

Public Pension and Sovereign Fund Investment in Brownfield Infrastructure

Brownfield infrastructure has come to the fore of policy debates in the U.S., Australia, Britain, Canada and South Korea, in addition to other jurisdictions seeking to attract and retain institutional capital for infrastructure investment. In this article, the authors examine the underlying financial economics, public policy and risk management dynamics; present new data on institutional capital flows (2005 – 2015); and analyze the preponderance of public pension investors within the sub-asset class.



FINANCIAL ECONOMICS AND POLICY DYNAMICS

Globally, many academics and practitioners have taken note of the changing asset allocations of public pension funds, especially in recent years. These funds' allocations often incorporate increased investments in infrastructure, property (including social housing), forestry, farmland, and others. The reasons for these shifts include statistical diversification and risk management, generating excess risk-adjusted returns, long-term growth, and inflation considerations as the primary drivers¹.

The broader social and environmental benefits of public fund investments, while important, have traditionally played a smaller role in asset selection, except perhaps in a few early adopter jurisdictions including Holland and Denmark², and,

to an extent, Ontario and Quebec. But interest in environmentally-oriented assets and modern infrastructure investments including high-speed rail transportation has received increased attention due to a rise in sustainability awareness amongst pension trustees and administrators notably in the United Kingdom, United States, France, and Canada, and other jurisdictions, as well as the reemergence of infrastructure-friendly needs and priorities in the US, UK, and elsewhere³.

Due to underlying governance and policy constraints, investment approaches, fiscal health, and other factors, asset allocations can vary widely across the public fund landscape – notably for less liquid asset classes such as real estate, private equity, and infrastructure which continue to be less prevalent than more traditional listed bonds and equity. While there continues to be a “*financing development vs.*

developing finance” conversation in many policy environments⁴, this article adopts a neutral, analytical stance predicated on the idea that markets are essentially what market participants make of them. There is not a universal “policy panacea,” given the distinct and unique settings pension funds and SWFs operate within.

The following sections offer a briefing on some of the investments public funds in the US, Canada and other selected jurisdictions have made in brownfield infrastructure and property assets, including those with an environmental and social focus. While overall allocations to these investments are still relatively small, given the need for redevelopment and environmental stewardship, it is important to understand the global financial economics and local policy factors underpinning these investments. The examples included in the last section of the article are



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offered to illustrate the intersection of social and environmental investments and public funds.

DELINEATING THE BROWNFIELD INFRASTRUCTURE SUB-ASSET CLASS

In the generally accepted financial economics sense, “*what are designated as late stage or brownfield investments, involve [existing] assets that are considered mature and proven, seen as offering very predictable income stream*” as opposed to “*early stage or greenfield investments, such as new road, bridge and tunnel developments for which there may be no established demand patterns... [and] are thought to provide little or no income from the asset for some significant period of time, but potentially high returns in the future*”⁵. This is the general definition referred to in the context of this paper – with the exception of the last section devoted to US

public pensions, where a narrower definition incorporating ecological considerations shall be used.

While important, this article does not focus on *listed infrastructure* assets such as large utility companies and concessionaires whose shares are traded on many stock exchanges around the globe, normally classified within the *listed equity* category. Also, this article does not aim to study *direct* investment in existing highways, railways, gas distribution, etc. In the following analysis, unless stated otherwise, “infrastructure” will thus be taken to mean non-listed infrastructure funds.

CANADIAN, ASIAN, DUTCH AND AUSTRALIAN PUBLIC INVESTORS

Based on a WPC analysis of 2005–2015 Preqin data (as of 25/11/15), fourteen out of the 15 largest asset owners investing in North American infrastructure happen to be amongst the 15 largest asset

owners also invested in European infrastructure funds, an indicator of their predilection for long-term investment in Northern Hemisphere industrialized nations, aligning with various competitiveness indexes such as those developed by the World Economic Forum. Similar environments exist in Australia, Chile, Hong Kong SAR, and Singapore, among others – jurisdictions with low country risk profiles and governance systems propitious for foreign direct investment.

Also noted in WPC analysis of Preqin data, six out of the ten largest asset owners invested in brownfield infrastructure (in North America or globally) happen to be public pension funds (South Korea’s National Pension Service; 4 Canadians: Canada Pension Plan Investment Board, Ontario Municipal Employees Retirement System, Ontario Teachers’ Pension Plan, Caisse de Dépôt et Placement du Québec; and Netherlands’ APG), the seventh

largest being an Australian sovereign wealth fund (Future Fund). The only US institution in the top ten is Babson Capital Management, a private sector investment firm managing money for (mostly North American) pension funds, insurance companies, and endowments.

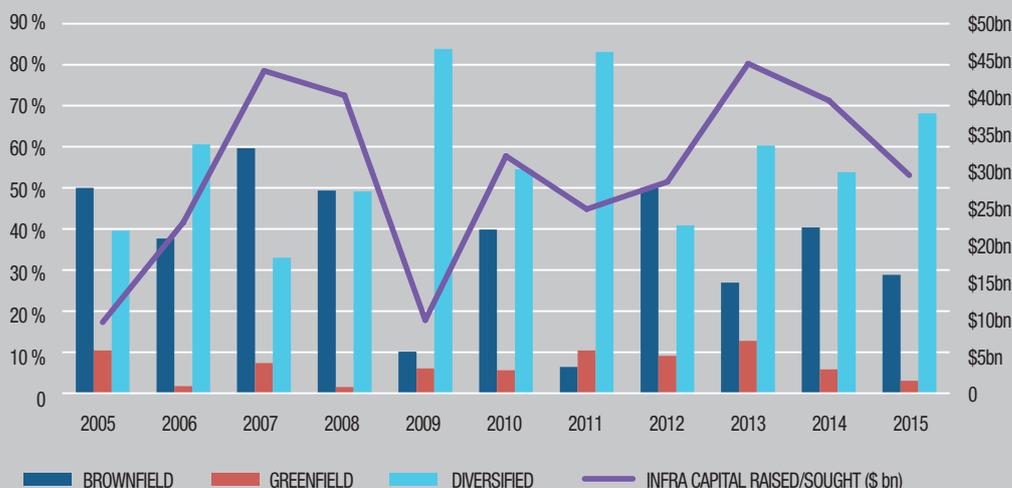
INFRASTRUCTURE, INVESTMENTS AND THE U.S. ECONOMY

Looking at data for the past 11 years (2005–2015) for investment made in non-listed brownfield infrastructure (considering year of fund close), the relative market share of brownfield infrastructure has been stable at around 37% on average, compared to 7% for greenfield infrastructure and 56% on average for diversified infrastructure funds combining both existing brownfield and to-be-built greenfield assets (based on WPC analysis previously mentioned). The diversified subcategory comprises “hybrid” vehicles seeking to balance and blend risk between new and existing projects.

When it comes to overall brownfield assets, money allocated to the Americas (where the US constitutes the prime investment destination) represents roughly 55% of the world total, a *de facto* vote of confidence in the US economy – in spite of the sometimes *perceived* general lack of modernity of brownfield assets in the United States compared to other industrialized nations.

Put simply, the US, in 2015, may not have the most modern bridges, railways, or highways, relative to other developed economies, but many institutional investors believe

BROWNFIELD'S SHARE OF INFRASTRUCTURE CAPITAL RAISED (\$ bn)



Source : WPC analysis of 2005 – 2015 Preqin data

► these assets can be properly redeveloped (through concession contracts with longer time horizons, public-private partnerships, etc.) over the long term, in an environment with low risk of expropriation, equitable litigation practices, and sustained economic growth and usage prospects. A similar 'country-risk averseness' phenomenon can be observed in Europe, where Britain has attracted a higher share of Canadian and US public pension investment – notably in large airports, natural gas transportation and distribution, and the 68 miles High-Speed One railway linking London to the undersea Channel Tunnel'.

U.S. PUBLIC PENSION INVESTMENT IN BROWNFIELD ('GREEN') INFRASTRUCTURE AND PROPERTY

Between 2004 and 2013 the median allocation to alternative investments by state and local public pensions increased from 1% to 14% and real estate allocations from 3% to 6%, based on an SLGE analysis of figures from publicplansdata.org. Previous research has focused on the role public funds play in infrastructure investment, more generally (see Franzel & Firzli article "Infrastructure Investment: Harnessing Long-Term Capital for Local Development." Dec. 2014 PM Magazine). A small portion of these allocations represent investments in environmentally-oriented infrastructure and property. With this noted, the notion of "greening" itself is undergoing a rapid development, evolving into a broader notion that may eventually

impact all asset classes holistically. As mentioned earlier, there are many uses for the term of "brownfields" assets. In a sustainable investment context, the US Environmental Protection Agency offers a 'Brownfield Overview and Definition'⁶ online resource which outlines: "With certain legal exclusions and additions, the term 'brownfield site' means real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties protects the environment, reduces blight, and takes development pressures off greenspaces and working lands." Since the 1990s, as this formal brownfields redevelopment approach has been established, public and private pension funds have been considered one source of financing.

In 2002 the California Public Employees' Retirement System, in coordination with other entities, invested in the redevelopment of a historical site, previously used for paint and chemical manufacturing, to apartments, condominiums, and retail in Emeryville, CA⁷. Also, more recently, a non-pension public fund, the Wyoming Mineral Trust Fund lent 33% of a \$217,600,000 Gillette Madison Pipeline Project at a 4% interest rate, according to Fund's FY14 Investment Report and Gillette, WY's "Gillette Regional Water Supply Project" web page. This infrastructure project will expand sources, treatment, and distribution of water in north east Wyoming and the loan will be paid back using a

specific purpose excise tax.

In 2010, when the real estate portfolio managers for the North Carolina Retirement Systems were surveyed on investments and climate risks by researchers from Duke University, 4 of 25 responded that they 'actively seek' brownfields investments. More generally, a key finding of the survey was that these managers "... emphasize energy efficiency in their portfolio, either as an investment strategy or as part of their capital improvements, and...manage environmental and climate change risk through an environmental site assessment...⁸".

Also, various systems have prioritized environmentally-oriented real estate in their policy statements. For example, the California State Teachers Retirement System April 2014 *Real Estate Investment Policy* outlines "Investments within the opportunistic portfolio seek to capitalize on tactical opportunities... and are willing to assume additional risk. Investments include... direct real estate assets... land plays... distressed debt/properties, and other specialized investments (e.g. brownfields)." Finally, the District of Columbia Retirement Board's November 2013 *Environmental, Social, and Governance Policy Statement* offers an approach the Board may take for "evaluating opportunities for the purpose of achieving certain environmental (climate change, industrial waste, sustainability), social (diversity, human rights, animal rights), ... goals that do not appear to be primarily investment-related..." ■

(1) Firzli, M. Nicolas, and Vincent Bazi. "Infrastructure investments in an age of austerity: The pension and sovereign funds perspective." *Revue Analyse Financière* n°41 (2011): 34-37; Russell Research. "2012 Global Survey on Alternative Investing."

(2) De Graaf, Frank Jan, and Alfred Slager. "Guidelines for integrating socially responsible investment in the investment process." (2006).

(3) Belt, Bradley D., and Joshua Nimmo. "Catalyzing Pension Fund Investment in the Nation's Infrastructure: A Roundtable Discussion." *Milken Institute special report* (2013): 1-22; Franzel, Joshua, and M. Nicolas Firzli. "Infrastructure Investment: Harnessing Long-Term Capital for Local Development." *Public Management* (2014): 16-19.

(4) Hildyard, N. "More than Bricks and Mortar. Infrastructure as an Asset Class: Financing Development or Developing Finance? A Critical Look at Private Equity Infrastructure Funds." *The Corner House* (2012), pg.3.

(5) Beeferman, Larry and Allan Wain. "Infrastructure: Defining Matters." *Paper published jointly by Harvard Law School and Hastings Fund Management* (2013), pg. 8.

(6) See: <http://www.epa.gov/brownfields/brownfield-overview-and-definition>

(7) Larsen, Tamara. "The case for pension plan and university endowment equity investment in brownfields in the urban core of major metropolitan areas." MIT, Dept. of Architecture. (2003)

(8) North Carolina Dept. of State Treasurer and Nicholas Institute, Duke University. "Real Estate Investment and Climate Risk Assessment" May 2011. https://www.nctreasurer.com/inside-the-department/Reports/NCST_Environmental_Report.pdf