



Australian Government
Infrastructure Australia

Review of Infrastructure Debt Capital Market Financing

February 2014

Copyright

Ownership of Intellectual Property Rights in this Publication

Unless otherwise noted, copyright (and any other intellectual property rights, if any) in this publication is owned by the Commonwealth of Australia (referred to below as the Commonwealth).

Indemnity Statement

Infrastructure Australia has taken due care in preparing this report. However, noting that data used for the analyses have been provided by third parties, the Commonwealth gives no warranty to the accuracy, reliability, fitness for purpose, or otherwise of the information.

Published by

Infrastructure Australia
Telephone (international): +61 2 8114 1900
www.infrastructureaustralia.gov.au

Table of contents

1.	Introduction.....	4
	1.1 About this paper	4
	1.2 The consultation process	5
2.	Background	6
3.	Feedback from consultation	11
	3.1 Introduction.....	11
	3.2 Market facilitation initiatives – supply side.....	12
	3.3 Long term defensive investing initiatives – demand side	19
4.	Key Consultation Messages	23
	Attachment A - List of organisations that attended workshops or submitted responses	24
	Attachment B – Summary of Industry feedback.....	25
	Attachment C – Canadian Market.....	28

1. Introduction

1.1 About this paper

The purpose of this paper is to explore issues relating to the development of the infrastructure debt capital market, in particular the long term project bond market for greenfield infrastructure..

Infrastructure Australia has explored policy options in relation to infrastructure debt that are primarily relevant to greenfield economic and social public private partnerships as well as brownfield asset refinancing and privatisations. Infrastructure Australia sought industry input (refer 1.2 below) on policy options that address temporary and sector specific problems, as well as systemic and broader corporate bond market problems. The Canadian public private partnerships bond market was also reviewed given its continued success – with a view to identifying any features of that market that can be introduced in Australia. A summary of this market is attached.

The paper builds on the work of the Infrastructure Finance Working Group. This paper does not seek to address matters covered in the “Reforms to Infrastructure Funding” and “Developing a More Efficient Market” sections of the Infrastructure Finance Working Group report, except to the extent they directly impact the provision of infrastructure debt. Infrastructure Australia recognises the importance of the project pipeline (identified by the infrastructure finance working group as a key issue) and efficient bid processes and the other issues covered in these sections.

Matters that are relevant to the domestic corporate bond market generally are included in this paper. The reliability of the bond market as a competitive funding source for all issuers seeking debt capital is the base from which more specialised products such as project bonds can develop.

The paper does not seek to review the public private partnership model itself. The benefits of public, private partnerships are well understood and accepted by Infrastructure Australia including the innovation and appropriate risk sharing with the private sector that the model brings.

The issues covered in this paper could feed into the reviews that the Government has either currently underway or plan to progress including:

- Productivity Commission inquiry into Public Infrastructure;
- National Commission of Audit;
- Tax White Paper; and
- Financial System Inquiry.

The long term role of the financial system in supporting infrastructure investment should be an important consideration of the financial system inquiry.

1.2 The consultation process

The consultation process included the distribution of the infrastructure debt policy options consultation paper¹ ('Consultation Paper') inviting submissions. It was followed by three workshops, two in Sydney and one in Melbourne, which were held in March 2013. Approximately thirty participants from industry attended the workshops. This included representation from public private partnership sponsors and investors, financial advisors, construction contractors, banks, fund managers, investors and the Association of Superannuation Funds of Australia. Australian Government Treasury and the Department of Infrastructure and Regional Development also participated in the workshops. State Government representatives were also consulted through the National PPP Working Group. A list of organisations that attended workshops or submitted responses is attached.

The workshop discussions focused on the policy options raised in the consultation paper. The policy options presented in this paper are similar to those included in the consultation paper and reflect industry feedback and subsequent analysis. Where possible, industry views are noted in this paper and they are summarised in an attachment. These views are more often consensus views.

¹ Further detail on the issues raised in this paper and options discussed can be found in the Infrastructure Debt Policy Options Consultation Paper February 2013 and the Infrastructure Debt Technical Paper October 2012.

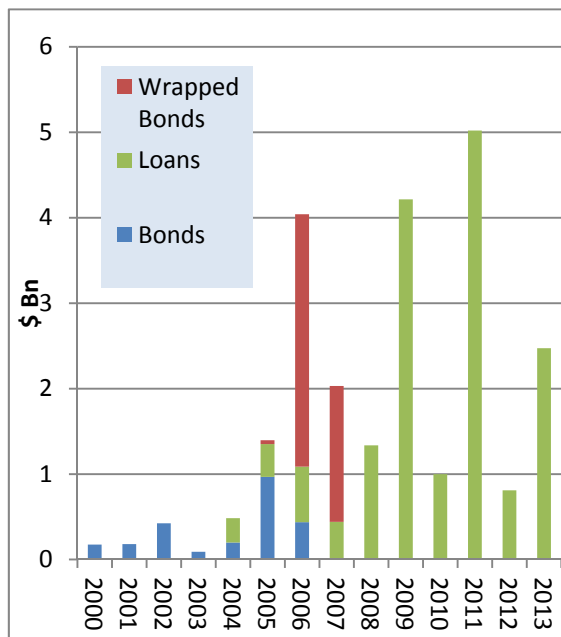
2. Background

Market Overview

The Australian project bond market effectively closed at the end of 2007. This was largely due to the global financial crisis: the demise of most of the monoline insurers; and the re-pricing of risk more generally. The bond market had provided approximately \$2.3 billion of long term unwrapped project bonds from 2000 – 2006 and \$6.2 billion of long term monoline wrapped project bonds from 2005 – 2007.

The unwrapped bond market could provide up to approximately \$300 million per transaction. The monoline model provided much higher volumes, but investors were buying on the basis of the insurers' AAA credit rather than the project credit. All bonds were rated Aaa2/AA or better on issuance and investors were protected from construction completion risk by either the monoline wrap or a bank letter of credit. The success of the project bond market for larger projects thus relied on conditions that are no longer present and that are unlikely to return in the near term.

Availability public private partnership debt type 2000 – 2013:



Since the closure of the project bond market, public private partnerships have in the main been financed with short term bank loans increasing refinancing risk. This trend is highlighted in the chart opposite.

Further, in the face of problems encountered on recent toll road projects and a general aversion to their risk allocation models, there have been no large scale, greenfield, demand risk projects brought to market since Brisbane's AirportLink in 2008.

The bank loan market became more concentrated at the time of the global financial crisis. The loan market share of foreign banks fell by almost 50% at that time.

Total market capacity is currently estimated to be around \$4 billion per greenfield project (which would come from a total market of 20 – 30 banks) compared with pre global financial crisis capacity of up to \$8 - 9 billion (comprising 30 – 40 banks) with implications for large projects in the pipeline. Certain projects and sponsors may attract additional capacity from export credit agencies and relationship banks that would not otherwise be active. However, the market is dynamic and the broader loan market appears to have recovered somewhat over the last 12 months. This is yet to be tested for large greenfield infrastructure projects. The current East West Link tender will provide an indication of current market liquidity.

Funding cost differences also exist across the bank market. Combined with capacity limitations this means loan pricing can be high for large transactions where volume is more important than price. Market participants have also suggested that full implementation of Basel III reforms may place further pressure on loan market pricing, particularly for project finance, although this is not scheduled to occur until 1 January 2018.

The participation of a number of local superannuation funds and managers such as Industry Funds Management, Australian Super, CARE Super and Hesta have provided new capacity in the loan market but falls well short of replacing capacity lost through bank withdrawals.

In addition to a \$10 billion plus short term greenfield project pipeline, there is an \$8 billion public private partnership refinancing task from 2014 to 2018. The success of which will be the test of the short term loan structure for both project owners and the public sector, and may have flow on impacts on the greenfield market. However, the recent \$3.7 billion refinancing of the Victorian Desalination Plant in the loan market (for 3 and 5 years at reported margins of 135 and 165 basis points respectively, a reduction from 350 basis points) is illustrative of strong appetite in the bank market for brownfield infrastructure refinancing.

Tenor

The overwhelming majority (for example 80% in the 12 months to October 2013) of bank loans to corporate borrowers are for tenors ranging between one to five years, reflecting regulatory factors, asset and liability management by banks, funding markets and resultant pricing of tenor. Loans for longer tenors are available, particularly for the infrastructure sector, but even so, bank appetite for loans longer than seven years is limited. Public private partnerships with long term availability or user pay based cash flows are typically capital intense and highly geared assets, which should ideally be financed with long tenor, stable and diversified sources of debt finance.

This lack of long term capital market financing solutions increases refinancing risk associated with shorter tenor. The direct impact may include higher equity pricing and reduced gearing which increases the project cost of capital. In addition the public sector, for certain projects, retained some associated risks such as refinancing margins and the provision of contingent liquidity support for interest rate swap break amounts. Further, we understand on some projects the public sector elected to require the project to fix interest rates for the initial loan term only and is exposed to movements in floating rates thereafter. In the case of reliance rail refinancing risk resulted in a requirement for Government to accept some of the risk, credit rating downgrades and financial stress.

The Financial Services Council recently noted that refinancing risk was referenced as an important issue considered by its members when assessing greenfield infrastructure investment opportunities. Members noted that poor refinance outcomes have the potential to substantially reduce the long term equity returns.²

² Superannuation investment in infrastructure – Steps to further efficiency, Financial Services Council January 2014

In contrast to the prevailing approach in Australia, in the United Kingdom, part of the rationale behind the Private Finance 2 initiative (refer Section 3.2 for details), is a view that transferring refinancing risk to the private sector is not appropriate for the following reasons:

- “budgetary uncertainty of any public sector underpinning of refinancing risk and future affordability issues where cost of finance is not fixed³;
- complexity of separating out market risk (general changes to market interest rates) from performance risk (changes to interest rates as a result of project performance);
- the limited appetite of the private sector to accept this risk and potential for windfall gains where it does take this risk in return for a premium;
- the potential negative impact on lenders’ due diligence focus over the long project life; and
- a desire to maximise the investment of long-term sources of capital at the outset in PF2.”⁴

Pricing

In the consultation process, industry generally considered that banks are pricing loans to greenfield projects appropriately and that the debt capital markets would price the same risk higher, initially at least. Therefore a bond solution will not be competitive on price grounds in the short term. However, in the medium to longer term competition should bring market benefits.

For example, in Canada, where there was loan on bond competition for long term debt until end 2010 (when long term bank loans were no longer available in any volume) - post the Global Financial Crisis, 30 year+ bond pricing started at 385 basis points over the benchmark, reduced to around 300 basis points in 2010 and further to 200 basis points in 2011. More recent transactions have priced marginally below 200 basis points, although deal flow transaction volumes have declined from previous peaks. In terms of market share, over the period 2007 to 2011, the share of public private partnerships debt provided by bonds has increased from less than 10 percent to greater than 70 percent but has since reduced back to around 50% reflecting greater use of the build finance model and a trailing off of large hospital projects. Given the general market, tenor and rating differences (most projects are rated A) it is difficult to draw specific conclusions other than that pricing has tightened up over time and competition contributed to this. Further information in relation to the Canadian market is attached.

Bidding Process and Procurement

Changes are occurring to the public private partnership model, most notable being State contributions and milestone payments partly in response to wider credit margins post GFC.

It is worth noting that the use of Project Bonds pre global financial crisis was driven by their ability to offer the lowest cost of debt (as well as enabling sponsors to ‘black box’ and control all aspects of transactions / offer one stop shop solutions).

³ This rationale needs to be seen in the UK context where the expectation is that the public sector would retain some elements of refinancing risk, where there is a desire to have budgetary certainty in respect of availability payments and where, windfall refinancing gains were made on early projects.

⁴ HM Treasury – A new approach to public private partnerships, December 2012. It is acknowledged that different market size, structure and economic circumstances are also relevant considerations.

The public private partnership procurement model is focused on net present cost, the public sector comparator and value for money and drives bidders to bid low debt margins (just as bidders were driven to bid highest patronage on the toll roads). This framework incentivises bidders to use short term debt and take a view on refinancing margins. There is no incentive to bid a more stable capital structure with longer term debt – which may offer the public sector better value for money in the longer term.

Equity participants have been prepared to take and price refinancing risk so there is no compulsion for the public sector to change its approach. The States do not appear to view longer tenor debt as providing value for money.

One of the more pertinent workshop discussions occurred between a public private partnership borrower and several investors. It went along the following lines:

Investor: I don't understand why don't you finance your project like any other borrower – i.e. with debt tenor that is appropriate to the asset, or at least with some diversity of tenor and pay the market price for that debt finance?

Borrower: The public private partnership bidding process does not encourage this approach; bidders have little or no chance of being successful taking this approach. Bidders are incentivised to bid the lowest cost of debt (even though any refinancing gains are shared with the public sector) and that means bidding short term bank debt and taking refinancing risk.

Bond Markets

During the consultation phase the low level of development of the corporate bond market generally, and in particular at lower credit grades, was acknowledged as a key hurdle for greater use of project bonds. It was noted that a handful of investors represent a large share of the market, therefore their support is critical. Since then there have been some notable and encouraging developments in the domestic corporate bond market:

- total annual issuance has recovered to levels approaching pre global financial crisis levels of around \$11 billion (2013 issuance YTD is \$8 billion)
- issuance at the BBB credit rating level has increased as a proportion of total issuance from around 25% in 2012 to around 45% in 2013
- issuance of longer tenors, of 7 years and greater, has increased as a proportion of total issuance from 20% in 2012 to 44% in 2013
- recent issuance by BBB borrowers has increased to up to \$525 million for a single tranche, a record level, and attracted orders from over 55 accounts⁵
- In the last year 12 new issuers have entered the market, around double the usual number of new issuers
- a nascent unrated and sub investment grade market has emerged.

These developments represent very significant progress but it should not be assumed these trends will continue.

⁵ Aurizon, 18 October 2013

The consultation paper outlined various initiatives in other markets, in particular the United Kingdom and Canada markets. It is noted that the United Kingdom and European supply side initiatives are in the context of far larger and more liquid debt capital markets (as well as different structures of government, economic situations and market size). Nevertheless the United Kingdom Private Finance 2 model is driving innovation and a number of small public private partnerships have recently closed or reached preferred bidder using non-bank, long term debt. For example Leeds housing scheme and Edinburgh University accommodation project both feature wrapped bonds. The London Fire Stations, Birmingham dental hospital and Aberystwyth University public private partnership feature long term unwrapped bonds provided by institutional investors Aviva and Legal & General. More recently a consortium featuring a bond solution has been selected as preferred bidder for the Royal Liverpool Hospital⁶.

In contrasting Australia with Canada, it was noted that fundamental differences in superannuation systems – defined benefits compared with defined contributions and fund choice - drive different investment strategies and valuation dynamics on the demand side.

A defined benefit fund may have strong appetite and be prepared to pay a premium for long dated defensive assets such as a project bonds that provide a good match with fund liabilities (even if not highly liquid). Defined contribution funds with members that have choice of fund and investment options would have less appetite and will generally not pay a premium for the same product.

The different investment strategies also bear out in the life insurance annuity market with infrastructure debt being in strong demand by this market in Canada. Australia by contrast has less retirement income products, and whilst this may change with the aging population there is little incentive in the current tax and welfare arrangements for the take up of such products.

Greenfield vs Brownfield

Industry was generally of the view that market appetite for bonds should first be tested with brownfield projects and that borrowers would be testing this market shortly (given a number of projects are due to refinance in 2014). The Victorian Desalination project was cited as project that will require multiple sources of debt for refinance given the amount of debt involved, however, while capital market solutions were considered, the project was refinanced in the loan market as noted above.

However, some industry participants assert that investor participation in greenfield projects will not necessarily follow from investment in brownfield projects, noting the additional complexity and specialist credit skills required to take completion risk (even if that risk is largely transferred to other parties such as contractors and banks).

⁶ Source: InfraDeals.

3. Feedback from consultation

3.1 Introduction

Corporate Bonds

The Australian corporate debt market is dominated by bank loans. The domestic corporate bond market is small by international standards. Historically it has been difficult to access, particularly for BBB+/Baa1 and below rated issuers which is particularly relevant for infrastructure. Many BBB+/Baa1 and lower rated issuers go to the United States private placement market instead, although recent domestic market activity is encouraging and suggest this may be changing.

Demand for domestic bonds can come from superannuation funds, non-superannuation investment funds, life and general insurance companies, international investors and sovereign wealth funds. The total assets⁷ of the domestic investor base as at 31 December 2012 were:

- super funds (directly and through their fund managers), \$1.39 trillion;
- investment and mutual funds, \$240 billion;
- life insurance companies, \$246 billion; and
- general insurance companies, \$162 billion.

When international comparisons are made, Australia's superannuation funds allocation to fixed income (excluding deposits) is an outlier – the second lowest allocation in the Organisation for Economic Co-operation and Development (OECD) reporting countries and less than half of all but one reporting country.⁸ Combined with recent poor equity returns, this fact has led to much discussion and debate over the appropriateness of asset allocation settings. There is recent evidence that there is a heightened awareness of this and some reassessment of investment strategies.

In a recent report commissioned by the Australian Securitisation Forum⁹, Deloitte Access Economics concluded that the relatively small corporate bond market in Australia is a result of a 'low equilibrium' with both demand and supply side factors responsible. The report made a number of recommendations that concern competitive issues between the major banks and others that are particularly pertinent to the competitive landscape in the housing loan market, plus a number of other recommendations which are focused on the retail bond market.

Retail trading of Commonwealth bonds commenced on the Australian Securities Exchange in May 2013 and is intended to pave the way for other issuers. New South Wales established the NSW Waratah Bond Program, aimed at the retail market. These measures should diversify the investor base and improve liquidity which can only be positive for the market as a whole.

⁷ See Australian Bureau of Statistics cat number 5232.0. APRA reports total superannuation assets at the same date as \$1.51 bn. One difference is that APRA includes non-financial assets, ABS does not.

⁸ OECD Global Pension Statistics, 2012

⁹ Australian Securitisation Forum, Out on a Limb? Domestic Fixed Income Assets in Australia, 23 October 2012

Project Bonds and Infrastructure Debt

Corporate bonds issued by infrastructure sector issuers such as airports, ports and utilities are subject to the same issues as the general corporate bond market, and indeed infrastructure issuers represent 20 to 30% of this market. Over the medium term a program of asset transfers of existing government assets as part of a capital recycling program will provide further opportunities for the development of the debt capital markets.

Australian superannuation funds have one of the highest allocations of superannuation funds globally to direct infrastructure (domestic and offshore). However this is almost entirely equity and this investment is heavily skewed to the industry and public sector funds, rather than the retail funds. The NSW Ports Consortium's winning bid (backed by various industry and public sector superannuation funds) for the long-term lease of Port Botany and Port Kembla is illustrative.

There are a number of key differences between project bonds and corporate bonds, which mean project bonds, may not sit comfortably in a corporate bond portfolio and are therefore more likely to be viewed as an alternative investment. Nevertheless, market forces that may lead to greater appetite for infrastructure debt from institutional investors include:

- A limited number of non-bank infrastructure debt investors are now tending to invest alongside banks in bank groups given the attractiveness of the returns and shorter duration assets available in that market.
- Increased appetite for lower rated, higher yielding, corporate credit generally
- Debt and infrastructure fund managers are examining and considering entering the market.
- Investment banks are considering how global fixed interest investors might access the domestic corporate bond market. Such investors have a mandate to take a diverse range of credit risks and have strong in house credit analysis skills. These investors will need to be convinced that there is a significant, reliable pipeline of debt investment opportunities. Currency risk remains a constraint for long tenor.

Appetite for project bonds will be tested as public private partnerships come up for refinancing from 2014 onwards. Establishing the level of demand for brownfield assets before greenfield projects will be an easier path for market development.

3.2 Market facilitation initiatives – supply side

These initiatives relate to current impediments bonds face when compared with bank loans in the public private partnership procurement process.

Public private partnership procurement processes

It is difficult for investment managers to access greenfield deals due to complex and expensive bidding processes such as unique due diligence requirements for each project. Bond investors and managers are unwilling to bid due to the business risk involved.

For this reason and to provide price and volume certainty, bonds are usually required to be underwritten. However, firm underwriting is not likely in the current market. Uncertain investor appetite and unpredictable timelines represent significant challenges.

Industry noted that there are no active project bond underwriters and terms will need to reflect the lack of a market. Further industry was supportive of changing commitment requirements so bonds are not disadvantaged, for example not specifying committed debt, permitting shorter validity term and the ability to change price subject to a transparent adjustment mechanism.

It is noteworthy that even in Canada where there is generally considered to be a functioning public private partnerships bond market with a wide (50+) investor base, in most Provinces, underwriters have the benefit of a price flex mechanism where government takes on general market credit spread risk (both upside and downside) between the project bid date and financial close.

Procuring governments may be concerned that relaxing bid conditions and the acceptance of greater market risk between bid and financial close may lead to adverse outcomes (price movements). They are also likely to be reluctant to give up something that the private sector is prepared to offer.

However, the requirement for highly committed bids is costly and restricts access to the market potentially making it less competitive. There are a very limited number of non-banks willing to participate in the bidding process and differing appetite for bid phase involvement by banks. The problems associated with this are more evident in a soft market.

Incentives currently exist for bidders to bid irregular project availability payment profiles. Such profiles are not well suited to bond solutions, since bond investors prefer bonds with standard repayment profiles (either bullet, annuity or consumer price index linked annuity). Standard bond repayment profiles are inefficient if matched with irregular cash flows and therefore are uncompetitive when compared against more flexible loan repayment profiles. In recent transactions bidders have been able to reduce project net present cost by 'front ending' the project availability payment profile. The reason these incentives exist is the difference between project cost of capital and the public sector comparator discount rate.

Consideration should also be given to linking payment profiles to the consumer price index where appropriate. Industry feedback confirmed that consumer price index linked or regular repayment profiles are better suited to the bond market, and ultimately to index linked retirement income products.

Many investors are also uncomfortable with conflicts of interest present in the bidding and arranging phase. For this reason traditional infrastructure bond investors are now tending to invest alongside banks in bank groups given the attractiveness of the returns available in that market.

Credit enhancement

Bond investors generally have lower (and in some cases, no) appetite for construction, demand and other project specific risks compared with banks. They typically require one party to manage the relationship with the borrower, particularly during the construction phase where there may be a number of matters requiring bondholder decisions. This role was historically performed either by the bank letter of credit provider(s) or monoline wrapper(s).

The banking sector has traditionally been more capable in assessing and accepting infrastructure 'greenfield' risks and may have a role in warehousing and/or mitigating these risks on behalf of bond investors. Banks remain interested in performing this role and this is reflected in the discussion below.

The United Kingdom Government announced a new project guarantee program in July 2012. The program is expected to be able to support up to GBP40 billion of projects. The United Kingdom Government will consider the most effective form of guarantee on a case-by-case basis. Guarantees are only available if the project will not otherwise proceed and the eligibility criteria are satisfied (for example, projects being identified on the United Kingdom infrastructure plan). To date only one project has utilised the scheme, however 40 projects are at the pre-qualification stage, and many of these projects are energy projects¹⁰.

The use of a first loss tranche as a credit enhancing mechanism is also the basis of the European Investment Bank Project Bond Initiative and was also used in the recently closed Zaanstad prison public private partnership project where commercial lenders provided an eight year B loan under the "PEBBLE-Commute" financing structure. This facilitated the placement of a 27.5 year A note to institutional investors¹¹.

During consultation, industry noted that a direct 'first loss' debt guarantee, over say 10 – 15% of face value, could be effective in lifting debt ratings without the need for a full guarantee. In many ways this is similar to Government provided subordinated debt – but with the advantage of being senior debt risk and without the conflict issues associated with the government acting as a lender. Other ways that Government can incentivise the lenders of a project through a partial guarantee could be through limiting guarantee coverage to specific events or project phase (for example, through ramp up period), or limiting the guarantee to a sub-group of lenders. Government exposure could be minimised by, for example, requiring that upon calling on a limited guarantee, the amount drawn becomes a repayable loan. Guarantees should be priced and could also be structured so that the investor has the option to remove the guarantee and receive a higher margin to compensate for the additional risk.

¹⁰ HM Treasury, 22 October 2013

¹¹ InfraNews

The industry view is that if such a guarantee was simply a full guarantee of debt it is more efficient for the government to provide capital grants instead. Further, full guarantees are unlikely to lead to development of infrastructure debt as an asset class because a full guarantee would transform project bonds into 'non vanilla' government bonds effectively separating the bond financiers from project risk. Moreover, in order to ensure moral hazard is avoided, projects should be structured for the efficient management of risks and rewards. This can be achieved through the design of the guarantee which should ensure that the private sector is left with sufficient risks at the margin.

Industry expressed the view that Government financial support is likely to be required to facilitate private sector investment in greenfield demand risk projects. This is a related but separate issue as it applies to attracting any private sector debt not specifically bonds. However, what the Government does not want to engender is implicit support for public private partnership projects or a guarantee culture. If a project runs into difficulties a clear strategy should exist for this eventuality, robust governance structures that separate and clarifies who bears the risk should therefore be put in place.

The provision of guarantees will add risk to the Australian Government balance sheet. These broader balance sheet risks should be assessed and understood as part of program development. Targeting any guarantee, as suggested above, and charging for the guarantee will act to reduce such risks and provide a degree of comfort that the expected benefits of the program would be sufficient to outweigh the risk that the Commonwealth is assuming.

In relation to guarantees for construction risk, industry expressed no support for government taking on such risks. Banks are currently taking this risk and generally the pricing is considered to be appropriate.

Tax concessions for private infrastructure bonds for nationally significant projects

Making qualifying infrastructure bonds partially or fully tax exempt will make them more attractive in terms of after tax returns. One justification of adopting such an approach is that greenfield infrastructure projects are typically in a tax loss position for up to 10 years but are unable to utilise these losses immediately, which then lose value in present value terms. This can potentially increase the effective tax rate on projects.

The Tax Loss Incentive for Designated Infrastructure Projects addresses this issue for designated infrastructure projects by uplifting losses by the government 10 year bond rate and addressing a concern that the tax losses will not be utilised at all by exempting carry forward losses from the continuity of ownership test.

Tax preferred/exempt bonds are used in other markets particularly the United States; however, these are for bonds issued by State and municipal governments rather than by private asset owners. Tax preferred infrastructure bonds were not supported by the infrastructure finance working group.

Tax preferred private infrastructure bonds for qualifying projects is supported by some industry participants on the basis that project bonds are uncompetitive on a relative value basis. The concept was also supported if used to encourage long term investing, i.e. only offered on long term bonds and with the benefit linked to the holding period. Others see affordability, market distortion and project selection issues.

Tax concessions can be seen as a form of subsidy that reduces the cost of debt to a project and thus the cost of the project. The beneficiary is the public sector client, generally the States and Territories. Therefore the subsidy can be compared with direct grants, but has the benefit of encouraging market development of the debt capital markets.

When taken in context of the whole of the system, introducing further complexity by way of this type of concession can lead to distortion of the system through the inevitable interaction with its other elements. In the past, this has presented an opportunity for arbitrage which led to a significant proportion of the benefit being received by those not directly exposed to project risk. The corporate tax system is presently regarded as particularly vulnerable to this form of arbitrage.

While, in theory, a capped concession may be able to be implemented in a budget neutral manner, such an approach would add even greater complexity to the taxation system and not considered a transparent form of government funding assistance for infrastructure.

Provision of Australian Government subordinated debt

The Europe 2020 Project Bond Initiative is an example of commercially provided subordinated debt. The European Investment Bank will provide credit enhancement (by providing subordinated debt) to project companies raising senior debt in the form of bonds to finance infrastructure projects for qualifying projects.

The mechanism of improving the credit standing of projects relies on the capacity to separate the debt of the project company into tranches: a senior and a subordinated tranche. The provision of the subordinated tranche increases the credit quality of the senior tranche to a level where most institutional investors are comfortable holding the bond for a long period.

The target rating is A-AA. The European Investment Bank plays a transaction execution and due diligence role similar to, but not the same as monoline insurers did. Moody's has recently commented that it expects a positive impact, "potentially to the single-A ratings category, assuming a notional starting point of a low investment grade without the benefit of the European Investment Bank facility."⁹

In the United States, The Transportation Infrastructure Finance and Innovation Act ('TIFIA') is a similar program, but on concessional terms and not exclusively targeted at developing the bond market.

Participants expressed a reasonable level of support for concessional, subordinated lending (based on TIFIA in the context of demand risk projects and growth assets that are otherwise not viable. If the objective was to secure capital markets debt for a demand risk projects that require subsidies to be viable then a TIFIA style program should be considered, however this is not recommended as a starting point to restart the project bond market. TIFIA was not viewed specifically as a solution for project bonds, although it is possible (it could be provided conditional on capital markets debt for example). Further as identified in the IFWG work there are significant concerns in relation to the Government's role as client and lender particularly over conflicts of interest. It was noted that procuring Governments could simply mandate maximum gearing to encourage commercially provide subordinated debt, however an adaption of the United Kingdom Private Finance 2 approach combined with grants is considered a better 'blunt instrument'– i.e. mandating long term non-bank debt.

Consideration of the application of programs similar to those in other markets needs to take into account the differing market size, conditions and circumstances. Some of these measures are solutions for more critical market financing conditions than are currently experienced in Australia. Also, such programs may come at a cost to government, raise procurement complexities and may increase project net present cost.

Pilot project for project bonds

In December 2012 the United Kingdom Government announced Private Finance 2. The United Kingdom Government believes that transferring refinancing risk to the private sector does not represent value for money. One element of Private Finance 2 is a requirement for bidders to bid with long term debt, of which the majority must not be bank debt. Private Finance 2 is perhaps the most direct attempt to attract institutional investors.

Private Finance 2 also involves other measures that are likely to be credit enhancing and therefore make bond financing more attractive including:

- reduced project risk due to the Government taking back certain risks previously taken by the private sector;
- reduced service scope; and
- deleveraged capital structures (equity levels of 20–25 percent are expected for accommodation projects).

Private Finance 2 aims to facilitate pension and other institutional investor participation in the infrastructure debt financing market, which in turn should increase both the pool of infrastructure finance and competition. The initiative has already had some success with a number a small project closed with non-bank, long term debt as part of the financing solution as described in Section 2 above.

Industry generally opposed mandating bonds or long term debt in Australia for greenfield public private partnerships. However it is noted that this approach has led to some innovation in the United Kingdom (Private Finance 2), even the emergence of new credit wrapped transactions.

There is some support for a possible variant of this approach in Australia to bring a pilot or pathfinder project to market, with bid cost recovery for bidders or on the basis of a funding competition post selection of preferred bidder. A concern was raised that the market may not be interested in supporting a pilot unless it can see that other projects are lined up and can be brought to market on the same basis.

A possible approach to allay these concerns is to bring to market a project requiring bank construction letters of credit to be negotiated and priced, preferred bidder selection followed by a funding competition under which long term bonds could be required to be priced. The worst case would then be to revert to bank loan funding.

Such a process would move the discussion from theoretical to practical and quantify the value gap between bonds and loans. This is worth considering if the right project (in terms of size – maximum \$300 million recommended – and complexity) can be identified. It would act as a hedge against market inertia as well as demonstrate commitment to supporting market development.

As noted above the unwrapped project bond market could provide up to approximately \$300 million per transaction, and this volume is consistent with current market appetite for BBB credit risk (although the success of recent issuance suggests this may have increased). A smaller, low complexity, project will also reduce bid costs.

The practice of running funding competitions post preferred bidder selection has been used in the United Kingdom (and is currently taking place on the Mersey Gateway project) and in this context combined with bid cost recovery would reduce risk for bidders making it more attractive to the market.

The benefits of such intervention would flow to the national market.

Encouraging bonds for low capital value projects

Australian public private partnerships projects tend to be relatively large and lumpy compared with the market's preferred size (as noted above \$200 - \$300 million for BBB credit) and compared with other countries.

Over the eight year period of 2004 to 2011 inclusive the Australian market was comparable to the Canadian market by value (with approximately A\$33bn in total in each market), but Canada is a ten to fifteen deal per annum market and Australia is a two to five deal per annum market. Australian projects tend to be higher value, making it a more lumpy and less consistent market which presents challenges for participants.

Larger transactions are also less suitable for the bond market given market appetite for BBB risk. These differences reflect different project type mix e.g. accommodation vs transportation amongst other factors. In terms of general market development and the building of capability, arguably deal volumes rather than value is a more important driver.

One possibility for addressing this issue is for procuring Governments to encourage bond solutions for lower capital value projects in the first instance to build market volume over time. Although this was generally viewed as a sensible approach by industry project size is determined by infrastructure requirements and not by the requirements of the capital markets.

3.3 Long term defensive investing initiatives – demand side

These initiatives are directed at encouraging long term defensive investing to increase demand for long term defensive assets such as infrastructure debt. By their nature these policy areas are complex, involve many stakeholders, are subject to extensive discourse and serve many objectives of which solving problems in the infrastructure debt market is but one.

Retirement income products

In Australia, the majority of funds in the superannuation system are in accumulation accounts. This is set to change when baby boomers shift their assets to the retirement phase and associated retirement income products.

Superannuation fund members are able to take benefits as a lump sum and use the proceeds for purposes other than providing retirement income. Australian Bureau of Statistics data¹² shows that 50 percent of benefits payments are taken as a lump sum.

Currently, super fund members aged between 45 and 65 own 61 percent of the assets in the system and analysis suggests that by 2024, post-retirement assets will comprise more than a third of total assets, up from a fifth at present¹³.

Retirement income products can support a long-term, liability-driven investment approach as it is generally accepted that a more defensive investment strategy is appropriate. This will change asset allocation and increase the pool of funds available for defensive assets such as bonds.

The scope for annuity product innovation is currently limited by legislation. In September 2012, the Actuaries Institute published the white paper *Australia's Longevity Tsunami – What Should We Do?* This report supported the inclusion of post - retirement products in MySuper and outlined reforms to provide greater incentives to individuals to take the majority of their retirement benefits as an income stream. It also proposed the removal of any legislative barriers preventing innovation in developing post-retirement income stream products such as annuities.

The Cooper Review recommended that 'MySuper' products should include one type of income stream product, either through the fund or in conjunction with another provider, so that members can remain in the fund and regard MySuper as a whole of life product' (recommendation 7.1).

¹² APRA Statistics: Annual Superannuation Bulletin, June 2011

¹³ Rice Warner, Surviving Longevity, March 2010

The 2013 Melbourne Mercer Global Pension Index, which surveys and ranks the pension systems of 20 nations, rates the Australian system very highly - third overall (against adequacy, sustainability and integrity criteria) but identified the key weakness as an insufficient requirement or incentive to take retirement benefits as an income stream¹⁴.

Industry has noted the lack of available long term bonds in the market to match liabilities may be constraining product development of retirement income products. The Australian Government recently issued a 20 year bond and further extension of the yield curve is under consideration. This should also help provide a pricing benchmark for longer term domestic corporate debt.

Retail bond market

The senior retail corporate bond market is small and undeveloped, although like the corporate bond market more broadly activity has increased over the last 12 months. Presently, for many corporate issuers of senior debt, the cost of accessing the retail market outweighs the potential price benefit over the wholesale market.

This bias is reflected in the limited number of rated companies and a more limited number rated A and above (on Yieldbroker, a bond pricing platform, there are currently 24 issuers with bonds outstanding rated A- or higher and 31 issuers rated BBB+ or lower excluding the property trusts).

A- rated issuers tend to be larger and can access and have programs established in a number of markets. Historically, BBB rated corporates do not view the domestic market as attractive because of pricing, tenor, liquidity, market scale and depth, execution risk and the need for credit ratings. In addition they have ready alternatives in the form of bank debt and the United States private placement market. For established issuers, senior debt should be easier to issue than equity given its risk profile. As noted above, some retail market initiatives are already being progressed.

According to one industry participant, 'the ability of retail investors to easily make and manage investments in corporate bonds which are issued into and trade in the unlisted (over the counter) wholesale market has been a deterrent to their involvement'. Other industry participants agreed.

The Australian Government listed Australian Government bonds on the Australian Stock Exchange in May 2013. This measure will help the development of the retail bond market.

¹⁴ Australian Centre for Financial Studies, Melbourne Mercer Pension Index 2013

Performance data

Reliable, historic sector performance information of non-traded infrastructure debt is not currently widely available to the investment community. Industry raised the possibility for someone to provide the market with historic sector performance data for traded and non-traded infrastructure debt. Industry noted that if a commercial provider does not, or is unlikely to, provide this then the government could initiate or commission this work.

The need to fairly value assets so as to ensure equity between members is of paramount importance to superannuation fund trustees. It is also important for superannuation portability rules. However, unit pricing of unlisted assets (including credit securities, private equity and direct property) can be difficult for infrastructure debt where there is a lack of market transactions and benchmarks.

From the perspective of a superannuation fund, creation of a return index (which tracks current pricing and historic returns) would be beneficial as it would aid the process of understanding and characterising of risk and returns offered by infrastructure debt. It would greatly enhance the transparency of returns and performance of infrastructure debt and improve the ability of superannuation funds to form an expectation of returns and benchmark performance of investments and investment managers against the broader market.

This transparency should increase interest in the sector and improve liquidity over time. Similar indices are provided by Investment Property Databank Limited (known as IPD, a subsidiary of MSCI Inc. a global index and research provider), in real estate and more recently infrastructure equity. Given the private market nature of most infrastructure debt, market participants may not be incentivised to provide information required to create the index.

Australian Government liquidity backstop

In a superannuation fund, the requirement for liquidity can be caused by:

- fund flows and membership demographic profile;
- the potential for investment switching (more likely if the fund suffers poor performance, but also experienced due to market conditions);
- the 30 day portability rule under which members may change superannuation funds (these first two factors are collectively “redemption” risk);
- negative investment returns may require portfolio rebalance – target allocation ranges may be breached;
- margin calls on futures positions;
- commitments on unlisted assets; and
- currency settlements.

The Australia Prudential Regulation Authority considers liquid assets as assets able to be converted to cash within 30 days without the conversion causing a significant adverse impact on value¹⁵.

¹⁵ APRA Insight Issue One

As an indication of the extent of redemption risk, since the introduction of the 'Choice of Super' legislation, switching rates between funds have actually declined from around 5 percent in 2005 to 2 percent by the end of 2009. However some funds reported significant investment switching as a result of the global financial crisis.

Australia is not unique in having investment choice or fund choice. Most countries regulate pension liquidity in some form, particularly in defined contribution schemes. Such regulation may limit investment in illiquid investments. As a result, the concept of an 'illiquidity' budget or limits or 'liquidity overlay strategy' is common in defined contribution schemes, based on the profile of the fund. However, this does not mean funds cannot invest in illiquid assets.

The Cooper Review recommended (recommendation 6.7, for 'Choice' products only) that the current requirement for written member consent to waive portability rights for illiquid investment options (that is the right to change fund) be changed to a disclosure regime – whereby if the fund provides adequate disclosure before the member selects the illiquid option the portability rights are waived. The previous Government rejected this recommendation stating that 'written consent for investments in illiquid assets is necessary to ensure members are fully aware of the consequences for portability of funds'.

Participants considered the possibility for the Australian Government to provide backstop liquidity for qualifying infrastructure debt assets by acting as a buyer of last resort at market price.

Qualifying assets supported in this way could then be considered liquid and therefore not utilise scarce illiquidity limits in superannuation fund portfolios.

Industry expressed cautious support for this idea, acknowledging that liquidity is a significant barrier to investment and expressing concern over implementation issues (particularly determining market price), the potential that it may be viewed as an underwrite and that superannuation funds that do not otherwise have robust liquidity strategies may rely on it for the wrong reasons.

There is a question of how much difference such a facility would make. Whilst other interventions such as in the residential mortgage backed securities market and the Financial Institutions markets have proved to be effective (in the case of the mortgage backed market with the support of key investors in the subordinated debt tranches), it is difficult to make an assessment in the abstract.

There has also been some discussion in the market about provision of liquidity to superannuation funds on a broader basis, analogous to the Reserve Bank of Australia providing liquidity to banks. The intent would be to allow funds to adopt long term investment strategies that are based on normal conditions with due regard to liquidity requirements rather than constraining asset allocation based on stress scenarios. It is likely that this would lead to greater allocations to long term less liquid assets and also address a concern expressed by industry that that the design of the super system will increasingly push investments offshore into more liquid markets. However, government balance sheet risks and implementation issues would need to be carefully considered before recommending such a policy.

4. Key Consultation Messages

The key messages identified through consultation can be broken down into the following areas:

Market facilitation initiatives (supply side, short to medium term impact):

Participants were of the view that procuring Governments should develop and be ready to adopt policies that will facilitate market response if conditions become conducive to project bonds. Key areas are finance commitment terms and exploring two stage bidding processes.

Game changing intervention (supply side, short term impact): Participants viewed the policies considered to be most prospective in the context of project bonds are direct partial 'first loss' debt guarantees and a pilot/pathfinder project.

The first option should only be considered if the market does not respond as a result of the significant public private partnership refinancing task from 2014 onwards, or if there is a strong case to 'do what it takes' to raise large sums from non bank institutional investors.

The pilot / pathfinder corporate bond project could act as a hedge against market inertia and therefore may be worth progressing in the nearer term. The benefits of such intervention would flow to the national market.

Long term defensive investing initiatives (demand side, long term impact):

Participants argued the Australian Government could support policies that increase the competitiveness and efficiency of the infrastructure debt market by encouraging long term defensive investing where appropriate. Key areas are retirement phase arrangements in the superannuation system (particularly concerning regulation, incentives and taxation of retirement income products) and further development of the retail bond market. These are complex issues, with broad objectives and multiple stakeholders.

Whilst not a topic for consultation, the importance of a funded pipeline of projects was strongly emphasised, particularly in order to build up critical mass in the investment community.

Equally important for market development is visibility, consistency and confidence in the longer term project pipeline and the current work by Infrastructure Australia on developing a 15 year project pipeline is important in this regard. The Province of Ontario in Canada, through Infrastructure Ontario, is an example of best practice in this area, and this is often cited as one of the key success factors for that market.

Attachment A - List of organisations that attended workshops or submitted responses

Plenary Group
The Bank of Tokyo-Mitsubishi UFJ
Commonwealth Bank of Australia
Macquarie Capital
Challenger Financial Group
AMP Capital
Amber Infrastructure
Capella Capital
Thiess
InfraRed Capital Partners
Infrastructure Partnerships Australia
Westpac Banking Corporation
Leighton Holdings Limited
John Holland
Cintra
National Australia Bank
PricewaterhouseCoopers
KPMG
Assured Guarantee
Boulderstone
JANA
Victoria Funds Management Corporation
Ernst and Young
Association of Superannuation Funds of Australia
Industry Funds Management
Aurecon
UniSuper
Bilfinger Berger Project Investments
ANZ Banking Group

Attachment B – summary of industry feedback

Corporate Bonds	Response
Asset allocation	<p>Significant concern expressed about asset allocation generally.</p> <p>Unanimous support for review of retirement income products (this discussion is already occurring in the industry in a broader context). Lack of popularity of annuity products noted.</p> <p>Lack of incentives for long term investing noted.</p> <p>Glide path investing seen as sensible but a secondary issue to the retirement phase issues generally.</p> <p>It was noted that the low interest rate environment is a challenge for fixed income generally.</p>
Liquidity	<p>Concern expressed that the design of the super system will increasingly push investments offshore into more liquid markets.</p> <p>Concern also expressed that liquidity constraints may be imposed by fund managers more so than funds reflecting FM desire to de - risk (i.e. agency problem).</p> <p>There was some support for the government to provide backstop liquidity, either for specific projects or a sector generally, but only where a fund otherwise has a satisfactory liquidity strategy (helpful but unlikely to be a 'game changer').</p>
Exchange Traded Funds	<p>Useful in terms of investor education, however exchange traded funds over infrastructure debt are more likely to gain support following market development rather than being used to lead market development.</p>
Retail / wholesale barriers	<p>The appropriateness of the current regulations was acknowledged for certain products (for example unlisted mortgage schemes) but in the context of high quality corporate credits the policy basis was considered flawed.</p> <p>There is potential for useful reform in this area.</p> <p>Suggestion that this should be next step following implementation of current initiatives (disclosure, liability and listing government bonds).</p>

Project Bonds	
Risk profile – guarantees	<p>Unanimous opposition to Government exposure to construction risk.</p> <p>Some support for Government support of demand risk on a project by project basis. It seems likely that this would not be by way of a UK style guarantee program, but case by case solution probably implemented by procuring agencies.</p>
Risk profile – government as lender	<p>Reasonable level of support for Transportation Infrastructure Finance and Innovation Act style subsidised lending in the context of demand risk projects and growth assets (but not viewed specifically as a solution for project bonds).</p> <p>Otherwise opposition to any government role as co lender / investor.</p>
Risk profile – procurement process	<p>Opposition to any form of mandating bond or long term debt in Australia (i.e. UK PF2), but recognition that this is driving innovation.</p> <p>Some support for possible variant in Australia to bring a pilot project to market, with bid cost recovery for bidders or on the basis of a funding competition post preferred.</p> <p>Concern raised that the market may not be interested in supporting a pilot unless it can see that other projects are lined up and can be brought to market on the same basis.</p>
Market appetite	<p>Noting the specialist credit skills required, it is not universally accepted that greenfield demand would automatically follow successful brownfield investing.</p> <p>General agreement that a smaller project is more likely to be acceptable/supported by the market, initially at least.</p>
Bond Index	<p>10 - 20 separate bond issues are required to make an index.</p> <p>Initially project bonds are likely to be viewed as within the alternative assets category.</p> <p>If the market achieves critical mass indices will follow. Creating an index will not lead market development.</p>
Pricing	<p>Tax preferred status supported on the basis that project bonds simply don't stack up on a relative value basis.</p> <p>The concept was also supported if used to encourage long term investing, i.e. only offered on long term bonds and with the benefit linked to holding period. Others see affordability, market distortion and project selection issues.</p>

Procurement issues	<p>Settings need to be changed so bonds are not disadvantaged.</p> <p>Underwriting terms – not discussed at length but it was noted that there are no active project bond underwriters and terms will need to reflect the lack of a market.</p> <p>CPI – brief discussion confirmed that CPI payment profiles are better suited the bond market better.</p>
--------------------	---

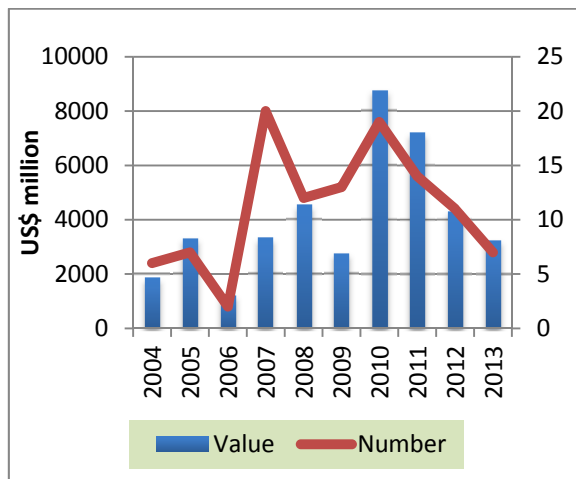
Attachment C – Canadian market

Public private partnerships market overview

The provinces of Canada (initially Alberta, British Columbia, Quebec and Ontario) created policy frameworks and central public private partnerships procurement agencies from 2004 onwards. Since then, Canada has developed a strong market with a reputation for getting projects to financial close on schedule, a transparent and firm pipeline and acceptable and consistent risk allocation. This provides the basis to attract wide industry participation.

The provinces of Canada have made contributions toward unsuccessful bidder costs since at least 2004 and also use public private partnerships variants such as design build finance or build finance whereby the province pays for the asset on completion and there is no ongoing private finance.

Chart 5: Deal flow in Canada



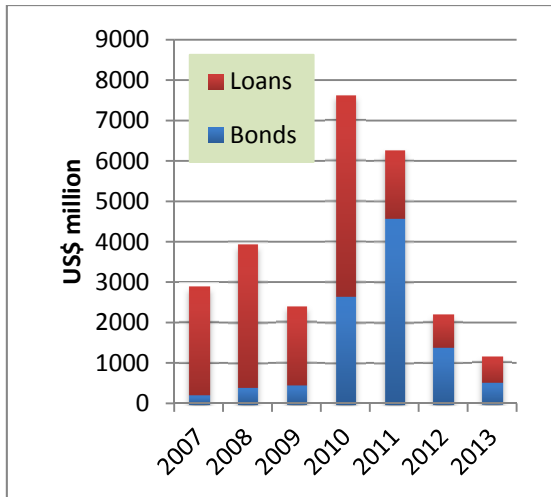
From 2004 to 2011, 111 projects closed worth approximately US\$41 billion, equating to an average of 11 projects per annum worth US\$4.1 billion. Of these projects, 55 are either health or long-term care facilities. Almost all projects have availability based revenue streams.

A feature of this market is the relatively high number of smaller deals compared with Australia. Deal flow by value and number is shown in the chart.

Source: Public Private Partnerships Council Canada (2012), InfraNews (2012), Infrastructure Australia analysis

More recently there has been a decline in deal flow, in part reflecting the success of the market and the future procurement needs. According to InfraDeals, in recent years, there has been a concerted effort by the federal government and construction firms to extend the use of public private partnership procurement beyond the sectors and provinces that have made use of it up until now (the population centres of Ontario and British Columbia).

Chart 6: Canadian debt market: bonds and bank loans



Source: Infrastructure Investor, InfraNews

Both the bank and bond markets are used in Canada for debt finance. Bonds have been issued by true private placement (limited capacity, initially to life insurance companies) and broadly marketed private placement to these life insurance companies and pension funds mainly via managers.

Most projects tend to use some form of short-term bank bridging loan, which is generally repaid by milestone and completion payments.

The Canadian public private partnerships bond market is unwrapped. There have been no wrapped bond issues as the regulatory regime made the market unattractive to the wrappers.

Today, Canada continues to have a functioning bank market (short term) and long and short term domestic bond markets supported by a base of 50+ investors. Over the period 2007 - 2011, the share of public private partnerships debt provided by bonds has increased from less than 10 percent to greater than 70 percent as shown in the chart above but has since reduced back to around 50% reflecting greater use of the build finance model and a trailing off of large hospital projects.

Until 2010 the Canadian bond market development was incremental and deal size restricted to less than US\$400 million. Since 2010 there have been seven deals with long term bonds issued of greater than US\$500 million but only one deal greater than US\$1 billion. Excluding build (short term) finance projects 23 projects have closed since the start of 2011 and 17 of these have utilised long term bonds.

Margin spreads, over the government benchmark, have ranged from 187 basis points to 315 basis points, however most deals were in the 200-210 basis points range, reported spreads on recent projects have been around 185 basis points. All but one project for which information is available is A-rated.

The Canadian pension system

The Canadian pension system is considered well developed and is one of the six systems globally with more than one trillion dollars in assets under management:

- Schemes are predominantly defined benefit (97 percent by assets).
- The average size of the ten largest funds (US\$52 billion) is double that of Australia's (US\$24 billion) and there are three very large funds all substantially larger than Australian Super, Australia's largest fund.
- Many Canadian funds, and in particular the large funds, have in house investment teams.
- According to OECD data asset allocation to bonds is approximately 37 percent (compared to 10 percent in Australia). The Canadian domestic corporate bond market is 3 times the size of Australia's, even though the Canadian economy is only around 1 ¼ times the size of the Australian economy.

Project bond market success factors

It would appear that there are a range of factors that have supported the development of the project bond market in Canada:

- The nature of the investor base – principally life insurance companies and defined benefit pension funds means they have long term liabilities and seek to match these with long term assets. Appetite is not limited to the large investors but also includes investors with under C\$5 billion under management.
- Consistency and visibility of deal flow and efficiency of deal execution¹⁶.
- The market was never a wrapped market and therefore was not reliant on arbitrage buyers and investors and managers developed the required specialisation.
- Flexible bond underwriting arrangements with price benchmarking– made possible due to the existence of liquid and relevant benchmark bonds as well as government sharing the credit spread risk during the bid process.
- Almost all rated projects have been structured to the A rating band which is attractive to a broader investor base. Higher contractor credit ratings and completion support packages (e.g. construction bonding and contingencies) appear to be the main reason for the difference. It is notable also that whilst Moody's rates most projects in Australia, they are not prominent in Canada, but the reverse is true for Standard & Poor's. Differing rating methodologies can lead to different outcomes.
- There is direct communication between issuers and investors (like a loan), in contrast to Australia and the United Kingdom where the issue of decision-making and reporting is often mentioned as an impediment to the market.
- Investors did not suffer large mark to market losses on previous investments.

¹⁶ Euromoney, Project Finance Yearbook 2012/13 article - "PPP Bonds in Canada and Beyond",

Comparison with Australia – data points

	Canada	Australia
<i>Pension Market</i>		
Total assets \$US	1,193	1,352
Defined Contribution/Defined Benefit split (percent)	3:97	90:10
Average size of top 10 fund \$US billion	52	24
Allocation to Fixed Income (percent)	37	10
Financial Institution investment channel	Mainly through managers except largest funds direct	Mainly through managers
<i>Bond Market Size \$US billion</i>		
Government	1,153	564
Financial Institutions	325	811
Corporate	200	51
Total	1,678	1426
<i>Public Private Partnerships Market</i>		
Deals p.a. average	11	5
Deal value p.a. average	US\$4.0 billion	A\$2.0 billion
Average deal size 2004 – 2007 A\$ million	\$280	\$570
Average deal size 2008 – 2011 A\$ million	\$400	\$1,230
Bonds share of Public Private Partnerships debt - 2011 (percent)	70	0

Source: OECD Global Pension Statistics, Towers Watson, Bank of International Settlements, Infrastructure Australia analysis