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Comparative Study of Frameworks to protect the Long Term Interests of Pension Funds Investing in Public-Private Partnerships

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1 Executive Summary

1.1 Purpose of this Report

This report has been prepared by Foster Infrastructure for the APEC Business Advisory Council. It presents the findings of a desktop research study of frameworks to protect the long-term interests of pension funds investing in Public Private Partnerships (PPPs). These findings are intended to provide guidance for government officials from APEC economies on good practice in policy and regulatory reform so as to promote investment by pension funds in PPPs.

1.2 The Relationship between Pension Funds and PPPs

Pension funds investing in PPPs typically do so directly or indirectly through financial instruments issued by the PPP contractor. Several policy and regulatory frameworks affect this investment:

- The applicable PPP Framework regulates the PPP contract
- The financial instruments issued by the PPP contractor are regulated by Investment and Financial Market Frameworks
- The pension funds themselves are regulated by the applicable Pension Fund Framework.

1.3 Barriers to investment and common responses

The Organisation for Economic Cooperation and Development (OECD) has identified a range of common barriers to pension fund investment in infrastructure, which are set out in section 4 of this report. Each of these barriers relates to one or more of the frameworks identified in section 1.2.

The OECD has identified three broad policy responses to overcome these barriers to investment:

- Creating policy frameworks supportive of long-term investment – this response can require changes to each of the frameworks identified in section 1.2.
- Providing a transparent environment for infrastructure investment – this response can require changes to the PPP Framework and the Investment and Financial Market Frameworks.
- Reforming the regulatory framework for long-term investment – this response can require changes to the Investment and Financial Market Frameworks and the Pension Fund Framework.

1.4 The impact of different Pension Fund systems

Different pension fund systems result in funds within those systems facing different issues when investing in PPPs. This is illustrated by experience in Australia and Canada, two similar economies with very different pension fund systems.

Australia's pension fund system is dominated by defined contribution funds with individual pension fund members having significant flexibility to determine how their funds are invested. This has led to a focus by Australian pension funds on short term performance and liquidity, with infrastructure investment seen as a means of diversification but constrained by the illiquidity and long-term nature of these assets.

Canada's pension fund system is dominated by defined benefit funds, which require a longer-term strategy of matching assets to future liabilities, rather than short-term performance and liquidity. Canadian pension funds are therefore more concerned that infrastructure investment may result in a mismatch between the return on their investments and the long-term inflation rate.

As a result of these differences in their pension fund systems, the features of PPP Frameworks of particular interest to Australian pension funds differ from the features of PPP Frameworks of particular interest to Canadian pension funds.

1.5 Policy responses in Latin American countries

Pension funds have evolved significantly in Latin America in the last 30 years. As these funds have grown, direct investment by them in infrastructure has been gaining importance. This has been facilitated by a range of reforms to PPP Frameworks, Investment and Financial Market Frameworks, and Pension Fund Frameworks. Latin American countries have generally not relied upon reforms to one Framework in isolation.

Reforms to Latin American PPP Frameworks to promote institutional investment in PPPs have focused on structuring PPP contracts so that projects provide secure and productive investments. In essence, these initiatives ensure that PPP projects are "bankable" – that is, the projects offer risk/reward propositions that are sufficiently attractive to investors.

Reforms to Latin American Investment and Financial Market Frameworks to promote institutional investment in PPPs have focused on the establishment of infrastructure investment funds and new forms of financial instruments. These initiatives enable financial markets to better match the investment appetite of pension funds with the risk reward investment opportunity offered by infrastructure projects.

Experience from Latin America demonstrates that regulatory barriers within the Pension Fund Framework can constrain pension funds' ability to invest in infrastructure, including through PPPs, even if the PPP Framework in itself results in PPP projects offering good investment returns. Removal of these barriers within the Pension Fund Framework is therefore often a necessary element of any initiative to promote pension fund investment in PPPs.

1.6 Recommendations

Based on the analysis in this report, Foster Infrastructure has identified the following recommendations for governments wishing to promote pension fund investment in PPP projects:

1. **Governments wishing to promote pension fund investment in PPPs should consider the impact of each of the following policy and regulatory frameworks:**
 - a. **The PPP Framework**
 - b. **Investment and Financial Markets Frameworks**

c. The Pension Fund Framework.

- 2. Policy changes to PPP Frameworks should support long-term investment and provide transparency for all potential PPP investors, rather than focusing specifically on the needs of pension funds.**
- 3. PPP Frameworks should offer attractive risk/reward propositions to investors, while retaining the underlying benefits of the PPP model, including the allocation of risk, where appropriate, to the private sector.**
- 4. Policy changes to Investment and Financial Markets Frameworks should facilitate the repackaging of the risk/reward investment opportunities offered by PPPs into products that are attractive and available to investors, including pension funds.**
- 5. If PPPs offer attractive investment opportunities, and the Pension Fund Framework allows infrastructure investment, there will be a strong incentive for the pension fund sector itself to establish new financial instruments and infrastructure investment funds to facilitate investment in PPPs. However, if there are regulatory barriers within the Investment and Financial Market Framework that prevent the pension fund sector acting in this way, there is a case for government to remove those regulatory impediments.**
- 6. Policy changes to Pension Fund Frameworks should balance the benefits of removing barriers to investment (including investment in PPPs) against the fiduciary and prudential protections required in a pension fund system.**
- 7. In reforming policy and regulatory frameworks to promote pension fund investment in PPPs, governments should consider how the unique features of their pension fund systems and PPP markets affect the appetite of pension funds for PPP investments.**

2 Methodology

In 2011, APEC ministers and senior officials identified frameworks to protect the long-term interests of pension funds investing in PPPs as a key area of interest.

Many economies have taken steps to remove barriers to pension fund investment in PPPs, but these steps generally do not involve introducing specific measures within the PPP Framework to protect the long-term interests of pension fund investors. Reasons for not using specific measures to protect the long-term interests of pension fund investors in PPPs may include:

- Concerns that such measures may transfer unacceptable levels of risk back to government
- A preference for market based solutions that do not discriminate between particular classes of investors – such solutions are likely to best promote competition amongst PPP investors and innovation by project sponsors seeking finance, and thus drive lower project costs.

Following discussions with the APEC Business Advisory Council, Foster Infrastructure agreed to conduct a desktop research study that identifies the barriers that typically prevent or limit pension fund investment in PPPs, and the range of approaches that economies have taken to remove these barriers.

This report documents the outcomes of the desktop research study. Foster Infrastructure has:

- Examined the relationship between PPPs and pensions funds, identifying the different regulatory and policy frameworks that affect pension fund investment in PPPs (section 3)
- Analysed the barriers within these frameworks that typically prevent or limit pension fund investment in PPPs, and the range of approaches that economies have taken to remove these barriers (section 4)
- Studied the barriers to pension fund investment in PPPs in Australia and Canada to identify how different pension fund systems result in different barriers to investment (section 5)
- Reviewed the measures taken to facilitate pension fund investment in PPPs in Latin American countries to identify common approaches to reform (section 6)
- Provided recommended actions to remove barriers to pension fund investment in PPPs (section 7).

3 Background – The Relationship between PPPs and Pension Funds

3.1 Why might Pension Funds wish to invest in PPPs?

Infrastructure investments are attractive to pension funds for several reasons¹:

- Infrastructure investments have long terms that can match the long duration of pension fund liabilities
- Infrastructure investments often have returns linked to inflation, and hence can hedge pension fund liabilities that are sensitive to inflation
- Infrastructure investments can generate attractive investment yields in excess of those available in the fixed income market, but with potentially higher volatility
- Infrastructure investments provide portfolio diversification, due to their low correlation with traditional asset classes.

PPPs, through their use of private finance, provide one of the forms in which pension funds can invest in infrastructure.

3.2 Why might PPP Programs benefit from Pension Fund investment?

The infrastructure requirements of many countries are growing, and the required level of investment cannot be financed by traditional sources of public finance alone². PPPs provide a means of accessing private finance to fill the infrastructure “gap”³. In recent years, the financial crisis has also constrained the availability of traditional sources of private finance⁴. This has led to a recognition that institutional investors, including pension funds, can play a more active role in financing infrastructure⁵, particularly PPPs.

3.3 The Relationship between PPP Frameworks and Pension Fund Regulation

Pension funds investing in PPPs typically do so directly or indirectly through financial instruments issued by the PPP contractor. As illustrated in Figure 1 on page 8, several policy and regulatory frameworks can affect this investment:

- The applicable PPP Framework regulates the PPP contract

¹ OECD, “Pension Funds Investment in Infrastructure – A Survey” (September 2011), pages 29, 51-52. (Available at: <http://www.oecd.org/dataoecd/59/33/48634596.pdf>.)

² OECD, “Pension Funds Investment in Infrastructure – A Survey” (September 2011), pages 27 and 33-35. (Available at: <http://www.oecd.org/dataoecd/59/33/48634596.pdf>.)

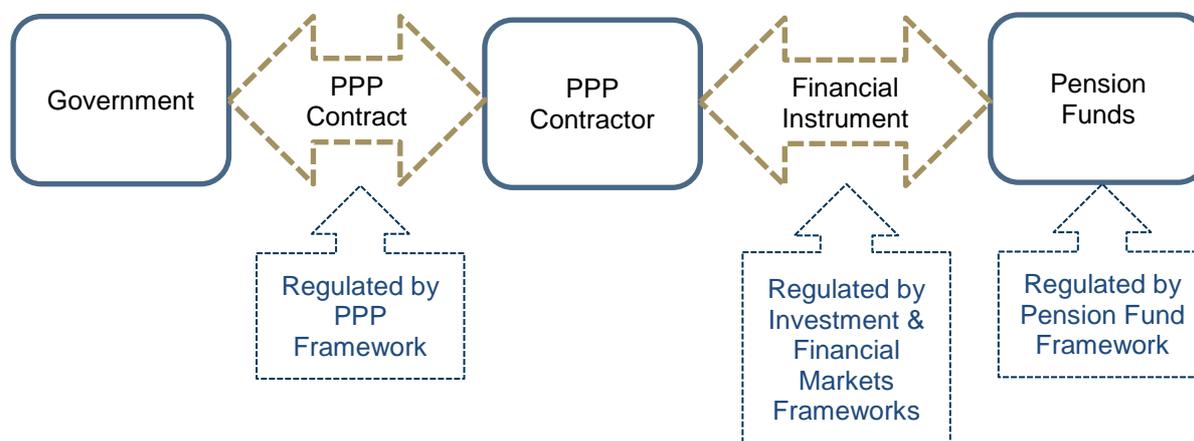
³ OECD, “Pension Funds Investment in Infrastructure – A Survey” (September 2011), pages 36-37. (Available at: <http://www.oecd.org/dataoecd/59/33/48634596.pdf>.)

⁴ OECD, “Pension Funds Investment in Infrastructure – A Survey” (September 2011), page 39. (Available at: <http://www.oecd.org/dataoecd/59/33/48634596.pdf>.)

⁵ OECD, “Pension Funds Investment in Infrastructure – A Survey” (September 2011), page 69. (Available at: <http://www.oecd.org/dataoecd/59/33/48634596.pdf>.)

- The financial instruments issued by the PPP contractor are regulated by Investment and Financial Market Frameworks
- The pension funds themselves are regulated by the applicable Pension Fund Framework.

Figure 1: Frameworks relevant to Pension Fund Investment in PPPs



Economies seeking to encourage pension fund investment in PPPs typically undertake one or more of the following actions:

- Modifying the PPP Framework to enable PPP contractors to offer acceptable risk/reward propositions to investors
- Modifying Investment and Financial Market Frameworks to enable PPP contractors to issue appropriate financial instruments to investors or to create vehicles such as infrastructure investment funds to intermediate between PPP contractors and potential investors
- Modifying Pension Fund Frameworks to broaden the ability of pension funds to invest in PPPs.

These steps remove barriers to pension fund investment in PPPs, but generally do not involve specific measures to protect the long-term interests of pension fund investors in PPPs. Reasons for not using specific measures to protect the long-term interests of pension fund investors in PPPs may include:

- Concerns that such measures may transfer unacceptable levels of risk back to government
- A preference for market based solutions that do not discriminate between particular classes of investors – such solutions are likely to best promote competition amongst PPP investors and innovation by project sponsors seeking finance, and thus drive lower project costs.

4 Barriers to Investment and Common Responses

4.1 Common barriers to pension fund investment in PPPs

The Organisation for Economic Cooperation and Development (OECD), in a 2011 survey, identified a range of common barriers to pension fund investment in infrastructure⁶. Figure 2 illustrates how the identified barriers relate to the three key frameworks that affect the ability of pension funds to invest in PPPs.

Figure 2: Barriers to Investment in Infrastructure (Sources: OECD⁷, Foster Infrastructure)

PPP Framework	Investment & Financial Market Framework	Pension Fund Framework	
Lack of Political Commitment			
Regulatory Instability			
Fragmentation of the market among different levels of government			
No clarity of investment opportunities			
High bidding costs in the procurement process			
Investment opportunities are perceived as being too risky			
Lack of transparency of the infrastructure sector			
Shortage of data on infrastructure project performance			
			Misalignment of interests between infrastructure funds and pension funds
	Negative perception of value		
		Lack of scale of pension funds	
		Lack of expertise within pension funds	
		Short-termism of investors	
		Regulatory barriers	

Figure 2 illustrates the following features of the identified barriers to pension fund investment in infrastructure:

- Lack of political commitment and regulatory instability can compromise all three of the Frameworks
- Some of the barriers relate solely to either the PPP Framework or the Pension Fund Framework

⁶ OECD, "Pension Funds Investment in Infrastructure – A Survey" (September 2011). (Available at: <http://www.oecd.org/dataoecd/59/33/48634596.pdf>.)

⁷ OECD, "Pension Funds Investment in Infrastructure – A Survey" (September 2011), pages 68-69. (Available at: <http://www.oecd.org/dataoecd/59/33/48634596.pdf>.)

- Each barrier that relates to the Investment and Financial Markets Framework also relates to either the PPP Framework or the Pension Fund Framework – this reflects the fact that financial markets facilitate pension fund investment in infrastructure, and barriers exist where there is a mismatch between the PPP Framework and ability of financial markets to provide funding, or between the products available in the financial markets and the appetite and ability of pension funds to invest.

4.2 Common policy responses

OECD has identified three main policy actions to promote pension fund investment in infrastructure⁸. Figure 3 identifies how these policy actions relate to the three key frameworks that affect the ability of pension funds to invest in PPPs.

Figure 3: Policy actions to promote long-term investments (Sources: OECD⁹, Foster Infrastructure)

PPP Framework	Investment & Financial Market Framework	Pension Fund Framework
Create policy frameworks supportive of long-term investment		
Provide a transparent environment for infrastructure investment		
	Reform the regulatory framework for long-term investment	

4.2.1 Policy actions to address barriers in PPP Frameworks

The barriers in PPP Frameworks set out in Figure 2 can be addressed through the creation of a supportive and transparent PPP Framework. It should be noted that addressing these barriers does not require any actions specifically designed to protect pension fund investment in PPPs. The policy actions taken should support long-term investment and provide transparency for all potential PPP investors, rather than focusing specifically on pension funds. If pension funds can provide financing for PPPs on terms that offer better value for money for government than other sources of finance, those pension funds should not require any special protections within the PPP framework that are not available to other investors.

4.2.2 Policy actions to address barriers in Investment and Financial Market Frameworks

All three of the policy actions identified in Figure 3 can address the barriers in Investment and Financial Market Frameworks set out in Figure 2. This reflects the role of investment and financial markets in providing a means of intermediation between pension funds and PPPs. These frameworks should facilitate the repackaging of the risk/reward investment opportunities offered by PPPs into products that are attractive and available to investors, including pension funds.

4.2.3 Policy actions to address barriers in Pension Fund Frameworks

Pension funds tend to be heavily regulated due to their fiduciary responsibility, and this regulation is a major driver of pension fund investment strategies¹⁰. Investment restrictions

⁸ OECD, “Pension Funds Investment in Infrastructure – A Survey” (September 2011), page 69. (Available at: <http://www.oecd.org/dataoecd/59/33/48634596.pdf>.)

⁹ OECD, “Pension Funds Investment in Infrastructure – A Survey” (September 2011), page 69. (Available at: <http://www.oecd.org/dataoecd/59/33/48634596.pdf>.)

placed upon pension funds vary widely, but can generally be grouped into the following categories¹¹:

- Limits on pension fund investment in selected assets
- Limits on foreign assets
- Other quantitative regulations.

In creating appropriate policy and regulatory environments within the Pension Fund Framework, governments need to balance the benefits of removing barriers to investment (including investment in PPPs) against the fiduciary and prudential protections required in a pension fund system.

¹⁰ OECD, “Pension Funds Investment in Infrastructure – A Survey” (September 2011), pages 54. (Available at: <http://www.oecd.org/dataoecd/59/33/48634596.pdf>.)

¹¹ OECD, “Pension Funds Investment in Infrastructure – A Survey” (September 2011), pages 54. (Available at: <http://www.oecd.org/dataoecd/59/33/48634596.pdf>.)

5 Case Study 1 – A Comparison of Pension Fund Investment in PPPs in Australia and Canada

5.1 Pension Fund Systems in Australia and Canada

Australia and Canada have similar economies with similar and well-developed PPP Frameworks and financial markets. They are regarded as leaders in pension fund investment in infrastructure¹². Nevertheless, Australia and Canada have very different pension fund systems. Table 1 sets out key features of the pension fund systems in each country.

Table 1: Key Features of Pension Fund Systems in Australia and Canada (Source: OECD¹³)

	Australia	Canada
Market value of pension funds in USD (2009)	\$808 billion	\$806 billion
Market value as % of GDP (2009)	82.3%	62.9%
Primary Pension Scheme Type	Defined Contribution	Defined Benefit
Pension Funds' primary objective in investing in Infrastructure	Portfolio diversification	Strong long-term income
Percentage of Pension Fund Assets invested in Infrastructure	5% (2012)	3.84% (2009)
Percentage of Infrastructure Portfolio invested in Domestic Assets [sample funds]	< 50%	21.2%

The pension fund systems in Australia and Canada are broadly similar in size and in the proportion of funds invested in infrastructure. However the Australian pension fund system primarily consists of defined contribution schemes, whereas the Canadian system primarily consists of defined benefit schemes.

Under a defined contribution scheme, pension fund members make contributions and receive future benefits based upon the investment return generated from those contributions. Under a defined benefit scheme, pension fund members are entitled to specific benefits defined in the scheme rules. It is the responsibility of the defined benefit pension fund manager to invest contributions appropriately so that the fund can pay these benefits in the future. Therefore, pension fund members directly bear market risks in a defined contribution scheme but not in a defined benefit scheme.

¹² World Bank, "Best Practices in Public-Private Partnerships Financing in Latin America – Conference Report" (September 2011), page 23. (Available at http://einstitute.worldbank.org/ei/sites/default/files/Upload_Files/BestPracticesPPFinancingLatinAmericaConferenceReport.pdf); Inspiratia, "US Pension Funds – A New Class of Investor" (2010), page 2. (Available at: <http://www.inspiratia.com/writable/content/pdf/US%20pension%20funds.pdf>.)

¹³ OECD, "Pension Funds Investment in Infrastructure – A Survey" (September 2011), pages 73-106. (Available at: <http://www.oecd.org/dataoecd/59/33/48634596.pdf>.)

Under the Australian system, pension fund members have significant choice as to how their funds are invested. Members can switch between investment options at short notice, and can easily move their investment from one pension fund manager to another – this flexibility is often referred to as “member choice and portability”.

5.2 Barriers to Pension Fund Investment in Infrastructure in Australia and Canada

The predominance of defined contribution schemes in Australia and defined benefit schemes in Canada results in there being differences in the barriers to investment in infrastructure for pension funds from the two countries. The major barriers are set out in Table 2.

Table 2: Barriers to Pension Fund Investment in Infrastructure for Australian and Canadian Pension Funds (Source: OECD¹⁴)

	Australian Funds	Canadian Funds
Lack of transparency about project pipeline and investment opportunities	✓	✓
Perception of high risk	✓	✓
Problems of scale	✓	✓
Lack of long term infrastructure plans	✓	
High bidding costs	✓	
Illiquidity constraints	✓	
Long-term investments are not well matched to pension fund liabilities	✓	
Insufficient internal expertise within pension funds	✓	
Pension funds have an excessive focus on short term returns	✓	
Insufficient inflation hedge		✓
Infrastructure does not fit into other asset classes		✓
Negative public perception of infrastructure investment		✓
Foreign investment risks		✓

The predominance of defined contribution funds in Australia, and the member choice and portability features of this system, result in Australian pension funds focusing on short term investment performance and needing significant liquidity in order to respond to instructions from their members. Australian pension funds therefore see infrastructure investment as a means of diversification, but are constrained by its illiquidity and long-term nature.

¹⁴ Source: OECD, “Pension Funds Investment in Infrastructure – A Survey” (September 2011), pages 83 and 100. (Available at: <http://www.oecd.org/dataoecd/59/33/48634596.pdf>.)

Illiquidity and the long-term nature of infrastructure investment are less of a barrier for Canadian pension funds, as defined benefit schemes require a longer-term strategy of matching assets to future liabilities, rather than short-term returns and liquidity. The barriers to Canadian pension funds' investment in infrastructure therefore relate to longer-term risks. For example, a key risk for defined benefit schemes such as those in Canada is the risk of a mismatch between the return on its investments and the long-term inflation rate.

5.3 Examples of the differences in Australian and Canadian pension fund appetites for PPP investment

5.3.1 Equity investment in the Australian toll road projects

The State of Victoria, Australia, has two toll road projects that have been delivered under PPP contracts:

- On 20 October 1995, the State awarded a company named Transurban a 34 year concession for its CityLink toll road.
- On 14 October 2004, the State awarded a company named ConnectEast a 39 year concession for its EastLink toll road.

Both Transurban and ConnectEast listed on the Australian Stock Exchange following the award of their concessions¹⁵. A stock exchange listing enabled them to raise significant amounts of equity while providing investors with liquidity of their investment.

On 27 October 2009, two Canadian Pension Funds, Canada Pension Plan Investment Board ("CPPIB") and Ontario Teachers' Pension Plan ("OTPP"), confirmed that they had submitted an indicative proposal to take over Transurban¹⁶. This bid, which would have resulted in Transurban being delisted from the Australian Stock Exchange, was ultimately unsuccessful.

In August 2011, a consortium of eight international investment funds, which included pension funds from the United Kingdom, South Korea, New Zealand and the United States of America, launched a takeover bid for ConnectEast¹⁷. This bid was ultimately successful, and ConnectEast was delisted from the Australian Stock Exchange in late 2011¹⁸.

The ownership history of the CityLink and EastLink toll roads suggests that their initial public listing was desirable to provide liquidity for Australian institutional investors. The subsequent takeover activity suggests that offshore pension funds, including those from Canada, prefer unlisted ownership structures, which provide less liquidity but enable these pension fund investors to take a longer-term view of the investment.

¹⁵ See generally ConnectEast, "Product Disclosure Statement for the Offer of 1,120,000,000 Stapled Units in ConnectEast Investment Trust (ARSN 110 713 481) and ConnectEast Holding Trust (ARSN 110 713 614)" (October 2004). (Available at: <http://www.connecteast.com.au/page.aspx?cid=533>.)

¹⁶ See Canada Pension Plan Investment Board and Ontario Teachers' Pension Plan, "Canada Pension Plan Investment Board and Ontario Teachers' Pension Plan Confirm Indicative Proposal to Acquire Transurban" (27 October 2009). (Available at: <http://www.transurban.com.au/784816.pdf>.)

¹⁷ Damon Kitney, "Toll Road Operator sees Clear Road Ahead", The Australian (9 August 2011). (Available at: <http://www.theaustralian.com.au/business/companies/toll-road-operator-sees-clear-road-ahead/story-fn91v9q3-1226111256901>.)

¹⁸ See ConnectEast, "Investor Centre", <http://www.connecteast.com.au/marketdata.aspx>.

5.3.2 Debt investment by Pension Funds in PPPs in Australia and Canada

Pension funds, along with insurance companies, have led the provision of long-term debt for PPPs in Canada¹⁹. In contrast, Australian pension funds tend to view infrastructure debt as an opportunistic investment²⁰. These different perspectives are consistent with the long-term investment view adopted by Canadian pension funds and the short-term focus of Australian funds.

5.4 Implications of differences in the Australian and Canadian Pension Fund Systems for PPP Frameworks

The differing pension fund systems in Australia and Canada result in different aspects of these countries' PPP frameworks being particularly significant for pension fund investment in PPPs.

As Australian pension funds need short-term liquidity, they are likely to be particularly concerned about any elements in the PPP Framework that may reduce liquidity. For equity investment, Australian pension funds would carefully examine restrictions on changes in control or ownership of the project company²¹. For debt investment, Australian pension funds would carefully examine restrictions on refinancing of that debt²².

In contrast, Canadian pension funds focus on a longer-term strategy of matching assets to future liabilities, and therefore are likely to be particularly concerned about any elements in the PPP Framework that may result in returns on PPP assets departing from expectations. For example, these pension funds will carefully consider the mechanism by which government payments to the project company²³ or user-charges such as tolls²⁴ may be escalated to take account of inflation.

¹⁹ Blake, Cassels and Graydon LLP, "2011 Trends – Infrastructure". (Available at: http://blakes.com/english/legal_updates/reference_guides/Infrastructure_Trends.pdf.)

²⁰ OECD, "Pension Funds Investment in Infrastructure – A Survey" (September 2011), page 99. (Available at: <http://www.oecd.org/dataoecd/59/33/48634596.pdf>.)

²¹ Under Australia's PPP Framework, government has developed a standard position on restrictions on changes in control or ownership – see Infrastructure Australia, "National PPP Guidelines: Volume 3: Commercial Principles for Social Infrastructure" (December 2008), pages 118-119. (Available at: http://www.infrastructureaustralia.gov.au/public_private/files/National_PPP_Guidelines_Vol_3_Commercial_Principles_Social_Infrastructure_Dec_08.pdf.)

²² Under Australia's PPP Framework, government has developed a standard position on restrictions on refinancing – see Infrastructure Australia, "National PPP Guidelines: Volume 3: Commercial Principles for Social Infrastructure" (December 2008), pages 128-131. (Available at: http://www.infrastructureaustralia.gov.au/public_private/files/National_PPP_Guidelines_Vol_3_Commercial_Principles_Social_Infrastructure_Dec_08.pdf.)

²³ Under Australia's PPP Framework, government determines how such payments will be indexed on a project by project basis – see Infrastructure Australia, "National PPP Guidelines: Volume 3: Commercial Principles for Social Infrastructure" (December 2008), page 47. (Available at: http://www.infrastructureaustralia.gov.au/public_private/files/National_PPP_Guidelines_Vol_3_Commercial_Principles_Social_Infrastructure_Dec_08.pdf.)

²⁴ Under Australia's PPP Framework, government determines how such payments will be indexed on a project by project basis – see Infrastructure Australia, "National PPP Guidelines: Volume 7: Commercial Principles for Economic Infrastructure" (February 2011), page 44. (Available at: http://www.infrastructureaustralia.gov.au/public_private/files/Vol_7_Commercial_Principles_Economic_Infrastructure_Feb_2011.pdf.)

6 Case Study 2 – Measures undertaken in Latin America to promote Pension Fund Investment in PPPs

Pension funds have evolved significantly in Latin America in the last 30 years²⁵. As these funds have grown, direct investment by them in infrastructure has been gaining importance. This has particularly been the case in Peru, Colombia and Chile²⁶. As indicated in Table 3, Chile has a large pension fund sector (close in relative size as a percentage of GDP to the pension fund sectors in Australia and Canada), while Peru and Columbia are leaders in infrastructure's share of pension fund assets.

Table 3: Pension Funds and Infrastructure Investment in Peru, Columbia and Chile (Source: World Bank²⁷)

	Peru	Columbia	Chile
Pension Fund Value as % of GDP (2008, estimated values)	13%	12%	55%
Percentage of Pension Fund Assets invested in Infrastructure (2011, estimated values)	27%	24%	14%

6.1 Reforms that have promoted Pension Fund investment in Latin American Infrastructure

The significant level of Latin American pension fund investment in infrastructure has been facilitated by a range of reforms to PPP Frameworks, Investment and Financial Market Frameworks, and Pension Fund Frameworks. Examples of these initiatives in Latin American countries are set out in Table 4 on page 17.

It is notable that the reforms identified in Table 4 include reforms to each of the relevant Frameworks, and the countries examined have generally not relied upon reforms to one Framework in isolation. For example, Peru has undertaken reforms to each of the Frameworks.

²⁵ World Bank, "Best Practices in Public-Private Partnerships Financing in Latin America: The Role of Innovative Approaches" (January 2012), page 126. (Available at: <http://www.ppiaf.org/sites/ppiaf.org/files/publication/BestPracticesroleofinnovativeapproaches.pdf>.)

²⁶ World Bank, "Best Practices in Public-Private Partnerships Financing in Latin America – Conference Report" (September 2011), page 25. (Available at: http://einstitute.worldbank.org/ei/sites/default/files/Upload_Files/BestPracticesPPPFInancingLatinAmericaConferenceReport.pdf.)

²⁷ World Bank, "Best Practices in Public-Private Partnerships Financing in Latin America – Conference Report" (September 2011), page 25. (Available at: http://einstitute.worldbank.org/ei/sites/default/files/Upload_Files/BestPracticesPPPFInancingLatinAmericaConferenceReport.pdf); World Bank, "Best Practices in Public-Private Partnerships Financing in Latin America: The Role of Innovative Approaches" (January 2012), page 126. (Available at: <http://www.ppiaf.org/sites/ppiaf.org/files/publication/BestPracticesroleofinnovativeapproaches.pdf>.)

Table 4: Examples of Initiatives undertaken to promote Pension Fund Investment in Infrastructure in Peru, Columbia, Chile and Mexico (Source: World Bank²⁸)

	Peru	Columbia	Chile	Mexico
PPP Framework Initiatives				
<ul style="list-style-type: none"> Structuring of PPP contracts so that projects provide secure and productive investments 	✓	✓	✓	
Investment and Financial Market Framework Initiatives				
<ul style="list-style-type: none"> Government facilitation of the establishment of infrastructure investment funds 	✓			✓
<ul style="list-style-type: none"> Pension fund industry facilitation of the establishment of infrastructure investment funds 	✓			
<ul style="list-style-type: none"> Development of new forms of financial instruments 			✓	✓
Pension Fund Framework Initiatives				
<ul style="list-style-type: none"> Relaxation of regulatory barriers to infrastructure investment 	✓			✓

6.2 Implications of Latin American reforms

6.2.1 PPP Framework Initiatives

Table 4 illustrates that governments in Peru, Chile and Columbia have modified PPP Frameworks to promote institutional investment in PPPs primarily by structuring PPP contracts so that projects provide secure and productive investments. In essence, these initiatives are focussed on ensuring that PPP projects are “bankable” – that is, the projects offer risk/reward propositions that are sufficiently attractive to investors²⁹.

Each of Peru, Chile and Columbia have, to some extent, ensured “bankability” of PPP projects by providing government guarantees against certain risks. They have attempted to structure the guarantees so that the necessary finance can be secured, without government taking on all of the risks of the project – if government takes on all of the risks, the PPP contractor is not incentivised through the risk allocation to deliver good outcomes.

²⁸ See generally World Bank, “Best Practices in Public-Private Partnerships Financing in Latin America – Conference Report” (September 2011). (Available at: http://einstitute.worldbank.org/ei/sites/default/files/Upload_Files/BestPracticesPPFinancingLatinAmericaConferenceReport.pdf); World Bank, “Best Practices in Public-Private Partnerships Financing in Latin America: The Role of Innovative Approaches” (January 2012). (Available at: <http://www.ppiaf.org/sites/ppiaf.org/files/publication/BestPracticesroleofinnovativeapproaches.pdf>.)

²⁹ For detailed descriptions of the mechanisms used in Peru, Columbia and Chile to ensure that projects are bankable, see “Best Practices in Public-Private Partnerships Financing in Latin America: The Role of Innovative Approaches” (January 2012), pages 62-83. (Available at: <http://www.ppiaf.org/sites/ppiaf.org/files/publication/BestPracticesroleofinnovativeapproaches.pdf>.)

The experience in Latin American countries demonstrates that PPP Frameworks should offer attractive risk/reward propositions to investors, while retaining the underlying benefits of the PPP model, including the allocation of risk, where appropriate, to the private sector. This approach does not specifically focus on providing investment opportunities to pension funds, but creates an environment in which pension funds will consider investing in PPPs if the Investment and Financial Market Framework and the Pension Fund Framework allow them to do so.

6.2.2 Investment and Financial Market Framework Initiatives

Table 4 highlights the importance of the establishment of infrastructure investment funds and new forms of financial instruments to facilitate pension fund investment in infrastructure. These initiatives enable financial markets to better match the investment appetite of pension funds with the risk reward investment opportunity offered by infrastructure projects. In doing so, these initiatives reduce the following barriers identified in Section 4 above:

- **Investment opportunities are perceived as being too risky:** Infrastructure investment funds reduce this barrier by providing diversification opportunities and professional management; New forms of financial instruments can provide standardised risk positions
- **Lack of transparency of the infrastructure sector:** Infrastructure investment funds reduce this barrier by employing expert analysts to monitor projects and providing transparent reporting of project and portfolio performance; New forms of financial instruments can be approved by regulators subject to the project company providing transparent information to the market
- **Shortage of data on infrastructure project performance:** Infrastructure investment funds can reduce this barrier by developing a research capability; New forms of financial instruments can be structured to only expose investors to specific risks rather than exposing them to overall project performance.

New financial instruments and infrastructure investment funds can be created or facilitated both by governments and by the pension fund sector. If PPPs offer attractive investment opportunities, and the Pension Fund Framework allows infrastructure investment, there will be a strong incentive for the pension fund sector itself to establish new financial instruments and infrastructure investment funds to facilitate investment in PPPs. However, if there are regulatory barriers within the Investment and Financial Market Framework that prevent the pension fund sector acting in this way, there is a case for government to remove those regulatory impediments.

6.2.3 Pension Fund Framework Initiatives

Experience from Latin America demonstrates the impact of regulatory barriers within the Pension Fund Framework upon the ability of pension funds to invest in infrastructure, including through PPPs. These barriers can prevent investment, even if the PPP Framework in itself results in PPP projects offering good investment returns. Removal of these barriers is therefore often a necessary element of any initiative to promote pension fund investment in PPPs.

7 Conclusions and Recommendations

Pension fund investment in PPP projects is influenced by three regulatory and policy frameworks:

- The PPP Framework
- The Investment and Financial Market Framework
- The Pension Fund Framework.

The different pension fund systems in Australia and Canada result in pension funds in those countries taking different views as to the merits of infrastructure investment and the issues and risks they face in investing in PPPs. This illustrates that the attractiveness of PPP investment opportunities to pension funds is influenced as much by the Pension Fund Framework as by the PPP Framework.

Any government wishing to facilitate pension fund investment in infrastructure must understand how each of the three frameworks affects the ability of pension funds to invest, and must consider what policy, regulatory and transparency initiatives are required to remove barriers within each framework. Governments in Latin America have taken this approach.

Based on the analysis of PPP Frameworks in this report, Foster Infrastructure has identified the following recommendations for governments wishing to promote pension fund investment in PPP projects:

- 1. Governments wishing to promote pension fund investment in PPPs should consider the impact of each of the following policy and regulatory frameworks:**
 - a. The PPP Framework**
 - b. Investment and Financial Markets Frameworks**
 - c. The Pension Fund Framework.**
- 2. Policy changes to PPP Frameworks should support long-term investment and provide transparency for all potential PPP investors, rather than focusing specifically on the needs of pension funds.**
- 3. PPP Frameworks should offer attractive risk/reward propositions to investors, while retaining the underlying benefits of the PPP model, including the allocation of risk, where appropriate, to the private sector.**
- 4. Policy changes to Investment and Financial Markets Frameworks should facilitate the repackaging of the risk/reward investment opportunities offered by PPPs into products that are attractive and available to investors, including pension funds.**
- 5. If PPPs offer attractive investment opportunities, and the Pension Fund Framework allows investment, there will be a strong incentive for the pension fund sector itself to establish new financial instruments and infrastructure investment funds to facilitate infrastructure investment in PPPs. However, if there are regulatory barriers within the Investment and Financial Market Framework that**

prevent the pension fund sector acting in this way, there is a case for government to remove those regulatory impediments.

- 6. Policy changes to Pension Fund Frameworks should balance the benefits of removing barriers to investment (including investment in PPPs) against the fiduciary and prudential protections required in a pension fund system.**
- 7. In reforming policy and regulatory frameworks to promote pension fund investment in PPPs, governments should consider how the unique features of their pension fund systems and PPP markets affect the appetite of pension funds for PPP investments.**