

Table of Contents

I. Overall Financing Mechanisms

1. *Project Finance for Public Private Partnerships: Evidence from Australia*, James Smith, Michael Regan, Peter Love, Bond University, 15-001 [I Overall Financing Mechanisms\15-001 Regan Smith Love Project Financepdf](#)
2. *An Overview of the Brazilian PPP Experience from a Stakeholder's Viewpoint*, Cesar Queiroz, Gaston Astesiano, Tomas Serebrisky, Claret Consulting LLC, 15-003 [I Overall Financing Mechanisms\15-003 Queiroz Astesiano Serebrisky An Overview of the Brazilian PPP Experiencepdf](#)
3. *Constituent Elements of Feasible Financing Modes for Urban Rapid Rail Transit Projects*, Di Wu, Wei Liang, Shouqing Wang, Tsinghua University, 15-005 [I Overall Financing Mechanisms\15-005 Wu Liang Wang Constituent Elements of Feasible Financing Modespdf](#)
4. *Public Private Partnerships (PPPs): The Concept, Rationale and Evolution*, Hassan Raza Shah, GC University, 15-040 [I Overall Financing Mechanisms\15-040 Hassan Raza Shah Public Private Partnershipspdf](#)
5. *PPPs for Road Development in Mexico*, Oscar De Buen, Bernardo José Ortiz Mantilla, World Road Association, 15-049 [I Overall Financing Mechanisms\15-049 De Buen Ortiz Mantilla PPPs for Road Development in Mexico.pdf](#)
6. *Financial Assessment of Private Partners for PPP Projects using Lender Approach*, Hassan Fathali, Concordia University, 15-055 [I Overall Financing Mechanisms\15-055 Fathali Financial Assessment of Private Partners for PPP Projectspdf](#)
7. *Use of Fiscal Support Mechanisms in Public-Private Partnerships: An Exploration of Three International Case Studies*, Edwin E. Gonzalez, Martha E. Gross, Michael J. Garvin, Virginia Tech, 15-104 [I Overall Financing Mechanisms\15-104 Gonzalez Gross Garvin Use Of Fiscal Support Mechanismspdf](#)

II. Infrastructure Management of PPP Projects

1. *Experiences from PPP Road Projects in Finland*, Pekka Pakkala, Seppo Mäkinen, Viasys VDC Inc., 15-012 [II Infrastructure Management of PPP Projects\15-012 Pakkala Makinen Experiences from PPP Road Projects in Finland.pdf](#)
2. *Public Private Partnership (PPP) Twin Challenges in Emerging Economies – The need for a paradigm shift*, Pantaleo Daniel Rwelamila, University of South Africa, Graduate School of Business Leadership, 15-019 [II Infrastructure Management of PPP Projects\15-019 Rwelamila Public Private Partnership PPP Twin Challengespdf](#)
3. *The Dynamics of Change: Exploring the Successes and Failures of Business Process Re-engineering in PPP Infrastructure Projects*, Evans Kessey, Bridge Engineering Assistant, Odessa, Texas, 15-026 [II Infrastructure Management of PPP Projects\15-026 Kessey The Dynamics of Changepdf](#)
4. *Measuring Performance on P3 Projects Through a Systematic Requirements Management Program*, David Brown, Parsons Corporation, 15-039 [II Infrastructure Management of PPP Projects\15-039 Brown Measuring Performance on P3 Projectspdf](#)
5. *Involving the private sector in tramway track network maintenance: Case study of the City of Rome*, Laura Chiacchiari, Giuseppe Loprencipe, Cesar Queiroz, University of

- Rome, 15-045 [II Infrastructure Management of PPP Projects\15-045 Chiacchiari Loprencipe Queiroz Involving the private sectorpdf](#)
6. *Infrastructure Asset Management in a large scale European PPP project*, Mikkel Bruun, Pascal Laumet, AgileAssets, 15-048 [II Infrastructure Management of PPP Projects\15-048 Bruun Laumet Infrastructure Asset Managementpdf](#)
 7. *Public-Private Partnerships for High-Speed Rail Projects: Portugal and Thailand*, Carlos Oliveira Cruz, Nakhon Kokkaew, Rui Cunha Marques, University of Lisbon, 15-051 [II Infrastructure Management of PPP Projects\15-051 Cruz Kokkaew Marques Public-Private Partnershipspdf](#)
 8. *Operations and Maintenance Practice of US Public-Private Partnership Roadways*, Henry Chan, Arup, 15-052 [II Infrastructure Management of PPP Projects\15-052 Chan Operations and Maintenance Practicepdf](#)
 9. *Selecting the Private Partner in Public Private Partnerships using fuzzy analytic network process*, Hassan El Fathali, Tarek Zayed, Osama Moselhi, Concordia University, 15-054 [II Infrastructure Management of PPP Projects\15-054 El Fathali Zayed Moselhi Selecting the Private Partnerpdf](#)
 10. *Dynamic Toll Lane: A Success Story as Part of the of Public Private Partnerships in the Commonwealth of Puerto Rico*, Benjamin Colucci, 15-059 [II Infrastructure Management of PPP Projects\15-059 Colucci Dynamic Toll Lane A Success Storypdf](#)
 11. *Financial Viability of Water and Wastewater Infrastructure: Using Public-Private Partnerships*, Cristiane Surbeck, Rebecca W. Trotter, Cesar Queiroz, University of Mississippi, 15-065 [II Infrastructure Management of PPP Projects\15-065 Surbeck Trotter Queiroz Financial Viability of Waterpdf](#)
 12. *Sustainable Management of Road Maintenance through Mitigation of Pavement Damage Caused by Overloaded Heavy Vehicles*, Koos Smit, South African National Roads Agency, 15-076 [II Infrastructure Management of PPP Projects\15-076 Smit Sustainable Management of Road Maintenancepdf](#)
 13. *Using Transportation Asset Management Information in Decision-Making for Public-Private Partnership Projects*, Nima Kargah-Ostadi, James M. Sassin, Fugro Roadware, 15-088 [II Infrastructure Management of PPP Projects\15-088 Kargah-Ostadi Sassin Using Transportation Asset Management Informationpdf](#)
 14. *Financial Promotion for Low Carbon Project Implementation Using Public-Private Partnerships (PPPs) During Highway Construction*, Jianchang Liu, Ministry of Transport, China, 15-095 [II Infrastructure Management of PPP Projects\15-095 Liu Financial Promotion for Low Carbon Project Implementationpdf](#)
 15. *Mapping the PPP market in the US and Canada: participation and interaction of private firms between 1990 and 2013*, Jose Guevara, Michael Garvin, Virginia Tech, 15-096 [II Infrastructure Management of PPP Projects\15-096 Guevara Garvin Mapping the PPP marketpdf](#)
 16. *Project Asset Management for Pavement Assets under Performance Based Contracts*, Zaid Alyami, Susan L. Tighe, University of Waterloo, 15-101 [II Infrastructure Management of PPP Projects\15-101 Alyami Tighe Project Asset Managementpdf](#)
 17. *The Efficiency Claim of Public-Private Partnerships: A Look into Project Operations and Maintenance Costs*, Sergio Martinez, C. Michael Walton, The University of Texas at Austin, 15-108 [II Infrastructure Management of PPP Projects\15-108 Martinez Walton The Efficiency Claimpdf](#)

18. *Comparison of Contract Requirements for Development and Communication of Design and Construction Information on Three PPP Projects in Texas*, Cameron Schmeits, Nabeel Khwaja, Center for Transportation Research, 15-112 [II Infrastructure Management of PPP Projects\15-112 Schmeits Khwaja Comparison of Contract Requirementspdf](#)

III. Value for Money

1. *A Benefit-Cost Analysis Tool for Evaluation of Highway Public-Private Partnership Projects*, Patrick DeCorla-Souza, Douglass B. Lee, Mark Sullivan, Darren Timothy, Federal Highway Administration, 15-008 [III Value for Money\15-008 DeCorla-Souza Lee Sullivan Timothy A Benefit-Cost Analysis Toolpdf](#)
2. *Institutional Economics Meets the Cost of Capital*, Rick Geddes, Joshua K. Goldman, Cornell University, 15-079 [III Value for Money\15-079 Geddes Goldman Institutional Economics Meets the Cost of Capital.pdf](#)
3. *Innovation Capture through the Alternative Technical Concept Process in PPPs in Texas: A Tool for Financial Viability*, Fidel Saenz de Ormijana, Nicolas Rubio, Ferrovial Agroman US Corp, 15-097 [III Value for Money\15-097 Saenz de Ormijana Rubio Innovation Capturepdf](#)
4. *A New Framework for Evaluating Public-Private Partnerships*, James Smith, Junxiao Liu, Peter E.D. Love, Michael Regan, Bond University, 15-113 [III Value for Money\15-113 Smith Liu Love Regan A New Frameworkpdf](#)

IV. Design and Operation of Toll Roads

1. *Arbitrage in Public-Private Partnership Contracts: The Brazilian Mg-050 Highway Case Study*, Eloy Oliveira, Columbia University, 15-002 [IV Design and Operation of Toll Roads\15-002 Oliveira Arbitage in Public-Privatepdf](#)
2. *Development of an HOV Application for North Texas Manage Lane Projects*, Julia Monso, Peter Jason Sipes, Cintra, 15-028 [IV Design and Operation of Toll Roads\15-028 Monso Sipes Development of an HOV Applicationpdf](#)
3. *Traffic Forecasting Problems and Its Impact on Debt Recovery and Highway Planning*, William Ankner, Transportation Solutions, 15-037 [IV Design and Operation of Toll Roads\15-037 Ankner Traffic Forecasting Problemspdf](#)
4. *Lane Closure Restrictions on Texas Highway PPP Construction Projects*, Kristopher Pruner, Nabeel Khwaja, University of Texas at Austin, 15-100 [IV Design and Operation of Toll Roads\15-100 Pruner Khwaja Lane Closure Restrictionspdf](#)

V. Life-cycle Cost and Maintenance Policies

1. *Seek A Positive Renegotiation Mechanism*, Hui Sun, Xiaowei Yin, Tianjin University, 15-021 [V Life-cycle Cost and Maintenance Policies\15-021 Sun Yin Seek A Positive Renegotiation Mechanism.pdf](#)
2. *Integrated Asset Management for Long Term Road Network PPP's*, Ralph Haas, University of Waterloo, 15-046 [V Life-cycle Cost and Maintenance Policies\15-046 Haas Integrated Asset Managementpdf](#)
3. *Understanding the Interaction of Multiple Jurisdictions for Highway Investment: Viability of Public-Private Partnership Alternatives*, Nobuhiko Daito, Shanjiang Zhu,

Jonathan L. Gifford, George Mason University, 15-067 [V Life-cycle Cost and Maintenance Policies\15-067 Daito Zhu Gifford Understanding the Interactionpdf](#)

VI. Impact of Financial Crises & Corresponding Strategies

1. *Survey Study of Pavement Warranty Distress Thresholds*, Feng Wang, Amin El Gendy, Yan Qi, Jackson State University, 15-034 [VI Impact of Financial Crises and Corresponding Strategies\15-034 Wang Gendy Qi Survey Studypdf](#)
2. *PPPs in Spain: lessons from the economic recession*, Jose Manuel Vassallo, María de los Ángeles Baeza, Alejandro Ortega, Universidad Politecnica de Madrid, 15-043 [VI Impact of Financial Crises and Corresponding Strategies\15-043 Vassallo de los Angeles Baeza Ortega PPPs in Spainpdf](#)
3. *The Impact of Rule of Laws on the Recovery of Distressed PPP Infrastructure Projects*, Nakhon Kokkaew, Carlos Oliveira Cruz, Derek Alexander, University of Lisbon, 15-071 [VI Impact of Financial Crises and Corresponding Strategies\15-071Kokkaew Cruz Alexander The Impact of Rule of Lawspdf](#)
4. *An Integrated Approach to the Finance, Maintenance, and Operation of Highway Infrastructure*, Juan Diego Porras-Alvarado, Zhe Han, Zhanmin Zhang, C. Michael Walton, University of Texas at Austin, 15-109 [VI Impact of Financial Crises and Corresponding Strategies\15-109 Porras-Alvarado Han Zhang Walton An Integrated Approachpdf](#)

VII. Risk Analysis Methods

1. *Evaluating Long-term Leasing of Toll Roads based on Probabilistic and Multiple-Criteria Techniques*, Zhibo Zhang, Samuel Labi, Kumares C. Sinha, Purdue University, 15-011 [VII Risk Analysis Methods\15-011 Zhang Labi Sinha Evaluating Long-term Leasingpdf](#)
2. *Quantified Probability Assessments of Revenue Forecasts*, Thomas Adler, Ray Tillman, Mark Fowler, RSG, 15-013 [VII Risk Analysis Methods\15-013 Adler Tillman Fowler Quantified Probability Assessmentspdf](#)
3. *Lean Principles Application in Public-Private Partnership Projects' Procurement*, Ramtin Malek, Ghada M. Gad, Bowling Green State University, 15-038 [VII Risk Analysis Methods\15-038 Malek Gad Lean Principles Applicationpdf](#)
4. *Evaluation of Traffic and Revenue Risks of Toll Roads and Managed Lane Facilities*, Phani Jammalamadaka, Yagnesh Jarmarwala, Lin Zhou, Naveen Mokkaapati, Worapong Hirunyanitiwattana, CDM Smith, 15-060 [VII Risk Analysis Methods\15-060 Jammalamadaka Jarmarwala Zhou Mokkaapati Hirunyanitiwattanapdf](#)
5. *An Empirical Study of Risks in PPP: The Case of The Motorway Sector*, Roberta Pellegrino, Nunzia Carbonara, Nicola Costantino, Politecnico di bari, 15-072 [VII Risk Analysis Methods\15-072 Pellegrino Carbonara Constantino An Empirical Studypdf](#)
6. *The Value of Uncertainties in PPPs: a Real Options Approach in Infrastructure Projects in Brazil*, Rafael Silva, Leonardo Cordeiro, Luiz E. Brandão, PUC-Rio University, 15-103 [VII Risk Analysis Methods\15-103 Silva Cordeiro Brandao The Value of Uncertaintiespdf](#)

7. *Dynamic Stakeholder Networks and the Governance of PPPs*, Andrew South, Raymond E. Levitt, Geert P. M. R. Dewulf, Stanford University, 15-110 [VII Risk Analysis Methods\15-110 South Levitt Dewulf Dynamic Stakeholder Networkspdf](#)

VIII. Issues Pertinent to Specific Regions

1. *A PPP Model for Developing a Sustainable SME Sector in Developing Countries*, Patrick Mabuza, National Energy Regulator of South Africa, 15-044 [VIII Issues Pertinent to Specific Regions\15-044 Mabuza A PPP Modelpdf](#)
2. *Necessary Adjustments on Government Guarantees – Brazilian Case Study*, Paola Pantaleao, Carolina Torres Vieira, Bruno Werneck, Mattos Filho Advogados, 15-068 [VIII Issues Pertinent to Specific Regions\15-068Pantaleao Vieira Werneck Necessary Adjustmentspdf](#)
3. *Renegotiation of Transportation Public-Private Partnerships: The U.S. Experience*, Nobuhiko Daito, Lisardo Bolaños Fletes, Jonathan L. Gifford, George Mason University, 15-070 [VIII Issues Pertinent to Specific Regions\15-070 Daito Bolanos Gifford Renegotiationpdf](#)
4. *PPP Challenges: the Case of Spain*, Cesar Queiroz, Alejandro Lopez Martinez, Claret Consulting LLC, 15-081 [VIII Issues Pertinent to Specific Regions\15-081 Queiroz Martinez PPP Challenges the Case of Spain.pdf](#)
5. *A Stakeholders' Assessment of the Brazilian PPP Enabling Environment*, Cesar Queiroz, Gaston Astesiano, Tomas Serebrisky, Claret Consulting LLC, 15-083 [VIII Issues Pertinent to Specific Regions\15-083 Queiroz Astesiano Serebrisky A Stakeholders' Assessmentpdf](#)
6. *Comparative Analysis of P3 Availability Payments in the USA and Canada*, Ahmed Abdel Aziz, Khaled Abdelhalim, University of Washington, 15-086 [VIII Issues Pertinent to Specific Regions\15-086 Aziz Adbelhalim Comparative Analysispdf](#)

IX. Risk Sharing

1. *Revenue guarantees in PPPs: A win-win option-based model*, Nunzia Carbonara, Nicola Costantino, Roberta Pellegrino, Politecnico di Bari, 15-085 [IX Risk Sharing\15-085 Carbonara Constantino Pellegrino Revenue guaranteespdf](#)
2. *Consideration of Risk Transfer and the Impact of External Events in Road Concessions in South Africa*, William Dachs, Nazir Alli, Gautrain Management Agency, 15-087 [IX Risk Sharing\15-087 Dachs Alli Consideration of Risk Transferpdf](#)

X. Impact of Uncertainties

1. *Innovation and Environmental Constraints in PPPs: Opportunities and Challenges*, Fidel Saenz de Ormijana, Nicolas Rubio, Ferrovial Agroman US Corp, 15-073 [X Impact of Uncertainties\15-073 Saenz de Ormijana Rubio Innovation and Environmental Constraintspdf](#)
2. *Contractual Flexibility in Transport Infrastructure PPP*, Sérgio Domingues, Dejan Zlatkovic, Athena Roumboutsos, University of Antwerp, 15-092 [X Impact of Uncertainties\15-092 Domingues Zlatkovic Roumboutsos Contractual Flexibilitypdf](#)
3. *Capturing Uncertainties in Estimating Toll Rates*, Nevena Vajdic, Goran Mladenovic, Cesar Queiroz, University of Belgrade, 15-099 [X Impact of Uncertainties\15-099 Vajdic Mladevonic Queiroz Capturing Uncertaintiespdf](#)

XI. Future Directions of Financial Mechanisms

1. *Guarantees and Other Support Options for PPP Road Projects: Mitigating the Perception of Risks*, Nozomi Tokiwa, Cesar Queiroz, World Bank, 15-027 [XI Future Directions of Financial Mechanisms\15-027 Tokiwa Queiroz Guarantees and Other Support Optionspdf](#)
2. *Benchmarking as a Tool to Encourage Efficiency and Innovation in Granted Infrastructure – Mathematical Methods*, Felipe da Silva Medeiros, Luis Afonso dos Santos Senna, Agência Nacional de Transportes Terrestres, 15-090 [XI Future Directions of Financial Mechanisms\15-090 da Silva Medeiros Dos Santos Senna Benchmarking as a Toolpdf](#)
3. *Open Public-Private Partnerships for Roadway Revenue Collection*, Travis Dunn, Matthew Dorfman, D'Artagnan Consulting, 15-106 [XI Future Directions of Financial Mechanisms\15-106 Dunn Dorfman Open Public-Private Partnershipspdf](#)