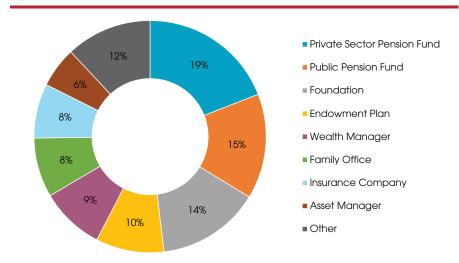
Pension Funds Investing in Real Estate

The \$16.3tn in assets under management held by pension funds around the world continues to be a key source of capital for the real estate industry. Charles Wood provides an in-depth review of this investor universe, including their strategic preferences, largest allocations to real estate and which pension funds are looking to add to their current portfolio.

Preqin's Real Estate Online currently tracks 1,005 private sector pension funds and 772 public pension funds that invest in real estate, accounting for 19% and 15% respectively of all institutional investors active in the asset class, more than any other investor type (Fig. 1). Despite greater participation from those in the private sector, public pension funds currently allocate more than double the amount of capital to the asset class: \$681bn compared with the \$340bn allocated by private sector pension funds – 28% and 14% of all capital allocated to real estate respectively (Fig. 2).

Real estate remains a principal component of most pension fund portfolios, with 87% of all public and 73% of all private sector pension funds currently investing in the asset class (Fig. 3). The 87% of public pension funds that invest in real estate is the highest participation rate of any institutional investor type: three-quarters (76%) of endowment plans are active in real estate, with insurance companies (68%), sovereign wealth funds (60%) and family offices (48%) among other investor groups with significant participation in the asset class. These high participation rates are partly due to the alignment of the asset class with the long-term investment horizons of investors, as well as satisfying many of these investors' mandates for a diversified portfolio of investments. A number of pension funds are increasing their real estate weightings, including

Fig. 1: Institutional Investors in Real Estate by Type



Source: Preqin Real Estate Online

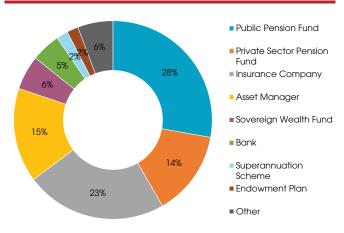
New Jersey State Investment Council: after recently announcing a reduction in its allocation to hedge funds, the public pension fund has subsequently increased its target allocation to real estate from 5.3% of its total assets to 6.3% for the 2017 fiscal year — equating to approximately \$700mn of fresh capital. Furthermore, pension funds which have previously not invested in the asset class are now also looking to add real estate to their portfolio: Pensionskasse des Bundes PUBLICA is one example, having recently created a

4% target allocation to international real estate and is currently in the market for its maiden investment.

Location

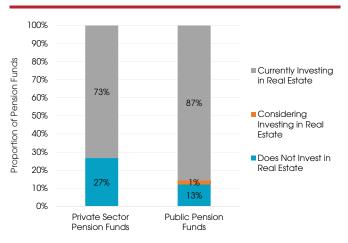
Pension funds are geographically diverse, although higher concentrations of funds exist in regions of greater economic development (Fig. 4). The majority of private sector pension funds targeting real estate are split almost equally between those based in North America (47%) and

Fig. 2: Capital-Weighted Breakdown of Institutional Investors Investing in Real Estate by Type



Source: Pregin Real Estate Online

Fig. 3: Pension Funds Investing in Real Estate by Investment Status



Source: Preqin Real Estate Online

Europe (45%); however, their public sector counterparts are more concentrated in North America than Europe. Pension funds in Asia and Rest of World account for only 7% of both private sector and public pension funds currently investing in real estate.

Assets under Management

As shown in Fig. 5, all of the largest private sector pension funds (those with over \$100bn in AUM invest in the asset class, owing to the sizeable human and capital resources available, providing greater capability to source, select and monitor a diversified portfolio of properties and fund investments. Conversely, smaller private sector pension funds are less likely to allocate to real estate: two-thirds of private sector pension funds with less than \$1bn invest in the asset class. However, public pension funds do not exhibit this trend, with a consistently large proportion (84%) of participation.

Largest Investors

Institutions based in the US and the Netherlands feature prominently as the largest allocators to real estate for both private sector and public pension funds (Fig. 6 & 7). The largest real estate allocation by a private sector pension fund is from US-based Teachers Insurance and Annuity Association (TIAA), which invests \$24.2bn in the asset class primarily through direct investments, although it

under Management

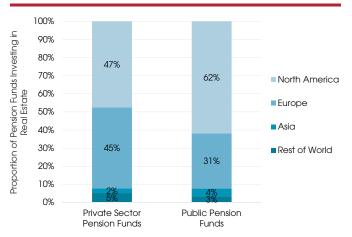
also allocates to listed and unlisted funds. ABP, the national civil pension fund of the Netherlands, invests just over 10% of its \$400bn in AUM via direct, listed and unlisted investments, making it the largest public pension fund active in real estate. As shown in Fig. 8, public pension funds maintain a higher average current and target allocation to real estate (9.7% and 10.3% respectively) compared to private sector pension funds, which allocate 9.3% and 10.2% respectively.

Route to Market

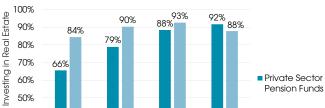
Fig. 5: Pension Funds Investing in Real Estate by Assets

Both private sector and public pension funds look to gain access to real estate in a variety of ways. As shown in Fig. 9, unlisted investment in real estate funds

Fig. 4: Pension Funds Investing in Real Estate by Location



Source: Pregin Real Estate Online





Source: Pregin Real Estate Online

Fig. 6: Five Largest Private Sector Pension Funds by Current Allocation to Real Estate

Investor	Headquarters	Current Allocation to Real Estate (% of Total Assets)	Current Allocation to Real Estate (\$bn)
TIAA	New York, US	2.8%	24.2
AMF Pensionsförsäkring	Stockholm, Sweden	12.5%	7.7
Pension Fund for the Dutch Construction Industry	Amsterdam, Netherlands	15.7%	7.2
Metal and Engineering Pension Fund	Rijswijk, Netherlands	10.0%	6.6
BT Pension Scheme	London, UK	11.2%	6.4

Source: Pregin Real Estate Online

Fig. 7: Five Largest Public Pension Funds by Current Allocation to Real Estate

Investor	Headquarters	Current Allocation to Real Estate (% of Total Assets)	Current Allocation to Real Estate (\$bn)
ABP	Heerlen, Netherlands	10.3%	41.0
CPP Investment Board	Toronto, Canada	9.9%	27.6
California Public Employees' Retirement System (CalPERS)	Sacremento, US	9.1%	27.3
California State Teachers' Retirement System (CalSTRS)	Sacremento, US	13.8%	26.0
PFZW - Care and Welfare Pension Fund	Zeist, Netherlands	12.0%	22.1

Source: Pregin Real Estate Online

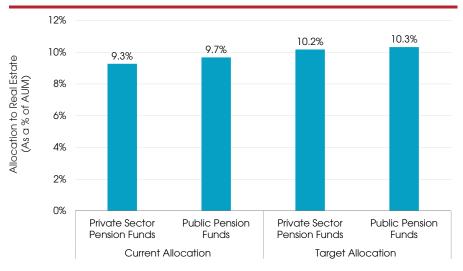
remains the most widely used route to market for both types of pension funds (77% and 84% respectively). Private real estate funds suit the many characteristics of these long-term investors, providing low correlation with bonds and stocks, while reducing the sensitivity of investor capital to the potential short-term market volatility of listed real estate investment trusts.

Both direct and listed real estate investments are utilized by approximately a third of pension funds. The higher cost and experience required to invest, as well as the illiquid nature of direct investments, could be reasons behind the lower participation rate. Listed funds can experience short-term volatile price movements in turbulent markets, possibly dissuading pension fund investment. Similar proportions (31% and 24% respectively) of public and private sector pension funds also target co-investments; both investor types are also currently open to investing alongside a fund manager.

As seen in Fig. 10, the rate of participation in direct real estate by pension funds has a strong correlation to investor AUM, as would be expected. Just 13% of public pension funds with less than \$1bn in AUM partake in direct investments, compared with nearly two-thirds of investors with over \$50bn in AUM, with this figure rising to 82% for private sector pension funds.

The \$820mn City of Fort Lauderdale Police & Fire Retirement System has its entire real estate portfolio invested in private real estate funds – an indicator of the restricted scope available to smaller pension funds and the high barriers in place for direct investment. On the other hand, larger pension funds have the capability to access real estate through all

Fig. 8: Average Allocation to Real Estate: Private Sector Pension Funds vs. Public Pension Funds



Source: Pregin Real Estate Online

routes to market, including direct holdings: one such investor is Stockholm-based <u>AMF Pensionsförsäkring</u>. The private sector pension fund invests its \$7.7bn allocation to real estate solely via direct acquisitions.

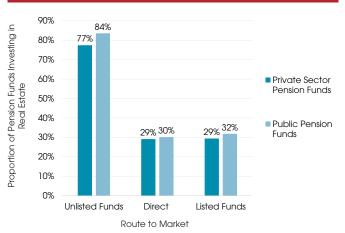
Strategy Preferences

Overall, there is a general preference of both private sector and public pension funds for lower risk core strategies, as investors aim to match their long-term liabilities with funds generating reliable income (Fig. 11). However, higher risk value added real estate strategies are also utilized by significant proportions of both private sector and public pension funds (49% and 60% respectively).

Regional Preferences

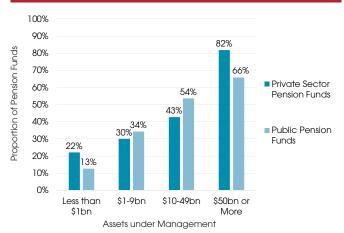
North America is the most targeted investment destination by both private sector and public pension funds, with 49% and 63% of each investor type active in the region respectively (Fig. 12). Furthermore, nearly half of all private sector and public pension funds target real estate investments in Europe, this is unsurprising given the high concentration of both public and private sector pension funds based in these established regions as well as the amount of institutional-quality real estate located in these markets.

Fig. 9: Pension Funds Investing in Real Estate by Route to Market



Source: Preqin Real Estate Online

Fig. 10: Pension Fund Participation in Direct Real Estate by Assets under Management



Source: Preqin Real Estate Online

Outlook

Pension funds face a number of challenges in the current real estate market: two-thirds (67%) of pension funds currently view asset prices as a key concern in the industry, while 64% believe it is harder to find attractive opportunities compared with 12 months ago. A limited

supply of, and increasing demand for, institutional quality assets means that gaining exposure for the right price has become increasingly difficult for pension funds and other investors alike.

Nonetheless, real estate remains a crucial part of many pension fund portfolios, with investments in the asset class able to

mitigate against fluctuations in traditional bond and stock markets. Additionally, real estate can further diversify investment portfolios, hedge against inflation and produce a consistent income stream that can be matched against the long-term liabilities held by pension funds.

Fig. 11: Strategy Preferences of Pension Funds Investing in Real Estate

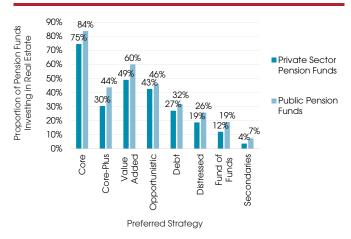
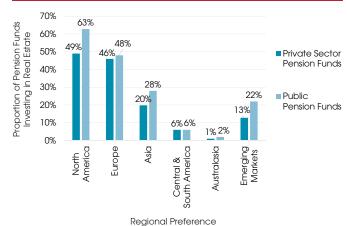


Fig. 12: Regional Preferences of Pension Funds Investing in Real Estate



Source: Pregin Real Estate Online

Source: Preqin Real Estate Online

Fig. 13: Sample of Pension Funds Investing in Real Estate in the Next 12 Months

Investor	Туре	Headquarters	Investment Plans for the Next 12 Months
Versicherungseinrichtung des Flugpersonals der Swissair (VeF)	Private Sector Pension Fund	Zurich, Switzerland	In Q3 2016, VeF is planning to invest CHF 30mn in one real estate fund. The fund is seeking an existing fund manager in its portfolio operating a core strategy.
Stichting Grafische Bedrijfsfondsen (PBF)	Private Sector Pension Fund	Amsterdam, Netherlands	PBF is planning to commit €400mn to three core funds in the next 12 months.
United States Steel and Carnegie Pension Fund	Private Sector Pension Fund	New York, US	Over the next 12 months the pension fund is targeting opportunistic funds on a global basis.
City of Pontiac Michigan Retirement Systems	Public Pension Fund	Michigan, US	The fund is seeking global exposure to value added, coreplus or core strategies, planning to commit \$20-40mn to at least one fund.
Kwacha Pension Trust Fund	Public Pension Fund	Lusaka, Zambia	Kwacha Pension Trust Fund plans to invest opportunistically in listed and private real estate funds in the next 12 months; the fund is targeting opportunities in Africa.
Public Officials Benefit Association (POBA)	Public Pension Fund	Seoul, South Korea	POBA is seeking opportunities through both separate accounts and private real estate funds over the next 12 months; the investor has a preference for Europe-focused core strategies.

Source: Preqin Real Estate Online

Data Source:

Preqin's **Real Estate Online** currently tracks 1,777 pension funds investing in real estate, providing key information on investment preferences, geographic foci, strategies employed, fund managers invested with, future investment plans, key contact details and more.

For more information, or to arrange a demonstration, please visit:

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INVESTOR COVERAGE



6,297

PRIVATE

EQUITY*

Active Private Equity LPs

HEDGE FUNDS

5.026 Active Hedge Fund Investors

REAL ESTATE

5.383

Active Real Estate LPs

2.804

INFRASTRUCTURE

Active Infrastructure LPs

PRIVATE DEBT

2,253 Active Private Debt Investors

NATURAL RESOURCES

2,058

Active Natural Resources Investors

FUND COVERAGE



20,118

Private Equity **Funds**

22,174 Hedge Funds 5,848

PE Real Estate **Funds**

3,578

1.088

Infrastructure **Funds**

2,092

Private Debt **Funds**

1,567

Natural Resources Funds

FIRM COVERAGE



10,216

Private Equity **Firms**

8,208 Hedge Fund

Firms

PE Real Estate **Firms**

499

Infrastructure **Firms**

1,082

Private Debt Firms

Natural Resources Firms

PERFORMANCE COVERAGE



6,420

Private Equity **Funds**

14,163 Hedge Funds 1,569

PE Real Estate Funds

Infrastructure **Funds**

761

Private Debt **Funds**

442

Natural Resources Funds

FUNDRAISING COVERAGE



2,234

Private Equity Funds

15,828 Hedge Funds 1,013

PE Real Estate Funds 200

Infrastructure Funds

291

Private Debt **Funds**

261

Natural Resources Funds

DEALS COVERAGE



BUYOUT

48,162 + 21,902

VENTURE CAPITAL

104,278 + 12,285

Venture Deals***

REAL ESTATE

13,455 Real Estate Deals 16,660

INFRASTRUCTURE

Infrastructure Deals

Alternatives Investment Consultants Coverage:

Buyout Deals**

536 Consultants Tracked Funds Terms Coverage: Analysis Based on Data for Around

14,900

Funds

Best Contacts: Carefully Selected from our Database of over

> 369,643 Contacts



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