Original Article

A More Durable Relationship—The Case of Canadian Funding of Indian Infrastructure

IIMS Journal of Management Science
1–9

DOI: 10.1177/0976030X251334429
journal.iimshillong.ac.in

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Abstract

India needs to spend 7%–8% of her GDP on infrastructure, while the actual expenditures are much less. As a result, there is a large infrastructure financing gap. Canadian pension funds are helping to bridge this gap and are very active in the Indian infrastructure market. It has been estimated that the cumulative investment of Canadian pension funds into India is over US$75 billion. India courts pension fund investments into infrastructure, like the rest of the world, as they do not suffer from asset-liability mismatch associated with bank financing of infrastructure. Investment in Indian infrastructure also produces handsome returns for these investors. This mutual utility of Canadian pension fund investment into Indian infrastructure makes such investments durable and long term with little chance of change in strategy based on short-term events, like the recent diplomatic spat between the two countries.

Keywords

India, Indian infrastructure, institutional investment into infrastructure, pension fund investment in infrastructure, Canadian Pension Plan Investment Board (CPPIB), Caisse de dépôt et placement du Québec (CDPQ), Ontario Teachers' Pension Plan (OTPP), Public Sector Pension (PSP) Investment Board

JEL Classification: O16, O18

Received 1 March 2025; accepted 27 March 2025

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Introduction

India is the fastest-growing large economy in the world, with the growth rate of the Indian economy estimated at 8.2% in 2023–2024 (MoSPI, 2025). This creates increased demand for infrastructure to make this growth sustainable and inclusive. This also implies a near-endless appetite for infrastructure investments.

In this context, despite the recent Indo-Canadian diplomatic row, there is one facet of engagement that is welcomed in India, and it has produced handsome returns for Canadian firms. The reference is to infrastructure investment in India by Canadian pension funds (Canadian Pension Plan Investment Board (CPPIB); Caisse de dépôt et placement du Québec (CDPQ); Ontario Teachers' Pension Plan (OTPP); and Public Sector Pension (PSP) Investment Board). It is estimated that the cumulative investment of Canadian pension funds into India is over US$75 billion. These pension funds are long-term investors and are unlikely to change strategies based on short-term events, like the recent India–Canada diplomatic row.

Literature Review

There is voluminous literature on infrastructure and its financing given their importance for economic growth and development. Much of this literature is referred to in subsequent sections as I discuss Canadian funding of Indian infrastructure. Some other strands of literature are discussed below.

Jordan Schwartz (2024) says that for many emerging and developing economies, balancing economic growth with poverty alleviation and climate objectives is the central challenge. He emphasizes financial innovation (among them, *green bonds*) to be able to bring about sustainable development.

Ravenhorst and Brounen (2022) study the *motives of institutional investors to spend on infrastructure*. They find that portfolio diversification, downside risk protection, and stable income yields are all valid reasons for investing in infrastructure. However, they also report that evidence on infrastructure's inflation-hedging capabilities is less compelling.

McKinsey & Company (2016) emphasizes the *close connection between environmental, social and governance (ESG) norms and institutional investment* when it says that major institutional investors have pledged to decarbonize their investment portfolio and to assess the carbon footprint of their assets as part of the portfolio decarbonization coalition. McKinsey also emphasizes that *domestic capital markets* will be pivotal to financing infrastructure investment, particularly the banks, pensions, and insurance companies that are growing fast and hold more than 80% of institutional assets under management (AUM) in middle-income countries like India.

I analyze and incorporate, as appropriate, all these suggestions in the following sections.

Logic of Moving from Bank Financing to Institutional Financing of Infrastructure

The main sources of debt financing of greenfield infrastructure in India, in common with the rest of the world, are banks and Non-Banking Finance Companies (NBFCs), such as Power Finance Corporation, Rural Electrification Corporation, Indian Railway Finance Corporation, etc. It is estimated that cumulatively, till August 2024, about ₹13.06 trillion (lakh crore) has flown into infrastructure from banks (Table 1) and about ₹15 trillion from NBFCs.

The pace of bank credit deployment to infrastructure in India has slowed down considerably in recent years. Table 1 shows that incremental bank credit growth to infrastructure slowed down to 0.2% (or ₹21.06 billion in absolute terms) in the current financial year (FY) (till August 2024), compared to 3% in the previous FY. This demonstrates the increasingly marginal role being played by bank credit to infrastructure, as the total Indian infrastructure spend (from central government, state governments, and the private sector) in 2022–2023 was about ₹12.5 trillion (CRISIL, 2023), with bank credit to infrastructure contributing only ₹51.88 billion to this number. This implies that other sources of infrastructure finance, including institutional investment into infrastructure, are becoming more important.

In addition, bank finance to infrastructure suffers from asset-liability mismatch (ALM) as bank liabilities are short-term (their deposits, including fixed deposits, are generally for a maximum term of 5 years), while infrastructure assets are long-term (the concession period in a majority of infrastructure projects is 30 years or more). Long-term contracts are essential in infrastructure because of the need for amortizing the large capital costs associated with these assets over a long period of time for keeping the user charges reasonable. Financing of long-term assets with short-term liabilities results in ALM and subjects the projects to refinancing and other related risks. Therefore, there is an ongoing effort, the world over, to move from bank financing of infrastructure to institutional financing (from pension, insurance, and sovereign wealth funds) of infrastructure.

Institutional financing of infrastructure does not suffer from ALM, as the liabilities of institutional investors (e.g., the pension liabilities of pension funds like CPPIB) are also long term and match up with the tenure of infrastructure assets. As populations age and the longevity of the people increases, the pension funds in the developed world (being subjected to higher dependency ratios and long lives of people post-retirement) are looking for assets that can provide long-term steady returns with low correlation with business cycles. For example, the OTPP administers pension payments of over $6 billion annually. In 1990, there were four teachers for every pensioner with an average pension (post-retirement) life of 25 years. However, by 2018, the ratio was down to 1.3 active teachers for every pensioner and a pension life of 32 years. As a result of these demographic trends, OTPP is looking for low-risk, long-term, and inflation-hedged investments, which explains their increased interest in infrastructure assets (Pratap, 2024).

Table 1. Sectoral Deployment of Bank Credit to Infrastructure (Rupees in Billion).

Industry	March 24, 2023	August 25, 2023	March 22, 2024	August 23, 2024	Variation (Financial Year) August 25, 2023/ March 24, 2023	Variation (Financial Year) August 23, 2024/ March 22, 2024
					%	%
Infrastructure	12,231.05	12,598.43	13,040.96	13,062.02	3.0	0.2
Power	6,202.31	6,134.03	6,440.42	6,386.39	–1.1	–0.8
Telecommunications	1,082.62	1,345.91	1,381.92	1,323.05	24.3	–4.3
Roads	3,002.10	3,14,8.54	3,180.72	3,280.01	4.9	3.1
Airports	95.93	78.12	72.80	82.61	–18.6	13.5
Ports	79.83	78.46	66.81	63.40	–1.7	–5.1
Railways (other than Indian Railways)	101.75	118.49	130.62	119.88	16.5	–8.2
Other infrastructure	1,666.52	1,694.89	1,767.67	1,806.69	1.7	2.2

Source: Reserve Bank of India (2024).

These institutional investors are also passive investors and do not want to be subjected to risks associated with greenfield infrastructure (like land acquisition and environmental and forest clearance risks).

Given the boundaries of attractive investment avenues for institutional investors, brownfield infrastructure investment in developing countries like India matches up nicely. Since these are brownfield and operational assets, they have been de-risked, given that they are past the risks posed by contested land acquisition or protracted environment and forest clearance processes. India also has a large stock of brownfield infrastructure assets ($15 trillion, as estimated by the World Economic Forum (2017)). Owing to these reasons, Canadian pension funds are very active in the Indian infrastructure market.

What Makes Indian Infrastructure an Attractive Proposition for Passive Investors

For many of these passive institutional investors, it is important to gain comfort on the fundamentals before focusing on a specific investment opportunity. As we have seen, India is the fastest-growing large economy in the world, with the FY 2023–2024 growth rate being 8.2% (MoSPI, 2025). Multilateral institutions like the World Bank and IMF recognize India as the bright spot with sustained growth in an increasingly uncertain world—India is likely to become the third-largest economy in the world by 2027 (Blackrock, 2024). Government debt (including foreign debt) is at a manageable level. The Indian population is young, and the associated demographic dividend is likely to support the high growth rate of the economy. India is the world's largest democracy, with orderly elections and processes, mitigating political risks. All this gives an investment-grade rating to the country and is a source of comfort to passive investors like institutional investors.

India has a near unending appetite for infrastructure investments. World Bank (2008, p. 35) has estimated that, for high and sustained growth, investment in infrastructure needs to be in the range of 7%–8% of GDP. As per the National Infrastructure Pipeline launched in 2020 (Ministry of Finance, Government of India, 2020), India needs to nearly double the annual infrastructure investment to about $250 billion (which is in the range of 7%–8% of the Indian GDP). India has prioritized infrastructure investment with an FY 2024–2025 capital investment budgeted at ₹11.1 trillion by the Central Government (Ministry of Finance, Government of India, 2024). India has the second-largest infrastructure deficit in the world, which will ensure continued demand for infrastructure investments. As per the World Economic Forum (2017), India has a large stock of brownfield assets ($15 trillion, enabling capital deployment of a reasonable scale) that are de-risked (because they are past land acquisition and environment and forest clearance stages) and, therefore attractive to passive institutional investors. Roads and power transmission (and renewable energy among emerging sectors) are attractive for deploying capital, given that they have regulated inflation-indexed tariffs, assuring predictable, monitorable, and transparent cash flows. There are many high-quality potential local partners (like L&T and National Highways

Authority of India (NHAI)) who mitigate risk at the country level and thus provide comfort to these investors.

Forms and Extent of Participation of Canadian Pension Funds in Indian Infrastructure

Canadian pension funds have the world's highest asset allocation to infrastructure, at over 5% of assets. Canada has a robust system of national/sub-national cooperation for implementing public–private partnerships; project procurement processes prioritize stability of long-term financing over shorter-term cost savings, a large defined benefit pension system that needs long-term inflation-linked investment assets to match their liabilities, generating steady demand for project bonds, and little competition from banks for longer-term financing due to the latter's conservative lending approach and preference for shorter maturities.

For these reasons, Canadian investment in Indian infrastructure has come in many forms, including direct investment in infrastructure (e.g., Bangalore Airport and ReNew Power) or participation in Infrastructure Investment Trusts (InvITs). Some major Canadian investments in the Indian infrastructure space are discussed below.

Fairfax Corporation (owned by Canadian billionaire Prem Watsa) is the majority owner of Bangalore International Airport Limited (BIAL) with a stake of 64% in the airport. BIAL, under a concession agreement with the Government of India until the year 2068, has the exclusive rights to carry out the development, design, financing, construction, commissioning, maintenance, operation, and management of the Kempegowda International Airport, Bengaluru (KIAB) through a public–private partnership. KIAB is the first greenfield airport in India built through a public–private partnership (BIAL, 2024).

CPPIB is a major investor in renewable power, investing a combined US$1.3 billion for an approximately 20% stake in ReNew Power Ventures Pvt. Ltd., one of India's leading clean energy companies with about 10.3 GW of capacity diversified across wind, utility-scale solar, and rooftop solar power-producing assets.

Canadian pension funds have also invested in InvITs. InvITs are like mutual funds, but instead of owning financial securities, they own real infrastructure assets. InvITs are Securities and Exchange Board of India (SEBI)-regulated investment vehicles, with InvIT regulations coming into effect in 2014. InvITs are being used extensively by both public sector and private sector companies to reduce debt, attract capital from institutional investors like pension and insurance funds, and lower the cost of capital.

CPPIB has participated in at least two InvITs. In May 2018, L&T Infrastructure Development Projects Limited (IDPL) launched the first private infrastructure investment trust in India—IndInfravit Trust—with an initial portfolio of five operating toll roads, which has grown over time. CPPIB now has a stake of 58% in L&T IDPL.

In addition, CPPIB has acquired 25% of the units in National Highways Infra Trust, an infrastructure investment trust sponsored by the NHAI, for ₹15.03 billion

(C$257 million). The trust acquires brownfield toll roads from NHAI, the government agency responsible for developing, maintaining, and managing national highways in India (Canada–India Business Council, 2022). In 2024, CPPIB and OTPP have invested another $438 million (₹36.40 billion) in the NHAI InvIT. The InvIT will use this money to acquire seven more road concessions. Once these assets are acquired, the InvIT would own, operate, and maintain a portfolio of 15 toll roads across 9 states, spanning a total length of 1,525 km with a concession period ranging from 20 to 30 years (Malik, 2024).

CPPIB holds a stake in 139 Indian companies, including Reliance Industries, Infosys, Zomato, and Tata Consultancy Services (though most are not strictly in the infrastructure space). It is estimated that CPPIB has invested more than US$20 billion in Indian infrastructure.

Other Canadian pension funds like CDPQ and OTPP are also active in the Indian infrastructure market. For example, NHAI has raised ₹6,267 crore from monetization of the Eastern Peripheral Expressway, half of the new ring road around the National Capital Region. Indian Highway Concession Trust, a JV of Maple Highways, a private company incorporated in Singapore, and CDPQ, a Canadian pension fund, bagged the project under the Toll–Operate–Transfer model in November 2022.

Similarly, Mahindra Group sold 30% stake in its renewable energy unit Mahindra Susten to Canadian pension fund OTPP for ₹2,317 crore in September 2022. KKR, a leading global investment firm, and OTPP signed an agreement in April 2022 under which Ontario Teachers' will invest up to US$175 million (CAD220 million) in KKR's road platform in India, which includes Highway Concessions One.

More than half of institutional investors plan to increase their long-term stake in infrastructure. Since 2011, allocations among the top 10 global public pension funds with infrastructure investments have more than quadrupled. These trends are likely to continue as pension funds plan to raise future allocations to infrastructure.

What Does the Future Hold for Canadian Investment in Indian Infrastructure

There are forces on both the supply side and demand side that make for an attractive India–Canada infrastructure partnership for years to come. As we have seen, India has a large stock of brownfield assets (World Economic Forum, 2017). The pension funds also want to increase their investment into infrastructure, given their future liabilities and risk–return preferences. While Indian infrastructure accounts for a small percentage of the allocations of Canadian pension funds currently, the total AUM of these pension funds points toward the growth potential of these investments in the future (CPPIB AUM $497 billion; CDPQ $420 billion; OTPP $242 billion; PSP investments $206 billion) (Infrastructure Investor, 2021 June).

One suggestion for India to increase pension fund investment into its infrastructure is to frame infrastructure investment as an ESG investment (ranging from metro rail to renewable energy) to capitalize on the desire of these funds to move trillions into assets that produce benign ESG outcomes. As the World Economic Forum (2021) says, this (framing infrastructure investment as ESG investment) not only has the potential to make infrastructure more resilient but would also attract the capital needed to fill the infrastructure investment gap.

Conclusion and Policy Implications

India needs more avenues of infrastructure investment, given its high growth rate. Pension funds in general, and Canadian pension funds in particular, are increasing their allocations to infrastructure as an asset class. This synergy of interests implies a mutually beneficial partnership for years to come.

In an increasingly uncertain world, investment flows across countries could possibly provide a stabilizing force, which could provide a more robust foundation to international relations. In this way, the risk premium associated with uncertainty could come down, making investment more lucrative. This could become another reason for countries seeking cross-border investment flows.

But these are early days. This article throws light on an important empirical observation related to cross-border investment flows. A lot more work needs to be done (cross-country studies, time-series analysis, etc.) to validate the above policy implications.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Funding

The authors received no financial support for the research, authorship and/or publication of this article.

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References

Bangalore International Airport Limited (BIAL, 2024). *About Us | Bangalore International Airport*. Retrieved, January 5 2025, from https://www.bengaluruairport.com/corporate/about-bial

Blackrock. (2024). *Insight on India, the world's fastest-growing major economy*. https://www.blackrock.com/us/financial-professionals/insights/exploring-india-economy

Canada–India Business Council. (2022). *Why India? Unlocking Canada's opportunity in the Indo-Pacific*. https://canada-indiabusiness.com/why-india

CRISIL. (2023). *CRISIL infrastructure yearbook 2023*. Credit Rating Information Services of India Limited.

Infrastructure Investor. (2021, June). https://www.infrastructureinvestor.com

Malik, A. (2024). *Canadian pension funds CPPIB, OTPP invest $438 mn more in India roads portfolio*. VC Circle. https://www.vccircle.com/canadianpension-funds-cppib-otpp-invest-438-mn-more-in-india-roads-portfolio

McKinsey & Company. (2016). *Financing change: How to mobilize private sector financing for sustainable infrastructure.* https://newclimateeconomy.net/Downloaded_Pdf/Infrastructure_Pdf/2016/Financing_change_How_to_mobilize_private-sector_financing_for_sustainable-_infrastructure.pdf

Ministry of Finance, Government of India. (2020). *National infrastructure pipeline.* https://dea.gov.in/sites/default/files/Report%20of%20the%20Task%20Force%20National%20Infrastructure%20Pipeline%20%28NIP%29%20-%20volume-i_1.pdf

Ministry of Finance, Government of India. (2024). *Budget speech of the finance minister.* https://www.indiabudget.gov.in/doc/bspeech/bs2024_25.pdf

Ministry of Statistics and Programme Implementation, Government of India (MoSPI). (2025). *First advance estimates of gross domestic product, 2024-25*. https://pib.gov.in/PressReleasePage.aspx?PRID=2090875#:~:text=The%20growth%20rate%20in%20Real,a%20growth%20rate%20of%209.7%25

Pratap, K. V. & Gupta, M. (2024). *Infrastructure financing in India—Trends, challenges and way forward*. Oxford University Press.

Ravenhorst, I., & Brounen, D. (2022, April 7). *Why infrastructure?* SLUB. https://doi.org/10.2139/ssrn.4078051

Reserve Bank of India. (2024, September). Sectoral deployment of bank credit. *Reserve Bank of India—Press Releases*. https://www.rbi.org.in/scripts/BS_PressReleaseDisplay.aspx?prid=60072

Schwartz, J. (2024). *Where financial innovation meets sustainable development.* Project Syndicate. https://www.project-syndicate.org/commentary/innovative-green-finance-instruments-must-be-standardized-used-in-economic-policymaking-by-jordan-schwartz-2024-10

World Bank. (2008). *The growth report: Strategies for sustained growth and inclusive development* (p. 35). World Bank Group. https://openknowledge.worldbank.org/entities/publication/dd088843-1252-5d20-b388-360d59a24f97

World Economic Forum. (2017). *Recycling our infrastructure for future generations*. WEF_Recycling_our_Infrastructure_for_Future_Generations_report_2017.pdf (weforum.org)

World Economic Forum. (2021). *4 big infrastructure trends to build a sustainable world*. World Economic Forum. https://www.weforum.org/stories/2021/01/four-big-infrastructure-trends-for-2021/