Investing in real estate

Norges Bank Investment Management

Our mission is to safeguard and build financial wealth for future generations

Investing in real estate

The 10-year history

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Real assets for the long term

The fund was given a mandate to invest in real estate in April 2010. This publication on the tenth anniversary sums up a decade of real estate investing and provides an overview of our investments.

From the first landmark investment in Regent Street in 2010 to our latest acquisition in Otemachi in Tokyo, we have targeted high-quality assets that we intend to own for the long term. We chose from the start to build a global yet concentrated portfolio focused on eight leading global cities combined with global logistics properties. The investments have returned 7.7 percent annually after cost, beating their funding with more than 3 percent while at the same time reducing the risk for the fund.

The decision to invest in unlisted real estate followed a long deliberation about the feasibility of a central bank investing in private assets. Investing in real estate would require a large team and a dedicated investment culture. In the end, global real estate was considered an ideal asset class for a long-term fund with no fixed liabilities and a target to grow in line with the world economy. Investing over time, with the most reputable local investors, in transparent and deep markets, would ensure that we invested in the right assets at the right price.

The first five years was a period of rapid growth. The Regent Street investment in the UK (2010) was followed by investments in continental Europe (2011) and the US (2013). We expanded from office and retail into logistics (2012) and made our first investment without a partner (2014). Finally, we established Norges Bank Real Estate Management as a separate organisation (2014).

The last five years have been a period of consolidation. We have continuously improved our sustainability footprint, kept operations lean and introduced a new funding model (2017). We also set up offices in Tokyo (2015) and Paris (2018) to be close to our investments.

The decade of investing in real estate has in all respects been a positive one for the fund. We have executed the investment strategy we set out at the start with patience, discipline and at scale. It has been exciting to lead the fund into a new asset class, and I am proud of what the young, enthusiastic and highly professional team has achieved. The returns have exceeded our expectations, and I believe the quality of the assets is outstanding.

We have invested for the long term – in high-quality buildings in key cities and locations in the global economy – with a target of stable returns and efficient management. We have invested in real estate to safeguard the financial wealth of future generations.

Oslo, 4 June 2020

Yngve Slyngstad
Chief Executive Officer
Norges Bank Investment Management

High-quality investment organisation

We faced a daunting task in 2010 when we began our work to invest up to 5 percent of the fund in unlisted real estate. Other investors had built successful real estate organisations before us, but not on this scale in such a brief period within the confines of a central bank.

We set out to build an organisation to invest and manage assets for the long-term benefit of our stakeholders. We assembled a global team to execute the strategy, and we established an operational platform and governance framework that ensured efficient and proper management. We have invested diligently, and the 273 billion kroner of assets we have acquired make up one of the world's largest institutional real estate portfolios.

To build a substantial yet concentrated portfolio, we focused on high quality office and retail investments in eight global cities: London, Paris, Berlin, New York, Boston, Washington, D.C., San Francisco and Tokyo – alongside prime logistics properties in Europe and the US. We have either co-invested with leading investors or acquired office and retail properties without a partner.

Our first investment was a 25 percent stake in London's Regent Street which tested the fund's ability to enter a new asset class. It was a visible and significant investment which instantly put us on the institutional investor map.

Our largest investment came in 2015 when we paid 21 billion kroner for a 45 percent stake in a major US logistics portfolio. It demonstrated our ability to deploy capital efficiently on a large scale within our concentrated strategy.

Our fastest investment was in the immediate aftermath of the UK's vote to leave the EU in 2016. It proved our ability to act swiftly as we sourced, negotiated, signed an agreement and paid for a building on London's Oxford Street within ten days.

Our most recent investment in Tokyo confirmed our position as an attractive global real estate partner. Not all investors can enter a market and partner with the most capable large local investors.

The fund is now positioned as an important global real estate investor. Over the years, we have created an international team of professionals located close to the markets we invest in, allowing us to deploy capital with confidence. It has been a very professionally rewarding experience to be part of building this investment organisation. This publication details our exciting journey to date and highlights some of the decisions taken and the lessons we learned along the way.

Oslo, 4 June 2020

Karsten Kallevig
Chief Investment Officer Real Estate
Norges Bank Investment Management

1 | The history


Disney
THE LION KING
THE AWARD-WINNING BEST MUSICAL
GET TICKETS AT THE MINSKOFF THEATRE
CHIKA ORANIKA
"Disney SETS THE BAR FOR BROADWAY BLOCKBUSTERS"
Aladdin
THE LION KING
FROZEN
新华通讯社
XINHUA NEWS AGENCY
SAMSUNG
INTRODUCING
Coca-Cola
Coca-Cola
INGLOT
NYC
NEW YORK

The ten-year history

The fund has become a major investor in global real estate since a mandate to invest in the asset class was issued to Norges Bank in 2010.

In 2006, Norges Bank proposed a 10 percent combined allocation to unlisted real estate and infrastructure through an equivalent reduction in the allocation to fixed income. It noted that unlisted investments would require an adjustment of the governance model to reflect the distinguishing characteristics of such investments relative to investments in public markets. Specifically, as unlisted investments are not traded on regulated exchanges, there are no investable benchmarks and each investment requires more resources both before and after an investment is made.

In the following year, the Ministry of Finance increased the allocation to public equities from 40 percent to 60 percent, moving away from a predominantly fixed-income fund. It also noted the diversification benefits of unlisted investments and asked its Investment Strategy Council to provide advice on a real estate strategy for the fund. The Council recommended that Norges Bank initially invest up to 5 percent of the fund in unlisted real estate and infrastructure, towards a long-term target of 10 percent.

In 2008, the Ministry endorsed an allocation to real estate based on its historically low correlation with equity and bond returns, inflation protection and exposure to a possible liquidity premium. It recognised that the first step of investing up to 5 percent of the fund was an ambitious target to reach within a reasonable time frame.

Entering the real estate market (2010-2014)

In March 2010, a new mandate from the Ministry of Finance permitting investments in real estate took effect. It allowed for a 5 percent allocation to real estate, which at the time implied an investment target of 140 billion kroner. The real estate portfolio could include both listed and unlisted assets and fund structures, and investments could be undertaken through subsidiaries.

The mandate defined an adjusted version of an index from the Investment Property Databank (IPD) as a return target and delegated to Norges Bank to set various risk limits. It specified that the allocation to real estate should be implemented by making an equivalent reduction in the benchmark index for fixed-income instruments. It did not, however, set a date by which the allocation should be invested.

The Ministry's ambition was to establish a global real estate portfolio in the fund with a regional allocation similar to that of the equity and fixed-income portfolios, but the mandate issued in 2010 was restricted to European real estate investments until the fund's tax position in other markets was confirmed.

Unlisted real estate suits investors with a generational investment horizon. While unlisted real estate investments have different execution requirements to listed equities and bonds, they are a large, well-established asset class with proven diversification benefits. The fund has no statutory liabilities but may be required to transfer funds to the government budget. These cash transfers can normally be funded with income from dividends, coupons and rental payments. Buying and holding large real estate investments that generate stable rental income fits the overall mission.

Choosing an investment strategy

The fund had made no investments in any private market asset class when the allocation to unlisted real estate was added in 2010. Even a small relative allocation to real estate implied a significant portfolio of real estate investments given the large and rapidly growing fund. The ambition was to deploy capital efficiently and ensure that the diversification benefits would outweigh any incremental costs. As transaction costs are significantly higher in the unlisted market than in public markets, we sought to buy properties for the long term and limit trading. This implied a careful selection of target markets and sectors as well as investing through efficient legal structures.

The core aspects of the strategy we adopted in 2010 have broadly remained unchanged during a decade of portfolio growth. We made a number of choices that differentiated our strategy from those of others. While many institutional investors seek portfolios with broad geographical footprints, we believed that building a concentrated portfolio centred on a small number of markets would constrain costs and deepen our market knowledge and our relationships. Focusing exclusively on liquid developed markets would help us perform well through business cycles and over time. Our aim was to build a sizeable real estate portfolio in a cost-effective manner requiring limited personnel.

We favoured investments in cities with strong legal regimes, high levels of transparency, track records of economic and employment growth, and constraints on the expansion of the building stock. We initially targeted London, Paris and selected German cities, before gradually expanding into New York, Boston, Washington, D.C., San Francisco and Tokyo. We also added a few investments in other European cities that met our broader investment objectives. In addition, we entered the global logistics market with investments in Europe and the US.

We prioritised the office and retail sectors because of the availability of investment opportunities and relatively low operational complexity. Our local investment teams identified neighbourhoods and streets within our target cities that they believed would attract premium tenants and premium rents, not only at the time of the investment, but over generations. We considered the quality of building design and infrastructure and the proximity of properties to public transport connections.

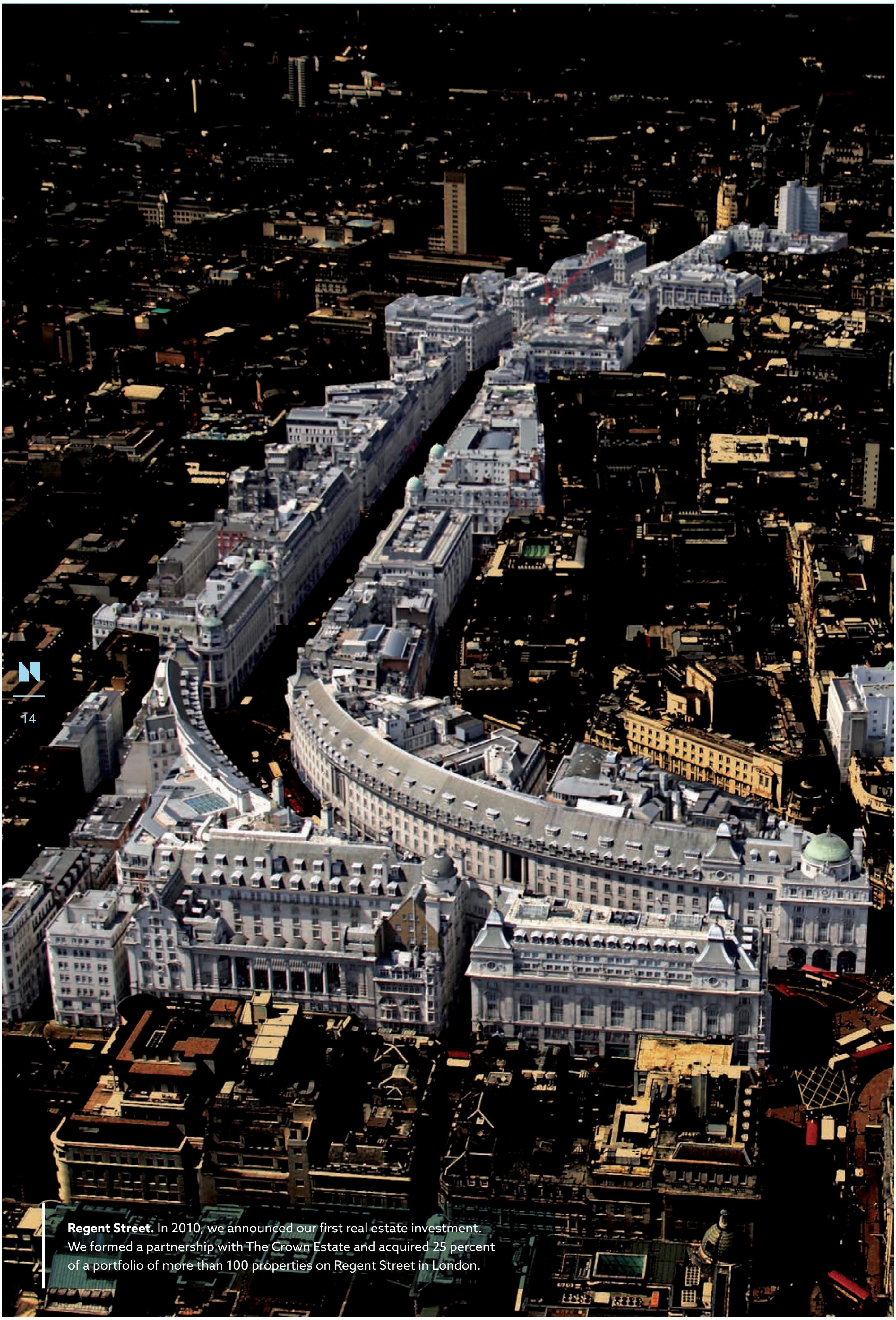
We decided to target investments in joint ventures in which an experienced investment partner could take on the asset management of the properties. Joint ventures typically allow for more influence over investment decisions and greater transparency than funds with dispersed ownership. We looked for joint venture partners with long-term investment horizons and significant permanent capital who had strong asset management capabilities and a meaningful presence in the markets we targeted. Growing the joint ventures over time through acquisitions and deepening the relationships with our partners would help us build internal investment capabilities.

We ensured that investment decisions were underpinned by market expertise. Our initial real estate team in 2010 was based in London and Oslo and drew heavily on existing resources throughout Norges Bank Investment Management. In our early recruitment, we focused on developing investment capability in London and Paris, our key European markets. We added investment professionals with experience from those markets and familiarity with their legal and regulatory frameworks. As our presence in the respective markets grew, it became easier to hire qualified professionals to support our expansion. Over time, we have experienced that local market knowledge builds confidence in the pricing of assets and improves our access to attractive investment opportunities.

The investment process for unlisted investments is different to that for listed instruments. It may take months from the first discussions between the buyer and the vendor of a property for an eventual sale to be completed. Transactions may involve single properties or a larger portfolio of properties across geographies and sectors. Extensive due diligence, including a thorough assessment of the building and technical documentation, is necessary to uncover idiosyncratic risks and intangible factors that may influence future value. We need to determine exposure to taxes on acquisition, during ownership, and on disposal, given the proposed investment structure. Purchase contracts and agreements with investment partners need to be negotiated individually in line with local market conventions and rules.

We built our portfolio around properties that generate good risk-adjusted returns over the long term. Lower liquidity and longer transaction times make it harder to adjust the portfolio retrospectively. Any asset trading adds costs and therefore increases return requirements.

We established an investment process which ensured that each investment proposal would be underpinned by local market expertise and independently scrutinised by investment committees for commercial rationale and fit with the fund’s overall mission.



Regent Street. In 2010, we announced our first real estate investment. We formed a partnership with The Crown Estate and acquired 25 percent of a portfolio of more than 100 properties on Regent Street in London.

Our first unlisted investment (2010)

In 2010, once the revised mandate was in place, the fund bid for a rare and sizeable opportunity to form a partnership with The Crown Estate, a corporation established to manage the British Sovereign's public estate. On offer was a 25 percent stake in the Regent Street estate, a collection of more than 100 buildings in London's West End stretching from Piccadilly Circus in the south to beyond Oxford Circus in the north.

The Crown Estate approached Norges Bank Investment Management in June 2010 to discuss the deal and subsequently visited Oslo to learn more about the fund and its ambitions in real estate. We regarded The Crown Estate as an ideal partner given its generational investment horizon, local market knowledge and strong reputation. Our organisations had aligned long-term interests and compatible cultures, so a partnership would be a great way to start our real estate efforts. We submitted a letter of interest and were invited to formally participate in the bidding process in September 2010.

The Regent Street transaction was the first test for the fund to review and execute a transaction in unlisted markets. At the time, only a handful of employees were fully dedicated to real estate investments. They were supported by virtually every department within Norges Bank Investment Management in reviewing the transaction, including the commercial aspects, the suitability of The Crown Estate as a joint venture partner, and how the investment would be integrated into the fund's operations.

On 4 November 2010, Norges Bank announced that the fund had agreed to acquire a 150-year lease on the 25 percent stake in the Regent Street estate. The Crown Estate would hold the remaining 75 percent and manage the properties on behalf of the joint venture. The transaction was formally signed on 13 January 2011, and closed on 1 April 2011, a year after the real estate mandate took effect.

The fund's investment provided The Crown Estate with additional capital to continue the revitalisation of Regent Street as a shopping destination in London. The investment would become one of the most profitable in the fund's real estate portfolio. It marked the fund's entry into a new asset class, and our scale and stated ambition of building a large portfolio soon made us an appealing counterpart in global real estate markets.

1-3 rue des Italiens, Paris. In 2011, we made our first investment in continental Europe. We formed a partnership with AXA and acquired a portfolio of seven properties in Paris, including this property located on 1-3 rue des Italiens.

Expanding in Europe (2011)

As the fund's real estate mandate became more widely known among market participants, we were presented with investment proposals across markets and sectors. We decided to stay focused on a concentrated strategy. London was a natural starting point, given its role in the global economy, the scale of its real estate market, and that Norges Bank Investment Management had had a large investment office there since 2000.

Paris followed given the size of its office and retail market and its importance to the European economy. In early 2011, we initiated discussions with AXA, the French insurance company, to partner on an existing office and retail portfolio it already owned. In July, we announced a new joint venture on seven properties in and around Paris. Four months later, the partnership expanded with the acquisition of another three properties in the city.

We established a combined holding and management company in Luxembourg that would own and manage our unlisted real estate investments in continental Europe. It facilitated real estate operations in several European countries with differing laws and languages. Luxembourg is a widely used jurisdiction among institutional investors for real estate investments in Europe given its robust and well-tested legal structures and a history of predictable application of local rules and tax law. It also has tax treaties with Norway and the countries in continental Europe that we identified as the most likely for the fund to invest in.

Exploring other markets (2012)

By 2012, we had made our first unlisted real estate investments and gone through our first reporting cycle without serious incidents. We continued to look for investments in our European target markets and had a year of significant portfolio growth. We entered into a joint venture with Generali, an insurance company, acquiring six office properties in central Paris. It was the first of many transactions that year.

At the time, most institutional investors considered retail an important long-term real estate sector which had traditionally tracked economic growth and benefited from lower maintenance costs than other real estate sectors. We decided to focus our retail strategy on prime high-street locations in our target cities. We believed this type of retailing would fare better through broader structural changes affecting the sector.

During this period of strategy formation, we explored many opportunities across our markets. In the UK, we observed that a small group of dominant shopping centres had attracted premium rents given their size and locations. In 2012, we took advantage of an opportunity to acquire a 50 percent stake in the Meadowhall Shopping Centre in Sheffield, among the largest in the UK, in a joint venture with British Land. On the back of this investment we considered acquiring other dominant shopping centres in the UK but later decided against it out of concern for how the nature of retailing was changing.

In 2012, we entered the German market by expanding our collaboration with AXA. Together, we acquired an office-retail property in Berlin and a large office property in Frankfurt. Berlin is the capital of the largest European economy, and the property was a natural fit for the fund's real estate strategy. The high quality of the office property in Frankfurt and its central location in the city's business district was also well-aligned with our preferences in the sector.

We also took 100 percent ownership of a large office complex in Zürich in Switzerland. The property was sold to us by Credit Suisse, a Swiss bank which would remain the occupier on a 25-year inflation-linked lease. This was pushing the boundaries of our stated strategy, as we did not plan to build a portfolio in Zürich. The transaction nevertheless allowed us to deploy significant capital in a stable city and harvest long-term rental income at low cost, given that Credit Suisse signed a long-term lease and would manage the property itself. Many investors shy away from such large, single-tenant properties because of heightened tenant risk. We took the view that the fund was probably better positioned to take such risk than other market participants.

We were also presented with an opportunity to deploy significant capital in the European logistics sector alongside Prologis, a listed global owner and operator of logistics assets. We had been in dialogue with Prologis for a year but had wanted to build an initial portfolio of office and retail investments before entering the sector. Investments in logistics are not in the same locations as the office and retail properties we targeted in major cities, but still provide exposure to high-growth, high-barrier opportunities. The most valued locations are embedded in large consumer conurbations and tend to attract premium rents. Given the strong correlation between logistics real estate and economic growth, investments in the sector were well-suited to the fund.

We signed an agreement to purchase a 50 percent stake in a large European logistics portfolio owned by Prologis in 2012 and completed the transaction the following year. Prologis would manage the portfolio on behalf of the joint venture. It comprised 195 properties spread across 11 European countries. This was one of the first large acquisitions in the logistics sector made by an institutional investor. We applied the same long-term horizon and focus on generating premium rents as in our office and retail investments. The timing proved fortuitous, as interest in the sector from investors has grown significantly since 2012.

A global footprint (2013)

After two years of making investments, the fund now had a meaningful European presence. While the initial mandate from the Ministry of Finance was confined to Europe, the intention was always to build a global portfolio. In 2013, the Ministry of Finance gave Norges Bank a real estate mandate without geographical restrictions, paving the way for further expansion.

In anticipation of this decision, we had already analysed a wide range of prospective real estate markets beyond Europe that could be pursued in the event of an expanded mandate. The US is the largest and most liquid market globally with about a quarter of the world's investable real estate. We deemed it a natural place to grow efficiently and invest with exposure to global economic growth, population growth trends and specific economic and industrial drivers.

We decided that office and retail investments in the US would be made in a limited number of gateway cities, as in Europe. We initially selected Boston, New York and Washington, D.C. as our target markets. These cities had large, liquid real estate markets with different economic drivers and could be served by a real estate team in Norges Bank Investment Management's existing office in New York. Our ownership stake in joint ventures in the US had to be held to less than 50 percent in order to benefit from the fund's advantageous tax position in the country.

At the beginning of 2013, we made our first unlisted real estate investment outside Europe. We acquired 49.9 percent of five office properties across Boston, New York and Washington, D.C. by entering into a joint venture with TIAA. Soon thereafter, we formed separate partnerships with Boston Properties and MetLife and acquired more large office properties in our three target cities. San Francisco was added to our target cities the following year. We also signed our first logistics transaction in the US by expanding our partnership with Prologis. It involved a 45 percent stake in 66 logistics properties across eight US states.

By the end of 2013, our real estate portfolio had grown to 51 billion kroner after only three years of investment activity. This accounted for 1 percent of the fund, which itself was growing rapidly. We had become an important real estate investor in our markets and were able to access most investment opportunities above a certain size. While portfolio growth was an important strategic objective in line with our mandate, we remained highly selective in accordance with our strategy and often did not provide the highest offer.

475 Fifth Avenue, New York. In 2013, we made our first investment in the US. We formed a partnership with TIAA and acquired 49.9 percent of a portfolio of five properties in New York, Boston and Washington, D.C., including this property located on 475 Fifth Avenue in New York.

Creating a dedicated real estate organisation (2014-2019)

We had built an investment team in our core markets in Europe and the US, and by 2014, we had surpassed 100 billion kroner in unlisted real estate investments. To scale the portfolio further and control our capital with lower costs, we concluded that we needed to own office and retail properties in Europe on a 100 percent basis and manage them on our own.

Our wholly-owned portfolio would supplement our joint venture investments and target high-quality properties in core locations with a limited need for resource-intensive asset management. In all our joint ventures, we had retained rights to approve major decisions such as acquisitions, capital injections and disposals. Since we had gained experience making asset management decisions by investing alongside partners, it was not a large leap for us to manage properties.

A new organisation (2014)

In 2014, the fund acquired 23 boulevard de la Madeleine, the first multi-let property in the real estate portfolio that we purchased without a partner. It is a large office-retail property on a corner location in central Paris with good building fundamentals. We retained the real estate arm of AXA to manage the property initially before we built a capability to assume that responsibility ourselves. We also acquired a large single-let office property in central London on a 100 percent basis in which the tenant would be responsible for operating the property.

The different nature of unlisted investments and the scale of the real estate portfolio meant that most departments at Norges Bank Investment Management had at least a few people primarily focused on real estate. This ran the range of activities, from human resources, through investment administration and finance, to communications, risk, sustainability, legal and compliance matters. Gathering all these resources in a co-ordinated and joint effort with clear leadership was a natural next step.

In October 2014, we decided to establish a separate organisation dedicated to unlisted real estate. Norges Bank Real Estate Management had its own CEO who established a leader group dedicated to real estate. The real estate organisation initially copied the governance framework of Norges Bank Investment Management and drew heavily on its internal resources and institutional knowledge. Over time, it developed an organisation and investment process tailored to unlisted real estate investments.

Our largest investment (2015)

The new organisation was quickly tested on two large transactions in the US. Prologis had identified a large and strategic portfolio of logistics properties that it wished to acquire and asked us to come on board as partner. The transaction consisted of 322 properties across 17 US states, with the value of our share around 21 billion kroner. It was, and remains, the fund's largest unlisted real estate transaction.

The time period given to finalise the transaction was three months. Our relationship with Prologis helped ensure that the due diligence process was managed effectively between the two parties. We had aligned interests and a common view on the portfolio, and both were investing significant amounts of capital. A large part of our real estate organisation was involved in evaluating various risk aspects, ensuring compliance with internal and external requirements and securing the necessary authorisations and approvals. The transaction was completed in April 2015.

Hudson Square portfolio, New York. In 2015, we formed a partnership with Trinity Church and acquired a portfolio of 11 properties in Hudson Square in New York, including this property on 155 Avenue of the Americas.

In December 2015, we entered into a second large transaction in the US by forming a joint venture with Trinity Church. We purchased a 44 percent interest in a portfolio of 11 office properties in the Hudson Square neighbourhood of New York, valued at 13.5 billion kroner. Hines, a developer and owner of commercial buildings, joined the partnership later as an operating partner. The transaction was a significant expansion of our New York portfolio and gave us exposure to a new and growing sub-market.

As our portfolio grew, the organisation added more investment staff in international offices and put more resources into asset management. By the end of 2015, the team comprised 122 people of 23 different nationalities. We opened an office in Tokyo organised as a separate subsidiary to build relationships with market participants and source local investments. We added specialised asset managers in our London and New York offices to supplement investment professionals focused on acquisitions. This reflected the growing maturity of our portfolio and the need to build capacity to manage the assets we owned, particularly those we had acquired on a 100 percent basis.

To support our asset management, we had established an IT infrastructure dedicated to real estate to improve the efficiency of data collection and reporting, including a core financial and property data system to control financial data internally. We hired resources specialised in financial accounting and environmental management for real estate.

Operational improvements (2016)

We decided to strengthen our real estate organisation to accommodate a growing portfolio. In 2016, we established NBRE Management Europe Ltd, a subsidiary of Norges Bank dedicated to managing properties on behalf of the fund. It assumed asset management responsibility for all wholly-owned multi-let properties in Europe. We also deepened the regional market focus of our investment team.

We also created a Real Estate Investment Board to supplement our other investment committees. Any transaction presented to the Executive Board for approval would come with a recommendation from the Real Estate Investment Board based on a review of its strategic aspects. The board consists of two external real estate investors alongside members of Norges Bank Investment Management's leader group.

In early 2016, global capital markets were going through challenging times. To manage the uncertainty around possible spill-over effects on unlisted real estate markets, we decided to put acquisitions on hold for the first half of the year. However, the referendum result in the UK over whether to leave the EU brought a dislocation in the London real estate market, triggering significant redemptions by retail investors in property funds, which in turn were forced to sell properties quickly in order to provide liquidity. We were offered 355-361 Oxford Street, a flagship retail property, if we could close the transaction within one week. The property fit our London strategy and was situated near our other London investments on Oxford Street. In July 2016, after a busy week, we purchased the building.

A new funding model (2017)

With an established real estate organisation building a global portfolio, the Ministry of Finance asked Norges Bank and a group of experts to evaluate the allocation to real estate. The Bank proposed increasing the fund's maximum allocation to real estate from 5 percent to a range between 5 percent and 15 percent, whereas the expert group recommended a maximum limit of 10 percent in real estate.

A revised mandate was issued on 1 January 2017 which allowed up to 7 percent of the fund to be invested in unlisted real estate, but this limit was effectively 5 percent given that we needed a buffer in case volatile equity markets reduced the total value of the fund. The allocation to real estate was also restricted by the fund's overall limit for deviations from the strategic benchmark, known as tracking error. As part of the new mandate, the decision on how to fund real estate investments was given to Norges Bank.

In parallel with these mandate changes, our investment activity continued. At the end of 2017, we made our first real estate investment in Asia. We acquired a 70 percent interest in five properties in the Shibuya area of Tokyo in a joint venture with Tokyu Land Corporation.

Strategic disposals (2018)

By 2018, the fund had 246 billion kroner in unlisted real estate across 737 properties, which made up 3 percent of the fund. It was a year with a focus on streamlining operations, establishing proper asset management teams and improving ways of working with partners.

While we had always acquired office properties with a view to holding them for decades, we decided to dispose of some that did not fit our core strategic objectives. Most of these properties were outside our geographical target markets and were sold to focus our resources and deploy more capital efficiently. We exited office investments in Munich and selected properties in Paris outside its central business district.

By 2019, we were recognised as a significant investor in the largest global real estate markets, and few large transactions were done without our knowledge. We opened a branch office in Paris to build and manage our local office and retail portfolio. While the real estate portfolio had grown significantly from 51 billion kroner in 2013 to 246 billion kroner by the end of 2018, it was still short of the maximum allowed allocation of 5 percent given that the value of the fund had increased from 5,038 billion kroner to 8,256 billion kroner in the same period.

Organisational changes (2019)

By the start of 2019, Norges Bank Real Estate Management had grown to 139 people across investment, risk, operations, compliance and administrative functions. We had optimised operations in the context of being a part of a fund managed within the central bank. Most employees were in international offices close to our properties. As the portfolio grew, the relative cost of management declined. Returns had met or exceeded expectations.

However, other considerations emerged that would constrain the growth of the real estate portfolio and the organisation. In 2019, the Ministry of Finance announced that it would not follow the recommendation of a committee of experts proposing that a new fund management organisation outside Norges Bank be established to manage the fund. Ensuring that Norges Bank Investment Management and Norges Bank Real Estate Management combined should not grow disproportionately large relative to the part of the organisation dedicated to central banking activities became a strategic objective for Norges Bank. In the strategy for 2014-2016, the expected headcount for Norges Bank Real Estate Management was 200. This was scaled down to 120 in the strategy for 2017-19.

Against this backdrop, Norges Bank Investment Management and Norges Bank Real Estate Management were combined into one entity on 1 April 2019. Following the reorganisation, the real estate investment team and real estate-specific operations functions were organised under a Chief Investment Officer for real estate, and real estate support functions were integrated with existing departments at Norges Bank Investment Management.

Following these changes, Norges Bank Investment Management maintains a strong capability to make unlisted real estate investments and manage the considerable portfolio built since 2010. As an example, the fund acquired a large, modern office building in Tokyo in a new partnership with Mitsubishi Estate in early 2020. The location in Otemachi is among the most coveted in Tokyo, and the partner dominates the area. The transaction is a testament to how the fund has evolved over the past decade. From not having made a single unlisted investment in 2010, the fund has positioned itself to partner with pre-eminent owners and operators of real estate in the largest and most important real estate markets globally.

The unlisted real estate portfolio reached a value of 273 billion kroner after a decade of investments. It has contributed to lower volatility in the fund while increasing its returns. However, its overall effect on the fund's return and risk remains small given the size of the real estate portfolio relative to the size of the fund as a whole.

Real estate investments do not provide the same ease and automated execution we find in listed markets, but in ten years of investing in the asset class, the fund has risen to those challenges and delivered with no serious adverse incidents. The experience has made Norges Bank Investment Management stronger as an organisation and more capable of addressing issues in listed and unlisted markets alike.

In the coming years, we expect to be a net buyer of real estate, but with more disposal activity than during the first decade. Simply maintaining the portfolio's relative share of a growing fund implies significant activity in the years ahead. We will continue to acquire properties and grow the portfolio while disposing of properties that are poorly aligned with our strategy in a given market. As time passes, the benefits of real estate in a portfolio context should become even more visible.

2 | The strategy

Selecting our investments

We developed a concentrated investment strategy focused on keeping costs low and generating long-term returns.

We have made strategic choices about how we invest in unlisted real estate that support the fund's mission. Rather than scatter our investments, we have targeted a concentrated set of sectors and cities. We have selected sectors within real estate markets that are large and enable cost-efficient deployment of significant capital. We have chosen to keep a meaningful ownership stake in order to retain influence over how our capital is invested.

From the beginning, we have adopted a focused strategy for our unlisted real estate investments to ensure that we spend our time and resources efficiently. Within each city, local investment teams identified specific neighbourhoods and property characteristics favourable for long-term investments. They sourced a wide range of deals and analysed whether the asking price of a property could be justified given assumptions about cash flow in a given period, typically ten years. We have been highly selective. Of the 1,300 investment opportunities presented to us since 2011, we have pursued 218 and ultimately completed only 113.

A focused and highly selective approach has been conducive to building specialist expertise in our markets. It has allowed us to invest with more confidence and greater conviction. It distinguishes us from most institutional investors who seek a broader presence. It means we will miss out on opportunities outside our narrow list of markets, but we expect to perform better in the markets where we do invest.

Chart 1 Investments.
Value in billion kroner (left-hand axis).
Number of transactions (right-hand axis).

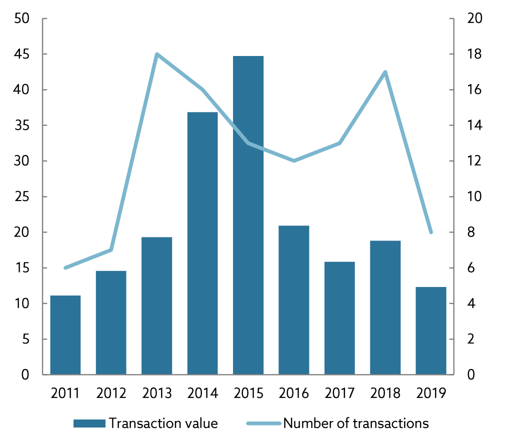


Chart 2 Return in percent.

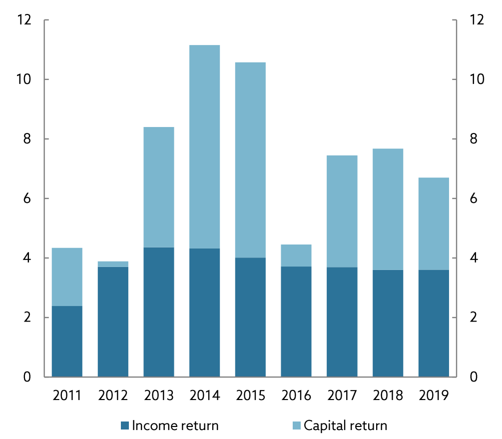


Chart 3 Property return in the US.
Local currency return in percent by acquisition date.
Size of bubble indicates value of property.

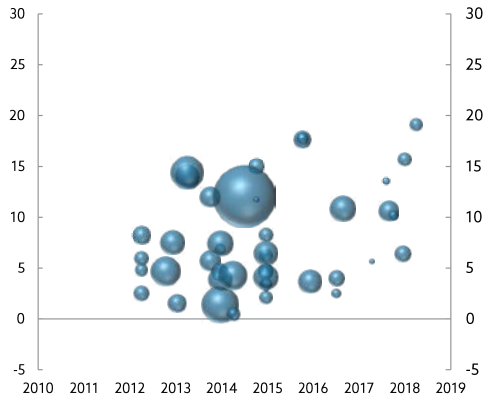


Chart 4 Property return in Europe.
Local currency return in percent by acquisition date.
Size of bubble indicates value of property.

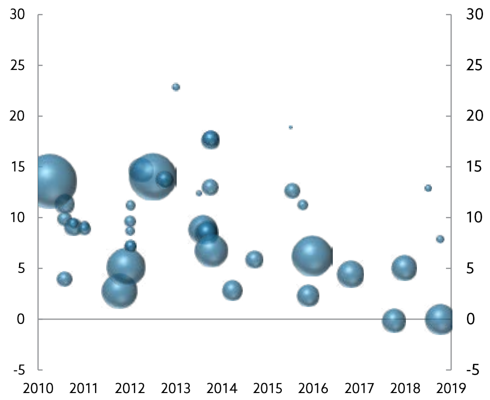


Chart 5 Property return in the US.
Total annualised capital return (y-axis) and income return (x-axis) in percent. Size of bubble indicates value of asset.

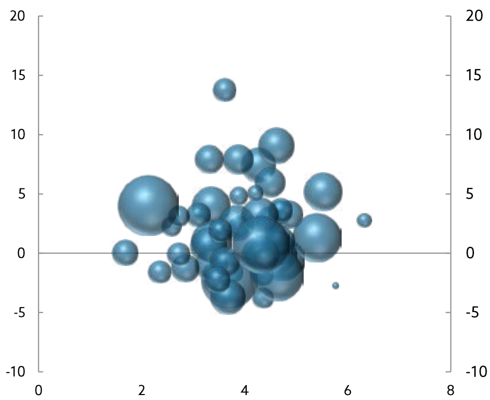


Chart 6 Property return in Europe.
Total annualised capital return (y-axis) and income return (x-axis) in percent. Size of bubble indicates value of asset.

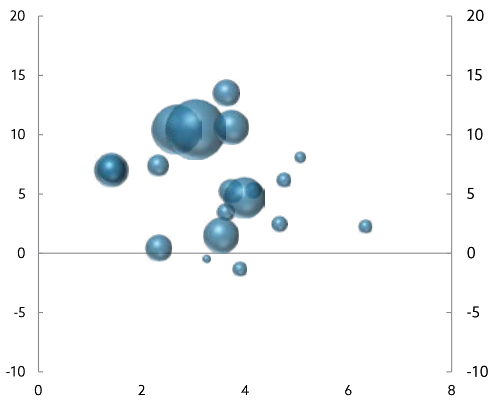


Chart 7 Net asset value by sector. Billion kroner.

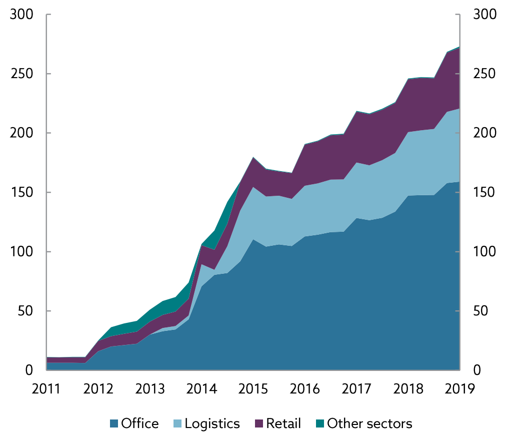


Chart 8 Net asset value by region. Billion kroner.

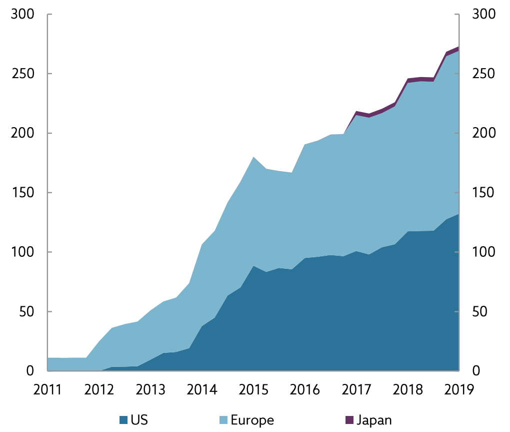


Chart 9 Net asset value by source. Billion kroner.

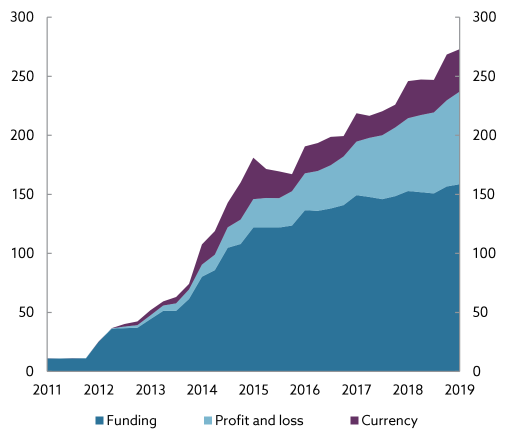
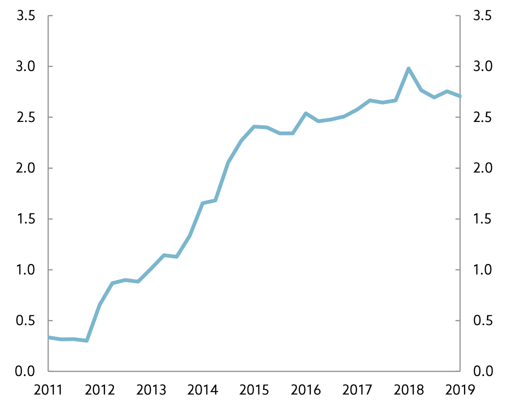


Chart 10 Net asset value as a share of the fund. Percent.



Selecting cities
Cities were selected through comparative analysis of fundamental economic indicators that we identified as indicative of rental growth potential. Initially, we assumed investments across 20 cities would be necessary to reap the diversification benefits of a real estate portfolio while also limiting the cost of establishing a local presence in too many markets. With experience and further analysis, however, we concluded that a portfolio spread across fewer than ten cities would suffice to provide an optimal balance between diversification, market knowledge and cost.

Within the cities we chose to enter, our strategy has been highly selective. Large cities are in effect a tapestry of many sub-markets that can have different return and risk profiles. Conversely, sub-markets in two different cities may have important shared characteristics. For example, London's West End and central Paris are dominated by relatively small heritage buildings with limited floor plates and severely restricted supply. They attract global retailers and office tenants across a variety of sectors. In contrast, Canary Wharf in London and La Défense in Paris are in peripheral locations in their respective cities and dominated by modern high-rise office buildings.

The size of the real estate market in a given city was an important consideration in selecting our target cities. Each city we selected had to offer significant investment opportunities in the office and retail sectors and in the type of high-quality properties we were after. We favoured cities with a significant pipeline of large deals. We viewed market scale as a sign of long-term attractiveness. The importance of scale meant that London, Paris, New York and Tokyo were strong candidates from the beginning.

The existence of a predictable and stable legal and regulatory environment for real estate investing was a critical consideration in selecting cities. While many emerging markets have high growth rates, their legal regimes provides uncertainty for real estate investments that we were not prepared to manage. We also stayed away from markets that lacked sufficient transparency or had high levels of political risk.

We targeted markets with restrictions on the expansion of the building stock. Supply may be constrained by regulatory limits on new developments, height restrictions or the ratio of a building's floor area to its footprint. Such constraints on supply are particularly strong in London's West End and central Paris, where a long-established consensus on protecting historic buildings and landmarks severely restricts new development. Topographical constraints provided by rivers, oceans and mountains also restrict supply, although government-sanctioned land reclamation may counterbalance their effects.

We looked for cities with a positive track record of, and outlook for, economic and employment growth. We believed that this would contribute to high and stable demand for property over time. Increased competition for physical space in buildings, whether offices, apartments, shops, warehouses or hotels, puts upward pressure on rents. Tenants with more money or income are also able to afford higher rents. This consideration favoured the inclusion of San Francisco and Boston in particular, whose fast-growing technology sectors backed by a highly educated work force have underpinned sustained demand in their respective real estate markets.

We have explored new markets but reconsidered before making an investment. In 2014, we identified Singapore as an attractive city for real estate investments given the fundamentals of the local economy. However, a deeper engagement with the market revealed heightened risk and limited scale relative to our other markets. The currency-neutral funding model adopted in 2017 also inherently limited the scale of real estate investment we could achieve.

Many of the cities we chose for our real estate investments dominate their national economies and function as gateways to the global economy. Their office tenants often come from globally integrated sectors such as finance, law, technology, business consulting and trade-related industries. These cities are also preferred locations for major retail brands to have their flagship stores and major retail outlets. Some are national capitals home to government agencies and associated industries. They have world-renowned universities that attract people from all corners of the world. They tend to have well-developed transportation infrastructure, high levels of public safety and green spaces that make them attractive places for people to live and work.

Over the past decade, we have streamlined our office and retail strategy around eight cities whose real estate markets have performed well. In Europe, London and Paris have been the core of our office-retail strategy since the mandate was given in 2010. We have also invested in high-quality properties in other office markets, including Frankfurt, Munich and Zürich. In the US, we have targeted investments in New York, Boston, Washington, D.C. and San Francisco, whereas in Asia, Tokyo has been our focus. We will continue to optimise the geographical balance of our portfolio.

Chart 11 The fund's investments by country. Percent.

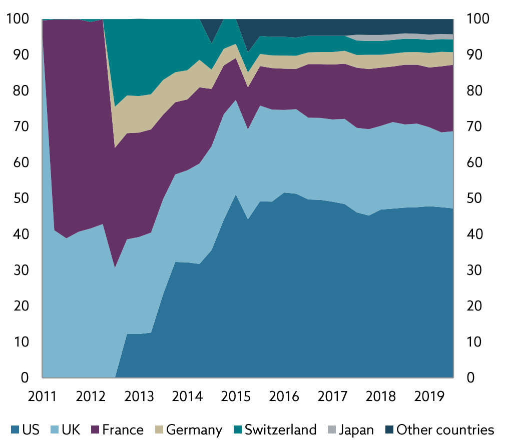
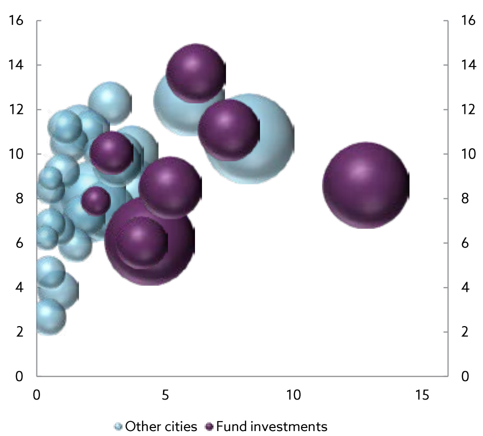


Chart 12 Investment markets performance. Annualised MSCI Global total return in percent, 2011-2019 (y-axis). Relative size of investment volume (x-axis). Size of bubble indicates market size.



Source: MSCI

Chart 13 London sector performance.
Annualised MSCI return, 2011-2019 (left-hand axis).
Relative size (right-hand axis). Percent.

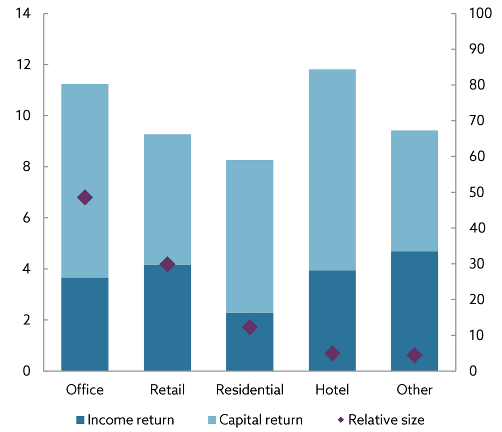


Chart 14 Paris sector performance.
Annualised MSCI return, 2011-2019 (left-hand axis).
Relative size (right-hand axis). Percent.

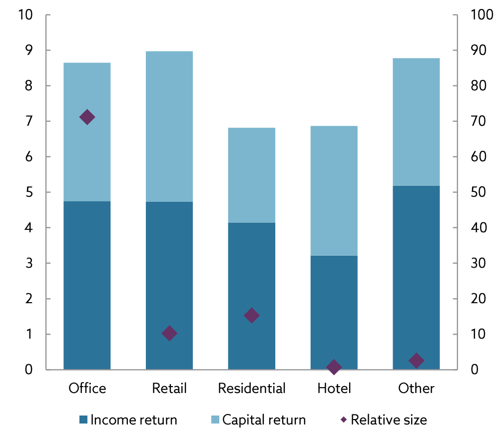


Chart 15 Berlin sector performance.
Annualised MSCI return, 2011-2019 (left-hand axis).
Relative size (right-hand axis). Percent.

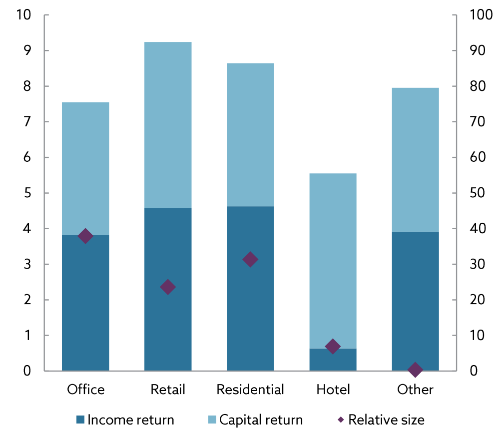
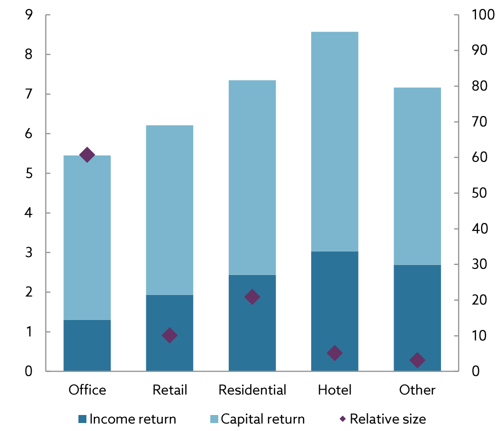


Chart 16 Tokyo sector performance.
Annualised MSCI return, 2011-2019 (left-hand axis).
Relative size (right-hand axis). Percent.



Source: MSCI

Chart 17 New York sector performance.
Annualised MSCI return, 2011-2019 (left-hand axis).
Relative size (right-hand axis). Percent.

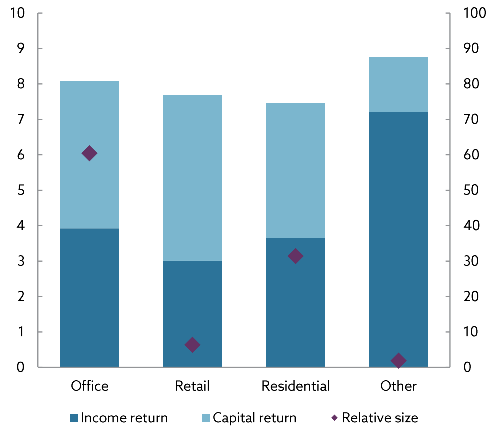


Chart 18 Washington, D.C. sector performance.
Annualised MSCI return, 2011-2019 (left-hand axis).
Relative size (right-hand axis). Percent.

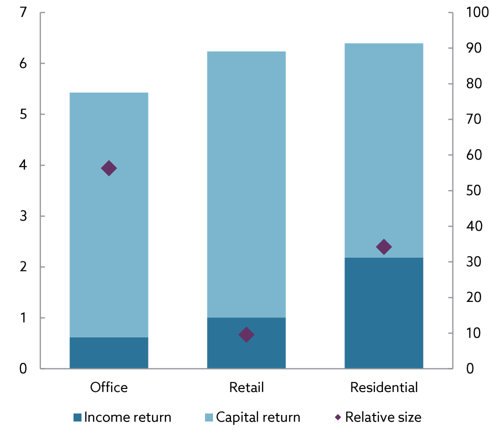


Chart 19 Boston sector performance.
Annualised MSCI return, 2011-2019 (left-hand axis).
Relative size (right-hand axis). Percent.

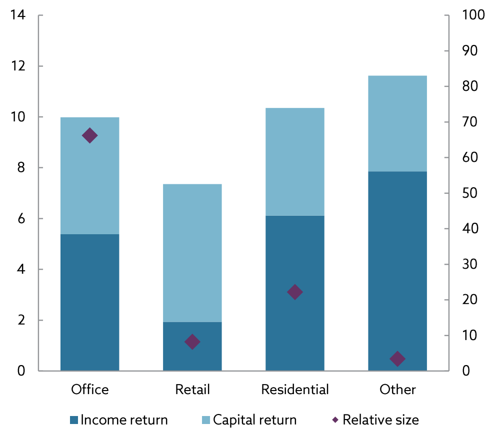
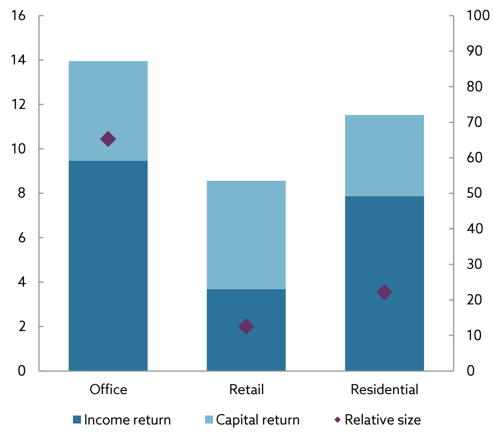


Chart 20 San Francisco sector performance.
Annualised MSCI return, 2011-2019 (left-hand axis).
Relative size (right-hand axis). Percent.



601 Lexington Avenue, New York. In 2014, we acquired 45 percent of a property located on 601 Lexington Avenue in New York together with our partner Boston Properties.

Selecting sectors

Most institutional investors make real estate investments across many property sectors. As with cities, we believed from an early stage that selecting a few core sectors would help us scale our portfolio, consolidate our expertise and deploy capital cost-effectively.

Offices

Office investments accounted for 57 percent of our unlisted real estate portfolio at the end of 2019, down from 62 percent in 2015. Globally, the office sector is the largest by value and has the biggest transaction flow. Single-let buildings require little focus and daily management when the tenant is responsible for facility and property management. Multi-let buildings with numerous leases require more tenant engagement and leasing activity but have the potential to generate more value. Moreover, individual office properties in our portfolio vary in size, ranging from properties in London's West End with under 1,000 square metres of rentable space over three floors, to a skyscraper in New York with 155,000 square metres of office and retail space over 63 floors.

We invest in the office sector to benefit from its scale and correlation with local economic growth. We have targeted high-quality properties that could be repositioned in accordance with changing preferences in tenant markets. We have developed preferences for acceptable and desirable ceiling heights, column spacing, lift capacity and core-to-perimeter depth, all of which impact the quality of office space available to prospective tenants.

Traditionally, the office sector has been burdened by high capital expenditure. Office tenants demand standards of quality that imply frequent renovations, and the owner needs to evaluate the return on investment when injecting additional capital into a building.

Chart 21 The fund's investments by sector. Percent.

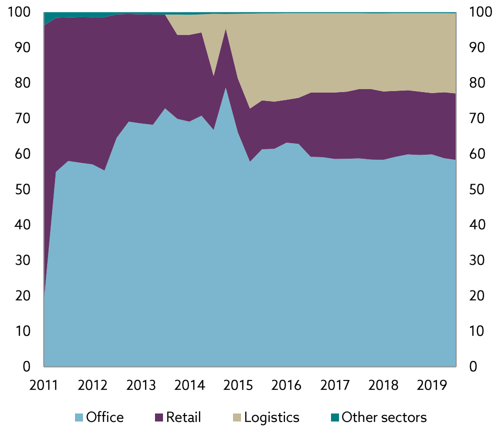
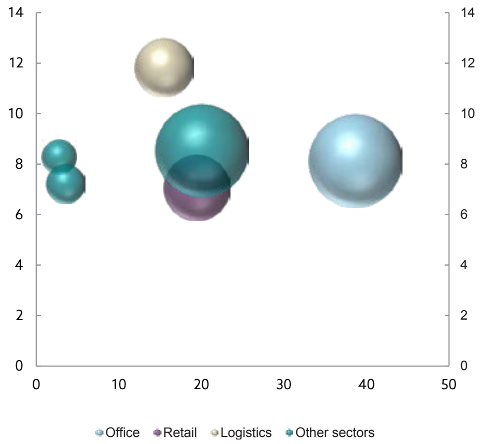


Chart 22 Investment sector performance. Annualised MSCI Global total return, 2011-2019 (y-axis). Relative market size (x-axis). Size of bubble indicates market size. Percent.



In recent years, growing tenant demands around building services and amenities have made it more costly to ensure that office properties remain attractive to tenants. This has been a differentiating factor in the market, as not all office properties can be retrofitted to the satisfaction of increasingly demanding tenants. For example, some buildings may not support open plan offices or do not have space available for rooftop terraces, large open common areas, underground garages for bicycle storage, changing rooms or fitness centres.

There is also some tension between long and short leases in the market. Landlords typically seek the longest leases possible to avoid downtime and renovation costs. Tenants, on the other hand, like the flexibility of short leases, but at the same time they want certainty of occupation for important space (e.g. their headquarters) and leases long enough to amortise fit-out costs and equipment. The trend in the market is towards shorter leases for anything but headquarters space. This is particularly the case in London, where standard lease lengths have dropped over time from 20 years to ten years or less.

Retail

Retail properties accounted for 18 percent of our unlisted real estate portfolio at the end of 2019, up from 12 percent in 2015. The value of retail properties has correlated well with consumer spending and economic growth in the past. Compared to offices, retail properties require less capital expenditure from the landlord, as tenants typically fit out their own space. We have targeted high-street retail properties in strategic locations in our target cities, owing in part to their expected resilience against broader structural changes in the sector. Initially, we also considered investment opportunities in other retail sectors, such as dominant shopping centres in the UK, but we later chose to keep a narrow focus.

The penetration of e-commerce is changing the retail landscape and the value and purpose of physical stores. Street-level stores outside major retail districts and smaller shopping centres have been most adversely affected. However, prime retailing on the most famous high streets is still doing well with a few exceptions, in part because the customer base includes both local residents and tourists with high disposable incomes who look at these shopping areas as destinations in their own right.

Our strategy of targeting high-street retail locations favoured by major brands for their flagship stores has proven sound. Relative to shopping centres, these locations have been more resilient to the effects of e-commerce on consumer behaviour. In the UK, they have also struggled less in the aftermath of the referendum on Brexit in 2016.

Logistics

Logistics properties accounted for 22 percent of our unlisted real estate portfolio at the end of 2019, down from 24 percent in 2015. They include warehouses and distribution facilities that serve local, regional and international supply chains.

Growth in the logistics sector is supported by structural demand drivers such as supply-chain reconfiguration and e-commerce. The growing demand on supply chains has increased the need for well-located, high-quality warehousing space. Companies are prioritising logistics space to help their customers reduce transportation costs.

Logistics real estate provides the fund with exposure to economic activity distinct from other sectors. Our city-centric logistics strategy targets properties that are well-positioned to support companies aiming to grow their online businesses. Further, because we target properties serving the end of the supply chain, we believe our logistics investments provide long-term durability. Economic trends can impact supply chain strategies, but the end of the supply chain offers greater permanence than the beginning or middle of supply chains.

Few institutional investors deployed capital in the logistics sector when we made our first investment in 2012. It was not considered sufficiently liquid and scale was more difficult to achieve. It turns out that the dynamics of the sector are not that different to those of other sectors. Supply is limited in highly populated metropolitan areas and demand has pushed up rents significantly. The institutionalisation of the sector means that the best assets now command yields not dissimilar to assets in other sectors.

Whereas our investments in the office and retail sectors have been made through numerous joint ventures as well as without partners, our logistics investments are based on a long-standing relationship with a single operating partner. While most larger institutions struggle to get sufficient exposure to the logistics sector, our growing relationship with Prologis has resulted in a quarter of our real estate portfolio value invested in the sector. The logistics portfolio has performed well over time. While the strategic alignment with Prologis has allowed us to build a significant portfolio in a well-performing sector, it does leave a large share of our broader real estate portfolio uniquely tied to the strategy, abilities and motivations of a single investment partner.

Other sectors

Sectors other than offices, retail and logistics accounted for only 3 percent of the portfolio at the end of 2019. Exposure is primarily due to acquisitions of mixed-use assets or portfolios.

Residential is a sector which fits the long-term nature of the fund very well. While commercial tenants usually lease only what they need, even if they can afford more, residential tenants usually lease as much as they can afford, rather than how much they need. Income tends to be stable, and capital expenditure between tenancies is lower.

However, residential tenants are smaller, so a given investment has more leases and therefore requires more operational follow-up by the property manager than investments in other sectors. There is also a higher risk of disputes with tenants given their larger number. The fund has so far focused its residential investments in the listed market.

Properties in the hospitality sector, such as hotels and care homes, are more operationally complex, and other property sectors, such as data centres, student housing and self-storage, are also attracting capital from long-term investors, but volumes and liquidity tend to be lower. We have therefore not focused on them.

Going forward, we will continue to consider investments in various sectors. Uncertainty in the retail landscape, and office investments becoming increasingly operational as tenants demand more services, may lead us to explore other sectors for our unlisted real estate investments. Residential has already been mentioned, and smaller sectors such as life science buildings may cater well to our investment targets.

Selecting ownership structures

Norges Bank, as the manager of the fund, has been reluctant to allow third parties to take major investment decisions on its behalf. This is particularly important in an asset class with less liquidity and longer transaction times. It has led us to favour joint ventures with a trusted partner. We have not invested in fund structures with more dispersed ownership where our influence over major decisions would be weakened by limited governance rights and a defined exit date. That decision appears to stand up to scrutiny so far. In large part as a result of joint ventures, we have been able to create a high-quality portfolio of properties in our core markets.

Joint ventures

In joint ventures, we typically invest alongside a single partner in a given transaction. Fewer partners make the governance of a joint venture stronger and more robust. Our partner is normally responsible for asset management and sometimes property management. The co-investment arrangement aligns our interests. Since any fee our partner receives in return for this work is small compared to its equity stake, it is unlikely to influence its investment behaviour.

When investing alongside partners, we typically retain the right to approve all major decisions, such as acquisitions and disposals, signing large leases, agreeing annual business plans, and committing to new capital expenditure programmes. This is negotiated with the partner prior to the completion of transactions and formalised in joint venture and asset management agreements.

In the US, tax benefits available to Norges Bank Investment Management as a sovereign investor are contingent on not exercising effective practical control. In practice, this means holding less than 50 percent of the economic and voting power in our US investment structures. Norges Bank Investment Management maintains decision-making rights relating to the most significant decisions affecting the property and venture, but decisions related to the majority of day-to-day management functions are at the discretion of our partners.

While either party has the right to sell its ownership stake in all our joint ventures globally, it is required to offer the other partner the opportunity to participate in a disposal. This means that neither party risks inadvertently ending up with a new partner not of their preference, or not having access to the same disposal opportunity. A stake in a building is usually less liquid and attractive than the sale of an entire building. This is perhaps the biggest drawback in investing with partners. But as we invest with other long-term partners, it is rare that we have major disagreements. The benefits of investing alongside strong, established partners have so far outweighed any such downside.

Joint ventures have been instrumental in getting us access to the real estate markets at the core of our strategy. For example, the partnerships we formed with The Crown Estate and AXA in 2010 and 2011 facilitated our entry into London and Paris, respectively, and the knowledge generated through those partnerships provided a basis for later building a wholly-owned portfolio in those markets. In the US, joint ventures with a majority domestic partner have been indispensable to market entry given local tax rules.

The strategy of harnessing our relationships with joint venture partners to gradually build internal asset management capability has also been successful. In the US, relationships with joint venture partners have provided access to valuable market data and expertise. In Europe, we have built internal asset management teams to manage our wholly-owned multi-let office and retail properties and deepened our engagement with local market participants. We have had no significant adverse operational incidents in our internal asset management of real estate investments.

There are potential challenges when investing alongside joint venture partners. Many of our joint ventures were initially formed on the basis of an investor selling a stake in its own properties to the fund. As unlisted real estate is less transparent and exposed to more idiosyncratic risk than listed investments, there is potentially a greater information asymmetry between buyers and sellers. In the context of joint ventures, the fund ran the risk of joint venture partners offering properties from their portfolios that they did not regard as valuable in the long term, or that had some downside risk that would be difficult to uncover through a normal due diligence process. To date, however, the properties acquired from the portfolios of joint venture partners have performed as well as properties we have acquired with our joint venture partners from third parties.

There is also a risk of a gradual misalignment of strategic priorities with joint venture partners as time passes. While we co-develop a strategy with our partners for growing returns over time through capital expenditure, leasing and operational improvements, the joint venture is invariably driven by the corporate strategy and competencies of our partners, which we effectively buy into. Even long-term real estate investors may change their investment priorities during the cycle in response to market changes. In some cases, joint venture partners have proposed disposing of jointly owned properties as part of executing a new strategy of their own. While there have been differences of opinion over ambitions and priorities in annual plans and budgets, we have generally agreed on most major decisions and have never had to enforce our rights through legal action.

Going forward, our joint venture partners will remain responsible for day-to-day operations. Several refurbishments are planned or underway that will sustain portfolio value over the long term.

Table 1 Investment partners at year-end 2019. Percent.

Investment partner	Region/country	Sector	Share of portfolio
Prologis	US	Logistics	13.4
Prologis	Europe	Logistics	8.5
Boston Properties	US	Office	8.0
Trinity Church	US	Office	7.8
The Crown Estate	UK	Retail, office	7.3
TIAA	US	Office	6.6
MetLife	US	Office	5.3
AXA	France	Office, retail	3.5
Kilroy Realty	US	Office	2.1
The Pollen Estate	UK	Retail, office	2.0
Generali	France	Office, retail	1.5
British Land	UK	Retail, office	1.5
Tokyu	Tokyo	Retail, office	1.4
AXA	Germany	Office, retail	1.4
PGIM Real Estate	US	Office	1.4
American Realty Advisors	US	Office	0.7
Oxford Properties	US	Office	0.5
Total			**72.9**
Other			
No partner		Office, retail	27.1

Wholly-owned investments

In 2014, we started investing without a partner in Europe in the case of properties that were stable and operationally uncomplicated. For example, office properties with a single tenant on a long lease who is responsible for property management lend themselves to internal asset management, whereas properties requiring complex major renovations in the near term warrant bringing in a partner with development expertise.

When we invest without partners, we use in-house resources. Internal asset management teams are responsible for annual business plans, budgets and leasing. However, we always hire an external property manager to take care of day-to-day building management, such as maintenance and repairs, security, cleaning and invoicing tenants for the cost of services. Our investment personnel regularly meet brokers, advisors, partners, competitors, architects and construction companies to understand local market dynamics. They also visit properties owned by others to learn about best practices in the market and trends in construction and design.

Investing without partners has complemented our joint venture strategy and benefited the fund. It saves asset management fees and gives us more control over our investments. It provides us with direct access to brokers, which has helped us source transactions. Having the option of investing on a 100 percent basis has relieved us of the need to find an aligned and willing partner when offered a large transaction that fits our strategy. Portfolio growth in London and Paris in the past five years has been significantly fuelled by wholly-owned investments. It also allows us to deploy capital more efficiently, as it is not much more resource-intensive to make wholly-owned investments than buying with a partner.

However, managing properties ourselves necessarily requires more personnel. In some instances, we have underestimated the resource demand associated with selected wholly-owned investments. This was a factor in disposing of two office properties in Munich in 2020 and selling an ownership stake in a retail property on Oxford Street in London in 2019.

Going forward, we will remain selective about choosing properties to manage ourselves given the constraints on our internal resources. The real estate team will continue to generate value through high-quality refurbishments and re-leasing. It will focus on the strategic decisions that will impact long-term portfolio value and that require local market knowledge to execute well.

Chart 23 Return per office and retail acquisition. Total annualised local currency return in percent (y-axis). Acquisition date (x-axis). Size of bubble indicates value of asset.

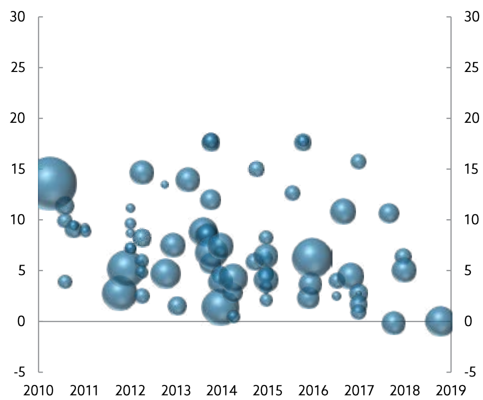


Chart 24 Return per office and retail acquisition with no partner. Total annualised local currency return in percent (y-axis). Acquisition date (x-axis). Size of bubble indicates value of asset.

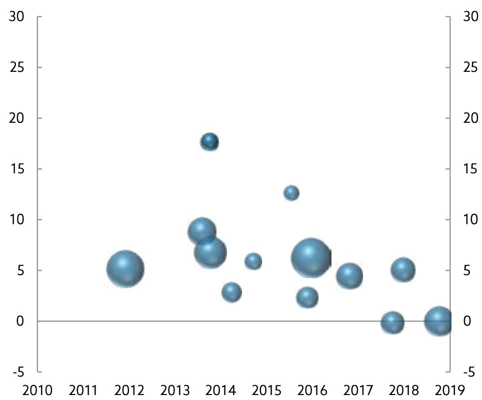


Chart 25 Return per office and retail acquisition with a partner. Total annualised local currency return in percent (y-axis). Acquisition date (x-axis). Size of bubble indicates value of asset.

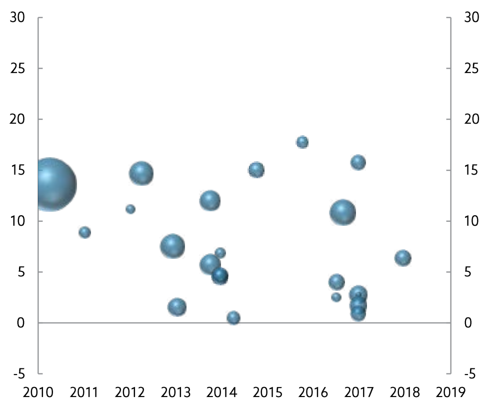


Chart 26 Return per office and retail acquisition from a partner. Total annualised local currency return in percent (y-axis). Acquisition date (x-axis). Size of bubble indicates value of asset.

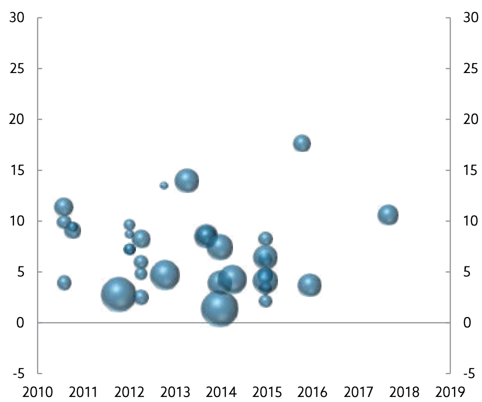


Chart 27 Return per acquisition.
Total annualised capital return (y-axis) and income return (x-axis) in percent. Size of bubble indicates value of asset.

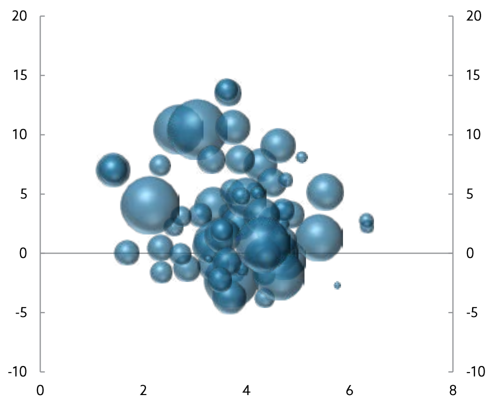


Chart 28 Return per acquisition with no partner.
Total annualised capital return (y-axis) and income return (x-axis) in percent. Size of bubble indicates value of asset.

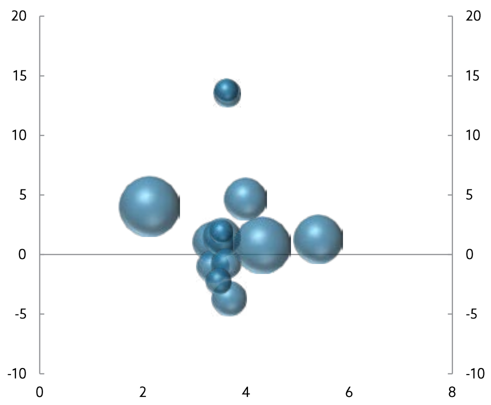


Chart 29 Return per acquisition with a partner.
Total annualised capital return (y-axis) and income return (x-axis) in percent. Size of bubble indicates value of asset.

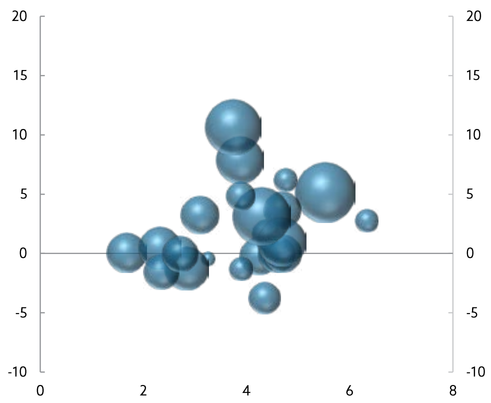
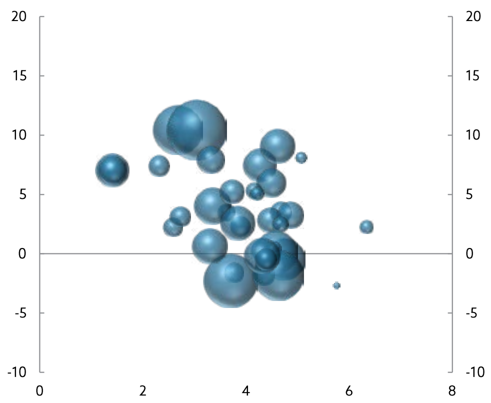


Chart 30 Return per acquisition from a partner.
Total annualised capital return (y-axis) and income return (x-axis) in percent. Size of bubble indicates value of asset.



Otemachi Park Building, Tokyo. In 2020, we formed a partnership with Mitsubishi Estate and acquired a 39.9 percent interest in a part of the Otemachi Park Building located in the Marunouchi office submarket of Tokyo.

Selecting funding

We fund our real estate investments with internal assets. Using our fixed-income portfolio as a funding source is more efficient than drawing on external financing, which is only done in special circumstances.

How the funding of real estate investments is regulated in the mandate has changed over time. The mandate in 2010 specified that the fixed-income index was to constitute 40 percent of the value of the fund's strategic benchmark index, less the share of the value of the fund invested in the real estate portfolio. The regional allocation of real estate investments did not affect the currency composition of the fixed-income benchmark or the fixed-income portfolio. Therefore, the relative return on real estate measured against this funding had material currency effects.

In 2017, the mandate was changed such that real estate investments would no longer be funded exclusively with fixed income, but with a combination of fixed income and equities at the discretion of Norges Bank Investment Management.

A typical investment is now financed with capital derived from selling 70 percent of the investment value in fixed income, and 30 percent in equities, in the same currency. We assume that most real estate investments we make have a risk profile that is broadly similar to this mix, but we make necessary adjustments.

Acquisitions of logistics properties have generally been funded with 60 percent fixed income and 40 percent equities owing to their direct exposure to economic activity and trade. Investments in properties with long leases with creditworthy tenants may have a funding mix of 80 percent fixed income and 20 percent equities owing to their relatively low risk profiles. Investments with an element of external financing are funded with a higher equity portion to adjust for leverage.

The fund is well-placed to invest in unlisted real estate. Its long-term time horizon is a benefit given the relative illiquidity of the unlisted real estate market. In an inherently cyclical asset class such as real estate, it is valuable not to be forced to sell at an inopportune moment. Our predictable and low cost of capital allows us to make long-term plans for portfolio growth. As real estate helps diversify the fund as a whole, the real estate portfolio itself does not need to be globally diversified. We can specialise in local markets and sectors and gain information advantages relative to other investors. We can achieve a desired return and risk profile for the real estate portfolio through acquisitions and disposals and by adjusting the funding portfolio.

As a long-term investor, we can adopt planning horizons that are not constrained by short-term considerations. This is made easier by stable investment mandates which provide investment teams with predictable parameters to make decisions that contribute to the fund's strategic objectives. For example, we can time renovation projects optimally around major lease breaks and the lifespan of building equipment and materials. We can also invest in cost-reducing building upgrades that have longer payback periods than the average real estate investor is able to accept. The benefit of this is evident in the generational redevelopment of Regent Street, one of London's most famous retail districts. We look one or two decades ahead when planning the best possible time to reposition or refurbish properties, taking into account expiring leases and neighbouring projects.

Disposals

A clear investment strategy instils discipline and consistency across local investment teams and ensures alignment with the strategic objectives of the fund. It also builds credibility in the market and helps us find suitable long-term investment partners with aligned interests. We recognise that circumstances affecting the long-term growth potential of markets and our properties naturally change and will often diverge from our initial expectations. When the underlying premises change, we may adjust the strategy.

In principle, we invest in properties with an expectation to own them indefinitely. We recognise, however, that changes in the market may lead to suboptimal allocation of resources. Our expectations about market opportunities embedded in our investment strategy may not materialise. In recent years, a comprehensive review of our portfolio, combined with changes in our mandate, has led us to dispose of office properties for the first time.

Table 2 Disposals.

Address/region	City	Sector	Square metres	Acquired	Disposed	Share Percent	Disposal price (million LCY)	Currency
31-33 rue de Verdun	Paris	Office	24,000	2011	2018	50.0	63	Euros
Hultschiner Strasse 8	Munich	Office	62,200	2013	2018	50.0	122	Euros
2-14 rue de la Verrerie	Paris	Office	45,000	2011	2018	50.0	128	Euros
470 Park Avenue South	New York	Office	28,000	2013	2018	49.9	122	Dollars
27 avenue du Général Leclerc	Paris	Office	8,400	2011	2019	50.0	49	Euros
An der Welle 3-7, 2-10	Frankfurt	Office	80,600	2013	2019	50.0	310	Euros
75 Davies Street[1]	London	Office/retail	8,500	2015	2019	25.0	54	Pounds
Lenbach Gärten	Munich	Office	30,200	2014	2020	100.0	390	Euros
Logistics Europe	Various	Logistics	1,325,300	Multiple	Multiple	50.0	355	Euros
Logistics US	Various	Logistics	1,832,400	Multiple	Multiple	45.0	816	Dollars

[1] We sold 25 percent of the property and will retain the remaining 75 percent.

Chart 31 Return per disposal in the US.
Local currency return in percent by acquisition date.
Size of bubble indicates value of property.

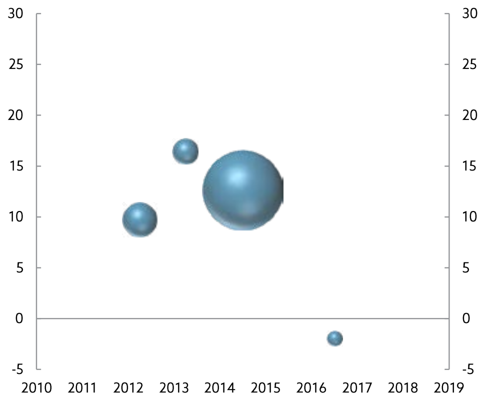


Chart 32 Return per disposal in Europe.
Local currency return in percent by acquisition date.
Size of bubble indicates value of property.

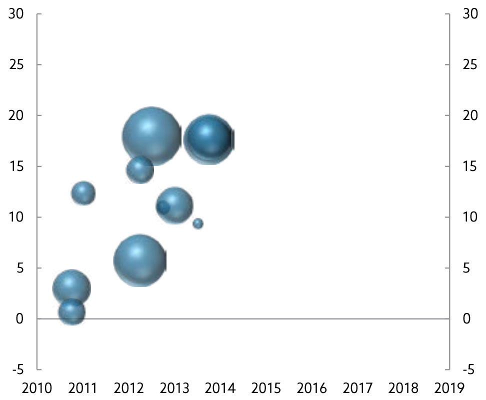


Chart 33 Return per disposal.
Local currency return in percent by acquisition date.
Size of bubble indicates value of property.

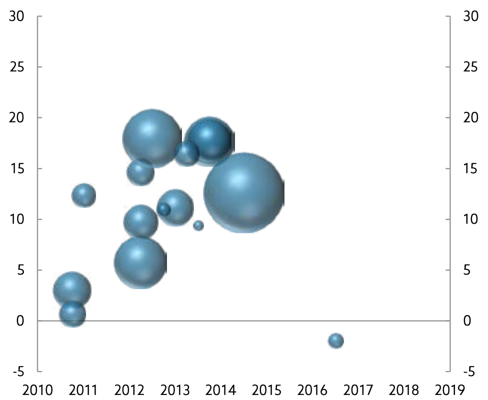
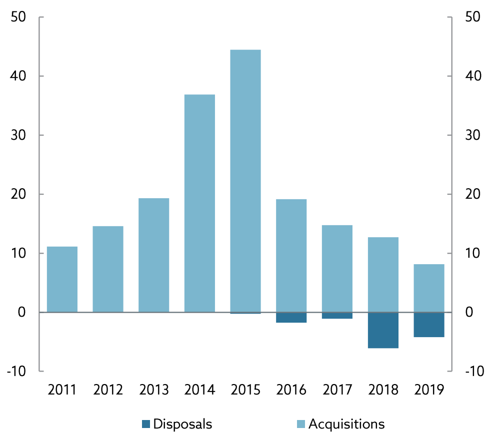


Chart 34 Acquisitions and disposals. Billion kroner



There are a number of reasons why disposing of properties may be in the best interests of the fund. Sometimes, disposals of individual properties are planned as part of a portfolio acquisition. The logistics portfolio comprised 516 properties at the end of 2019, acquired primarily through four separate portfolio acquisitions. Following the acquisition of each portfolio, we have sold properties that had physical attributes we considered operationally challenging and properties in less desirable locations. Since entering the logistics market in 2012, about 15 percent of acquired logistics properties have been sold for these reasons. This disposition strategy has ensured that our logistics portfolio is concentrated in markets we expect to perform well in the long term.

Portfolio churn in the office and retail sectors has been much less than in logistics. Nevertheless, we have sold office and retail properties in recent years. We have observed challenges to the long-term potential of some properties. For example, recent disposals of office properties in the Western Crescent sub-market of Paris were influenced by strong investment demand, unexpected challenges at the property level (including high capital requirements) and limited upside because of supply coming onto the market. The properties were originally included in a portfolio of office properties located in the city's central business district.

We have streamlined our German office strategy to focus on Berlin only, which motivated the disposal of office properties in Frankfurt and Munich in 2019 and 2020. Unlike the UK and French office markets, the German office market is polycentric with real estate values and transactions spread across multiple cities rather than being concentrated in the national capital. The small deal sizes in Germany relative to London and Paris mean there is often greater competition for the types of office properties we target, including from local real estate investors. Going forward, we hope a narrower strategy centred on Berlin will allow us to deploy more capital efficiently.

We have made various other adjustments to the portfolio to align it better with our strategic objectives. In 2019, we sold a 25 percent interest in 75 Davies Street to British Land, an existing joint venture partner. The fund had acquired a 100 percent interest in this retail and office property located above Bond Street underground station in London and was planning to refurbish the property itself. We recognised that it would be helpful to have an experienced local developer such as British Land alongside us in the process. In the case of 470 Park Avenue South in New York, we sold the property together with the joint venture partner as we had concerns about the long-term return potential of the asset.

Generating returns

After a decade of making investments, the value of the unlisted real estate portfolio was 273 billion kroner at the end of 2019. The contribution to the fund's overall risk-adjusted return has been positive.

2012 was the first year with full-period returns. The return numbers herein therefore start with 2012. Since 2012, our portfolio of unlisted real estate investments has returned 7.7 percent on an annualised basis. From 2012 to 2016, the portfolio returned 7.9 percent annually, while the fixed-income portfolio from which real estate investments were funded returned 3.8 percent. From 2017 to 2019, real estate and its funding returned 7.3 percent and 5.7 percent respectively.

The unlisted real estate portfolio has generated a 3.5 percent capital return and a 3.8 percent income return since 2012 at the property level. The capital return comprises realised gains and losses, changes in the fair value of properties, external debt and other assets and liabilities, and variable asset management fees. The income return is rental income received from tenants less costs of operating the properties. The capital return component naturally has been more volatile than the stable income return component.

Since 2012, the fund's unlisted real estate portfolio has returned in line with the MSCI IPD, the most commonly used global property index. However, the comparison is not particularly meaningful for the fund, as the index is not investable and large parts of its constituents fall outside the scope of our real estate mandate.

Office returns have varied considerably across our target cities and shown low correlation since 2012 as a result of differences in the timing of our investments and overall market performance. Across our European office investments, London, Berlin and Munich have had the strongest capital returns since we entered each market. The underexposure of our unlisted real estate portfolio to the German office market has held back our overall returns. In the US, our investments in Boston and San Francisco have performed well, benefiting from growth in the technology sector and the post-crisis recovery during the past decade.

Retail returns were high in the early years due to the large share of the portfolio on Regent Street but have subsided in more recent years as a result of structural changes affecting the sector. Meadowhall Shopping Centre in the UK, our only retail investment outside high-street retail locations, has experienced only marginal reductions in income and footfall but a significant drop in its valuation amidst a broader downturn for the UK retail sector. Overall, our decision to concentrate our retail exposure in core high-street retail locations has shielded us against some of the economic adversity that has impacted the sector as a whole.

Across sectors, our investments in logistics have outperformed offices and retail throughout the past decade in line with market trends overall. We benefited by entering the logistics real estate market before it had completed its transformation into an asset class accessible to institutional investors.

Income return, capital return and transaction costs are stated in local currency. The return is also impacted by currency movements, as the real estate portfolio has a different currency exposure to the fund.

Table 3 Annual return. Percent.

	2012-2016	2017-2019	2012-2019
Income return	4.0	3.6	3.9
Capital return	3.6	3.6	3.5
Transaction costs	-0.5	-0.1	-0.4
Return measured in local currency	**7.4**	**7.2**	**7.3**
Return measured in the fund's currency basket	**7.9**	**7.3**	**7.7**

Table 4 Annual return on unlisted real estate and funding return, measured in the fund's currency basket. Percent.

	2012-2016	2017-2019	2012-2019
Return, unlisted real estate	7.9	7.3	7.7
Funding benchmark[1]	3.8	5.7	4.5
Return difference to funding benchmark	**4.1**	**1.6**	**3.2**

[1] Funding benchmark was fixed income only until 2016 and a mix of equities and fixed income thereafter.

Table 5 Annual property returns measured against MSCI Global, measured in local currency. Percent.

	2012-2016	2017-2019	2012-2019
Property return, unlisted real estate investments	8.5	7.7	8.2
MSCI Global[1]	8.3	7.7	8.1
MSCI Global, portfolio weights	8.3	7.4	8.0
Return difference to MSCI Global	**0.1**	**0.1**	**0.1**
Return difference to MSCI Global, portfolio weights	**0.2**	**0.3**	**0.2**

[1] Adjusted for transaction costs.

Table 6 Annual property-level returns by city[1]. Local currency. Percent.

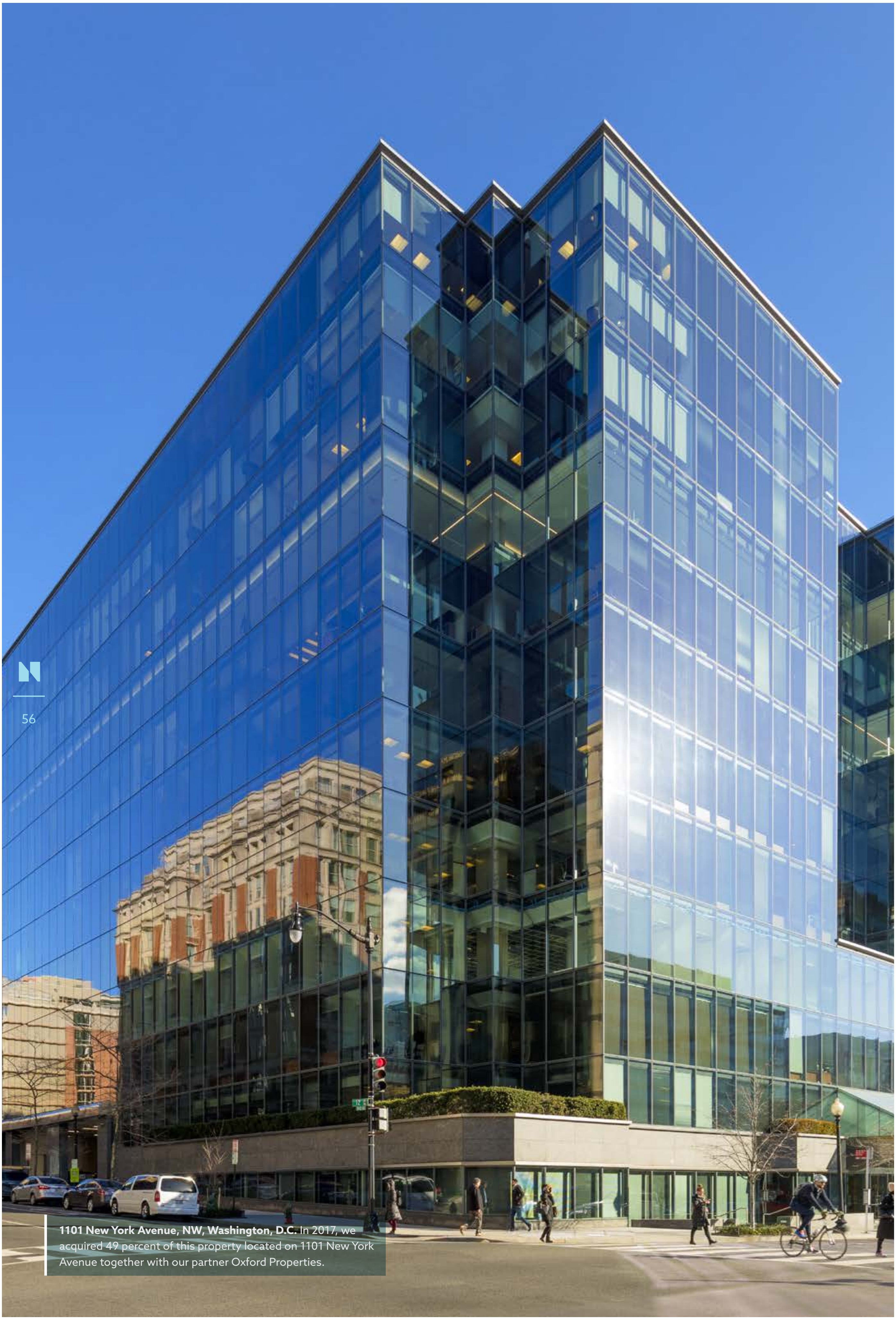
Portfolio	2012-2016	2017-2019	2012-2019
UK	12.0	4.3	9.0
London	15.0	6.2	11.6
Sheffield	7.9	-4.0	2.8
France	6.2	8.0	6.9
Paris	6.2	8.0	6.9
Germany	6.6	21.6	13.0
Berlin	10.1	21.1	14.8
Frankfurt	-0.4	19.5	7.5
Munich	9.7	25.8	17.5
Switzerland	5.3	5.1	5.2
Zürich	5.3	5.1	5.2
US	7.4	5.1	6.4
New York	6.7	3.7	5.3
Boston	6.4	6.5	6.4
Washington, D.C.	5.1	3.8	4.5
San Francisco	18.1	9.6	13.6
Japan	n/a	2.0	2.0
Tokyo	n/a	2.0	2.0
Global logistics	12.3	14.4	13.2
European logistics	13.0	14.4	13.7
US logistics	12.8	14.3	13.6
Total	**8.5**	**7.7**	**8.2**

[1] Not all cities had investments throughout the 2012-2016 or 2017-2019 periods.

Table 7 Annual property-level returns by sector. Local currency. Percent.

Portfolio	2012-2016	2017-2019	2012-2019
Office	6.2	6.8	6.5
Retail	12.2	3.5	8.8
Logistics	12.3	14.4	12.2
Total	**8.5**	**7.7**	**8.2**

3 | The management



1101 New York Avenue, NW, Washington, D.C. In 2017, we acquired 49 percent of this property located on 1101 New York Avenue together with our partner Oxford Properties.

Managing our portfolio

We established a real estate organisation to efficiently execute our chosen strategy.

Our organisation and investment process need to be set up to fulfil our strategy. First, we have established a dedicated real estate team to select and manage these investments in accordance with the mission of the fund. Secondly, we invest through proven legal structures that adequately protect the fund's assets, limit costs and maximise cash flows. Third, we require our investment partners to report consistently and in line with the fund's transparency requirements. And fourth, as our portfolio grew, we reinvested capital in our properties to modernise and upgrade common areas and technical facilities and improve their environmental efficiency.

In summary, the organisation and investment process established for the fund's real estate investments have succeeded in building a global portfolio of high-quality properties and reputable partners. The expansion of the fund into unlisted real estate has taken place without serious adverse incidents. This was achieved by building an internationally diverse team of investment professionals, making prudent choices of legal structures and maintaining robust systems for managing investment and operational risk. Essentially, we ensured that our growing portfolio of unlisted real estate investments was managed efficiently in the best interest of the fund and its stakeholders.

The team

We aim to have investment professionals close to our markets and investments. Local investment teams source investments in their markets, perform underwriting and present investment proposals to committees for review. Alongside staff in central functions, they maintain relationships with local market participants and have deep knowledge of our markets. Once transactions are completed, our local investment teams and our operating partners set annual plans and budgets, undertake leasing activities, and commission third parties to provide various property management services. The judgement of our local investment teams has played an instrumental role in what we have invested in and on what terms.

In 2010, only a handful of employees at Norges Bank Investment Management covered unlisted real estate on a full-time basis. Our investment activity in Europe was undertaken by staff at our Oslo and London offices. In 2011, we established a management company in Luxembourg that, over time, would be staffed with multilingual investment operations, legal and tax specialists administering investments in continental Europe. We added portfolio managers for France, the UK and Germany at our London office who built dedicated investment teams for each market. A resource there led our first investment in the US in 2013 and eventually helped build a broader real estate team in New York. Two years later, we added a team in Tokyo and created a dedicated logistics team for our partnership with Prologis. By the end of 2015, 122 people worked in the real estate organisation.

When we established Norges Bank Real Estate Management in 2014, we expected our long-term headcount to reach 200 to support portfolio growth and internal management of wholly-owned properties in Europe. At its peak in 2016, the dedicated real estate team had 139 people across offices in Oslo, London, New York, Tokyo, Singapore and Luxembourg with expertise in areas such as investment, finance, legal and tax, sustainability, IT, administration, risk and compliance.

Following the discontinuation of Norges Bank Real Estate Management as a separate division within Norges Bank in 2019, its resources were integrated with Norges Bank Investment Management. Risk, compliance and administrative functions became part of equivalent divisions within Norges Bank Investment Management. About 50 remaining people in local investment teams and central real estate functions were organised under a chief investment officer for real estate, with an additional 20 people in wholly-owned subsidiaries dedicated to unlisted real estate.

The real estate team has been able to invest more capital in recent years without adding resources. Going forward, we aim to keep the headcount directly associated with the unlisted real estate portfolio stable.

The investment process for unlisted real estate combines local market expertise with centralised decision-making. As the portfolio grew, the authority to approve major investment decisions and decide on the legal structuring of transactions was gradually moved to investment committees. All decisions to allocate resources for due diligence, make bids and enter into investment agreements are centralised. They are based on recommendations from local investment teams who make assumptions about rent developments, capitalisation rates, vacancy periods, lease terms and maintenance costs. Prior to submitting binding offers, internal specialists identify and assess critical risks related to the asset and counterparties, with the help of external advisors where relevant.

Since 2010, we have had an advisory board to review and advise on commercial aspects of all investment proposals, including structure, pricing, risk and adherence to strategy. The size, type and location of the investments determines at which level of the organisation the investment decision is made.

Our experience suggests that centralised investment decisions have reduced strategy drift and maintained investment discipline. Local investment teams become more selective in sourcing transactions and drafting investment proposals when there is a need for centralised approval. The inclusion of investment committees in key decisions also strengthens real estate knowledge across the fund's senior management and its stakeholders.

A critical aspect of the investment process is to consider appropriate legal structures for holding investments. Regulatory differences across markets imply that the optimal ownership structure will vary. We have legal and tax resources who provide advice on holding structure prior to each investment, and who liaise with local authorities and regulators where relevant.

The structures

Unlike equities and fixed-income, the investment risk associated with real estate investments is not necessarily limited to the amount invested. In addition, owning a fixed asset has different accounting and tax implications in different markets. Real estate investments are therefore commonly made through subsidiaries to protect the fund's other assets and ensure proper control. We use proven legal structures that balance simplicity and operational efficiency with the tax status that Norges Bank often enjoys as a sovereign investor.

We established separate subsidiaries in the UK, Luxembourg and Japan to manage underlying real estate portfolios. The management and holding company NBIM S.à r.l. was established in Luxembourg in 2011 as we made our first investments in Paris. We created NBRE Management Europe Limited in 2016 to deliver asset management services to our wholly owned properties in the UK, France and Germany. NBRE Management Japan Advisors, established in 2015, provides investment research and transaction support in the Tokyo market in support of senior management in Oslo. In the US, all our investments are in joint ventures and mostly managed by external asset managers associated with our joint venture partners. Norges Bank Investment Management's office in New York advises senior management on managing our US joint ventures.

In 2019, we started moving legal structures established in Luxembourg to Norway. The geographical footprint of our real estate portfolio in Europe did not expand much beyond our initial core markets, and the flexibility we sought when we established the Luxembourg platform in 2011 was no longer needed. Having a single platform to hold and administer these investments therefore became less important. While the Luxembourg platform was established for operational reasons, in hindsight it would have been advantageous to pursue a Norwegian holding platform for continental Europe from the beginning given the small number of cities we ended up invested in.

In general, we avoid using intermediate jurisdictions between the investment and the fund. Holding the continental European investments through companies in Norway allows us to bring the governance and decision-making closer to home. The benefits of a simpler structure led us to establish a holding platform in Norway in 2017 rather than using an intermediate jurisdiction when we made our first investments in Tokyo.

Managing these legal structures is important to protect the fund against claims, limit costs and ensure efficient cash management. We also need to monitor and manage risks to our investments linked to changes in the market and the asset management process.

6/8 boulevard Haussmann, Paris. In 2017, we acquired 100 percent of this property in central Paris.

The risk
An important distinction between unlisted and listed investments is the cost and effort needed to access information necessary for financial analysis and risk measurement. Whereas information about publicly listed companies is largely standardised, easily accessible and widely scrutinised, data on specific unlisted investments as well as the broader market are often incomparable and less available. This creates challenges for monitoring portfolio risk and measuring performance.

Since the real estate mandate was given in 2010, the real estate organisation has met the fund's requirements for governance, risk management and reporting. We have sought to address operational challenges to ensure that the real estate investments meet the same standards as the rest of the fund.

To align real estate operations with the fund's quarterly reporting cycle, we have set up processes to ensure that accounts for subsidiaries are provided immediately following each accounting period. Updated quarterly valuations used both for portfolio analysis and for accounting purposes are performed by external valuers in accordance with national and international industry standards.

From the start, we placed reporting requirements on our joint venture partners to ensure correct and complete financial reporting, and to meet all external reporting obligations. Our joint venture partners provide monthly updates on the implementation of annual business plans, major leasing events, and broader developments in the market that may affect real estate. While regular reporting from joint venture partners has provided valuable information on our investments, we could have structured it more efficiently from the start. Standardisation, combined with certain enrichments of the data, would have facilitated better data integration and sharing across the organisation at an earlier stage.

In 2016, we implemented an accounting and asset management solution for our wholly-owned investments. Previously, a third party provided us with accounting services, invoice management and support to undertake cash transfers. We have since insourced administrative functions, resulting in significant cost savings and improved operational control.

We moved to a cloud-based IT platform and associated data collection systems tailored to unlisted real estate investments. We also created interfaces with our joint venture partners to facilitate direct communication between their data systems and ours. This enabled better risk management and improved performance measurement.

We have defined risk thresholds for different metrics that help identify financial risks in our portfolio that may diminish long-term returns if left unaddressed. For example, long periods of high vacancy in a city may lead us to adjust our leasing strategy and reassess our expectations. If the credit rating of a large tenant is downgraded, we might need to limit new leases with that tenant. Identification of excessive risk levels typically triggers additional research to determine whether the trends are structural or temporary, and whether our exposure exceeds that of the market or not.

We have established practices for detecting and reducing the likelihood of unwanted operational events. In the unlisted real estate portfolio, these events may arise from a breakdown of internal processes, human error, system failure or other events caused by third parties or other external factors. Their impact may be financial, if they incur costs, or reputational.

All employees, as well as asset managers, contribute to operational risk management through the ongoing and periodic identification and reporting of risks and incidents. Learning from incidents and linking them to appropriate risks ensures that we maintain a broad and specific understanding of our risk exposure. This enables us to manage our operations more closely in line with applicable requirements and expectations. In particular, we rely on cash moving swiftly and in a controlled manner through the ownership structure. We seek to use our position as owner to implement cost-effective risk mitigation actions where necessary.

Income and expenses

The unlisted real estate portfolio has a diversified tenant base of more than 2,600 tenants in different industries in Europe, the US and Asia. Collectively, they generate a stable rental income for the fund. Cash flow from ongoing operations is either reinvested in underlying properties or distributed to the fund in the form of dividends, interest on intercompany loans or repayments of intercompany loans and equity. The subsidiaries are mostly financed with equity and intercompany loans.

We strive to keep costs as low as possible while simultaneously maximising the return to the fund. We monitor and control costs at all levels. Over the past couple of years, management costs have decreased steadily as a share of the average net asset value of unlisted real estate. In 2012, management costs amounted to 130 basis points of the value of the portfolio. By 2019, they had fallen to 24 basis points.

We initially preferred asset management agreements with a component of fees tied to annual performance. Over time, we increasingly moved to fees as a share of value. We expect this to reduce the volatility of fee payments and help us keep costs stable going forward. In the period 2014-2016, external asset management fees totalled 1,325 million kroner, or 35 basis points of the portfolio; in 2017-2019, they amounted to 1,991 million kroner, or 30 basis points of the portfolio.

Some of the rental income is reinvested in our properties, reducing the cash returned to the fund, to maximise longer-term return. To retain and increase their value, properties need to be regularly modernised, upgraded and repositioned in response to changes in tenant markets and trends in design, technology and regulations. Capital investments in properties reduce short-term cash flow but help us increase rental income and lower the risk of obsolescence over time.

Chart 35 Cash flow from ongoing operations in underlying real estate companies. Billion kroner.

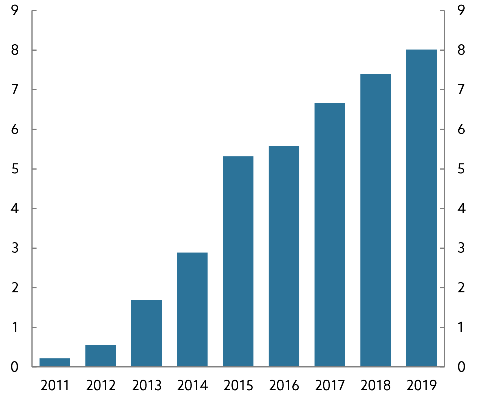


Chart 36 Net income. Billion kroner.

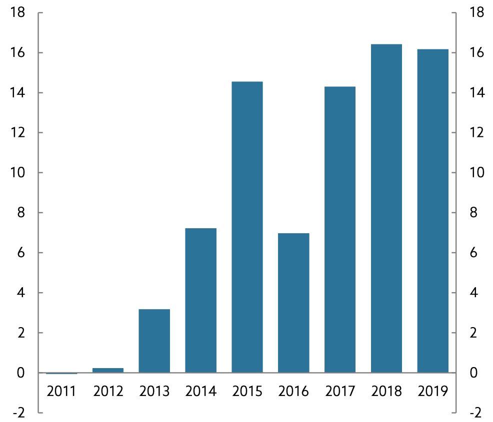


Table 8 Net income from ongoing operations. Million kroner.

Portfolio	2017-2019	2014-2016	2012-2013	2012-2019
Net rental income	28,369	18,313	2,932	49,615
External asset management fees	-1,991	-1,325	-114	-3,430
Internal asset management fees	-133	0	0	-133
Management costs	-1,879	-1,554	-354	-3,787
Interest expense, external debt	-1,657	-1,642	-283	-3,581
Tax expense payable	-686	-333	-70	-1,089
Net income from ongoing operations	**22,023**	**13,461**	**2,111**	**37,595**

Table 9 Net income. Million kroner.

Portfolio	2017-2019	2014-2016	2012-2013	2012-2019
Net income from ongoing operations	22,023	13,461	2,111	37,595
Realised gain/loss	2,525	429	0	2,954
Unrealised gain/loss	21,869	15,076	1,561	38,506
Transaction costs	-927	-1,317	-327	-2,571
Net income	**45,490**	**27,649**	**3,345**	**76,483**

Table 10 Annual costs. Share of net asset value. Percent.

Portfolio	2017-2019	2014-2016	2012-2013	2012-2019
External asset management fees	-0.30	-0.35	-0.21	-0.30
Internal asset management fees	-0.02	0.00	0.00	-0.01
Management costs	-0.28	-0.48	-0.91	-0.51
Transaction costs	-0.14	-0.45	-0.78	-0.42

The properties

We actively manage our properties to ensure they remain attractive and stay resilient against emerging risks. Commercial tenants in the office, logistics and retail sectors pay to occupy space as a factor in their production of goods and services, the storage of goods, or to realise sales. Space available for leasing must meet the requirements of a large pool of potential tenants in order to achieve sustained growth in rental income.

Properties need to comply with a wide variety of regulatory requirements, including health, fire safety, disability access, environmental matters or employment rights. Breaches of regulatory standards may expose the fund to fines and penalties and legal liabilities and render our assets unavailable to our tenants. Compliance matters are routinely reviewed prior to acquiring a building and closely monitored during its operation through various reporting and disclosure requirements.

We protect our properties against natural disasters and other extreme events. At properties in flood zones, we have purchased temporary flood barriers that can be erected ahead of major storms, removed building equipment from flood-exposed floors and developed contingency plans to minimise business disruption. We have also expanded our insurance coverage where relevant.

The value of a property to prospective tenants depends on its location, functionality and physical quality. There are certain minimum requirements necessary to attract tenants. Properties need to provide basic heating, cooling, electricity and sanitation services, and have sufficient elevators. The efficient provision of these services requires regular capital expenditure and is ensured by a facility management team typically located on site that oversees building operations, including mechanical and electrical equipment that needs to be routinely maintained and occasionally replaced.

Chart 37 Global Real Estate Sustainability Benchmark (GRESB) score.

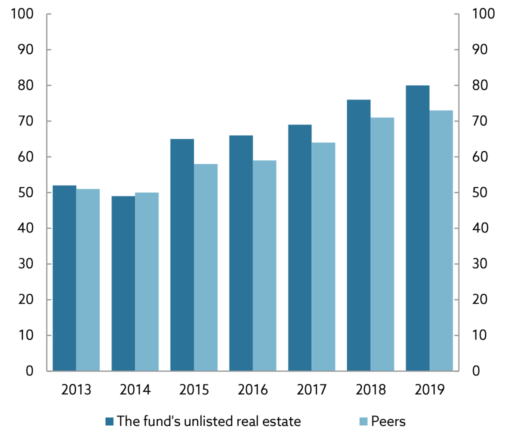
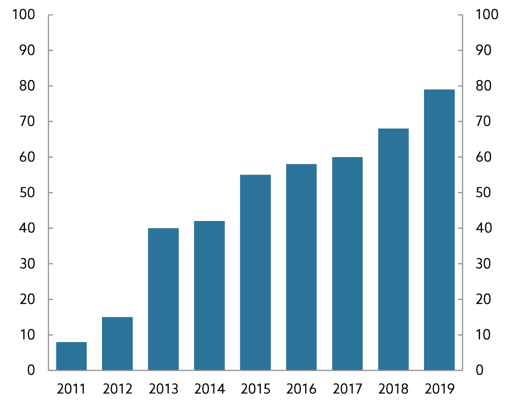


Chart 38 Green building certification rate. Share of office and retail properties above 2,000 square metres with green building certification. Percent.



280-294 Congress Street, Boston. In 2014, we acquired 45 percent of 280-294 Congress Street in Boston together with our partner Boston Properties. Known as Atlantic Wharf, the 112,000 square metre office tower on the Boston waterfront was constructed in 2011 and was awarded LEED Platinum certification for its sustainable building design and features. It was designed to use 33 percent less energy, and 69 percent less domestic water, than comparable office towers in Boston.

We may choose to invest in additional property features that may increase the pool of potential tenants and drive rental growth. At selected office properties, we have redesigned the lobby, improved vehicular access, and added facilities such as bike racks, fitness rooms, showers, roof terraces and shared meeting rooms. Continuously tracking tenant needs across our markets and adapting our buildings accordingly is an important aspect of achieving rental growth in the long term.

As an example, green building features are increasingly viewed in tenant markets as a mark of high quality and, for many, a requirement for tenancy. Investing in environmental efficiency is fully aligned with the fund's investment goals since it reduces operating costs and thereby contributes to higher net operating income. We have published a guidance note which identifies a set of principles for managing real estate investments in a manner that is both environmentally sustainable and commercially viable.

Our target cities are at the forefront of reducing carbon emissions from the building stock by setting environmental requirements. In recent years, we have seen more rules and regulations requiring the measurement, disclosure and reduction of energy use in buildings. Our strategy to manage our properties in an environmentally friendly manner beyond what is currently required by law is also an insurance against future regulatory requirements.

We annually benchmark our investments against peers in areas such as energy and water use, waste management and carbon emissions. We started measuring our unlisted real estate portfolio against the Global Real Estate Sustainability Benchmark in 2013. Our portfolio has outperformed a representative peer group in all but one year.

We also aim to obtain a green building certification for all our office and retail properties in the long term. This entails benchmarking green building design, operations and performance against a high industry standard. We often obtain certifications in conjunction with major refurbishments, and once a building is certified, we include information on the certification in leasing materials in order to attract a larger tenant pool and negotiate a higher rent.

All environmental matters related to our unlisted real estate portfolio were initially led by a separate internal sustainability team, but we realised that it was more impactful to move this responsibility closer to the investments. Portfolio managers are now accountable for all environmental aspects of the investments they manage. We expect our asset managers to integrate sustainability actions into annual business plans and major refurbishment projects. The integration of environmental considerations into asset planning has helped us make capital investments that are commercially prudent while improving environmental efficiency and saving operational costs.

In our ten years of investing in real estate, we have first and foremost added performance to the fund and improved the relationship between risk and reward. The fund now has a capable and performing team dedicated to acquiring and managing a sizeable real estate portfolio.

4 | The investments

Overview

We invest in cities and sectors that will continue to play a key role in the global economy, and where we believe the demand for space will grow further.

We have chosen a concentrated strategy for our office and retail investments centred on eight global gateway cities. The cities are in five countries across three continents. All cities have growing and dynamic economies driven by a continuous influx of highly skilled labour and capital. They all offer residents and businesses efficient public transportation systems, vibrant cultural institutions, green infrastructure, and regulatory environments conducive to private enterprise. All have vibrant high-street retail locations that are desirable shopping destinations for foreign tourists and local residents alike.

Despite similarities among the selected cities, they also provide diversification opportunities for the fund's unlisted real estate investments. Across and within cities, we find differences in the vintage, size and density of real estate, the tenant mix, and local planning regulations affecting supply. Real estate trends in New York and London are strongly influenced by large financial services firms and associated industries, whereas the technology sector is driving business innovation and growth in San Francisco and Boston. Some of the selected cities, specifically London, Paris, Berlin, Washington, D.C. and Tokyo, are national capitals where government tenants and associated industries play an important role in the local tenant market alongside head offices in more traditional industries, including services.

Going forward, we will continue to target high-quality office and retail assets in the eight cities described in this chapter.

Our global logistics strategy provides the fund with exposure to structural demand drivers such as supply-chain reconfiguration and e-commerce. While more geographically diverse than our office and retail portfolio, the logistics portfolio is concentrated in strategic locations in or near major metropolitan areas and driven by corporate tenants seeking warehouse space in order to grow their online businesses. At the end of 2019, we had logistics exposure in eleven European countries, and fifteen US states, as described at the end of this chapter.

Table 11 Key figures for strategic cities. Percent.

City	GDP growth 2010-2019	Office employment growth 2010-2019	10-year government bond yield 2010	10-year government bond yield 2019	Prime office yield 2010	Prime office yield 2019
London	34.1	29.3	4.1	0.8	5.0	3.5
Paris	19.4	9.9	3.6	-0.1	5.5	2.8
Berlin	31.2	24.6	3.3	-0.4	5.5	2.7
New York	17.7	20.2	3.9	2.0	7.1	3.8
Washington, D.C.	17.8	12.1	3.9	2.0	7.1	4.3
Boston	30.1	16.4	3.9	2.0	7.9	4.3
San Francisco	48.8	62.6	3.9	2.0	7.9	4.3
Tokyo	14.8	17.5	1.3	-0.1	3.5	2.2

Table 12 Our portfolio at year-end 2019.

City	First investment	Number of properties	Number of wholly-owned properties	Number of partners	Total square metres	Total value billion kroner
London	2011	153	5	3	548,094	46
Paris	2011	18	5	2	275,946	45
Berlin[1]	2012	2	1	1	125,550	8
New York	2013	17		4	944,223	41
Washington, D.C.	2013	10		3	334,232	12
Boston	2013	7		4	556,932	22
San Francisco	2014	5		3	292,486	13
Tokyo[1]	2017	6		2	100,728	11
European logistics	2012	221		1	4,778,059	23
US logistics[1]	2013	427		1	6,186,981	44
Other	2012	4	3	1	311,224	17
Portfolio	**2011**	**870**	**14**	**16**	**14,454,455**	**282**

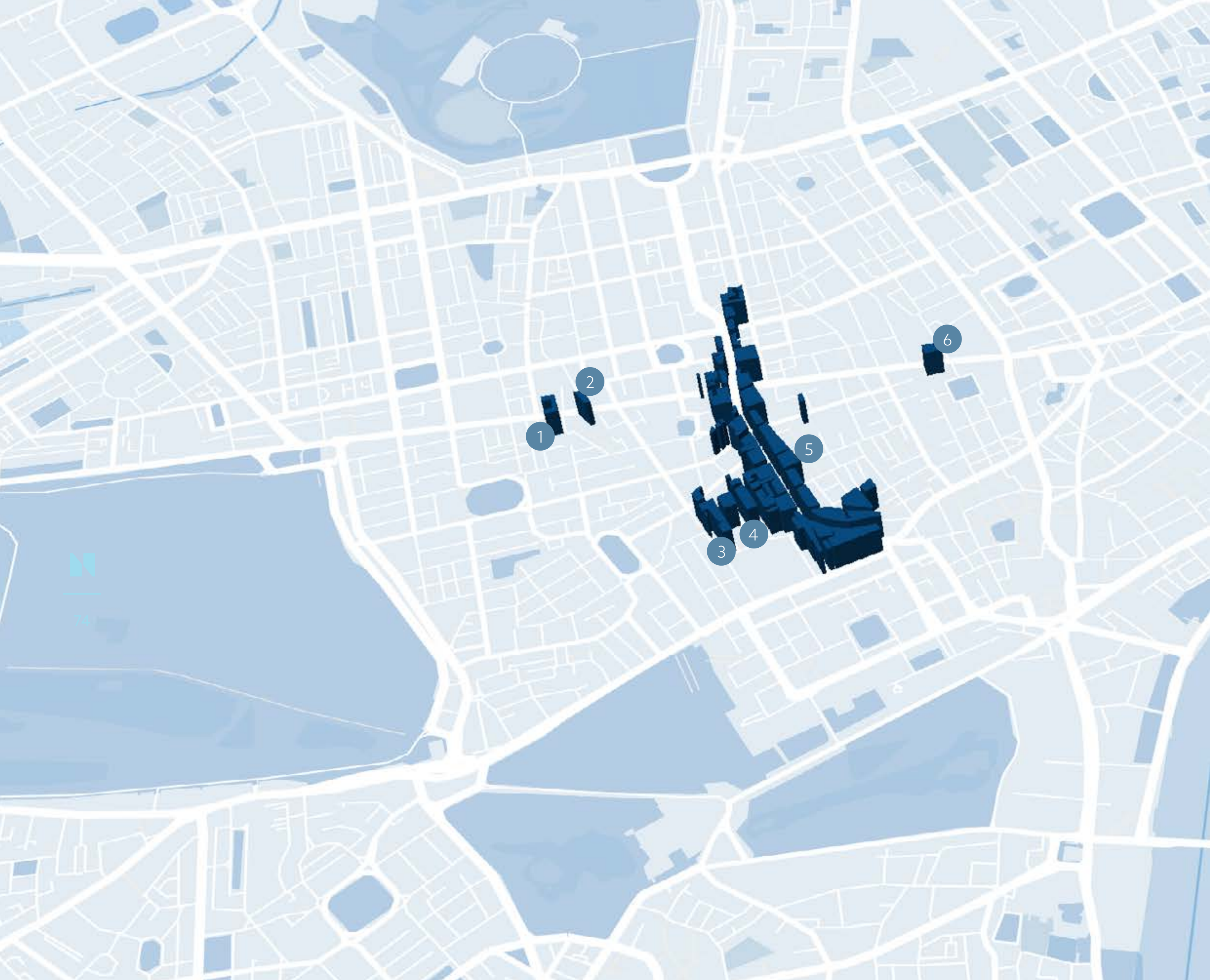
[1] Includes transactions completed in 2020.

Where we invest

San Francisco	Washington, D.C.	New York	Boston	US logistics
13 billion kroner	12 billion kroner	41 billion kroner	22 billion kroner	44 billion kroner
5 properties of which 0 wholly-owned	10 properties of which 0 wholly-owned	17 properties of which 0 wholly-owned	7 properties of which 0 wholly-owned	427 properties of which 0 wholly-owned
3 partners	3 partners	4 partners	4 partners	1 partner
2014 first investment	2013 first investment	2013 first investment	2013 first investment	2013 first investment

London	Paris	Berlin	Tokyo	European logistics
46 billion kroner	45 billion kroner	8 billion kroner	11 billion kroner	23 billion kroner
153 properties of which 5 wholly-owned	18 propertis of which 5 wholly-owned	2 properties of which 1 wholly-owned	6 properties of which 0 wholly-owned	221 properties of which 0 wholly-owned
3 partners	2 partners	1 partner	2 partners	1 partner
2011 first investment	2011 first investment	2012 first investment	2017 first investment	2012 first investment

London



75
Davies Street

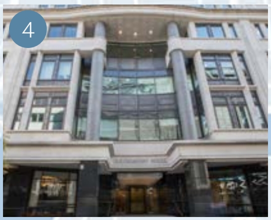
Acquired 2015
Ownership 75%
Partner: British Land

355-361
Oxford Street

Acquired 2016
Ownership 100%

38 **assets**
in Mayfair

Acquired 2014
Ownership 57.8%
Partner: The Pollen Estate



3 **Old**
Burlington Street

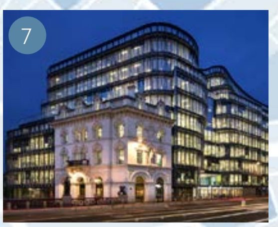
Acquired 2015
Ownership 100%

Regent Street portfolio

Acquired 2011
Ownership 26.9%
Partner: The Crown Estate

73-89
Oxford Street

Acquired 2016
Ownership 100%



60
Holborn Viaduct

Acquired 2018
Ownership 100%

2 **King Edward Street**

Acquired 2014
Ownership 100%

London

London has a large and diverse population and is a hub for European businesses. It continues to attract talent and capital and offers an attractive place to live and work. London provides large-scale investment opportunities in both the office and retail markets.

We have focused our efforts there on strategic long-term investments and the best buildings near transport infrastructure. London's West End has been a strategic focus area for our office investments. The Regent Street transaction in 2011 was the fund's first investment in unlisted markets and remains the largest in the office and retail sectors. It comprises more than 100 heritage buildings with ground-floor retail and upper-floor offices.

In 2014, we acquired a 57.8 percent interest in The Pollen Estate, a collection of 38 properties between Regent Street and Bond Street. In 2015, we purchased Queensberry House, a multi-let office property adjacent to The Pollen Estate that included the London offices of Norges Bank Investment Management. In the retail sector, we have focused our efforts on prime shopping streets such as Oxford Street, Regent Street and Bond Street.

Crossrail is a new east-to-west railway under construction that is due to begin operations in 2021. It will consist of ten new stations and 40 kilometres of new tunnels and bring 1.5 million additional people within a 45-minute commute of central London. We believe properties near Crossrail stations will be well-positioned relative

Chart 39 Income return in London. Percent.

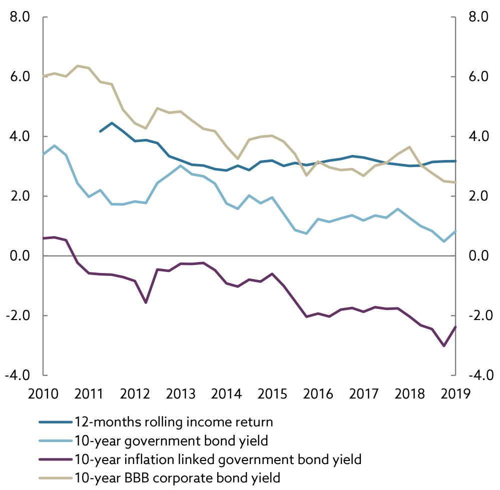
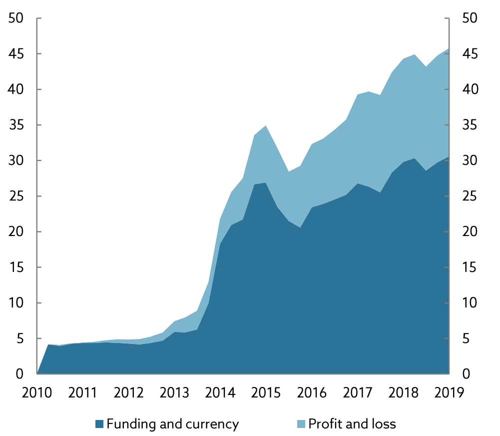


Chart 40 Net asset value in London. Billion kroner.



to the overall market to achieve long-term rental growth. In the past few years, we have acquired five properties in the West End and Midtown sub-markets that are well-situated for stations under construction near Bond Street, Tottenham Court Road and Farringdon.

We have yet to invest in the core of the City of London or in Canary Wharf, mainly due to absence of strong supply constraints. This also separates us from most institutional investors who tend to have a broader footprint within London.

Since 2010, the London economy has seen strong growth overall, with GDP expanding by 34 percent and office employment by 29 percent on a cumulative basis. Long-term interest rates have fallen from 4.1 percent to 0.8 percent over the decade, underpinning lower office yields. Office employment expansion slowed following the Brexit referendum to below 2.5 percent from 3.7 percent per annum in the five years previously as uncertainty weighed on economic activity. Office vacancy in the London region has fallen from 10.3 percent in early 2010 to stand at 7.6 percent today, while vacancy in London's West End during the same period has declined from 6.0 percent to 2.8 percent.

At the end of 2019, we had 153 properties in London, including our Regent Street and Pollen Estate portfolios. Our investments in the city made up 16.8 percent of the total unlisted real estate portfolio.

Table 13 Our London portfolio at year-end 2019.

Address	Partner	Acquired	Purchase price, million pounds	Value, million kroner	Square meters	Ownership, percent
Regent Street portfolio	The Crown Estate	Apr 2011	452	19,914	362,390	26.9
38 assets in Mayfair	The Pollen Estate	Aug 2014	343	5,511	68,913	57.8
2 King Edward Street		Oct 2014	583	7,276	54,620	100.0
3 Old Burlington Street		Jan 2015	191	2,695	17,870	100.0
75 Davies Street	British Land	Sep 2015	186	1,938	8,501	75.0
355-361 Oxford Street		Jul 2016	124	1,547	5,463	100.0
73-89 Oxford Street		Nov 2016	277	3,230	8,372	100.0
60 Holborn Viaduct		Sep 2018	321	3,661	21,964	100.0
Total				**45,773**	**548,094**	

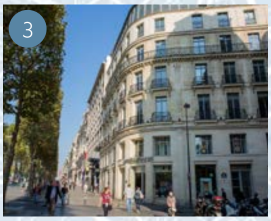
Paris

77 **esplanade du Général de Gaulle**

Acquired 2011
Ownership 50 %
Partner: AXA

28-32 **avenue Victor Hugo**

Acquired 2011
Ownership 50%
Partner: AXA



100 **avenue des Champs-Élysées**

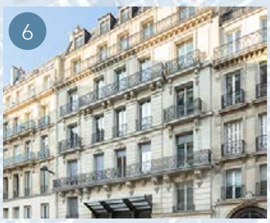
Acquired 2012
Ownership 50%
Partner: Generali

79 **avenue des Champs-Élysées**

Acquired 2019
Ownership 100%

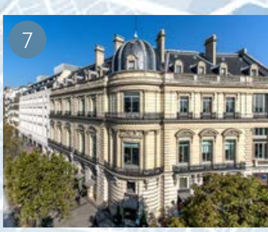
9 **avenue de Messine**

Acquired 2012
Ownership 50%
Partner: Generali



54-56 **rue la Boétie**

Acquired 2018
Ownership 100%



12-14 **rond-point des Champs-Élysées**

Acquired 2011
Ownership 50%
Partner: AXA

16 **avenue Matignon**

Acquired 2011
Ownership 50%
Partner: AXA

Paris — Le
Bourget Airport

11-15
rue Pasquier

Acquired 2012
Ownership 50%
Partner: Generali

3-5 **boulevard Malesherbes**

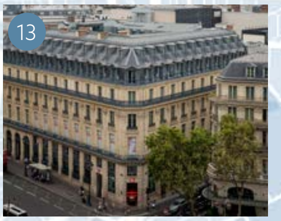
Acquired 2012
Ownership 50%
Partner: Generali

23 **boulevard de la Madeleine**

Acquired 2014
Ownership 100%

9 **place Vendôme** and
368-374 **rue Saint-Honoré**

Acquired 2016
Ownership 100%



15-17
rue Scribe

Acquired 2012
Ownership 50%
Partner: Generali

1-3 / 2
rue des Italiens

Acquired 2011
Ownership: 50%
Partner: AXA

24-26
rue Le Peletier

Acquired 2011
Ownership 50%
Partner: AXA

6/8 **boulevard Haussmann**

Acquired 2017
Ownership 100%

99
avenue de France

Acquired 2011
Ownership: 50%
Partner: AXA

183-185
avenue Daumesnil

Acquired 2012
Ownership 50%
Partner: Generali

Paris

Paris is the largest city on the European continent. The city accounts for a quarter of national GDP and is a cultural and commercial hub which attracts young graduates and seasoned businesspeople alike. With a well-diversified and stable economy, strong population growth, high levels of education and many corporate headquarters, Paris has always been of strategic interest to the fund.

As a result of its strong architectural heritage and a strict planning regime, it is virtually impossible to demolish properties and build new ones. This constrains supply and increases the need to acquire assets that have strong fundamentals. There is almost no undeveloped land left, and there are height restrictions meaning that any growth in the city has to happen towards the fringes of the central business district or in La Défense.

We prepared our entry into the Paris market in parallel with completing the Regent Street transaction in London. In 2011, we acquired a 50 percent stake in ten properties through a joint venture with AXA. Shortly thereafter, we added six additional properties in a partnership with Generali.

Since 2014, we have also built a large portfolio of wholly-owned properties managed by an internal asset management team based in our offices in Paris. Today, our office portfolio is mostly located in the central business district following recent disposals of three properties in more peripheral areas initially acquired through a joint venture.

The retail strategy in Paris is focused on well-established high-street retail destinations with high footfall and an affluent clientele. As with most other city centres, retail assets come with offices on the upper floors. In 2014, we acquired 23 boulevard de la Madeleine, a building with ground-floor retail and upper-floor offices in the centre of Paris. Two years later, we bought another large office-retail property on place Vendôme – rue Saint Honoré in the luxury retail district of Paris, followed by 79 avenue des

Chart 41 Income return in Paris. Percent.

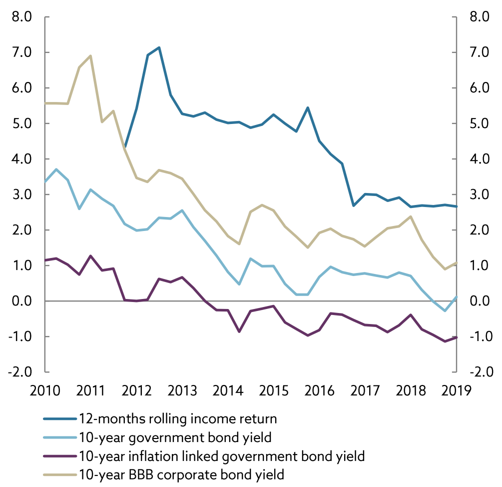
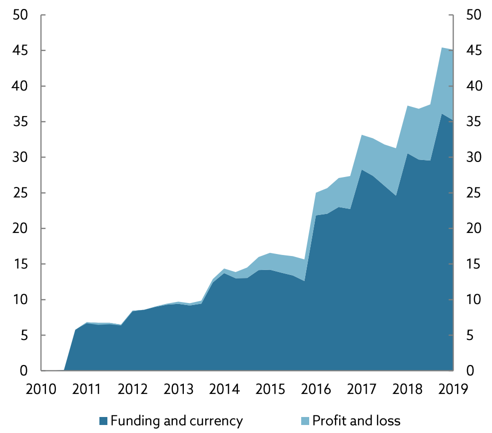


Chart 42 Net asset value in Paris. Billion kroner.



Champs-Élysées in 2019, both on a 100 percent basis. We believe investments in properties in prime retail locations such as the Champs-Élysées, rue Saint-Honoré and place Vendôme will continue to benefit the fund.

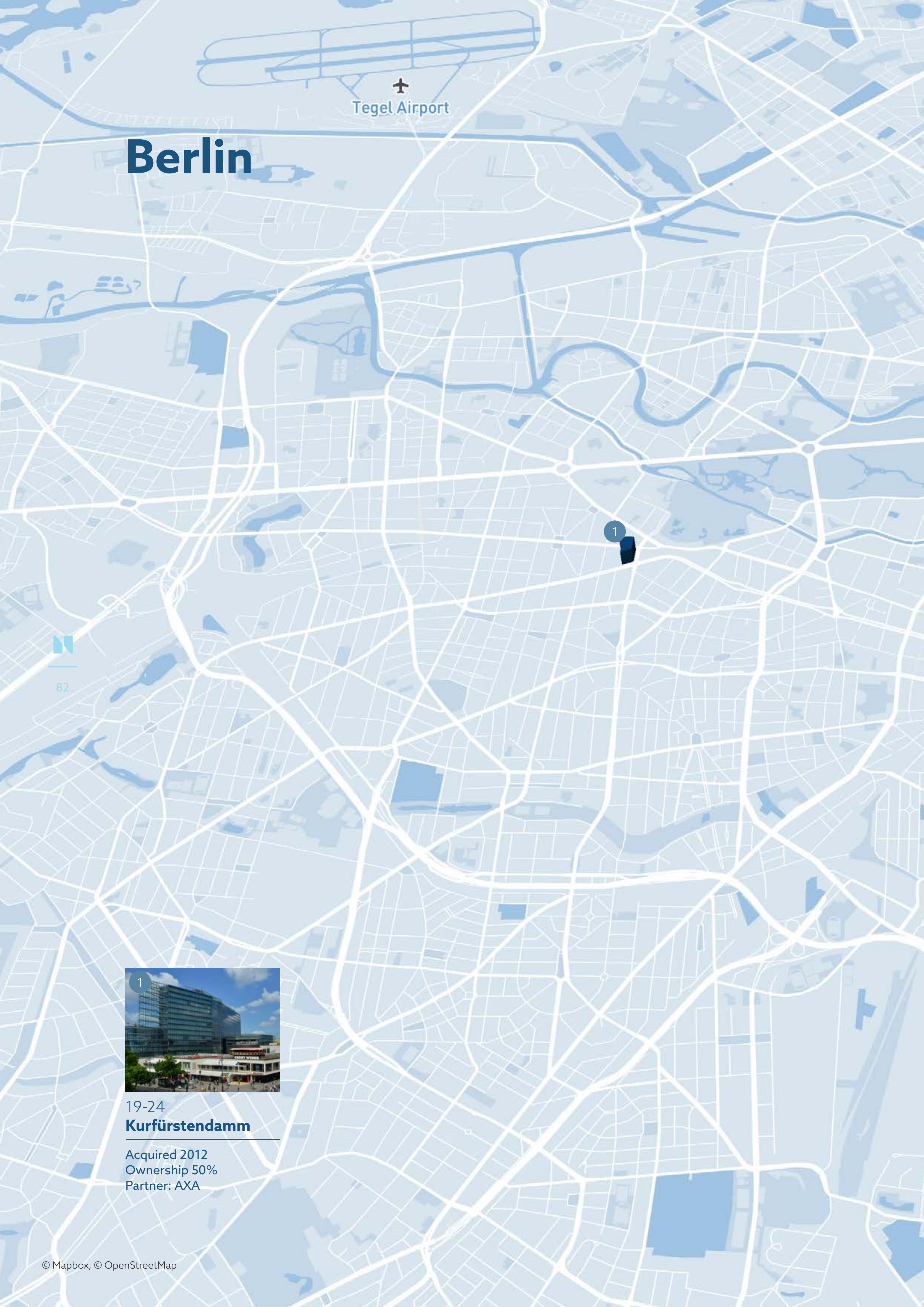
The Paris economy has seen moderate growth since 2010 overall, with GDP expanding by 19 percent and office employment by 10 percent on a cumulative basis. Long-term interest rates have fallen from 3.6 percent to -0.1 percent over the decade. Office employment expansion accelerated in the second half of the decade having been more muted during the first half. Office vacancy has fallen from 7.8 percent in early 2010 to stand at 6.0 percent today in the Paris region, while vacancy in the central business district during the same period has declined from 6.3 percent to 1.7 percent.

At the end of 2019, we had 18 properties in Paris. Our investments in the city made up 17 percent of the total unlisted real estate portfolio.

Table 14 Our Paris portfolio at year-end 2019.

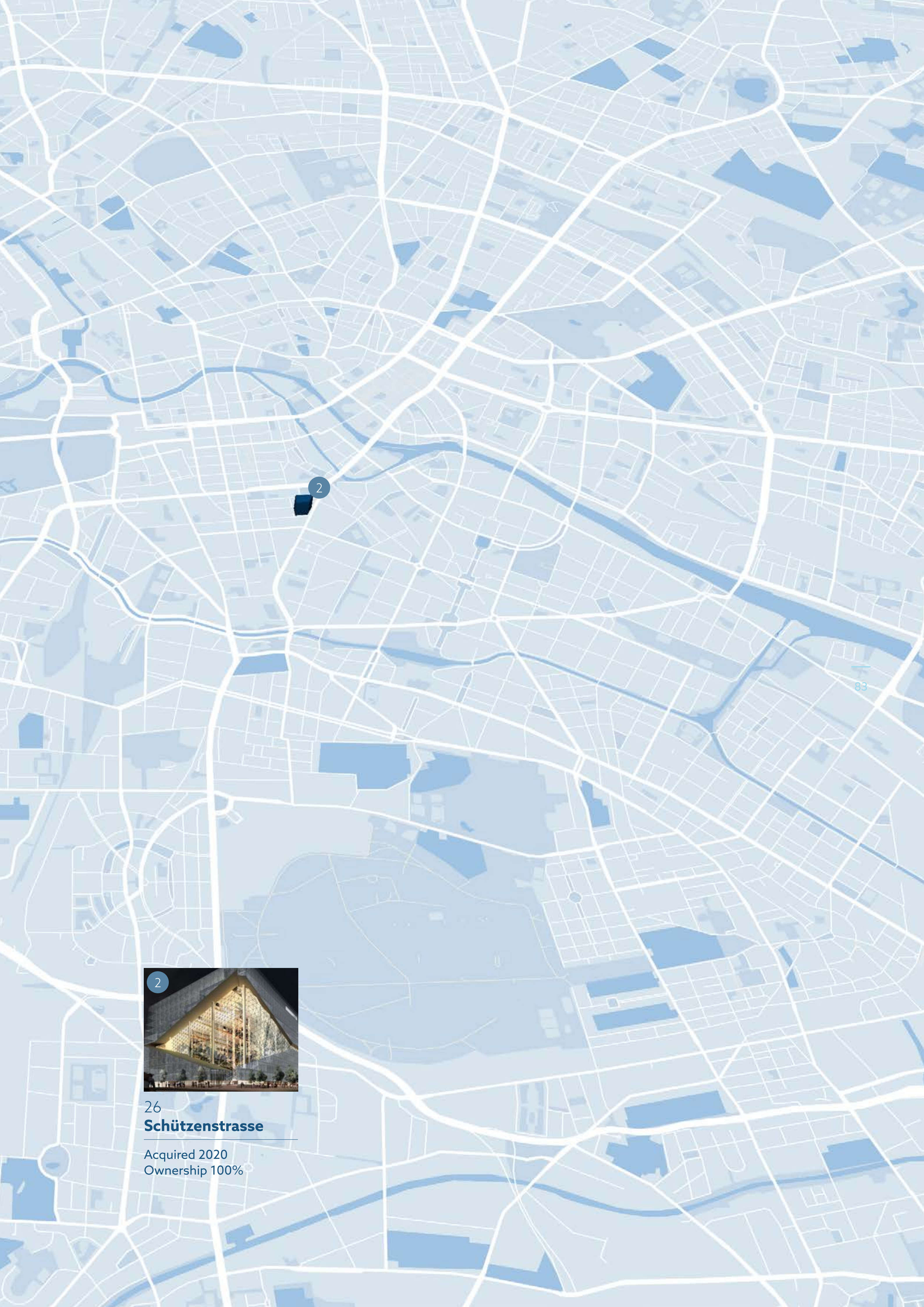
Address	Partner	Acquired	Purchase price, million euros	Value, million kroner	Square metres	Ownership, percent
1-3/2 rue des Italiens	AXA	Jul 2011	114	1,892	27,536	50.0
12-14 rond-point des Champs-Élysées	AXA	Jul 2011	123	2,437	16,404	50.0
16 avenue Matignon	AXA	Jul 2011	58	1,434	13,286	50.0
24-26 rue Le Peletier	AXA	Jul 2011	47	698	9,513	50.0
77 esplanade du Général de Gaulle	AXA	Jul 2011	142	1,470	37,187	50.0
99 avenue de France	AXA	Dec 2011	53	642	14,198	50.0
28-32 avenue Victor Hugo	AXA	Dec 2011	64	1,023	10,075	50.0
100 avenue des Champs-Élysées	Generali	Jul 2012	74	944	2,951	50.0
15-17 rue Scribe	Generali	Jul 2012	59	858	7,461	50.0
183-185 avenue Daumesnil	Generali	Jul 2012	47	562	14,550	50.0
3-5 boulevard Malesherbes	Generali	Jul 2012	70	833	8,090	50.0
11-15 rue Pasquier	Generali	Jul 2012	26	414	5,053	50.0
9 avenue de Messine	Generali	Dec 2012	40	656	6,359	50.0
23 boulevard de la Madeleine		Jul 2014	426	5,422	31,529	100.0
9 place Vendôme and 368-374 rue Saint-Honoré		Dec 2016	1,000	11,029	24,358	100.0
6/8 boulevard Haussmann		Oct 2017	462	4,791	25,996	100.0
54-56 rue la Boétie		Dec 2018	416	4,158	20,820	100.0
79 avenue des Champs-Élysées		Oct 2019	613	6,057	10,438	100.0
Total				**45,322**	**285,803**	

Berlin



19-24
Kurfürstendamm

Acquired 2012
Ownership 50%
Partner: AXA



26
Schützenstrasse

Acquired 2020
Ownership 100%

Berlin

Berlin is the capital of the largest economy in Europe and Germany's largest city by population. The city has a diversified sector mix with a large share of public services and has evolved into a centre for innovation with the country's highest concentration of researchers and academics. Corporate Germany is placing increasing importance on presence in the city to attract talent.

The German real estate market is polycentric with multiple cities having significant scale. Since German reunification, Berlin's economy has grown significantly and undergone fundamental structural changes. Its GDP per employed person has risen but remains below the national average and well below other major German cities, suggesting potential for further long-term growth.

Berlin is not very dense and restrictions on new construction are not particularly strong. However, access to land and the planning and permitting process have prevented short-term supply from outweighing the demand driven by the inflow of talent and capital from both traditional and emerging industries. For instance, Berlin has become one of Europe's leading locations for technology start-ups.

Our strategy for Berlin mainly targets office and retail properties in City West and Mitte. City West is the former centre of West Berlin and includes the Kurfürstendamm, the historic retail street. It is experiencing a revitalisation amidst

Chart 43 Income return in Berlin. Percent.

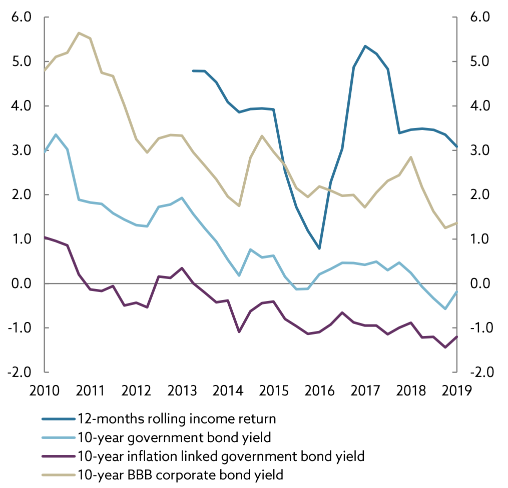
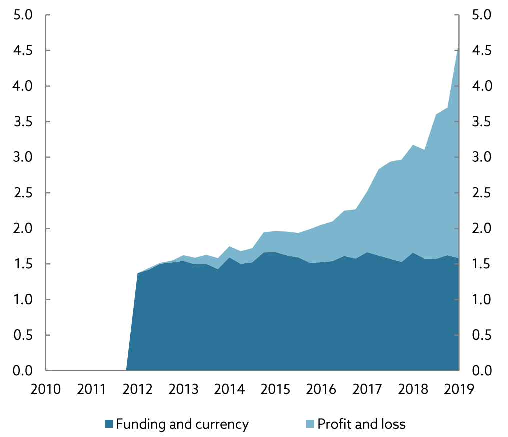


Chart 44 Net asset value in Berlin. Billion kroner.



significant construction activity. Mitte is the commercial and cultural centre of the city and home to the Bundestag. It is a well-established office location with strong public transport connectivity and a mix of tenants dominated by technology, media and telecommunications.

We acquired a combined office-retail complex on the Kurfürstendamm in 2012 as part of a joint venture with AXA. In 2017, we announced the purchase of a 100 percent interest in 26 Schützenstrasse in Mitte which was completed and began operating in 2020.

The Berlin economy has witnessed strong growth since 2010, with GDP expanding by 31 percent and office employment by 25 percent on a cumulative basis. Long-term interest rates have fallen from 3.3 percent to -0.4 percent over the decade. Office employment growth has led to a sharp decline in unemployment in the city. The vacancy rate for Berlin office properties has fallen from 8.8 percent to 1.9 percent over the same period.

At the end of 2019, we owned one property in Berlin. This investment made up 1.7 percent of the total unlisted real estate portfolio. In addition, the acquisition of 26 Schützenstrasse was completed in 2020.

Table 15. Our Berlin portfolio at year-end 2019.

Address	Partner	Acquired	Purchase price, million euros	Value, million kroner	Square metres	Ownership, percent
19-24 Kurfürstendamm	AXA	Oct 2012	185	3,874	72,974	50.0
26 Schützenstrasse[1]		Mar 2020	425	4,000	52,576	100.0
Total				**7,874**	**125,550**	

[1] Completed in 2020

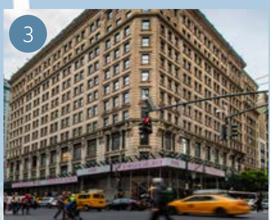
New York

11
Times Square

Acquired 2015
Ownership 45%
Partner: PGIM Real Estate

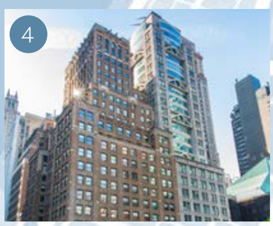
7
Times Square

Acquired 2013
Ownership 45%
Partner: Boston Properties



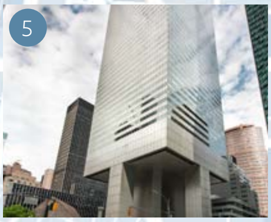
2
Herald Square

Acquired 2014
Ownership 49.9%
Partner: TIAA



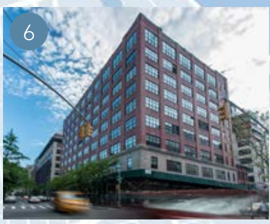
475
Fifth Avenue

Acquired 2013
Ownership 49.9%
Partner: TIAA



601 **Lexington Avenue**

Acquired 2014
Ownership 45%
Partner: Boston Properties

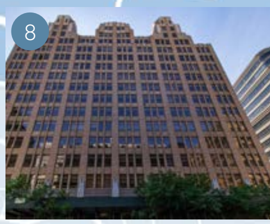


435
Hudson Street

Acquired 2015
Ownership 48%
Partner: Trinity Church

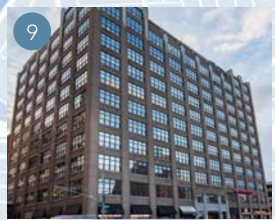
375
Hudson Street

Acquired 2017
Ownership 48%
Partner: Trinity Church



345
Hudson Street

Acquired 2015
Ownership 48%
Partner: Trinity Church

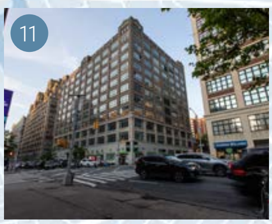


225
Varick Street

Acquired 2015
Ownership 48%
Partner: Trinity Church

350
Hudson Street

Acquired 2015
Ownership 48%
Partner: Trinity Church

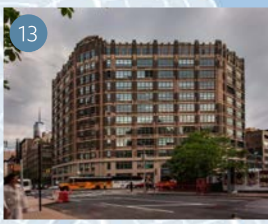


160
Varick Street

Acquired 2015
Ownership 48%
Partner: Trinity Church

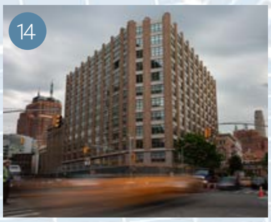
155 **Avenue of the Americas**

Acquired 2015
Ownership 48%
Partner: Trinity Church



205
Hudson Street

Acquired 2015
Ownership 48%
Partner: Trinity Church



200
Hudson Street

Acquired 2015
Ownership 48%
Partner: Trinity Church

12-16
Vestry Street

Acquired 2015
Ownership 48%
Partner: Trinity Church

75
Varick Street

Acquired 2015
Ownership 48%
Partner: Trinity Church

100 **Avenue of the Americas**

Acquired 2015
Ownership 48%
Partner: Trinity Church

New York

New York is a global financial centre. The island of Manhattan has a large central business district and has regularly one of the highest real estate transaction volumes in the world. It has long been a centre of finance and professional services such as law, accounting and business consulting. Over time, other industries such as technology, advertising, media and entertainment have become more important to the city and have diversified its tenant base.

Longer-term rental growth is supported by the topographical characteristics of Manhattan. The Hudson River on one side and the East River on the other severely limit additional supply of real estate. Geological limitations such as the depth of bedrock, zoning laws and height restrictions on buildings also restrict new construction.

Our portfolio includes properties in Midtown located between Times Square and Lexington Avenue and in Midtown South in and around the Hudson Square area. Midtown is a well-established corporate location, while Hudson Square is a historic neighbourhood benefiting from increased demand for its retro-fitted office properties and close proximity to high-end residential neighbourhoods.

We made our first investments in 2013 through a joint venture with TIAA comprising two office properties in Midtown, as well as properties in Boston and Washington, D.C.
In the following years, we acquired additional properties in Midtown through several joint ventures, including 601 Lexington Avenue, a 155,000 square metre office tower. In 2015, we made a landmark acquisition in the Hudson Square sub-market by acquiring a collection of office properties in a joint venture with Trinity Church. Hines joined the partnership in 2016 as an operating partner.

Chart 45 Income return in New York. Percent.

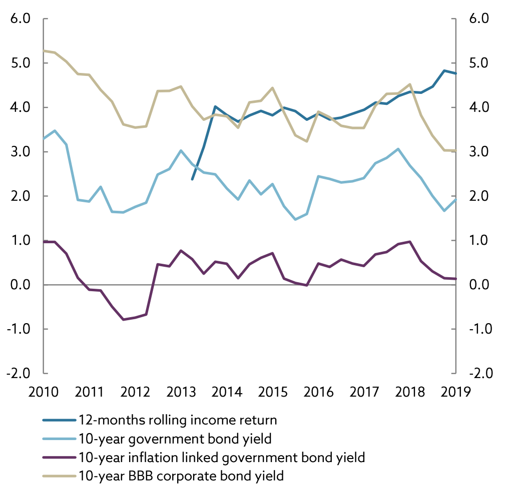
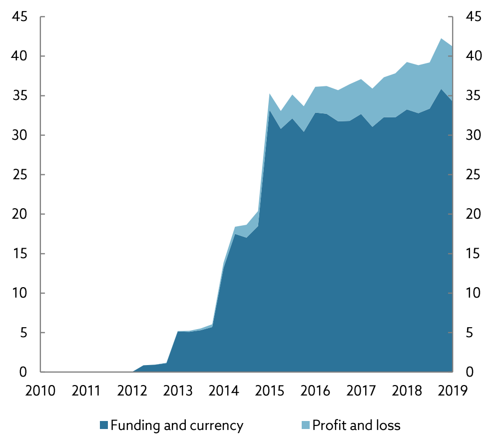


Chart 46 Net asset value in New York. Billion kroner.



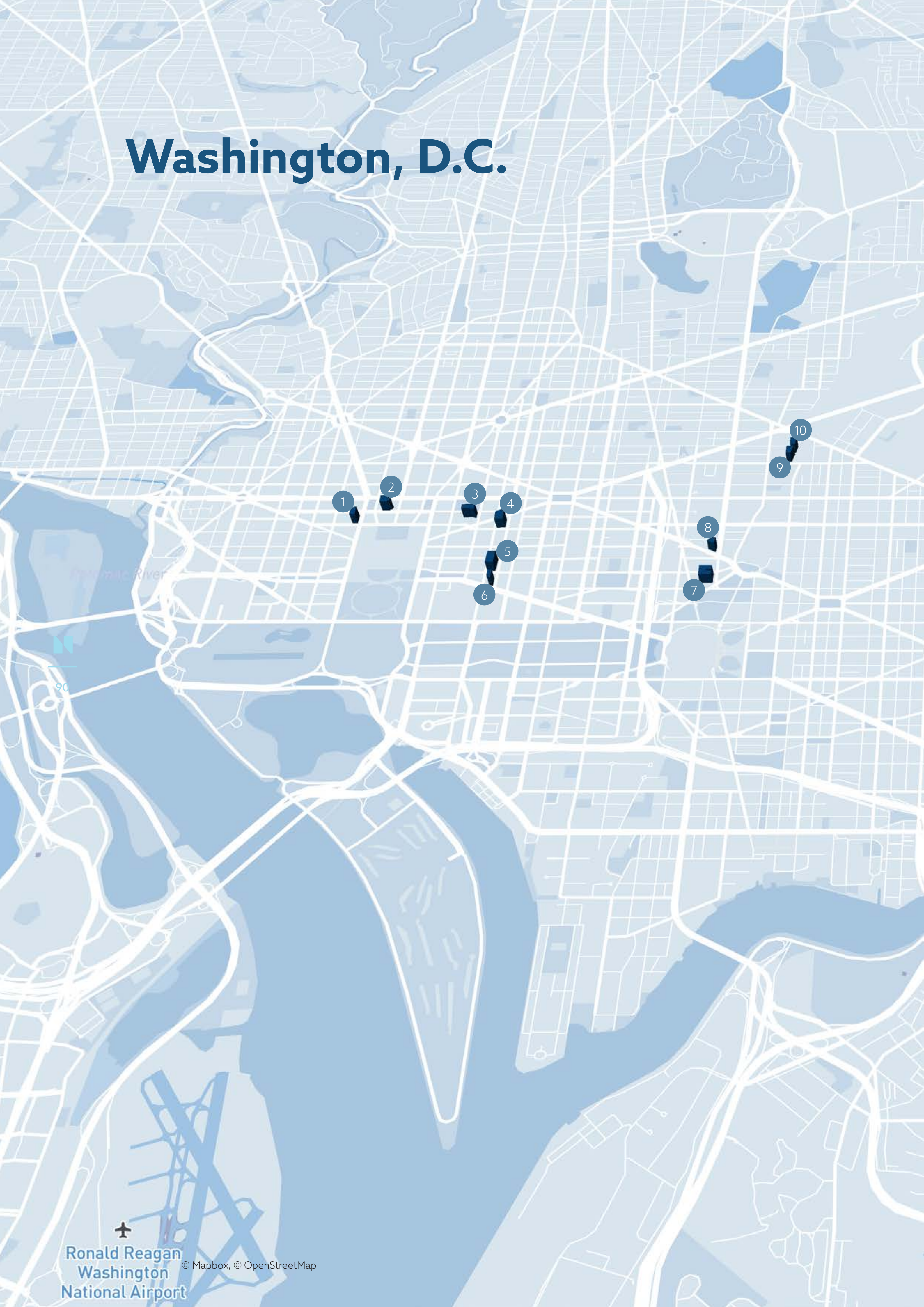
There are few stand-alone retail properties in New York. The most attractive shopping areas are on Fifth Avenue, Madison Avenue and Times Square, and consist of high-rise office buildings with ground-floor retail units that sometimes sit in ownership structures that do not include the office building above them. While we have not invested in the sector, we have monitored it all along. When we entered the New York market in 2013, the market assumed retail rents would grow aggressively, but we never found investments we liked. Over the past three years, retail rents have fallen significantly and vacancy rates have grown.

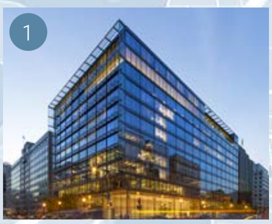
The New York economy has seen strong growth since 2010, with GDP expanding by 18 percent and office employment by 20 percent on a cumulative basis. Long-term interest rates have fallen from 3.9 percent to 2.0 percent over the decade, stimulating lower office yields for prime office properties in the city. The office vacancy rate in New York has fallen from 13.3 percent in 2010 to 9.3 percent, whereas the Midtown and Midtown South submarkets have lower vacancy rates at 7.3 percent and 5.7 percent respectively. At the end of 2019, we had 17 properties in New York. Our investments in the city made up 15.1 percent of the total unlisted real estate portfolio.

Table 16 Our New York portfolio at year-end 2019.

Address	Partner	Acquired	Purchase price, million dollars	Value, million kroner	Square metres	Ownership, percent
475 Fifth Avenue	TIAA	Feb 2013	75	1,338	25,646	49.9
7 Times Square	Boston Properties	Oct 2013	684	6,129	116,406	45.0
601 Lexington Avenue	Boston Properties	Oct 2014	1,035	6,975	155,253	45.0
2 Herald Square	TIAA	Nov 2014	182	1,679	40,042	49.9
11 Times Square	PGIM Real Estate	Feb 2015	630	3,731	103,593	45.0
75 Varick Street	Trinity Church	Dec 2015	400	4,155	104,387	48.0
345 Hudson Street	Trinity Church	Dec 2015	362	3,880	86,184	48.0
200 Hudson Street	Trinity Church	Dec 2015	141	1,350	34,639	48.0
225 Varick Street	Trinity Church	Dec 2015	136	1,476	34,396	48.0
435 Hudson Street	Trinity Church	Dec 2015	119	1,223	26,031	48.0
100 Avenue of the Americas	Trinity Church	Dec 2015	119	1,455	34,885	48.0
350 Hudson Street	Trinity Church	Dec 2015	115	1,097	30,147	48.0
205 Hudson Street	Trinity Church	Dec 2015	115	1,286	34,818	48.0
10 Hudson Square	Trinity Church	Dec 2015	111	1,181	30,366	48.0
155 Avenue of the Americas	Trinity Church	Dec 2015	68	759	20,841	48.0
12-16 Vestry Street	Trinity Church	Dec 2015	17	148	5,566	48.0
375 Hudson Street	Trinity Church	Aug 2017	415	3,000	101,066	48.0
Total				**40,862**	**984,266**	

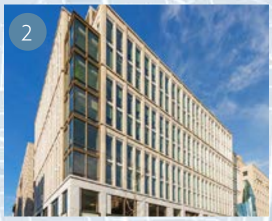
Washington, D.C.





800
17th Street, NW

Acquired 2014
Ownership 49.9%
Partner: TIAA

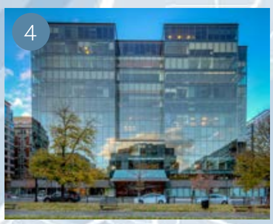


900
16th Street, NW

Acquired 2017
Ownership 49%
Partner: Oxford Properties

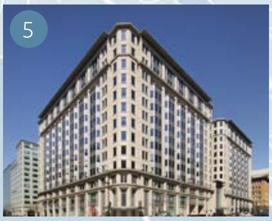
1300
I Street, NW

Acquired 2013
Ownership 49.9%
Partner: TIAA



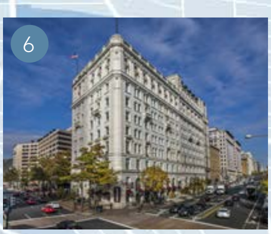
1101 **New York Avenue, NW**

Acquired 2017
Ownership 49%
Partner: Oxford Properties



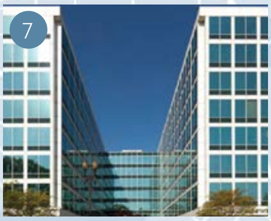
555
12th Street, NW

Acquired 2014
Ownership 47.5%
Partner: MetLife



1101 **Pennsylvania Avenue, NW**

Acquired 2013
Ownership 49.9%
Partner: TIAA



400-444 **North Capitol Street, NW**

Acquired 2014
Ownership 49.9%
Partner: TIAA

25 **Massachusetts Avenue, NW**

Acquired 2015
Ownership 49.9%
Partner: TIAA

150
M Street, NE

Acquired 2016
Ownership 47.5%
Partner: MetLife

175
N Street, NE

Acquired 2016
Ownership 47.5%
Partner: MetLife

Washington, D.C.

Washington, D.C. is a centre of political power and has a strong and diversified economy. Its real estate market has scale and liquidity, as well as supply constraints, and the city has one of the most educated populations in the US.

The US federal government is a dominant tenant in the Washington, D.C. office market, accounting for 16 percent of leased office space. Virtually all global law firms have a presence in the city. It is also an important hub for the defence industry, the health care industry and a growing technology sector bolstered by Amazon's selection of the region as the location of its second headquarters.

Washington, D.C. has strict building limitations as well. Since 1910, no building may be more than six metres taller than the width of the street it faces, and no more than 40 metres tall under any circumstances. This restricts the volume of new space that can be built, limiting new supply.

Our focus has been on the Central Business District and East End in proximity to the White House and Treasury, as well as NoMa and Capitol Hill close to Congress and the Supreme Court. Our first investments in the city were part of the joint venture we established with TIAA in 2013. A landmark property in the portfolio is the Evening Star Building on Pennsylvania Avenue with views of the US Capitol. Since then, we have added numerous office investments with

Chart 47 Income return in Washington, D.C. Percent.

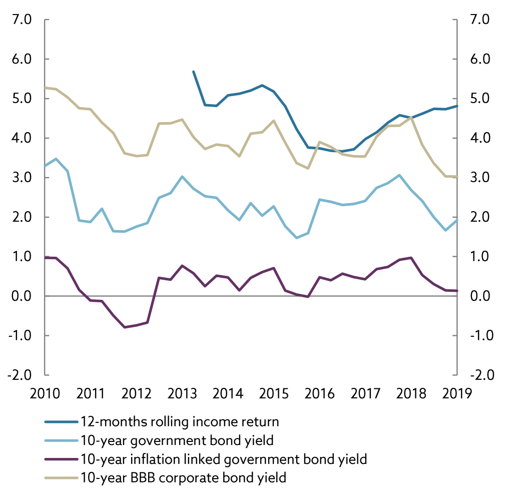
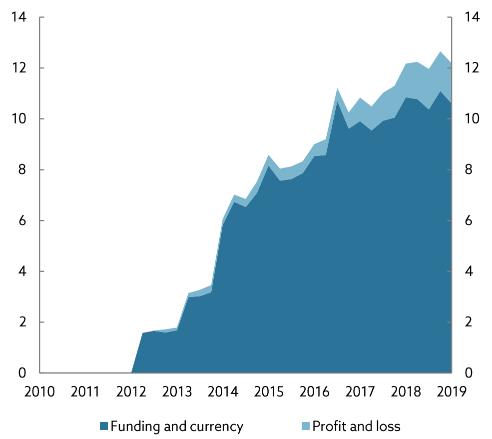


Chart 48 Net asset value Washington, D.C. Billion kroner.



multiple joint venture partners, creating a strong presence across the city, including two new office properties leased to the US Department of Justice.

Washington, D.C.'s real estate market is historically the least volatile of the four targeted US office markets. Its relatively large government-related tenancy provides long-term stability to the market. However, the metro area of Washington, D.C. has seen the most modest growth of all the US target markets since 2010, with GDP expanding by 18 percent and office employment by 12 percent on a cumulative basis. Since 2010, vacancy in the broader metro area has been stagnant, whereas it has fallen in the central business district from 16.9 percent to 10.9 percent.

Law firms, a traditionally important tenant sector in Washington, D.C., went through a decade of rightsizing, and various government entities did not expand in a period of political uncertainty over their funding following the recession in 2009. Since our first investment in 2013, vacancy has been elevated and rents have been flat.

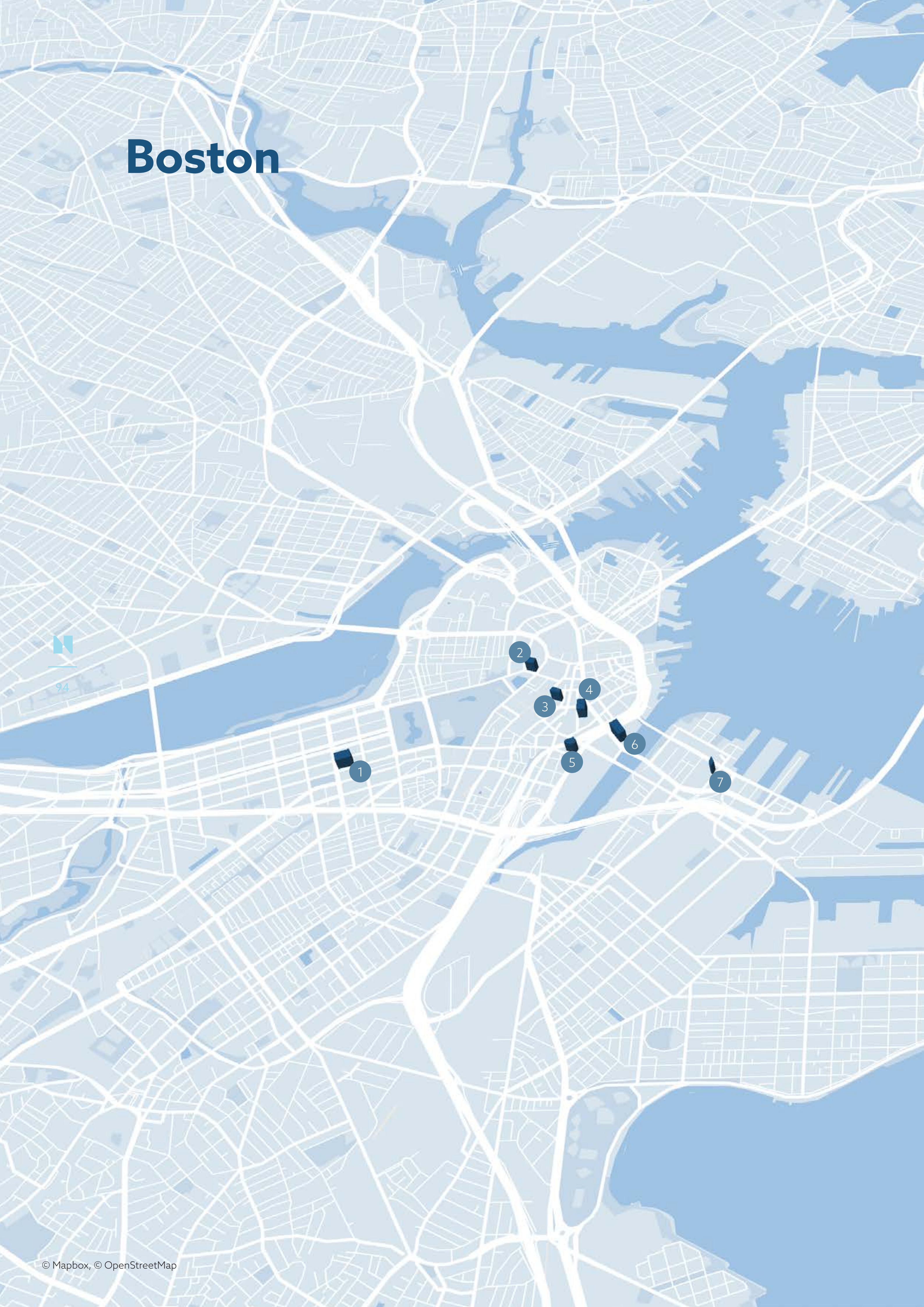
The lower volatility of Washington, D.C. should benefit the fund during market downturns and in the long term. Our assets are of high quality and located in attractive sub-markets between the White House and Capitol Hill.

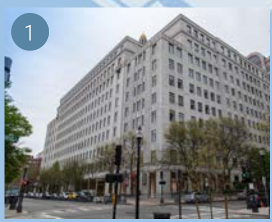
At the end of 2019, we had ten properties in Washington, D.C. Our investments in the city made up 4.5 percent of the total unlisted real estate portfolio.

Table 17 Our Washington, D.C. portfolio at year end 2019.

Address	Partner	Acquired	Purchase price, million dollars	Value, million kroner	Square metres	Ownership, percent
1101 Pennsylvania Avenue, NW	TIAA	Feb 2013	104	1,097	20,848	49.9
1300 I Street, NW	TIAA	Feb 2013	167	1,549	42,944	49.9
555 12th Street, NW	MetLife	Jan 2014	236	2,350	75,143	47.5
800 17th Street, NW	TIAA	Oct 2014	196	1,798	34,436	49.9
400-444 North Capitol Street, NW	TIAA	Nov 2014	82	833	56,299	49.9
25 Massachusetts Avenue, NW	TIAA	Mar 2015	152	1,248	35,535	49.9
175 N Street, NE	MetLife	Sep 2016	83	968	32,389	47.5
150 M Street, NE	MetLife	Sep 2016	117	1,244	45,859	47.5
900 16th Street, NW	Oxford Properties	Jun 2017	74	322	11,450	49.0
1101 New York Avenue, NW	Oxford Properties	Jul 2017	191	963	35,630	49.0
Total				**12,370**	**390,531**	

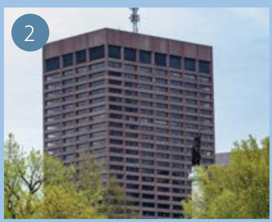
Boston





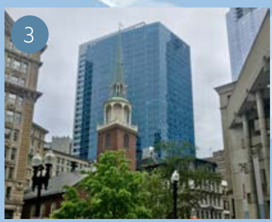
501
Boylston Street

Acquired 2018
Ownership 49.9%
Partner: TIAA



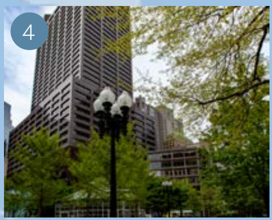
One
Beacon Street

Acquired 2014
Ownership 47.5%
Partner: MetLife



33
Arch Street

Acquired 2013
Ownership 49.9%
Partner: TIAA

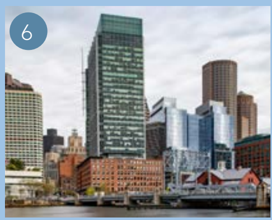


100
Federal Street

Acquired 2014
Ownership 45%
Partner: Boston Properties

655
Atlantic Avenue

Acquired 2013
Ownership 47.5%
Partner: MetLife



280-294
Congress Street

Acquired 2014
Ownership 45%
Partner: Boston Properties

121
Seaport Boulevard

Acquired 2018
Ownership 45%
Partner: American
Realty Advisors

Boston

Boston has one of the highest densities of universities in the world, one of the best-educated work forces and important clusters of medical and life science companies. With a number of large and highly regarded academic institutions, anchored by MIT and Harvard, it is one of the most important innovation and start-up centres in the world.

Boston's real estate market is disciplined, with a high concentration of long-term institutional ownership. The supply of real estate in Boston is moderated by physical barriers and the regulatory environment. The business district is located on peninsula bordering both the Charles River and the Bay of Massachusetts. The planning process is arduous, which effectively limits significant new construction. There are building limitations to protect the historic character of the city, and building heights in the central business district are greatly restricted by the proximity of Logan International Airport.

Our focus in the office market has been on the financial district, Back Bay, the Seaport District and Cambridge. We entered the Boston market in 2013 through our initial joint venture with TIAA but later added significant acquisitions through separate joint ventures with Boston Properties and MetLife. These included Atlantic Wharf, an office tower near Boston Harbour, and One Financial Centre, a large office property in the heart of the financial district.

Our presence in the financial district is substantial, and lately we have added investments in Back Bay and in the Seaport District. The city is expanding, and the newer buildings in the Seaport District are attractive investments where we would like to expand. The same is the case for the parts of Cambridge

Chart 49 Income return in Boston. Percent.

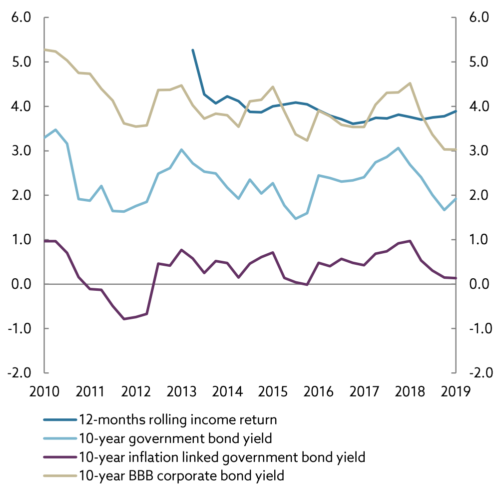
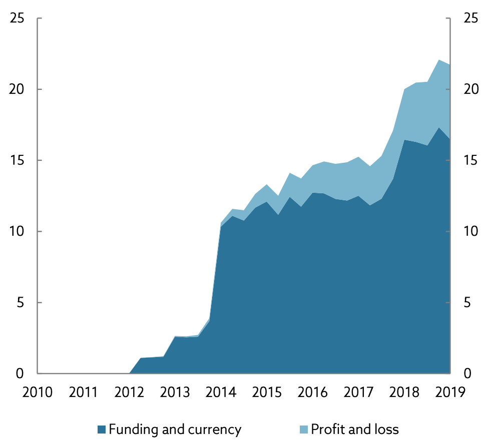


Chart 50 Net asset value in Boston. Billion kroner.



around Kendall Square. Proximity to the MIT campus has made it a prominent location for life sciences, biotechnology start-ups and established companies alike.

The Boston metro area has seen relatively strong growth since 2010, with GDP expanding by 30 percent and office employment by 16 percent on a cumulative basis. Long-term interest rates have fallen from 3.9 percent to 2.0 percent over the decade, supporting lower office yields for prime office assets. Office employment has been bolstered by a rapidly expanding life science technology sector and an ongoing recovery in professional and business services. Strong demand has led the office vacancy rate for the greater metro area to fall from 17.4 percent in 2010 to 12.5 percent, and from 9.1 percent to 4.8 percent in the central business district.

At the end of 2019, we had seven properties in Boston. Our investments in the city made up 8.0 percent of the total unlisted real estate portfolio.

Table 18 Our Boston portfolio at year-end 2019.

Address	Partner	Acquired	Purchase price, million dollars	Value, million kroner	Square metres	Ownership, percent
33 Arch Street	TIAA	Feb 2013	187	2,328	56,049	49.9
655 Atlantic Avenue	MetLife	Dec 2013	342	4,120	122,003	47.5
One Beacon Street	MetLife	Jul 2014	271	2,951	94,576	47.5
100 Federal Street	Boston Properties	Oct 2014	361	4,508	116,968	45.0
280-294 Congress Street	Boston Properties	Oct 2014	455	4,025	73,465	45.0
501 Boylston Street	TIAA	Aug 2018	283	1,807	56,678	49.9
121 Seaport Boulevard	American Realty Advisors	Dec 2018	187	1,803	37,193	45.0
Total				**21,542**	**556,932**	

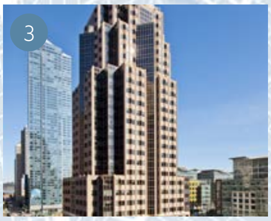
San Francisco

888
Brannan Street

Acquired 2015
Ownership 49.9%
Partner: TIAA

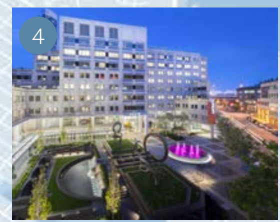
425
Market Street

Acquired 2014
Ownership 47.5%
Partner: MetLife



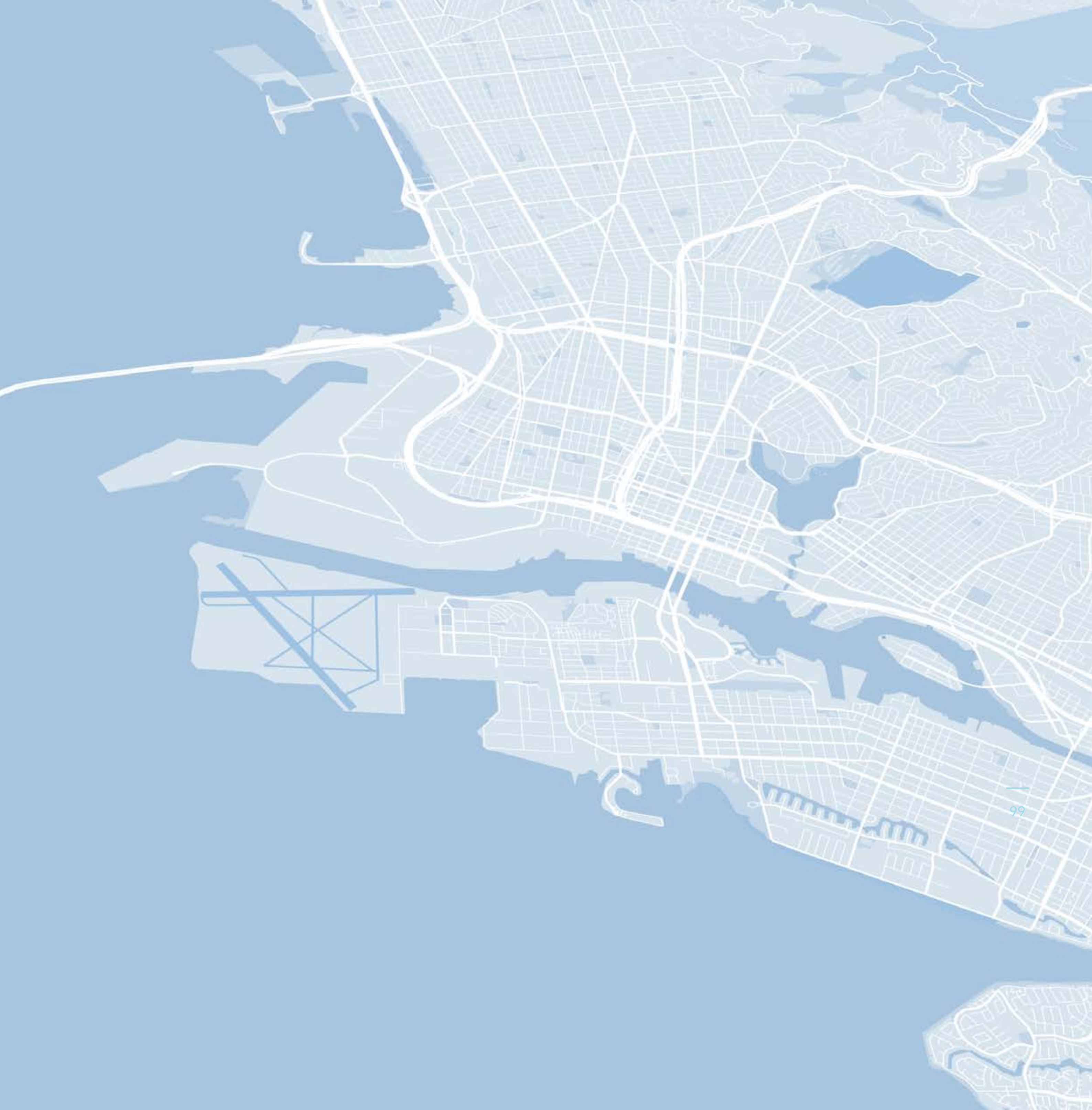
100
First Street

Acquired 2016
Ownership 44%
Partner: Kilroy Realty



303
Second Street

Acquired 2016
Ownership 44%
Partner: Kilroy Realty



405
Howard Street

Acquired 2014
Ownership 49.9%
Partner: TIAA

San Francisco

The greater San Francisco area, including Silicon Valley, is the technology capital of the world. It is a cultural and commercial centre and a hub for technology companies and start-ups bringing talented people in need of office space to the city. The region's economy also benefits from premier educational institutions.

San Francisco has a strict planning regime called Proposition M which limits approval of new space in central areas to approximately 88,000 square metres per year. This cap is meant to ensure that the city is not subject to significant overbuilding. In addition, San Francisco's location on the peninsula between the Pacific Ocean and San Francisco Bay limits the city's potential to sprawl.

San Francisco was highlighted as a potential target market in 2012 during our initial review of US markets suitable for the fund. We chose to initially prioritise east coast markets given their scale and proximity to our New York investment office. Our subsequent entry into San Francisco was made easier by having established joint ventures in Boston, New York and Washington, D.C.

In the San Francisco office market, our focus has been on the central business district south of Market Street, which runs straight through the traditional city centre. In 2014, we acquired two office properties in San Francisco by entering into separate joint ventures with MetLife and TIAA. In 2016, we purchased a stake in two additional office properties in a new joint

Chart 51 Income return in San Francisco. Percent.

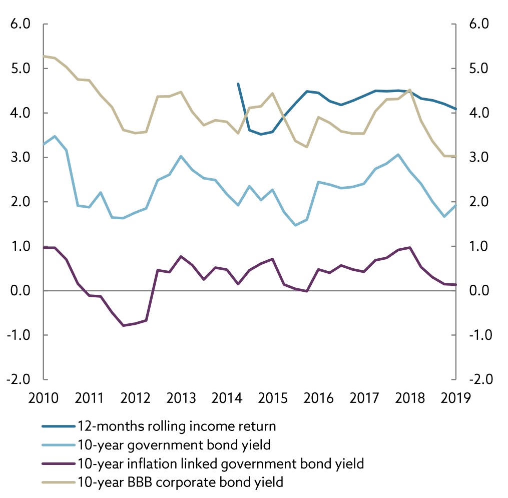
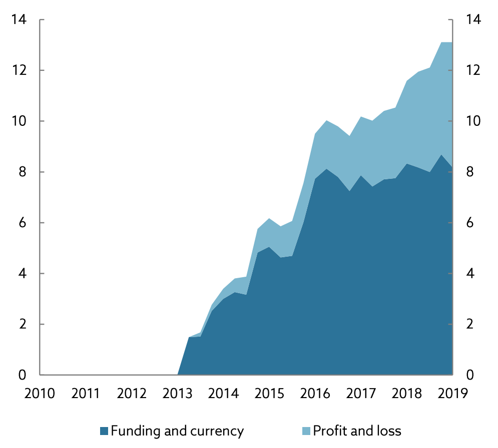


Chart 52 Net asset value in San Francisco. Billion kroner.



venture with Kilroy Realty. Four of our current properties are near the Salesforce Transit Center located just south of the city centre, and one is located close to the newly re-zoned Central SoMa sub-market.

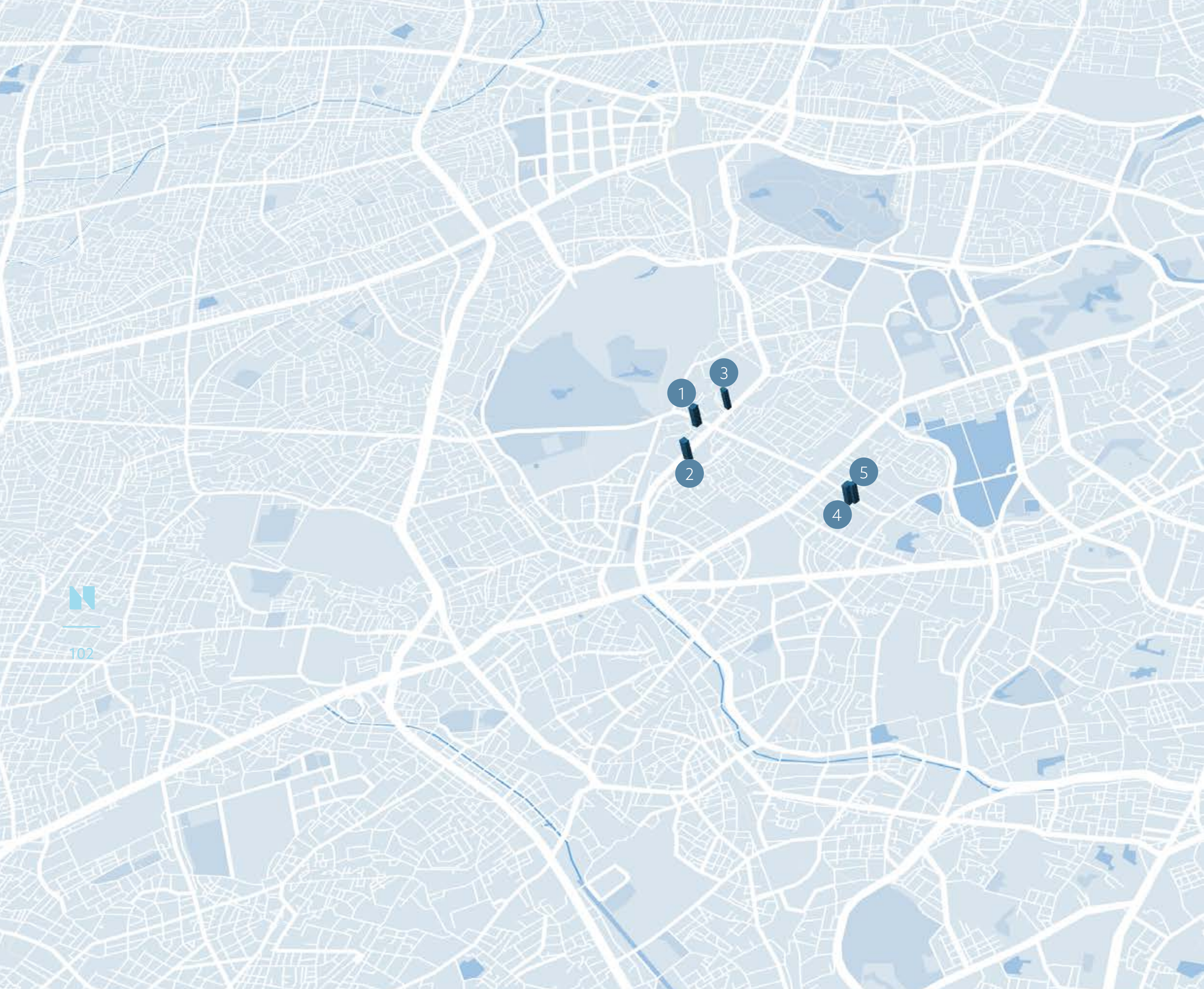
The San Francisco metro area has seen the strongest growth of our US target markets since 2010, with GDP expanding by 49 percent and office employment by 63 percent on a cumulative basis. Long-term interest rates have fallen from 3.9 percent to 2.0 percent over the decade, underpinning lower yields for prime San Francisco office assets. Office employment has been supported by a rapidly expanding technology sector, which showed resilience in the face of tighter monetary policy towards the end of the decade. The vacancy rate in the city has fallen from 15.9 percent in 2010 to 6.3 percent, and from 13.6 percent to 3.8 percent in the financial district.

At the end of 2019, we had five properties in San Francisco. Our investments in the city made up 4.8 percent of the total unlisted real estate portfolio.

Table 19 Our San Francisco portfolio at year-end 2019.

Address	Partner	Acquired	Purchase price, million dollars	Value, million kroner	Square metres	Ownership, percent
425 Market Street	MetLife	Jan 2014	246	2,917	87,830	47.5
405 Howard Street	TIAA	Sep 2014	195	2,792	48,476	49.9
888 Brannan Street	TIAA	Sep 2015	156	1,716	41,898	49.9
100 First Street	Kilroy Realty	Aug 2016	188	1,999	42,563	44.0
303 Second Street	Kilroy Realty	Nov 2016	310	3,650	71,719	44.0
Total				**13,073**	**292,486**	

Tokyo



6-31-17
Jingumae

Acquired 2017
Ownership 70%
Partner: Tokyu Land Corporation

6-12-18
Jingumae

Acquired 2017
Ownership 70%
Partner: Tokyu Land Corporation

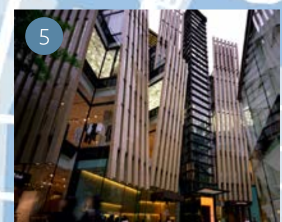
1-8-10
Jingumae

Acquired 2017
Ownership 70%
Partner: Tokyu Land Corporation

5-3-27
Minami Aoyama

Acquired 2017
Ownership 70%
Partner: Tokyu Land Corporation

6



5-3-2
Minami Aoyama

Acquired 2017
Ownership 70%
Partner: Tokyu Land Corporation

Otemachi
Park Building

Acquired 2020
Ownership 39.9%
of a majority part
Partner: Mitsubishi Estate

Odaiba

Tokyo

Tokyo is the world's largest metropolitan economy and has a high concentration of head offices of global corporations. It is the capital of the world's third-largest economy, and the city itself accounts for a significant portion of Japan's value creation.

Tokyo is the world's largest single real estate market. The city has an established real estate industry with predictable planning and permitting, broad ownership rights for landlords and well-established lease laws. Tokyo is constantly renewing its aged post-war stock of real estate, characterised by mid-rise buildings with small floor plates and minimal amenities, to the recent state-of-the-art, earthquake-proof, multi-use office complexes with large, efficient floor plates, and a variety of amenities and public space. Demand continues to outpace supply as both government and corporate policy favours modern, sustainable office space, reducing vacancy in the key sub-markets to all-time lows.

Norges Bank created a management company in Tokyo in 2015 to build a local presence and gain access to investments. We target large office and retail assets in eight sub-markets in six central wards. All sub-markets are connected to key transportation hubs and continue to grow disproportionately.

As with other cities, we favour retail investments in established retail locations. Shibuya, Omotesando, Ginza and Shinjuku stand out, but our current retail exposure is only in Shibuya and Omotesando. As in other cities, Tokyo is experiencing a changing retail landscape, and we are more uncertain now how this will affect current and new investments.

Chart 53 Income return in Tokyo. Percent.

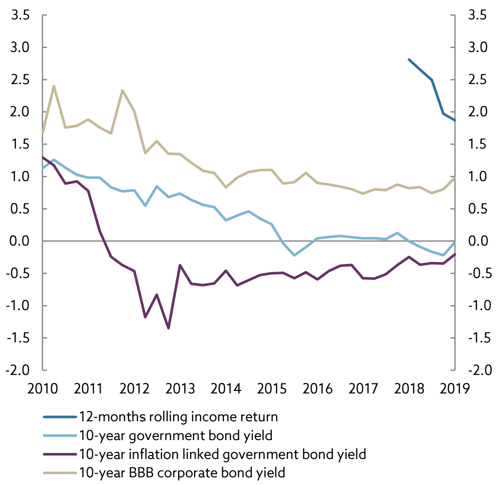
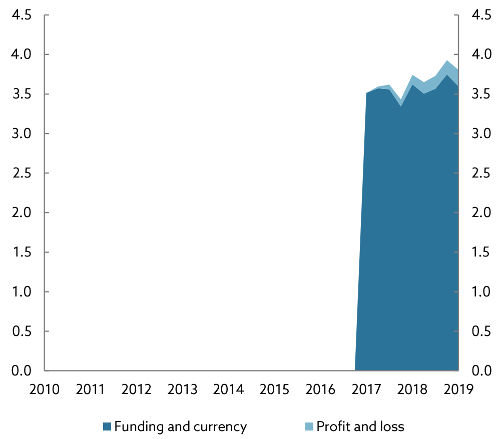


Chart 54 Net asset value Tokyo. Billion kroner.



In 2017, we acquired a share of a portfolio of four retail properties and one office property in the Omotesando and Shibuya areas in partnership with Tokyu Land Corporation. In early 2020, the fund announced the acquisition of a share of the Otemachi Park Building, a new office development in Otemachi, which is perhaps the most important business district in the city. The investment was in a new partnership with Mitsubishi Estate, a renowned and dominant owner, developer and operator of assets in the area. This last investment provides us with exposure to a type of building and a particular location that continue to experience significant demand.

The Tokyo economy has seen modest growth since 2010, with GDP expanding by 15 percent and office employment by 18 percent on a cumulative basis. Long-term interest rates have fallen from 1.3 percent to -0.1 percent since 2010, while prime office yields have fallen from 3.5 percent to 2.2 percent. The second half of the decade saw stronger office employment growth leading to a fall in unemployment in Tokyo and record-low vacancy in the office market of 1.6 percent, down from 8.1 percent over the period.

At the end of 2019, we had five properties in Tokyo. Our investments in the city made up 1.4 percent of the total unlisted real estate portfolio. The share of the Otemachi Park Building was acquired in early 2020 and comes in addition to that.

Table 20 Our Tokyo portfolio at year-end 2019.

Address	Partner	Acquired	Purchase price, billion yen	Value, million kroner	Square metres	Ownership, percent
5-3-27 Minami-Aoyama, Minato	Tokyu Land Corporation	Dec 2017	3.0	120	271	70.0
1-8-10 Jingumae, Shibuya	Tokyu Land Corporation	Dec 2017	24.5	1,013	2,757	70.0
6-12-18 Jingumae, Shibuya	Tokyu Land Corporation	Dec 2017	26.3	1,107	3,983	70.0
5-3-2 Minami-Aoyama, Minato	Tokyu Land Corporation	Dec 2017	19.5	742	2,290	70.0
6-31-17 Jingumae, Shibuya	Tokyu Land Corporation	Dec 2017	19.5	768	2,999	70.0
Otemachi Park Building[1]	Mitsubishi Estate	Mar 2020	79.7	6,900	88,428	39.9
Total				**10,651**	**100,728**	

[1] Completed in 2020.

Global logistics

1 **Washington**
40
properties

2 **Oregon**
17
properties

3 **California**
107
properties

4 **Nevada**
33
properties

5 **Texas**
55
properties

6 **Wisconsin**
2
properties

7 **Illinois**
51
properties

8 **Kentucky**
10
properties

9 **Tennessee**
9
properties

10 **Indiana**
1
property

11 **Ohio**
8
properties

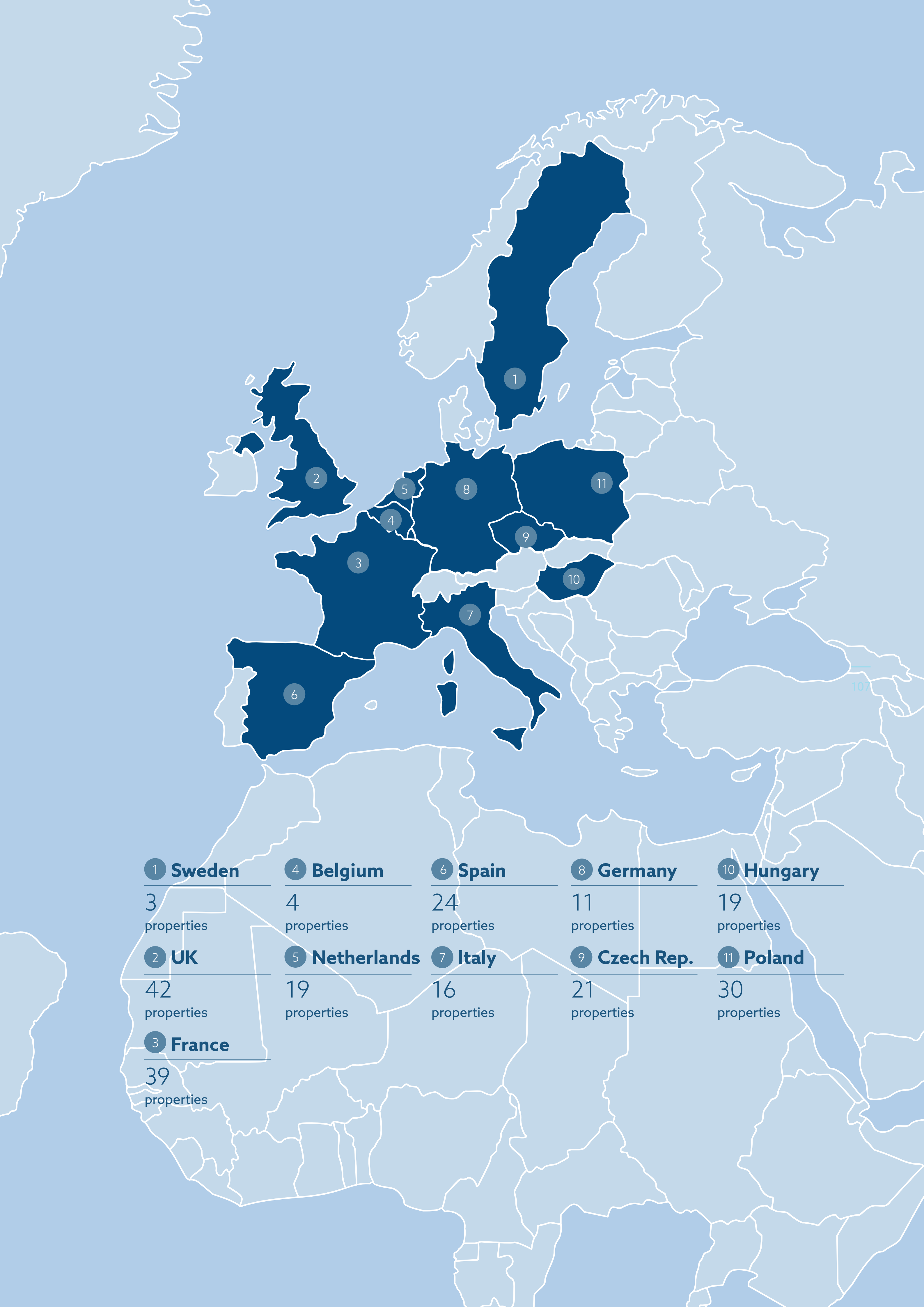
12 **Georgia**
12
properties

13 **Florida**
27
properties

14 **Pennsylvania**
14
properties

15 **New Jersey**
28
properties

16 **Maryland**
13
properties



1 **Sweden**
3
properties

2 **UK**
42
properties

3 **France**
39
properties

4 **Belgium**
4
properties

5 **Netherlands**
19
properties

6 **Spain**
24
properties

7 **Italy**
16
properties

8 **Germany**
11
properties

9 **Czech Rep.**
21
properties

10 **Hungary**
19
properties

11 **Poland**
30
properties

Global logistics market
A large part of our unlisted real estate portfolio is invested in logistics properties. The target markets are naturally different from those for office and retail investments. In the logistics sector, we target properties in Europe and North America located close to major metropolitan areas or transportation hubs that are part of global supply chains.

Most of the fund's logistics portfolio is concentrated in supply-constrained locations where there is less opportunity for new construction. We typically invest in facilities that serve the end of the supply chain. This means properties that are either the last or second-to-last stop before the goods reach the end-consumer. These buildings can come in the form of big-box, cross-dock, light industrial or infill facilities.

Unlike our investments in the office and retail sectors, all our logistics properties have been acquired with a single partner, Prologis. The geographical spread of our portfolio means that we rely on our partner to provide local market knowledge. The global reach of Prologis and our aligned interests allow us to invest in a wide range of markets with confidence. We made our first investment in logistics in 2013, acquiring a

50 percent stake in 195 logistics properties spread across 11 European countries. We extended the geographical reach of the partnership in 2014 by adding our first logistics properties in the US, followed by significant additional portfolios in 2015 and 2020.

The global logistics industry has seen strong growth since 2010 due to the rise of mobile e-commerce and evolving delivery solutions, outperforming other sectors in the second half of the decade. Rents in the US logistics markets have grown 64 percent cumulatively since 2010, while vacancy rates have fallen from 14 percent to under 6 percent. The US logistics sector has returned 13 percent on an annualised basis. In Europe, rents are 23 percent higher than in 2010, while vacancy rates have more than halved in most major European economies. The European logistics sector has returned 10 percent on an annualised basis.

At the end of 2019, we had 221 logistics properties in Europe and 295 in the US. Our investments in logistics made up 21.9 percent of the total unlisted real estate portfolio. In addition, we acquired 140 logistics properties in 2020.

Chart 55 European logistics net asset value. Billion kroner.

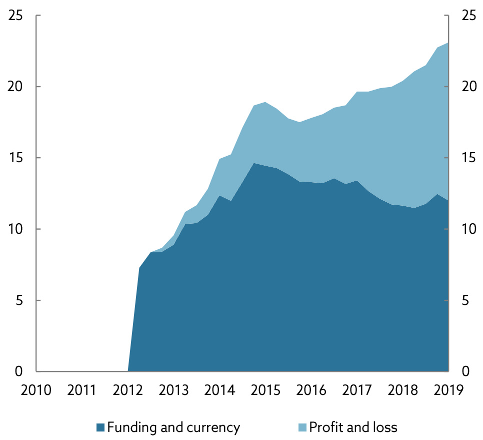


Chart 56 US logistics net asset value. Billion kroner.

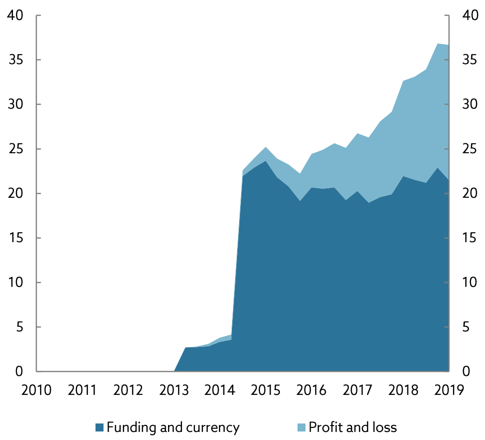


Table 21 Global logistics portfolio at year-end 2019.

Region	Partner	Purchase price, million LCY	Value, million kroner	Number of properties	Number of tenants	Square metres	Ownership, percent
European logistics portfolio	Prologis	1,656	23,101	221	250	4,778,059	50.0
US logistics portfolio[1]	Prologis	3,690	44,135	427	815	6,186,981	45.0
Total			**67,236**	**514**	**1,065**	**10,965,040**	

[1] Includes one acquisition completed in 2020

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