluation could have a material effect on the value of the project assets, which is
often expressed in USD. Accordingly, exchange rate fluctuations between the USD and VND may adversely affect the USD value of investments, interest and dividends received by the private sector investors.

229. There is no assurance that any hedging transactions engaged in by the private sector investors will be successful in protecting against currency devaluation or fluctuations. Any such devaluation or fluctuation may result in significant transaction or conversion losses which may have a material adverse effect on the private sector investors’ returns. The private sector investors may also incur additional costs in connection with conversion between currencies.

5.2 Foreign Exchange Balancing

230. The Law on Investment\(^{48}\) provides for an assurance to be given on foreign currency balancing to certain selected important investment projects in power, transport infrastructure and waste treatment sectors.

231. The New BOT Decree\(^{49}\) states that during the construction and commercial operation of facilities, investors or a project company will be permitted to buy foreign currency from credit institutions authorised to conduct foreign exchange activities in order to service their current transactions, capital transactions and other transactions in accordance with foreign exchange control laws including:

a) payments for lease of equipment and machinery from abroad;
b) import of machinery, equipment and other products or services to carry out the project;
c) repayment of foreign loans (including principal and interest thereon);
d) repayment of bank loans in foreign currency (including principal and interest thereon) for the purpose of import of machinery, equipment and other products or services to carry out the project; and
e) remittance of capital, profits, proceeds from investment liquidation, payments for provision of technology, services and intellectual property and other legitimate income abroad.

232. While the project company in a toll road/bridge project would have a right to buy foreign currency to meet permitted current and capital transactions, this does not automatically mean that sufficient foreign currency will be readily available at their financial institution for conversion from VND toll revenue streams.

5.3 Foreign Exchange Surrender

233. Under the Ordinance on Foreign Exchange Control\(^{50}\), foreign currency of organisations domiciled in Vietnam which is derived from a one-way remittance of funds must be remitted into a foreign currency account opened at an authorised credit institution or sold to an authorised credit institution. However, according to Article 41 of the Ordinance on Foreign Exchange Control, when the Government considers it necessary in order to guarantee the national financial and currency security, the Government may apply regulations obliging Vietnamese resident organisations to sell their foreign currency holdings.

234. At present, it is necessary to sell foreign currency sourced from current income to an authorised bank at 0%\(^{51}\), however this percentage could be changed by a subsequently-issued Government decision (and has previously been as much as 40%).

5.4 Key Vietnamese Taxes Applicable to the Foreign Investor

235. In respect of the transport sector, a project company is likely to be subject to various types of taxes, including:

\(^{48}\) Article 16.2 of the Law on Investment

\(^{49}\) Article 42.1 of the New BOT Decree

\(^{50}\) Article 8.1 of the Ordinance on Foreign Exchange Control

\(^{51}\) Circular 08/2003/TT-NHNN dated 21 May 2003 of the SBE on the obligations of residents being organisations to sell and buy currency in respect of current transactions.
a) CIT at 25% since 1 January 2009 unless a CIT incentive or exemption has been granted;
b) VAT of either 0%, 5% or 10% for specified goods and services;
c) land use rights transfer tax of 2% or 4% depending on the type of land in question;
d) registration fee of 2% payable on pre-determined sales price on registration of vehicles (including motorcycles);
e) import/export duties on specified goods ranging from 0% to 50% for exported goods and 0% to 150% of the dutiable value for imported goods (although the rates for most goods are between 0% and 20%);
f) withholding tax at 10% has largely been abolished but is still applicable on loan interest on foreign loan contracts entered into after 1 January 1999; and
g) capital gains tax of 25% of the difference between the assigned value and the initial value of the assigned capital.

236. Employees of the project company are subject to personal income tax which is calculated on a sliding scale based on the average monthly income of the employee for the relevant tax year. This maximum personal income tax rate is 35% for employees earning over VND960,000,000 per year. Employees who are tax residents of Vietnam are taxed both on income earned in Vietnam and income sourced outside Vietnam.

237. Where a person works in Vietnam for less than 183 days per year, they are liable for personal income tax at a uniform rate of 20% on income derived in Vietnam.

238. Where Vietnam has a double taxation agreement in place, tax credits may be available for taxes paid in another jurisdiction. However, there are currently no detailed provisions regarding tax credits and it is unclear how these credits can be claimed in practice.

6 Issue and Recommendations

239. The following table presents a list of 20 issues and recommendations. These are divided into eight specific sections including:

- Framework for Private Investment in Infrastructure;
- Toll Pricing;
- Development of Laws Relating to Toll / Bridge projects;
- Rights Relating to Land;
- Dispute Resolution and the Legal System;
- Sources of Capital;
- Securities; and
- Foreign Exchange Control.
<table>
<thead>
<tr>
<th>No</th>
<th>ISSUE</th>
<th>RECOMMENDATION</th>
</tr>
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<tbody>
<tr>
<td>1.</td>
<td>Vietnam lacks a clear and comprehensive PPP framework governing private investments major infrastructure projects (including transport projects).</td>
<td>Specific PPP guidelines need to be put in place in relation to project risks and allocation, management of common risks and contractual issues commonly encountered between the ASB and project investor(s). This could also include a model concession/project agreement for BOT/PPP structures to standardize PPP documentation and allocate risks to the parties that are best positioned to bear and manage such risks.</td>
</tr>
<tr>
<td>2.</td>
<td>In many cases, project investors are major State-owned enterprises that are selected by appointment in toll road/bridge (BOT) projects without the involvement of a competitive bidding process.</td>
<td>The provisions of the New BOT Decree need to be “fleshed out” by further legislative instruments dealing with selection of project investors through transparent and efficient competitive bidding procedures to the greatest extent possible, including further clarity on methods of selection of project investors, bidding invitation documents, evaluation criteria and award proceedings.</td>
</tr>
<tr>
<td>3.</td>
<td>There have been, in practice, major delays by the relevant government ministries and people’s committees in finalizing and publishing approved BOT portfolios.</td>
<td>The process to obtain approval for BOT portfolios should be streamlined to reduce any time gaps between seeking the relevant approvals (for e.g. there should be 1 central committee which coordinates the approval and publishing process). There should also be a designated annual deadline by which the approved BOT portfolios must be published.</td>
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<td>4.</td>
<td>Where a new project is proposed by a potential investor for inclusion in the master plan that party is given no priority in relation to that project in the selection process. This acts as a disincentive to private sector input at the early stages of project identification.</td>
<td>Priority should be given to the proposing investor during the bidding evaluation stage to encourage private participation from the project identification stage.</td>
</tr>
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<td>5.</td>
<td>Toll rates for privately invested roads projects may not exceed twice the toll rates for road projects invested with State budget capital. By imposing caps by reference to the applicable toll rates levied on road projects invested with State budget capital, this restriction presents a major obstacle for encouragement of private participation in road infrastructure projects in Vietnam.</td>
<td>Independent pricing regulation should be developed for toll road/bridges involving private investment.</td>
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<td>No</td>
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<td>6.</td>
<td>Any changes in tolls, fees and charges other than those contemplated in the BOT contract must be approved by the ASB (being the MOT) and the project company must notify the MOT at least 30 working days prior to that change. This may cause difficulties for, and pricing exposure to, investors and financiers of toll road/bridge infrastructure projects.</td>
<td>Independent pricing regulation and streamlining of approvals processes should be developed for toll roads and bridges involving private investment.</td>
</tr>
<tr>
<td>7.</td>
<td>The “user-pays” model of funding traditionally used in Vietnam means that the economic return for investors is subject to the level of traffic using the toll road or bridge from time to time and therefore provides limited revenue certainty.</td>
<td>Vietnam should consider the use of alternative payment mechanisms which have been used on toll roads and bridges in more developed countries, including “shadow tolling” and/or “availability payments” which give the private sector investors added revenue certainty.</td>
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</table>

**DEVELOPMENT OF LAWS RELATING TO TOLL/BIDGE PROJECTS**

| 8. | The process for obtaining various approvals and permits for the development of a toll road/bridge project in Vietnam can be cumbersome and time-consuming. Any delay in obtaining any of these approvals or permits can cause significant delay or inability to commence in construction or failure to commence construction of the project. In addition, applicable procedures and formalities that must be complied with for private sector investors to take advantage of new regulations which open up new sectors to them, are in many instances yet to be specified and in many instances are inconsistently interpreted or applied by relevant government authorities. | Where possible, approvals processes should be streamlined and powers vested in a more centralised way (minimising the number of government departments and authorities involved in the approvals process). |

**RIGHTS RELATING TO LAND**

<p>| 9. | There are significant legal obstacles for foreign investors in relation to land acquisition for toll road/bridge projects in Vietnam, including whether foreign investors will be able to secure land use right certificates to facilitate external debt funding from financiers, whether foreign investors can acquire the project land by way of a land allocation (other than acquisition by way of land lease), and whether foreign investors may acquire the project land by way of land lease (and then secure a land use right certificate in relation thereof). | An alternative form of land use right certification could be developed in order to evidence land tenure. |
| 10. | The relevant procedures for obtaining and calculating compensation for land resumed by the government of Vietnam are time consuming and lack transparency and the quantum of compensation usually falls beneath the market value of the | Statutory compensation mechanisms require revision to allow for greater market responsiveness. |</p>
<table>
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<th>No</th>
<th>ISSUE</th>
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<td></td>
<td>As a result, investors allocated with land need to provide for the costs of compensation, assistance, resettlement and funds for organization of compensation, assistance, resettlement in accordance with approved plan in the investment capital of the project.</td>
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<td></td>
<td><strong>DISPUTE RESOLUTION AND THE LEGAL SYSTEM</strong></td>
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<td>11</td>
<td>Certain remedies for contractual breach or other causes of action that may normally be available in other jurisdictions may not be available in Vietnam and orders for specific performance (while theoretically available) are not generally given (and are rarely awarded to foreign claimants). This can have a material adverse effect on a foreign investor’s business, financial condition, performance and prospects.</td>
<td>Continued capacity building and legal education within the Vietnamese legal profession and judiciary is necessary.</td>
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<td>12</td>
<td>There is uncertainty whether arbitration under the New BOT Decree includes arbitration by a foreign arbitration body. Further the interpretation sometimes adopted by courts in Vietnam of the term, “fundamental principles of the laws of Vietnam” when determining whether to enforce a foreign arbitral award in Vietnam has often made such enforcement an inherently difficult undertaking.</td>
<td>Clarification should be provided by way of a ministerial circular or other subordinate legislation implementing the New BOT Decree.</td>
</tr>
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<td>13</td>
<td>Due to the stage of development of the law in Vietnam, the broad discretion of the courts to imply fairness terms into contracts, and the absence of a system of binding case law or precedents, foreign investors are often faced with recognizing that Vietnamese law can be subject to broad interpretation and that different lawyers and courts can have contrasting views on the application and interpretation of different laws and regulations.</td>
<td>Enhance and accelerate legal education of profession and judiciary.</td>
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<td></td>
<td><strong>SOURCES OF CAPITAL</strong></td>
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<td>14</td>
<td>A condition of a Vietnam domiciled joint stock company being entitled to issue corporate bonds is that the production and business operation for the year immediately preceding the year of the issuance has been profitable.</td>
<td>The “profitable” requirement needs to be addressed since a BOT company will normally seek external debt funding by way of issuance of corporate bonds to finance the construction of the road infrastructure at the construction stage.</td>
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<tr>
<td></td>
<td><strong>SECURITIES</strong></td>
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<tr>
<td>15</td>
<td>The statutory obstacles to establishment and enforcement of security over immovable assets in favour of a foreign lender coupled with recognition of only a</td>
<td>The range of security and financing structures should be expanded (by issue of further legislation) to recognise concepts familiar in more</td>
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<tr>
<td>No</td>
<td>ISSUE</td>
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<td></td>
<td>very limited range of forms of security and financing structures presents a significant impediment to foreign financing of infrastructure projects in Vietnam.</td>
<td>developed jurisdictions (e.g. fixed and floating charges, security trustee/agent concepts)</td>
</tr>
<tr>
<td>16.</td>
<td>In practice, security interests and guarantees provided by borrowers or otherwise in respect of loans in Vietnam can be very difficult to enforce in the event of loan defaults.</td>
<td>Streamlining of court systems and continued legal education for government officials, legal professionals and judiciary is required.</td>
</tr>
<tr>
<td>17.</td>
<td>In practice, it is generally difficult to obtain a Government guarantee unless the proposed infrastructure project is of particular importance and/or size, despite the importance of such guarantees for the viability and successful project financing of most large scale infrastructure projects in Vietnam.</td>
<td>A more detailed and transparent set of criteria for provision of Government guarantees should be legislated (minimising current discretionary element).</td>
</tr>
<tr>
<td>FOREIGN EXCHANGE CONTROL</td>
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<tr>
<td>18.</td>
<td>As project assets are often expressed in USD, exchange rate fluctuations and VND devaluation can have a material effect on the value of the assets and may adversely affect the US Dollar value of investments, interest and dividends received by the (foreign) private sector investors for which protection may not be able to be achieved through hedging transactions.</td>
<td>This is a commercial risk which all investors bear.</td>
</tr>
<tr>
<td>19.</td>
<td>While the (BOT) project company in a toll road/bridge project would have a right to buy foreign currency to meet permitted current and capital transactions, this does not automatically mean that sufficient foreign currency will be readily available at their financial institution for conversion from VND toll revenue streams.</td>
<td>This is a commercial risk which all investors bear. The Government through current legislation allows for some risk mitigation. For high priority projects, a guarantee of availability of foreign exchange could be given.</td>
</tr>
<tr>
<td>20.</td>
<td>At present, it is necessary to sell foreign currency sourced from current income to an authorised bank at 0%, however this percentage could be changed by a subsequently-issued Government decision (and has previously been as much as 40%).</td>
<td>Reassurance in respect of applicable/potential rate range should be legislated.</td>
</tr>
</tbody>
</table>
Part IV – Key Vietnamese Legislation

240. The main pieces of Vietnamese legislation which SMEC needs to consider in relation to the development of toll road/bridge projects in Vietnam are as follows:

1 Investment
   a) Law on Investment No.59/2005/QH11 (Law on Investment) adopted by the National Assembly on 29 November 2005;
   b) Law on Enterprises No.60/2005/QH11 (Law on Enterprises) adopted by the National Assembly on 29 November 2005;
   c) Decree No. 108/2006/ND-CP (Decree 108) of the Government dated 22 September 2006 providing guidelines for the implementation of a number of articles of the Law on Investment; and

2 BOT Project
   241. Decree No. 108/2009/ND-CP (New BOT Decree) of the Government dated 27 November 2009 on investment on the basis of Build-Operate-Transfer (BOT), Build-Transfer-Operate (BTO) and Build-Transfer (BT) contract.

3 Road Traffic and Transportation Plan
   a) Law on Road Traffic No. 23/2008/QH12 (Law on Road Traffic) adopted by the National Assembly on 13 November 2008;
   b) Decision No. 162/2002/QO-TTg (Decision 162) of the Prime Minister of the Government dated 15 November 2002 approving the planning on development of Vietnam's land-road communication and transport sector till 2010 and orientations till 2020;
   c) Decision No. 206/2004/QO-TTg (Decision 206) of the Prime Minister of the Government dated 10 December 2004 approving the development strategy of Vietnam’s transport sector till 2020;
   d) Decision 1327/QD-TTg (Decision 1327) dated 24 August 2009 of the Prime Minister on road master plan till 2020 and orientations till 2030;
   e) Decision 1734/QD-TTg (Decision 1734) dated 1 December 2008 of the Prime Minister on master planning for the development of expressway network;
   f) Decision 35/QD-TTg (Decision 35) dated 3 March 2009 of the Prime Minister on transport development strategies till 2020 with vision till 2030;
   g) Decree No. 186/2004/ND-CP (Decree 186) of the Government dated 5 November 2004 prescribing the management and protection of road traffic infrastructures;
   h) Circular No. 13/2005/TT-BGTVT (Circular 13) of the Ministry of Communication and Transportation dated 7 November 2005 providing guidelines for the implementation of Decree 186/2004/ND-CP prescribing the management and protection of road traffic infrastructures;
   i) Circular 04/2008/TT-BXD (Circular 04) of the Ministry of Construction dated 20 February 2008 providing guidelines on management of urban roads; and
4 Toll collection
   a) Ordinance No. 38/2001/PL-UBTVOQ10 (Ordinance on Charges and Fees) of the Standing Committee of the National Assembly dated 28 August 2001 on charges and fees;
   b) Decree No. 57/2002/ND-CP (Decree 57) of the Government dated 3 June 2002 providing detailed provisions for the implementation of the Ordinance on charges and fees;
   c) Decree No. 24/2006/ND-CP (Decree 24) of the Government dated 6 March 2006 amending, supplementing a number of articles of Decree 57/2002/ND-CP of the Government dated 3 June 2002 providing detailed provisions for the implementation of the Ordinance on charges and fees; and
   d) Circular No. 90/2004/TT-BTC (Circular 90) of the Ministry of Finance dated 7 September 2004 guiding the regime of road toll collection, payment, management and use.

5 Land
   a) Law on Land No.13/2003/QH11 (Law on Land) adopted by the National Assembly on 26 November 2003;
   b) Decree No. 88/2009/ND-CP (Decree 88) dated 19 October 2009 of the Government on the issuance of land use right certificate;
   c) Decree No. 181/2004/ND-CP (Decree 181) dated 29 October 2004 which implements the Law on Land;
   d) Decree No. 197/2004/ND-CP (Decree 197) of the Government dated 3 December 2004 on compensation, assistance and resettlement when land is recovered by the State;
   e) Decree No. 84/2007/ND-CP (Decree 84) of the Government dated 25 May 2007 supplementing provisions on issuance of land use right certificates, land recovery, implementation of land use right, order and procedures for compensation, assistance and resettlement when land is recovered by the State and resolution of complaint about land;
   f) Decree No. 69/2009/ND-CP (Decree 69) of the Government dated 13 August 2009 providing additional provisions on land use planning, land prices, land recovery, compensation, assistance and resettlement; and
   g) Circular No. 14/2009/TT-BTNMT (Circular 14) of the Ministry of Resources and Environment dated 1 October 2009 providing in detail on compensation, assistance, resettlement and order, procedures on land recovery, allocation of land, lease of land.

6 Construction
   a) Law on Construction No. 16/2003/QH11 (Law on Construction) adopted by the National Assembly on 26 November 2003;
   b) Law on amendment to a number of articles of laws concerning investment in capital construction adopted by the National Assembly on 19 June 2009;
   c) Decree No. 12/2009/ND-CP (Decree 12) of the Government dated 12 February 2009 on management of investment project for construction works;
   d) Decree No. 83/2009/ND-CP (Decree 83) of the Government dated 15 October 2009 on amendment of, addition to Decree 12; and
   e) Circular 03/2009/TT-BXD (Circular 03) of the Ministry of Construction dated 26 March 2009 detailing a number of provisions of Decree 12/2009/ND-CP.

7 Environment
   a) Law on Environmental Protection No. 52/2005/QH11 (Law on Environmental Protection) adopted by the National Assembly on 29 November 2006;
b) Decree No. 80/2006/ND-CP (Decree 80) of the Government dated 9 August 2006 providing detailed regulations for implementation of the Law on Protection of Environment;

c) Decree No. 21/2008/ND-CP (Decree 21) of the Government dated 28 February 2008 on amendment of, addition to a number of articles of Decree 80; and

d) Circular No. 05/2008/TT-BTNMT (Circular 05) of the Ministry of Resources and Environment dated 8 December 2008 providing guidelines on strategic environmental assessment, environmental impact assessment and environmental protection undertaking.

8 Finance

a) Ordinance No. 28/2005/PL-UBTVQH11 (Ordinance on Foreign Exchange Control) of the Standing Committee of National Assembly dated 13 December 2005 on foreign exchange control;

b) Decree No. 160/2006/ND-CP (Decree 160) of the Government dated 28 December 2006 providing regulations for implementation of ordinance on foreign exchange control;

c) Decree 134/2005/ND-CP (Decree 134) of the Government dated 1 November 2005 on the borrow and repayment of foreign loans;

d) Circular 09/2004/TT-NHNN dated 21 December 2004 (Circular 09) which implements Decree 90/1998/ND-CP dated 7 November 1998 (Decree 90) on the regulations on borrowing and repayment of foreign loans;

e) Decree 52/2006/ND-CP (Decree 52) of the Government dated 19 May 2006 on issuance of corporate bonds; and


9 Secured Transactions

a) Civil Code No. 33/2005/QH11 (Civil Code) adopted by the National Assembly on 14 June 2005; and

b) Decree No. 163/2006/ND-CP (Decree 163) dated 29 December 2006 of the Government on secured transactions.

10 Tendering

a) Law on Tendering No. 61/2005/QH11(Law on Tendering) adopted by the National Assembly on 29 November 2005; and

b) Decree No. 85/2009/ND-CP (Decree 85) of the Government dated 15 October 2009 making detailed provisions for implementation of the Law on Tendering and for selection of construction contractors pursuant to the Law on Construction.

11 Bankruptcy


12 Others

a) Civil Proceedings Code No. 24/2004/QH11 (Civil Proceedings Code) adopted by the National Assembly on 15 June 2004; and

### 13 Definitions

242. The meanings of the capitalised term used in this Report is are set out below.

<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
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</thead>
<tbody>
<tr>
<td>ADB Study</td>
<td>an Asian Development Bank (ABD) study completed in April 2007.</td>
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<tr>
<td>ASB</td>
<td>authorised State body.</td>
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<tr>
<td>BOT</td>
<td>build, operate and transfer.</td>
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<tr>
<td>BT</td>
<td>build and transfer.</td>
</tr>
<tr>
<td>BTO</td>
<td>build, transfer and operate.</td>
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<tr>
<td>CIT</td>
<td>corporate income tax.</td>
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<td>EIAR</td>
<td>environmental impact assessment report.</td>
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<tr>
<td>EPC</td>
<td>engineering, procurement and construction.</td>
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<tr>
<td>FIA</td>
<td>foreign investment agency.</td>
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<tr>
<td>Government</td>
<td>the Vietnamese government.</td>
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<tr>
<td>MOF</td>
<td>Ministry of Finance.</td>
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<tr>
<td>MONRE</td>
<td>Ministry of Natural Resources and Environment.</td>
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<td>MOT</td>
<td>Ministry of Transport.</td>
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<tr>
<td>MPI</td>
<td>Ministry of Planning and Investment.</td>
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<tr>
<td>NRAST</td>
<td>National Registration Agency for Secured Transactions.</td>
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<tr>
<td>ODA</td>
<td>Official Development Assistance.</td>
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<tr>
<td>O&amp;M</td>
<td>Operation and Maintenance.</td>
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<td>PPP</td>
<td>public private partnerships.</td>
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<tr>
<td>Prime Minister</td>
<td>prime minster of Vietnam.</td>
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<td>SBV</td>
<td>State Bank of Vietnam.</td>
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<tr>
<td>SOE</td>
<td>State-owned enterprise.</td>
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<tr>
<td>State</td>
<td>State of Vietnam.</td>
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<td>USD</td>
<td>United States dollar.</td>
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<td>VAT</td>
<td>value added tax.</td>
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<tr>
<td>VND</td>
<td>Vietnamese Dong</td>
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<tr>
<td>VEC</td>
<td>Vietnamese Expressway Corporation.</td>
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<tr>
<td>VRA</td>
<td>Vietnam Road Administration.</td>
</tr>
</tbody>
</table>
### Part V – Permits and Approvals for toll road / bridge projects in Vietnam

#### 1 Private Sector Investor / Project Company Permits and Approvals

**Table 5 Private Sector Investor / Project Company Permits and Approvals**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Decision Making Body</th>
<th>Applicable Legislation</th>
<th>Pre-Requisite to commencement of process</th>
<th>Estimated Timeframe</th>
<th>Estimated Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Selection of Investor in BOT project (for project on approved list)</strong></td>
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</tr>
<tr>
<td>Registration of intention to bid for approved BOT project</td>
<td>Authorised State Body</td>
<td>Article 10.2 of Decree 108/2009/ND-CP</td>
<td>Annual publication of approved list of BOT projects</td>
<td>30 working days from the last publication date of approved list of BOT projects</td>
<td>A maximum non-refundable fee of VND 1,000,000 for domestic bidding. For international bidding, the non-refundable fee may vary subject to international practice (approximately US$10,000).</td>
</tr>
<tr>
<td>Submission of bid for BOT project</td>
<td>Authorised State Body</td>
<td>Article 10 of Decree 108/2009/ND-CP</td>
<td>Feasibility study report and invitation to bid released to registered bidders</td>
<td>30 working days from the last publication date of approved list of BOT projects</td>
<td>A specific amount of bid security may required to be payable subject to the value of the bid package (but it will not normally exceed 3% of the approved bid package price).</td>
</tr>
<tr>
<td><strong>Selection of Investor in BOT project (for project not on approved list)</strong></td>
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<tr>
<td>Approval of project proposal</td>
<td>Prime Minister or the Ministry of Transport</td>
<td>Article 11.4 and 12.2 of Decree 108/2009/ND-CP</td>
<td>Annual publication of approved list of BOT projects</td>
<td>At least 30 working days to take opinions from relevant State bodies</td>
<td>n/a</td>
</tr>
<tr>
<td>Activity</td>
<td>Decision Making Body</td>
<td>Applicable Legislation</td>
<td>Pre-Requisite to commencement of process</td>
<td>Estimated Timeframe</td>
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<tr>
<td>Registration of intention to bid for approved BOT project</td>
<td>Authorised State Body</td>
<td>Article 9 and 11 of Decree 108/2009/ND-CP</td>
<td>Approved of project, publication of details and invitation to bid issued.</td>
<td>30 working days from the last publication date of approved list of BOT projects</td>
<td>A maximum non-refundable fee of VND 1,000,000 for domestic bidding. For international bidding, the non-refundable fee may vary subject to international practice (approximately US$10,000).</td>
</tr>
<tr>
<td>Submission of bid for BOT project</td>
<td>Authorised State Body</td>
<td>Article 9 and 11 of Decree 108/2009/ND-CP</td>
<td>Registration of intention to bid</td>
<td>30 working days from the last publication date of approved list of BOT projects</td>
<td>A specific amount of bid security may required to be payable subject to the value of the bid package (but it will not normally exceed 3% of the approved bid package price).</td>
</tr>
<tr>
<td>Establishing BOT Company</td>
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<tr>
<td>Investment certificate</td>
<td>Ministry of Planning and Investment or relevant provincial People’s Committee</td>
<td>Articles 24 and 25 of Decree 108/2009/ND-CP</td>
<td>Submission of the application for issuance of an investment certificate</td>
<td>In practice, it may take approximately 1-3 months to obtain an investment certificate, subject to the quality of the application documents and the extent to which MPI may need to obtain comments from various Government ministries. MPI is required by law to decide application within 45 days</td>
<td>n/a</td>
</tr>
<tr>
<td>Activity</td>
<td>Decision Making Body</td>
<td>Applicable Legislation</td>
<td>Pre-Requisite to commencement of process</td>
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<tr>
<td><strong>BOT Company - Post Licensing</strong></td>
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<tr>
<td>Registration of company seal for BOT Company</td>
<td>Provincial police department</td>
<td>Decree 58/2001/ND-CP as amended / supplemented by Decree no. 31/2009/ND-CP</td>
<td>BOT Company formed</td>
<td>7 working days from receipt of a complete application</td>
<td>VND300.000-400.000</td>
</tr>
<tr>
<td>Publicise BOT Company establishment in 3 consecutive issues of central or local newspaper.</td>
<td></td>
<td>Art. 28 of the Law on Enterprises</td>
<td>Investment Certificate issued</td>
<td>Within 30 working days after the Investment Certificate is issued</td>
<td>Depending on the kind of newspapers: VND1.000.000-10.000.000</td>
</tr>
<tr>
<td>Certificate of establishment of a representative office</td>
<td>Provincial Department of Planning and Investment</td>
<td>Art. 24 of Decree 88/2006/ND-CP</td>
<td>Application for establishment of the representative office</td>
<td>7 working days from receipt of a complete application</td>
<td>VND20.000</td>
</tr>
<tr>
<td><strong>Tax and Accounting</strong></td>
<td></td>
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<tr>
<td>Certificate of Tax Code Registration</td>
<td>Provincial Department of Taxation</td>
<td>Art. 25 of the Law on Tax Management</td>
<td>Investment Certificate issued</td>
<td>Application must be submitted within 10 working days after the Investment Certificate is issued. Registration takes approximately 10 working days.</td>
<td>VND200.000</td>
</tr>
<tr>
<td>Activity</td>
<td>Decision Making Body</td>
<td>Applicable Legislation</td>
<td>Pre-Requisite to commencement of process</td>
<td>Estimated Timeframe</td>
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<tr>
<td>Registration of supplement of or addition to the accounting system</td>
<td>Ministry of Finance</td>
<td>Article 11 of Circular 244/2009/TT-BTC dated 31 December 2009</td>
<td>Registration of the Tax Code</td>
<td>20 working days from the date of receipt of a complete application dossier.</td>
<td>n/a</td>
</tr>
<tr>
<td>Registration of method of depreciation of fixed assets</td>
<td>Provincial Department of Taxation</td>
<td>Art. 13.3 of Decision no. 203/2009/TT-BTC</td>
<td>Prior to depreciation</td>
<td>7-14 working days from receipt of a complete application</td>
<td>n/a</td>
</tr>
<tr>
<td>Notification of use of foreign currency in accounting systems</td>
<td>Provincial Department of Taxation</td>
<td>Art 5 of Circular 244/2009/TT-BTC</td>
<td>Registration of the Tax Code</td>
<td>7 working days from receipt of a complete application</td>
<td>n/a</td>
</tr>
<tr>
<td>Registration of BOT Company's self printed invoice</td>
<td>General Department of Tax</td>
<td>Article I.2 of Part B of Circular 120/2002/TT as amended by Circular 99/2003/TT-BTC and Circular 16/2010/TT-BTC dated 1 February 2010.</td>
<td>Registration of the Tax Code</td>
<td>5 working days from the date of receipt of a complete application dossier.</td>
<td>n/a</td>
</tr>
<tr>
<td>Approval of BOT Company’s financial year</td>
<td>Ministry of Finance</td>
<td>Art. 13 of the Law on Accounting</td>
<td>Registration of the Tax Code</td>
<td>7-14 working days from receipt of a complete application</td>
<td>n/a</td>
</tr>
<tr>
<td>Registration of the loss carried-forward proposal</td>
<td>Provincial Department of Taxation</td>
<td>Art 34 of the Law on Investment; Part C. VII of Circular 130/2008/TT-BTC</td>
<td>Prior to each year's accounting term</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Financing and Security</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approval of step-in rights of lenders to be contained in</td>
<td>Ministry of Transport</td>
<td>Art. 17.2 of Decree 108/2009/ND-CP</td>
<td>Negotiation of finance agreements</td>
<td>15-30 working days</td>
<td>n/a</td>
</tr>
<tr>
<td>Activity</td>
<td>Decision Making Body</td>
<td>Applicable Legislation</td>
<td>Pre-Requisite to commencement of process</td>
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<tr>
<td>Approval of grant of security interests over BOT Company's assets and land use rights</td>
<td>Ministry of Transport</td>
<td>Art. 41.2 of Decree 108/2009/ND-CP</td>
<td>Negotiation of security agreements</td>
<td>15-30 working days</td>
<td>n/a</td>
</tr>
<tr>
<td>Registration of Vietnamese law governed securities over movable assets and contractual rights</td>
<td>National Registration Agency for Secured Transactions</td>
<td>Decree 163/2006/ND-CP; Decree 08/2000/ND-CP</td>
<td>Execution of secured transaction</td>
<td>Immediately upon execution of secured transaction – can be undertaken within 3 working days</td>
<td>Depending on decision of provincial People’s Committee: approximately VND60,000</td>
</tr>
<tr>
<td>Registration of securities over land use rights and assets attached to land</td>
<td>Department of National Resources and Environment</td>
<td>Law on Land 2003; Decree 163/2006/ND-CP; Art. 64 of Decree 181/2004/ND-CP; Circular 03/2006/TTLT-BTP-BTNMT</td>
<td>Execution of secured transaction</td>
<td>Immediately upon execution of secured transaction – can be undertaken within one working day</td>
<td>Depending on decision of provincial People’s Committee: approximately VND60,000</td>
</tr>
<tr>
<td>Certificate of registration of foreign loan (&gt; 1 year duration)</td>
<td>State Bank of Vietnam</td>
<td>Circular 09/2004/TT-NHNN; Decree 134/2005/ND-CP</td>
<td>Foreign loan facilities are in place and investment project has been approved</td>
<td>An application for registration must be made within 30 working days from the date the loan agreement is signed and before any drawdown. Registration takes 15 working days.</td>
<td>n/a</td>
</tr>
<tr>
<td>Approval to open an offshore account</td>
<td>State Bank of Vietnam</td>
<td>Ordinance on Foreign Exchange Control; Decree 160/2006/ND-CP</td>
<td></td>
<td>15 working days from the date of receipt of a complete application dossier</td>
<td>n/a</td>
</tr>
<tr>
<td>Activity</td>
<td>Decision Making Body</td>
<td>Applicable Legislation</td>
<td>Pre-Requisite to commencement of process</td>
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</tr>
<tr>
<td>Opening of a capital investment account with a commercial bank authorised in Vietnam</td>
<td>A commercial bank licensing to operate in Vietnam</td>
<td>Ordinance on Foreign Exchange Control; Art. 11 of Decree 160/2006/ND-CP</td>
<td>-</td>
<td>1-3 working days from receipt of a complete application</td>
<td>Subject to specific procedures of relevant commercial bank.</td>
</tr>
<tr>
<td>For International Bonds Issue</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Approval of proposal for Government guaranteed international bond issue (applicable to Government guaranteed international bond issues by a State owned enterprise or a privately owned enterprise)</td>
<td>Prime Minister</td>
<td>Article 20.1 of Decree 53/2009/ND-CP</td>
<td>Due incorporation in Vietnam and satisfaction of certain prescribed conditions</td>
<td>It may take approximately 1-3 months</td>
<td>n/a</td>
</tr>
<tr>
<td>Confirmation that value of bonds is consistent with the overall quota for national foreign commercial loans (applicable to non-Government guaranteed)</td>
<td>State Bank of Vietnam (in coordination with the Ministry of Finance)</td>
<td>Article 20.2(b) of Decree 53/2009/ND-CP</td>
<td>Approval must be obtained with respect to the proposal for non-Government guaranteed international bond issues. The value of international bonds to be issued must be consistent with the overall</td>
<td>State Bank of Vietnam should provide confirmation within 15 working days of receipt of a complete proposal for non-Government guaranteed international bond issues.</td>
<td>n/a</td>
</tr>
<tr>
<td>Activity</td>
<td>Decision Making Body</td>
<td>Applicable Legislation</td>
<td>Pre-Requisite to commencement of process</td>
<td>Estimated Timeframe</td>
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<tr>
<td>international bond issues by a non-State owned enterprise</td>
<td></td>
<td></td>
<td>quota for national foreign commercial loans pre-approved by the Prime Minister on an annual basis.</td>
<td></td>
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</tr>
<tr>
<td>Approval of a Government guarantee for international bond issue</td>
<td>Ministry of Finance</td>
<td>Article 8.2 and 21 of Decree 53/2009/ND-CP</td>
<td>Approval by the Prime Minister of the proposal for international bond issue &amp; satisfaction of certain prescribed conditions</td>
<td>15-30 working days</td>
<td>n/a</td>
</tr>
<tr>
<td>Execution of Government Guarantee</td>
<td>Ministry of Finance</td>
<td>Article 21 of Decree 53/2009/ND-CP</td>
<td>Approval of government guarantee obtained</td>
<td>15-30 working days</td>
<td>n/a</td>
</tr>
<tr>
<td>Project Contracts</td>
<td></td>
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<tr>
<td>Execution of a BOT contract</td>
<td>Authorised State Body</td>
<td>Art. 15 of Decree 108/2009/ND-CP</td>
<td>Negotiation of the BOT contract</td>
<td>1-3 months negotiation and finalisation of the BOT contract</td>
<td>n/a</td>
</tr>
<tr>
<td>ASB notification of contractors</td>
<td>Authorised State Body</td>
<td></td>
<td>Selection of Contractors</td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>Construction</td>
<td></td>
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<tr>
<td>Performance bond</td>
<td>May be issued by a commercial bank in the form of a bank guarantee or other types of security interests</td>
<td>Art. 23 of Decree 108/2009/ND-CP</td>
<td>Execution of the BOT contract</td>
<td>Subject to negotiation between the project investor and the relevant commercial bank.</td>
<td>The project investor must provide a performance bond equal to 2% of project costs up to VND1,500 billion and an additional 1% over and above that threshold until construction is completed.</td>
</tr>
<tr>
<td>Activity</td>
<td>Decision Making Body</td>
<td>Applicable Legislation</td>
<td>Pre-Requisite to commencement of process</td>
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<tr>
<td>Approval for evaluation of the technical design of project</td>
<td>Ministry of Transport</td>
<td>Art. 35 of the Law on Construction Art. 10 of Decree no. 12/2009/ND-CP Decree no. 83/2009/ND-CP</td>
<td>Submission of the application for evaluation of the technical design of project</td>
<td>Within 40 working days of the application</td>
<td>n/a</td>
</tr>
<tr>
<td>Approval for changes in technical design of project</td>
<td>Ministry of Transport</td>
<td>Art. 14.2 of Decree no. 12/2009/ND-CP Decree no. 83/2009/ND-CP</td>
<td>Submission of the application for changes in technical design of project</td>
<td>Within 40 working days of the application</td>
<td>n/a</td>
</tr>
<tr>
<td>Approval of Fire Prevention Design</td>
<td>Police Department for Fire Prevention and Protection (within the Ministry of Police)</td>
<td>Art. 16 of Decree 35/2003/ND-CP</td>
<td></td>
<td>Within 30 working days of the application</td>
<td>n/a</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Work Permits for foreign staff</td>
<td>Provincial Department of Labour, Invalids and Social Affairs</td>
<td>Decree 34/2008/ND-CP</td>
<td>Required staff identified and contracts signed</td>
<td>Within 15-20 working days of the application</td>
<td>Depending on decision of the provincial People’s Committee. About VND 400.000</td>
</tr>
<tr>
<td>Registration of Internal Labour Rules</td>
<td>Provincial Department of Labour, Invalids and Social Affairs</td>
<td>Art. 82 of the Labour Code; Art. 5 of Decree 41/1995/ND-CP</td>
<td>Execution of the Internal Labour Rules</td>
<td>Within 6 months of commencing operations</td>
<td>n/a</td>
</tr>
<tr>
<td>Registration of Collective Labour Agreement</td>
<td>Provincial Department of Labour, Invalids and Social Affairs</td>
<td>Art. 47.2 of the Labour Code</td>
<td>Collective Labour Agreement signed</td>
<td>Within 10 working days of signing the Collective Labour Agreement</td>
<td>n/a</td>
</tr>
<tr>
<td>Permit to use machinery, equipment,</td>
<td>State Inspectorate for Labour Safety</td>
<td>Art. 96.2 of the Labour Code</td>
<td></td>
<td>Within 7 working days from the date of receipt of requirements</td>
<td>n/a</td>
</tr>
<tr>
<td>Activity</td>
<td>Decision Making Body</td>
<td>Applicable Legislation</td>
<td>Pre-Requisite to commencement of process</td>
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<td>materials and substances requiring strict labour safety</td>
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<tr>
<td>Permit to use items requiring strict labour hygiene</td>
<td>Inspection Body under the Provincial Health Department</td>
<td>Art. 96.2 of the Labour Code</td>
<td></td>
<td>Within 7 working days from the date of receipt of requirements</td>
<td>n/a</td>
</tr>
<tr>
<td>Importing equipment and materials</td>
<td></td>
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<tr>
<td>Registration of list of imported goods to be exempted from import tax</td>
<td>Provincial Department of Customs</td>
<td>Art. 16 of Decree 149/2005/ND-CP Art. 100 and 101 of Circular 79/2009/TT-BTC dated 20 April 2009</td>
<td>Before carrying out procedures for exporting or importing goods</td>
<td>Within 3 working days from the date of receipt of valid application dossier.</td>
<td>n/a</td>
</tr>
<tr>
<td>Submit annual importation plan</td>
<td>Provincial Department of Customs</td>
<td>Art. 101 of Circular 79/2009/TT-BTC</td>
<td></td>
<td>To be submitted at the end of each year for the following year.</td>
<td>n/a</td>
</tr>
<tr>
<td>Registration of duration of temporary import / export of equipment</td>
<td>Provincial Department of Customs</td>
<td>Circular 04/2007/TT-BTM</td>
<td></td>
<td>Within 2-3 working days from the date of receipt of valid application dossier.</td>
<td>VND 20,000 for each application.</td>
</tr>
<tr>
<td>Intellectual Property / Technology Transfer</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Registration of patents, utility solution, industrial designs, trademarks and</td>
<td>National Office of Intellectual Property</td>
<td>Law on Intellectual Property Decree 105/2006/ND-CP</td>
<td>Creation of registrable intellectual property.</td>
<td>For industrial designs, it may take 1-2 months for NOIP to consider its acceptance of the application, and take 12 -18 months for NOIP to consider</td>
<td>Approximately VND5,000,000- VND7,000,000 for an industrial design to be registered.</td>
</tr>
<tr>
<td>Activity</td>
<td>Decision Making Body</td>
<td>Applicable Legislation</td>
<td>Pre-Requisite to commencement of process</td>
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<tr>
<td>other intellectual property rights</td>
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<td></td>
<td>whether it is registrable. For patents, it may take 4-5 years for NOIP to consider whether it is registrable.</td>
<td>Approximately USD10,000-USD20,000 for a foreign patent to be registered.</td>
<td></td>
</tr>
<tr>
<td>Registration of licenses for patents, utility solution, industrial designs, trademarks and other intellectual property rights</td>
<td>National Office of Intellectual Property</td>
<td>Law on Intellectual Property Decree 105/2006/ND-CP</td>
<td>Agreement to licence intellectual property</td>
<td>It may take 2-3 months for a licence agreement to be registered by NOIP.</td>
<td>Approximately VND1,000,000-VND5,000,000 for a licence agreement to be registered.</td>
</tr>
<tr>
<td>Registration of the Technology Transfer Agreement</td>
<td>Ministry of Science and Technology</td>
<td>Law on Technology Transfer</td>
<td>Execution of the Technology Transfer Agreement</td>
<td>Within 2 months of the application</td>
<td>Approximately VND 1,000,000</td>
</tr>
<tr>
<td>Land Acquisition</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Approval in principle of the land lease</td>
<td>Provincial People’s Committee</td>
<td>Application for approval in principle of the land lease</td>
<td>This must be obtained prior to the execution of the Land Lease Agreement.</td>
<td>Depending on cadastral fee decided by provincial People’s Council.</td>
<td></td>
</tr>
<tr>
<td>Approval of cadastral map of the site</td>
<td>Map to be prepared by a subordinate body on the instruction of the Department of Natural Resources and Environment</td>
<td>Art. 125 of Decree 181/2004/ND-CP</td>
<td>1-2 months</td>
<td>Depending on cadastral fee decided by provincial People’s Council.</td>
<td></td>
</tr>
<tr>
<td>Approval of Land allocation / lease</td>
<td>Provincial People’s Committee</td>
<td>Art. 37.1 Law on Land</td>
<td>1-2 months</td>
<td>Depending on cadastral fee decided by provincial People’s Council.</td>
<td></td>
</tr>
<tr>
<td>Activity</td>
<td>Decision Making Body</td>
<td>Applicable Legislation</td>
<td>Pre-Requisite to commencement of process</td>
<td>Estimated Timeframe</td>
<td>Estimated Costs</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------</td>
<td>--------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Execution of the Land Lease Agreement</td>
<td>Provincial People's Committee</td>
<td>Art. 12 of the Law on Land</td>
<td>Approval in principle of the land lease was obtained and Negotiation of the terms of the Land Lease Agreement is completed</td>
<td>1-2 months</td>
<td>Depending on terms and conditions of Land Lease Agreement.</td>
</tr>
<tr>
<td>Land clearance and relocation compensation plan</td>
<td>Provincial People's Committee</td>
<td>Decree no. 197/2004/ND-CP, Decree no. 84/2007/ND-CP and Decree no. 69/2009/ND-CP; Circular no. 14/2009/TT-BTNMT</td>
<td>Preparation of a land clearance and relocation compensation plan</td>
<td>For major infrastructure projects, it may take approximately 1-3 years for the land clearance and relocation of existing land occupants to be completed</td>
<td>Depending on land areas, applicable land price.</td>
</tr>
<tr>
<td>Environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental impact assessment report (EIAR)</td>
<td>Ministry of Natural Resources and Environment</td>
<td>Law on Environment Protection Decree 80/2006/ND-CP Decree 21/2008/ND-CP</td>
<td>Preparation of the environmental impact assessment report</td>
<td>The EIAR must be submitted prior to the finalisation of the technical design and procurement of equipment and facilities. MONRE must issue its decision on the EIAR within 45 working days of the application.</td>
<td>n/a</td>
</tr>
<tr>
<td>Post Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital Construction Finalisation Report (CCFR)</td>
<td>Authorised State Body</td>
<td>Article 36.1 of Decree 108/2009/ND-CP</td>
<td>Construction completion to be achieved</td>
<td>Report must be prepared by project investor within 6 months of the completion of construction</td>
<td>n/a</td>
</tr>
<tr>
<td>Activity</td>
<td>Decision Making Body</td>
<td>Applicable Legislation</td>
<td>Pre-Requisite to commencement of process</td>
<td>Estimated Timeframe</td>
<td>Estimated Costs</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-------------------------</td>
<td>-------------------------------------------------------------</td>
<td>-------------------------------------------------------------------</td>
<td>--------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Approval of auditor for CCFR</td>
<td>Authorised State Body</td>
<td>Article 36.2 of Decree 108/2009/ND-CP</td>
<td>CCFR is prepared by project investor</td>
<td>1-2 months</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Toll Collection</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision to establish toll booth</td>
<td>Ministry of Transport</td>
<td>Part I, Clause II.2 of Circular no. 90/2004/TT-BTC</td>
<td></td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Approval of toll collection booth plan</td>
<td>Ministry of Finance</td>
<td>Part I, Clause II.2 of Circular no. 90/2004/TT-BTC</td>
<td>Toll Booth is not already in Network Plan</td>
<td>MOF to decide application within 30 working days of application</td>
<td>n/a</td>
</tr>
<tr>
<td>Approval of proposed toll amounts</td>
<td>Ministry of Finance</td>
<td>Part II, Clause IV.1 and Clause II.2 of Circular no. 90/2004/TT-BTC</td>
<td>Toll Collection Booth Plan approval.</td>
<td>Application must be submitted at least 60 working days prior to starting toll collection MOF decision to be issued at least 30 working days prior to starting toll collection</td>
<td>n/a</td>
</tr>
<tr>
<td>Approval for changes in tolls, fees and other charges</td>
<td>Ministry of Transport</td>
<td>Art. 33.3 of Decree No. 108/2009/ND-CP</td>
<td>Commencement of Toll Collection</td>
<td>Application must be submitted at least 30 working days prior to proposed date of change</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Transfer of infrastructure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Publication of transfer of infrastructure in local newspapers</td>
<td></td>
<td>Article 36.3(a) of Decree 108/2009/ND-CP</td>
<td></td>
<td>One (1) year prior to the agreed transfer date</td>
<td>Depending on the kind of newspapers: VND1.000.000-10.000.000</td>
</tr>
<tr>
<td>Completion of quality, value and construction conditions testing</td>
<td>Testing organised by Authorised State Body</td>
<td>Article 36.3(b) of Decree 108/2009/ND-CP</td>
<td>Completion of construction</td>
<td>3-12 months</td>
<td></td>
</tr>
</tbody>
</table>
243. The Authorised State Body may, depending on the nature and location of project being contemplated, be the Ministry of Transport, the relevant People's Committee or State agency acting under delegated authority.

244. The timeframes given above for a government body to issue its decision on a given application is dependant upon the application being complete and fully supported by all relevant documentation. Where an “informal” range is indicated, this is an estimate only of the period during which a party may informally liaise with the relevant government department or other body about the application prior to a decision being made. The actual timeframe will depend on a number of factors including the complexity of the project in question and the individuals involved those discussions. Our estimates do not include, except where otherwise indicated, any period for the commission, collation or preparation of documents by the application for the purpose of accompanying any application.

245. The estimated costs indicated throughout this table include only the fees and charges payable to the relevant authority in relation to the relevant approval. Except where otherwise indicated, these estimates do not include any costs (administrative or otherwise) incurred by the applicant for the commissioning of reports, the collation of materials or any other step that may be taken by the applicant in relation to either the approval sought or the matter to which the approval relates.

2 Construction Contractors Permits and Approvals

Table 6 Construction Contractors Permits and Approvals

<table>
<thead>
<tr>
<th>Activity</th>
<th>Decision Making Body</th>
<th>Applicable Legislation</th>
<th>Pre-Requisite to commencement of process</th>
<th>Estimated Timeframe</th>
<th>Estimated Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction contractor's permit</td>
<td>Ministry of Construction or Provincial Department of Construction</td>
<td>Decision 87/2004/QD-TTG and Circular 05/2004/TT-BXD</td>
<td>Application for construction contractor's permit</td>
<td>Within 20 working days of the application Permit must be obtained prior to commencement of foreign contractor's operations in Vietnam</td>
<td>Approximately VND 2.000.000</td>
</tr>
<tr>
<td>Approval of Fire Prevention Design</td>
<td>Police Department for Fire Prevention and Protection (within the Ministry of Police)</td>
<td>Art. 16 of Decree 35/2003/ND-CP</td>
<td>Application for Approval of Fire Prevention Design</td>
<td>Within 30 working days of the application</td>
<td>n/a</td>
</tr>
<tr>
<td>Notification on the location of the construction site and construction commencement</td>
<td>Provincial People's Committee</td>
<td>Decree 12/2009/ND-CP</td>
<td>All approvals required for commencement of construction</td>
<td>Prior to commencement of construction</td>
<td>n/a</td>
</tr>
<tr>
<td>Finalisation report</td>
<td>Prepared by construction</td>
<td>Decree 12/2009/ND-CP</td>
<td>Completion of construction</td>
<td>Finalisation report to be submitted</td>
<td>Subject to the</td>
</tr>
<tr>
<td>Activity</td>
<td>Decision Making Body</td>
<td>Applicable Legislation</td>
<td>Pre-Requisite to commencement of process</td>
<td>Estimated Timeframe</td>
<td>Estimated Costs</td>
</tr>
<tr>
<td>----------</td>
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<td>------------------------------------------</td>
<td>--------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>contractor</td>
<td>Acceptance for construction works to be jointly approved by project investor, construction contractor and representative of the provincial Department of Construction.</td>
<td></td>
<td>was achieved</td>
<td>upon the completion of construction.</td>
<td>size of the construction works.</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work Permits for foreign staff</td>
<td>Provincial Department of Labour, Invalids and Social Affairs</td>
<td>Decree 34/2008/ND-CP</td>
<td>Required staff identified and contracts signed</td>
<td>Within 15-20 working days of the application</td>
<td>Depending on decision of the provincial People’s Committee. Approximately VND 400,000</td>
</tr>
<tr>
<td>Registration of Internal Labour Rules</td>
<td>Provincial Department of Labour, Invalids and Social Affairs</td>
<td>Art. 82 of the Labour Code; Art. 5 of Decree 41/1995/ND-CP</td>
<td>Execution of the Internal Labour Rules</td>
<td>Within 6 months of commencing operations</td>
<td>n/a</td>
</tr>
<tr>
<td>Registration of Collective Labour Agreement</td>
<td>Provincial Department of Labour, Invalids and Social Affairs</td>
<td>Art. 47.2 of the Labour Code</td>
<td>Collective Labour Agreement signed</td>
<td>Within 10 days of signing the Collective Labour Agreement</td>
<td>n/a</td>
</tr>
<tr>
<td>Import of Machinery / Equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Registration of list of imported goods to be exempted from import tax</td>
<td>Provincial Department of Customs</td>
<td>Art. 16 of Decree 149/2005/ND-CP Art. 100 and 101 of Circular 79/2009/TT-BTC dated 20 April 2009</td>
<td>Before carrying out procedures for exporting or importing goods.</td>
<td>Within 3 working days from the date of receipt of valid application dossier.</td>
<td>n/a</td>
</tr>
<tr>
<td>Activity</td>
<td>Decision Making Body</td>
<td>Applicable Legislation</td>
<td>Pre-Requisite to commencement of process</td>
<td>Estimated Timeframe</td>
<td>Estimated Costs</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>---------------------------------------------</td>
<td>-----------------------------------------</td>
<td>-------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Submit annual importation plan</td>
<td>Provincial Department of Customs</td>
<td>Art. 101 of Circular 79/2009/TT-BTC</td>
<td>To be submitted at the end of each year for the following year.</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Registration of duration of temporary import / export of equipment</td>
<td>Provincial Department of Customs</td>
<td>Circular 04/2007/TT-BTM</td>
<td>Within 2-3 working days from the date of receipt of valid application dossier.</td>
<td>VND 20,000 for each application.</td>
<td></td>
</tr>
<tr>
<td><strong>Specific construction activities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permit to use machinery, equipment, materials and substances requiring strict labour safety</td>
<td>State Inspectorate for Labour Safety</td>
<td>Art. 96.2 of the Labour Code</td>
<td>Within 7 working days from the date of receipt of requirements</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Permit to use items requiring strict labour hygiene</td>
<td>Inspection Body under the Provincial Health Department</td>
<td>Art. 96.2 of the Labour Code</td>
<td>Within 7 working days from the date of receipt of requirements</td>
<td>n/a</td>
<td></td>
</tr>
</tbody>
</table>
Part VI – Proposed Toll Road Projects calling for Foreign Investment

246. Below is the list of proposed toll road projects calling for foreign investments (as prescribed in the Prime Minister’s Decision 1290) to be undertaken on a BOT basis:

1. Noi Bai to Mai Dich (Hanoi 3) 20.2 km 4-6 lane expressway (estimated US$540 million);
2. Ninh Binh - Thanh Hoa - Vinh 215 km 4-6 lane expressway (estimated US$960 million);
3. Ho Chi Minh City - Thu Dau Mot 40 km 4-6 lane expressway (estimated US$125 million);
4. Trung Luong - My Thuan - Can Tho 82 km 4-6 lane expressway (estimated US$1.006 billion);
5. Dau Giay - Da Lat 189 km 4 lane expressway (estimated US$500 million);
6. Noi Bai - Ha Long- Mong Cai 4 lane expressway (Noi Bai – Ha Long: 110 km (estimated US$ 655 million), HaLong- Mong Cai: 180 km (estimated US$ 256 million);
7. Bien Hoa – Vung Tau 68km 4-6 lane expressway total estimated capital US$325 million (first stage -4 lanes estimated US$256 million);
8. Quang Tri – Hue- Da Nang 178 km 4 lane expressway (estimated US$750 million);
9. Hanoi – Lang Son 118 km 4 lane expressway (estimated US$555 million);
10. Da Nang – Quang Ngai 140 km 4 lane expressway (estimated US$755 million);
11. Dau Giay – Binh Thuan – Nha Trang 350 km 4 lane expressway (estimated US$ 200 million);
12. Ben Luc – Long Thanh 58 km, 8 lane expressway (first stage: 4 lanes estimated US$1.200 million);
13. National highway 18A (Mong Duong – Mong Cai) expressway level III (TCVN), 122 km (estimated US$ 200 million);
14. Dan Phuong- Phuc Tho – Son Tay 24 km expressway level I (TCVN) (estimated US$70 million);
15. Do Xa – Quan Son 30 km expressway level I (TCVN) (estimated US$ 100 million);
16. Ring road No. 3 in Ho Chi Minh 91 km 6 lane expressway (estimated US$1.550 million);
17. Improving National highway No. 6 (Ba La – Xuan Mai) 20 km 4 lane expressway (estimated US$45 million);
18. Improving National highway No. 20 (Dau Giay – Lien Khuong) 250 km 2 lane expressway (estimated US$26 million);
19. Extending National highway No. 51, 6 lane expressway (estimated US$38 million);
20. Improving National highway No.14 (Dong Xoai – Chon Thanh), 34 km 4 lane expressway (estimated US$32 million);
21. Improving National highway No. 21 (Phu Ly – Nam Dinh), 35 km (estimated US$38 million);
22. Improving National highway No.14 (Gia Lai – Kon Tum), 30 km 4 lane expressway (estimated US$58 million);
23. Improving National highway No. 1 (Dong Ha – Quang Tri), 10 km 4 lane expressway (estimated US$19 million);
24. National highway No. 1 (La Ha – Duc Pho) 15 km 4 lane expressway (estimated US$29 million); and
25. Coastal lane in Thanh Hoa 100 km (estimated US$335 million).
Part VII – List of approved National Expressway Projects to the year 2020 with a vision beyond the year 2020

Promulgated together with the Prime Minister’s Decision of No. 1743/QĐ-TTg dated 01 December 2008.

Table 7 Approved National Expressway Projects

<table>
<thead>
<tr>
<th>No.</th>
<th>Function/ Region</th>
<th>Length (Km)</th>
<th>Scale (lane)</th>
<th>Estimated capital (billion Dong)</th>
<th>Investment Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Cau Gie – Ninh Binh</td>
<td>50</td>
<td>6</td>
<td>9.300</td>
<td>Being processed - Stage I: 4 lanes</td>
</tr>
<tr>
<td>2.</td>
<td>Ninh Binh – Thanh Hoa</td>
<td>75</td>
<td>6</td>
<td>12.380</td>
<td>Before the year 2020</td>
</tr>
<tr>
<td>3.</td>
<td>Thanh Hoa – Vinh</td>
<td>140</td>
<td>6</td>
<td>22.120</td>
<td>Before the year 2020</td>
</tr>
<tr>
<td>4.</td>
<td>Vinh – Ha Tinh</td>
<td>20</td>
<td>4-6</td>
<td>2.580</td>
<td>Before the year 2020</td>
</tr>
<tr>
<td>5.</td>
<td>Ha Tinh – Quang Tri</td>
<td>277</td>
<td>4</td>
<td>21.610</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Quang Tri – Da Nang</td>
<td>178</td>
<td>4</td>
<td>18.160</td>
<td>Before the year 2020</td>
</tr>
<tr>
<td>7.</td>
<td>Da Nang- Quang Ngai</td>
<td>131</td>
<td>4</td>
<td>17.820</td>
<td>Before the year 2020</td>
</tr>
<tr>
<td>8.</td>
<td>Quang Ngai – Quy Nhon</td>
<td>150</td>
<td>4</td>
<td>23.700</td>
<td>Before the year 2020</td>
</tr>
<tr>
<td>9.</td>
<td>Quy Nhon – Nha Trang</td>
<td>240</td>
<td>4</td>
<td>24.960</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Nha Trang – Dau Giay</td>
<td>378</td>
<td>4-6</td>
<td>55.940</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Ho Chi Minh City – Long Thanh –</td>
<td>55</td>
<td>6-8</td>
<td>18.880</td>
<td>Before the year 2020</td>
</tr>
<tr>
<td></td>
<td>Dau Giay</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Long Thanh – Nhon Trach – Ben</td>
<td>45</td>
<td>6-8</td>
<td>12.340</td>
<td>Before the year 2020</td>
</tr>
<tr>
<td></td>
<td>Luc</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Ho Chi Minh City – Trung Luong</td>
<td>40</td>
<td>8</td>
<td>13.200</td>
<td>Being processed - Stage I: 4 lanes</td>
</tr>
</tbody>
</table>

North – South Express way to the East

Bac – Nam Express Road in the West

Northern Region

1. Lang Son – Bac Giang – Bac Ninh | 130 | 4-6 | 12.220 | Before the year 2020
2. Ha Noi – Hai Phong | 105 | 4-6 | 16.800 | Before the year 2020
3. Ha Noi – Lao Cai | 264 | 4-6 | 15.580 | Before the year 2020
4. Ha Noi – Thai Nguyen | 62 | 4-6 | 4.220 | Before the year 2020
<table>
<thead>
<tr>
<th>No.</th>
<th>Function/ Region</th>
<th>Length (Km)</th>
<th>Scale (lane)</th>
<th>Estimated capital (billion Dong)</th>
<th>Investment Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.</td>
<td>Thai Nguyen- Cho Moi</td>
<td>28</td>
<td>4-6</td>
<td>2.940</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Lang – Hoa Lac</td>
<td>30</td>
<td>6</td>
<td>7.650</td>
<td>Being processed</td>
</tr>
<tr>
<td>7.</td>
<td>Hoa Lac – Hoa Binh</td>
<td>26</td>
<td>4-6</td>
<td>2.2550</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Ha Long – Mong Cai</td>
<td>128</td>
<td>4-6</td>
<td>13.820</td>
<td>Before the year 2020</td>
</tr>
</tbody>
</table>

**Centre region**

<table>
<thead>
<tr>
<th>No.</th>
<th>Function/ Region</th>
<th>Length (Km)</th>
<th>Scale (lane)</th>
<th>Estimated capital (billion Dong)</th>
<th>Investment Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Hong Linh – Huong Son</td>
<td>34</td>
<td>4</td>
<td>2.450</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Cam Lo – Lao Bao</td>
<td>70</td>
<td>4</td>
<td>2.4900</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Quy Nhon – Pleiku</td>
<td>160</td>
<td>4</td>
<td>12.000</td>
<td></td>
</tr>
</tbody>
</table>

**In the South**

<table>
<thead>
<tr>
<th>No.</th>
<th>Function/ Region</th>
<th>Length (Km)</th>
<th>Scale (lane)</th>
<th>Estimated capital (billion Dong)</th>
<th>Investment Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Dau Giay – Da Lat</td>
<td>189</td>
<td>4</td>
<td>19.280</td>
<td>Before the year 2020</td>
</tr>
<tr>
<td>2.</td>
<td>Bien Hoa – Vung Tau</td>
<td>76</td>
<td>6</td>
<td>12.160</td>
<td>Before the year 2020</td>
</tr>
<tr>
<td>3.</td>
<td>Ho Chi Minh City – Thu Dau – Chon Thanh</td>
<td>69</td>
<td>6- 8</td>
<td>20.010</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Ho Chi Minh City – Moc Bai</td>
<td>55</td>
<td>4-6</td>
<td>7.480</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Ha Tien – Rach Gia – Bac Lieu</td>
<td>225</td>
<td>4</td>
<td>27.230</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Can Tho – Ca Mau</td>
<td>150</td>
<td>4</td>
<td>24.750</td>
<td></td>
</tr>
</tbody>
</table>

**Ring road system for Hanoi City**

<table>
<thead>
<tr>
<th>No.</th>
<th>Function/ Region</th>
<th>Length (Km)</th>
<th>Scale (lane)</th>
<th>Estimated capital (billion Dong)</th>
<th>Investment Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ring road No.3</td>
<td>56</td>
<td>4-6</td>
<td>17.990</td>
<td>Before the year 2020</td>
</tr>
<tr>
<td>2.</td>
<td>Ring road No. 4</td>
<td>125</td>
<td>6-8</td>
<td>34.500</td>
<td></td>
</tr>
</tbody>
</table>

**Ring road system for HCM City**

<table>
<thead>
<tr>
<th>No.</th>
<th>Function/ Region</th>
<th>Length (Km)</th>
<th>Scale (lane)</th>
<th>Estimated capital (billion Dong)</th>
<th>Investment Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ring road No. 3</td>
<td>83</td>
<td>6-8</td>
<td>20.750</td>
<td>Before the year 2020</td>
</tr>
</tbody>
</table>

**Total**

|      | Total                                | 5.753       | 766.220      |                                  |                                  |

Note: The above does not include: Bac Ninh – Phap Van (40km), Phap Van – Cau Gie (30km), Lien Khuong – Da Lat (20km).
PART VIII – Financial Aspects of Mobilizing Private Investment in Toll Road / Bridge Development Project in Vietnam

1 International Financing Modalities in Use: Private Investment Options

1.1 Introduction

248. The provision of infrastructure, specifically transport, and its maintenance, is an expensive activity. However economic growth is dependent on its adequate provision. Governments have traditionally been responsible for financing transport and have developed various user-pay schemes to augment budgets for construction, operation and maintenance of transport modes. However more and more these same governments are finding it difficult to keep supply current with demand and to ensure that assets are adequately maintained. Traditional forms of financing have become insufficient and for this reason governments are turning to the private sector for assistance. What form this takes varies, from pure private sector involvement to a quasi private-public financing relationship, which depends on a number of factors, the most important of which is the potential return on investment. All transport modes have been exposed in some form or another, to some degree or other, to public/private partnerships when it comes to financing their networks, systems, facilities and services. Ports, airports, railways and now roads, bridges and tunnels have all been opened up to private sector financing through outright sale of assets, concessioning or leasing of same, or some combination of both.

249. Internationally there is presently a significant body of experience in this area which augers well for those countries considering the development of private sector options for financing transport activities. It is into this arena of international knowledge and experience that Vietnam is entering.

250. As noted above, there are a number of options for consideration with respect to private sector investment in transport activities. The Europeans were perhaps the first to broadly decide to finance construction of multilane road systems as toll systems for example. The French began in the 50's with a variety of models, which after many false starts and some disasters, has resulted in the existing three level system – administrative, financial and operations. The Italians have operated as a unitary system until recently with the sale of major components of their network to the private sector as operating businesses. The US system is an amalgam of para-private and public sectors. The para-private operators are "authorities" which own and build the system and finance expansion through bond issues. Many other countries also have combinations of private and public ownership, namely, Mexico, Brazil, Philippines, Thailand, China and Indonesia to name just a few.

251. In terms of financing options, the section immediately following discusses a number of modalities presently in use in Vietnam after which an assortment of modalities successfully applied internationally is outlined. The final section presents a selected range of options for consideration in the context of Vietnam.

1.2 Financing Modalities Presently in use in Vietnam and Variations on those Options for Consideration

1.2.1 Loans and Other Forms of Debt

252. The most common financing modality for transport projects in use both internationally as well as in Vietnam is the use of loans, or the accumulation of debt. Particularly where loans can be secured with low or very low interest rates, this remains an excellent option. Loans from international development agencies such as the World Bank and the Asian Development Bank carry very low interest rates and are therefore much sought after. However, in many countries loans from domestic banks and other domestic sources are sometimes even more attractive. For example, in China, for a number of years, loans from both domestic commercial as well as domestic development banks carried exceptionally low interest rates (as low as 4%) and with low inflation (2-3%) and high GDP growth (8-10%) they became popular alternatives.

253. Vietnam presently uses a wide range of loan options, including international development bank loans (ADB and IBRD), domestic commercial loans as well as loans from other domestic financial institutions. The government also “lends or on-lends” funds to entities for transport development projects.
254. There is another form of debt, which is becoming increasingly popular, and that is the issuance of bonds. These are placed under the umbrella of loans and debt, as they must be repaid. In these instances, however, the interest rates are often relatively high, as they need to attract commercial investors as well as the general public. The issuance of bonds in Vietnam is a relatively new modality which has been carried out quite successfully in HCMC, with backing from tax revenue, revenue from land and water leases. However, this is still not widely used, especially for transport projects, and there are other forms of bond issue which could be applied in Vietnam. These are discussed below along with a number of variations of the loan and debt options presently in use in Vietnam.

**Syndicate Loans**

255. When banks finance major projects like roads, they usually club together in syndicates. These loans tend to be issued as part of an overall project financing system in the private toll road business. In this system, a main bank with other banks or financial institutions taking part in it organizes a syndicate loan. A project-financing syndicate loan usually carries a higher rate of interest than ordinary corporate loans, reflecting the costs and commission fees entailed in organizing the syndicate and also the relatively high risk incurred by the financing institutions.

256. For toll road projects in developing countries, it is sometimes possible to arrange a syndicate loan denominated in foreign currencies, where the participating institutions are typically from Europe, North America and Japan. In most such cases, however, it is necessary to put measures in place to offset country risk and foreign exchange risk and to strengthen the credit of the operating body.

**Mezzanine Debt**

257. Mezzanine debt is a way of raising capital by borrowing in the form of subordinated loans or subordinated bonds. Repayment of these loans and redemption of associated bonds is subordinated to ordinary loans and bonds (which are called senior loans and senior credit) but mezzanine debt carries higher interest rates in the case of loans, and better yields in the case of bonds. It can be likened to what is normally known as a second “mortgage” (or secondary loan) and is paid out only after payments on the primary loan and bond have been addressed. Like mezzanine equity, mezzanine debt is used to strengthen owned capital. Most investors in mezzanine debt are infrastructure investment funds and financial institutions, which are attracted by the high yields on offer. Another form of mezzanine debt is the convertible bond -- a bond carrying an option to convert it into stock.

258. Mezzanine debt is an option quite often selected in situations where the granter of a concession (such as the government) or the sponsor of a project (such as the parent company of the operating enterprise) need to raise additional capital because, for example, the concessionaire is suffering from cost overruns. In what may be a delicate situation, investors often prefer to buy subordinated debt, on which interest is paid and original principal is redeemable, rather than simple equity.

**Annuity Based Financing**

259. This is basically a mortgage on the transport project, a primary loan from the private sector investor amortized over a specific time frame (25; 30; 50 years) with an annual interest rate, and either monthly or annual payments which include principle and interest payments. Upon it's maturity refinancing is an option as is full payout of the remaining debt. This is a modality particularly popular in India, which has been used by the private sector in financing transport projects. It is virtually risk free for the private sector and has a guaranteed pay back during the life of the project. Basically the private sector bids on a stretch of road to be constructed and maintained, where it is responsible for raising the funds required, undertaking the construction, and maintaining the road for a specified period of time. It is not toll driven although tolls could be and normally are applied. The government basically uses this modality as an alternative to itself seeking loans for construction and being liable for the payback. The bids are chosen on the basis of the least cost to the government. The attractiveness of this option is that it allows the domestic private sector to develop without the usual associated risks. It has been used in India as a transition mechanism and has been highly successful in developing capacity domestically in transport private investment. However, one caveat is that there must exist a domestic financing capability. It has not yet been used with foreign private capital. Nonetheless this is a modality which could well be used in Vietnam at present and should be seriously considered. See Appendix 1 for a more detailed description.

**Municipal, Provincial, Central Government General Obligation Bond Financing**
260. This is a bond not tied to toll revenues, and this is the type of bond that has been used in HCMC in Vietnam and elsewhere in Vietnam in a variety of sectors, including transport. The most recent ones were issued in 2007 and 2009 in the Expressway sub-sector. The Vietnam Expressway Company (VEC) issued bonds with government guarantees for the Cau Gie Ninh Binh Expressway Project, (in 2007) a 400 Billion VND bond to mature in 2020 (13 years) at a 9% per annum interest rate, and the Noi Bai Lao Cai Expressway Project (in 2009), where a 1.5 billion VND bond was issued to mature in 2012 (3 years).

261. There are, however, variations on this type of bond, which is considered to be a “straight forward bond”, which could also be applied in Vietnam. In such “alternative cases”, bonds are floated with backing from either specific government entities, such as SOEs as well as the municipal, provincial or central government. Since bonds are loans and must be repaid when they come due, this has sometimes been a problem. In some countries repayment has been difficult and bonds have been known to default. In most if not all cases government or other guarantees are required to ensure repayment. For this reason care must be taken to ensure that the bonds are so structured, with sufficient collateral or backing, that they do not become delinquent upon presentation. The main problem appears to be structural as opposed to being financial or political. The other potential problem is that the market could become flooded with bonds, which eventually are “junked”. It is for this reason, therefore, that in most countries, at the beginning stages there is some control in issuance. In China for example the government allows each province a certain number of bonds to be issued annually, and the issuing agency must prove ability to payback. Basically the central government controls the issuance of bonds by allocating quotas to the provinces. The provinces can then “allocate” issuance to municipalities and/or SOEs.

262. Another type of bond is what is called a “publicly sponsored bond” known as general obligation bonds. These are mostly used for larger-scale projects and could be useful in those cases where new roads are developed as Greenfield projects.

263. There is no reason why the use of the bond modality cannot be expanded in Vietnam at present. In 2009 major financial institutions in Vietnam did get together to establish the Vietnam Bond Market Association (VBMA). Of its 58 members, 34 are local banks, securities companies and insurance firms while the remainder are foreign owned financial institutions. This organization has the responsibility of mobilizing members and setting standards for the market’s operation. It has also taken on the task of setting up a standard interest rate curve for bond trade and ushering international rules. It will act as a bridge between its members and State agencies. In addition, in 2009, the HSX set up a new platform to handle government bond trading. The facility is designed to “enhance transparency” and “increase liquidity” in the bond market. It will also be the nodal agency for disseminating Government-bond-related information in the market. At present there are about 500 bonds being traded on the market, most of them small government bonds. However there are serious issues with respect to the development of the bond market and at present neither provinces, nor municipalities, appear to function as independent entities with governmental authority or autonomy for issuing bonds. Having said that, as indicated above, bonds have been issued by both HHCIMC and VEC.

Project-Specific Bonds, Revenue Financed Bonds and Toll Road Bonds

264. Project-specific Bonds may be issued in three different ways. One is by public offering, under which information on the project is published and funds are raised on the general capital market. The other method is by private placement, where funds are raised from a limited range of parties, such as institutional investors, people with specialized knowledge in the field, and persons who have some close connection to the issuer. Private-placement bonds generally carry issuance conditions inferior to those on public-offering bonds, in that the loose regulations on information disclosure tend to be reflected in contractual restrictions on re-sale, which limit the instrument's liquidity. The third method is revenue financed or more specifically toll road bonds.

265. Revenue Financed or Toll Road Bonds involve the sale of rated notes to institutional investors backed by a pledge of the entity's various cash flow sources, which could include toll road net revenues. These bonds have large reserve accounts, and are often supported by foreign exchange guarantees and limited additional guarantees. The primary source of repayment is the entity's various revenue streams. Revenue bond financing is a relatively new highway-financing instrument in some countries. But it has been used already on a number of occasions, some successfully and some not so successfully. In Hebei province, China, (for example) the government had to step in to rescue the bond, as the toll road company was unable to honor its repayment commitment. However, in other instances (Guangdong Province, China) this venue has been highly successful.
266. Toll road companies/enterprise in many countries issue their own corporate bonds. These are divided into two types: those issued with a guarantee from a third-party body and those issued without guarantee. An operator that can provide guarantees from prominent financing agencies, or a professional guarantee company can issue bonds at lower cost. A good credit rating from ranking agencies, such as Moodies or Standard & Poors, can also bring down the cost of bond issuing. The DBFO motorway projects carried out in the U.K. under the Private Finance Initiative use this mode of bond issuing to raise funds on the mature capital markets of London.

267. The primary advantages of this modality are that it has potentially high funding capacity at low overall cost. Because these bonds are backed by all the revenues (tolls and non-tolls) of the issuing company, the proceeds from a bond offering can be high even if underwriting standards are very conservative. The rate of return generally sought for revenue bonds is in the range of 10-12%. It is not unusual for entity-level revenue financing to be structured with multiple tranches, each with different seniority, interest rates, ratings, principal repayment schedules, maturities an debt service coverage requirements.

268. The main problem with this financing option is regulatory – specifically lack of adequate or clear currency conversion and repatriation laws. In addition, it is often very difficult to get approval from the appropriate authorities to undertake entity-level revenue bond financing in those countries where this modality is used, because of its popularity and the long queue of highway departments interested. A further problem is the time required to structure a complex bond transaction.

269. The Government of Vietnam has financed the vast majority of national-level infrastructure projects through the State budget, but also, in no small measure, by issuing bonds. Government bonds, for example, financed Thirty percent of MOT's infrastructure projects between 2001 and 2005. This is likely to continue, at least in the road sector, in view of article 7 of the policy statement by the Prime Minister on transport policy, where Government bonds and project bonds are identified as a source of domestic source.

1.3 Joint Ventures (JV) and Build Operate Transfer (BOT) Options

270. Other than debt, including bonds, and loans, there are basically only two financing modalities that are presently starting to be used in Vietnam to finance toll road projects. These include Joint Ventures and BOTs. Although these two modalities are in place and used to some degree (BOT has not yet been used in its pure form in the roads sector), there remain certain impediments to their efficient use. Critical legal and regulatory issues still need to be addressed before achieving optimum success.

271. These include the need to:

(i) establish clear and consistent taxation laws;
(ii) fully standardize currency conversion and repatriation of funds;
(iii) develop collective bargaining and labour laws;
(iv) provide clear definition of foreign investment limits and market entry rights;
(v) provide reliable information to prospective investors regarding capital expenditure requirements for road operation and maintenance;
(vi) establish secure laws governing initial toll rates and toll rate increase allowances; and
(vii) develop government capacity and reliability in providing limited traffic and/or revenue guarantees for specific projects.

272. The legal report (part of this study) addresses these issues in more detail. Least affected are perhaps the project level cooperative joint ventures, where simple structures, potential high returns, and strategic investor interests offset legal and regulatory risks. The following two options involve the concept of tolling of project infrastructure.

1.3.1 Cooperative Joint Venture (JV) Financing

273. Cooperative Joint Ventures have been the most common financing modality in many developing countries, particularly for toll roads. They involve the sale of a “preferred” equity interest in a specific toll road project. Foreign investors purchase, for cash, a limited interest in a road project, and in turn, for a fixed concession period, receiving a portion of the project cash flows. Under the typical scheme, the foreign
investor receives a higher percentage of cash flows during the early years of the concession until its equity investment is fully paid off, then it receives a lower percent of cash flows until the local partner (government or private) has its equity interest paid in full, and finally the foreign investor and local partner receive cash flows in accordance with their equity ownership for the remaining years of the concession. The main reason for the JV popularity relates to the fact that it allows both foreign and domestic partnerships to take place, and where appropriate these partnerships can include government entities (SOEs). In the China context this has been particularly popular in those provinces with high GDP growth and as a result higher traffic volumes, while provinces in the central and eastern portions of China have been relatively unsuccessful in attracting similar interest however. This case is likely to apply in Vietnam. Also, at present in Vietnam, if a property is government owned, which a road right of way would be, it is understood that in this case the company structure for any concession may be a JV with a government owned and/or operated entity.

274. The primary disadvantage of this modality is its cost. Cooperative JV equity is relatively expensive capital. And since investors are expected to pay their portion up front and in total, it is not surprising that often they require a higher rate of return - usually in the range of between 18-20%. Other disadvantages include:

- Potential limited lender interest in toll road projects (in certain parts of the country) because of problems related to project risk allocation, with limited understanding on the part of the domestic partner (government) of the commercial/business aspects of partnering with the private sector, particularly a foreign private sector investor;
- Entity-level debt and equity opportunities are not always well understood and thus the issuer may, in certain instances, limit investor interest. In addition there appear to be debt service coverage requirements (in the case of investor debt in Vietnam), which have the effect of limiting the amount of financing which can be made available; and
- Long and convoluted approval process, often taking between four and six years to reach conclusion.

1.3.2 Build Operate Transfer (BOT) Structure

275. A pure BOT structure involves the granting of a concession to build and operate a toll road facility either for a fixed period of time or for a variable period until:

(i) a total cumulative traffic volume has been attained;
(ii) a total toll revenue is realized; or
(iii) a target return is achieved.

276. The concessionaire, who in this case would be non-governmental, constructs the project, secures the necessary financing, operates and manages the toll road facility, maintains the road, collects revenues, and transfers the facility back to a government entity at the conclusion of the concession period. The concessionaire typically funds 100% of the costs of construction, maintenance and operation, but in return has the right to receive 100% of all project net revenues. It is wholly private owned.

277. The BOT structure is a widely adopted financing strategy in emerging market infrastructure development, and is particularly popular in the toll road and power sectors. Although it is not really a financing modality (different financing methods can be applied to fund BOTs, such as limited recourse financing, sponsor guarantee, equity financing etc.) it differs from traditional government-sponsored structures by transferring risk to the private sector. BOTs have faced difficulties globally, however, mainly because of below forecast traffic and revenue in the first years of operation making it difficult to even service debt. It is a strategy, nonetheless, that remains popular. The key to this modality is a well-drafted, well-defined, and well-detailed concession contract.

278. The main advantage of pure BOTs is that the government has no funding responsibilities, no administrative responsibilities and no supervisory responsibilities. The disadvantages are that it is likely that the government will lose control over the asset for the life of the concession and that the government may lose significant cash flow if the project is successful. However there are hybrids on this concept, which would allow for public/private partnerships – along the lines of a JV. In this instance the risk is born by both parties. If revenue cannot be seen to cover ALL costs of construction and operations/maintenance then government grants, in the form of equity can be applied, as well as other “sweeteners”. In India for example the government includes a grant of up to 40% as part of the BOT package to the private sector. Other
countries offer other types of concessions including commercial development within right of ways, tax incentives, subsidies, etc. Depending on the size of the BOT, either domestic or foreign (or combination of both) private investors have indicated interest. For purely domestic investment the cost must be relatively low and the distance within their range of management. This means that BOT packages under 40 km can traditionally be within the purview of the domestic investor, while above that foreign investors are necessary. The attraction of having foreign investors included is that they bring with them extensive experience in project management and finance with increased efficiencies.

279. In Vietnam one example of a domestic BOT – a type of BOT where funds are kept entirely in the public sector, as is control is Highway 51 in the south which was constructed using the BOT approach for a bridge, which is also tolled52, as were the bridges at My Thuan, Phu Ming and Can Tho.

280. Risk Transfer Issues in PPI Projects and specifically BOT: A separate report has been written dealing with the issue of risk transfer (under this study), however for purposes of this report the following presents a brief summary, as it remains an important element in understanding the various financing modality options and the potential issues which could arise from using private sector funds. As noted previously, the assumption or division of risk is the fundamental distinction between a PPI project and a publicly financed one.

281. Typically, the risk relates to the liability of one or more of the parties to repay the loans used to finance the project. In a road project the income stream used for this purpose is usually tolls, either shadow or real tolls. It is also possible for the concessionaire to avoid taking the traffic risk by agreeing “availability payments” with the Owner – i.e. payments based on the ability of the users to access the facilities (in this case the road lanes) which will impact on the concessionaire’s costs of repair and maintenance but remove his risk as to level of usage.

282. Otherwise, the forecast of toll income is the factor which most influences the feasibility of a project for PPI – if insufficient, private sector companies and funders may look to government for a guarantee or subsidy to ensure that sufficient funds will be available to repay the funders when required.

283. The other risk assumed with a BOT or concession-type contract is the cost of maintenance of the asset, in this case the road. The concessionaire must not only repay his borrowings from his toll (or other) income but must fund all repairs so that the road is not only in good repair for current use but is in a state which the owner (in this case GOV) will accept at the end of the concession period.

284. One of the reasons why investors are wary of BOTs is that they bear not only the traffic and upkeep risks – depending on the way in which the contract is structured – but also the construction risk. This latter has been emphasized to us by funders as a disincentive to investment and is likely to be a strong reason why the “secondary market” has developed in toll roads once the roads are built and operating. This view that BOTs are too risky (and therefore too expensive) has been confirmed to us by a major regional contractor who has indicated his preference for a scenario where he builds the road, hands it over to the authorities under a conventional construction contract and then takes an operating concession. If competition for work were greater the story might be different, but as the demand for upgrading of regional infrastructure in S E Asia is enormous and most of it is seeking private funding, so the funders (and their clients) are operating in a buyers market.

285. Another disincentive to private funding of infrastructure projects is the time taken to set up such a project and the high cost of bidding in a competitive arena such as is required by IFIs. Obviously, a government or other public authority needs to take care when letting contracts, particularly where the right to operate the infrastructure concerned may eventually make the bidder a great deal of money, but where the risks are high the incentives need to be equally high, and BOTs, unless they are “trophy” projects, are seen by many as too great a risk. Some public authorities in Europe and the US have even begun refunding the tendering costs of unsuccessful bidders in order to encourage participation in these tenders. This is likely to be at least one of the reasons that PPI in the road sector has begun to be concentrated in contracts for the maintenance and operation of existing roads.

52 In 2002 the IBRD has approved a BOT project in the Power Sector, which is fully commercial and includes true private sector participation. See RRP of August 29, 2202.
1.4 Other Financing Instruments

286. In addition to the above there are a number of other potential financing instruments which could be considered. The first, central government highway funds, has at this point been rejected by MOT and MOF in Vietnam but remains a viable option for consideration and for this reason is outlined in brief below. The second, the setting up of a state infrastructure bank has not as yet been considered but may be more palatable to the GOV in the short-term than the first option noted. The third, full leasing to the private investor, is likely the most useful option for Vietnam in the short term whereas limited recourse debt financing has potential in the medium term.

287. In the longer term there remain a number of other possibilities including:

(i) pure equity and equity joint venture financing; and
(ii) mezzanine equity are the final two options discussed; securitization and initial public offerings (IPOs) are probably a generation away in being feasible options for consideration in Vietnam.

1.4.1 Short-Term Options for Consideration

Central Government Highway Funds

288. This is a trust fund which has been used successfully in the U.S.A. and other countries as well. It is usually funded by a gas tax. Vietnam already makes use of the gas tax and transfer payments to the provinces resulting from its earnings. There have been discussions in Vietnam concerning the establishment of a Road Fund (which in essence is financed through the gas tax) but it appears that there is more interest in continuing reliance on the gas tax.

289. This is basically a trust fund concept which earmarks funds for use in the transport sector. It has been used successfully in the U.S.A. and is more and more prevalent in other countries as well, including a number of developing countries. It is usually funded by a gas tax. China already makes use of the gas tax and transfer payments to the provinces resulting from its earnings. There is discussion concerning the establishment of a Road Fund (which in essence is financed through the gas tax) but it appears that there is more interest in continuing reliance on the gas tax, with a decision already made to basically double the gas tax by the end of 2001 in an effort to increase funds available for road works, including maintenance as well as new works. India as well uses its gas tax to finance a portion of both road development and maintenance. Its CESS is strategically earmarked for these purposes and does not pass through the government's consolidated revenue for disbursement.

290. In Vietnam, the concept of establishing a Road Fund has been rejected by MOT although the concept of introducing a Transport Fund had/is being entertained. However this has been shelved for the time being. On the other hand, MOT has raised the concept of introducing a Road Maintenance Fund, and it is in fact expected to be submitted for consideration by the government as Article 49 in the “Transportation Law in June 2010.

State Infrastructure Bank

291. This is a modality used extensively in the U.S. where central highway grant funds are set aside (up to 10% of a state’s allocation) as seed capital for loans. It acts as an indirect subsidy which is at once transparent and objective. This could be a useful option in Vietnam.

Full Leasing to Private Investors

292. This is a situation where a road would be leased to the private sector in its entirety, without any inclusion of a government entity. Although it is widely practiced internationally it has not been widely used in Vietnam as yet, except in the Rail sector. This trend towards concessioning infrastructure, which has already been built by a public authority, is a variation on the risk sharing described above. The risk to the private investor is obviously much less great and indeed “negative” concessions where subsidies are paid to an operator are not unknown.

293. Leasing contracts are a “halfway house” in legal and risk terms between full concessions and mere operations and maintenance contracts. The difference is mainly in the payments structure and the liability of the “lessee” for repair and maintenance of the infrastructure, such as the road. It is therefore particularly
suitable for low-tech repetitive work such as road maintenance. The payments are typically structured on a “performance” or “availability” basis where performance standards are set and payments are used as an incentive to reach or exceed them.

294. Availability payment structures depend on the extent to which the road is open to users as well as meeting its required standards of upkeep. Leasing contracts are typically shorter than full concessions because the life of the infrastructure concerned is limited before there is a need for substantial replacement or upgrading, which are not usually included in a leasing contract. This is not to say, however that these types of contracts could not be structured to include substantial replacement or upgrading – it would simply be an issues which would need to be addressed in detail in the leasing contract with sufficient attention to potential risk factors which may affect the private sector investor, operator, manager.

295. The risk to the lessee therefore lies in the potential gap between his payments and the cost of meeting his performance targets, whether availability or otherwise. He is therefore in principle incentivized to use the greatest possible efficiency in carrying out his work, so as to maximize his income.

296. Maintenance concessions (or variants on such contracts) have been used extensively in Latin America and are in use as ROT (rehabilitate, operate and transfer) contracts elsewhere. In the UK BOT (build, operate and transfer) contracts are commonly let on a “shadow tolling” basis for road corridors. Shadow tolling essentially measures the number of vehicles which use a road and pays accordingly – this is akin in some senses to an availability payment measured against the state of usability of the road and is mainly appropriate for roads with a high degree of usage, depending of course on the way in which the shadow tolls are calculated. Shadow tolls are usually paid by the state/government.

297. Vietnam has successful experience of this kind of concessioning of built infrastructure in the ports sector at Cai Lan but not in the roads sub-sector. But according to news reports “scattered small investment has made seaport development unfocussed”. There were also problems resulting from the use of State or ODA funds and operation of the ports by SOEs. The amount forecast for upgrading of infrastructure in the port sector over the next 4 years is US$1.1bn. Cai Lan was a pilot, where the funding was Japanese ODA money and which has so far proved successful. According to reports, the “Maritime Bureau” has asked the GOV to allow leasing of this kind in Nghe Tinh, Quy Nhon and Nha Trang.

298. In terms of leasing of Roads for O&M – the MOT has proposed to introduce this concept on the current network. This is presently under active consideration. The IBRD has embarked on the concept of outsourcing for medium (periodic) and large (rehabilitation) maintenance on its road projects. By new IBRD rules roads financed by IBRD cannot use dependent SOEs for this type of outsourced maintenance.

1.4.2 Medium-Term Options for Consideration

Limited Recourse Debt Financing

299. This is a traditional infrastructure financing modality, especially successful in the power sector and less successful in the roads sector. It has not been applied in Vietnam as yet. It is debt which gives lenders only very limited (or no) recourse to the shareholders of the project company. The primary security is the project itself. This is its greatest advantage because once the debt is in place the sponsor expressway company has limited obligations. It is a low-cost financing modality, especially when compared to equity financing alternatives. The rate of return sought tends to be lower, in the range of 9-13%, with the actual rate dependent upon the economic prospects of the project, the country under consideration, debt service coverage levels, and other factors.

300. It also has two specific disadvantages:

(i) financing may be difficult to secure particularly in toll roads where risks can be high; and

(ii) even if financing is found the amount committed may be limited. At the present time this is unlikely to be a potential option for consideration in Vietnam.

1.4.3 Long-Term Options for Consideration

Pure Equity and Equity Joint Venture Financing

301. This is an ordinary investment made by purchasing common stock. When the operating body is a public or semi-public enterprise, the central or local government is usually the investor. When the operator is a
private enterprise, a holding company establishes a company specifically to take charge of the toll road business and the parent company assists it financially. Investment may also come from third-party companies, such as financial institutions or infrastructure investment funds.

302. The more outside funding the operating enterprise has in its capital structure, the higher is its risk of bankruptcy. To minimize that risk, a certain level of equity is necessary. Where that level is set will depend on how much risk the business carries and how difficult it is to raise funds.

303. The return on equity is made in the form of stock dividends. Surplus cash flow after taxation is divided among investors. Since equity usually has to offer a higher rate of return than bonds or loans, it is generally a more expensive source of capital for enterprises. Hence although higher equity assures greater stability of business, it also entails high financing costs, meaning that the enterprise needs a higher rate of profitability in order to secure returns.

304. Depending on the category of the company, equity other than ordinary stocks (for example, a stake in the company held by a limited partnership) may sometimes be used in order to minimize taxation costs and to obtain the benefits of depreciation.

305. The equity joint venture financing modality is similar to the cooperative joint venture financing modality. The main technical difference is that there is no cash flow preference in an equity joint venture structure as there is in a cooperative joint venture structure. But because of this structural difference this modality is not often deployed and will likely remain limited in the future. The pari passu nature of cash flow distribution lowers the likelihood of potential returns and would therefore limit investor interest, as would the fact that the level of funding proceeds which can be raised under this modality is less than that of cooperative joint ventures due to the absence of cash flow preferences. Risks are higher and as a result return expectations are higher in the region of 20%.

**Mezzanine Equity**

306. Mezzanine equity is capital in the form of preferred stock. Owners of this kind of stock usually have no right to vote on company affairs, or only limited rights. On the other hand, they take priority over ordinary shareholders in allocation of dividends and, in the event of bankruptcy, of residual assets. When the amount of capital raised by sale of ordinary stock is insufficient, preferred stock may be issued to strengthen the equity capital. Examples would include Malaysia’s North-South motorway, and the U.K.’s DBFO (Design, Build, Finance and Operate) motorways, built under the Private Finance Initiative (PFI); a finance project initiated by the private sector.

307. There are also kinds of stock that carry a selling option, so that under certain conditions they can be sold, allowing the holder to realize a capital gain and to terminate his involvement with the enterprise.

**Securitization**

308. After a toll road business has become well established and has started producing an assured profit, it will be able to issue bonds on the security of the business itself, with its stable cash flow, and thereby collect additional capital from investors. Broadly speaking, financing is made possible by so-called asset securitization -- the issuance of stocks and bonds backed by the cash flow generated by assets.

309. In the U.S., it is quite common even for new construction projects to be financed in this way, through the issue of “revenue bonds” securitized on the project’s anticipated future cash flow. Similar financing techniques are seen in the DBFO motorway projects in the U.K.

310. In China, too, the practice of asset securitization is gradually spreading, having started in Kwangtung Province. The practice there has been for existing assets, such as roads constructed using loans from the World Bank, to be transferred to a public/private hybrid toll road operating company. This company draws investment from the provinces served and then has its stock listed to raise capital on the Shenzhen and Hong Kong stock markets. This mode of securitization seemed to be on the increase, at least until the Asian currency crisis.

311. Securitization is a more sophisticated modality that, although used in many countries, both developed and developing, it has not yet been applied in Vietnam and given the economic climate in Vietnam it is unlikely to be applicable in the near future. The definition of Securitization is the holding of an asset (in this case toll road) as collateral for purposes of generating funds. It is furthermore the placement of this asset in its “secured” form on a Securities Exchange in order to raise money. The placement of this “asset” on the
Securities Exchange is done in the form of an “Initial Public Offering” (IPO) with shares offered for public purchase. It is meant to serve as long term financing. It is also a limited recourse structure with payment of interest and principal backed primarily by project net revenues. Because securitization is most often attained after most project risks have passed (i.e. construction or initial operation), and in the case of stock markets, after financial statements for a three-year period have been tabled, there is a greater amount of transparency associated with the company and the investment, particularly in terms of potential downstream revenue. The result is that expected returns on investment are often less than in other situations. The structure and investment base make it most appropriate as a re-financing instrument. Its greatest weakness is difficulty in arranging securitized financing for a construction phase.

312. In Vietnam there are at present two markets which could be used for securitization. These include the Hanoi and HCM stock exchanges. However no transport projects have yet been placed on the stock exchange as securitized investments. This is a modality, however, that is premature for Vietnam, but should be considered for the future.

Initial Public Offering (IPO’s)

313. IPOs go hand in hand with securitization. Although IPO’s exist, none have yet have been launched for toll roads in Vietnam. The purpose of an IPO would be to raise capital for investment and/or cover the cost of investments in the sector already made, specifically toll roads. This has been a particularly successful modality in China, which has to date, resulted in offerings in 18 toll roads. IPOs have ranged from a low of HK $1.55 to HK$ 12.75. However the current price of 8 of these has dropped below their original listing price. The IPO modality involves the partial sale of a toll road operating entity to public investors the percentage sold ranges from about 20% to 40%, with the issue proceeds usually used for investment in new road projects or the repayment of existing debt. It can also be used for general working capital purposes.

314. Toll road sponsors fall into three general categories:
   - toll road companies in the business of investing in toll road projects through cooperative Joint Venture financing;
   - Private expressway development companies seeking additional funding for road development; and
   - Government controlled expressway development companies seeking additional funding for new project development.

315. The advantages of using the IPO modality is:
   - there is considerable investor interest;
   - an IPO is an entity-level financing instrument, which can benefit from cash flows accruing at the entity level as well as the project level; and
   - It is an inexpensive modality often with good price/earnings ratios.

316. The greatest disadvantage is regulatory in nature. Securing permission to undertake a listing is time consuming and difficult. There are many provincial expressway companies which would like to list their toll roads, but only a few ultimately reach that goal. However the fact that potential candidates for listing are closely scrutinized and must meet certain basic criteria is actually good. It acts as a screening process, allowing only those which are strong candidates to be listed.

1.5 Incentives and other Cooperative Arrangements

317. Purchase of existing Government infrastructure assets is often a very efficient way to increase private involvement in infrastructure. This method is extensively used in other countries through concessions, leases, operating rights agreements, joint ventures and so on. However, often the value of the assets as perceived by the Government (typically the sunk cost of the assets) is higher than the value placed on the assets by the investor (typically the discounted cash flow that can be generated from the same assets). This may lead to the Government refusing to “transfer” or “concession” the assets because they perceive that they are not getting good value for those assets.

318. In areas where economic criteria are critical to the decision to create the infrastructure in the first place, an argument may be made for either some form of discount or for cross subsidization, or in a new system like
India’s for shadow tolls. These can be set by the Government at the assumed “economic investment percentage” and can then be used to supplement the actual revenue collected.

319. Clearly in many cases the cost of the assets exceeds their revenue generating potential. This argues for either an acceptance of non-recovered capital or a concept of operational subsidy to the operator to cover the “economic” shortfall. The private sector will be unable to sustain a decent return from the assets unless some form of subsidy or capital pay down is available.

320. This is also true in Vietnam. Here the Government needs to look more closely and consider more definitely the many types of support mechanisms in order to attract private investment where the rate of return is lower than the private sector hurdle rate. The following discusses some options for consideration.

321. The ADB TA (2952-PRC) on Leasing, Concessioning and Securitization in China (2002) presented an excellent list of incentives which were recommended for consideration in the Chinese context. These were further developed in the ADB Vietnam Expressway Network Development Plan Project (TA 4695-VIE 2008). A summary of the more pertinent findings and recommendations are discussed in this section.

322. Typically, the ratio of the size of the commercial return to the size of the economic return is the justification for the Government to also support the project. If the additional economic return is 50% or greater than the commercial (financial) return then a strong case can be made to provide additional government support to the project to make it financially viable. Each project is specific and the case for additional government incentives or support must be made on a case-by-case basis.

323. Governments have a variety of ways to support the project and to reduce the structural risks and some of the project risks. Each of the different types of government support affects the investor and the investor’s risk to a greater or lesser degree. As the commitment of the government increases, the impact on the investor also increases. This is illustrated in Figure 1.

324. The easiest incentive offered by the government is to extend the duration of the concession. The return to the investor is loaded toward the end of the concession and additional years of operation when the capital cost has been covered and when operation is stable often offers large incremental returns to the investor. This incentive is often used if traffic growth is lower than estimated or if unforeseen events occur which change the assumptions under which the BOT or concession was awarded. As the Government financial exposure increases, so to does the impact on the investor and the relative allocation of risk. At the top of the scale is equity guarantee – which essentially ensures that the rate of return to the investor that is negotiated into the BOT or concession agreement will be met. For countries with decent international credit ratings and or availability of domestic debt, it is hard to find instances where there is a strong case for Value

![Figure 1: Government Incentives Structure](image)
for Money in this kind of guarantee. It is usually much more viable for the Government simply to borrow the money for the investment itself, contract for the work and if private sector management is the case, then operations and maintenance of the investment can be contracted to the private sector.

325. In the case of Vietnam the country credit rating is among the lowest in Asia, which immediately suggests that any potential private sector investor will be seeking some sort of incentives and/or guarantees before they will consider investing foreign funds in any road/bridge or tunnel project. Presently, other than tax relief, there do not appear to be any other types of incentives or guarantees offered by the government.

326. On the other hand, the government requires the following guarantees from the investor:

(i) advance payment bank guarantee which is reduced as the advance payment is repaid;
(ii) performance surety which amounts to 5% of the contract price and is due upon issuance of the take-over certificate; and
(iii) retention guarantee which is a separate guarantee for increasing retention and is set at a limit of 5% of contract price.

327. The following presents a list of incentives which should be considered in the Vietnamese context.

1.5.1 Range of Incentives

328. A more complete description of the range of incentives outlined in the above diagram is provided below.

**Equity Guarantees**

329. Of the various mechanisms available to government, risk exposure is highest for equity, debt, and exchange rate guarantees. Under an equity guarantee the concessionaire is granted an option to be bought out by the government with a guaranteed minimum return on equity. Although there is no public cost under this arrangement as long as the project generates the minimum return on equity, the government essentially assumes all of the project risk, and private sector performance incentives are severely reduced. An equity guarantee was used for the San Juan Lagoon Bridge project in Puerto Rico.

**Debt Guarantees**

330. Under a debt guarantee the government provides a full guarantee or a cash-flow deficiency guarantee for repayment of loans. As with an equity guarantee, a debt guarantee entails no public cost as long as the project generates sufficient cash flow to service debt. However, it creates extremely high government exposure and reduces private sector incentives. In China the government provided a cash-flow deficiency guarantee for the $800 million which is in senior project debt.

**Exchange Rate Guarantees**

331. Under an exchange rate guarantee the government compensates the concessionaire for increases in the local cost of debt service due to exchange rate movements. Because currency fluctuations can constitute a significant project risk when foreign capital is involved, government guarantees can have a substantial impact on a project’s ability to raise financing. Although not on the same scale as debt or equity guarantees, exchange rate guarantees can still expose the government to substantial risk. They also tend to create an artificial incentive to raise foreign capital since the exchange rate risk premium on foreign capital is eliminated by the government guarantee. Exchange rate guarantees were used extensively in Spain’s toll road program, resulting in large annual exchange rate payments by the government that peaked at about $500 million in 1985 (Gomez-Ibanez and Meyer 1992).

**Grants and Subordinated Loans**

332. Equity, debt, and exchange rate guarantees all create contingent exposure of varying degrees, depending on the expected operational performance of the toll road project. Alternatively, governments can furnish grants or subordinated loans at project start-up as cash or in-kind contributions. These can provide a critical boost to project economics.” India is providing capital support to road BOTs as a way of inducing

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private sector participation. “By providing a subordinated loan, a government can fill important gaps in the financial structure between senior loans and equity and can be repaid if the project is successful. Subordinated loans are repaid after debt service on senior loans but before returns to equity. Malaysia, for example, has provided a $634 million subordinated loan to support road development, or about a fifth of the total project capital of $3,192 million. It also made soft loan facilities available to support minimum traffic levels and currency fluctuations.

**Shadow Tolls**

333. An alternative structure to a one-time, up-front government payment is a ‘shadow toll,’ whereby the government contributes a specific annual payment per vehicle recorded on the road. The advantages of shadow tolls are that they are paid over time and therefore may be less of a burden to the government than an up-front grant. Furthermore, they enhance the concessionaire’s incentive to attract users to the facility. There is no erosion of the traffic on the road due to toll sensitivity. This is particularly important when the “ability to pay” the tolls is low and the tolls really do offer a disincentive to use the facility.

334. The drawback of shadow tolls is that they may not use government funds efficiently to protect investors from revenue risk. Government contributions under a shadow toll arrangement are higher when traffic is high and lower when traffic is low. Thus government support may inadequately protect investors when traffic falls below expectations. On the other hand government support may be unnecessarily high when traffic exceeds expectations. In addition, the payment of contributions over time creates a credit risk for the concessionaire that is avoided with up-front grants. The inefficiencies of shadow tolls can be reduced in a number of ways, including a declining schedule of shadow toll payments as traffic levels increase or a maximum traffic ceiling above which shadow toll payments are not paid. These are being extensively used in the United Kingdom’s Design Build Finance Operate program for toll roads.

**Minimum Traffic or Revenue Guarantees**

335. A minimum traffic or revenue guarantee, in which the government compensates the concessionaire in cash if traffic or revenue falls below a specified minimum level, is a relatively common form of government support. Typically, the minimum traffic or revenue threshold is set below (for example, 10-30 percent) the expected level in order to reduce government exposure while providing sufficient coverage to support the debt component of the capital structure. Under such a structure the government can support private financing for a road that it would otherwise have to fund on its own, while limiting its financial exposure to the possibility that revenue may fall below the guaranteed minimum. In addition, traffic and revenue guarantees retain the sponsor’s financial incentive in the project, provided the minimum revenue stream does not allow for attractive revenue on equity. Chile’s South Access to Concepcion project includes a minimum revenue guarantee, while Colombia’s Buga-Tulua Highway project uses a minimum traffic guarantee.

336. Especially if they are sharing significant “downside” risks with the private sector—for example, when extending minimum traffic and revenue guarantees—governments should also consider sharing ‘upside’ potential with concessionaires. Establishing a revenue-sharing threshold at a specified level above anticipated revenues could use this approach. The concessionaire retains 100 percent of revenues up to the threshold level, and the government receives a percentage of any revenues above the threshold. The Colombia project includes a maximum traffic guarantee above which all revenues are transferred to the government sponsor.

**Concession Extensions and Revenue Enhancements**

337. Two final types of financial support involve very limited public sector risk, but are also limited in their ability to support financing. First, a government can extend the concession term if revenue falls below a minimum amount, as was the case with the Mexico City-Toluca Toll Road. Term extensions do not impose any cash cost on the government, but they also do not provide any short-term protection to investors from traffic and revenue shortfalls.

338. There are also other options. Credit lines and standby facilities constitute guarantees without direct lending, or a commitment to supply funds in the case of urgent need. They are also important tools of financing.

339. Public financing deals may feature guarantees by government, governmental financing agencies, international financing agencies and regional developmental financing agencies, which strengthen a project’s credit standing by guaranteeing its bond issues, thereby reducing the cost of financing.
340. In private financing, support may be offered by private banks in the form of guarantees, credit lines or standby facilities, or by insurance companies in the form of monoline insurance etc.

341. Government guarantees of bonds and long-term loans are made in Japan, Malaysia, Thailand, Columbia, the United States, Italy and Spain. The Philippines and France used to issue debt guarantees in the initial period of toll road operation, but have abolished the system. They may also include currency exchange-rate guarantees. The government of Spain was once obliged to pay out a large amount of compensation due to an exchange rate guarantee.

**Acquisition of Rights of Way:** This covers cases where rights of way are acquired by a public organization although the toll road operator still has to pay the cost of the land. This system of support is adopted in countries where private enterprises are not authorized to expropriate land, including Malaysia, Indonesia, Thailand, and the Philippines etc. Acquisition of rights-of-way here means that a public body handles the appropriation of land for a new road, including the costs incurred. Countries that have adopted this form of support include China, Malaysia (only for a part of the North-South Motorway), Thailand, the Philippines, and Columbia, Hungary etc.

**Other Forms Include:**

(i) Favourable treatment in taxation;

(ii) Acting on operator's behalf in acquiring permissions and approvals. Observed in Columbia;

(iii) Guarantee of minimum level of traffic and toll income: Observed in Malaysia, Hong Kong, Columbia and Mexico; and

(iv) Other systematic support policies include the toll revenue pool system within a single enterprise, and cross subsidies between enterprises

342. There are also confirmed cases of toll road subsidies in Japan (though only in the initial stage of toll road development), France, Italy, Spain, and Hungary etc. As the name suggests, there is no need to repay subsidies.

343. Interest subsidies need not be repaid either; they entail a public organization paying part of the interest on loaned capital in place of the operator. When interest rates are high or changeable, interest subsidies serve to keep toll road projects financially stable. They are generally set to kick in when interest rates rise above a certain level and are paid in years when that happens.

344. In the case of Japan's national expressways, both capital and interest subsidies are annually adjusted in order to keep financial cost (averaged interest) low and stable. It follows that the way capital is handled is rather different from the situation in most other countries.

345. The purpose of subsidies other than interest subsidies varies. Most general subsidies are designed to supply a part of fixed costs -- that is, toll-road construction costs. In Japan, the government supplied the entire cost of strengthening work against earthquakes necessitated by the stricter earthquake-proofing construction standards imposed in response to the 1995 Hanshin Earthquake.

1.5.2 **Use of Retained Earnings**

346. Once a toll road business starts to generate profit, it will be possible to retain a portion of earnings as "retained surplus," or as "accumulated reserves" after dividend outflows. These funds are applied to fresh investment or other items of capital demand.

1.5.3 **Cross-Subsidization**

347. In order to make good use of private and semi-private companies in the management of toll roads; it is effective to increase the number of enterprises involved and foster competition between them to put market principles to work.

348. On the other hand, perfectly fair competition is not attainable because it is impossible to operate more than one toll road in the same place or under identical conditions. Obviously costs will be affected by topographical, geological and climatic conditions (influencing construction and maintenance costs), and by social conditions (influencing the cost of acquiring rights of way, and also personnel costs). If roads are constructed at different periods, construction costs will also be affected by changes in inflation and interest rates. Hence it is only natural that toll levels and toll collecting periods will vary too.
349. In Japan, for example, among the 65 stand-alone toll roads operated by the Japan Highway Public Corporation, the difference in toll per km between the most and least expensive (max/min ratio) exceeds 10.

350. One of the countermeasures used to correct big differences in toll level is a policy to support each road (or each segment in the case of a motorway) with different subsidies. This is the principle behind the "balanced advance" that has been introduced in France.

351. A second approach is a cross subsidy system to enable toll roads to support each other. Originally the major purpose of the cross-subsidy system was to help toll road projects with low profitability by transferring funds from those with high profitability. Later versions of the idea developed the concept of harmonizing toll levels. The term "cross-subsidy" is used in two senses. Narrowly defined, it denotes a toll pool system internal to a single toll road operator; broadly defined it denotes a cross subsidy between different toll road operators.

1.5.4 Sharing of Construction Costs

352. In Malaysia, the government paid for part of the construction costs of the North-South motorway in its early phases. In France, the private company, COFIROUTE, took over sections of the motorway system from the state while construction was still in progress. In Columbia, the government shared the costs of constructing tunnel sections, and in Mexico, the government has a special provision under which it pays that part of costs in excess of 115% of the original budget. Effectively this is a guarantee that costs will not overrun by more than 15%. These are all cases of government sharing construction costs with project operators.

353. Instances of shared construction are not uncommon. For example, a tunnel or a bridge may be built and operated as a stand-alone toll road while the approach sections at either end are constructed and maintained exclusively with public funds. This kind of arrangement functions as a kind of subsidy.

1.5.5 Sharing of Maintenance and Operational Costs

354. There is an exceptional instance of operational assistance to toll road operators by California's Transportation Corridor Agency (TCA) in the U.S. The TCA is a public corporation formed by a conglomerate of counties and cities. Its assistance to operators does not include toll-collection costs.

1.6 Long-Term Prospects – Internationally

355. The economies of developing countries are different from the mature economies of the "First World". Basic infrastructure is either not in place or needs upgrading. The cost of services will rise if the private sector provides improved standards of service, and there are political and social considerations which must be taken into account.

356. Typically, projects involving concession contracts are re-financed once the construction phase is over. This can be done simply by taking out a new loan to replace the old or by selling equity in the SPV. This not only reduces the cost of the remaining loan repayments but also typically results in higher gearing, enabling extra funds to be obtained and cash to be returned to shareholders.

357. There is now an active secondary market in the UK for equity stakes in SPVs and funds are beginning to operate in the Far East on the same principle. In the UK, which has the most mature market for refinancing PPPs, ownership of project company equity is divided between major contractors, major service providers and financial investors, including infrastructure funds.

358. The investment made is therefore in the income stream and the focus is on the protection of long-term yields. The businesses are essentially service businesses which depend on good management and proper maintenance of the assets already constructed.

359. In Korea, for example, an infrastructure investment fund bought into two expressway operators. There are current examples in the US and Australia of similar purchases on a larger scale while in Australia the proposal is to consolidate most of the toll motorways around Sydney into the ownership of one principal private operator. The deal would bring highway acquisitions in Australia to $18bn by 2010.

360. The company buying the Australian network has also bought a 99-year highway concession in Virginia recently, showing how this market is becoming both international and liquid in the sense of being attractive to investors. Another example of this is the bidding war between Allianz of Germany and Henderson over John Laing, the UK construction giant – supposedly because of Laing's strong showing in PPP projects and their "knowledge bank" developed over a number of years of operating infrastructure contracts. There are also
recent reports of a Malaysian investment in an Indonesian highway concession company which had a
cession in a toll road in West Java.

361. The report quoted an analyst as saying that toll roads “generate strong and predictable cash flows” and
are likely to result in $200bn worth of acquisitions in the sector worldwide over the next 10 years. The moral is
clear: once you have the asset generating cash, it is a bankable prospect for the private sector. The choice is
whether to use state funds to create the asset and then drive the best bargain afterwards when the private
sector is happy to come in, or to seek incentives which will encourage the private sector to take the risk of
constructing the road as well.

1.7 Long-Term Prospects – Vietnam

362. The classically accepted form of PPP and PPI, for major infrastructure, in Vietnam is the BOT or Build,
Operate and Transfer contract. Vietnam like many other developing countries has a “BOT law” passed in
1998 and updated on November 27, 2009. This version came into law in January 2010 and replaces the
former law. It encompasses BOTs, BTs (Build and Transfer) and BTO (Build, Transfer and Operate)
contracts. There was a period when the IFIs like the World Bank were encouraging the creation of this type of
legislation on the basis that it would trigger investment in infrastructure by the private sector, in the same way
as had occurred in Europe and the USA.

363. Indeed, there were a number of projects in the Far East during the nineteen nineties. Unfortunately,
what worked in the stable economies of Europe and the US, did not in general work well in the fast changing
countries of the Far East, either because the cost was too great, the political climate too changeable or a
combination of those and other factors, and the concept is now more or less discredited.

364. What is now being done is to concentrate on trying to bring private sector disciplines and supposed
efficiencies into the provision of what were assumed to be public services. PPP or public private participation
is the new “face” of private sector involvement in service provision. In the UK, it covers the provision and
operation of school and hospital buildings, refuse collection, public transport, audit and many other areas of
“public” service. It was a requirement of public authorities that they consider in every case, what services
could be provided by the private sector and put them out to tender. Their own internal departments often bid
against private operators.

365. Each country and each sector is different and there can be no “one size fits all” prescription. Vietnam
has a large number of laws governing commercial and corporate activity. It has ambitious plans for the reform
and liberalization of the very extensive state controlled economic sector which will lead to wide distribution of
shares in what will essentially be privatized companies.

366. One of the needs in the road sector is for a modern expressway system. A new State entity, is VEC, is
charged with the development of the sector which is general managed by the Vietnam Roads Authority.

367. The 2005 Law on Investment provides for a number of different forms of direct investment, including:
100% owned companies, “joint venture economic organizations between domestic and foreign investors”,
“business co-operation contracts” (BCCs - “an investment form signed between investors in order to co-
operate in business and to share profits or products without creating a legal entity”), and defined forms of
concession contracts, namely BOTs, BTOs and BTs, as described above. There is also a provision for
purchase of shares or contribution of capital “in order to participate in management of investment activities”.

368. Joint ventures are foreign invested companies with limited liabilities under Vietnamese law constituted:

- between one or several Vietnamese enterprises and one or several;
- foreign investors (economic organizations or individuals);
- between the Vietnamese Government and foreign governments;
- between an existing JV and (amongst others) a foreign economic ;
- organization or another JV or a 100% foreign-owned enterprise;
- between an existing 100% foreign-owned enterprise in Viet Nam; and a
- Vietnamese enterprise or another JV.
369. The JV becomes a legal entity only when the relevant authority grants the investment license.

370. BCCs are used mainly in large contracts where foreign investment requires the highest level of approval (e.g., oil and gas exploration, telecoms). They allow greater flexibility in defining the respective rights and obligations of the Vietnamese and foreign parties (not specifically related to their respective financial contributions to the project. The foreign investor is permitted to set up a management office in Viet Nam.

371. Foreign investors can also contribute capital to or purchase shares in Vietnamese enterprises by buying shares in an SOE when it is equitized, or by buying shares in existing companies in the usual way. The maximum level of capital contribution and purchase of shares by foreign investors in a Vietnamese enterprise must be 30% of the charter capital of the Vietnamese enterprise. This applies specifically to Vietnamese commercial banks, where foreign investor ownership is not allowed to exceed 30% of the chartered capital of a local bank.

372. Parties have freedom to agree on “application of international investment custom” as long as it is not contrary to the fundamental principles of the Laws of Viet Nam.

373. There is provision in the Law for further regulations to be published by GOV to clarify the “conditions, order, procedures and methods of implementation of investment projects” and we understand that a number of these are in the process of being issued with a view to liberalizing the current forms which foreign investment can take and simplifying the procedures for registration.

374. The Law states that the ratio of capital contribution and purchase of shareholdings in certain sectors may be regulated by GOV and must in any event be carried out in accordance with the law on securities (Art 26) and states that there shall be “incentive investment sectors” including “construction and development of infrastructure facilities”.

375. Where Vietnamese investors hold more than 51% of the “charter capital” of an enterprise, the same investment conditions as are applicable to domestic investors also apply to foreign ones.

376. There are restrictions on terms of land use - 50 years - which can be extended to 70 years in the case of “projects with a large amount of invested capital and a slow rate of capital recovery”. There are incentives for certain sectors and geographical areas involving reductions in rental costs etc. There are also restrictions on the overall duration of a project - a maximum of 70 years. This is to be recorded in the investment certificate.

377. In the event of failure by the investor to commence a project within the specified time limit, or to use the land for the “correct purpose” the land can be recovered “in accordance with the Law on Land” and the investment certificate withdrawn.

378. It is not yet clear how the current reforms will operate but it is not thought that they will greatly affect the procedure for approval of major infrastructure projects which currently require Prime Ministerial approval.

1.8 Management of Private Operators in a Tolling System

379. In 2004 the Vietnam Expressway Corporation (VEC) was created. This is a State Owned company. It operates investment funding, construction management, operation, toll fee collection, maintenance and reinvestment into other construction works from tolls collected. Its specific responsibilities include:

- investment, operation, maintenance, and toll collection on National Expressways;
- Construction of transport facilities in all modes;
- Management and operation of services adjacent to expressways, including motels, restaurants, advertisement and construction material;
- Transport technical consultation; research and development of the national highway system, pre-feasibility and feasibility studies as well as design and supervision of transport facility construction; and
- Research and Development of services in areas adjacent to expressways.

380. On the international front, generally, if an infrastructure services company in a given country functions as a vertically integrated business and is owned and/or operated by private interests - either through some form of concession or JV - then the need for regulation is to ensure reasonable fairness in competition in the
industry, and to ensure safe and environmentally sound operation for all users of the services. This model is relatively straightforward and a number of good international examples exist, including the National Transportation Agency in Canada among others. This model argues for a transport/single sector type regulator, with a broad mandate across all modes.

381. The alternative model calls for multiple private operators using the same infrastructure. The success of any one of those operators depends on the condition, investment, and maintenance of the system. Such a system would require a much more focused agency. Not only is it necessary to more closely monitor the use of the system by the different operators, but also it is also necessary to adjudicate between the operators and the infrastructure provider over pricing of services, access to the infrastructure and minimum quality standards for the equipment used as well as for the operations. Vertical integration whereby infrastructure provision and delivery of service are under one company reduces the number of contractual interfaces, but can increase the need for regulatory instruments if competition is to be preserved.

382. In the first model, the management entity is most concerned by safety and environmentally sound operation. In the second, in addition to these concerns, is added the concern over fair competition within the industry and business analysis.

383. There are a number of basic management modes used when the private sector is substantially involved in financing transport activities. These consist of the creation of companies expressly for the purpose of managing the transport entity for a specific time – usually the concession period, and apply to all modes of transport. The first type remains significantly tied to the government in terms of control, the second is less so and the third a Limited Share Corporatized entity which is substantially independent and acts as a commercial entity. Some variations of government-controlled companies are cited below from the U.S.A, France, Japan and Brazil.

1.8.1 U.S.A.

384. There are three basic forms for toll organizations in the USA. The first is the classic Government Departmental Management evidenced in the States of Florida and Indiana where construction and maintenance is managed by transportation departments. Highway construction is funded mainly from toll revenue, concession income, bond and interest. Loans can be used, after legal approval, for land acquisition, engineering construction, equipment purchase, traffic volume estimation and administrative management expenditure, etc.

385. Tolling Management Departments (tolling companies) have been created in the states of Illinois and Oklahoma. Funding in Illinois is from bonds which can be paid from the cumulative reserves and profit from investment funds. They have the right to acquire, hold, use and lease the operation and assets. The department in Oklahoma has the same feature, and its main responsibility is to construct, maintain, operate and repair the toll way. It has the right to determine and revise the toll rate. Its fund resource is from income guaranteed bonds.

386. Concessioning Operational Companies have been created both South Carolina as well California. In California, the state traffic department and a private organization operate the company jointly. It adopts the BOT approach, excludes competition from the same trade, has the right to develop preferentially, and can use government's road right with logical expenses for free. The South Joint Highway Company of Greawill, South Carolina on the other hand is a non-profit public benefit company established by the state traffic department. It is a legal entity, but it actually belongs to the state traffic department. Its construction fund is from federal investment and the issue of income guaranteed bonds.

1.8.2 France

387. There are seven companies and two small tunnel companies (one is a private company), which operate, toll expressways. Financing is through investment banks (CDC) which issue government guaranteed bonds through subsidiary organizations, namely, CAN and SCETA. This part of the fund is about 80% of the total engineering investment, and CAN obtain loans from the European Investment Bank.

388. After recent reforms in management and capital structure of existing toll companies controlled by the government, six state-owned companies were changed into three state holding companies and three subsidiary concession companies. This wholly separated concession companies from state-owned companies which have attracted more local funds to strengthen financing.
389. The capital structure of the company before reform was: 34% of ADF, 17% of CDC and 49% for the local organization and commercial committee; after reform, 45% government holding, 45% of ADF, 9% of CDC and only 1% for the local commercial committee.

1.8.3 Japan

390. There are three major forms of toll companies in Japan: national expressway, general expressway managed by a highway company and city expressway managed by the local government.

391. Supported by a government loan in 1956, toll ways began to be constructed. The Highway Management Act issued in 1956 allowed the construction and the establishment of public highway organizations. These originated as non-profit civil organizations with legal positions, rather than profit-oriented companies under government control.

392. After approval of a selected project by relevant local governments, a surveyor and construction enterprise under the lead of a province is selected. Law determines the toll rate and tolling duration must be less than 30 years. In principal it should pay various expenses including construction, maintenance, monitoring, improvement, repair, management, traffic control and interest, with the toll ceasing after the repayment of debt. However, given that the fuel tax income is insufficient for maintenance and road improvement, the toll is often continued beyond the set time limit.

1.8.4 Brazil

393. The Brazilian Government encourages the private sector to participate in highway construction due to insufficient funds to construct and maintain its roads. The Brazilian constitution regulated in 1988 that public service was also an economic activity and private economic organizations could participate in public service after given concessions or special licenses. The law allows private economic organizations to participate in public service activities through concession agreements.

394. The law further indicates that concessions may adopt competitive systems, with purchasing procedures and bidding options carried out according to the regulation, with financial statement published annually. The resultant management authority often requires the concession company to provide guarantees indicating operational capability and quality, as well as risk insurance.

1.9 Recommendations

395. There have been a series of studies conducted by both the World Bank and the Asian Development Bank, whose purpose has been to identify new financing options for consideration by the Vietnamese government. The following recommendations build on those studies.

1. Both syndicated loans and mezzanine debt are presently beginning to “creep” into Vietnam’s financial system, and it is recommended that these be left to develop further naturally on their own.

2. Pursuit of the Annuity BOT option. A set of options will need to be drawn up, including how to deal with the inflation issue. There could be a number of alternatives developed to suit a series of situations. For example, fixed or variable interest rates, including higher rates at the beginning with progressively lower rates as time goes on, balloon payments at strategic points with tolling a partial payment option, variations in time frames, from 10 years to 50 years, with option for renewal. Re-financing option as well as option for full payback with or without penalty, etc, etc. It is recommended that the domestic banking sector including financial institutions (such as insurance companies, pension funding institutions, etc) be approached to (i) assist in the development of an acceptable strategy and (ii) identify a pilot project for implementation. This is one option that should be considered for implementation in the short term.

3. Pursuit and augmentation of the Government Bond Option. There is significant interest right now in this option and that should be further explored. However this should be developed with significant care and attention to several details. The bonds issued to date have been very small and short-term. A good example for Vietnam to consider is that of China. Of particular interest is their development of an overall bond issuing strategy - by the Ministry of Finance, not the banks or security exchanges - which would set a limit to the number of bonds to be issued annually, by provinces and municipalities, and in this context by sector as well. As in the case of annuity BOTs inflation will need to be taken into consideration when setting the interest rates and repayment time frame. These
bonds would need to have government guarantees backing their issue so that investors are assured that repayment will be made. This should be pursued in the short term.

Access should however ensure that the credit worthiness of Vietnamese bonds is maintained by:

- Ensuring that applicants for bond issue are capable of repaying bonds on time;
- preparing strict rules concerning non performing bonds;
- reducing quotas respecting issuance of bonds, using strict criteria for acceptance;
- introducing the use of municipal bonds for road projects; and
- taking measures to reduce the extent to which government bonds “crowd out” corporate bond issues.

4. Further encouragement of Co-operative Joint Ventures and Joint Venture financing, especially those between domestic private companies (other than SOEs only) and foreign investors. These may be formed for the purpose of construction only, for the purpose of operation and maintenance only (a leasing concession as it were), or for the entire BOT period. Also, as indicated elsewhere these may be formed for the period of pre-construction, or Approvals stage (as has been done in the USA). A number of legal issues will need to be resolved (see legal report), and the length of time it takes for approvals and permits, but these should not be an impediment to this use of this modality.

5. Two specific sub-recommendations apply here:

(i) that it is determined which government authorities and entities are key in the approvals process and that these be the only ones from which approvals are required. No peripheral or non-pertinent departments and agencies should be involved in the approval process; and

(ii) joint ventures should be allowed to “sell” their concession during the contracted concession period, given certain stipulations.

6. This would allow the elimination of some of the risk factors perceived by the private sector, particularly in Greenfield projects where so many assumptions need to be made prior to commitment.

7. The pursuit of pure BOTs in Vietnam is likely too early as there are too few success stories that investors can relate to, in the roads sector at least. This is not to say that the BOT concept should be dropped, no, rather it should be nurtured but left to develop at it's own pace. If this is an area, however, where the government would like to speed up progress, then it will need to consider a range of “incentives” (as noted in the study’s toll road report), to decrease the private investor’s perceived range of risks.

Issues related to both JVs and BOTs - Critical legal and regulatory issues still need to be addressed before achieving optimum success. These include the need to:

(i) establish clear and consistent taxation laws;
(ii) fully standardize currency conversion and repatriation of funds;
(iii) development of collective bargaining and labour laws;
(iv) clear definition of foreign investment limits and market entry rights;
(v) provision of reliable information to prospective investors regarding capital expenditure requirements for road operation and maintenance;
(vi) establishment of secure laws governing initial toll rates and toll rate increase allowances; and
(vii) development of government capacity and reliability in providing limited traffic and/or revenue guarantees for specific projects.

1.10 Recommended Incentives and other Cooperative Options

The following two Tables present:
(i) a summary of those recommendations from both the recent ADB and World Bank studies as applicable to this section under review; and

(ii) a list of potential government support recommended under the recent World Bank Study as well as a list of those recommended under the present study.
### Table 8 Summary of Recent Recommendations on Financing

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Current ceiling on tolls be abolished in respect of expressways with private investment or operation</td>
<td>Allow investors to receive an appropriate risk related return on investment</td>
<td>AGREE with both the ADB AND WORLD BANK RECOMMENDATIONS</td>
</tr>
<tr>
<td>Toll rates should be set in principle, based upon the benefits from using the toll road opposite to using alternative ways of transport or no transport at all. Established by sound marketing principles</td>
<td>Toll adjustment be automatic on the basis of a mathematical formula included in the contract between the client and the contractor</td>
<td>AGREE with both the ADB AND WORLD BANK RECOMMENDATIONS</td>
</tr>
<tr>
<td>Toll adjustment be automatic on the basis of a mathematical formula included in the contract between the client and the contractor</td>
<td>Introduction of periodic/annual adjustment of tolls indexed against a defined yardstick such as the consumer price index (CPI)</td>
<td>AGREE with both the ADB AND WORLD BANK RECOMMENDATIONS</td>
</tr>
<tr>
<td>Government pay a tariff or fee to the operator on the basis of the simplest mechanism possible given the embryonic of the PPP market in the road sector.</td>
<td>The government should offer a wide range of incentives and take various other measures in order to reduce the risks and uncertainties that may be associated with a PPP project.</td>
<td>AGREE with WORLD BANK RECOMMENDATION</td>
</tr>
<tr>
<td>The pursuit of classic BOT projects are not appropriate for most expressway schemes, at least in the short term. It is therefore recommended that the private sector be introduced only after construction</td>
<td>Considered to be true only in part, as if a project is deemed highly economically viable but its financial viability is suspect, and then a range of incentives and/or guarantees could still be applied.</td>
<td></td>
</tr>
<tr>
<td>Tolls for privately invested or operated expressways be free of the value added tax</td>
<td></td>
<td>AGREE with ADB RECOMMENDATION</td>
</tr>
<tr>
<td>Legislation relating to on-lending of OCR loans by GOV be amended to allow a subsidized interest rate or other concessionary terms to be used</td>
<td></td>
<td>AGREE with ADB RECOMMENDATION</td>
</tr>
<tr>
<td>The control on the interest rate ceiling be lifted and bonds be able to be rolled over (Decree 141)</td>
<td></td>
<td>AGREE with ADB RECOMMENDATION</td>
</tr>
</tbody>
</table>
### Table 9 Range of Incentives and Guaranteed Recommended for Consideration under both the World Bank Study and the present TA

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. BASE GOVERNMENT SUPPORT</strong></td>
<td></td>
</tr>
<tr>
<td>1. Revenue sharing with existing facilities</td>
<td>AGREE</td>
</tr>
<tr>
<td>2. Government land acquisition</td>
<td>AGREE</td>
</tr>
<tr>
<td>3. Availability payments/operating subsidies</td>
<td>AGREE</td>
</tr>
<tr>
<td><strong>NOT RECOMMENDED</strong></td>
<td>4. Shadow toll – should be further examined</td>
</tr>
<tr>
<td>5. Construction of related facilities</td>
<td>AGREE</td>
</tr>
<tr>
<td>6. Subordinated loans</td>
<td>AGREE</td>
</tr>
<tr>
<td>7. Tax incentives</td>
<td>AGREE</td>
</tr>
<tr>
<td><strong>NOT RECOMMENDED</strong></td>
<td>8. Additional development rights along right of way should be considered</td>
</tr>
<tr>
<td>9. Comfort letter</td>
<td>CONSIDERED SUPERFLOUS</td>
</tr>
<tr>
<td><strong>B. CONTINGENCY GOVERNMENT SUPPORT</strong></td>
<td></td>
</tr>
<tr>
<td>1. Minimal revenue guarantee with reciprocal maximum revenue limit</td>
<td>AGREE but could also include minimum traffic guarantees</td>
</tr>
<tr>
<td>2. Forex risk guarantee</td>
<td>AGREE</td>
</tr>
<tr>
<td>3. Government buyout under force majeure</td>
<td>AGREE</td>
</tr>
<tr>
<td>4. Termination Trigger Payments</td>
<td>AGREE</td>
</tr>
<tr>
<td>5. Transition Period</td>
<td>AGREE</td>
</tr>
<tr>
<td>6. Flexible Contract Duration</td>
<td>AGREE</td>
</tr>
<tr>
<td><strong>NOT RECOMMENDED</strong></td>
<td>7. Extension of Contract Period</td>
</tr>
<tr>
<td>8. Partial Risk Guarantees</td>
<td>AGREE</td>
</tr>
<tr>
<td>9. Partial Credit Guarantees</td>
<td>AGREE</td>
</tr>
<tr>
<td><strong>C. OTHER SUPPORT</strong></td>
<td></td>
</tr>
<tr>
<td>1. Cost sharing arrangements for both construction as well as post construction periods, including maintenance and operation</td>
<td></td>
</tr>
<tr>
<td>2. Cross-subsidization between two or more toll roads (bundling)</td>
<td></td>
</tr>
<tr>
<td>3. Government guarantee of bonds</td>
<td></td>
</tr>
<tr>
<td>4. Creating a one stop shop which acts on operator's/concessionaire’s behalf in acquiring permissions and approvals</td>
<td></td>
</tr>
</tbody>
</table>
2 The Issue of Risk Mitigation in Transport Projects

397. The 2005 TA to the Serbian Roads Directorate [funded by the Canadian International Development Agency (CIDA) and the European Bank for Reconstruction and Development (EBRD)] prepared an excellent analysis of risk and risk mitigation. The following presents the most salient points for consideration in the Vietnamese context.

398. Risk involves two very distinct perceptions, one negative and the other positive. The negative perception is one of danger, jeopardy, and threat. The positive perception involves possibility, gamble, and success. The identification and assessment of risk in a Public Private Investment (PPI) project allows the investors (public and private) to gauge their concerns in terms of the level of probable risks associated with their involvement, their potential financial impacts, likely mitigation measures (incentives) required and allocation of these risks to those parties most able to deal with them. To the extent possible these concerns or possible risks need to be identified, quantified and then inserted into the financial analysis as part of the overall PPI evaluation. In a general sense these perceived concerns/risks will translate themselves into the private sector investor’s willingness to participate in investing in a transport project and in the level of return on investment sought.

399. All PPI options involve some degree of risk. A road/bridge/tunnel operation and maintenance lease, a toll system lease, etc. involves the least amount of risk to the investor as the investment level from the private sector is the lowest since the facility has already been built. However, those agreements where the investor takes on some or all of the construction cost plus operations, management and maintenance has the highest level of risk. The identification, assessment and allocation of risks then become a critical exercise which needs to be undertaken for any PPI project.

400. Basically there are two main risk categories:

- Macro/national level, including political, economic, social, legal/regulatory and ecological/environmental, etc; and

- Micro/project level, including engineering design, construction and other costs, traffic volumes, toll rates, right-of-way acquisition, other financial costs including frequency of maintenance, etc.

401. The identification of risk is useless without some degree of measurement. There are a number of risk measurement techniques which can be applied, including probability distribution, or the use of means and standard deviations (measure of dispersion of variables). This is where decision model detailing becomes important with the most common in the roads sector being:

- Traffic and Toll related: which requires the definition of baseline average daily traffic (ADT); ADT growth rates; toll road diversion assessments (an indication of willingness to pay), toll rates by vehicle; toll rate adjustments;

- Engineering and Construction Related: which includes construction cost; design cost; (which may be apportioned as a flat 10% of construction cost); the construction period; special structures cost; construction supervision cost; right of way – land acquisition (usually 10% of project cost), costs associated with approvals, permits, procedure requirements, etc.;

- Facility Operation Related: general administration or overhead cost; toll collection cost (cost/transaction, average is between US$0.05 – 0.10 or average of US$ 0.086; system capital costs (toll booths); maintenance cost (routine and periodic between 2.5% - 5.2% of construction cost (3.5% is average used);

- Fiscal Related: corporate income tax; other taxes (VAT; commission or tax on toll revenue (usual 0.5% per transaction); exchange rates and inflation rates; interest rates on loans;

- Economic Related: time savings, reductions in vehicle operating costs and congestion, lane availability, reduced accidents and reduced maintenance costs; and

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54 Variable with large standard deviations are riskier than variables with small standard deviation
Financial Related: revenue stream, cash flow, balance sheet, profit margin, return on equity (depending on the level of risk the private sector usually seeks a financial internal rate of return between 20%-30%).

The most effective way to deal with risk and its allocation is to identify all key risks and then give a proportional estimate as to the likely impact on the public or private sector, as well as the degree to which the risk is shared. The following table presents an example of such an exercise.

Table 10 Key Risks

<table>
<thead>
<tr>
<th>Risk Description</th>
<th>Public</th>
<th>Private</th>
<th>Shared</th>
<th>Preferred Risk Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Political</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- political opposition</td>
<td>63%</td>
<td>21%</td>
<td>16%</td>
<td>Public Sector</td>
</tr>
<tr>
<td>- site availability</td>
<td>60%</td>
<td>12%</td>
<td>28%</td>
<td>Public sector</td>
</tr>
<tr>
<td>- project approval</td>
<td>35%</td>
<td>33%</td>
<td>32%</td>
<td>Shared</td>
</tr>
<tr>
<td>- contract variations</td>
<td>33%</td>
<td>27%</td>
<td>40%</td>
<td>Shared</td>
</tr>
<tr>
<td>- legal changes (i.e. taxes)</td>
<td>17%</td>
<td>22%</td>
<td>61%</td>
<td>Shared</td>
</tr>
<tr>
<td>2. Financial</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- high financial cost</td>
<td>3%</td>
<td>76%</td>
<td>21%</td>
<td>Private Sector</td>
</tr>
<tr>
<td>- availability of finance</td>
<td>0%</td>
<td>85%</td>
<td>15%</td>
<td>Private Sector</td>
</tr>
<tr>
<td>- construction cost over-run</td>
<td>0%</td>
<td>92%</td>
<td>8%</td>
<td>Private Sector</td>
</tr>
<tr>
<td>- frequency of maintenance</td>
<td>0%</td>
<td>92%</td>
<td>8%</td>
<td>Private Sector</td>
</tr>
<tr>
<td>- operation cost over-run</td>
<td>0%</td>
<td>95%</td>
<td>5%</td>
<td>Private Sector</td>
</tr>
<tr>
<td>- high maintenance cost</td>
<td>0%</td>
<td>97%</td>
<td>3%</td>
<td>Private Sector</td>
</tr>
<tr>
<td>- construction time delay</td>
<td>0%</td>
<td>97%</td>
<td>3%</td>
<td>Private Sector</td>
</tr>
<tr>
<td>3. Design and Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- ground condition</td>
<td>5%</td>
<td>87%</td>
<td>8%</td>
<td>Private sector</td>
</tr>
<tr>
<td>- quality of workmanship</td>
<td>3%</td>
<td>93%</td>
<td>4%</td>
<td>Private Sector</td>
</tr>
<tr>
<td>- availability of labour/materials</td>
<td>0%</td>
<td>95%</td>
<td>5%</td>
<td>Private Sector</td>
</tr>
<tr>
<td>4. Baseline Analysis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- traffic forecasts</td>
<td>45%</td>
<td>30%</td>
<td>25%</td>
<td>Shared</td>
</tr>
<tr>
<td>- application of agreed toll rates</td>
<td>30%</td>
<td>60%</td>
<td>10%</td>
<td>Shared</td>
</tr>
</tbody>
</table>

2.1 Public Risk and Private Risk

There are a number of PPI modalities which can be used for road projects. These are discussed in detail in the report on International Financing Modalities in Use: Private Investment Options. The modality with the highest risk is the BOT and as a result, for this exercise, the BOT has been chosen as an example in this discussion.
The most important factors which affect risk in BOT projects are macro economic and generally fall into the following categories:\(^{55}\):

- Stable government and good governance;
- A history of honoring payment commitments. From an investment point of view, Vietnam does as yet, not have a history of honoring payment on BOT projects since the structure is new;
- Absence of political violence targeting foreign-owned investments. This has not been an issue in Vietnam to date;
- A freely convertible currency and reasonable macro-economic policy. This is still a problem since the economy in Vietnam is still relatively weak and there is a black market for currency. This mainly affects issues that fall into the Public side of the cost ledger, including any incentives or guarantees provided by the Government but also affects the private sector investor who is interested in taking funds out of the country;
- Rule of law prevails and there is a high degree of transparency. However, the perception of the international business community, as represented by Transparency International, is that corruption is widespread and that transparency with regard to awarding public contracts is still well below the normal standards in most developing countries; and
- A clearly defined legal system and regulatory framework which clearly addresses private sector concerns when investing in Vietnam.

The problem with being in the forefront of the development of a concept like BOT in any country is that the urgency for the project often runs ahead of the institutional and legal structures needed to make it successful. Further, the understanding of how best to structure the project to make it viable and sustainable for a private investor while at the same time making it attractive to the public sector are often just beginning to spread among the parties involved with the project. All infrastructure projects that are proposed for private sector investment (PSI) or private public partnership (PPP) have two components, namely their financial return which is of interest to the private investor and their economic return, which is of interest to the Government and the economy as a whole. A schematic of this structure is shown in Figure 5.1 below which looks at the capital and debt structure and the economic and commercial objectives of a project.

![Figure 5.1: Capital And Debt Structure](image)

In the above diagram the yellow and blue bars together show the overall total investment in the project by the private and the public sectors. The blue bar may be non cash investment but it is nonetheless investment by the public sector to make the project viable. The commercial investment is broken into debt and equity. In the case of BOT projects, the level of this debt is quite high, typically in the range of 80 to 85% of the project cost to the private sector. The yellow bar represents the value of the project to the investor. If the investment required and the return achieved provides a decent return to the investor, the project will proceed. The blue bar represents the additional benefits to the economy from the investment which are not captured by the investor. For instance, many road projects cannot pay their complete capital cost from tolls.

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collected but are nonetheless necessary investments for the country to ensure regional development, agricultural productivity, defence, national unity or to support longer term structural shifts in the economy.

2.2 Risk Allocation

407. Emerging best practices indicate that risk allocation should adhere to two basic principles. These are applicable not only to BOT projects but also to other forms of private sector participation.

- Firstly, a risk should be allocated to the party best able to manage it; and
- Secondly, it should be allocated to the party or parties best able to bear it.

408. There are numerous examples of BOT toll road failures (e.g. leading to restructuring and refinancing) where these principles were not applied. In some countries, notably Portugal, while formal risk-sharing rules were adequate in the concession agreements themselves, “in practice, such rules could be changed under specific circumstances [e.g. land expropriation delays, changes in environmental regulation] to the benefit of the concessionaire. When the probability of such circumstances materializing was not carefully evaluated, the effective risk sharing was different from the contractually agreed one.” Mexico is another example of BOT toll road failures.

409. The following risk allocation model (Figure 5.2) presents how the various risks are allocated between the private sector and the public sector in typical infrastructure investment projects. As noted by Bing et al.

“In the proposed model, the public sector is expected, in conjunction with the private sector to identify potential risks, which will arise throughout the life of a PPP project. The private sector evaluates its ability to deal with these risks, using the two dimensions of severity and frequency to measure the risk impact. The private sector also prices the risks in its tender, which is submitted to the public sector client. If the cost of the risks is acceptable to the public sector, a contract will be easily awarded. If however, the private sector’s charge is considered to be excessive, the public sector would go into negotiation with the private sector. The negotiations would consider whether the public sector should accept the high risk cost, share the risks with the public sector, or retain the risk in the public sector.”


58 VFM and Risk Allocation Models in Construction PPP Projects, Bing Li, Akintola Akintoye, Cliff Hardcastle School of Built and Natural Environment, Glasgow Caledonian University, Glasgow G4 0BA
2.2.1 Risk Matrix for Road / Bridge / Tunnel Projects

410. The following presents a risk matrix which includes the most likely risks applicable to PPI Projects, their consequences and possible risk mitigation approaches for each. The focus of the matrix is on the level of risk to the public sector (government) in any given PPI project. It indicates the incidence and severity of the identified risks as well as a risk limiting strategies for each. This is not an exhaustive list, but should be considered as a good indication of a variety of risks when undertaking these kinds of project.
### Table 11 Risk Matrix

<table>
<thead>
<tr>
<th>Type of Risk</th>
<th>Description</th>
<th>Consequence</th>
<th>Risk Limiting Strategy</th>
<th>Risk to Government</th>
<th>Risk to Private Sector</th>
<th>Incidence and Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating &amp; Maintenance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condition of Assets</td>
<td>Some assets may be damaged or unsafe. They may fail after the concessionaire assumes maintenance responsibility.</td>
<td>Risk of repair and reconstruction is not the responsibility of the concessionaire unless directly specified.</td>
<td>Carry out full condition survey of assets to be transferred and build into the concession a program of asset value recovery and reconstruction.</td>
<td>Without a limiting strategy, the Government carries a significant long term risk of reconstruction cost for transferred assets. As the assets are repaired or reconstructed the risk will diminish. Usually, this risk is transferred to the contractor.</td>
<td>The private participant would have to ensure that it is satisfied with the pre-handover condition of the assets (as disclosed by the Government to it) and request for a due diligence inspection to verify the condition of the assets. The risk lies in the undisclosed conditions of the asset which may result in the private participant being responsible for repair in relation to such undisclosed conditions after the concession contract is signed.</td>
<td>A modest issue in most cases. Severity of risk minor to modest.</td>
</tr>
<tr>
<td>Previous construction standards</td>
<td>Some parts of the existing road may be poorly constructed and may fail prematurely due to cost of reconstruction will be the responsibility of Government since road construction</td>
<td>Cost of reconstruction will be the responsibility of Government since road construction</td>
<td>Build condition assessment into annual or bi-annual testing cycle and agree an allocation of additional</td>
<td>Some added risk of additional construction cost. This is mitigated by inspection and testing by an</td>
<td>The private sector participant would have to identify the relevant parts of the existing roads which</td>
<td>Minor risk. Should be easily picked up in plans for new construction. Severity is also</td>
</tr>
<tr>
<td>Type of Risk</td>
<td>Description</td>
<td>Consequence</td>
<td>Risk Limiting Strategy</td>
<td>Risk to Government</td>
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<tr>
<td>Previous Design Standards</td>
<td>Existing design standards may be under what will be considered normal in the concession agreement. This may include sight distance, width of pavement or shoulders, signage, clearances, horizontal curvature etc.</td>
<td>Operating liability for damage to vehicles or environment which occurs as a result of poor design will be the responsibility of Government since the concessionaire was not responsible for design.</td>
<td>Carry out a design review of the current road and compare it to the current standard design. Specify a gradual replacement of poor design with updates over time to improve the existing carriageway and furniture to current standards.</td>
<td>During the time allocated to the improvements, the Government will remain with a residual risk but as the current standards are achieved, the risk will diminish.</td>
<td>The private sector participant would have to conduct a due diligence inspection to examine the existing design standards, and ensure that it properly budgets for the necessary design costs in its financial model incorporated into the concession contract.</td>
<td>Minor risk. Should be easily picked up in plans for new construction. Severity is also minor.</td>
</tr>
<tr>
<td>Current Design Standards</td>
<td>Design standards are not performance based. If a concessionaire adheres to current written standards for design and accidents happen, then a</td>
<td>Accidents that result in loss of life or environmental damage and clean up costs that are due to outdated design standards which have been</td>
<td>Prepare new design and operations standards based on performance. For instance, the concessionaire is responsible for safe design and operation of</td>
<td>Proper writing of the concession agreement will transfer this risk wholly to the side of the concessionaire if the standards are set according to performance criteria.</td>
<td>If risk is transferred to the private sector participant under the concession agreement, the private sector participant would have to ensure that it</td>
<td>Minor risk. Should be easily picked up in plans for new construction. Severity is also minor.</td>
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<tr>
<td>Residual risk remains with the Government for damages.</td>
<td>Residual risk remains with the Government for damages.</td>
<td>Followed by the concessionaire will be the responsibility of the Government.</td>
<td>Ensure that the road at 120 km an hour and for all road conditions.</td>
<td>The road at 120 km an hour and for all road conditions.</td>
<td>The road at 120 km an hour and for all road conditions.</td>
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<tr>
<td>Unidentified environmental consequences of current construction.</td>
<td>Leaching of poor material used in earlier construction into the ground water which may for example, cause run-off damage to crops.</td>
<td>Responsibility of unrecognized environmental consequences of current construction remains with the Government.</td>
<td>Environmental screening and testing of the current alignment to identify any known risks and development of a mitigation plan to deal with those risks.</td>
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<tr>
<td>Force majeure or Act of God</td>
<td>Major flooding or land slippage closing the road and requiring major repairs.</td>
<td>Unforeseen and uncontrollable risk has major impact on functioning of the road.</td>
<td>Ensure that full and adequate insurance exists to cover off force majeure and Act of God events.</td>
<td>If insurance is in place, the risk to the Government is minimal.</td>
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<td>If insurance is in place, the risk to the Government is minimal.</td>
</tr>
<tr>
<td>Approval of permits and clearances.</td>
<td>Requirements for licenses and permits</td>
<td>Heavy rain may result in high</td>
<td>Require all licenses and permits and any</td>
<td>Require all licenses and permits and any</td>
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Minor risk. Should be easily picked up in plans for new construction. Based on the existing alignment and cross section, and environmental assessment severity is minor.
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<td>for operations and discharge.</td>
<td>discharge rates from the road with consequent ponding on, or erosion of, surrounding land.</td>
<td>discharge from the road to be explicitly included in the concession agreement.</td>
<td>responsibility for this area, no risk to Government.</td>
<td>necessary licences and permits and the consequence that the Government may terminate the concession agreement and/or enforce financial penalties if the project is not completed and/or operational by certain prescribed dates in the concession agreement. The private sector participant can manage this risk by requiring the Government to provide it with the necessary assistance for obtaining such licences and permits.</td>
<td>is also low.</td>
</tr>
<tr>
<td>Changes to operating standards and requirements after concession signed.</td>
<td>Government changes to employment costs, maintenance practices, licenses or agreements.</td>
<td>Increased cost to concessionaire resulting in a request for variation of the Concession Agreement.</td>
<td>Provide for an orderly process of revision of the agreement based on a recognized list of possible government changes which affect operating cost.</td>
<td>Cost changes of Government decisions are explicitly covered in the concession agreement.</td>
<td>Uncertainty and no control over the Government's decisions. The private sector participant can manage this risk by ensuring that the concession agreement is also low if covered in agreement.</td>
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<tr>
<td>Inadequate Annual Independent Inspection of Road condition and Maintenance Activity.</td>
<td>Poor inspection and testing of road condition and maintenance practice may result in poor practice by concessionaire, unsafe road condition and liability for poor roads.</td>
<td>Accidents or damage to vehicles may result from operation under poor road conditions which may be held partially a responsibility of the concessionaire and partly a responsibility of the Government due to poor concession compliance monitoring.</td>
<td>Contract independent engineer for compliance monitoring at the point of development of the concession document to ensure that all the standards for reporting, data collection, maintenance operations and adherence to standards are included in concessions.</td>
<td>Proper contracting will transfer all of this risk to the Concessionaire.</td>
<td>Inadequate qualified personnel/contractors to carry out inspection and test procedures, which exposes the private sector participant to financial penalties provided for under the concession agreement. The private sector participant would seek to transfer part of this risk by imposing an obligation on the Government to</td>
<td>Incidence of risk is minor and severity is also low if the risk is transferred to the concessionaire.</td>
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<tr>
<td><strong>New Construction</strong></td>
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<td>Design Standards</td>
<td>Design standards are not performance based. If the concessionaire adheres to current written standards for design and accidents happen, then a residual risk remains with the Government for damages.</td>
<td>Accidents that result in loss of life or environmental damage and clean up costs that are due to outdated design standards which have been followed by the concessionaire, will be the responsibility of the Government.</td>
<td>Prepare new design and operations standards based on performance. For instance, the concessionaire is responsible for safe design and operation of the road at 120 km an hour and for all road conditions.</td>
<td>Proper writing of the concession agreement will transfer this risk wholly to the side of the concessionaire if the standards are set according to performance criteria.</td>
<td>The private sector participant would have to conduct its own due diligence exercise to examine the existing design standards, and ensure that it properly budgets for the necessary design costs in its financial model incorporated into the concession contract. It is likely the private sector participant will “price” this risk into its financial model.</td>
<td>Minor risk. Should be easily picked up in plans for new construction. Severity is also minor.</td>
</tr>
<tr>
<td>Environmental Risks</td>
<td>All environmental risks are to be covered by the concessionaire and are the responsibility of the concessionaire by law.</td>
<td>All mitigation cost of environmental compliance must be incorporated in the concession agreement. No company will sign an agreement</td>
<td>Government contracts for a full environmental impact assessment (Study) to be carried out and a full environmental mitigation plan (including expected costing) (Plan) to be</td>
<td>If the Study and the Plan are not carried out or prepared prior to the negotiation of the concession agreement, it is likely that the interested private sector participants will not proceed to negotiate the concession agreement, the private sector will be subject to:</td>
<td>If the Study and the Plan are not carried out, the private sector will be subject to: prior to entering into the concession agreement, the private sector will be subject to:</td>
<td>The incidence of risk is under the control of the Government and the severity is limited to the cost of the environmental study if the</td>
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<tr>
<td>Land Use free and clear of encumbrances</td>
<td>Normal contract calls for all land to be available free and clear of encumbrances for commencement of construction. This includes cost of compensation to existing land holders or users.</td>
<td>without knowing what the cost of environmental compliance is. No company will carry out the full environmental assessment until the concession agreement is signed.</td>
<td>prepared. The Plan is then incorporated into the concession agreement. Government further requires the concessionaire to pay for the Study and the Plan as part of the concession fee.</td>
<td>concession agreement and the project will not progress as planned. If the Study and the Plan are carried out and prepared before the negotiation of the concession agreement, the risk to the Government is limited to the cost of the Study and the Plan if the project does not progress as planned.</td>
<td>The private sector may face delays in the project to achieve the project’s outcomes and pressure to accept encumbrances in order for the project to proceed.</td>
<td>Incidence of risk is high. Severity of risk of not being able to proceed with the BOT is also high. This is a significant risk factor. One way of reducing Government risk is to have the term commencing from the date of land clearance with a long term timeframe for completing land clearance.</td>
</tr>
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</table>

- The Plan is then incorporated into the concession agreement. Government further requires the concessionaire to pay for the Study and the Plan as part of the concession fee.
- Land acquisition timing is wholly a responsibility of Government. Early acquisition is preferable to late acquisition. Some construction delay risk will remain with Government if all land is not available at the outset of construction. The private sector may face delays in the project to achieve the project’s outcomes and pressure to accept encumbrances in order for the project to proceed.
- Concession agreement and the project will not progress as planned. If the Study and the Plan are carried out and prepared before the negotiation of the concession agreement, the risk to the Government is limited to the cost of the Study and the Plan if the project does not progress as planned.
- Land use free and clear of encumbrances
- Normal contract calls for all land to be available free and clear of encumbrances for commencement of construction. This includes cost of compensation to existing land holders or users.
- Without knowing what the cost of environmental compliance is, no company will carry out the full environmental assessment until the concession agreement is signed.
- Prepared. The Plan is then incorporated into the concession agreement. Government further requires the concessionaire to pay for the Study and the Plan as part of the concession fee.
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<td>Cost of Land Purchased</td>
<td>Cost of land acquisition is usually the responsibility of the concessionaire, however the government is usually responsible for the removal of residents if there are any.</td>
<td>If all land has not been acquired prior to commencement of the concession agreement then the concessionaire will not know the whole cost of land and may not sign the agreement.</td>
<td>Acquire all land prior to the commencement of the concession. Another alternative is to provide an upset limit for land cost above which the Government takes responsibility.</td>
<td>Some upside risk of land cost will remain with the Government but will be limited by early acquisition.</td>
<td>Increase in land cost payable due to new Government policy and economic conditions. Medium to significant financial risk to the private sector.</td>
<td>Incidence of risk is high. Severity is controlled by current legislation and recent land sales.</td>
</tr>
<tr>
<td>Cost of land leased</td>
<td>Cost of land use for leased land is fully responsibility of Concessionaire.</td>
<td>Cost of land use of leased land purchased by concessionaire in perpetuity. However, real use limited to period of concession. If land use right belong to concessionaire in perpetuity, then concessionaire has claim for hand back cost at end of concession.</td>
<td>Accept cost of hand back of land use to be paid by the Government. An alternative is to include the cost of land use and land acquisition in the concession fee as part of the bidding. This removes the issue of residual value and places all bidders on an equal footing.</td>
<td>If not explicitly handled in the concession agreement, this cost may be a significant end of concession obligation for the Government. If handled in the bidding process, then there is no risk to the Government.</td>
<td>Financial risk is limited if the private sector participant has effectively priced such cost into its contract price, payment mechanism and financial model.</td>
<td>Incidence of risk is high. Severity is controllable in the concession process.</td>
</tr>
</tbody>
</table>

(Note: In Vietnam, land use rights are granted for the concession period with a right to renew if the concession is extended but otherwise revert to the Government. Land use rights’ cost is set upfront. It is the compensation to existing land users that causes the problems.)
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<td>Legal Risk</td>
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<tr>
<td>Confusion over responsibility in Legislation (1)</td>
<td>Concession process requires multi-agency and multi-departmental clearance for land, environmental, importation, tax, labour and commercial activity.</td>
<td>Delays in the approvals as specified in the Concession Agreement which are allocated to Government result in construction delay and request by Concessionaire for compensation for delay.</td>
<td>Develop a one stop clearance assistance process to coordinate all Government responsibility for approvals. Where possible obtain prior clearances for all critical elements of the concession and include those prior clearances in the concession documents.</td>
<td>Financial risk due to Government delay is considerable. If risk limiting strategy is followed, then risk can be diminished.</td>
<td>Significant financial, operational, legal and enforcement risks to the private sector.</td>
<td>Experience in other BOTs shows that it is quite common to have difficulty getting all approvals. So incidence is reasonably high. The severity is high since the cost is mainly construction delay by the contractor.</td>
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<tr>
<td>Confusion over responsibility in Legislation (2)</td>
<td>Concession process and privatization are multi departmental and disagreements may arise over risk allocation, subsidies required, inducements requested and provided and longer term budget implications.</td>
<td>Commitments made by one department may impact on future budgets. Insolvency of concessionaire may throw investment back to the Government with operations or reconstruction costs.</td>
<td>Create an official “PPI” agency or authority with power to control the PPI process for all departments and to ensure that impacts, risks and approvals are planned, programmed and the approvals process is well monitored.</td>
<td>The creation of a “PPI” agency is a successful strategy in a number of countries because it allows for professional management of the concessioning and privatization process and limits Government risk.</td>
<td>Onerous reporting, compliance and operation obligations on the private sector.</td>
<td>All PPI have both current and contingent liabilities so the incidence of this risk is high. The severity can also be high particularly in the case of default of the investor where the full responsibility rests with the Government.</td>
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<tr>
<td>Missing or inadequate legislation or regulations</td>
<td>Lack of clarity over some aspect of development or operations. For Cost impacts of results of poor legislative clarity can provide residual risk</td>
<td>Review all laws involved in development and operation of concessions to ensure</td>
<td>A well designed legal system can limit these risks. Failing that, a well designed</td>
<td>Failure to comply with the concession agreement due to lack of</td>
<td>Incidence of these kinds of risks is high but the severity is low IF it</td>
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<tr>
<td>Poorly Drafted Concession Agreement</td>
<td>Concession agreement is confusing or ambiguous</td>
<td>Claims by the concessionaire that costs or obligations not noted explicitly are the responsibility of the Government and damages or additional costs should be paid to concessionaire.</td>
<td>Ensure that the concession agreement developed follows the standard outline format of all concession agreements and includes formal review by expert technical staff and independent legal counsel.</td>
<td>Some residual risk will always remain but a well crafted concession agreement can significantly reduce risk. Further, as experience grows, the template for the concession agreement can be improved over time.</td>
<td>Significant financial, operational, legal and enforcement risks to the private sector. Uncertainty of risk allocation. Inability to recover increased cost.</td>
<td>The incidence of poor concession agreements is high when professional advice is not obtained. The severity can also be significant if clauses are not in the Government’s favour.</td>
</tr>
<tr>
<td>Political Interference</td>
<td>Change of Government changes policy resulting in expropriation of assets or cancellation of concession agreement.</td>
<td>Major financial burden on the Government for loss of revenue, loss of future profits and damages to company.</td>
<td>Build step in rights into the concession agreement to pre-specify the consequences of taking over the concession.</td>
<td>Risk is self limiting. Government can determine before the event what the consequences are and choose or not to intervene.</td>
<td>Significant financial risk to private sector if this risk occurs.</td>
<td>Incidence is low. Severity is high.</td>
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<td>Financial Risk</td>
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<td>Land Acquisition Cost</td>
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<td>Environmental Cost</td>
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<tr>
<td>Toll Rate Changes not Approved</td>
<td>Toll rate setting is the responsibility of the Government. Increased cost of operation due to inflation or other reasons may make increased tolls necessary. Government approval not provided.</td>
<td>Toll road company loses money and claims against the Government for damages.</td>
<td>Set a clear process in place in the concession document to manage the increased cost of operation and congestion pricing. Higher traffic volumes trigger higher tolls. An alternative is to let the market set the toll rate and allow the concessionaire to maximize revenue by setting tolls directly.</td>
<td>The Government would face the difficulty of getting a concessionaire to sign an agreement without clear mechanisms for managing toll setting. In addition, if the Government does not have sufficient control over the toll setting mechanism, the Government's public access goals may not be achieved.</td>
<td>Significant financial risk to private sector. If the toll setting mechanism is unclear and/or is not objective and requires Government's approval, the private sector will face uncertainty in toll setting. Private sector participant would have to carefully consider and lock in an appropriate objective mechanism for managing toll setting. The mechanism needs to be clear and robust.</td>
<td>Incidence is high if a well defined mechanism is not included in the concession agreement. Severity of risk is high.</td>
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<tr>
<td>Traffic Diverted to Parallel Roads</td>
<td>Following completion of the construction, Government improves parallel roads which in turn erode traffic on the toll road.</td>
<td>Toll road company claims compensation for loss of traffic caused by competition of parallel roads.</td>
<td>Clarify in the concession document the conditions under which compensation for loss of traffic will and will not be paid. This can be done by specifying the level of</td>
<td>This risk is self limiting and is mainly on the side of the concessionaire. If clarity is provided in the concession agreement, this risk can be minimal.</td>
<td>Loss of revenue and significant financial risk to private sector. Private sector participant would have to ensure the concession agreement protects</td>
<td>Incidence is medium. Many cases of this issue have arisen in other countries. The severity of risk is low so long as the concession agreement protects</td>
</tr>
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| Inability of Concession Company to Close Financing    | Lack of sovereign guarantee to loans may limit funding available to the investor. | Because of currency risk, foreign exchange risk and political risk, international financial institutions may limit this type of project financing. | - Provide a sovereign guarantee to the investor for all or part of the required loan amount.  
- Borrow the money needed on Government terms and onlend to the concessionaire.  
- Provide capital inducements to reduce the amount of loan needed. | There is significant risk to Government of all guarantee and financial risk mitigation measures. This area needs heavy assessment on a project by project basis to determine the longer term impact on the Government and the most appropriate strategy that can be used to both ensure the project proceeds but also limits the Government obligation. | Significant financial risk to private sector. | Incidence is high. Severity of risk is high |
| Change of Input Cost Due to Government Policy         | Changes to taxes, fees or financial or currency transfer regulations may negatively impact on the concessionaire. | Changes to input cost can result in loss of income to concessionaire and reduce profitability of investment. The concessionaire can claim damages as a result. | Review the concession agreement to determine the limits of Government liability. Agree to modifications to the agreement that mitigate the impact of changes such as changes to the term of the concession. | Some risk to the Government but it is self limiting in that the Government controls the changes being contemplated. | Significant financial risk to private sector if the private sector participant is not compensated for the changes of such input cost. | Risk is low. Severity is low. |
| No Match between                                     | Concessionaire can                                                           | Concessionaire may                                                          | Work with If MIGA insurance is                                                        | Significant financial                                                           | Risk is low.                                 |                                             |

Preparing the Central Mekong Delta Region Connectivity Project | Final Report | January 2011
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<td>Concession and Loan Terms</td>
<td>only obtain short term loans but concession period is 25 years. This raises the possibility of an inability to refinance at the end of the initial loan term.</td>
<td>default on the concession if the loan cannot be renewed for a further term.</td>
<td>Concessionaire to ensure that refinancing risk is covered by MIGA or similar insurance. If not coverage available, provide guarantee of assumption of loan by Government.</td>
<td>available, then the risk is very small. If no MIGA insurance is available then refinancing risk may pose either default or guarantee risk to Government.</td>
<td>risk to private sector if this risk occurs.</td>
<td>Severity is medium.</td>
</tr>
<tr>
<td>Currency Devaluation</td>
<td>Some cost is denominated in foreign currency and some is in local currency. Currency devaluation can lead to bankruptcy of concessionaire because of inability to service debt because of currency devaluation.</td>
<td>Either bankruptcy of the concessionaire or request for toll increase or request for capital infusion by the Government to offset the currency devaluation.</td>
<td>Specify in the concession agreement the implications of currency devaluation. Agree currency conversion levels of rate of return guarantees at the outset to ensure that the risk of currency devaluation remain with the Government.</td>
<td>This is a macro economic risk and is normally assumed by the Government. It is unreasonable to assume that the concessionaire can adequately hedge financing and since the devaluation is a Government policy, the risk is the Government's.</td>
<td>Significant financial risk to private sector if this risk occurs.</td>
<td>Incidence is low. Severity is high.</td>
</tr>
<tr>
<td>Foreign Exchange Risk</td>
<td>As above, since some of the cost is in foreign currency and some in local currency, the control of conversion to foreign exchange has an impact on the profitability of the concessionaire.</td>
<td>Devaluation is considered above. If Government is short of foreign exchange, the rate may remain acceptable but no foreign exchange can be obtained. The investor is unable to service foreign debt or</td>
<td>Provide sovereign guarantee. Provide for substitute financing. Provide for methods of handling this risk in the concession agreement. Provide for exchange rate guarantee.</td>
<td>This is a Government risk and may be a concern in future. Since it is also a macro economic risk, there is no easy project finance solution.</td>
<td>Significant financial risk to private sector.</td>
<td>Incidence of risk is medium. Severity of risk is potentially high.</td>
</tr>
<tr>
<td>Type of Risk</td>
<td>Description</td>
<td>Consequence</td>
<td>Risk Limiting Strategy</td>
<td>Risk to Government</td>
<td>Risk to Private Sector</td>
<td>Incidence and Severity</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td>-------------------------------------------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td>Ability to Pay Tolls</td>
<td>Traffic is lower than estimated because local population is unable to afford to pay the tolls on the roads.</td>
<td>Traffic and revenue estimates do not reach projected or planned levels. Concessionaire claims compensation from Government for low traffic.</td>
<td>Guarantee minimum traffic levels; Provide shadow tolls; Provide capital support to construction.</td>
<td>Significant financial risk to Government.</td>
<td>Significant financial risk to private sector.</td>
<td>Incidence in Vietnam may be high in certain areas. Severity of risk is also high.</td>
</tr>
</tbody>
</table>

411. As can be seen from the above matrix table, the concession contract is an extremely important one. As such it needs to be prepared in as much detail as is possible and crafted in such a manner as to cover all of the most critical risks that may be at issue. The said contract should be prepared by a professional with significant experience in this type of contract and checked by both a lawyer as well as financial specialist.
2.2.2 Recommendations

412. It is essential for establishing a bankable project that a well constructed concession agreement is developed which details the risks on the project and appropriately deals with each risk allocating it to the party which can manage the risk best.

413. Contract an Independent Engineer to undertake all critical technical reviews. This would include compliance monitoring at the point of development of the concession document to ensure that all the standards for reporting, data collection, maintenance operations and adherence to standards are included in concessions.

414. Hire a Professional Contracts Specialist, with significant legal expertise in contract development, to help prepare and concession, leasing, or other contractual agreements. A proper writing of the concession agreement will transfer most if not all risks wholly to the side of the concessionaire if standards are set according to performance criteria.

415. Concession Agreement: Ensure that the concession agreement developed follows the standard outline format of all concession agreements and includes formal review by expert technical staff and independent legal counsel.

- Build step in rights into the concession agreement to pre-specify the consequences of taking over the concession;
- Set a clear process in place in the concession document to manage the increased cost of operation and congestion pricing. Higher traffic volumes trigger higher tolls. An alternative is to let the market set the toll rate and allow the concessionaire to maximize revenue by setting tolls directly;
- Clarify in the concession document the conditions under which compensation for loss of traffic will and will not be paid. This can be done by specifying the level of permitted improvements of parallel roads and the timing of those improvements;
- Review the concession agreement to determine the limits of Government liability. Agree to modifications to the agreement that mitigate the impact of changes such as changes to the term of the concession;
- Work with Concessionaire to ensure that refinancing risk is covered by MIGA or similar insurance. If not coverage available, provide guarantee of assumption of loan by Government;
- Specify in the concession agreement the implications of currency devaluation. Agree currency conversion levels of rate of return guarantees at the outset to ensure that the risk of currency devaluation remain with the Government;
- Require all licenses and permits and any discharge from the road to be explicitly included in the concession agreement;
- Provide for an orderly process of revision of the agreement based on a recognized list of possible government changes which affect operating cost. Cost changes of Government decisions should be explicitly covered in the concession agreement; and
- Ensure that full and adequate insurance exists to cover off force majeure and Act of God events.

416. Condition Assessment: Carry out full condition survey of assets to be transferred and build into the concession a program of asset value recovery and reconstruction. Build condition assessment into annual or bi-annual testing cycle and agree an allocation of additional funds to concessionaire to reconstruct any section deemed substandard by the independent engineer.

417. Design Review: Carry out a design review of the current road and compare it to the current standard design. Specify a gradual replacement of poor design with updates over time to improve the existing carriageway and furniture to current standards. Prepare new design and operations standards based on performance. For instance, the concessionaire is responsible for safe design and operation of the road at 120 km an hour and for all road conditions. Prepare any new design and operations standards based on performance.
418. Environmental Assessment: Government contracts for full environmental impact assessment and full environmental mitigation plan including expected costing and incorporate this plan into the concession agreement. Government should further require the concessionaire to pay for the above study and plan retroactively as part of the concession fee.

- Prepare environmental screening and testing of the current alignment to identify any known risks and development of a mitigation plan to deal with those risks;
- Begin land acquisition with sufficient lead time to ensure that there are no delays to the construction schedule. As an alternative, provide guarantees to Concessionaire that the land acquisition will not be delayed beyond a certain time limit. This would be wholly the responsibility of the government;
- Acquire all land prior to the commencement of the concession. Another alternative is to provide an upset limit for land cost above which the Government takes responsibility; and
- Accept cost of hand back of land use to be paid by the Government. An alternative is to include the cost of land use and land acquisition in the concession fee as part of the bidding. This removes the issue of residual value and places all bidders on an equal footing.

419. Approvals Process: Develop a one stop clearance assistance process to coordinate all Government responsibility for approvals. Where possible obtain prior clearances for all critical elements of the concession and include those prior clearances in the concession documents. Also, create an official “PPI” agency or authority with power to control the PPI process for all departments and to ensure that impacts, risks and approvals are planned, programmed and the approvals process is well monitored.

420. Legal Imperative: Review all laws involved in development and operation of concessions to ensure that the allocation of responsibility is clear and unambiguous. If laws cannot be changed or improved, ensure that the concession agreement contains explicit reference to all key issues of compliance and authority.

421. Guarantees and Incentives: Where necessary be flexible enough to provide a series of guarantees and other incentives to the investor including:

- allowing the concessionaire to borrow on Government terms and on-lend to the concessionaire or provide capital inducements to reduce the amount of loan needed; and
- making provisions for exchange rate guarantees, sovereign guarantees, substitute financing, guarantee of minimum traffic levels, shadow tolls, capital support to construction, etc (see section on financing modalities for a detailed description of recommended incentives and guarantees.

3 International Experience in Tolling and its Relationship to Vietnam

3.1 Purpose of Tolling: for Repayment of Debts

422. The use of equity options, revenue from tolls, retained earnings, securitized assets, assigned bonds, stock listing, stock capital increases and various means of value capture as well as mezzanine finance, debt, and assorted forms of guarantees are all potential sources of revenue for toll road operators, whether they be public, private or hybrid enterprises. In addition to these, enterprises may also derive revenue from the other sources such as subsidies and grants from central and local governments paid with the proceeds of general and/or earmarked taxes and from an assortment of developments along the road rights-of-way.

423. The following focuses on the tolling of roads, bridges and tunnels as a primary source of revenue for the repayment of debt and profit over and above debt repayment.

424. It is generally understood that Tolling for the Repayment of Debt associated with the construction, operation and maintenance of transport projects, specifically roads, bridges, tunnels, etc. is a situation where either the government and/or project entities (both JVs and private) have borrowed or raised funds that need to be re-paid. Both the public and private sector may and do toll all of the above noted transport venues, as long as debts/loans are involved in their construction, operation or maintenance.
425. It remains an acceptable channel for the government to borrow from multilateral or bilateral institutions. However, particularly in the more developed areas of developing countries, there are increasingly fewer opportunities for national sponsorship in the future. This is because:

- governments are more aware of the limits of national debts incurred after sponsoring years of strengthening the transport sector;
- in the more developed regions expressways and highways are becoming less eligible to borrow from international multilateral and bilateral financial institutions; and
- governments have witnessed successful examples of raising funds from private sector, including domestic and international capital markets.

426. Essentially, a toll is merely the “price paid for access to a highway facility”. Vietnamese legislation distinguishes however between road tolls proper, which are levied on roads built with state budget capital, and road-using charges, which are levied “on roads invested for business”, i.e. roads built, maintained or operated by a private investor under a Build-Operate-Transfer (BOT) contract, a Build-Transfer-Operate (BTO) contract or any other type of contract.

3.2 Master Plans for Toll Roads – International Experience

427. Master plans to construct expressways and trunk roads, both toll-free and tolled, have been drawn up in many countries.

428. In many cases these plans have been revised in the course of execution. Japan has had comparatively few revisions: just three (1957, 1966 and 1987), whereas France has carried out seven revisions, in 1952, 1960, 1970, 1977, 1988, 1990 and 1992. The French plan was originally designed not so much as a long-run project but as a series of medium-term ones with terms of 5-15 years. That is one reason the “plan” has been revised so often.

429. Table 4 below presents master plans for motorways in a number of countries, including planning and revision dates, necessary procedures for establishing the master plan, the latest figures for in-service operational road-length and survey date. The table also distinguishes between toll-free roads and toll roads.

Table 12 Master Plans for Intercity Motorways and Operational Lengths in 18 Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Kind of Road</th>
<th>Original Length (km)</th>
<th>Procedures for Plan</th>
<th>Recent operational length</th>
<th>Toll or Toll-free</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>Inter-city</td>
<td>11,520</td>
<td>Law</td>
<td>6,418</td>
<td>1999 Toll</td>
</tr>
<tr>
<td>China</td>
<td>National Trunk</td>
<td>35,500</td>
<td>Gov’t Ordinance</td>
<td>6,222</td>
<td>1998 Toll</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Toll Road</td>
<td>2,271</td>
<td>N/A</td>
<td>1,125</td>
<td>1999 Toll</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Toll Road</td>
<td>2,154</td>
<td>N/A</td>
<td>486</td>
<td>1998 Toll</td>
</tr>
<tr>
<td>Thailand</td>
<td>Inter-city</td>
<td>4.345</td>
<td>Gov’t Ordinance</td>
<td>145</td>
<td>1996 Toll</td>
</tr>
<tr>
<td>Philippines</td>
<td>Inter-city</td>
<td>633</td>
<td>N/A</td>
<td>126</td>
<td>N/A Toll</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>Trunk Road</td>
<td>N/A</td>
<td>N/A</td>
<td>212</td>
<td>1998</td>
</tr>
<tr>
<td>Argentina</td>
<td>Toll</td>
<td>9,580</td>
<td>N/A</td>
<td>8,982</td>
<td>1992 Toll</td>
</tr>
<tr>
<td>Chili</td>
<td>Concession</td>
<td>729</td>
<td>N/A</td>
<td>0</td>
<td>1998</td>
</tr>
<tr>
<td>Columbia</td>
<td>Toll</td>
<td>2,101</td>
<td>N/A</td>
<td>10,862</td>
<td>1998</td>
</tr>
<tr>
<td>Mexico</td>
<td>Toll</td>
<td>6,067</td>
<td>N/A</td>
<td>5,120</td>
<td>1995</td>
</tr>
<tr>
<td>Brazil</td>
<td>Concession</td>
<td>21,647</td>
<td>Gov’t Ordinance</td>
<td>800</td>
<td>N/A Toll</td>
</tr>
<tr>
<td>U.S.A</td>
<td>Interstate</td>
<td>74,546</td>
<td>Law</td>
<td>74,546</td>
<td>1997 Toll-free</td>
</tr>
<tr>
<td>Country</td>
<td>Kind of Road</td>
<td>Original Length (km)</td>
<td>Procedures for Plan</td>
<td>Extended Length</td>
<td>Date</td>
</tr>
<tr>
<td>---------</td>
<td>--------------</td>
<td>----------------------</td>
<td>---------------------</td>
<td>----------------</td>
<td>------</td>
</tr>
<tr>
<td>France</td>
<td>Motorway</td>
<td>12,120</td>
<td>N/A</td>
<td>7,225</td>
<td>1997</td>
</tr>
<tr>
<td>Italy</td>
<td>Motorway</td>
<td>7,515</td>
<td>Law</td>
<td>6,469</td>
<td>1996</td>
</tr>
<tr>
<td>Spain</td>
<td>Motorway</td>
<td>18,750</td>
<td>Law</td>
<td>7,750</td>
<td>1997</td>
</tr>
<tr>
<td>Hungary</td>
<td>Motorway</td>
<td>3,500</td>
<td>N/A</td>
<td>421</td>
<td>1996</td>
</tr>
<tr>
<td>U.K.</td>
<td>Motorway</td>
<td>4,360</td>
<td>Gov't Ordinance</td>
<td>3,226</td>
<td>1996</td>
</tr>
</tbody>
</table>

Source: World Bank Study. 2004

430. In Vietnam, recently, the ADB sponsored the preparation of an Expressway Development Plan (ADB TA 4695-VIE), to assist MOT to develop a comprehensive Master Plan for highways and other level of roads for short and medium term development. The primary outcome of this report, completed in 2007, was the Expressway Master Plan (EMP) itself, which defines a set of proposed short and medium term projects and offers a preliminary analysis of the viability of those projects listed for development in the short term, from both an economic and financial perspective to assist in identifying potential projects for private sector investment. This report includes projects slated for both BOT as well as tolling.

431. For the short term 22 road projects were identified with a total length of 5,873 kms. Of these 4 are in the north, 9 in the south and 8 north south to east; and for the medium term another 8 road projects were proposed of which 2 are in the north, 1 in the south, 1 central and 4 north south to east. As noted above a number of these are slated to be tolled, and/or earmarked for private sector investment or some sort of public private partnership.

432. Following the recommendations of the study, the MOT was to set up a committee to finalize the EMP for submission to the office of the Prime Minister. It was further proposed that regular updates of the EMP (preferably every 5 years) be included in the mandate of an appropriate MOT department, with finance for this activity to be either included in the budget or sought from an IFI, and that an appropriate institution, such as TDSI or TEDI be engaged, with or without international assistance. Finally, it was also recommended that planned projects be subjected to proper and detailed feasibility study and detailed design before implementation (as reflected in Article 6 of Decree 12/2009/ND-CP (project management of investment of construction works) with respect to State controlled construction works which requires project investors to prepare a feasibility study and other documentation to submit for evaluation and approval by relevant authorities).

433. Why Expressways: Among the different transport modes, road traffic plays an important role in transporting goods and passengers. This is due to the high flexibility of road transport and the fact that it facilitates door-to-door services, unlike some of the other modes (such as rail or river transport). Connections with other modes of transport, particularly ports and airports, the gateways to international travel, are important.

434. Expressways are roads designed to promote the free flow of traffic, with at least two lanes in each direction. They offer speed with safety and provide a large amount of capacity.

435. Expressways are clearly defined as such, offering road traffic the possibility to move relatively quickly and safely between the main centres of a country and across international borders 24 hours per day. They are most important for long-distance traffic. Roads designed to expressway standard are usually access controlled and so differentiated from other roads. It is not economical to maintain too dense a network of such roads though, and expressways should be supplemented by other types of high-standard and secondary roads.

436. In Vietnam, as in most other countries expressways, or motorways as they are called in some places, are fast becoming an integral part of the road system. An expressway, by definition, is a closed road system with limited access and egress. In Vietnam, however, most roads are still built with multiple entrances, as open systems. So a move towards an expressway network remains in an embryonic stage of development.
One thing is for certain, though, expressway development, as well as general road, bridge and tunnel development is expensive and, as is the case in most countries, funds for their development from budgetary sources are becoming more and more limited as countries and governments, including Vietnam, face increasing funding pressures from other sectors. With this in mind, the private sector is being looked upon as a potential source of investment as well as operation and maintenance. As such tolling of these as well as other main roads will inevitably become more and more common. The same is and will continue to be true with respect to the construction of larger bridges and tunnels.

437. National Toll Road Development Plan: There is at present no National Toll Road Development Policy in Vietnam. Each level of government, from municipality through province to central government authorizes toll roads independently one from the other. Other than national technical design standards (for e.g. TCVN 5729-1993) applicable to expressway projects in Vietnam, there is also no policy regarding financing or structural requirements; juxtaposition of toll roads and their relationship to other roads, the number of toll roads advisable or allowed per jurisdiction, etc. However, there do exist national technical design standards applicable to expressway projects in Vietnam, as reflected in our proposed amendment. In additional, in respect to road classifications, these are made up of 6 road systems including national highways, provincial roads, district roads, communal roads, urban roads and special use roads. As the development of toll roads becomes more widespread a national strategy will be required which addresses all of the above issues and forms the basis for a plan which is continuously updated to reflect reality.

438. From a purely transport service perspective, however there is at least one issue concerning the use of tolled roads by trucking companies. For example, if a trucking company operates from a major centre with any sort of fleet, it would be operationally impossible for the company to arrange non cash contract rates with a large number of individual toll operating companies given the fragmentation of those companies as is the present case in Vietnam. Equally, it is unlikely that such a company would entrust significant cash resources in the hands of its drivers, knowing that the incentive would always be for the driver to pocket the toll if at all possible. The consequence then as a result of the lack of coherent network structure, is strongly towards inhibiting commercial vehicle usage.

### 3.3 Financing Toll Road Construction (By Country)

439. It is unheard-of for a toll road to rely on a single source of financing. They include a series of financing modalities including general and earmarked taxes, equity (investment), mezzanine (an intermediate mode of financing between investment and loans), debt, guarantees, toll revenue, retained earnings, asset securitization, stock-market flotation, capital stock increases, and value capture. All of these items are discussed in detail in the accompanying report on International Financing Modalities. Furthermore, toll road enterprises may come in various forms: (1) central and local government; (2) public corporation; (3) public-private hybrids; and (4) purely private enterprises. Financing methods vary accordingly.

*Table 13 Financing Means for Toll Road Projects*

<table>
<thead>
<tr>
<th>Financing Means</th>
<th>Private Funding</th>
<th>Public Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Specific</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Equity¹</td>
<td>Common stock</td>
<td></td>
</tr>
<tr>
<td><strong>Mezzanine Finance²</strong></td>
<td>Equity type</td>
<td>Preferred stock, stock with selling option, etc</td>
</tr>
<tr>
<td></td>
<td>Debt type</td>
<td>Subordinated loan, subordinated bonds, convertible bonds</td>
</tr>
<tr>
<td><strong>Debt</strong></td>
<td>Loans</td>
<td>Commercial loans (syndicated loans)</td>
</tr>
<tr>
<td></td>
<td>Bonds</td>
<td>Project Bonds</td>
</tr>
<tr>
<td></td>
<td>Private placement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Public offering</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Loans from government or international financial agencies, regional development banks</td>
<td>Government guaranteed bonds, municipal bonds, public corporation bonds, bonds guaranteed by international</td>
</tr>
</tbody>
</table>
### Financing Means

<table>
<thead>
<tr>
<th>Private Funding</th>
<th>Public Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guarantee by commercial bank, credit line, standby facility, monoline insurance</td>
<td>Guarantee by government, government financing agencies, international agencies, regional agencies</td>
</tr>
<tr>
<td>Project Income</td>
<td>Toll revenue, income from supplemental projects</td>
</tr>
<tr>
<td>Retained Earnings</td>
<td>Retained surplus, retention fund</td>
</tr>
<tr>
<td>Asset Securitization</td>
<td>Bond</td>
</tr>
<tr>
<td>Stock increase of capital</td>
<td>Stock market flotation</td>
</tr>
<tr>
<td>Value capture: partial use of profit from development due to the project</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Increased tax on real estate, benefit assessment, special assessment district, impact fee, dedication, space lease, tax increment financing</td>
</tr>
</tbody>
</table>

1. investment
2. forms of fund supply between investment and loan
3. Frame of loan for each borrower by Bank
4. Guarantee within specified frame
5. Insurance by exclusive financing insurance company

**Source:** -----

Presently Vietnam’s roads are financed from two major sources: domestic funds and foreign funds. Domestic funding comes from two sources: the Government’s budget and the capital of business organizations as indicated below:

- Recurrent expenditure and development expenditure: implemented in accordance with the Budget Law and based on the road industry development plan, the regional socio-economic development plans and budget plan approved;
- Join-venture with business: the Government encourages and supports all enterprises investing in the area according to the BOT model, including: national roads, bridges, inter-provincial roads, and inter-district roads. However, in any BOT project with total investment capital of VND1,500 billion (approximately US$80 million subject to prevailing FX rate) or more, the project investors must contribute at least 15% of the first VND1,500 billion investment capital as equity and an additional 10% over and above that threshold (Article 5 of Decree 108/2009/ND-CP dated 27 November 2009 of the Government on investments in the forms of BOT, BTO and BT contracts); and
- Government credit for development: From June 1999 to April 2000, road investment projects could be funded by Government credit for development, including loans with subsidized interest and credit guarantees. In addition, the Prime Minister can make a decision to invest in a road project funded by Government credit such that the principal and interest are paid by the budget and by toll collections. The payment mechanism is guided by Joint-Circular 90/2001/TTLT-BTC-BGTVT dated 9/11/2001. From 1/4/2004, according to Decree No.106/2004/ND-CP dated 1/4/2004 (now replaced by Decree 151/2006/ND-CP dated 20/12/2006) and Decision 54/2004/QD-BTC dated 16/6/04 (as amended by Decision 67/2005/QD-BTC on 30/9/2005), and finally road projects can be funded by Government credit for development in the form of counterpart funds for ODA projects.

441. Article 7(a) of Prime Minister’s Decision No. 162/2002/QD-TTg states that: “the source of capital to be invested in developing the communications infrastructure shall largely come from the State budget.” In terms of expressways at the national level, the “State budget” being referred to is the central budget.
442. The Government: not unnaturally is looking into ways to increase the State budget as an investment capital source for roads. Article 7(a) of Prime Minister’s Decision No. 162/2002/QD-TTg identifies the following 4 possibilities, some of which have already been implemented:

- Proceeds from collection of road tolls: Given the importance of this issue, and the fact that tolls are relevant to both publicly and privately financed road infrastructure;

- Surtax on the price of petrol: There are currently 3 types of taxes levied on petrol products used by road vehicles: an import tax of 20% (Circular 13/2010/TT-BTC dated 26 January 2010 of the Ministry of Finance), a special consumption tax of 10% and a value added tax of 10%. None of these taxes is specifically allocated to road construction, management or maintenance however; and

- Issuance of bonds: The Government of Vietnam has financed the vast majority of national-level infrastructure projects through the State budget, but also, in no small measure, by issuing bonds. Thirty percent of MOT’s infrastructure projects between 2001 and 2005 were financed by government bonds. This is likely to continue, at least in the road sector, in view of article 7 of the policy statement by the Prime Minister on transport policy, where Government bonds and project bonds are identified as a source of domestic source.

443. As specified in the Highway Specification TCVN 4054 (this is the basis for the geometric parameters and road dimensions), all motor vehicles are allowed to access the expressways except motorcycles with less than 70cm³ engine capacity, but other means of transport are not.

444. State-owned enterprises may invest depreciation funds: All construction, rehabilitation and upgrading road projects wholly or partly funded by Government must be managed in accordance with Decree 12/2009/ND-CP of the Government dated 12/2/2009 on management of investment project for construction works (as amended by Decree 83/2009/ND-CP on 15/10/2009). According to the Regulation, projects are classified for management by investment degree business organizations and individuals finance roads in several ways as below:

- Direct financing: including (i) joint-venture with the State or own BOT projects as follows: national roads, bridges, inter-provincial roads, inter-district roads and (ii) bidding for toll collection rights on roads constructed using state funding; and

- Indirect financing: as creditors, construction bond and state bond buyer.

445. Foreign funding comes from two sources: Official Development Assistance (ODA) funds and Foreign Direct Investment (FDI) sources. Of the two ODA funds are the most important. As of this writing, there has been no recorded FDI in the road or bridge construction industry, and according to recent government statements, prioritized sectors for the short term, for FDI, include agricultural processing, services and production sectors as well as those with high export turnovers, not the road and bridge sub-sectors of transport.

3.4 Toll Road Evaluation

446. Evaluation of toll-road projects may roughly be classified into those carried out before construction and after the road is opened. Pre-project or pre-feasibility studies are designed to judge whether the project is economically viable, while those carried out after the project is complete are designed to re-value it in light of hard data generated from at least the initial phase of operation. Hence the latter need not rely on assumptions and conjecture to nearly the same degree as the former. For purposes of private sector investment financial feasibility and the perceived financial internal rate of returns (FIRR) are most important.

447. Financial feasibility: poses relatively few accounting problems, since it is concerned with enterprises’ income and expenditure in terms of actual costs including taxes. Nor need the period of analysis necessarily match that of the economic analysis. In fact it seldom does. Where as economic analysis is usually done for a period of 20-25 years, a financial analysis is usually done for no more than 10 years.

448. The actual analysis is carried out as an estimate of cash flow estimation, and to this extent, it differs from economic analysis. But so long as the analysis aims at obtaining the Financial Internal Rate of Returns (FIRR), the methods employed are similar: a discount rate is calculated that will equalize the net present values of expenditure and income. Expenditure comprises construction costs, right-of-way acquisition costs,
maintenance and operating costs, fund-raising costs and interest and any other relevant costs. Income includes road tolls and also governmental share of construction costs and/or government subsidies (including contributions to interest payments) as well as any other income generated from the right of way. In addition to cash flow estimation, a financing plan and repayment plan making due allowance for foreign exchange fluctuations are also necessary.

449. The higher the FIRR is, the more profitable the project will be. This is what is of interest to the private sector. In setting toll rates, however, care must be taken. If tolls are set at an excessively high level, the number of users may decrease or the operator may make an exorbitant profit, out of line with costs. To prevent these undesirable outcomes, some countries have set a maximum level for FIRR. In the Philippines, for example, the maximum level has been set at 12%. In the case of Vietnam we are not aware of any statutory restriction on the maximum IRR for toll road projects. The same is true in most countries where no limit has been set, at least for purely privately financed projects.

450. When a toll is set at a reasonable level, the FIRR usually falls in the range of 50% to 80% or 90% of EIRR. Precise values cannot be obtained since economic cost differs from actual cost, but in theory at least, if FIRR exceeds EIRR this signifies that the cost of paying the toll is exceeding the benefit of the road to its average user, and hence there are likely to be problems with generating a sufficient volume of traffic. On the other hand, too low a level of FIRR means low profitability and the enterprise may be scrapped in favor of other public works.

451. Calculations of financial viability are used not only in deciding whether to levy tolls, but also in deciding the level at which tolls should be set, in making adjustments to that level, and in deciding and revising the period for which tolls should be levied. In the case of private enterprises, these calculations are also used to forecast project profitability. Hence these calculations are not only made at the planning stage: they are repeated throughout the project. Project managers pay great attention to the model used to make these calculations, and are equally careful to adjust the figures that are input into the model.

452. The following presents some evaluation standards used in several advanced countries:

453. United States: All projects assisted by federal aid are obliged to undergo cost-benefit analysis. Micro BENCOST, a practical cost-benefit calculation software package, is widely used. The analysis covers a period of 20 years, but factors in a residual value on the assumption that the road will continue to generate benefit thereafter. (Similar practical calculation software is available in other countries.) In practice, as well, sensitivity analyses are always carried out to test the hypotheses used.

454. France: For purposes of evaluation there is a list of ten items which must be included:
   - Regional economic development and national land development;
   - Safety;
   - Benefit to users (in time and driving cost);
   - Environment;
   - Reductions in traffic congestion, accident black spots, and noise;
   - Influence on other modes of transportation;
   - Direct effect on employment;
   - Energy cost;
   - Financial balance sheets of public institutions and of concessionaires; and
   - Cash-based cost/benefit analysis.

455. Italy: The government conducts annual, three-yearly and ten-yearly cost-benefit analyses in each field of public works, (covering not only transportation but also all other fields of public works), upon the basis of which it draws up the national transportation plan. When new segments of toll motorways are allocated to concessionaires, they in turn will carry out detailed cost/benefit analysis and submit reports to the government.
456. U.K.: The Ministry of Transport draws up project plans, which include traffic demand estimates, economic evaluation and environmental assessment. COBA software is used for traffic demand evaluation and MEA for environmental assessment. As for the integrated program for traffic demand estimation, an ‘evaluation framework’ is used.

457. Features of cost/benefit analysis: The following constitute the basic parameters for a cost benefit analysis:

- Same procedures used nationwide;
- Cost/benefit analysis must be conducted on at least two alternative plans -- the proposed plan and one that would satisfy minimum requirements;
- On the assumption that the service life of roads is thirty years, net present values will be calculated using a social discount rate of 8% with 1992 as the base year;
- Sensitivity analysis by change of discount rate will be carried out using two scenarios, assuming high and low economic growth in U.K. respectively;
- Costs comprise capital costs including management fees. They may also include survey costs incurred in originating a project, though many countries do not attempt to recoup survey costs;
- The cost of maintaining the road network is included;
- Costs include those caused by delays in construction; and
- Benefit is estimated by the consumer surplus according to willingly payable toll of users.

458. The first step is for the government to survey total traffic distribution, refer to national and regional land-use plans and decide what new road links are required. After a basic study on concrete road plans and examination of financial requirements, bids are invited from contractors. In Malaysia, Indonesia and the Philippines, it is also possible for the private sector to propose toll roads, though naturally roads that fit in with the governmental master plan are given the highest priority.

459. The series of procedures from deciding to build a toll road to actually operating it also differs by country and by project. The regional picture around the world, is roughly as follows:

460. In the case of national expressways in Japan, ‘scheduled routes’ are specified under the National Development Arterial Expressway Construction Law. The ‘basic plan’ is drawn up with reference to the location, design standards and main operator (e.g. the Japan Highway Public Corporation). Technical studies and environmental assessment follow. Balancing consideration with those other public works and development plans, a ‘construction plan,’ including rough estimates of construction costs, is finalized.

461. Then a construction order is given to the Japan Highway Public Corporation, which prepares a plan to carry out construction. After that, explanatory meetings are held for people living near the highway, who are also consulted on the design of the road, and right-of-way acquisition follows. While construction is in progress, preparations for opening are carried out, including decisions on toll-levels and on managerial and operational procedures. This procedure is carried out according to the law, though it is not uncommon for some minor elements to be revised along the way.

462. In Southeast Asian countries (the Philippines, Malaysia, Indonesia, Thailand), national governments draw up plans on the basis of feasibility studies similar to those of the industrialized countries. Even if private companies submit a toll road proposal, it is the government that decides the route and the concessionaire.

463. In Malaysia, Indonesia and the Philippines, it also possible for private sector to propose toll roads, though naturally roads that fit in with the governmental master plan are given the highest priority. But the fact is that proposals by private companies are comparatively rare as to make the case it can be extremely expensive. One known exception was found in the case of Poland, where Bechtel International, a US based company, itself proposed a toll road for construction. The cost of the proposal and subsequent effort to execute a positive decision has been estimated to have cost in the region of $15-$20 million. As a toll road is a highly public facility, it is only natural that national master plans generally precede their construction.

464. In some European countries, where semi-private or purely private bodies operate toll roads, common people have far more opportunities to participate in project formation.
465. In France, approximately two years is spent on surveying, data collection and preliminary design of a section of 10 km to 20 km, followed by meetings with representatives of local residents, and public hearings. Then the route is selected, typically with a width of 300 meters, and announced to the public in the form of a "government ordinance declaring a public utility." This takes a further 2 to 15 months. A concessionaire is then appointed and proceeds to prepare detailed designs. Evaluation continues after the road has opened.

466. In the U.K., a preparatory study is made to ascertain residents' views. Out of alternative route plans, the best one is selected through public hearings, with local assemblies making the final decision. All through the process, necessary amendments can be made in response to public opinion.

467. Development of toll roads in the U.S. may be broadly divided into four periods, the latest being the period covered by the Transportation Equity Act for the 21st century (TEA21).

468. Under this law, consortia are publicly recruited, their proposals are evaluated, and a contract is made with the winning consortium. This system is innovative in its transparency, and in the degree of initiative allowed to private enterprises in drafting proposals.

469. The series of procedures for toll roads from project decision to road operation requires transparency and competitiveness above all. Generally speaking, the more procedures are subject to laws and ordinances, the more transparent they are. It is most important that projects and the selection of operators for them be publicly announced. So long as this golden rule is observed, transparency can be considered secure.

470. The case of Indonesia is exceptional in that procedures were insufficiently clear in the early stages of network development, to the point where it was not even clear who was the grantor of a concession contract. Consequently procedures had to be revised in a short period of time, but this was done.

Table 14 Classification of Toll Roads by Operators & Role in Toll Road Network

<table>
<thead>
<tr>
<th>Toll Roads Operator</th>
<th>Types of road in which tolls are levied</th>
<th>Run directly by government or public organization</th>
<th>Public Corporation, publicly owned company, etc.</th>
<th>Public / Private sector joint venture</th>
<th>Private sector only</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Network Toll Road</td>
<td>Malaysia, China, Mexico, Columbia, Brazil, Chile</td>
<td>Mexico, Brazil, Japan, Thailand, Indonesia, Japan</td>
<td>Malaysia, Indonesia, Philippines, France, Italy, Spain</td>
<td>Malaysia, Philippines</td>
</tr>
<tr>
<td></td>
<td>Inter-city &amp; Urban Motorway Networks</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Tunnels, bridges, etc</td>
<td>-----</td>
<td>Japan, U.S.A., Malaysia</td>
<td>Philippines</td>
<td>Brazil</td>
</tr>
<tr>
<td></td>
<td>New roads including by-passes</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Existing Roads after widening &amp; Improvement</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td></td>
</tr>
</tbody>
</table>

Source: ----

Note 1: Data is for 1998 and is presented only for the 18 countries covered by the KDB.

Note 2: Operators have been categorized mainly by capital composition. Some of them restrict their activities to maintenance administration, including the collection of tolls.
Note 3: This includes countries that have instituted systems for harnessing private-sector vitality and issued declarations of intent to hand toll roads over to private operators in future.

Note 4: "Stand-alone toll roads" are toll roads that do not belong to a toll-road network. "Network toll roads" are those that do belong to a toll-bearing road network.

3.5 Importance of Traffic Forecasts for Private Sector Investors

Traffic volume forecasts are the most fundamental data in the financial analysis of roads from the planning stage onward. They influence the fundamental decision on whether the road should be a toll road, and later on they also influence decisions on the setting and adjusting of toll levels and collection period. Traffic volume forecasts are used chiefly, as stated below:

3.5.1 The Planning Stage

Drawing up of a master plan; calculations of toll road feasibility, including profitability; selection of road category under design standards (number of lanes, particularly).

3.5.2 The Construction Stage

Decisions on toll levels and collection period.

3.5.3 The Operational Stage

Reconfirmation of profitability; revision of tolls; review of toll-collecting period; review of profitability.

3.5.4 Influence of Tolls on the Diversion of Traffic from Existing Roads to Toll Road

Tolls are calculated on the basis of how each level of toll charging will affect road-users’ future OD (origin-destination) on a link or links of future networks.

Broadly speaking there are two methods of making this calculation:

The first one is based on the timesaving principle: the amount of the toll is divided by the timesaving value to vehicles. The resulting “time value” puts a cash value on amount of time saved for each vehicle type. Naturally the actual amount of time saved will depend on the individual vehicle, but an average for each type of vehicle is adopted in making the calculation.

The second way utilizes the diversion ratio curve, which is derived from the relation between “the toll amount charged, divided by the time saving resulting from using a toll road instead of an existing toll-free road” and “the percentage of vehicles that will divert from the free road to the toll road”. These diversion ratio curves are calculated for each type of vehicle.

Variations on this approach include adding parameters to the diversion ratio curve, including not only the toll/time-saving ratio, but also with net benefit (saved time multiplied by time value, plus saved driving cost minus toll fees). Other approaches derive the diversion ratio curve for each driving distance band or driving time band.

The time value for each type of vehicle can be obtained by calculation to some extent but eventually should be based on experience. Time values and diversion ratio curves will have to be revised repeatedly in accordance with the actual traffic volume on toll roads as the years pass.

Regardless of the method used, results derived in one country or region cannot easily be applied to other countries or regions, so diversion curve calculations need to be made for each project separately.

However, when the first toll road is built in a given region, a third method is employed. In this situation the usual approach is to conduct questionnaire surveys among potential users. The subjects are carefully selected from drivers’ organizations, truck driver’s associations, tourist associations and businesses with large fleets of company cars. Questionnaires generally appear to work well, although there are differences in accuracy deriving from the skill with which they are employed.
3.5.5 Monitoring and Recalculation of Toll Influence on Traffic Diversion During Toll Road Operation

483. Even after being initially decided, the toll rates are often revised, mainly because of inflation. These cases generate data that afford an opportunity to revise the model used for estimating the marginal effect of toll-rates on traffic assignment.

484. If an X percent rise in the toll produces a Y percent decrease in traffic volume, the Y/X value is called the toll elasticity index. In the case of national expressways in Japan, for example, a toll elasticity of approximately 0.3 has been observed in the past three analyses. However, this will not necessarily continue into the indefinite future.

3.5.6 The Significance of Traffic Forecasting in the Toll Pool System

485. One simple example of the system of cross-subsidization is Japan's toll pool system, under which all the nation's intercity expressways are operated under a single set of accounts.

486. In the mature period of a toll pool system, established operational sections are far longer than newly opened sections, so that even if the future traffic forecasts are slightly inaccurate, the total accuracy of toll-revenue estimation will be maintained because of the high level of accuracy of the future traffic volume forecasting on established sections. This is a further merit of the toll pool system.

487. According to the World Bank Study on Tolling noted above:

“Traffic volume forecasts are the most fundamental data in the financial analysis of roads from the planning stage onward. They will influence the fundamental decision on whether the road should be a toll road, and later on they will also influence decisions on the setting and adjusting of toll levels and collection period.

It is standard practice for toll road operators to continuously revise their traffic forecasts, because it must be accurate all the time. In particular, forecasts made before commencing operations do not always have sufficiently accurate input; therefore in the U.S., for example, some operators commission forecasts from several different consultants and then check them against each other.

In Hong Kong, when large-scale toll roads are planned, financial institutions investing in them usually conduct their own traffic volume surveys, in order to verify the would-be operator’s forecast.

It is often said that when concession agreements are struck, the grantor (the giver of the concession) will tend to overestimate traffic volume, whereas the concessionaire (the recipient of the concession) will tend to underestimate it and set a higher toll accordingly. Hence, traffic volume forecasting greatly influences the contents of any concession agreement. In the present discussion, however, we restrict ourselves to discussing the effect of tolls on traffic volume, before sketching the overall picture of traffic forecasting practices.”

3.5.7 Responsibility Centre for Forecasting

“The toll road enterprise will generally take responsibility for traffic forecasting, but not in all cases, and not necessarily in full.

If a concession contract includes a traffic forecast made by the grantor, then the grantor must also be responsible for the accuracy of the forecast. In the cases of Malaysia’s partial contract and Hungary’s concession contract, the agreement included guarantees against losses stemming from over-optimistic traffic forecasting, meaning that the grantor has complete responsibility for the traffic forecast.

In other countries like Mexico, the enterprise was and is permitted to request an extension to the concession term if the actual traffic volume is less than the volume estimated by the government and toll revenue is consequently lower than estimated. Argentina and Chile have

59 World Bank Motorway Masterplan and Financing Study (Draft 2004)
introduced similar guarantees. In these countries, the government is wholly responsible for traffic forecasting."

488. FIRR with tolls: When the toll is set at a reasonable level, the FIRR usually falls in the range of 50% to 80% or 90% of the EIRR. This is an excellent indicator – which also suggests that regardless of whether the project is to be financed in part or whole by the private sector, an economic analysis with the calculation of an EIRR is essential.

489. The “shadow toll” system is one in which road users do not pay tolls themselves, but the government pays the operator an amount of money corresponding to the toll based on road traffic volume on the road in question. Shadow tolls are used in Malaysia, the U.K., and Spain.

3.6 Toll Rates and Willingness to Pay

490. There are various textbook issues concerning toll structure, including:

Affordability

491. This should not be an issue as it should be clear to all that road users should pay for the roads they use unless there is an explicit policy to subsidize road travel. The exception would be the question of “unfair” competition with the un-tolled or lightly tolled public road system.

Elasticity

492. In view of the high cost of constructing expressways, the expressway tolls clearly have to be higher than the tolls which are paid at present and it is possible that high tolls may discourage expressway use.

Toll Rate by Vehicle Category

493. In principle tolls should be related to the costs imposed by each class of vehicle, but the issue of not discouraging traffic may be more important.

Fixed or Distance Based Tolls

494. In reality, this is the issue of open or closed tolling, as only closed tolling can impose distance based tolls. In principle tolls should be related to the costs imposed and benefits received by each vehicle, implying that tolling should be closed and tolls should be distance based. Open tolling may offer some cost savings and is more in line with Vietnam's current experience. There is another non-toll issue, however, which is that closed tolling, with control at every entry and exit point offers control over what vehicle classes are admitted to the expressway. This is important in Vietnam, where road user discipline is poor and where it is important for safety reasons that slow moving vehicles are kept off the expressway.

Uniform Tolls

495. In some countries, there is a single toll rate, with low cost or highly trafficked roads cross subsidizing high cost or lowly trafficked roads. This is not an issue where projects are expected to be stand-alone, as in the case of self-financing BOT projects. Clearly, each such project must have its own tariff. However, in the course of this study, it has become clear that, in the short term at least, there will not be significant private sector investment in expressways in Vietnam. Therefore a tariff which is uniform across expressways might be acceptable, and would follow the practice already adopted in respect of national roads.

496. The economic value of a road is maximised when the traffic using the road is maximised. Assuming that there is a strong economic case for building the road in the first place and that the economic value is achieved through time savings for travellers and inventory cost savings of good in transit and reduced accidents and improved efficiency of vehicles, then all those benefits will improve with increased traffic so long as congestion is not a factor. So generally it can be seen that economic benefits are more likely to be maximised for a non-tolled road than for a tolled road. The users’ elasticity of demand to the road with increasing tolls will inevitably drive some users away and thus decrease the economic benefits as a whole.
497. In lower income countries the willingness to pay (WTP) and the ability to pay are key concerns. The REBIS study in 2003, examined this issue for a number of Balkan countries.60

Assuming an average trip length of 30 km, using a toll motorway would save, on average, 10 minutes. The question is whether the average car owner in the REBIS countries would pay about EUR 3 (this is calculated for a 50-km toll motorway with a EUR 5 car toll in our example) to save 10 minutes? Using Croatia, the wealthiest country in the REBIS region, as an example, it is highly unlikely for two reasons. Firstly, the average income is probably not high enough (EUR 727 is the household figure). Secondly, the value of time is also too low. Using EUR 700 per month net after income tax (this is regarded as well above average earnings) as an example implies an hourly wage rate of about EUR 4, assuming 22 working days at 8 hours per day. For a work trip, it is doubtful if a car owner would pay EUR 3 to save 10 minutes on a 30-km journey when his wage rate is EUR 4 per hour. Assuming further that the leisure value of time in Croatia is 25% of the wage rate i.e. EUR 1, it is unlikely that the average car owner would pay EUR 3 to use a toll road to save 10 minutes on a leisure trip.

In October 2002, the proposed car toll (120 kunas or EUR 16) for Zagreb to Split (when the Split motorway is completed) generated much opposition, even though on a per kilometre (EUR 0.04) basis it is comparable to what is being charged currently. The public reaction to the proposed charge suggests that the average WTP has a low threshold even in Croatia.

The general conclusion is that a concession toll road, operated on a strictly commercial (i.e. BOT) basis without any support from the government in the REBIS countries, is not affordable because the general level of income and the average WTP are too low at present. The implicit tolls, especially for cars and with respect to the domestic market, are too high to generate the traffic flows forecast in each of the reference cases. Actual traffic would very probably be much lower than the 12,000 VPD needed. This is assuming, of course, that there exists a corridor in the REBIS countries that has significantly more than 12,000 vpd, as the 12,000 is the diverted traffic to the toll road.

498. The caution recommended by this analysis impacts directly on the viability of a PPI – particularly a full BOT. Diversion of traffic from existing to new tolled roads is based on an assumption that the traveller will value time saved and the marginal benefit of time saved will exceed the marginal cost of the added toll paid. This calculation is central to the financial analysis. The analyst should be very cautious in estimating diverted traffic based on time savings and should certainly assess the WTP based on the average wage rate compared to the time saved.

499. Another consideration which the general public often does not take into account, is the fact that on a newly constructed road, there are significant vehicle operating cost savings (VOC savings), which extends the life of the vehicle and decreases costs of operation and maintenance over this life. Both economists and financial analysts often fail to publicize this fact and this is a very important result.

500. In Vietnam tolls applied for purposes of payment to the private investor are referred to as Road-Using Charges. There are very specific rules and regulations concerning the applicable rates which may be charged.

501. In legal terms, Point 1 of Section IV of Part II of Circular No. 90/TT-BTC sets the permissible rates for road-using charges that can be levied on national highways built, maintained or operated by private investors: “The toll rates for roads invested for business (including BOT and other forms of business) are road-using charges inclusive of VAT for use of roads, which are set by the Finance Ministry (for national highways) suitable to the road grade and the length of the toll road sections under the approved investment projects and investors’ proposal, which, however, shall not exceed twice the toll rates for roads invested with state budget capital.”

502. There is therefore a clear ceiling on the road-using charges that can be levied by a private investor, which ceiling is set by reference to the applicable toll rates levied on roads invested with state budget capital.

The rates themselves are contained in a table appended to Circular No. 90/2004/TB-TBTC and are also presented in Table 5 below.

503. In addition to providing a ceiling on the road-using charges which may be levied by a private investor on a national highway, Circular No. 90/2004/TB-TBTC also exempts certain vehicles from having to pay any toll at all. These vehicles are limited mostly to public safety vehicles (ambulances, fire engines, police cars and motorbikes, etc.) and to some agricultural and forestry machines.

3.7 Methods and Procedures for Toll Adjustment

504. Methods for adjusting toll levels on toll roads show even more variety than those for establishing initial tolls. The reason for this is that in addition to the total cost principle, there are often price cap systems which set upper limits on price rises in components of the cost of living. As we will see later in the case of Italy, management efforts are sometimes encouraged by the government allowing tolls to be raised if management has succeeded in improving quality of service.

505. With regard to procedures for adjusting tolls, there is a global tendency to move away from decisions made at the free discretion of the government, toward methods based on some formula (such as relating toll increases to inflation). In any case, what is important is for the procedures for toll adjustments to be spelled out clearly, and for changes to be implemented in accordance with these procedures. If there are many unclear factors, a variety of problems crop up for toll road operators, such as difficulty in persuading private investors to put money into the project.

506. France: In the early period in France, decisions were made at the discretion of the Ministry of Finance. The advantage of the French method was that it ensured that investors did not receive inordinate returns on their investment, but it also carried the risk of lowering incentives to cut costs and improve productivity. Since 1995, Toll increase rates for passenger cars are set at 85% of the rise in final household consumption (excluding cigarettes) for the year before. For most toll segments, which have similar characteristics within the road network, the average change is usually fixed within a limit of 15%. In cases where the level of traffic volume is very different from the conditions projected in the contract, the parties seek a compromise.

507. Spain: toll rates have been modified in accordance with a formula that takes inflation into account. The advantage of this system is that it encourages new investment and efficiency. In addition, it also includes a system to appropriate extra profits into the national treasury, thus reducing the risk of letting investors get away with overly high profits. The upper limit for toll-rate increases is set at 95% of the rise in the consumer price index.

508. Indonesia: according to Law No. 130 of 1980, decisions on defining toll road segments and toll rates require the approval of the President, following a proposal by the Minister of Public Works. Concessionaires file requests for toll adjustments every two or three years, using a formula based on the consumer price index, but there is no guarantee of government approval. There are concerns that the lack of transparency in the toll adjustment procedures has chilled investor interest in toll roads. Since the currency crisis, the government has been considering revising the related regulations in order to increase the transparency of decision-making on tolls. Recalculation of toll rates is based on 70% of benefit (including time-saving benefit),

509. China: Tolls are adjusted at least every three years, with the rate of adjustment calculated to take into account the inflation rate over the previous three years.

510. Hong Kong: when traffic volume and toll revenues fall below initial projections, the regulatory authority can give the toll road operator permission to raise tolls earlier than initially agreed. Conversely, if toll revenues exceed projections, increases can be delayed where they would lead to profits in excess of the specified profit/capital ratio.

511. Along with the direction and scale of changes to price levels, timing of implementation is a key factor in toll adjustments. It is common in any country for adjustment schedules to be delayed for political reasons, but there are countries where appropriate compensation is paid when delays are due to the government's will.

512. Thailand: Toll increases are based on the rise in the consumer price index. Other factors are considered, such as average daily traffic volume, interest rates, maintenance and management costs, changes in the exchange rate of the baht against the German Mark, and changes in taxes.
513. There are also provisions for tolls to be modified in response to riots, delays in opening, impediments to efficient operation, impediments to the business of collecting tolls, changes in related regulations, and the construction of other roads which would have the effect of reducing traffic.

514. Philippines: Concession contracts are based on the BOT method and include, in addition to initial toll rates, formulae for rate adjustments and conditions for the schedule of rate adjustments.

515. In Vietnam there are presently limits on toll levels. According to the ADB Study noted previously, “Under the present regulations, the tolls applicable to the national highway system are set by the Ministry of finance and those for national highways built, maintained or operated by private investors are limited to twice that level. This represents a danger to all who have to meet investors’ or creditors’ expectations using the revenue from tolls (even if the creditor is not to the private sector but an IFI such as ADB) because:

- the permitted toll rate may be too low at the outset; and
- even if such is not the case, given Vietnam’s quite high rate of inflation, any adjustment formula used to protect investors against the effects of inflation and currency depreciation may eventually lift the tariff to the legal limit, and be unable to operate further.

516. To overcome the above problems, the ADB Study recommended some basic legal changes including:

- the current ceiling on tolls be abolished in respect of expressways with private investment or operation; and
- toll adjustment be automatic on the basis of a mathematical formula Included in the contract between the client and the contractor.

3.8 Modifying Toll Rates through Changes in Condition of Payment

517. China: Toll rates can be modified in response to changes in the repayment conditions such as the toll-collection period specified.

518. United States: There are cases where the concession period is extended through the issuance of new bonds in order to procure funds necessary for the extension of toll roads, etc. In such cases, a consultant will perform a calculation of the business costs, projecting traffic flow and toll revenues and proposing a toll rate scheme necessary to repay the loans. The operator then makes the decision.

519. In countries other than China and the United States, there is an implicit understanding that toll rates or concession periods can be modified in cases where changes in the repayment conditions have a profound effect on repayment plans. In France, concessions are set on a route-by-route package, so that when new segments are opened on existing toll roads, the occasion is often used to check the need for toll adjustments.

Table 15 Tolls used to Promote Use and Countries where they are Used

<table>
<thead>
<tr>
<th>System of tolls used to encourage use</th>
<th>Country where used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepaid coupons, multiple trip tickets, etc.</td>
<td>Japan, Indonesia</td>
</tr>
<tr>
<td>Campaign Periods (discounts, free passes)</td>
<td>Thailand</td>
</tr>
<tr>
<td>High occupancy vehicles (HOVs) get free use of lanes where single passenger cars must pay</td>
<td>U.S.A.</td>
</tr>
<tr>
<td>Sales policy discounts (for long distance users, frequent users, etc.)</td>
<td>Japan, France</td>
</tr>
<tr>
<td>Non-stop discounts 61</td>
<td>U.S.A., France</td>
</tr>
<tr>
<td>Commuting Discounts</td>
<td>France</td>
</tr>
</tbody>
</table>

61 These are designed to promote the use of automatic toll collection, either by offering a discount for electronic tags, or by discounting the tolls at automated booths.
### System of tolls used to encourage use | Country where used
--- | ---
Encouraging carpools (discounts or toll-free access on weekdays for passenger cars and light vehicles) | France
Free passage within limited areas, etc. | Japan
Discounts for low traffic segments or routes | Japan
Discounts for long-distance buses (which make 80% of stops) on motorway bus stops. | Japan, Philippines

#### 3.9 Other Toll Road Income Sources

520. Other sources of income associated with toll roads exist in many counties including specific policies which allow the concessionaire/toll road operator to return other development profits to the project. Toll road operators may seek to generate extra income from incidental facilities, specifically roadside developments such as placement of signage along the right of way, construction and operation of roadside restaurants, petrol stations, vehicle repair shops and mini malls leased to local entrepreneurs which would house a selection of stalls or shops including crafts, etc.

521. There have been cases in France where it appeared as if the entire cost of a new segment of motorway would be borne out of a concession already granted. In fact this was no more than a form of words. The unit for concessions was defined as long stretches of road rather than the individual segment. Hence it would be more appropriate to account for income from the new segment as being pooled with toll income from all segments to cover overall costs once the segment was made open to the public.

522. A detailed examination of the conditions mentioned above shows that the proportion of construction costs earmarked for recouping also varies from country to country. There are variations, too, in the amount of funding supplied in the form of public investment, and the way in which that public funding is applied. It follows that the decision on toll roads is not just a decision on whether or not to levy tolls, but also a decision on what form the toll roads should take.

#### 3.9.1 Income Generation

523. Another means of generating income in a PPP road project is commercial development of adjoining land, usually at tollgates or service areas. Other countries in the region – for example Malaysia and Japan – have been successful in attracting the private sector to develop these areas for, for example, hotels, supermarkets, cinemas etc. The concessionaire can in this way subsidize his toll income by rental income from the operators of these facilities.

524. Vietnam has no experience of expressway service areas. The value of land before development is that of agricultural land. A review of land acquisition costs from various sources revealed a value of roughly 1-4bn VND per hectare. Factors determining land values, for example margins on fuel sales, are likely to be country specific thus the real value of service area land is difficult to forecast. However, we understand that land for industrial/commercial use, located alongside a major road such as the road from Hanoi to Noi Bai can be worth as much as 100bn VND per Ha. Assuming a somewhat lower value of say 50bn VND per Ha would give an increase in value of about 50bn VND per Ha.

525. If service areas in Vietnam were 8 Ha in size and 50km apart, the resulting value per site would be in the region of 400bn VND. The sites could be sold off – assuming VEC held the property rights enabling them to do so – or let out. It is likely that in fact they would be the subject of concessions, which is the method used in other countries such as the UK.

526. Expertise in valuing commercial property is available in Vietnam and if significant commercial development is envisaged, experts with the appropriate professional qualifications should be engaged at feasibility study stage.

#### 3.10 Choosing the Appropriate Incentives for Private Sector Investment

527. Assuming firstly that the proposed project has a high economic internal rate of return (EIRR) that is above the social discount rate (varies from country to country but the international development agencies
have imposed a standard 12% across all countries for their projects), and that the project is clearly a high priority for the Government (within the scope of a general transport master plan, or an annual priority plan). However, when the project is assessed from a financial viability standpoint and a financial internal rate of return (FIRR) is calculated, given the above social discount rate argument, the level of tolls that will allow the investor to recover his cost with a decent profit margin will likely be too high to be affordable for the normal travelling public. In some countries at present the government has set an upper limit of FIRR between 12% and 14%. This arbitrary setting will in almost every case deter any private sector interest for investment, as the normal rate of return sought is usually at a minimum between 20% - 30%, depending on the level of perceived risk. Therefore, even though the EIRR may be high, the social discount rate if used as the managing tool for toll setting could impair attracting private investors. Other than those noted in the previous section, there are a number of other options which the government can consider to attract private investors. These include:

**Shadow Tolls**

528. As an example, if a project is very attractive from an economic perspective, but the payment of tolls in a country where the average income is still low, which will in turn limit the financial return, the Government could choose to pay shadow tolls. Shadow tolls nicely overcome the WTP problem by removing the perceived toll impediment to use of the road and transferring that cost directly to the Government. The other aspects of the BOT remain the same with the financing remaining and operations remaining with the investor, simply the payment of the tolls transfers to the Government. In the UK example, the choice of successful bidders has been done on the basis of the minimum shadow toll that would allow the investor to have a reasonable expectation of profit. This approach is attractive in that it allows for maximum economic value from the investment while at the same time ensuring that the financial return is also acceptable. The negative aspect of the shadow toll approach is that in the early years when traffic is light, the cash flow from the tolls may not be sufficient to cover the carrying cost of the loans while during later years when traffic is heavy, the shadow tolls may be generating large excess profits which were unexpected at the point of bidding. There is thus a large traffic risk attached to the shadow toll approach for both the investor and the government.

529. There are a number of variations on this basic model though. In Slovenia, the Road Rehabilitation and Maintenance project divided the country into zones, each of which was concessioned to an investor. The investor was given target data at which all the roads in the zone as designated would be rehabilitated to a given standard as certified by an independent engineer. After that data, for the balance of the concession, the roads would be maintained at least at the target standard. The payment from the Government to the investor is based on the number of lane kilometres of road which are provided and open for traffic. This model works well in cases where the traffic is too low to justify payments of a Shadow Toll.

**Capital Support**

530. Another approach is to provide direct capital support to the private sector investor. The Government essentially pays down the cost of the construction to the private investor to make the FIRR rise to an acceptable level. For instance, the National Highway Authority of India allows for up to a 40% capital support subsidy to be paid to concessionaires for construction of links on the National Highway. Some of the States in India have gone further, and have provided up to 60% capital support. So the question can be raised, what is the maximum capital support that the Government should consider providing.

531. The answer is that there is no maximum figure that should limit government support. In the extreme, the Government can pay 100% of the capital cost of the road and ask the private sector to build the road and to maintain it during the concession period. Tolls would then be set sufficient to cover the operating and maintenance cost of the road only. Some toll risk would remain with the contractor, and there would be an incentive to build the road to a high standard to ensure that the cost of operation was as low as possible. So in this case, if the bidding were operated competitively and the choice of bidder was decided on the basis of the minimum capital support needed to make the project viable, it could well be that the capital support requested would be 100%.

532. In the end it does not really matter so long as the bidding is competitive and transparent. However in a case where the capital support approaches 100%, then it is likely better for the Government to use the Annuity Based BOT approach used in India since in that model, the Government can collect the tolls directly or through a separate contract and thereby reap the benefits of increasing tolls over time.
Annuity Based BOT

533. The concept behind the Annuity Based BOT is similar to that of Shadow Tolls but without the linkage of the payment to the traffic level. The investor is required to construct the project facility and to maintain it at a defined standard during the period of the concession. The raising of the capital for the construction, and for operation of the concession remains with the investor. The payment for that investment is made by the Government on an annuity basis over the period of the concession. The choice of investor is based on the minimum payment required as an annuity to cover the cost of construction, maintenance and operation over the period of the concession. The Government may or may not toll the facility and if it is tolled, then the Government under the simple case, would keep the toll revenue. A variation on this model is to stay with the annuity payment but allow the investor to keep the toll. This shifts most of the traffic risk to the investor, but ensures that the investor can still obtain a reasonable return on investment in cases where the traffic is too small to cover the overall cost of construction and operations. This option is discussed in more detail in the report on financing modalities.

534. As noted earlier, the choice of PPI mode and the analysis of the implications of that choice on the financial commitments of the Government is one of the most critical choices made in the PPI process. Once having selected the preferred mode of PPI, the Government must determine that providing support and accepting risk at the level chosen is in the best interest of the country and that the PPI provides value for money.

Hybrid Models

535. An attractive model used in a number of jurisdictions is a combination of the performance based contract for maintenance coupled with a “concession financed” rehabilitation program for a specific package of road works. This model concessions the roads in a specific geographic area to a private contractor/operator who commits to upgrading the roads to a minimum defined technical standard within a specific period of time. Once they reach that standard, payments are made by the contracting authority on the basis of available lane kilometres or other defined availability measure certified by an independent engineering assessment of the condition of the roads and their availability. While performance based maintenance contracting is still just being developed in Serbia, this further development of the basic concept may be attractive as a way of securing ongoing financing for road rehabilitation and maintenance in major areas of the country.

3.11 Considerations Relating to Competing Highways

536. A recent study conducted by the World Bank “Motorway Master Plan and Financing DRAFT 2004” presents a very good and detailed analysis on tolls, toll theory, toll setting, organization and management in Vietnam. Much of the discussion below has been extracted from that study.

537. One issue which has come up time and time again, is, what to do with parallel roads – or competing highways? Some countries will not permit the construction of toll roads unless there are alternative, toll-free roads offering competition. There have also been cases of the reverse position, where a condition for the construction of toll roads is that there should be no strongly competitive toll-free alternative route. And still other countries have no particular rules on this matter.

538. Countries that make the existence of alternative routes a necessary condition for construction of toll roads include Japan, Mexico, Indonesia, Italy. In 1956, the government of Japan, for example, passed the Law Concerning Special Measures for Highway Construction, usually referred to as the Toll Road Law. One of the items specified in this law is that there should always be an alternative route to a toll road, so that users are not faced with a situation where there is no choice but to use the toll road. In practice, however, the provision on alternative routes has been applied very liberally. For example, where new toll bridges have been built across a strait, ferry services or extremely circuituous roads have been recognized as fulfilling the "alternative route" requirement.

539. No country makes the non-existence of alternative routes a necessary condition for construction of toll roads, at least no country has publicly declared such a policy. However, in the U.S., the state of California has included guarantees that it will not build competing roads during the period of the concession in those contracts signed with the concessionaires for toll road projects.

540. Countries with no particular rule on alternative routes include: the U.S., U.K., France, Spain, Hungary, China, Malaysia, Thailand, Philippines, Hong Kong, Argentina, Colombia, Brazil, and Chile.
541. Countries that do not have such a legal provision are generally looked upon as attaching great weight to the financial viability of toll roads, perhaps with a view to hurrying up the date when the toll can be lifted. Alternatively such countries may simply feel that there is no need to attach special legal status to toll roads.

3.12 The Principle of Free Access after Costs have been Recouped

542. The common principle associated with any road, bridge etc. worldwide assumes that they should be free, and that toll systems should be temporary devices to solve the problem of how to finance them. It is a fact that in the U.S. many toll roads run by public corporations (“authorities”) have indeed completed the process of repaying capital investment and have been made available to the public toll-free. In Japan too, many toll roads have been made toll-free, either because capital investment has been recouped or because the road has been bought out by a government institution.

543. However, looking at the global situation, there are many countries that have not declared adherence to the free access principle, and many countries that have actually declared that tolls will be levied permanently, for particular projects or in even general.

544. Take the example of Italy's Roads Agency, Azienda Nationale Autonoma delle Strade (ANAS). For many years ANAS was an organ of the central government; then it became a public corporation in 1994. ANAS is in charge of running Italy's national highways and motorways; it oversees construction of toll-free motorways directly, and grants concessions to private operators in the case of toll motorways. ANAS publicly proclaimed principle is that when concessions expire, ANAS will take over management of the roads and continue to levy tolls itself. There are cases in the U.S., too, where the principle of permanent tolls has been recognized, generally as a means of covering maintenance costs: the New Jersey Turnpike Authority is one such case. In addition to these extreme cases, there are countries where hints are dropped that the end of the concession period does not necessarily signify the end of the toll-collection period. There have been instances of this in Malaysia and Indonesia.

3.13 Management of Toll Roads by Public / Private Bodies, or by Purely Private Enterprises

545. This kind of arrangement often entails a private-sector company being granted a concession by the public sector to run toll roads, though in some cases "commission" might be a better term than "concession".

546. Toll-road concessions are generally divided into the following categories:

**BOT (Build, Operate, Transfer)**

547. The private sector builds and operates the road, then transfers it to a government body after an appropriate period. A variation is BOTT (Build, Operate, Transfer, Training), in which the private sector supplies the necessary training to government operators after transfer.

**BTO (Build, Transfer, Operate)**

548. The private sector builds the road, transfers it to a government body, and then operates it as a toll road for a certain period.

**BLT (Build, Lease, Transfer)**

549. The private sector builds the road, leases it to a government body, (usually taking payment by instalments), operates it, and finally hands it over after an appropriate period.

**ROT (Rehabilitate, Operate, Transfer)**

550. The private sector makes improvements to an existing road, operates the road, and then transfers it to a government body after an appropriate period.
**BOO (Build, Own, Operate)**

551. The private sector builds the road, and owns and operates it permanently. A variation is BOOS (Build, Own, Operate, Sell), in which the private contractor subsequently sells the road to a government body.

552. Of the above, BOT is the formula most frequently employed, with BTO in second place. One way in which BTO differs from BOT is that the private-sector concessionaire need not pay land-ownership taxes etc. In China, for example, there are cases where toll roads are built by the public sector, then handed over to third-sector hybrids for management and maintenance. Sometimes the public sector appropriates part of the profits that subsequently accrue, but since the operator does not supply any of the project finance, these roads fall into another category.

553. Roads are basically public assets, and there is generally a resistance felt to leaving them in private ownership indefinitely. Another formula one occasionally comes across is DBFO (Design, Build, Finance, Operate), but in practice this is very close to the BOT formula. Admittedly government supervision of the design process is necessary in the BOT case, but the private concessionaire generally has the right to make design proposals. Indeed, this is one aspect of the operation where there tends to be ample scope for the concessionaire to make a difference to the project through its own efforts and so affect a decrease in overall construction costs. In the U.K., the view is often taken that DBFO and the shadow toll system are two sides of the same coin. As indicated previously, the latter is a system where the granter of the concession pays the grantee a sum of money calculated to be equivalent to toll income.

554. The following table presents a comparison between direct Government management of Toll Roads & hybrid or private-sector management. As will be noticed there are distinct differences, and where clarity is necessary, the concessionaire’s contract, once again, becomes an extremely important document.
<table>
<thead>
<tr>
<th>Item</th>
<th>Management by Government institutions or public corporations</th>
<th>Management by Private sector or mixed public / private body</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of agencies involved</td>
<td>The fewer bodies involved, the easier it will be to formulate toll-levying policy. Dividing the project between geographical areas involved may have pluses and minuses.</td>
<td>Loyalty to the principle of free competition demands that there should be as many as possible. But some countries, such as France, have found problems with unlimited expansion.</td>
</tr>
<tr>
<td>Jurisdictional Characteristics</td>
<td>Must be established by legal statute; must be non-profit.</td>
<td>Governed by Company law.</td>
</tr>
<tr>
<td>Contract with government</td>
<td>Legal Statute renders contract unnecessary</td>
<td>Contract with acceptable content is essential.</td>
</tr>
<tr>
<td>Right to expropriate land</td>
<td>Yes</td>
<td>A few countries grant expropriation rights to private companies for railway construction; almost none do so for toll road construction.</td>
</tr>
<tr>
<td>Risk prior to completion of road</td>
<td>Responsibility clearly rests with public body</td>
<td>Necessary to clarify allocation of risk between contract-issuing body and contractor/s in the concessionaire’s contract.</td>
</tr>
<tr>
<td>Gov't support &amp; subsidies</td>
<td>Flexibility makes for ease of financial management</td>
<td>Necessary to strictly stipulate terms in contract.</td>
</tr>
<tr>
<td>Political risk</td>
<td>Generally considered low; but should really be considered high, because of need to respond faithfully to changes in government policy</td>
<td>Unavoidable unless there are strictly worded protective clauses in the contract.</td>
</tr>
<tr>
<td>Availability of financial credit</td>
<td>Government guarantees usually make all the difference</td>
<td>Very necessary.</td>
</tr>
<tr>
<td>Guarantor</td>
<td>The Government</td>
<td>A third party.</td>
</tr>
<tr>
<td>Availability of loans from international institutions</td>
<td>No problem</td>
<td>At present must be done indirectly, via the government body.</td>
</tr>
<tr>
<td>Enterprise’s pace of progress</td>
<td>Generally slow but steady</td>
<td>Rapid in early period when toll system is introduced. Risk of drastic slowdown later on, when less profitable aspects of project remain. Further risk that most profitable road segments will be cherry-picked by private sector.</td>
</tr>
<tr>
<td>Toll Policy</td>
<td>Generally easy to reflect government policy</td>
<td>Varies with composition of concessionaire (public/private vs. private only, etc). Difficult to establish unified toll policy where many private firms involved, hence necessary to clarify toll policy as far as possible in contract.</td>
</tr>
<tr>
<td>Appetite for involvement in related enterprises</td>
<td>Low. There may, however, be a willingness to invest in gasoline stations, restaurants and shops.</td>
<td>Generally high.</td>
</tr>
</tbody>
</table>

Source:
3.14 Key Factors Affecting Future Toll Road Investment

555. The biggest issue facing future private investment in tolled transport projects is low traffic volumes. Until traffic reaches a minimum of 15,000 to 20,000 vehicles per day (vpd) it is difficult to justify outside investment. Many candidate roads, even for leasing and concessioning, in many developing countries, have volumes which are too low to support investment. One issue which has arisen is that often the original estimates of traffic growth used to justify investments have been overly optimistic and secondly the tolls charged have also been unrealistic. And this is particularly true with respect to attempts to have the private sector involved. Unfortunately, in an effort to encourage private investment, in many cases traffic estimates have been inflated in the pre-feasibility and feasibility study stage. A study funded by the ADB in 1999\textsuperscript{62} (in China) showed that to maximise revenue, both the toll road and the parallel road actually needed to be tolled and administered by one company.

556. But administering the toll road and the parallel road to maximise revenue just argues the merits of monopolistic pricing. It does not address the issue of price sensitivity. It is critical that the decision to invest in tolled transport projects be made with clear eyes that include conservative expectations. In a period of massive toll road expansion, for example, it is easy to become overly optimistic. As has been noted in previous sections, this means that independent evaluation of toll road investment viability by any future private sector investor is critical.

557. As noted briefly above as well, traffic in many developing countries still remains very toll sensitive. In areas where parallel non-tolled roads are available, traffic levels are dramatically affected. This is the result of a number of perceptions. First, while long distance freight appears to factor delay into its cost function, shorter distance trips carrying bulk commodities like coal or aggregate, are less time sensitive and resist increased direct costs. It is often cheaper to pay for extra wages for a driver and extra fuel, than it is to pay the toll on a faster and more convenient highway. Partly this is a reflection of poor cost accounting and partly a general perception that toll rates are expensive.

558. World toll levels in developed countries are pretty consistent in varying between about 3 to 6 US cents per V-Km while in most developing countries in Asia at least, it is in the range of 1.5 to 3 cents per V-km. There are a couple of reasons for this difference, firstly the cost of construction, operation and maintenance of roads is higher in developed countries than developing countries hence the tolls charged must be higher to repay debt. Secondly, in developing countries the average earnings are still far below that of their developed country counterparts so the willingness to pay and/or affordability to pay higher tolls does not yet exist. This was brought out recently, quite dramatically, in Hungary. And finally in most developing countries governments still control toll levels through very strict policies based more on politics than on financial considerations. Demand management is still not a priority of most toll road companies. More flexibility in setting tolls and creating a climate of toll acceptance will help to increase low traffic levels. Comfort, convenience and habit will usually convince the toll road user of the value of the road. Then tolls can usually rise with a limited traffic loss impact.

559. In areas where economic criteria are critical to the decision to create the toll road in the first place, an argument may be made for either some form of capital discount as in the Korea case\textsuperscript{63} or for cross subsidisation as in Japan and France, or in a new system like China’s, or shadow tolls as in the United Kingdom. These can be set by the Government at the assumed “economic investment percentage” and can then be used to supplement the actual toll revenue collected.

560. In terms of new trends in toll roads, one interesting development is the creation of a market for toll road re-sale, either just after all the approvals and permits have been attained, or in mid-concession term. In a recent toll road project in San Diego, for example, the original consortium sold the pre-construction approval and permit phase to another consortium which will now construct the road and then operate, manage and maintain it. The original group actually sold this project for double what it cost them to get all the required approvals, permits and documents. As a result they made a handsome profit on this project.

\textsuperscript{62} ADB TA NO. 3102-PRC Chongqing-Guizhou Expressway Project Preparation (Part 2: Toll Diversion Study), Transport Planning & Research Institute, Tongji University and Bullpin Pty Ltd, December 1999

\textsuperscript{63} Korean Expressways are only required to recoup 50% of the capital cost plus operating cost from toll revenue.
3.15 The Future of Toll Roads in Vietnam

561. As indicated by studies conducted by both the World Bank and the Asian Development Bank, and echoed to some degree by the Government as well, in principle, all projects which benefit the Vietnamese economy should be implemented, because they leave the economy better off than it would be without them. This means that, subject to selecting the correct timing, all projects which are economically viable should be implemented, given available resources.

562. Financial viability does not provide such a clear test. This is because of the existence of various distortions and market failures which have the result that knowing whether a project is financially viable or not does not tell us whether or not it should be implemented. Rather, a project which is not economically viable should not be implemented, and there is thus no need to assess its financial viability.

563. A project which is both economically viable and also financially viable can and should be implemented commercially. Where a project is economically viable but not financially viable, the options are to implement it outside the market economy, using government resources, or to change the rules determining financial viability, such as taxation rates, tax exemptions and subsidies, guarantees, etc., to make it financially viable.

564. One issue which has been consistently cited relates to the problem in deciding what the future inflation rate will be. While it has remained at around 8% for the past three years, its future value is dependent upon the day to day management of the economy by the Government, and it seems more likely that it will either increase or decrease than that it will remain constant.

565. According to a recent study conducted under the auspices of the ADB (Vietnam Expressway Development Plan 2007) the following summarizes very well the existing situation in Vietnam coupled with some recommendations.

Existing Tolling System

566. The Vietnamese toll collection system includes 54 stations located on 26 national roads. Almost all apply the manual collection method with two stops: one for ticket purchase and one for the ticket to be checked and torn, but some employ electrical barriers and traffic signals. Only 9 out of 54 stations use semi-automatic collection methods, mainly in ticket control.

567. The collection process is very unsophisticated and may lead to inconvenience to vehicles and other problems such as the use of forged tickets, payment of cash without a ticket and so on. This problem needs to be addressed but is not the subject of this report.

Use of Toll Proceeds

568. Presently Toll revenue collected by tolling agencies is distributed as follows:

- 5% is delivered to VRA for generate funds to modernize tolls collection technology;
- 15% is reserved for operational expenditure and equipment purchasing by tolling agencies;
- For roads financed by credit, the budget pays principal and tolls pay interest; and
- The rest is delivered to the state’s treasury with no further earmarking. However each province does submit a budget to the central government indicating road maintenance requirements. The funds come from the central government and presumably some of these are from the toll revenues collected, however there is no direct correlation.

569. In respect of joint-ventures (JVs) between the state and partners, tolls are considered as a charge for road service, including VAT. The toll levels are determined by the Ministry of Finance (MOF), for national roads and the relevant provincial people’s council for provincial roads, based on the level and length of roads and the investor’s proposal but not exceeding twice the toll level set for roads invested by state (see the following table). This level is uniform across the country. Tolls on these roads are distributed as follows:

- VAT and corporation income tax payment;
- expenditures for toll collection;
- maintenance expenditures; and
- dividend payment.
570. In respect of road financed by businesses, including BOT, tolls are considered as a charge for road services, including VAT. The tolls rates are again determined by the MOF or the provincial people’s council, as appropriate, based on the level and length of roads and the investor’s proposal but not exceeding twice the toll set for roads financed by the state. The tolls collected are considered as the investors’ revenue, with it being their responsibility, unless otherwise indicated in their contract, for the operation, maintenance and management of the toll road.

**Inadequacy in the Current Toll Rate Structure**

571. While current Vietnamese legislation allows a certain flexibility with respect to the amount of road-using charges which may be levied by a private investor on a national highway, the same legislation nonetheless fixes a clear ceiling on the permissible rates that can be levied. Table 6 below identified these levels.

572. There may be valid policy objectives on the part of the Government for regulating road tolls on roads built with state budget capital, including national highways. However in terms of attracting private investors’ participation in the road sector, fixing an arbitrary ceiling on the amount of road-using charges which may be levied by any private investor is self-defeating. To state the obvious, private investors will not invest in the construction, maintenance or operation of a new road if the road does not generate revenues sufficient to finance the cost of its construction, maintenance or operation in addition to also generating a certain level of profit. Since practically the whole revenue for a toll road comes from the toll receipts themselves, tolls are of critical importance.

573. However, a series of analyses and regional experience both indicate that in Vietnam, at the present time, the revenue to be earned from realistic toll rates alone would be inadequate to compensate a private operator for the cost (including a fair return on investment) of constructing, maintaining and operating a national highway.

574. This then means that private investors will not invest in national highways or will do so only if the Government pays them a heavy subsidy.

**Adjustment Mechanisms in the Toll Rate Structure**

575. Currently Vietnam is pushing hard for economic growth, and doing so successfully. This policy is clearly of great benefit to the people of Vietnam, but carries with it (from a private investor’s perspective) the twin dangers of domestic inflation and currency depreciation.

576. A private investor is therefore unlikely to enter into a long term commitment (BOT/BTO contracts last typically 15-20 years) unless he can be confident that such dangers can be avoided or, at the very least, minimized. Hence the need for an adjustment mechanism to any tariff for road-using charges, which can take the form of:

- a mechanism to protect against domestic cost escalation. This could be an agreement to adjust the tariff, or some part of it, at regular intervals, in proportion to the increase in the consumer price index (CPI), or in proportion to some index more closely reflecting the costs involved in operating and maintaining a national highway, such, for example, an index of civil engineering costs. The index used should be one that is published regularly, and should be trusted by all concerned. There are suitable civil engineering specific cost indices in Vietnam;

- a mechanism to protect against interest rate movements. In reality, domestic interest rates are likely to be quite closely related to domestic inflation, but this will not be true of interest rates for foreign currency loans. However, foreign currency interest rates can be monitored by reference to the appropriate LIBOR (London Inter Bank Offer Rate). Again the mechanism could be an agreement to adjust the tariff, or some part of it, at regular intervals, in proportion to the movement in the appropriate index or indices; and

- a mechanism to protect against currency movements, particularly the decline of the domestic currency against foreign currencies. In addition to interest payments already discussed above there are: payments for the import of resources used during construction (though this is a relatively short term risk); repayment of loan principal; and repatriation of profits.

577. Ultimately, any adjustment mechanism must be acceptable to both sides, and failure by the government to take private sector concerns seriously is often a cause of those “false starts” which tend to
occur before PPP become normal practice. Because adjustment mechanisms must address the specific concerns of individual investors, it is important not to be too prescriptive with respect to them.

578. It is also important that the adjustment mechanism be based on pre-determined mathematical formulae. Any agreement which requires ongoing negotiations is unlikely to be accepted by investors who recognize that government is likely to be under pressure from road users not to permit tariff increases. Similarly, tariff increases according to mathematical formulae should be automatic, without the need to seek additional government's approval before being implemented. These six countries, namely Brazil, Canada, France, India, the Philippines and Serbia, vary greatly in socio-economic development, geography, political and legal systems and with respect to the role traditionally assigned to the private sector in the development of public infrastructure. None of them, however, set in their respective legislation a mandatory ceiling on the toll rates that may be levied by a private investor. Toll rates are set under the terms of the applicable concession agreement. On the issue of the readjustment of the original toll rates there is no consensus in the legislation of these six countries as how this is to be done exactly, except that in all cases there is a recognition that these rates cannot be frozen for the whole (often lengthy) duration of the concession period. Only the legislation of the Philippines addresses the issue of readjustment of toll rates directly, but ultimately it also leaves the modalities of establishing a “predetermined formula” to the parties themselves under the concession agreement.

**Willingness to Pay and Affordability to Pay Tolls in Vietnam**

579. The following table presents a summary of the ferry rates in Vietnam and compares them to the toll rates which the government has approved for the same class of vehicle. This is important because a number of projects both recently constructed and other under consideration are large bridge projects which are either presently tolled or are going to be tolled. What is obvious is that in most vehicle classes there is a significant discrepancy between ferry fee rates and official toll rates.

580. If the general population is already paying ferry fees as indicated, then the toll rates for bridges should be comparable – but in fact they are not. Unless there is a change in toll rates, allowing them to increase to the levels of ferry fees, it is highly unlikely that there will be any interest in foreign private investment in their construction, operation and maintenance. This should be the first point of departure, followed by a financial analysis.
### Table 17 Ferry Fee Rates and Toll Rates in VN

<table>
<thead>
<tr>
<th>Descriptions</th>
<th>Hanoi</th>
<th>HCMC</th>
<th>An Giang Province</th>
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<th>Public Sector / km</th>
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<td>14,000-18,000</td>
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<td>55,000</td>
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<td>Truck (3-5 tons) / trip</td>
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<td>20,000-30,000</td>
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<td>40,000</td>
<td>18,000-66,000</td>
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<td>1,800,000</td>
<td>2,600,000</td>
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<td>Truck (5-10 tons) / trip</td>
<td>55,000</td>
<td>30,000-60,000</td>
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<td>33,000</td>
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<td>Truck (10-15 tons) / trip</td>
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| quarterly ticket                  | 90,000 | 90,000-120,000 | 60,000-80,000 | 90,000 | -- | 55,000 | 55,000-120,000 | 3,200,000 | 6,400,000
| Truck (15-18 tons) & 20 ft container / trip | 120,000 | 120,000-150,000 | 80,000-100,000 | 120,000 | -- | 80,000 | 80,000-150,000 | 80,000 | 160,000
| Same as above – monthly ticket    |        |          |                   |                    |                  |                  |                 |                                        |
| Same as above – quarterly ticket  |        |          |                   |                    |                  |                  |                 |                                        |

Source: Published Ferry Rates, and Government Decree
581. What can be concluded from the above table is that: (i) there is already a culture for payment of crossing rivers. Ferries charge various rates which includes pedestrians as well as cyclists (other than motorcycles); (ii) ferry rates vary significantly from region to region, presumably based on willingness to pay and affordability; and the idea of monthly, and in some areas, quarterly tickets are available for presumably the most frequent users (normally pedestrians and cyclists – both bicycles and motorcycles). So it would follow that paying a toll for crossing a bridge should be an automatically acceptable concept. With roads, however, the culture does not yet exist readily in Vietnam. The concept that roads should be a free is still widely held, but this is for provincial and local roads. With the introduction of expressways, and higher end highways, this should trigger a different approach, as it has in all other countries. So placing a toll on a road which allows the traveller to save time and is more direct should be acceptable.

582. The following presents a synopsis of those recommendations spread throughout this report. Some have already been articulated in studies conducted by both the ADB and the IBRD, have not yet been implemented, but are validated by this study’s specialists.

### 3.16 Recommendations

1. Prepare a national tolling development strategy and tolling implementation plan to address issues at all levels of government. Such a plan would need to be continuously updated to reflect reality. It is imperative that such a plan be developed to complement the roads master plan and the expressway plan. Identification of those roads which are earmarked for tolling would then set the stage for phased development of the entire road network system.

2. Re-evaluate the existing toll structure in Vietnam. The ADB Study recommended some basic legal changes including: (i) the current ceiling on tolls be abolished in respect of expressways with private investment or operation; (ii) toll adjustment be automatic on the basis of a mathematical formula included in the contract between the client and the contractor. This should be adopted.

3. An economic analysis with an EIRR calculated should be undertaken for all road/bridge and tunnel projects regardless of whether they are to be financed by the public sector or private sector. For those projects which are to be tolled a financial analysis with an estimated FIRR should be mandatory. Based on these analyses a decision can then be made as to whether the particular project should be pursued for private investment.

4. For government sponsored projects, which are to be tolled, assign the responsibility for traffic forecasting to an experienced agency such as suggested by both the ADB and IBRD – such as TEDI and insist on a range of forecasts including low, medium and high. For projects where the private sector is investing, the government still needs to prepare their own forecasts, but to be sure the private sector investor will undertake due diligence and do their own forecasting as well. Comparisons between the two will illustrate the level of confidence that the private sector has in the government’s forecast as well as the level of risk they foresee in traffic volumes and traffic growth. This will assist both parties in determining the level of guarantees which may be required to ensure private sector interest. Contract extensions, government traffic guarantees, and shadow tolls are a few of the options. An analysis of traffic diversion should also be automatically included in any traffic forecasting exercise.

5. Develop a strategy and system for automatic annual adjustment of toll rates based, at the very least on inflation rates and other economic indicators.

6. Vietnamese are already paying ferry rates for crossing rivers. New bridges constructed over a certain span should be tolled at a minimum rate which a ferry crossing would cost. For medium sized bridges the rate should begin at the lower end of the ferry rate spectrum, and for large bridges the rate should be at the higher spectrum. For causeways the rates should be otherwise determined.

7. For roads tolls should be set on a project by project basis and be based on a number of factors; 
   (i) level of regional development, potential for economic growth, income levels which translates to affordability to pay;
   (ii) existing ferry and toll rates (although this latter category needs to be viewed with caution as existing listed toll rates are mostly unrealistic in certain situations and areas);
(iii) whether the tolling is to be issued on the basis of a not-for-profit road (simply for payback of a specified amount of debt – both loans and bonds), or a for-profit road (to include not only debt repayment but also a certain agreed level of profit);

(iv) results from their feasibility analyses; and

(v) comparison with the economic analysis results indicating vehicle operating cost savings (VOCs).

8. Develop an official list of government sponsored grants, subsidies and guarantees that can be considered for privately financed projects. These incentives should be developed and authorized, and the leasing of roads after construction be introduced on a pilot basis.

9. Toll road operators should be allowed to generate extra income from incidental facilities, specifically roadside developments such as placement of signage along the right of way, construction and operation of roadside restaurants, petrol stations, vehicle repair shops and mini malls leased to local entrepreneurs which would house a selection of stalls or shops including crafts, etc. The government should develop a strategy and legal basis to facilitate this.

10. It is essential to have a well-drafted, detailed concessionaire's contract. This is best prepared by a professional experienced in contract drafting, with advice from both a lawyer and an engineer certified to do this. A Model contract should be drawn up and used as the basis for drafting of other contracts.
Part IX - Annuity Based Versus Capital Subsidy BOT

1 Annuity BOTs

583. Annuity BOTs (concessions) offer a number of benefits in the form of reduced costs, improved road quality and faster availability, relative to public sector procurement. These benefits can be summarized as follows:

(i) provision of a single point contractual responsibility for both construction and operation, the annuity concession avoids problems compared to an Engineering Procurement Construction (EPC) contract approach;

(ii) linkage of EPC combined with O&M contracts under the annuity concession approach provides strong incentives for the private contractor to supervise quality of construction in order to minimize subsequent O&M costs;

(iii) the annuity concessions have enabled Governments to access private financing, easing upfront pressures on available public sector cash reserves and spreading its payment for infrastructure investments over a period of 10 – 15 years, thereby enabling an acceleration of the capacity expansion; and

(iv) the annuity contracts establish the obligation for the concessionaire to ensure timely maintenance. Considering the exponential costs related to lack of appropriate maintenance, combined with past difficulties in covering the costs of appropriate maintenance and the estimates for future cash flow maintenance requirements, the strong financial benefits of the annuity concessions are evident. According to governments which have employed this approach (India is an example), the implementation of annuity based concession agreements has resulted in significant cost savings in terms of supervision required, because of the performance specifications included in the annuity concessions. This finding is in line with similar results following the implementation of the Private Finance Initiative implemented in the UK.

584. Other benefits of the annuity concessions include:

(vi) the model annuity concession agreement is designed to reward early completion, which has enabled accelerated construction schedules;

(vii) the annuity payments can be calculated very precisely and do not involve unpredictable government guarantee elements;

(viii) the annuity payments are financed from tolls, providing a secure revenue flow which can attract long-term, risk averse investors, such as pension and insurance funds;

(ix) the security of the revenue stream in the form of annuities minimizes the risk of renegotiation requirements from the private concessionaire and enables a predictable forecast of staffing requirements dedicated to overseeing the implementation of the annuity contracts;

(x) the annuity concessions have significantly contributed to capacity building among domestic construction companies relating to initial financing requirements, construction and O&M skills; and

(xi) the annuity contracts have helped transfer a number of critical risks to the private sector such as initial financing risk, construction risk, O&M risk and project completion risk.

585. The main argument against the application of annuity concessions is the lack of transfer of traffic risk to the private sector. This is certainly a valid point, however, considering the current status of construction of the roads, and the fact that it has not yet been possible to verify traffic forecasts on these roads with actual figures, it appears premature to recommend a policy direction moving away from the use of the annuity concessions into direct tolling BOT arrangements. While ADB agree that there is a need to gradually increase the transfer of traffic and revenue risk to the private sector, whenever feasible, it has also recommended that
the appropriate PPP model be decided on the basis of concrete traffic data analysis performed for each specific project road. The following outline can serve as a general guideline in terms of choice of PPP models:

(iv) low traffic volumes, i.e. below 10,000 vehicles per day (ADT), would warrant direct government funding;

(v) medium traffic volumes, i.e. between 10,000 - 15,000 ADT would warrant the establishment of PPPs either annuity or toll based concessions; and

(vi) high traffic volumes, i.e. over 15,000 ADT would warrant BOT concessions with little or no government support.

586. The attraction of this approach is its accessibility to smaller Vietnamese construction companies and companies willing to enter into joint ventures with international firms – essentially using the International name and the local capability to construct. The capacity and the knowledge about the Vietnamese road system are slowly building up in the private sector. As more and more companies become capable of managing sections of the road system, they will also wish to expand their scope. Inevitably over time, the size of projects will expand.
APPENDIX 1: EXAMPLE CONCESSION AGREEMENT

The following is a sample Concession Agreement which was prepared for a project in China. It offers a good insight into what a concession agreement should look like.
PURPOSE: This Draft Concession Agreement is the third type of agreement necessary for a well-ordered legal procedure for leasing/concessioning in the roads sector so as to meet standards set by international investors for financing. The other two types of agreements are (1) Articles of Association for the Expressway Company as a joint stock limited company, along with a Founders’ Agreement and (2) an Operating Agreement between the Expressway Company and the Province which spells out the obligations of those parties and separates the role of the Province as a Regulator from that as one of the Owners.

This Draft Agreement is meant to provide standard clauses which would limit areas of discussion with potential investors, and to give confidence to those investors that a system of law was in place for lease/concession agreements.

This Draft Agreement is for Concessions. A version is being developed for Leases which will contain many of the same provisions, but with the elimination of the Articles regarding design, construction, testing, inspection and completion and of other not relevant provisions.
DRAFT CONCESSION AGREEMENT

TABLE OF CONTENTS

Article 1. Definitions and Interpretation
Article 2. Parties to the Contract
Article 3. The Concession
Article 4. Project Company
Article 5. Conditions Precedent/ Pre-Concession Period and Effectiveness
Article 6. Independent Engineer
Article 7. Land Acquisition and Use
Article 8. Design
Article 9. Construction (Works)
Article 10. Testing, Inspection and Completion
Article 11. Delay in Construction and Extension of Time; Abandonment
Article 12. Operation, Maintenance and Repair
Article 13. Tolls
Article 14. Financial Management; Financial Statements and Reporting
Article 15. Insurance
Article 16. Concession Authority General Obligations
Article 17. Project Company General Obligations
Article 18. Obligations and Rights Common to the Concession Authority and the Project Company
Article 19. Force Majeure
Article 20. Termination

Article 21. Representations and Warranties

Article 22. Liability and Indemnification

Article 23. Transfer After the Concession Period

Article 24. Assignment and Substituted Entity

Article 25. Dispute Resolution

Article 26. Applicable/Governing Law

Article 27. Language


SCHEDULES (NOT INCLUDED)

1. Definition of Project Expressway
2. Project Approvals
3. Project Milestones
4. Project Construction Schedule
5. Quality Assurance System
6. Concession Payments Schedule
7. Design Specifications; Specified Design Drawings
8. Toll Structure and Procedures
9. Insurance
10. Termination Payment Schedule
11. Transfer/Return Specifications
THIS CONCESSION AGREEMENT is made on the ___ day of _____, 2000, in ______________________________, People’s Republic of China (PRC), between:

(1) ________________Expressway Company, acting as the “Concession Authority”; and

(2) ________________ Company (the “Project Company”).

Each of the Concession Authority and the Project Company shall hereinafter individually be referred to as a “Party” and collectively as the “Parties”.

IT IS AGREED AS FOLLOWS:

ARTICLE 1. DEFINITIONS AND INTERPRETATION

1.01. Definitions

Unless the terms or context of this Agreement otherwise provide, the following terms shall have the meanings set out below when used herein:

“Allocated Land Use Rights” means the land use rights to the Site which are to be allocated to the Project Company pursuant to an Allocated Land Use Rights Contract.

“Allocated Land Use Rights Certificate” means the certificate issued or to be issued in the name of the Project Company by the ___________ Province Land Bureau evidencing the Project Company’s title to the Allocated Land Use Rights.

“Allocated Land Use Rights Contract” means the Allocated Land Use Rights Contract executed by the ___________ Province Land Bureau and the Project Company whereby that Land Bureau allocates to the Project Company the Allocated Land Use Rights.

“Change of Law” means (a) the adoption, promulgation, modification or reinterpretation after the date of execution of this Agreement by any Government authority of any Laws or Regulations of the People’s Republic of China or (b) the imposition by a Government authority of any material condition in connection with the issuance, renewal or modification of any Project Approval.

“Concession Period” means the period for which the Concession Rights are to be granted to the Project Company under this Agreement, as specified in Article 3.03, as such period may be modified in accordance with the provisions of this Agreement.
“Concession Rights” means all the rights, interests and benefits conferred on the Project Company pursuant and subject to this Agreement, including exclusive rights during the Concession Period.

“Completion Date” means the date specified as such in the Certificate of Completion (or, where a Certificate of Completion is deemed to be issued pursuant to Article 10.04, the date of deemed issuance of the Certificate of Completion).

“Concession Authority’s Works” means the access roads, utility facilities and utility conduits, and any other infrastructure to be procured by the Concession Authority, as described in the Concession Authority’s Work Specification.

“Construction Contract” means the contract entered or to be entered into between the Project Company and the Contractor for the construction of the Project Expressway.

“Contractor” means the contractor under the Construction Contract.

“Government Authority” means the government of the People’s Republic of China, any subdivision thereof, any provincial or local government and any part thereof, and any department, authority, instrumentality, agency, judicial body or tribunal of the People’s Republic of China or provincial or local government authority having jurisdiction over the Project Company, the Project or any portion thereof.

“O&M Manual” means the operation, maintenance and repair manual prepared or to be prepared by the Project Company pursuant to Article 12.01.

“Project” means the development, design, financing, construction, operation and maintenance and management of the Project Expressway.

“Project Contract” means any contract entered into by the Project Company with another party to carry out this Agreement.

“Project Expressway” means the _______________ Expressway which will be constructed, operated and maintained pursuant to this Agreement, as described in more detail in Schedule 1.

“Project Milestones” means the Project Milestones set out in Schedule 3, as the same may be amended in accordance with this Agreement.

“Project Milestone Dates” means the dates specified in Schedule 3 for achievement of the Project Milestones, as the same may be amended in accordance with this Agreement.

“Project Schedule” means the schedule for construction of the Project Expressway approved by the Concession Authority, as may be amended from time to time in accordance with this Agreement.
“Quality Assurance System” means the system to be developed and implemented in accordance with the Specifications developed by the Project Company, as set forth in Schedule 5, in order to ensure the quality of the design, construction, operation and maintenance of the Project Expressway.

“Relevant Assets” means the Project Expressway and all buildings, machinery, equipment, inventory and plant ancillary to the construction, operation and maintenance thereof, together with all intangible property, land and land use rights in respect thereof.

“Rights of Way” means wayleaves, easements and rights of passage and use over or under, and of access and egress to and from, the Site and any part thereof. Where applicable, it applies to land additional to the Site (including laydown areas), without undue interference by any third party for the purpose of constructing, operating and maintaining the Project Expressway.

“Site” means the land, spaces, waterways, roads and any surfaces procured, or to be procured, for the Project Company in its name, and delivered to the Project Company in accordance with Article 7 and on, through, above or below which (or any part of which) the Project Expressway is or is to be built by or on behalf of the Project Company pursuant to this Agreement.

“Specifications” means the specifications approved by the Concession Authority pertaining to the Project Expressway, including design specifications, construction (works) specifications and other relevant specifications.

“Specified Design Drawings” means those detailed design drawings required to be submitted for approval pursuant to Article 8.01.

“Specified Works Drawings” means those detailed drawings of works required to be delivered to the Concession Authority pursuant to Article 8.05.

“Tolls” means the tolls collected in respect of vehicles using the Project Expressway.

“Utilities” means facilities such as water, gas, electricity, drainage, sewerage, and communications, including telecommunications, and whether in public, private or other ownership.

“Utilities Conduit” means any electric power cable, telephone cable or any cable used in communications, any telecommunications apparatus, any pipe used in the supply of water, gas or oil, or for drainage or sewerage, together with any duct of such cable or pipe or any apparatus or works ancillary to such cable, apparatus, pipe or duct.

“Vacant Enjoyment” means, in relation to any land, the right to use such land for the purposes of this Agreement free from encumbrances and without undue interference by
any third party.

1.02. **Rules of Interpretation**

In this Agreement, unless the context requires otherwise, any reference to:

“**Approval**” includes any approval, authorization, consent, license, permit, franchise, authorization, acknowledgment, permission, registration, resolution, direction, declaration and exemption and other like or similar documents.

“**Law and/or Regulation**” includes any constitutional provision, treaty, convention, law, decree, ordinance, statute, act, subsidiary and subordinate legislation, order, measure, rule or regulation having the force of law (and, if applicable, rules of civil and common law and equity).

“**Person**” includes any individual, company, body corporate or unincorporated or other juridical person, partnership, business organization, firm, joint venture or trust or other entity or any federation, state or subdivision thereof or any government or agency of any of the foregoing.

“**Tax**” includes any tax, levy, duty, charge, impost, fee, deduction or withholding of any nature now or hereafter imposed, levied, collected, withheld or assessed by any taxing or other authority and includes any interest, penalty or other charge payable or claimed in respect thereof. “**Taxation**” shall be construed accordingly.

1.03. **Successors and Assigns**

The expressions “**Concession Authority**” and “**Project Company**”, and references to any other Person in this Agreement shall, where the context permits, include their respective and permitted successors and permitted assigns and any persons who derive title and rights under them.

1.04. **Miscellaneous**

In this Agreement, unless the context requires otherwise, words importing the singular include the plural and vice versa, and words importing a gender include every gender. In addition, references to this Agreement or any part of it (including the Appendices or Schedules) or any other document shall be construed as references to this Agreement or its relevant part or such other document as the same has been amended or supplemented or replaced from time to time. Where applicable, this reference shall be in accordance with the provisions of this Agreement and with all relevant Approvals required to be obtained.
ARTICLE 2. PARTIES TO THE CONTRACT

2.01. The Parties

The Parties to this Agreement are:

CONCESSION AUTHORITY: ________ Expressway Company
which is a limited liability company which has 100% holding of ______________
Expressway, and has the right to transfer all or part of the operating right to that highway to
overseas investors or to domestic investors or joint investors after the approval of the
relevant Government departments.

With its location of registration at: ________________________________ and

With its legal address (domicile) at: ________________________________
____________________________, PRC

Legal Representative of Concession Authority:

Name: _________________________________________
Position: ________________________________
Nationality: Chinese

PROJECT COMPANY: __________________________________
a wholly foreign-owned (limited liability) company established
under the Law of the PRC on Wholly Foreign-Owned Enterprises or a joint stock limited
liability company established under the Company Law,

With its location of registration at: ________________________________, and

With its legal address at: ________________________________
______________________________, PRC

Legal Representative of Project Company:

Name: ___________________________________________
Position: ________________________________
Nationality: ________________________________
2.02. **Change of Legal or Authorized Representative**

Each Party shall have the right to change its legal or authorized representative. In such case, it shall promptly notify the other Party of such change and the name, position and nationality of the new representative. Such notification shall be accompanied by legal evidence of the validity of the appointment.

**ARTICLE 3. THE CONCESSION**

3.01. **Grant of Concession Rights**

The Concession Authority, subject to the obligations imposed on the Project Company under this Agreement hereby grants to the Project Company the exclusive lease/concession rights to the Project Expressway for the entire concession period.

3.02. **Exclusivity**

The Concession Rights granted to the Project Company pursuant to this Agreement are exclusive to the Project Company during the Concession Period. The Concession Authority shall ensure that no part of the Concession Rights shall be granted to any other person.

3.03. **Concession Period**

(a) The Concession Period shall commence on the date that this Agreement is signed by the Parties. Unless the Agreement is terminated earlier in accordance with its terms, it shall continue for a period of thirty (30) years from that date.

(b) The Concession Period may be extended by the written consent of the Parties and subject to existing Laws and Regulations.

3.04 **Concession Payments**

The payments to be made under this Concession are set forth in Schedule 6.

**ARTICLE 4. PROJECT COMPANY**

The Project Company must meet all of the legal requirements under the Company Law and other relevant laws and regulations of the People’s Republic of China. These requirements include, but are not limited to:

(a) incorporation under the Company Law or other relevant legislation, such as the Law of the People’s Republic of China on Wholly Foreign-Owned Enterprises, based
upon approval by the Ministry of Foreign Trade and Economic Cooperation (MOFTEC) or other relevant body, including the meeting of minimum registered capital requirements set by such legislation or by the total investment required for that Project;

(b) registration as a business entity and the obtaining of a business license from the State Administration for Industry and Commerce (SAIC) or the relevant local administration for industry and commerce, as well as registration with the local tax office concerned and the opening of an account at the Bank of China or other approved bank.

(c) the power and authority to enter into, and perform its obligations under, this Agreement;

(d) requirements specific to this particular Expressway Project.

ARTICLE 5. CONDITIONS PRECEDENT/ PRE-CONCESSION PERIOD AND EFFECTIVENESS

5.01. Effectiveness Conditional; Effective Date

The provisions of this Agreement shall be effective and legally binding from the date that the Parties have met the required conditions for which each is responsible under Sections 5.02 and 5.03 below. That date shall be known as the Effective Date.

Each Party shall promptly notify the other Party when it considers that the conditions precedent referred to in Sections 5.02 and 5.03 have been satisfied or waived.

Upon satisfaction or waiver by the relevant Party of the conditions precedent referred to in Sections 5.02 and 5.03, the Effective Date shall occur. The Concession Authority shall confirm this occurrence and the date of the Effective Date.

5.02. Conditions For Which Project Company Is Responsible

The grant of the Concession Rights to the Project Company shall only become effective and legally binding upon the satisfaction of the following conditions by the Project Company, or their waiver in writing of the Concession Authority. Thus the Project Company shall provide to the Authority:

(a) legal evidence that the Company has:

(i) been duly incorporated under the laws of the People’s Republic of China;

(ii) the power to enter into, and perform its obligations under, this Agreement;
(iii) sufficient funding commitments (from equity investors and Lenders) to perform its obligations under this Agreement; and

(iv) obtained the Project Approvals which the Company is required to be obtained before the Effective Date.

(b) a bond duly issued in favor of the Concession Authority in the amount of (5% of Construction Costs) to secure the performance of the Project Company’s obligations under this Agreement;

(c) evidence reasonably satisfactory to the Concession Authority that the Project Company has the personnel and machinery necessary to carry out its obligations under the Agreement.

5.03. Conditions For Which Concession Authority Is Responsible

The Project Company’s obligation to implement the Project in accordance with this Agreement shall only become effective and legally binding upon the satisfaction of the following conditions by the Concession Authority (or their written waiver by the Project Company). The Concession Authority shall:

(a) provide legal evidence to the Project Company that it:

(i) has the power and authority to enter into, and perform its obligations under, this Agreement;

(ii) has obtained all requisite approvals from the State Development Planning Commission and other Government agencies to enter into, and perform its obligations under, this Agreement; and

(iii) is entitled and duly authorized to grant the Project Company full and exclusive Concession Rights for the entire Concession Period in accordance with this Agreement (including access to, and all other rights to use, the Site, as contemplated by this Agreement and the Allocated Land Use Rights Contract).

(b) procure the issuance of the Allocated Land Use Rights Certificate in respect of the Site in the name of the Project Company;

(c) procure all necessary Project Approvals which are its responsibility to procure before the Effective Date, at the cost and for the benefit of the Project Company. A list of these necessary Project Approvals is set forth in Schedule 2.

5.04. Non-Satisfaction of Conditions Precedent

(a) If any of the conditions precedent referred to in Article 5.02 are not satisfied by the Project Company within six (6) months after the date of this Agreement or within six
(6) months after satisfaction by the Concession Authority of all of the conditions precedent set out in Article 5.03 (and not waived by the Project Authority, then the Concession Authority, at its discretion, may:

(i) extend the date by which the Project Company must satisfy the relevant conditions precedent;

(ii) waive the relevant conditions precedent;

(iii) terminate this Agreement by giving to the Project Company written notice to that effect.

(b) If any of the conditions precedent referred to in Article 5.03 are not satisfied by the Concession Authority within six (6) months after the date of this Agreement, then the Project Company, at its discretion, may:

(i) extend the date by which the Project Company must satisfy the relevant conditions precedent;

(ii) waive the relevant conditions precedent; or

(iii) terminate this Agreement by giving the Project Company written notice to that effect.

(c) If due to the failure of the relevant Party responsible for performance of the relevant conditions precedent, the other Party terminates this Agreement under sections (a) and (b) of this Section 5.04, as the case may be, then no damages shall be payable by either Party to the other in respect of that termination. However, that provision shall not affect the right of the Concession Authority to make any claim under the Tender Bond or the Construction Performance Bond. Nor shall such termination affect any claims or rights of any Party accrued prior to the date of termination.

ARTICLE 6. INDEPENDENT ENGINEER

6.01. Appointment of Independent Engineer

The Parties to this Agreement shall jointly appoint a qualified independent engineer for the period of construction of the Project Expressway.

6.02. Reporting

The independent engineer shall report directly to the Concession Authority, the Project Company and to the Lender or Lender’s Representative.

6.03. Costs of Independent Engineer
The costs for the independent engineer shall be borne by the Project Company.

ARTICLE 7. LAND ACQUISITION AND USE

7.01. Procurement of Allocated Land Use Rights

The Concession Authority shall be responsible for obtaining the Allocated Land Use Rights for the Project Company, and for the issuance to the Company of the Allocated Land Use Rights Certificate for the Site in the name of the Project Company. The Authority shall deliver Vacant Enjoyment of the Site to the Project Company at the cost and expense of the Project Company.

7.02. Other Real Property Rights

The Concession Authority shall be responsible for obtaining the grant to the Project Company, in the Project Company’s name, of the Rights of Way to the Project Expressway (such as the permanent and temporary rights of entrance/exit, rights to use access roads to lay Utilities, access to and rights to extract construction materials, etc.).

7.03. Concession Authority Works

(a) At its own cost, the Concession Authority shall design, construct and deliver the Concession Authority Works. These works include the provision of Utilities and of access roads to the Site, and other such works required for the successful completion of this Project.

(b) The Concession Authority shall:

(i) ensure that all Utilities required for the Project are made available to the Project Company at fair rates or on terms no less favorable to the Project Company than the terms available to commercial customers for similar utilities;

(ii) obtain for the Project Company the connection of the utilities; and

(iii) use reasonable endeavors to assist the Project Company to facilitate the relocation or adjustment of utilities.

(c) Subject to Sections (a) and (b) above, the Project Company shall:

(i) obtain at its own cost any utilities that it needs to perform its obligations under this Agreement;

(ii) pay for all utilities in respect of the Project; and
(iii) relocate or adjust utilities at its cost, as required by the Project.

ARTICLE 8. DESIGN

8.01. Design Requirements

The Project Company shall prepare the design for the Project Expressway in accordance with the Design Specifications set forth in Schedule 7 of this Agreement.

8.02. Project Company’s Review and Report on Design Specifications

The Project Company acknowledges that prior to the date of this Agreement, it has reviewed, and satisfied itself as to, the Design Specifications. The Project Company hereby adopts the Specifications as its own design and work and accepts full and sole responsibility under this Agreement for such Specifications.

8.03. Project Company’s Right to Amend Design Specifications

(a) At any time prior to the Completion Date, the Project Company may propose to the Concession Authority amendments or clarifications to the Design Specifications. The Authority shall, within 30 days of receiving such proposal, advise the Project Company in writing whether or not the proposed amendment or clarification is approved.

(b) The Project Company is entitled to propose such changes as it may think fit to the design of the Project Expressway as set out in the approved Specified Design Drawings as set out in Schedule 7. Such proposal may be made at any time whether prior to or during construction. However, the Project Company shall not make any such design changes without first submitting to the Concession Authority the details of the proposed changes at least 14 days prior so that the Authority may verify consistency with the Design Specifications. If the Authority does not object to any proposed changes within fourteen (14) days after receipt, then it shall be deemed not to object to the relevant design changes.

8.04. Review and Approval of Design

(a) The Project Company shall prepare and deliver to the Concession Authority the detailed Specified Design Drawings in respect of the Project Expressway as it prepares them. In any event, this shall be done prior to the construction of such part of the Expressway identified in the relevant Specified Design Drawing.

(b) The Concession Authority shall promptly review the Specified Design Drawings so submitted to it for compliance with the Design Specifications. If the Authority requires clarification or considers that the Specified Design Drawings submitted to it do not comply with the Design Specifications, it shall notify the Project Company requiring clarification or specifying the non-compliance within 14 days after their receipt.
If the Authority fails to give such notification to the Project Company within the relevant time, then the Authority shall be deemed not to have any objection to the relevant Specified Design Drawings.

(c) If the Project Company received a notice under Section (b) above, then it shall, at its own cost, promptly and in any event within 14 days after receipt of such notice, provide the relevant clarification and/or amend the relevant Specified Design Drawings and deliver such amended drawings to the Concession Authority. The Project Company shall not be entitled to any compensation for delay caused by the need to provide such clarification or amended Specified Design Drawings.

(d) If the Project Company wishes to change any Specified Design Drawings already reviewed and not objected to by the Concession Authority, then it must first submit the amended Specified Design Drawings to the Authority and abide by the approval procedures set out above in this Article 8.01.

8.05. Specified Works Drawings

The Project Company shall prepare and deliver to the Concession Authority the Specified Works Drawings. The Company shall not carry out the works identified in any of the Specified Works Drawings until delivery of the relevant Drawing to the Concession Authority has been made.

8.06. Responsibility of the Project Company

The Project Company agrees and acknowledges that:

(a) it is solely responsible for the design of the Project Expressway, including the technical feasibility, operational capability and reliability;

(b) the failure of the Concession Authority to object to any Specified Design Drawings or Specified Works Drawings or any Specifications or changes to them shall not be construed as a waiver by the Authority of any of its rights under this Agreement and shall not relieve the Company of its obligations under this Agreement with respect to the design, construction, operation or maintenance of the Project Expressway;

(c) it shall not in any way represent or hold out to any third party that the Concession Authority is in any way responsible for the design, engineering or construction quality of the Project Expressway; and

(d) any engineering or other review conducted by the Concession Authority in respect of the Project is solely for the Authority’s own information, and that the Authority does not thereby incur or assume any responsibility in relation to the design, quality of engineering or construction of the Project Expressway.
ARTICLE 9. CONSTRUCTION (WORKS)

9.01. Responsibility For Construction

(a) The Project Company shall commence and complete construction or rehabilitation of the Project Expressway at its own cost and risk. This work shall be done in accordance with the Design Specifications, and all other applicable Specifications, the Specified Design Drawings, the Specified Works Drawings and the Project Schedule for the Project Expressway.

(b) The Project Company is entitled to execute a Construction Contract with a qualified Contractor in order to carry out the construction work.

9.02. Commencement of Construction

The Project Company shall commence construction of the Project Expressway not later than 30 days following the date on which each of the following conditions has been fulfilled:

(a) fulfillment of the conditions precedent set forth in Article 5.02 and Article 5.03 (or their waiver by the other Party);

(b) delivery by the Concession Authority of the Site, together with Vacant Enjoyment of it and all rights of way in accordance with Article 7; and

(c) delivery by the Concession Authority under Article 7 of the services (comprising utilities and access), in conformance with the specifications. Such delivery shall be to points adjacent to, in or at the Site.

9.03. Construction Program

(a) The Project Company shall, within 30 days after the date of this Agreement, submit a construction program and schedule for the Project Expressway to the Concession Authority for its approval. This program shall show in reasonable detail the activities, their sequences and the duration planned to achieve each Project Milestone by the relevant Project Milestone Date specified in the Project Schedule set out in Schedules 3 and 4, and shall comply with the provisions of that Schedule.

(b) The Project Schedule may not be amended without the prior written consent of the Concession Authority, which consent shall not be unreasonably withheld or delayed. The Project Company may at any time propose to the Authority an amendment to the Project Schedule for its approval.

9.04. Anticipated Construction Delay

(a) If at any time the Project Company reasonably anticipates that the
Construction Works will fail to achieve any Project Milestone by the relevant Project Milestone Date, or if the Construction Works fail to meet any Project Milestone by the relevant Project Milestone Date, then the Company shall promptly inform the Concession Authority by written notice, which describes the following in reasonable detail:

(i) the Project Milestone not achieved or expected to be achieved;

(ii) the causes of the delay or expected delay, including a description of any alleged Force Majeure;

(iii) the estimated delay (in days) in achieving the Project Milestone and any other reasonably foreseeable adverse impact on the Construction Works; and

(iv) the measures which the Project Company has undertaken, or proposes to undertake, to overcome or minimize the delay and its effects.

(b) Delivery of the above notice shall not relieve the Project Company of any of its obligations under this Agreement. If the Concession Authority considers that the measures proposed or undertaken by the Project Company, as mentioned above, are insufficient to overcome or minimize the delay or the expected delay, then the Authority may require that the Project Company take reasonable additional measures to overcome or minimize that delay. The Project Company shall comply with such direction.

(c) The costs of such compliance by the Project Company with the Concession Authority’s direction shall be borne by the Company, unless an event of Force Majeure under Article 19 is the sole cause of the relevant delay.

9.05. Reporting Obligations

(a) Until the Completion Date, the Project Company shall submit to the Concession Authority a monthly report of the progress of the design and construction of the Project Expressway. Such report shall describe in detail the Construction Works completed and in progress compared against the progress projected in the Project Schedule, along with such other matters as the Concession Authority may reasonably request.

(b) Immediately after the Completion Date, the Project Company shall supply to the Concession Authority copies of all “as-built” drawings and such other technical and design information and completion records relating to the finished Construction Works as the Authority may reasonably request.

9.06. Rejection of Work

At any time prior to the Completion Date, the Concession Authority shall be entitled to reject, by written notice to the Project Company, any work, materials or equipment which is not in accordance with this Agreement. The notice also may require
the Project Company to rectify the work or substitute proper materials and equipment in compliance with certain requirements within the time specified. That time period must be reasonable, taking into account the relevant circumstances in such notice.

9.07. No Release

No monitoring or testing by the Concession Authority of all or any part of the Construction Works, nor the failure of the Authority to monitor, test or reject all or any part of the Construction Works shall be construed as a waiver of any of the rights of the Authority under this Agreement. They shall not release the Project Company from any of its obligations under this Agreement.

9.08. Quality of Construction Works; Other General Obligations of the Project Company

The Project Company shall:

(a) construct the Project Expressway on the Site:

(i) in accordance with the Design Specifications and all other applicable Specifications, the Specified Design Drawings reviewed and approved or not objected to by the Concession Authority, and the Specified Works Drawings delivered to the Authority;

(ii) in accordance with prudent engineering and operating practices, in a proper and workmanlike manner, using well-maintained and good quality materials and equipment;

(iii) in a safe working environment, and taking all necessary steps to ensure that appropriate pollution control and other environmental protection measures are taken in accordance with any applicable Laws and Regulations;

(iv) in a way which minimizes disruption and other inconvenience to the public and residents and businesses (if any) in the vicinity of the Project Expressway.

(b) Obtain in a timely manner all Approvals required in respect of the construction of the Project Expressway before it commences the activities to which those Approvals relate, and thereafter maintain them for as long as required by Law and Regulations.

(c) obtain in a timely manner all visas and employment permits and certificates for foreign personnel for the relevant period; and

(d) use its reasonable endeavors to comply with the Project Schedule and to achieve each Project Milestone by the applicable Project Milestone Date.

9.09. Preparation of Site
Except as specifically provided in this Agreement, the Project Company shall be responsible, at its own cost and risk, for preparing the Site for construction of the Project Expressway.

9.10 **Main Obligations of the Concession Authority During Construction Phase**

The Concession Authority shall:

(a) assist the Project Company and facilitate all dealings between the Project Company and any Government authorities with respect to the construction of the Project Expressway;

(b) procure the Approvals required in respect of the construction of the Project Expressway, without prejudice to the standards for its responsibility set forth in Article 5.03;

(c) assist the Project Company in obtaining all other Approvals referred to in Article 9.08 above;

(d) provide other support necessary to the Project Company during the period of construction.

9.11 **Underground Utilities and Structures**

(a) The Project Company acknowledges and agrees that:

(i) it is solely responsible for the protection of all Utility Conduits and structures located underground at the Site;

(ii) it is solely responsible for the demolition, diversion and relocation of the Utilties Conduits specified in the Design Specifications; and

(iii) except as provided in the Concession Authority’s Works Specification, the Authority has no obligation to remove any Utility Conduit and structures located underground.

(b) The Project Company shall indemnify the Concession Authority against any damage, expense, loss or liability which the Authority suffers or incurs in respect of personal injury or damage to, or loss of, any property caused by the Project Company’s failure to perform its obligations under Section (a) above.

**ARTICLE 10. TESTING, INSPECTION AND COMPLETION**

10.01 **Monitoring and Testing**
(a) The Concession Authority or its designee shall be entitled from time to time, upon reasonable notice to the Project Company, to monitor the construction of the Project Expressway and to carry out tests for checking the construction of that Expressway. Such monitoring and testing shall be undertaken so as to minimize avoidable interference with the progress of construction.

(b) Both the Independent Engineer, as provided for in Article 6, and the Project Company are entitled to have representatives present at any testing and inspection.

(c) All of the costs of such monitoring and testing shall be borne by the Concession Authority, unless the results of any tests reveal any work, materials or equipment which is not in accordance with the Agreement. In that case, all costs of the relevant tests shall be promptly reimbursed to the Concession Authority by the Project Company.

(d) The Project Company shall provide such access to the Site, assistance and equipment (including temporary office facilities) to representatives of the Concession Authority and to the Independent Engineer as may be reasonably required to enable the carrying out the relevant monitoring and testing of the construction of the Project Expressway.

10.02. **Inspection After Completion**

The Independent Engineer shall as soon as practicable thereafter, and in any event within 30 days after the Completion Notice is notified by the Project Company to the Authority, conduct an inspection of the Project Expressway to confirm whether or not the Construction Works for that Expressway has been substantially completed in accordance with the Design Specifications and all other applicable Specifications, the Specified Design Drawings, Specified Works Drawings and the Project Schedule for the Project Expressway.

10.03. **Certification of Completion**

If the inspection after completion mentioned in Article 10.02 above has confirmed that the Construction Works for the Project Expressway have been substantially completed as required, then the Concession Authority shall, within 10 days after the date of such joint inspection, issue a certificate to that effect, based upon the opinion of the Independent Engineer.

10.04. **Deemed Issuance**

If the Concession Authority fails to issue the Certificate of Completion with no fault on the part of the Project Company, then the Certificate of Completion shall be deemed to have been issued as at the day immediately following the last day on which the Authority should have taken the relevant action in accordance with the provisions of
ARTICLE 10.02 and Article 10.03. The Construction Works for the Project Expressway shall be deemed to have been completed and the Completion Date to have occurred upon the issuance or the deemed issuance of the Certificate of Completion.

ARTICLE 11. DELAY IN CONSTRUCTION AND EXTENSION OF TIME; ABANDONMENT

11.01. Extension of Time

(a) The Project Company shall be entitled to an extension of time for the scheduled Completion Date as a result of delay in construction caused by any of the following events:

(i) a breach of this Agreement by the Concession Authority; or

(ii) a change to the scope of the Project; or

(iii) the occurrence of a Force Majeure event as stated in Article 19 of this Agreement which is not an exception under Article 19.02 of this Agreement.

(b) However, such extension of time shall be granted only if:

(i) the Project Company gives the Concession Authority a written notice claiming an extension of time within 30 days of the occurrence of the delay, and that notice shall set out the likely effect on the scheduled Completion Date;

(ii) the Project Company reasonably satisfies the Concession Authority that (1) achievement of the scheduled Completion Date has actually been delayed, and (2) the Project Company has taken all reasonable steps to minimize the delay.

(c) In no case shall the Project Company be entitled to any extension of time to the extent that any delay is attributable to any breach of any of its obligations under this Agreement.

11.02. Determination of Extension of Time Claims

(a) The Concession Authority must, within 30 days after receiving the Project Company’s notice under Article 11.01 determine such extension of time for the scheduled Completion Date as may be justified in the circumstances and give to the Project Company notice of its determination. Such notice shall state the extension of time which is granted or, if no extension is granted, state that decision.

(b) In making any determination under the foregoing paragraph (a) of this Article 11.02, the Concession Authority shall act fairly and reasonably. Its decision shall be open to review and dispute resolution in accordance with the provisions of Article 25 of
11.03. **Effect of Extension of Time**

Except only as is expressly provided elsewhere in this Agreement, an extension of time granted in accordance with this Article shall be deemed to be in full compensation and satisfaction of any loss or damage sustained or as may be sustained by the Project Company in respect of any matter in connection with which such extension is granted.

11.04. **Prolonged Delay**

In the event that, due to the default of the Project Company and through no fault of the Concession Authority, the Completion Date has not occurred three hundred and sixty-five (365) calendar days after the scheduled Completion Date, and in the reasonable opinion of the Concession Authority the Completion Date is not reasonably imminent, then the Authority shall be entitled to terminate this Agreement in accordance with Article 20 without prejudice to any other of its rights under this Agreement.

**ARTICLE 12. OPERATION, MAINTENANCE AND REPAIR**

12.01. **Project Company’s Obligations**

(a) Before the Completion Date, the Project Company shall prepare and deliver to the Concession Authority an operation, maintenance and repair manual (the O&M Manual) in a form which meets technical standards set by the Ministry of Communications or other relevant agency.

(b) From the Completion Date until the end of the Concession Period, the Project Company shall operate, maintain and repair the Project Expressway in accordance with the O&M Manual and all applicable Laws and Regulations.

(c) The Project Company is entitled to execute a contract with a qualified leasing company and any other qualified company in order to carry out the operation, maintenance and repair work of the Project Expressway.

12.02. **Project Expressway By-Laws**

(a) The Project Company may propose to the Concession Authority and the Provincial Government by-laws as required for the operation, maintenance and repair of the Project Expressway.

(b) The Concession Authority shall ensure that the above by-laws are enforced in accordance with applicable Laws and Regulations.

12.03. **Reporting Procedures**

The Project Company shall keep the following records and provide them to the
Concession Authority on at least a monthly basis:

(a) traffic records on the daily volume of the vehicles using the Project Expressway and emergency services provided to motorists on that Expressway;

(b) a report on any maintenance or repairs it carries out in respect of the Project Expressway;

(c) any other information reasonably required by the Concession Authority from time to time in respect of the operation, maintenance and repair of the Project Expressway.

12.04. Safety and Emergency

The Project Company shall:

(a) provide all measures necessary for the safety and security of the Project Expressway;

(b) develop, in consultation with the Concession Authority, an emergency response plan for the Project Expressway.

12.05. Project Expressway Closure

(a) Without prejudice to its other rights and obligations under this Agreement, the Project Company shall be entitled to close all or any part of the Project Expressway for the purpose of safety, scheduled or emergency maintenance and cleaning.

(b) The Concession Authority may at any time demand that all or any part of the Project Expressway be closed or remain closed for the purpose of public safety or in the event of a state of emergency or in the national interest or in the interest of the security of the People’s Republic of China.

ARTICLE 13. TOLLS

13.01. Toll Calculation, Collection and Adjustment

The Project Company shall be entitled to levy, adjust, collect and retain tolls in accordance with the toll structure and procedures set out in Schedule 8 on and from users of the Project Expressway during the period that it operates, maintains and manages the Project Expressway.

13.02. Price Control Bureau Approval

The Concession Authority shall obtain from the Price Control Bureau an approval
of the initial toll, and of the formulae and procedure for adjustment of the tolls.

ARTICLE 14. FINANCIAL MANAGEMENT; FINANCIAL STATEMENTS AND REPORTING

14.01. Obligations of Project Company

The Project Company shall obtain all finance (equity and debt) necessary to design, construct, operate, maintain and repair the Project Expressway in accordance with this Agreement.

14.02. Financial Statements

(a) The Project Company shall account for its business by preparing and delivering to the Concession Authority financial statements and any other information in respect of the financial position of the Company which the Authority may from time to time reasonably request.

(b) In particular, the Project Company shall prepare and deliver to the Concession Authority the following:

(i) annual audited financial statements consisting of:
    (A) a balance sheet;
    (B) a profit and loss account; and
    (C) a statement of cash flows.

These statements shall be prepared in accordance with Laws and Regulations and certified by a qualified independent auditor.

(ii) a quarterly summary of the Project Company’s cash receipts and expenditures.

14.03. Accounts For Inspection

(a) The Project Company shall keep:

(i) its books of account; and

(ii) all other records relating to the operation, maintenance and repair of the Project Expressway at the Project Company’s principal place of residence located at __________________________ , People’s Republic of China.

(b) The Project Company shall notify the Concession Authority immediately of any change in its principal place of business.
ARTICLE 15. INSURANCE

15.01 General Requirement of Insurance

The Project Company shall, at its sole cost and expense, obtain and maintain the policies of insurance required by the Concession Authority for the construction, operation, maintenance and management of the Project Expressway, as set forth in Schedule 9 of this Agreement.

15.02 Use of Insurance Proceeds on Termination

As stated in Section 20.09, proceeds from insurance obtained to cover termination due to the occurrence of a Force Majeure event may be used to make payments to the Parties according to the rules set forth in that Section.

ARTICLE 16. CONCESSION AUTHORITY GENERAL OBLIGATIONS

16.01 Compliance With Law

The Concession Authority shall comply with all relevant Laws and Regulations in respect of the performance of its obligations under this Agreement.

16.02 Grant of Approvals and Assistance With Approvals

The Concession Authority shall, in accordance with relevant Laws and Regulations, and by using its reasonable efforts:

(a) grant to the Project Company, within its power and jurisdiction, the approvals necessary for the construction, operation, maintenance and management of the Project, as mentioned in Schedule 2;

(b) assist the Project Company to coordinate the approval process for obtaining any other approvals which the Company is required to obtain under this Agreement.

16.03 Non-Interference

(a) Subject to this Agreement, the Concession Authority shall not interfere with the Construction, operation, maintenance and management of the Project, unless such interference is necessary to protect public health and safety or is required by laws or regulations.

(b) (NEW) The Project Company shall have the right to choose its own employees for the Project, but with the understanding that Chinese citizens shall be given
first priority except in cases where specific skills are required for critical management and operations positions.

(c) If the Project Company so requests, the Concession Authority shall use its reasonable efforts to alleviate any interference with the Project by third parties, including such interference by other Government bodies.

16.04. **Connecting Roads**

The Concession Authority shall operate and maintain the roads and other infrastructure connecting to the Project Expressway to ensure the efficient and safe flow of traffic to and from the Project Expressway.

**ARTICLE 17. PROJECT COMPANY GENERAL OBLIGATIONS**

17.01. **Compliance With Laws and Regulations**

The Project Company shall comply with all applicable Laws and Regulations with respect to the Project.

17.02. **Construction, Operation and Maintenance of the Project Expressway**

The Project Company shall, in accordance with the provisions of this Agreement, implement the Project at its own cost and risk. The Company shall invest in, develop, design, finance, construct, complete, test, operate, manage and maintain the Project Expressway during the Concession Period in accordance with this Agreement.

17.03. **Health and Safety Standards**

The Project Company must comply with the relevant health and safety standards and practices as required by law and regulations and applicable to the Project. The Company shall comply with all health and safety standards in the Quality Assurance System and in this Agreement.

17.04. **Environmental Protection**

The Project Company shall keep the Site (including the soil, ground and surface water and air) and the surrounding environment free from environmental contamination in the course of the construction, operation and maintenance of the Project Expressway during the entire Concession Period, and shall meet other environmental standards set by law and regulations.

17.05. **Approvals**

Subject to what is otherwise expressly provided in this Agreement, the Project
Company shall obtain and maintain all approvals required in respect of itself and the Project at its own cost.

17.06. Protection of Archaeological, Geological and Historical Objects

The Project Company shall take measures to protect archaeological, geological and historical objects that it may discover during the construction, operation or maintenance of the Project Expressway.

17.07. Project Company Responsibility For Contractors

The Project Company shall be responsible for the acts or omissions of its contractors and their employees as if those acts and omissions were the acts and omissions of the Project Company and its employees.

17.08. Requisition of Service Under Extraordinary Circumstances

(a) The Project Company agrees that the Government of China may requisition the service of the Project Expressway under an Order issued under extraordinary circumstances.

(b) In such instance, the Authority agrees to pay compensation to the Company for all expenses, including any lost revenue. The amount and timing of payment of such compensation shall be determined by agreement between the Parties. Where such agreement cannot be reached, the Parties will submit the matter to dispute resolution under Article 25.

ARTICLE 18. OBLIGATIONS AND RIGHTS COMMON TO THE CONCESSION AUTHORITY AND THE PROJECT COMPANY

18.01. Rights To Information

(a) The Project Company acknowledges that the information, including documents, computer programs and other materials recorded or stored in whatever medium, which are provided to the Company by the Concession Authority or developed mainly based on information provided to the Company by the Concession Authority, are the property of the Concession Authority.

(b) The Project Company shall:

(i) not use the information referred to in paragraph (a) above other than for the purposes of the Project; and

(ii) return that information to the Concession Authority at the end of the Concession Period.
(c) The Concession Authority acknowledges that the information provided to the Authority by the Project Company, or developed mainly on the basis of information so provided, is the property of the Project Company.

(d) The Concession Authority is entitled to:

(i) copies of the information referred to in paragraph (c) above; and

(ii) a royalty free, non-exclusive, irrevocable license to use the information referred to in paragraph (c) above for the purposes of the Project.

18.02. Confidentiality

(a) Subject to Article 18.01 above, the Concession Authority and the Project Company shall keep all information and documents in respect of the Project confidential.

(b) The Concession Authority and the Project Company may disclose information or documents in respect of the Project if and to the extent that:

(i) the other Party consents to that disclosure;

(ii) the disclosure is required by Laws or Regulations or by the rules of a relevant stock exchange;

(iii) the disclosure is reasonably required in order to enable a Party to perform its obligations under this Agreement.

18.03. Obligation To Cooperate

The Parties shall cooperate with each other in respect of the Project.

18.04. Declaration Against Improper Payments

Both the Concession Authority and the Project Company declare that they are against any improper payment or unlawful influence in connection with the Project. They state that they have not and will not offer or receive any unlawful consideration in relation to the Project Expressway.

ARTICLE 19. FORCE MAJEURE

19.01. Suspension Of Performance Due To Force Majeure

(a) Subject as provided below, either Party shall be entitled to suspend
performance of its obligations under this Agreement to the extent that such performance is impeded by circumstance beyond its control, thus a force majeure. Such circumstances shall include, but not be limited to, natural disasters, revolution, riot, insurrection, war (whether declared or not), hostilities, embargo, import or export restrictions and Change in Law.

(b) A circumstance referred to in (a) of Section 19.01 shall give right to suspension only if the Party claiming to be affected by Force Majeure could not reasonably have foreseen such circumstance at the time of the formation of this Agreement, or could not reasonably have avoided or overcome it or its consequences despite the exercise of diligent efforts.

(c) The Party claiming Force Majeure shall resume performance of its obligations under this Agreement as soon as possible after the Force Majeure ceases to exist.

19.02. **Exceptions Applicable To The Project Company**

The Project Company shall not have the right to consider any of the following events or circumstances to be a Force Majeure, unless and to the extent any such delay is itself caused by Force Majeure:

(a) delay in performance by a Contractor, the Operator or any subcontractor to either of them;

(b) any delay in the delivery of, or any latent or patent defects in, any materials, equipment machinery or parts incorporated into any part of the Project;

(c) breakdown or ordinary wear and tear of materials, equipment, machinery or parts of the Project; or

(d) strikes by or affecting employees of the Project Company, the Contractor or the Operator or any other entity undertaking any part of the construction, operation or maintenance of the Project Expressway, in cases where the strike is not part of or directly related to any more widespread or general strike or other industrial action.

19.03. **Exceptions Applicable To The Concession Authority**

The Concession Authority shall not have the right to consider any of the following events or circumstances to be a Force Majeure:

(a) the expropriation, requisition, confiscation or nationalization of the Project Expressway by any Government Authority;

(b) the imposition of any blockade, embargo, import restrictions, rationing or allocation by any Government Authority;
(c) the cancellation of any Approval not caused by a breach by the Project Company of this Agreement or by a breach of any Project Contract by any Party thereto other than the Concession Authority or any Government Authority; and

(d) Change in Law.

19.04. **Procedure**

The Party claiming to be affected by a Force Majeure shall as soon as possible and within 24 hours after its occurrence or when the Party became aware of it, give the other Party written notice. Such written notice shall describe the effect of the Force Majeure in detail, including the date of its commencement and its effect on the affected Party’s obligations under this Agreement. Notice shall also be given as soon as possible of awareness of the end of the event of Force Majeure.

19.05. **Cost: Revised Timetable**

(a) In case of a Force Majeure, each Party shall cover its own costs resulting from the Force Majeure situation, except as otherwise provided in this Agreement.

(b) Provided that the Party claiming to be affected by the applicable Force Majeure has complied with the notice procedure of Article 19.04, and subject to the provisions of Article 11, any time period specified in this Agreement for the performance of an obligation shall be appropriately extended by a period equal to that during which the effect of the applicable Force Majeure applies to that obligation.

19.06. **Termination Due To Force Majeure**

(a) If any Force Majeure shall impede or prevent a Party’s performance for longer than a period of ninety (90) days from the date of its commencement, then the Parties shall decide through consultation either the terms upon which to continue the performance of this Agreement or to terminate this Agreement by mutual agreement.

(b) If the Parties are unable to agree on such terms or to terminate this Agreement within twelve (12) months after the date of the commencement of such Force Majeure, then either Party may, at any time thereafter during the continuance of such Force Majeure, terminate this Agreement by written notice to the other Party.

19.07. **Consultation And Duty To Mitigate**

The Party affected by the event of Force Majeure shall use reasonable efforts to mitigate the effects of that event, including the payment of reasonable sums based on the likely efficacy of such measures. The Parties shall consult with each other to determine reasonable measures to be implemented to minimize the losses of each Party resulting from Force Majeure.
19.08. **Termination After Force Majeure**

(a) If following the occurrence of a Force Majeure, the Parties are unable to reach an agreement on the completion and repair of the Project Expressway within ninety (90) days following commencement of the consultations under Article 19.07, then either Party may terminate the Concession Period and this Agreement on thirty (30) days’ written notice to the other Party.

(b) Upon such termination, neither Party shall have any further obligation under this Agreement, except to the extent that any obligation or undertaking under this Agreement expressly survives termination. If there is insurance covering such force majeure, then payments shall be made to the parties from the insurance proceeds based upon the rules set forth in Section 20.09.

**ARTICLE 20. TERMINATION**

20.01. **Normal Termination**

The concession rights granted under this Agreement shall end upon the expiration of the Concession Period, subject to the extension or earlier termination of that Period pursuant to the terms of this Agreement.

20.02. **Termination By Concession Authority Based on Project Company Event of Default**

If any one or more of the following events or circumstances (each of which shall comprise a “Project Company Event Of Default”) occurs, then the Concession Authority may, so long as a Project Company Event of Default exists, and subject to the provisions of this Agreement, terminate the Agreement immediately by giving written notice to that effect to the Project Company. Such Project Company Events of Default include:

(a) the Project Company goes into liquidation, becomes insolvent or bankrupt or stops making payment to its creditors generally;

(b) the Project Company is in breach of any of its material obligations under this Agreement and fails to remedy such breach within thirty (30) days after receipt of written notice from the Concession Authority specifying such breach and requiring the Project Company to remedy the same.

20.03. **Termination By The Project Company Based Upon Leasing Authority Event of Default**

If the Concession Authority is in breach of any of its material obligations under this Agreement (“Concession Authority Event of Default”) and fails to remedy such breach
within thirty (30) days after receipt of written notice from the Project Company specifying such breach and requiring the Authority to remedy the same, then the Project Company may, so long as such a Concession Authority Event of Default continues to exist, and subject to the provisions of this Agreement, terminate the Agreement immediately at any time thereafter, by giving written notice to that effect to the Concession Authority.

20.04. **Termination in Connection With Force Majeure**

Either Party may terminate the Concession Period and this Agreement, as provided in Article 19 on Force Majeure.

20.05. **No Termination**

(a) The Concession Authority’s right to terminate this Agreement based upon an event of Force Majeure under Article 19 shall not be exercised if and for so long as the occurrence or continuation of the relevant event or circumstance is primarily and directly a result of one of the exceptions under Article 19.03 or due to any act or omission of the Authority in contravention of its obligations under this Agreement.

(b) The Project Company’s right to terminate this Agreement based upon an event of Force Majeure under Article 19 shall not be exercised if and for so long as the occurrence or continuation of the relevant event or circumstance is primarily and directly a result of one of the exceptions under Article 19.02 or due to any act or omission of the Project Company in contravention of its obligations under this Agreement.

20.06. **Notice To Lenders**

If either Party issues a notice to the other Party pursuant to the provisions of this Article, then, at the same time, that Party shall also send a copy of such notice to each Lender’s Representative.

20.07. **Remedies Cumulative**

(a) The exercise of the right of any Party to terminate this Agreement does not preclude that Party from exercising any other remedies that are provided in this Agreement or are available at Law.

(b) Remedies are cumulative. The exercise of, or failure to exercise, one or more remedies by a Party shall not limit or preclude the exercise of, or constitute a waiver of, other remedies available to that Party.

20.08. **Deemed Abandonment of Construction**

The construction of the Project Expressway shall be deemed to have been abandoned if the Project Company:
(a) notifies the Concession Authority in writing that it has terminated the design or construction of the Project Expressway and does not intend to recommence such design or construction;

(b) fails to commence construction work on the Site within sixty (60) days after the Project Milestone Date applicable to the commencement of Construction Works, unless this delay was caused by an event of Force Majeure or by an act or omission of the Concession Authority in contravention of its obligations under this Agreement;

(c) fails to resume work within sixty (60) days after the end of an event of Force Majeure, other than by reason of the occurrence of an intervening event of Force Majeure or an act or omission of the Concession Authority in contravention of its obligations under this Agreement; or

(d) for any other reason, the Project Company ceases to design or perform Construction Works or withdraws either directly or through action by the Contractor (other than temporarily due to emergency), all or substantially all of its personnel and equipment from the Site prior to the Completion Date other than by reason of the occurrence of an event of Force Majeure or an act or omission of the Concession Authority in contravention of its obligations under this Agreement.

20.09. **Use of Certain Insurance Proceeds**

If the Agreement is terminated following the occurrence of Force Majeure, and the Concession Authority is required to pay compensation to the Project Company under Article 19.08, and insurance policies are available for such payment as provided for under Article 15 with respect to the Project Expressway, then such proceeds shall, to the extent not used to carry out restoration or repairs on the Expressway itself, be applied towards payment to discharge the following items in order of priority:

(a) all indebtedness of the Project Company owing to the Concession Authority secured by those insurance proceeds;

(b) in proportionate reduction of the amount, if any, payable by the Concession Authority to the Project Company, as set out in the Schedule regarding Termination Payment Schedule;

(c) to the Project Company or at its order.

20.10. **Survival**

The provisions of this Article shall survive the termination of this Agreement.

**ARTICLE 21. REPRESENTATIONS AND WARRANTIES**
21.01. **Concession Authority**

(a) The Concession Authority represents and warrants to the Project Company that:

(i) it has the power and authority to enter into, and perform its obligations under, this Agreement;

(ii) it has obtained all requisite approvals from the State Development Planning Commission and any other Government Authority necessary in order for it to enter into, and perform its obligations under this Agreement;

(iii) it is entitled and duly authorized to grant, convey and effectively vest in the Project Company the full and exclusive Concession Rights for the entire Concession Period in accordance with this Agreement, including access to and all other rights to use, the Site as contemplated by this Agreement and the Allocated Land Use Rights Contract), and

(iv) it has funds and other assets which are available to secure performance by the Concession Authority of its obligations under this Agreement, and to satisfy court judgments or arbitration awards arising out of or in connection with this Agreement or its performance.

(b) The Concession Authority expressly waives the defense of sovereign immunity and any other defense based on the fact or allegation that it is an agency or instrumentality of a sovereign state in relation to any arbitration proceeding, any legal proceeding to enforce any arbitration award and in any legal action between the Parties pursuant to or relating to this Agreement.

21.02. **Project Company**

The Project Company warrants and represents to the Concession Authority that:

(a) it has the power and authority to enter into, and perform its obligations under, this Agreement;

(b) it has obtained all Approvals necessary in order for it to enter into, and perform its obligations under, this Agreement;

(c) it has funds and assets which are available to secure performance by the Project Company of its obligations under this Agreement, and to satisfy court judgments or arbitration awards arising out of or in connection with this Agreement or its performance.

**ARTICLE 22. LIABILITY AND INDEMNIFICATION**
22.01. **Cross Indemnity**

Each Party shall indemnify, defend and hold harmless the other Party from and against all liabilities, damages, losses, expenses and claims of any nature whatsoever for personal injury and for damage to, or loss of, any property arising out of or in any way connected with the indemnifying Party’s performance of this Agreement.

However, an exception to the above shall be made to the extent that such injury, damage or loss is attributable to a negligent or intentional act of omission of the Party seeking to be indemnified.

22.02. **Environmental Damage**

The Project Company shall be liable for, and shall defend, indemnify and hold the Concession Authority harmless from and against, any liability, damage, loss, expense or claim which may be suffered or incurred by the Concession Authority in respect of Environmental Contamination resulting from the Project, as defined by existing laws and regulations.

However, an exception to this rule is made if and to the extent that such loss, expense or claim is primarily attributable to the negligent or intentional act or omission of the Concession Authority.

22.03. **Survival of Indemnities**

The indemnities contained in this Agreement shall survive the expiration of the Agreement itself.

22.04. **Joint Responsibility**

If any damage, expense, loss or liability is partly caused by the act or omission of the Concession Authority and partly caused by the act or omission of the Project Company, then each Party shall be liable to the other only in proportion to its relative degree of fault.

**ARTICLE 23. TRANSFER/RETURN OF PROJECT EXPRESSWAY TO CONCESSION AUTHORITY AFTER THE END OF THE CONCESSION PERIOD**

23.01. **Scope of Transfer/Return**

(a) At the end of the Concession Period, the Project Company shall:

(i) transfer/return the Project Expressway (free of all encumbrances) to the Concession Authority;
(ii) transfer/return the Project Expressway in a good operational and well-maintained condition which will permit the continuation of toll road operations at present level for a five (5) year period, at costs consistent with toll road operations and toll road services provided by the Company during the last five (5) years of the Concession Period, and in accordance with the Transfer Specifications set out in Schedule 10;

(iii) deliver to the Concession Authority all documents, manuals and records which are necessary to carry out the transfer of the Project Expressway to the Concession Authority and to enable the Authority to operate, maintain and repair the Expressway;

(iv) assign the benefit of all unexpired guarantees, warranties and insurance policies to the Concession Authority;

(v) transfer, assign or license, or procure the transfer, assignment or lease, to the Concession Authority of all technology and intellectual property relevant to the operation and maintenance of the Project Expressway, on terms reasonably acceptable to the Concession Authority;

(vi) transfer all other rights, interest and title of the Project Company in and to the Relevant Assets to the Concession Authority; and

(vii) take all measures and actions and enter into any documents as may be required by the Concession Authority to implement, perfect and/or facilitate any transfer of the Project Expressway and the other Relevant Assets contemplated in this Article 23.01.

(b) Where the Concession Authority determines that the condition of the toll road infrastructure is unsatisfactory in relation to the requirements established under Article 12 in the O&M Manual, then the Project Company will be required at its own expense to carry out the necessary repairs and upgrading. Such works must be prescribed at least one year and not more than five years before the end of the Concession Period. In case of disagreement by the Project Company, then the requirement of such works shall be decided based on the dispute resolution procedures set forth in Article 25.

23.02. Transfer/Return Procedure

(a) During the last five (5) years of the Concession Period, major decisions regarding Project Expressway operations shall be made jointly by the Parties.

(b) Not less than twelve (12) months before the end of the Concession Period, the Concession Authority and the Project Company, together with the Independent Engineer, shall conduct a joint inspection of all elements of the Project Expressway in accordance with the Transfer/Return Specifications set forth in Schedule 11.

(c) Not less than six (6) months before the end of the Concession Period, the
Concession Authority and the Project Company shall meet to agree on:

(i) detailed arrangements (including security arrangements) for the transfer of the Project Expressway and the other Relevant Assets to the Concession Authority; and

(ii) the spare parts and inventory to be transferred to the Concession Authority at the end of the Concession Period. They must be sufficient to meet the usual operating requirements of the Project Expressway for at least 6 months.

(c) At the meeting referred to in Section (b) above:

(i) the Project Company shall provide to the Concession Authority:

(A) a detailed list of the structures, equipment, facilities and items to be transferred to the Concession Authority; and

(B) the names of its representatives in charge of the transfer.

(ii) the Concession Authority shall provide to the Project Company the names of its representatives in charge of the transfer.

23.03. **Training of Concession Authority Personnel**

(a) Not less than twenty-four (24) months before the end of the Concession Period, the Project Company shall submit to the Concession Authority for its approval a detailed program for the training of nominated personnel of the Authority prior to the end of the Concession Period in the operation, maintenance and repair of the Project Expressway. Prior to the end of the Concession Period, the Project Company shall implement the training proposal approved by the Concession Authority.

(b) The Concession Authority and the Project Company shall conduct a joint test program to confirm that the Concession Authority’s nominated personnel referred to above in section (a) have been adequately trained to operate, maintain and repair the Project Expressway.

23.04. **Warranties**

The Project Company shall ensure that, at the end of the Concession Period, the Project Expressway:

(i) is in good operational condition;

(ii) is well-maintained in accordance with this Agreement; and

(iii) meets all safety and environmental standards required by this Agreement.

23.05. **Transfer/Return Costs**
(a) The Concession Authority shall not be required to make any payment to the Project Company in respect of the transfers, assignments and licenses referred to in Article 23.01.

(b) The Project Company and the Concession Authority shall each pay its own expenses, including legal fees, incurred in connection with the transfers, assignments and licenses referred to in Article 23.01.

(c) The Concession Authority shall, at its own cost, obtain or effect all Approvals which are necessary to carry out those transfers, assignments and licenses.

23.06. Passing of Risk

Except as otherwise provided in this Agreement, the Project Company shall be solely responsible for loss of, or damage to, the Project Expressway until the end of the Concession Period. However, it shall not be responsible if such loss or damage is due to an act or omission of the Concession Authority or a breach of this Agreement by the Concession Authority.

23.07. Removal of Objects

(a) The Project Company shall remove all of its objects and possessions which are on the Site within sixty (60) days after the end of the Concession Period.

(b) If the Project Company fails to remove its objects and possessions, then the Concession Authority may take any action it considers appropriate to remove those objects and possessions to a suitable place for storage after giving the Project Company written notice of its intention to remove them.

(c) The Project Company shall indemnify the Concession Authority immediately upon demand against any damage, expense, loss or liability which the Concession Authority may reasonably suffer or incur in respect of the exercise of its rights under this Article.

ARTICLE 24. ASSIGNMENT AND SUBSTITUTED ENTITY

24.01. Assignment By The Project Company

Without the prior written consent of the Concession Authority, the Project Company may not assign or transfer this Agreement or any of its rights and obligations under the Agreement. It may not transfer any of its assets except as permitted under any agreement creating a security interest in such assets.

24.02. Assignment By The Concession Authority
(a) Without the prior written consent of the Project Company, the Concession Authority may not assign or transfer this Agreement or any of its rights or obligations under the Agreement.

(b) However, the above clause shall not prevent the Concession Authority from merging or consolidating with, or transferring its rights and obligations to, any other Government Authority, government ministry, department, authority or agency of the PRC or any administrative subdivision of the PRC or any corporation or entity which is wholly or substantially owned by the PRC or any corporation or entity which is wholly or substantially owned by the PRC or any administrative subdivision of the PRC. In that case, such transferee or the surviving entity shall assume and become fully liable to perform the obligations of the Concession Authority under this Agreement.

24.03. Creation of Security

(a) For the purpose of financing the design, construction, completion, operation and maintenance of the Project, the Project Company may assign or create security over its rights and interests under or pursuant to this Agreement as may be required. Such security interest shall be in accordance with the terms of this Agreement, including without limitation its rights with respect to the Project, the Site, any of its moveable property or intangible property or its revenues or any other rights or assets,

(b) Such security interest shall require the prior written consent of the Concession Authority, which consent shall not be unreasonably withheld.

24.04. Substitution For Project Company

(a) The Parties acknowledge that a Substituted Entity may be substituted for the Project Company following the declaration of the occurrence of an event of default under this Agreement, particularly with regard to Project Company General Obligations under Article 17. The Concession Authority shall have the right to nominate such a Substituted Entity which shall be approved by the Provincial Government and the Ministry of Finance or Ministry of Communications, as required under other relevant agreements.

(b) Once the approval of such substitution is obtained, the Concession Authority shall be entitled within a reasonable period of time to effect the substitution. Such substitution shall take effect when the Authority notifies its intention to the Project Company and, at the same time, gives all necessary information to the Project Company.

ARTICLE 25. DISPUTE RESOLUTION

25.01. Friendly Consultations

In the event of any dispute, controversy or claim (collectively, “dispute”) arising
out of or relating to the performance, breach, termination or invalidity of this Agreement, the Parties shall attempt in the first instance to resolve such dispute through friendly consultations.

25.02. **Arbitration**

If the dispute is not resolved by friendly consultations within sixty (60) days after the date such consultations were first requested, then any Party may submit the dispute for arbitration in Beijing for final and exclusive resolution by the China International Economic and Trade Arbitration Commission (CIETAC) in accordance with its rules of arbitration procedure effective at the time of arbitration application. This request shall be supplemented by the following:

(a) The arbitration award shall be final and binding on the Parties, and the Parties shall agree to be bound by it and to act accordingly;

(b) All costs of arbitration shall be borne by the Parties, as determined by the arbitration tribunal.

25.03. **Continuing Rights and Obligations**

When any dispute occurs and is the subject of friendly consultations or arbitration, the Parties shall continue to exercise their remaining respective rights, and fulfill their remaining respective obligations, under this Agreement, except in respect of those matters under dispute.

**ARTICLE 26. APPLICABLE/ GOVERNING LAW**

26.01. **Applicable Law**

The validity, interpretation and implementation of this Agreement shall be governed by the laws of the People’s Republic of China (PRC).

26.02. **Preferential Treatment**

The Parties shall be entitled according to the law to any tax, investment or other benefits or preferences that become available or publicly known after the signing of this Agreement and which are more favorable than those set forth in this Agreement.

**ARTICLE 27. LANGUAGE**

This Agreement is drawn up in Chinese language and English language versions. Both versions have equal legal effect.
ARTICLE 28. MISCELLANEOUS PROVISIONS

28.01. Waiver

To the extent permitted by the laws of the People’s Republic of China and subject to this Agreement, failure or delay on the part of any of the Parties to exercise a right under this Agreement shall not operate as a waiver of such right. In addition, no single or partial exercise of such a right shall preclude any other future exercise of that right.

28.02 Binding Effect

This Agreement is made for the benefit of the Parties and their respective lawful successors and assignees and is legally binding upon them. This Agreement may not be changed orally, but only by a written instrument signed by the Parties and approved by them.

28.03. Severability

The invalidity or unenforceability of any provision of this Agreement, or of any part of the Agreement, shall not in any way affect any other provision or part of the Agreement.

28.04. Entire Agreement

This Agreement constitutes the entire agreement between the Parties with respect to the subject matter concerned. This Agreement supersedes all prior discussions, negotiations and agreements between the Parties.

28.05. Primacy Of This Agreement

This Agreement shall govern all aspects of, and all contractual relationships relating to, the Project as between the Parties. The Project Company shall ensure that the execution and performance of other Project Contracts by the Project Company will not cause the Company to be in breach of, or inconsistent with, its obligations under this Agreement. In the event of conflict between this Agreement and any Project Contract, including all questions of interpretation of this Agreement, this Agreement shall prevail as between the Parties.

28.06. Notices

Any notice or written communication provided for in this Agreement by any Party to any other Party, including, but not limited to, any and all offers, writings or notices to be given shall be made by facsimile, electronic mail, telegram or telex, and confirmed by courier service delivered letter, promptly transmitted or addressed to the
appropriate Party. The date of receipt of such a notice or communication shall be deemed to be twelve (12) days after the letter is given to the courier service in the case of a courier service delivered letter and three (3) working days after dispatch in the case of a facsimile, electronic mail, telegram or telex. All notices and communications shall be sent to the address set forth below, until that address is changed by notice given in writing to the other Parties.

**CONCESSION AUTHORITY**

People’s Republic of China

Facsimile No.: ________________________________
or E-Mail Address: ________________________________
Attention: ______________________________________

**PROJECT COMPANY**

People’s Republic of China

Facsimile No.: ________________________________
or E-Mail Address: ________________________________
Attention: ______________________________________

**IN WITNESS WHEREOF**, each of the Parties has caused this Agreement to be executed in ________________, People’s Republic of China, by their duly authorized representatives on the date set forth above.

**CONCESSION AUTHORITY**

By: ________________________________ (Name)
Title: ________________________________

**PROJECT COMPANY**

By: ________________________________ (Name)
Title: _________________________
APPENDIX 2: THE PUBLIC / PRIVATE ROADS INVESTMENT SCREENING AND SELECTION MODEL (PPRISS)

The PPRISS is a project assessment and business planning tool. The following list describes the model’s main purposes and applications:

- As a project assessment tool the model allows the user to determine the financial viability of a proposed project under specific scenarios;
- As a project assessment tool the model allows the user to rank projects and prioritize investments over time;
- As a project bid packaging tool the model allows the user to determine the best mix of project and financing options to attract private investors;
- As a project bid packaging tool the model allows the user to determine the optimal mix for equity or bond financing, debt financing, government guarantees and tax;
- As a project management tool the model will forecast traffic under different scenarios, indicate toll rate and toll rate adjustment options, concession life, as well as profit split options between operating parties; and
- As a project management tool the model enables the user to compare bid offers to determine the results the private sector will realize through their prospective bid.

This Annex includes a User Manual of the PPRISS and the Input page of the model.
PUBLIC / PRIVATE ROAD INVESTMENT SCREENING AND SELECTION MODEL (PPRISS)

User Instructions
Manual

August 15, 2010
Table of Contents

Glossary
A. Model Purpose & Application
B. Model Context
C. Operating Instructions
   1 Input Sheet
   2 Output Sheet
D. Worksheets
   1 Traffic Assumptions Worksheet
   2 Finance Options Worksheet
   3 Economic Analysis Worksheet
   4 PPRISS Model / Program Worksheet
E. Financial Statements
   1 Income Statement Worksheet
   2 Cash Flow Statement Worksheet
   3 Balance Sheet Worksheet
F. Extra
   1 Input Sheet Example
   2 Output Sheet Example
   3 Quick and Easy Guide
## Selected Glossary of Terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset value</td>
<td>usually refers to replacement cost</td>
</tr>
<tr>
<td>Asset use value</td>
<td>refers to estimated value of an asset during its useful life, excludes replacement</td>
</tr>
<tr>
<td>Depreciation</td>
<td>reduction in the value of the asset over time</td>
</tr>
<tr>
<td>Amortization</td>
<td>the gradual reduction of an outstanding loan in accordance with an agreed repayment schedule. This can differ from the actual loan period.</td>
</tr>
<tr>
<td>Debt</td>
<td>relates to all funds that have been borrowed which involve repayment, and includes principal plus interest. It can consist of a number of loans with differing interest rates, repayment periods and amortization periods.</td>
</tr>
<tr>
<td>Disbursement</td>
<td>drawdown of funds, either equity or debt.</td>
</tr>
<tr>
<td>Discount rate</td>
<td>rate at which funds are discounted over time.</td>
</tr>
<tr>
<td>EIRR</td>
<td>Economic Internal Rate of Return – assessment of a project's impact on the social and economic fibre of a country, presented as a percentage return on economic investments, defined in terms of costs and benefits, over a specified time period</td>
</tr>
<tr>
<td>Elasticity</td>
<td>relationship of change in one characteristic as compared to another</td>
</tr>
<tr>
<td>Equity</td>
<td>a company's paid up share capital plus other share holders’ funds, either equity or debt.</td>
</tr>
<tr>
<td>FIRR</td>
<td>Financial Internal Rate of Return – assessment of a project's financial viability presented as a percentage return on investments over a specific time period.</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product – value of a nation's productivity.</td>
</tr>
<tr>
<td>NPV</td>
<td>(net present value) – an estimate of cash flows or the value or production to be generated by a project, net of operating cost and expenses, discounted back to the time of determination.</td>
</tr>
<tr>
<td>Recurrent cost</td>
<td>includes all operations, maintenance and administrative costs.</td>
</tr>
<tr>
<td>VOC</td>
<td>(Vehicle Operating Cost) – reflects the economic cost of maintaining a vehicle in running order. It includes fuel, maintenance and operations costs, usually presented on the basis of cost/km.</td>
</tr>
</tbody>
</table>
A Model Purpose and Application

The Public / Private Roads Investment Screening and Selection Model (PPRISS) is a project assessment and business planning tool. It is a program which allows for changes in a significant number of parameters to ensure the greatest amount of flexibility in evaluation. The model offers a number of scenarios to test assumption sensitivity as well as including a “risk” factor to present a “range” of possible results. The following presents the model's main purposes and applications.

Project Assessment Tool

The model allows the user to determine the financial viability of a proposed project under specific scenarios, by changing a variety of assumptions to best reflect public sector demands and perceptions, while taking into consideration private sector concerns respecting potential project and financing risks. It examines options and allows the user to select the best composition of inputs which would result in an acceptable financial return on investments. It also offers the user the option of conducting sensitivity analyses to test the robustness of the results. In so doing, the model enables the user to alter operational, financial, and economic assumptions indefinitely to arrive at the preferred results by both financing parties. It allows the user to rank projects and prioritize investments over time.

Project Bid Packaging Tool

The model allows the user to determine the best mix of project and financing options to attract private investors, and so allows the user to package a project bid accordingly. It provides the user with the capability to determine the best financing option mix to attract the private sector, while maintaining public policy integrity and to this end also can be used as a project negotiating tool. It allows the user to determine the optimal mix for equity or bond financing, debt financing, government guarantees and tax incentives.

It will also forecast traffic under different scenarios, indicate toll rate and toll rate adjustment options, concession life, as well as profit split options between operating parties. It also enables the user to input data from bid offers to determine the results the private sector will realize through their prospective bid.

B. Model Context

The PPRISS model is an excel file program which has been divided into seven (7) separate worksheets plus an input and output sheet. Each worksheet has its own function and is self contained. However, each worksheet depends on data which is entered in the control, or “Input” worksheet to undertake its calculations. The results of the overall program “run” are presented in an “Output” sheet. Both Input and Output sheets are placed at the beginning of the excel file. The “Input” sheet includes all the input parameters required to make calculations in the “Finance”, “Traffic” “Model”, “Economic” and “Income” worksheets. The data required for calculation within the balance sheet and cash flow sheet are derived from information presented in the other worksheets. In the “Input” sheet, those cells which are highlighted by a red border require input according to the description of the parameters. These are then exported automatically to the corresponding worksheets for calculation. Those with the blue border are to be treated as defaults with inputs unnecessary unless the user has more accurate information which would be appropriate. If so the default may be changed to suit this purpose.

C. Operating Instructions

The Input and Output sheets are the model's “control” and “results” sheets, respectively. The worksheets on the other hand act as the inner workings of the model where all of the formulae rest and calculations are made automatically. Each of the worksheets has a specific program responsibility. For example, the traffic worksheet deals only with issues related to traffic, the finance worksheet only with issues related to financing options, economic worksheet only socio-economic issues, etc. The PPRISS model worksheet brings all of the information together from the other worksheets plus the input sheet to calculate the final results, which are then presented in the Output sheet. The model calculates results based on the data presented in the Input sheet, and since this sheet acts as the “control” page where data placed in the cells is transported to the model worksheets for calculation, the information placed in the Input cells is critical in determining the results.

Any changes in input assumptions will automatically force a recalculation within these worksheets and present alternate results. Relevant data is placed directly into the cells identified in the input sheet. A number of cells...
have been set as defaults but in the event that more accurate information is available these defaults will accommodate change and allow for updated information to be inputted. The following identifies the specific information required in each of the cells of the Input sheet.

The column where the words are highlighted in blue indicate those areas which are considered incentive options and so can be changed accordingly.

1 Input Sheet

Project Assumptions

Deal with the main assumptions associated with the overall project.

Length of Project Road
Input the length of the project road in kilometres.

Length of Parallel Road
Input the length of the parallel road in kilometres.

Construction Period
Input the time required in years for construction of the project road. If the project is completed, input “0”.

Investment Context
Input all costs including sunk investment, new investment in civil works and other investment such as equipment procurement, input in (currency) million.

Recurrent Cost Options
Input 1, 2 or 3 as the selected option and input the relevant information in the appropriate cells above. Option 1 is calculated as a percentage of construction cost; Option 2 considers maintenance, management and salary respectively in (currency) million; Option 3 is calculated as a percentage of revenue.

Taxes and Depreciation
Taxes include business tax, income tax and other taxes and fees. Default rates have been set at 5%, 33% and 0.5% respectively.
Depreciation default is set at 5%.

Inflation Rate
Input inflation rate based on historical data.

NPV Discount Rate
Input discount rate in accordance with the rate announced by the Ministry of Foreign Trade (MOFTEC). 6.5% is set as the default rate.

Profit Split Options
Input the percentage of profit split for each investor. If only one investor, input “100” for party 1.

Toll Options
Input a comparable toll rate currently used, in (currency) / pcu-km, a toll will be given automatically in the right cell filled in yellow for reference, input a selected toll and growth rate in 3 year increments. 10% is set as the growth default rate.
Financial Assumptions

Focus on equity and debt where the equity / debt split is applied in percentages.

Equity This includes the equity split chosen as well as the equity disbursement year.

Debt This includes the debt split chosen, interest rate, grace period, loan term, amortization period, and disbursement year for four kinds of loans.

Traffic Assumptions

Includes the traffic information for both the project road and parallel road as follows:

GDP Growth Rate Input GDP growth rate of the nation, province and influence area in different periods. Year (-5–0) represents the construction period.

Elasticity Traffic growth rates are calculated elasticity coefficients. Fixed elasticity for high, medium and low scenarios are listed in the right table filled with yellow for reference. Input selected options directly.

Number of Road Carrying Days Input number of operating days of the roads. Default is set as 365.

Diverted Traffic Input diverted rate as percentage of base year traffic from both other transport modes and other roads in the corridor. Default is set at 25%

National Economic Evaluation

Includes parameters used to calculate the Economic Internal Rate of Return (EIRR). According to the Vietnamese Highway Engineering Technical Standard the evaluation period for economic evaluations is set at 20 years for Expressways and National Highways. The evaluation is conducted using a traditional cost / benefit methodology.

GDP of the Province Input GDP of the province in Dong billion.

VOC Assumptions Input vehicle operating cost savings (VOC) of the project and parallel road in (currency)/pcu-km or Vehicle/km. Consistency is necessary.

Economic Costs Input rate as percentage of total financial cost. 85% is set as default.

Risks

The purpose of these cells is to evaluate the project using standard sensitivities to test the robustness of results. Those used include:

Risks on Revenue Input a risk rate on revenue in percentage caused by political, economic and other uncertainties. Default is set at 10%.

Risks on Expenditure Input a risk rate on expenditure in percentage caused by political, economic and other uncertainties. Default is set at 10%.

2 Output Sheet

Results are presented in the output sheet by simply clicking on it. This will allow the user to have a quick look at the major results in five years intervals in terms of:

- Project Net Present Value (NPV);
- Asset Use Value;
• Project Financial Rate of Return (FIRR);
• Project FIRR under normal plus risky circumstances;
• Investor Returns;
• Project Economic Internal Rate of Return (EIRR); and
• Annual Average Daily Traffic during the project's life.

D Worksheets

1 Traffic Assumptions Worksheet

The Traffic Worksheet contains one of the controlling features of the model – it is the forecast vehicle. The assumptions presented are based on common assumptions presently in use in Vietnam. Baseline traffic constitutes the underlying pillar for year one of the calculations. This is traffic that is either actual, as in the case of an existing road, or expected, as in the case of a green-field road, and is converted to passenger car units (pcu) by the model. The forecast is based on the simple assumption that traffic will grow in line with the rate of GDP growth. An elasticity coefficient is applied to the GDP growth to arrive at the traffic growth rate. Elasticities are set at high, medium and low. Each of these coefficients change to reflect downstream uncertainties related to traffic growth during the life of the project with changes in growth marked in 5 year intervals. The following summarizes the traffic growth assumptions used, including GDP rates and elasticity coefficients:

- Growth Rates
  - National GNP growth;
  - Provincial GDP growth; and
  - Area of Influence GDP growth.

- Elasticity coefficients
  - High is set at 1.2;
  - Medium is set at 1.0; and
  - Low is set at 0.8.

The traffic growth rate derived from the above information forms the basis for traffic calculations during the project life. Any changes in baseline traffic and GDP growth will alter results. The traffic is first analysed in terms of AADT (average annual daily traffic), translated into AAT (average annual traffic) and finally into PCUs (passenger car equivalents). But PCUs do not have to be used. However, it is understood that PCUs are a standard unit to which all other units are converted because it is commonly used in Vietnam. Furthermore an average of length of road travelled is taken and PCU-km estimated. Only the result feeds directly into the PPRISS model worksheet. The AADT and AAT feed in directly into the income statement. All the assumptions and calculations to arrive at this result are kept internal to this worksheet with the growth rates being a controlling feature, along with length of road and assumed average distance travelled.

All data required to run this worksheet originates in the input sheet, where pertinent information is placed in the relevant cells. See Input Sheet (c – Traffic Assumptions).

2 Finance Options Worksheet

The Financing Worksheet contains a number of controlling features directly related to the following:

- Equity amounts including investor equity, grants, subsidies and bonds; and
- Debt amounts including all loans (domestic and foreign) as well as bond options.

Financing assumptions used are based on information derived from the existing situation in Vietnam with the interest rates, repayment periods and grant period all included in the assumptions. The controlling feature is the proportion of the equity and debt associated with the project and this is identified for each of the items under both categories. The financing options are all capable of developing scenarios up to a 25 year period, which includes repayment of interest and principal in the case of debt, dividends in the case of bonds, and
investment in the case of equity, grants and subsidies. The amounts are all derived from information placed in the Input Sheet with the results of the analysis being the only items which are fed directly into the PPRISS worksheet.

All data required to run this worksheet originates in the input sheet, where pertinent information is placed in the relevant cells. See Input Sheet (b – Financial Assumptions).

3 Economic Analysis Worksheet

The economic analysis worksheet evaluates the road from a socio-economic perspective to determine its impact on the national economy. Its purpose is to determine economic viability independently from its financial viability. This allows the government to see the level of economic benefit the road generates related to the economic costs involved. It is in essence the quantification and valuation of socio-economic impacts, the results of which are reflected in the calculation of a net present value (NPV), Economic Internal Rate of Return (EIRR) and Benefit/Cost Ratio (B/C).

The basic project assumptions are transported from the Input Sheet and the Traffic Assumptions Worksheet, while the benefits are derived from information given in the input sheet (d - National Economic Evaluation). The backbone of the benefits stream is based on Vehicle Operating Cost Savings (VOCs), with accident cost savings and employment cost savings also included where appropriate. (Employment cost savings are applied only in the case of Greenfield projects).

Economic costs are based on financial costs given in the input sheet and adjusted by a default coefficient of 0.85. Economic costs include all relevant costs such as civil works, environmental costs, resettlement costs and operations and maintenance costs (O&M). The environmental, resettlement and O&M costs are all calculated as a set proportion of the total financial cost given.

Only the final EIRR is transported to the Output Sheet, but a user can view a number of other results in the worksheet itself, including NPV, B/C ratio as well as the EIRR in year 5, 10, and 15.

All data required to run this worksheet originates in the input sheet, where pertinent information is placed in the relevant cells. See Input Sheet (d – National Economic Evaluation).

4 Public / Private Roads investment Screening and Selections Model (PPRISS) - Program Worksheet

The PPRISS model/program worksheet is basically the backbone of the model. It runs the program and calculates the results. It consists of two basic parts. The first identifies the financial assumptions key to running the program, selecting critical information from the Input Sheet, the traffic worksheet and the finance worksheet. This information is transported automatically into the program worksheet when the input sheet is completed. The Input Sheet supplies the basic information concerning project assumptions and financing assumptions. From the Financing worksheet the critical inputs include options respecting financing choices in terms of equity, debt, bonds, and guarantees/subsidies. In the same manner the results from the Traffic worksheet are exported directly into the program worksheet. The second part of the program worksheet consists of the evaluation model itself, which runs the information and calculates the results.

The PPRISS worksheet is presented in the form of an Income Statement which presents both a revenue stream and expenditure stream. The results which the model calculates include:

- net profit expected from the project under specific scenarios;
- Net Present Value (NPV) of the overall project;
- Financial Internal rate of Return (FIRR) of the overall project;
- Project return on Equity in the form of Internal rate of Return (IRR);
- Asset “Use” Value;
- Foreign Investor returns in the form of net profit and FIRR;
- Domestic Investor returns in the form of net profit and FIRR; and
- Results based on a risk analysis.
E  Financial Statements

The income statement, cash flow statement and balance sheet worksheets are included in the model, in a simplified and shortened version, to allow investors to see, at a glance what the financial situation of the toll road company is likely to be under a specific set of scenarios. It has no intrinsic value in terms of calculating financial viability of the project and investor impact. Its sole purpose is to present a glimpse into the financial health of the prospective entity.

1  Income Statement Worksheet

An income statement is a financial statement that summarizes revenue and expenditures for a specific period and reports one or more profit lines. Unusual gains and losses are also reported in this financial statement. It is one of the three primary financial statements of a business and probably receives the most attention from business managers and investors. The only control features of the income statement in the model relate to existing businesses. This includes the revenue generated from these businesses as well as the expenditures related to them. This information is exported directly into the PPRISS worksheet and treated in the “risk” or “sensitivity” analysis. All information/data related to income and expenditure of the project toll road is generated in the PPRISS worksheet and imported into the income statement. The main purpose of this worksheet, other than that noted above, is to present a preliminary statement which can be used for generation of detailed data.

2  Cash Flow Statement Worksheet

A cash flow statement, in general, refers to cash inflows and outflows during a specific financial period. It is frequently used as a shorthand phrase for cash flow from profit. The cash flow statement classifies cash flows into three different categories; cash flows from operating activities (profit making activities), from investing activities, and/or from financing activities. It is considered to be the second of the three most important financial statements.

In the PPRISS model there are no control features associated with the cash flow statement worksheet in the model. All basic information/data is generated either by the income statement worksheet, financing options worksheet or PPRISS program worksheet with the results imported into the cash flow statement worksheet automatically. The main purpose of this worksheet is to present a preliminary cash flow statement which can be used for analysis of cash flows associated with the project.

3  Balance Sheet Worksheet

The balance sheet is the third of the financial statements considered to be key. It is an essential statement that summarizes the assets, liabilities, and owners’ equity of a business at a specific moment in time. Prepared at the end of each profit period, and whenever needed, the balance sheet indicates a company’s overall financial position.

In the PPRISS model there are no control features associated with the Balance Sheet worksheet. All basic information/data is generated either by the income statement worksheet, financing options worksheet or PPRISS program worksheet with the results imported into the balance sheet worksheet. The main purpose of this worksheet is to present a preliminary and simplified balance sheet which can be used for overall project analysis and allows the prospective toll road company to view the financial health of it.
QUICK AND EASY GUIDE TO PPRISS
An Abridged Version

INTRODUCTION

PPRiSS is a project assessment and business planning tool to assist in the formation of partnerships which satisfy both the needs of governments and private sector investors.

For government, it is a project assessment tool which allows users to calculate the financial rate of return of the proposed project according to a set of assumptions. It allows the user to vary the assumptions (inputs) to achieve the best balance between the private and the public investors. The model also helps to indicate how best to package a project to encourage private interest and investment. Finally, it can be used by Governments to rank order a number of projects indicating those which have the best potential for private involvement and those which have the least.

For private investors, it becomes a business planning tool. The potential investor can evaluate the financial impact of the proposed terms of the contract (as proposed by the government) and then refine the terms to match private investor needs. It is useful also for negotiating purposes, because proposed conditions on both sides can be translated as inputs into the model to view results.

PPRiSS is an Excel file including 9 interrelated sheets, namely:

- **INPUT** which includes all the input parameters;
- **OUTPUT** which presents all of the major model results;
- **FINANCE** which assesses all of the financing assumptions;
- **TRAFFIC** which calculates the traffic demand projections;
- **EIRR** which presents the national economic evaluation and calculates the economic internal rate of return;
- **MODEL** which presents the actual program to calculate NPV, FIRR and asset use value;
- **INCOME** statement which presents a short summary of income / expenditure;
- **CASHFLOW** statement which presents the current financial situation in summary form; and
- **BALANCE** statement, which presents the status of project financial health in summary form.

With basic data and this Quick & Easy Guide, the user can easily screen a potential project to determine financial viability and create the optimum scenario for cooperation between government and investors. Detailed information can be found in PPRiSS User Manual.
HOW TO INPUT

A  Project Assumptions

Length of Project Road  Input the length of the project road in kilometres.

Length of Parallel Road  Input the length of the parallel road in kilometres.

Construction Period  Input the time required in years for construction of the project road. If the project is completed, input “0”.

Investment Context  Input all costs including sunk investment, new investment in civil works and other investment such as equipment procurement, input in Dong million.

NPV Discount Rate  Input discount rate in accordance with the rate announced by banks or comprehensive interest rate. 6.5% is set as the default rate.

Profit Split Options  Input percentage of profit split for each of the investors. If only one investor, input “100” for party 1.

Toll Options  Input comparable toll rate currently used in (currency)/pcu-km, a toll will be given automatically in the right cell filled in yellow for reference, then input selected toll and growth rate in 3 year increments. 10% is set as the default rate.

B  Financing Assumptions

Equity / Debt Split  Input the percentage of equity and debt.

Equity  This includes the equity split as well as the equity disbursement year.

Debt  This includes the debt split, interest rate, grace period, loan term, amortisation period, and disbursement year for four kinds of loans.

C  Traffic Assumptions

GDP Growth Rate  Input GDP growth rate of the nation, province and influence area in different periods. Year (-5~0) represents construction period.

Elasticity  Traffic growth rates are calculated using the elasticity coefficient method. Fixed elasticity for high, medium and low scenarios are listed in the right table filled with yellow for reference. Input selected options directly.

Number of Road Carrying Days  Input number of operating days of the roads. Default is set as 365.

Diverted Traffic  Input diverted rate as percentage of base year traffic from both other transport modes and other roads in the corridor. Default is set at ...

Generated Traffic  Input induced traffic rate as percentage of base year traffic. Default is set at ...

Data of Project Road  Input the average percentage of road length travelled and base year traffic of project road.
Data of Parallel Road
Input the average percentage of road length travelled and base year traffic of parallel road.

D National Economic Evaluation

GDP of the Province
Input GDP of the province in RMB billion.

VOC Assumptions
Input vehicle operating cost savings (VOC) of the project and parallel road in (currency)/pcu-km.

Economic Cost
Input rate as percentage of total financial cost. 85% is set as default.

E Risk Analysis

Risks on Revenue
Input a risk rate on revenue in percentage caused by political, economic and other uncertainties. Default is set at 10%.

Risks on Expenditure
Input a risk rate on expenditure in percentage caused by political, economic and other uncertainties. Default is set at 10%.

TO CHECK THE RESULTS
Click the OUTPUT sheet to have a quick look at the major results in five years intervals, including:

- NPV;
- Asset Use Value;
- FIRR; and
- EIRR.
### A. PROJECT ASSUMPTIONS

<table>
<thead>
<tr>
<th>INCENTIVE OPTIONS</th>
<th>INPUTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project/Concession Life (financial)</strong></td>
<td>Concession period extension</td>
</tr>
<tr>
<td>Length of Project Road (could be bridge)</td>
<td>107.0 km</td>
</tr>
<tr>
<td>Number of Lanes of Project Road</td>
<td>4</td>
</tr>
<tr>
<td>Length of Parallel Road (could be ferry system)</td>
<td>150 km</td>
</tr>
<tr>
<td><strong>Construction Period &amp; Costing breakdown</strong></td>
<td></td>
</tr>
<tr>
<td>Construction Phasing &amp; Cost Breakdown</td>
<td>10% 20% 25% 30% 15%</td>
</tr>
<tr>
<td>Other Related Cost Phasing breakdown</td>
<td>0% 0% 0% 50% 50%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Investment Context</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Investment</td>
<td>0.0 (×10^6) value</td>
</tr>
<tr>
<td>New Investment in Civil Works</td>
<td>357.5 (×10^6) value</td>
</tr>
<tr>
<td>Other Related Costs (such as toll booths/system)</td>
<td>3.7 (×10^6) value</td>
</tr>
<tr>
<td>Grant - non-repayable (govt cost share - i.e. land) Govt/private cost sharing of construction</td>
<td></td>
</tr>
<tr>
<td>Total Actual Cost</td>
<td>650.0 (euro million)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Recurrent Cost Options</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Govt/private cost sharing during operation</td>
<td></td>
</tr>
<tr>
<td>Road Operation and Maintenance Cost</td>
<td>Availability payment/operational subsidy</td>
</tr>
<tr>
<td>Toll Facilities O&amp;M Costs</td>
<td>2.50% of investment</td>
</tr>
<tr>
<td>Option 1 – as % of total costs</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Option 2 – calculated from previous experience</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Maintenance</td>
<td>16 (×10^6) value</td>
</tr>
<tr>
<td>- Salary and Benefit</td>
<td>16 (×10^6) value</td>
</tr>
<tr>
<td>- Management and Administration</td>
<td>16 (×10^6) value</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Option 3 – as % of revenue</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Selected Option (input 1, 2 or 3)</td>
<td>18.0%</td>
</tr>
</tbody>
</table>

| Additional Administrative Costs | 9% of toll revenue |
### Project Assumptions Continued:

#### Taxes and Depreciation

<table>
<thead>
<tr>
<th>Tax Category</th>
<th>Description</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Tax (on revenue)</td>
<td></td>
<td>0.0%</td>
</tr>
<tr>
<td>VAT</td>
<td></td>
<td>0.0%</td>
</tr>
<tr>
<td>Other Taxes/Fees (flat)</td>
<td></td>
<td>0.0%</td>
</tr>
<tr>
<td>Asset Depreciation (annual %)</td>
<td></td>
<td>5.0%</td>
</tr>
</tbody>
</table>

#### Inflation Rate (%)

<table>
<thead>
<tr>
<th>Description</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forex risk guarantee</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

#### NPV Discount Rate (%)

<table>
<thead>
<tr>
<th>Description</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8.5%</td>
</tr>
</tbody>
</table>

#### Profit Split Options (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>Party 1</th>
<th>Party 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yr(1-10)</td>
<td>55.0%</td>
<td>45.0%</td>
</tr>
<tr>
<td>Yr(11-15)</td>
<td>55.0%</td>
<td>45.0%</td>
</tr>
<tr>
<td>Yr(15+)</td>
<td>55.0%</td>
<td>45.0%</td>
</tr>
</tbody>
</table>

#### Toll Options

<table>
<thead>
<tr>
<th>Description</th>
<th>Toll Rate (value/km)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum revenue guarantee with reciprocal maximum revenue limit</td>
<td>Light Veh 0.02 Med. Veh 0.05 Heavy Veh 0.09 Ave. 0.053</td>
<td>at this point not included but could be based on inflation or European CPI: at this rate increase cancels inflation</td>
</tr>
<tr>
<td>Gov't pay fee/tariff to operator - shadow toll</td>
<td>0.053</td>
<td>could be different toll for different sections</td>
</tr>
<tr>
<td>Toll Growth Rate in Every 3 Yrs</td>
<td>3.0%</td>
<td>could be different toll for different sections</td>
</tr>
<tr>
<td>Parallel Road or bundled road: Selected Toll</td>
<td>0.00</td>
<td>cross subsidization between 2 or more toll roads</td>
</tr>
</tbody>
</table>

#### Other Income Options

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction of related facilities</td>
<td></td>
</tr>
<tr>
<td>Signage</td>
<td>2</td>
</tr>
<tr>
<td>- number of signs/km</td>
<td></td>
</tr>
<tr>
<td>- revenue/sign</td>
<td>10000.00</td>
</tr>
<tr>
<td>Total signage revenue</td>
<td>2.14 (value Million)</td>
</tr>
<tr>
<td>Rest areas</td>
<td></td>
</tr>
<tr>
<td>- percentage of traffic stopping/annum</td>
<td>25% (value/annum)</td>
</tr>
<tr>
<td>- revenue/stop</td>
<td>5 (value)</td>
</tr>
</tbody>
</table>
## B. FINANCING ASSUMPTIONS

### Equity/Debt Split

<table>
<thead>
<tr>
<th>Equity (%)</th>
<th>Debt (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>45.0%</td>
<td>55.0%</td>
</tr>
</tbody>
</table>

### Equity Split between 2 partners

**Equity Split Party 1**

<table>
<thead>
<tr>
<th>Equity 1</th>
<th>Equity 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>30.0%</td>
<td>70.0%</td>
</tr>
</tbody>
</table>

**Equity Split Party 2**

<table>
<thead>
<tr>
<th>Equity 1</th>
<th>Equity 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>30.0%</td>
<td>70.0%</td>
</tr>
</tbody>
</table>

### Disbursement Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Equity from Party 1 (%)</th>
<th>Equity from Party 2 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>34.0%</td>
<td>34.0%</td>
</tr>
<tr>
<td>Year 2</td>
<td>33.0%</td>
<td>33.0%</td>
</tr>
<tr>
<td>Year 3</td>
<td>33.0%</td>
<td>33.0%</td>
</tr>
<tr>
<td>Year 4</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Year 5</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

### Debt

**Subordinated loans**

<table>
<thead>
<tr>
<th>Debt Split</th>
<th>Interest Rate</th>
<th>Grace Period (yrs)</th>
<th>Loan Term (yrs)</th>
<th>Amortization Period (yrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan 1</td>
<td>20.0%</td>
<td>5.0%</td>
<td>4</td>
<td>25</td>
</tr>
<tr>
<td>Loan 2</td>
<td>20.0%</td>
<td>5.0%</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Loan 3</td>
<td>40.0%</td>
<td>5.0%</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>Loan 4</td>
<td>20.0%</td>
<td>5.0%</td>
<td>4</td>
<td>10</td>
</tr>
</tbody>
</table>

### Disbursement Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Loan 1 (%)</th>
<th>Loan 2 (%)</th>
<th>Loan 3 (%)</th>
<th>Loan 4 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>20.0%</td>
<td>20.0%</td>
<td>20.0%</td>
<td>20.0%</td>
</tr>
<tr>
<td>Year 2</td>
<td>40.0%</td>
<td>40.0%</td>
<td>40.0%</td>
<td>40.0%</td>
</tr>
<tr>
<td>Year 3</td>
<td>20.0%</td>
<td>20.0%</td>
<td>20.0%</td>
<td>20.0%</td>
</tr>
<tr>
<td>Year 4</td>
<td>20.0%</td>
<td>20.0%</td>
<td>20.0%</td>
<td>20.0%</td>
</tr>
<tr>
<td>Year 5</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

### Interest During Construction

<table>
<thead>
<tr>
<th>Interest</th>
<th>Annual Dep.</th>
<th>Annual Dep.</th>
<th>Euro M</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Depreciation

| Depreciation | 3.3% | 21.67 | 3.3% |

## C. TRAFFIC ASSUMPTIONS

### GDP Growth Rate (%)

<table>
<thead>
<tr>
<th>Historical</th>
<th>Yr(5~9)</th>
<th>Yr(1~5)</th>
<th>Yr(6~15)</th>
<th>Yr(15+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.2%</td>
<td>8.0%</td>
<td>7.0%</td>
<td>6.0%</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

**Provincial GDP (where applicable)**

| 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |

**Area of Influence GDP**

| 9.0% | 11.0% | 11.0% | 10.0% | 9.0% |

### Traffic Elasticity

<table>
<thead>
<tr>
<th>Option1 – High Scenario</th>
<th>Yr(5~9)</th>
<th>Yr(1~5)</th>
<th>Yr(6~15)</th>
<th>Yr(15+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.10</td>
<td>1.15</td>
<td>1.10</td>
<td>1.05</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Option2 – Medium Scenario</th>
<th>Yr(5~9)</th>
<th>Yr(1~5)</th>
<th>Yr(6~15)</th>
<th>Yr(15+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.05</td>
<td>1.08</td>
<td>1.04</td>
<td>1.03</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Option3 – Low Scenario</th>
<th>Yr(5~9)</th>
<th>Yr(1~5)</th>
<th>Yr(6~15)</th>
<th>Yr(15+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.90</td>
<td>0.85</td>
<td>0.80</td>
<td>0.60</td>
<td></td>
</tr>
</tbody>
</table>

### Selected Option

1
Traffic Assumptions Continued:

| Number of Road Carrying Days | 365 days |
| Diverted Traffic (as % of base traffic) | 25.0% |
| Generated Traffic (as % of base traffic) | 50.0% |

Data on Project Road
Average % of road length travelled | 75.0%
Opening Year Traffic / Base Year | 6866 AADT

Expressway Traffic - Opening Year
<table>
<thead>
<tr>
<th>Section 1</th>
<th>Section 2</th>
<th>Section 3</th>
<th>Section 4</th>
<th>Section 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>6606</td>
<td>7055</td>
<td>6736</td>
<td>6541</td>
<td>5837</td>
</tr>
</tbody>
</table>

Data on Parallel Road
Average % of road length travelled | 50.0%
Opening/Base Year Traffic | 1071 AADT

Existing Road Traffic - Opening Year
<table>
<thead>
<tr>
<th>Section 1</th>
<th>Section 2</th>
<th>Section 3</th>
<th>Section 4</th>
<th>Section 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1115</td>
<td>1117</td>
<td>1090</td>
<td>1069</td>
<td>956</td>
</tr>
</tbody>
</table>

D. ECONOMIC EVALUATION

Accidents Cost Assumptions
GDP of the Serbia (constant as at 2005) | 24 (x10^9)
Accident Savings (regional) as % of GDP | 0.002%
Actual cost per property damage accident | 550 Value accidents no new road 0.05% 0.05% 0.05%
Actual cost per injury accident | 2085 Value accidents with road 0.00% 0.02% 0.03%
Actual cost per fatality accident/a | 31275 Value decrease in accidents 0.05% 0.04% 0.03%

Vehicle Operating Cost Assumptions
VOC Savings per v-km (project road) | 0.10 Value
VOC Savings per v-km (parallel road) | 0.03 Value

Time Saving Assumptions (Toll Road only)
Average Number of Passengers/vehicle | 1.00
Savings per passenger/hour | 2.00 Value
Time saved | 1.25

Economic Cost (as % of financial cost) | 85.0%
# E. RISK ANALYSIS

<table>
<thead>
<tr>
<th>Risks on Revenue (%)</th>
<th>Construction</th>
<th>Traffic</th>
<th>Toll</th>
<th>Non-Toll</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0%</td>
<td>10%</td>
<td>1%</td>
<td>3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Risks on Expenditure (%)</th>
<th>Const. Cost</th>
<th>Interest</th>
<th>Tax Rate</th>
<th>O&amp;M Cost</th>
<th>Inflation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Over-run</td>
<td>Inc.</td>
<td>Inc.</td>
<td>Inc.</td>
<td>Inc.</td>
</tr>
<tr>
<td></td>
<td>10%</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
<td>2%</td>
</tr>
</tbody>
</table>

- Construction cost: 3.2% increase
- Traffic volume: 10% increase
- Tax rate: 2% increase
- O&M cost: 1% increase
- Inflation: 2% increase

### Assumptions:
1. Government grant included
2. No taxes for life of concession
3. Construction delay to 2013
4. Construction Schedule 5 years
5. Full length (107 km) tolled
6. Two additional revenue streams

Dated: 16 August 2010

Input Sheet Control Items
- Default Values
- Calculated Value

\[\text{31275}\]