



Australian Government
Productivity Commission

Public Infrastructure
Financing:
An International Perspective

Productivity Commission
Staff Working Paper

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The views expressed in
this paper are those of the
staff involved and do not
necessarily reflect the views of the
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Contents

Acknowledgments	V
Abbreviations	VI
Glossary	XI
Overview	XVII
1 What is the study about?	1
1.1 Scope	2
1.2 Approach	5
1.3 Conduct	6
1.4 Report outline	7
2 Financing public infrastructure	9
2.1 Why governments provide infrastructure	10
2.2 Efficient infrastructure investment	11
2.3 Financing vehicles used by governments	20
3 Trends in infrastructure investment	25
3.1 Measuring infrastructure investment	26
3.2 International trends in economic and social infrastructure investment	31
3.3 International trends in general government spending on investment	31
3.4 Possible drivers of observed trends	33
3.5 The adequacy of investment	42
4 General budget appropriations	45
4.1 Use of budget appropriations as a financing vehicle	46
4.2 Policy issues	50
4.3 Strengths and weaknesses	67

5	Specific-purpose securitised borrowing	71
5.1	Use of specific-purpose bonds as a financing vehicle	72
5.2	The US experience	75
5.3	Policy issues	80
5.4	Strengths and weaknesses	87
6	Off-budget financing by government trading enterprises	91
6.1	Applications and trends	92
6.2	Policy issues	101
6.3	Strengths and weaknesses	109
7	Development contributions	113
7.1	Applications and trends	114
7.2	Policy issues	128
7.3	Strengths and weaknesses	134
8	Public–private partnerships	143
8.1	Applications and trends	146
8.2	Policy issues	160
8.3	Strengths and weaknesses	172
9	Asset management under government franchising	185
9.1	Applications and trends	186
9.2	Policy issues	199
9.3	Strengths and weaknesses	209
10	Towards efficient financing	211
10.1	The total cost of financing	212
10.2	Minimising the total cost of financing	218
10.2	The effect of the financing vehicle on investment discipline	224
10.3	Developments to promote efficiency	227
A	Workshop participants	235
	References	237

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Abbreviations

ABS	Australian Bureau of Statistics
ACG	The Allen Consulting Group
ACPI	Australian Centre for Public Infrastructure
ACT-PLA	ACT Planning and Land Authority
AIFRS	Australian-equivalent International Financial Reporting Standards
Amtrak	National Railroad Passenger Corporation (USA)
ANAO	Australian National Audit Office
AOFM	Australian Office of Financial Management
APPA	American Public Power Association
APRA	Australian Prudential Regulation Authority
ASX	Australian Stock Exchange
ATO	Australian Taxation Office
AusCID	Australian Council for Infrastructure Development
BCC	Bankstown City Council
BDW	Blake Dawson Waldron
BIE	Bureau of Industry Economics
BOO	Build Own Operate
BOOT	Build Own Operate Transfer
BOT	Build Operate Transfer
CAPM	Capital Asset Pricing Model
CBAs	Central Borrowing Authorities
CBO	Congressional Budget Office (USA)
CCPPP	Canadian Council for Public–Private Partnerships
CDS	Credit Default Swap

CEDA	Committee for the Economic Development of Australia
CFS	Colonial First State
CGF	Credit Guarantee Finance
CLF	Credit Local de France
COAG	Council of Australian Governments
CPA	Competition Principles Agreement
CSOs	Community Service Obligations
CTC	Competitive Tendering and Contracting
CUC	Change of Use Charge
D&B	Design–Build
DBO	Design–Build–Operate
DBOT	Design–Build–Operate–Transfer
DCLG	Department for Communities and Local Government, United Kingdom
DIFU	German Institute of Urban Affairs
DIPNR	Department of Infrastructure Planning and Natural Resources, New South Wales
DLGPSR	Department of Local Government, Planning, Sport and Recreation, Queensland
DoD	Department of Defence Australian Government
DOI	Department of Infrastructure, Victoria
DOTARS	Department of Transport and Regional Services
DSE	Department of Sustainability and Environment, Victoria
DTEI	Department of Transport, Energy and Infrastructure, South Australia
DTF	Department of Treasury and Finance, Victoria
DTUP	Department of Transport and Urban Planning, South Australia
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortisation
ECNZ	Electricity Corporation of New Zealand
EMU	European Economic and Monetary Union

EPAC	Economic Planning Advisory Commission
ESC	Essential Services Commission
EU	European Union
FCM	Federation of Canadian Municipalities
FHWA	Federal Highway Administration (USA)
FRAB	Financial Reporting Advisory Board (UK)
GARVEEs	Grant Anticipation Revenue Vehicles
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital formation
GFOA	Government Finance Officer Association of United States and Canada
GMW	Goulburn–Murray Water
GO bonds	General Obligation bonds
GTEs	Government Trading Enterprises
HFAs	Housing Finance Agencies (USA)
IC	Industry Commission
IDBs	Industrial Development Bonds
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
IRR	Internal Rate of Return
KBR	Kellogg Brown and Root Pty Ltd
LGAT	Local Government Association of Tasmania
LGMA-NSW	Local Government Managers Australia, New South Wales
LIBOR	London Interbank Offered Rate
LOO	Lease–Own–Operate
MAB	Management Advisory Board
MAE	Material Adverse Effect
MRP	Mighty River Power Ltd
NAO	National Audit Office, United Kingdom
NASBO	National Association of State Budget Officers (USA)

NCPPP	National Council for Public–Private Partnerships (USA)
NTD	National Transit Database(USA)
NYCEDC	New York City Economic Development Corporation
NYCIDA	New York City Industrial Development Agency
NZDMO	New Zealand Debt Management Office
O&M	Operate–Maintain
OAG	Office of The Auditor-General, New Zealand
ODPM	Office of The Deputy Prime Minister, United Kingdom
OECD	Organisation for Economic Co-Operation and Development
OFGEM	Office of Gas and Electricity Markets (UK)
OFWAT	Office of Water Services (UK)
OMB	Office of Management and Budget (UK)
PABs	Private Activity Bonds
PAYGO	Pay-As-You-Go
PC	Productivity Commission
PCA	Property Council of Australia
PFI	Private Finance Initiative
PPIs	Public–Private Initiatives
PPPs	Public–Private Partnerships
PSBR	Public-Sector Borrowing Requirement
PSC	Public Sector Comparator
PTA	Public Transport Authority, Western Australia
PTB	Passenger Transport Board, South Australia
PwC	PricewaterhouseCoopers
PWLB	Public Works Loan Board (UK)
R2R	Roads To Recovery Program
RBA	Reserve Bank of Australia
RFF	Réseau Ferré de France
RTD	Denver Regional Transportation District
SL	Stockholm Local Transport

SNCF	Société Nationale des Chemins de fer Français
SPV	Special Purpose Vehicle
STA	State Transport Authority, South Australia
TCV	Treasury Corporation of Victoria
TIAC	Western Australian Technology and Industry Advisory Council
TxDOT	Texas Department of Transport
US DoD	United States Department of Defence
US DOT	United States Department of Transportation
US EPA	United States Environmental Protection Agency
VAGO	Victorian Auditor-Generals Office
WAPAC	Parliament of Western Australia Public Accounts Committee.
WAPC	Western Australian Planning Commission

Glossary

Affermage contract	A contract between public and private sector entities encompassing infrastructure project design, construction or operation, for a specified period of time, but excluding terms regarding project financing.
Capital structure	The mix of various types of debt and equity capital maintained by an entity, resulting from financing decisions.
Community service obligation	An obligation imposed on entities financing or providing goods or services as a result of government non-commercial objectives.
Concession	A contract granting, for a specific period of time, the right to control and operate, and demand payment for the use of, an infrastructure asset.
Construction risk	Risk associated with the physical construction and warranty phases of infrastructure project development.
Contributed asset	A public infrastructure asset financed by the private sector proponent of a property development, with ownership subsequently residing with a public sector entity.
Debenture	A form of fixed-interest security issued by an entity in return for medium- to long-term investment of funds.
Demand risk	Risk associated with variation of the demand for a public infrastructure service from initial expectations.
Economic infrastructure	Physical assets available for conducting business activities, including communications, transportation and distribution networks.
Equity premium	The excess return that an individual stock, or the overall stock market, provides over a risk-free rate. Since a higher rate of return is required to entice investors to accept riskier investments, the equity premium effectively compensates investors participating in the equity market.

Finance lease	An asset leasing arrangement that effectively transfers from the lessor to the lessee most of the benefits and risks associated with ownership of a leased asset.
Financing	The acquisition of monetary resources to undertake capital investments.
Financing vehicle	The arrangement or method by which public infrastructure projects are financed.
Financing risk	Risk associated with variation of the financing costs for a public infrastructure service from initial expectations.
Franchise	An arrangement whereby a public sector entity grants an exclusive right to a private sector entity to access, occupy, operate and maintain public infrastructure facilities in order to deliver services over a period of time.
Funding	The subsequent act of payment or the servicing of any debt associated with the initial financing of public infrastructure.
General budget appropriation	The authorisation by a legislative entity that allocates a designated amount of public finances to a government for a specified purpose, such as public infrastructure investment.
General obligation bond	A bond secured by the taxing and borrowing power of the issuing government, rather than from the revenue of a given public infrastructure project.
General-purpose borrowing	Borrowing activities for the general purposes of government, that can include financing public infrastructure.
Hypothecated taxation	The pre-commitment of taxation revenue to finance designated expenditure, including public infrastructure investment.
Material adverse event	Any event, condition or change which materially or adversely affects, or could be expected to materially or adversely affect, the assets, liabilities, other financial conditions or operations of an entity involved in financing infrastructure.
Monoline insurer	Insurer writing only a single line of insurance contract, similar to a financial guarantee, used as credit enhancements for securitisation transactions.
Network risk	Risk associated with network infrastructure facilities whereby the demand of a given asset depends on decisions made with respect to other elements of the network.

Off-budget financing	Public infrastructure financing activities by government, and their instrumentalities, that are not considered as part of general budget appropriations.
Operating lease	An asset leasing arrangement under which the lessor effectively retains most of the benefits and bears most of the risks associated with ownership of the leased asset.
Operating risk	Risk associated with operating a service, including the potential for systems failure.
Public–Private Partnership	An agreement between public and private sector entities on the financing and provision of public infrastructure.
Regulatory risk	Risk associated with the potential for government legislation, regulation and agreements to change and thus impact relevant investment. At a broader level, it can be known as sovereign risk, encompassing such actions as industry nationalisation.
Revenue bond	A bond issued by government that is secured from the revenues generated by a public infrastructure project.
Risk premium	The excess return over a risk-free asset that investors require to sufficiently compensate for the risk associated with holding the asset.
Security	An investment instrument, other than an insurance policy or fixed annuity, issued by a corporation, government, or other organisation that offers evidence of debt or equity.
Securitisation	Financial transaction in which future cash flows from assets (or insurable risks) are pooled, converted into tradable securities suitable for capital market investment. The assets are commonly sold to a special-purpose entity, which purchases them with cash raised through the issuance of beneficial interests (usually debt instruments) to third-party investors.
Social infrastructure	Physical assets that support the social development of a community, including education, health and public housing facilities.
Specific-purpose borrowing	Borrowing activities for specific purposes, including the financing of public infrastructure investments.
Specific-purpose levy	A levy or charge imposed for a specific purpose, including the financing of public infrastructure assets.

Strategic alliance	An agreement between two or more organizations to cooperate in a specific business activity, so that each benefits from the strengths of the other. Strategic alliances involve the sharing of knowledge and expertise between partners as well as the reduction of risk and costs in areas such as relationships with suppliers and the development and procurement of new products and technologies.
Systematic risk	Risk associated with the portion of an infrastructure investment's total risk that cannot be avoided by combining it with other investments in a diversified portfolio. It is measured as the correlation of the return on a security with the returns on the broad market.
Take-or-pay contract	Agreement between a buyer and seller in which the buyer will pay some amount even if the product or service is not provided.
Tax arbitrage	Trading that takes advantage of a difference in tax rates or systems as a basis for profit.
Tax-credit bond	Bond issued by a government, whereby the tax liability imposed with respect to interest payments are reduced by an amount equal to the specified tax credit.
Tax-exempt bond	A bond, issued by a government, whereby interest payments are not subject to federal income tax and/or sub-national income tax.
Technological risk	Risk associated with technological change that could render existing infrastructure obsolescent or stranded.