



Measuring Impact of Canadian Pension Funds

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THE BOSTON CONSULTING GROUP

Executive Summary

Top Ten – 10 largest public pension funds¹ in Canada, each with \$15B+ in AuM – represent a unique aspect of the Canadian retirement landscape

Top Ten include some of the world's largest pension funds, had >\$1.0T in pension AuM in 2014 and a growth primarily driven by significant investment returns

- From 2003 to 2014, pension AuM tripled: net flows to the Top Ten funds from pension plans totaled ~\$150B, while investment returns drove an increase of ~\$600B
- In 2014, 8 funds are in the top 100, 3 in the top 20 globally

Top Ten have a specific investment model: invest in alternative assets, manage internally at low cost

- Top Ten have ~32% of assets invested in alternative classes (e.g. infrastructure, PE, real estate) vs. <10% for most other pension funds, <5% for retail investors ; this allows for greater diversification and alignment with long-term payout profile
- A large proportion of assets managed internally which is generally much more cost effective than externally

In addition to supporting the retirement needs of members, Top Ten have a broader impact on the economy

- ~\$600B gross investments in Canada, strong contributors to corporate governance practices in Canada and elsewhere
- Stable source of employment, with ~11,000 professionals, including the real estate divisions
- Well-known Canadian "brand" globally in the investment world, participating in some of the largest deals in recent years

1. Pension fund managers

Snapshot of the Top Ten Pension Funds¹

Manage >\$1.1T of assets

For 49 underlying pension plans,
and many more insurance plans &
other depositors

Tripled AuM since 2003

Investment returns represent
~80% of increase

**Generated ~\$600B in net
investment returns from 03-14**
Enough to provide ~\$60,000/year for
~20 years to ~500,000 people

Hold ~32% of investments in alternative asset classes

Asset mix more diverse
than "typical" retail options

Are prominent, global players in the alternative asset mgmt industry

7 of top 30 global infrastructure
investors, 5 of top 30 real estate
investors



Manage ~75% of assets internally

Developed in-house expertise to
invest in less liquid asset classes like
private equities and infrastructure

Employ ~11K individuals²

Represent some of the world's largest pension funds¹











8 funds in the top 100,
3 in the top 20

Invest +\$600B across various asset classes in Canada

Investors behind several
Canadian landmark assets and
flagship companies

1. Pension fund managers 2. Including Real Estate subsidiaries that account for ~5,000 jobs
Source: StatsCan, annual reports, fund data, BCG analysis.

Overview of the Top Ten pension funds¹
















Fund	Description	2014 Net AuM: pension (\$B)	2014 Net AuM: total (\$B)	# of underlying pension plans	# of plan members (M)
 CPP INVESTMENT BOARD	Asset manager for Canada Pension Plan	265	265	1	18
 Caisse de dépôt et placement du Québec	Asset manager with 33 public and parapublic sector funds	192	226	21	5
 ONTARIO TEACHERS' PENSION PLAN	Asset manager & plan administrator for Ontario teachers	154	154	1	0.4
 INVESTISSEMENTS PSP INVESTMENTS	Asset manager for multiple Federal pension plans	112	112	4	0.8
 bc imc	Asset manager for BC pension plans, insurance funds, and other public sector clients	104	124	11	0.5
 OMERS	Asset manager & plan administrator for pensions of Ontario municipal employees	73	73	1	0.5
 HOOPP	Asset manager & plan administrator for Ontario healthcare employees	61	61	1	0.3
 AIMCO	Asset manager for multiple Alberta pensions, endowment & government funds	50	84	8	0.3
 OPB Your Pension. Our Promise.	Asset manager & administrator for Ontario Public Service Pension	22	22	1	0.1
 OPTrust	Asset manager & administrator of OPSEU Pension Plan	18	18	1	0.1
		1,049	1,137	49	

1. Pension fund managers

Note: December 31st 2014 for all funds except for CPPIB, bcIMC and PSP Investments (March 31st 2015)

Source: Annual reports, fund data, internet research, BCG analysis

Top Ten among largest pension funds¹ in Canada and globally

Pension fund ¹	Largest pension funds ¹ - Net pension AuM	
	Rank Canada	Rank Global
 CPP INVESTMENT BOARD	1	8
 Caisse de dépôt et placement du Québec	2	14
 ONTARIO TEACHERS' PENSION PLAN	3	20
 PSP INVESTMENTS	4	28
 hcmc	5	35
 OMERS	6	56
 HOOPP Health care of Ontario Pension Plan	7	69
 AIMCo	8	84
 OPB	9	192
 CANADA POST / POSTES CANADA	10	205
 Hydro Québec	11	208
 Bell	12	220
 CN	13	240
 OPTrust	14	250
 AIR CANADA	15	265

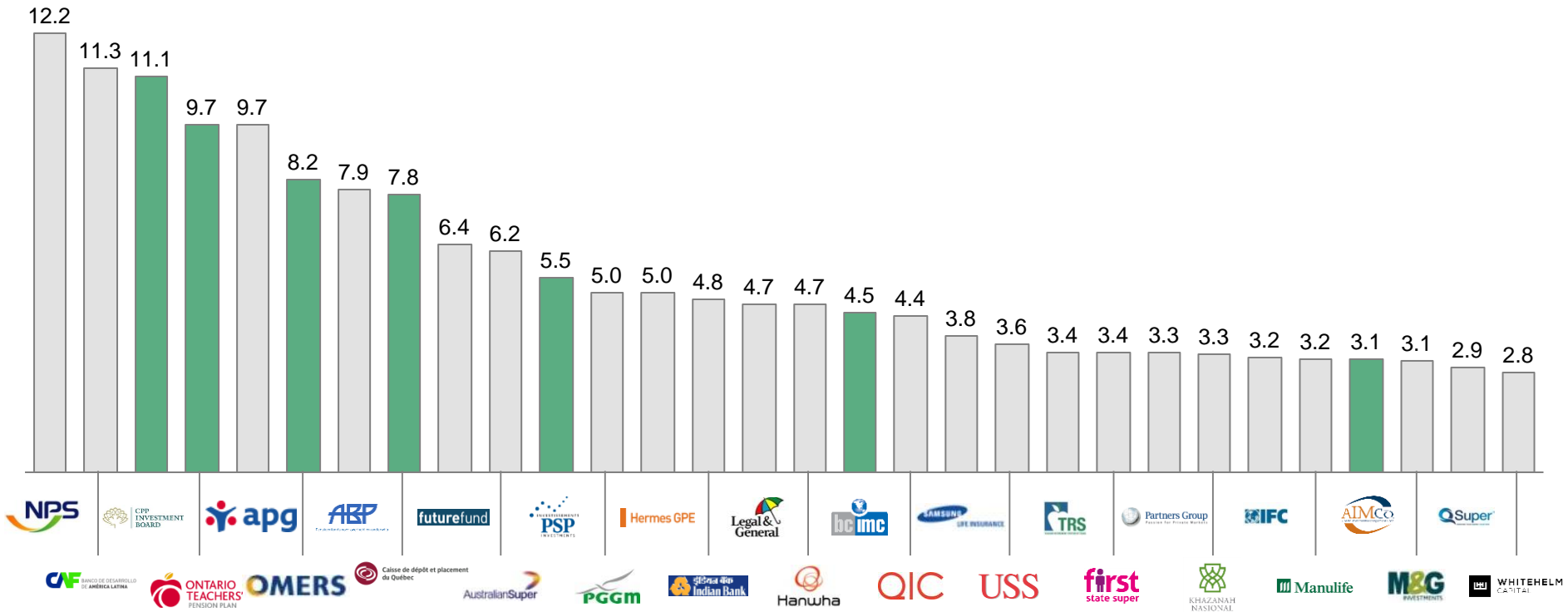
1. Pension fund managers Note: Original ranking compared size of top 300 pension plans based on pension AuM, to compare funds Canadian plans administered by the same manager were grouped – rankings were adjusted accordingly

Source: Pensions & Investments / Towers Watson 300 analysis - September 2014; Prequin database, internet research, BCG analysis

Funds among top infrastructure investors



Top global infrastructure investors, by infrastructure net AuM (US\$B)

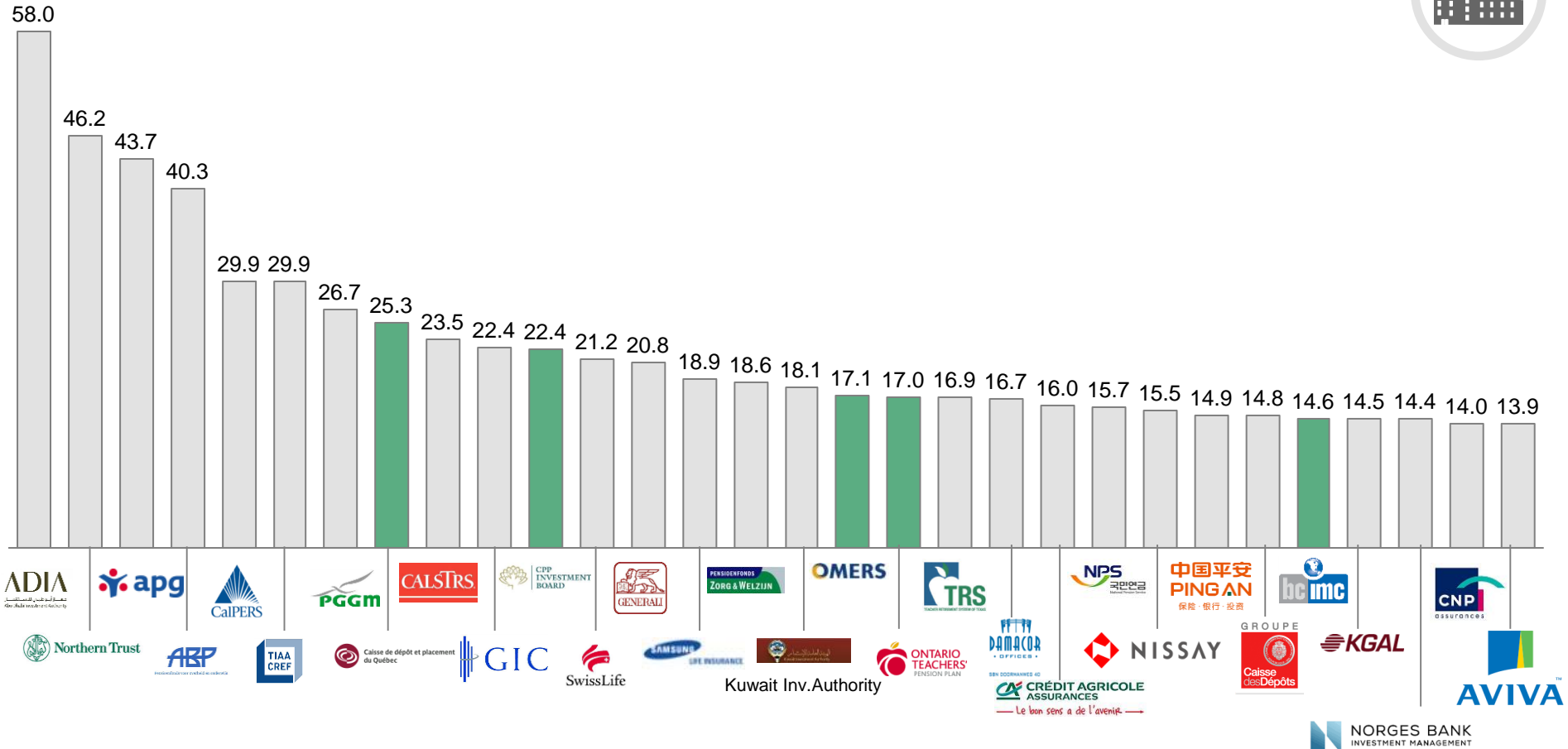


Note: Ranking of 2,307 investors (excluding individual investors); some amounts were adjusted to account for liabilities to ensure consistent methodology across funds ; USD/CAD = 1.31487 (August 2015 avg.)
 Source: Prequin 2015, Fund data, internet research, BCG analysis

...and among top real estate investors globally



Top global real estate investors, by real estate net AuM (US\$B)



Note: Ranking of 2,989 investors (excluding individual investors); some amounts were adjusted to account for liabilities to ensure consistent methodology across funds ; CDPQ AuM were adjusted to include non-Ivanhoé Cambridge AuM (as provided by fund); USD/CAD = 1.31487 (August 2015 avg.)

Source: Prequin 2015, BCG analysis

AuM of Top Ten have tripled since 2003

Investment returns driving ~80% of increase

AuM of Top Ten have tripled since 2003

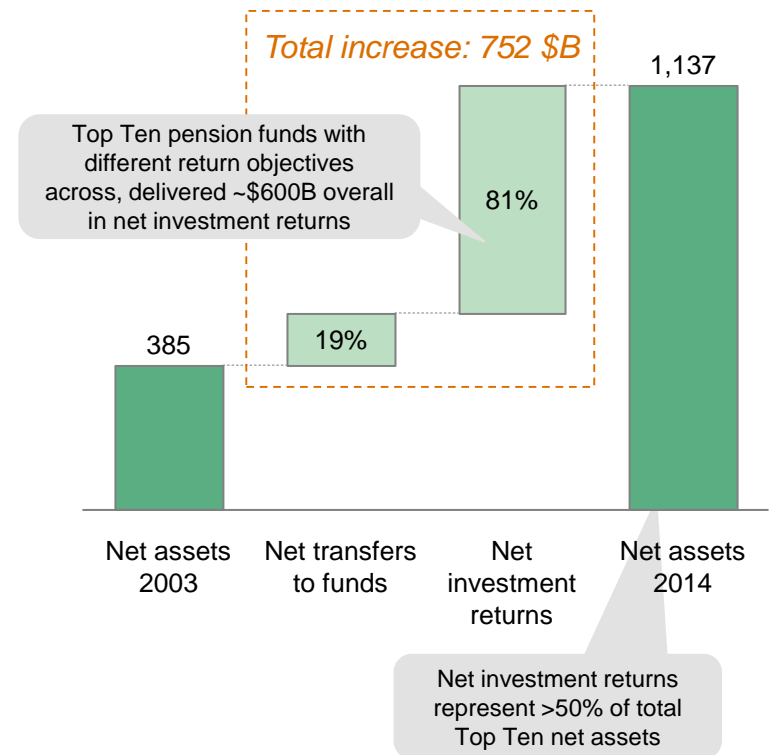
Net pension AuM (\$B)



Only include Net Pension AuM ; Total Net AuM grew from 385 to 1,137\$B

Investment returns driving ~80% of increase

Estimated net AuM increase since 2003 (\$B)



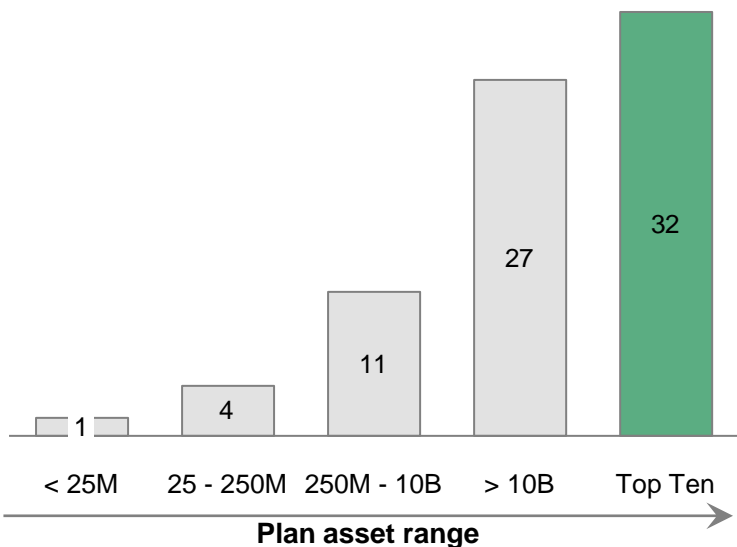
Net investment returns represent >50% of total Top Ten net assets

Note: Sum of fiscal years, e.g. year-ended March 31, 2015 = 2014. For CPPIB, bclMC, PSP Investments and AIMCo ends on March 31
 Source: Annual reports, BCG analysis.

Scale of funds supports broader diversification

Scale enables higher alternative assets allocations

Alternative¹ investments asset allocation (%)

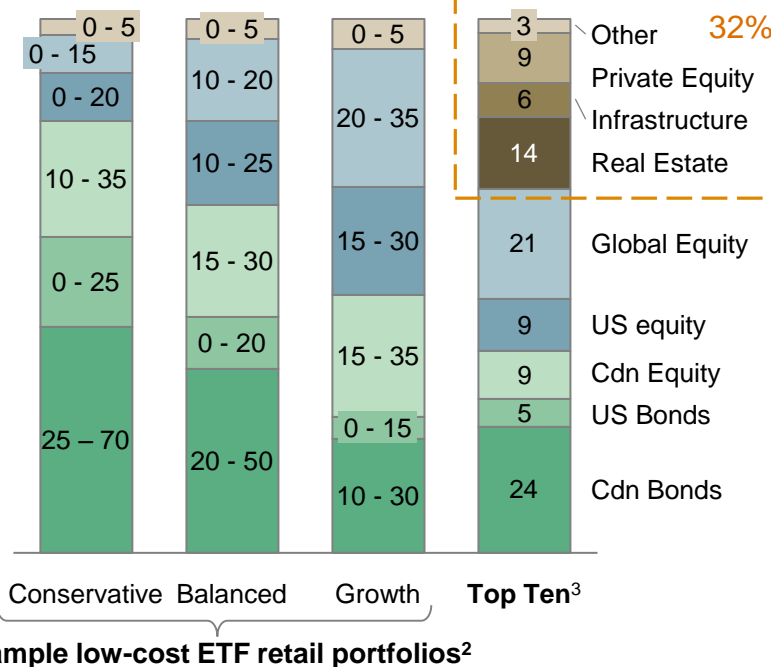


Alternative assets, especially infrastructure, have entry barriers more easily overcome by larger funds

- Require a large amount of illiquid capital for direct investment
- In-house expertise often required to make informed investments

Asset mix of Top Ten more diverse than "typical" retail options

Asset class mix (%)



Sample low-cost ETF retail portfolios²

Ability to create well diversified portfolios, and to invest in assets aligned with long-term payout profiles

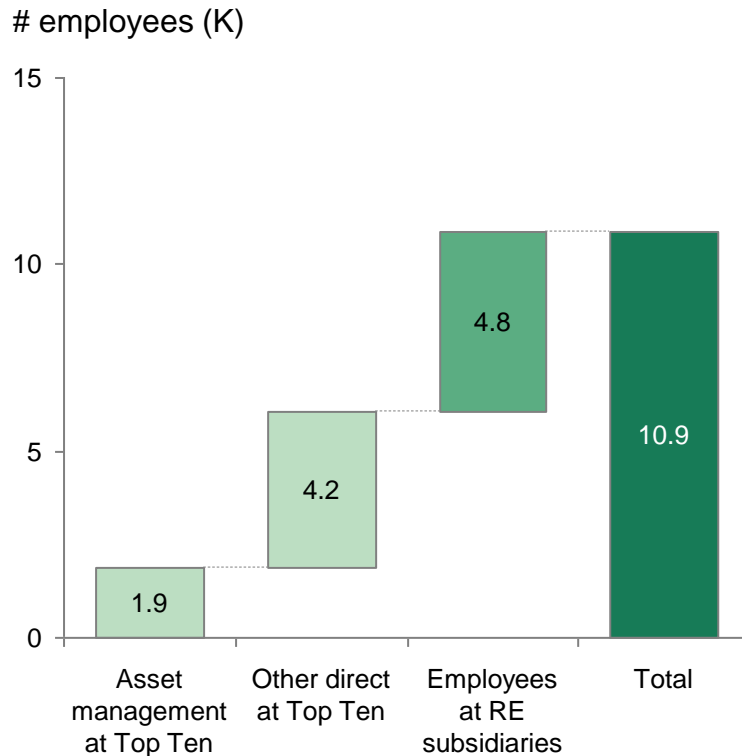
1. Includes infrastructure, real estate, hedge funds, private equity; includes top 1000 pension funds only. 2. Based on sample of 76 ETFs in BMO, Horizon and iShares ETF Model Portfolios

3. Sum of Top Ten AuM

Source: Canadian Institutional Investment Network - Chronicle: An Overview of Pension Plans in Canada 2014 (top 1000 pension plans collected from March 1 to October 31 2014), annual reports, internet research, BCG analysis

Top Ten directly employ ~11,000 individuals

Top Ten directly employ ~11,000 individuals



Overall contribution to the financial services sector in Canada

Serve as financial services anchors for creating talent clusters in multiple Canadian cities

- Able to attract home Canadian talent currently working abroad
- Able to "export" Canadian talent to gain global experience

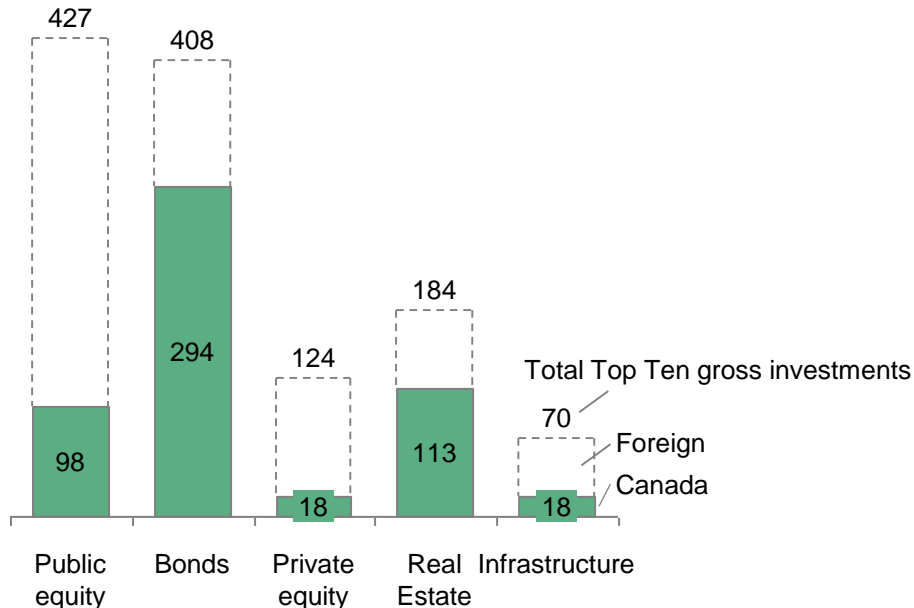
Offer unique and global experience to investment professionals

- Asset management in public markets often with greater, more global scope
- Exposure to infrastructure, real estate, PE that few other asset managers in Canada can offer

Top Ten are major long-term investors in Canada

Over \$600B invested across various asset classes in Canada

Estimated 2014 Top Ten gross investments by class, country (\$B)

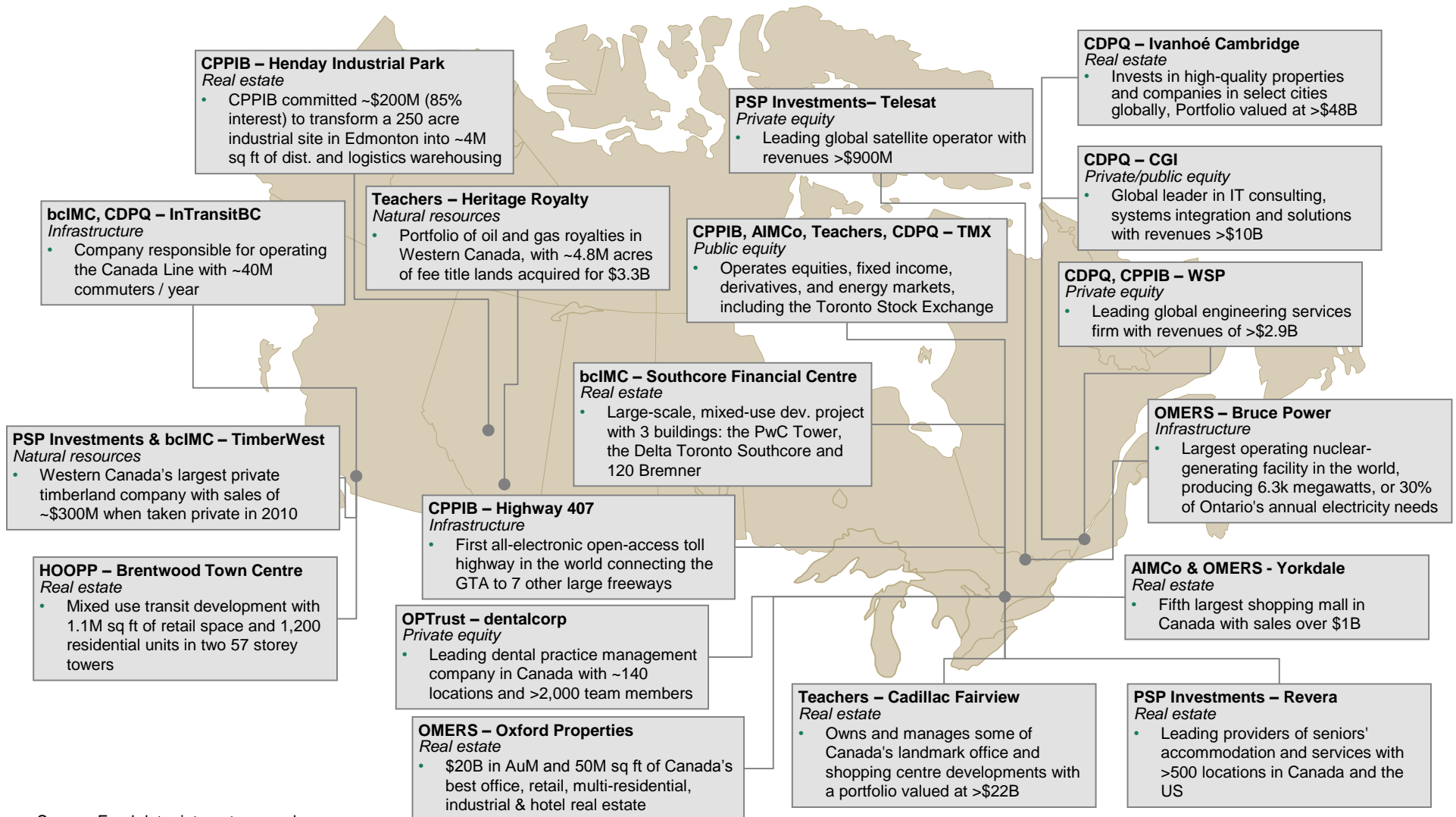


Small sample of investments in Canada



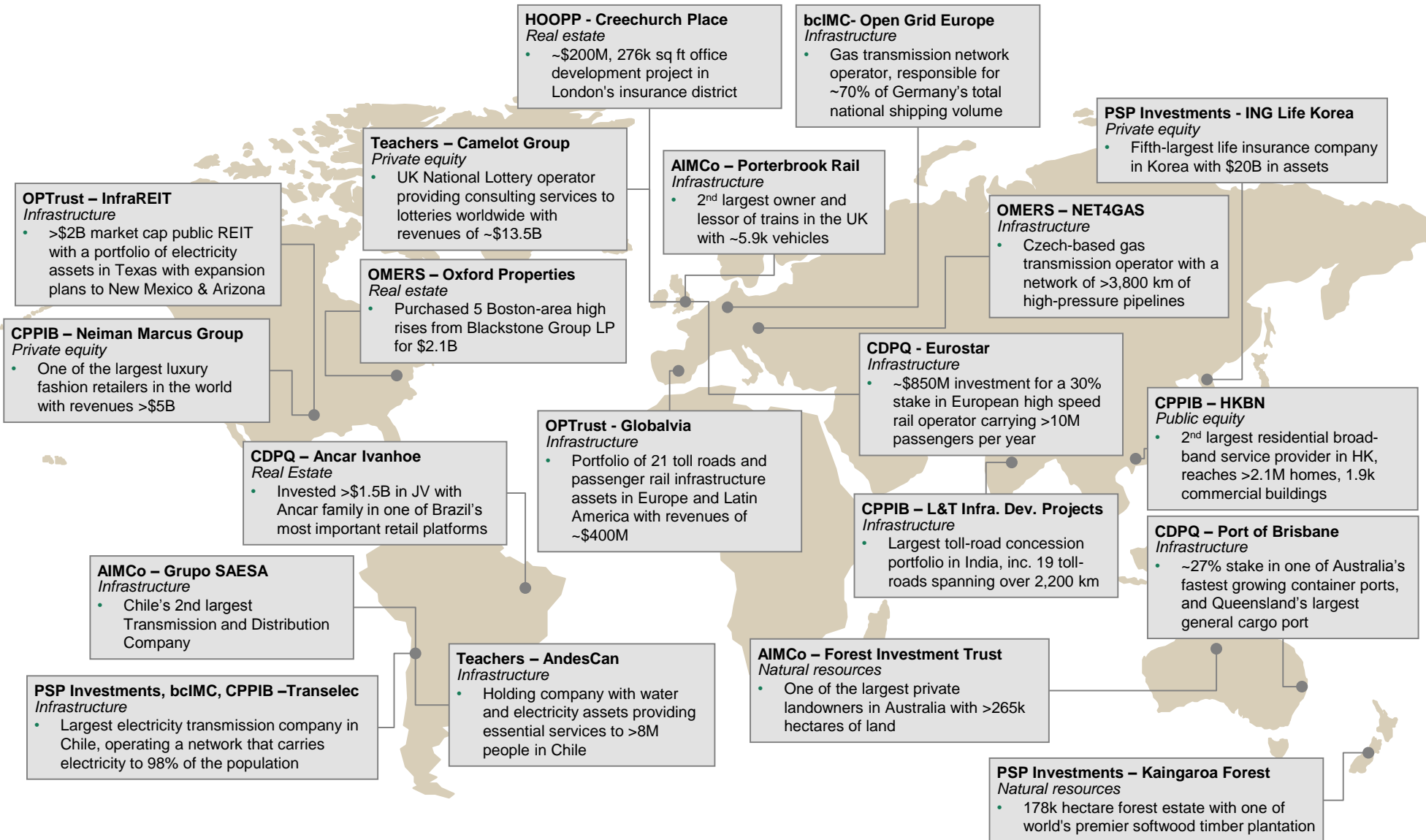
Source: Annual reports, StatsCan, Preqin, TMX, Bank of Canada, Fund data, BCG analysis

Top Ten are investors behind several Canadian landmark assets and flagship companies



Source: Fund data, internet research

Canadian pension funds well known around the world



Source: Fund data, internet research

Disclaimer

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