

NORGES BANK INVESTMENT MANAGEMENT PERFORMANCE RESULTS

GIPS REPORT

31 DECEMBER 1997 THROUGH 31 DECEMBER 2019

Norges Bank Investment Management claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Norges Bank Investment Management has been independently verified for the periods 31 December 1997 through 31 December 2019. The verification reports are available upon request.

Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation.

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General disclosures

Verification

Norges Bank Investment Management has been independently verified for the period 31 December 1997 through 31 December 2019. The third-party verifier's report is available on our website www.nbim.no.

The firm

Norges Bank Investment Management, as the firm, is an asset management unit of the Norwegian central bank (Norges Bank). Norges Bank Investment Management manages the Government Pension Fund Global (Pension Fund) and the equity investments of Norges Bank's foreign exchange reserves (Reserves Fund, equity).

Firm assets

Firm assets represent all assets for which Norges Bank Investment Management has management responsibility. As of year-end 2019 this is the sum of the Government Pension Fund Global and the equity investments of Norges Bank's foreign exchange reserves.

Calculation methodology

Norges Bank Investment Management implements a time-weighted monthly rate of return methodology in the return calculations. The assets' fair values are determined on the day of an external cash flow and interim returns are geometrically linked. All composite returns are calculated net of non-reclaimable withholding taxes on dividend, interest and capital gains. Withholding taxes are recognised when incurred. Securities lending income is included in the portfolio return.

Assets and liabilities are reported on a fair value basis and in Norwegian kroner (NOK). Fair value is the estimated realisable value of an asset or the estimated cost of settling a liability in an arm's length transaction between well-informed and willing parties. The sources of valuation and pricing follow Norges Bank Investment Management's valuation hierarchy, which is aligned with the GIPS® standards' recommendations.

For the Pension Fund's composites, investment performance is reported in terms of an international currency basket corresponding to the currency composition of the Pension Fund's benchmark. This measure reflects the actual performance of the fund in purchasing-power terms and eliminates the effect of Norwegian kroner fluctuations versus the currencies in which the Pension Fund's benchmark is invested. Currency movements in Norwegian kroner do not affect the international purchasing power of the fund.

The investment performance of the Reserves Fund, equity, composite is reported in Norwegian kroner, in accordance with the reporting requirements from Norges Bank.

Carve-outs

In addition to the Pension Fund aggregate composites, we present what constitute two types of carve-outs; the traditional composites are carve-outs from the Pension Fund along the conventional investment asset class definitions of equity, fixed income and unlisted real estate. With the updated management mandate of January 2017, we included a set of composites that represent how NBIM has organised the asset management into three investment areas: equity management, fixed-income management and real estate management.

For fixed-income management, the composite assets are identical to the traditional composite, and we present the fixed-income composite versus the corresponding benchmarks. For equity management and real estate management, the difference in composite assets is the inclusion of selected listed real estate holdings managed together with unlisted real estate in the real estate management composite.

In 2017, the listed real estate investments were transferred over to the equity asset class, leaving only unlisted real estate investments in the real estate composite. From 2017, the real estate composite is therefore identical to the unlisted real estate composite. The real estate management composite includes both listed and unlisted real estate since November 2014 and represents the Pension Fund's overall real estate strategy.

All assets managed by the firm are represented in one or more composites. Each composite holds its own cash balance.

Additional information

A list of composite descriptions and additional information regarding policies for valuing portfolios, calculating performance, and preparing compliant presentations is available upon request.

A large part of the information is available on our website www.nbim.no.

Performance results: Government Pension Fund Global 31 December 1997 – 31 December 2019

NORGES BANK
INVESTMENT
MANAGEMENT
PERFORMANCE RESULTS

Report presented as at: 31 December 2019

Reported assets' currency: Norwegian kroner

Reported returns' currency: Currency basket¹

Year	Com- posite Return ²	Bench- mark Return ²	Relative Return ²	Com- posite 3-Yr St Dev ³	Bench- mark 3-Yr St Dev ³	Number of Port- folios ⁴	Composite Assets ⁵	Firm Assets ⁵
1998	9.26					1	171,832	279,205
1999	12.44					1	222,408	340,855
2000	2.49			5.68		1	386,450	522,544
2001	-2.47			5.89		1	613,686	739,116
2002	-4.74			5.91		1	609,007	743,670
2003	12.59			6.27		1	845,306	1,044,264
2004	8.94			5.33		1	1,016,402	1,236,653
2005	11.09			4.00		1	1,399,050	1,648,874
2006	7.92			3.36		1	1,783,683	2,047,074
2007	4.26			3.60		1	2,018,643	2,261,368
2008	-23.31			9.39		1	2,275,426	2,498,961
2009	25.62			12.27		1	2,640,043	2,851,020
2010	9.62			13.30		1	3,077,420	3,317,700
2011	-2.54			10.52		1	3,311,572	3,539,396
2012	13.42			8.24		1	3,815,769	4,043,153
2013	15.95			7.24		1	5,037,734	5,311,043
2014	7.58			5.72		1	6,430,739	6,778,049
2015	2.74			6.68		1	7,475,153	7,886,255
2016	6.92			6.54		1	7,510,494	7,687,711
2017	13.66	12.96	0.70	6.22		1	8,488,455	8,672,176
2018	-6.12	-5.82	-0.30	6.20		1	8,255,945	8,353,411
2019	19.95	19.72	0.23	6.94	6.87	1	10,088,083	10,215,370

Notes:

- ¹ The currency basket corresponds to the currency composition in the fund's benchmark portfolio. The basket consisted of 36 international currencies at the end of 2019. The use of the currency basket is mandated by the Ministry of Finance.
- ² Returns are gross-of-fees and stated in percent. Relative return is supplemental information.
- ³ Three-year annualised ex-post standard deviation in percent using 36 monthly returns.
- ⁴ A measure of internal dispersion is not provided since the composite contains only one portfolio.
- ⁵ Assets are stated in millions of Norwegian kroner.

	3 Years	5 Years	10 Years	Since inception
Composite return ¹	8.57	7.05	7.83	6.09
Benchmark return ¹	8.40			
Relative return ¹	0.18			
Standard deviation of composite return ²	6.94	7.09	7.14	7.41
Standard deviation of benchmark return ²	6.87			
Tracking error ³	0.32			
Information ratio ⁴	0.53			
Composite Sharpe ratio ⁵	1.00	0.86	1.02	0.58
Benchmark Sharpe ratio ⁵	0.98			
Jensen's alpha ⁶	0.10			
Appraisal ratio ⁷	0.33			

Notes: All figures are annualised.

¹ Gross-of-fees returns stated in percent. Relative return is supplemental information.

² Ex-post standard deviation in percent using monthly returns.

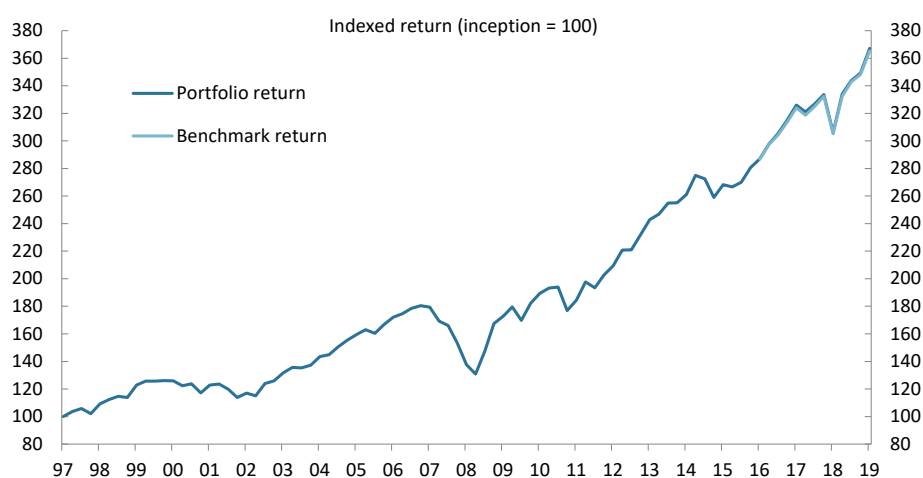
³ Ex-post standard deviation of monthly relative returns.

⁴ Average relative return divided by the tracking error.

⁵ Average monthly return in excess of the risk-free rate divided by the standard deviation of monthly returns.

⁶ Average return in excess of the risk-free rate minus beta-adjusted benchmark excess return.

⁷ Jensen's alpha divided by the standard deviation of the residuals of the CAPM regression.



Composite creation date and inception date

The composite inception date and the composite creation date of the Government Pension Fund Global composite are both 31 December 1997.

Composite description

Norges Bank Investment Management manages the Pension Fund on behalf of the Ministry of Finance. The Government Pension Fund Global composite contains only this portfolio. The fund is invested in three asset classes: equity, fixed income and real estate.

Since 1 January 2017, all the fund's investments, including the real estate investments, are measured against the assigned equity and fixed-income

benchmark, and the strategic weights for the benchmark assigned by the Ministry of Finance were amended to 62.5 percent equity and 37.5 percent fixed income. It is up to Norges Bank Investment Management to decide whether and how much to invest in unlisted real estate, within a limit of 7 percent of the fund. On 1 May 2019, the strategic benchmark weights were amended to 70 percent for equity and 30 percent for fixed income.

In the period from June 2009 to December 2016, the strategic weights were 60 percent equity and 40 percent fixed income, with real estate investments, when introduced in 2011, gradually reducing the fixed-income weight according to their market value. Before June 2009, the strategic weights were 40 percent equity and 60 percent fixed income.

Norges Bank Investment Management seeks to achieve the highest possible return after costs measured in the Pension Fund's currency basket and within the applicable management framework. The Ministry of Finance has, however, set limits for how much risk Norges Bank Investment Management may take in its active management of the Pension Fund. The management shall be organised with the aim that the expected annualised standard deviation for the relative return of the Pension Fund and the associated benchmark index (expected tracking error) does not exceed 1.25 percentage points. This level was increased from 1.00 percentage point on 1 February 2016.

The fund is not allowed to invest in companies that Norges Bank has excluded from the investment universe and further not in securities issued by a Norwegian enterprise, securities denominated in Norwegian kroner, real estate located in Norway or real estate companies, real estate funds or similar structures where the primary purpose is to invest in Norway. Accrued costs and deposits on real estate are included in the composite's assets and firm assets prior to inception of real estate 31 March 2011.

From the second quarter of 2000 and up to the fourth quarter of 2002, a tactical allocation fund was included in the numbers for the Government Pension Fund Global, but not at asset class level. Its mandate was to invest across asset classes using quantitative analysis, and it had average total assets under management of around 4 billion kroner during that period.

Derivatives, leverage and short positions

Norges Bank Investment Management's access to the use of financial derivatives is regulated as part of the provisions on the management of the Government Pension Fund Global laid down by the Ministry of Finance. Specifically, financial derivatives that are naturally linked to investments in the equity, bond and real estate portfolios may be used. In accordance with the investment mandate, the Pension Fund may use exchange traded future and option contracts, and over-the-counter (OTC) derivative contracts, e.g. interest-rate swaps, in order to achieve the lowest possible transaction cost and to efficiently rebalance the portfolio. The segmented net fair values and exposure of the financial derivatives for the last two years are shown in the table below.

Financial derivatives	Average exposure through year				Net fair value at year-end	
	2019		2018		2019	2018
	Purchased	Sold	Purchased	Sold		
Foreign exchange contracts	264,770	-	224,679	-	-132	-915
Exchange traded futures	17,986	26,482	22,494	16,820	3	28
Interest-rate swaps	9,067	17,615	17,111	22,022	-263	145
Warrants and rights	92	-	170	-	159	40
Contracts for difference	43,186	41,398	36,857	38,399	34	9
Participatory certificates	-	-	536	-	-	-

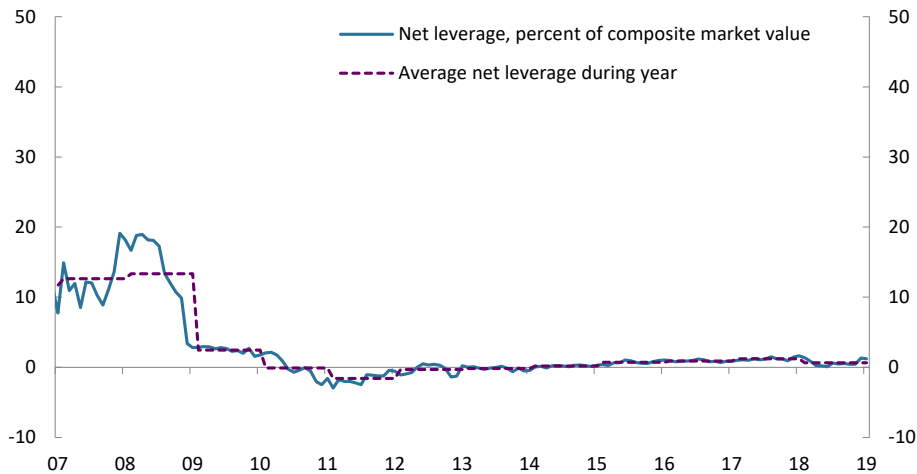
Figures in millions of Norwegian kroner.

Foreign exchange contracts consist of foreign currency exchange contracts with normal settlement for future delivery and non-deliverable contracts. Exchange traded futures consist of equity index futures and listed government bonds futures. Interest-rate swaps are agreements where the fund receives or pays a fixed rate of interest in exchange for a floating rate. Warrants and rights are options to buy a stock at an agreed price within a certain timeframe. Participatory certificates are instruments issued to international investors by registered foreign institutional investors to acquire an economic interest in listed shares. Contracts for difference are agreements where two counterparties exchange cash flows based on changes in the value of an underlying equity or index.

Leverage may be used with a view to performing the management task in an effective manner, but not with a view to increasing the investment portfolio's exposure to risky assets in the equity and bond portfolio. More specifically, leveraging the equity and fixed-income portfolio is not permitted beyond what is necessary to minimise transaction costs or is a normal part of investment management, and not in excess of 5 percent of the net asset value of the combined equity and fixed-income portfolios. At the end of 2019, the net leverage was 1.1 percent of the aggregated equity and fixed-income portfolios. For the unlisted real estate portfolio, the maximum allowed debt ratio is 35 percent, equating to a net leverage level of 54 percent for that portfolio. The debt ratio of the unlisted real estate portfolio was 6.1 percent of total real estate assets at the end of 2019. For the composite as a whole, the net leverage was 1.2 percent at the end of 2019 and 0.7 percent on average during 2019.

The use of leverage was scaled back in the second half of 2009 due to changes in market conditions and a reorganisation of Norges Bank Investment Management's fixed-income management. Historically, leverage has predominantly been used within the fixed-income composite to exploit differences in rates or credit spreads by combining derivatives, forward contracts and repurchase agreements. Within the equity segment, leverage is mainly used to efficiently handle fund management activities and has historically been insignificant. Net leverage is calculated by comparing net

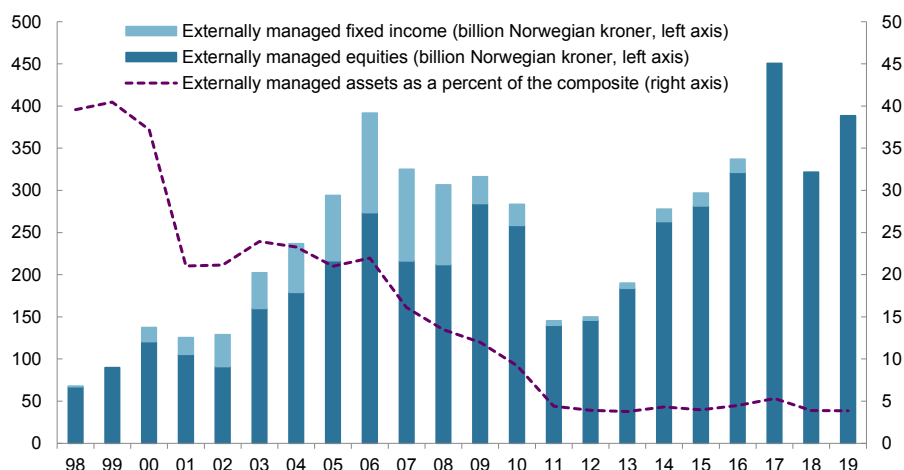
exposure and actual market value (net asset value). Net exposure is found by converting all derivatives to underlying exposure. Prior to 2011 the leverage was calculated from the net sum of all cash positions. Below, the net leverage in percent of the composite's fair value is shown as a time series.



Short positions are permitted in the management of the Pension Fund given that Norges Bank Investment Management has access to the securities through an established borrowing arrangement. However, restrictions are laid down as part of the CEO investment mandate issued by Norges Bank's Executive Board. The current use of short positions in the composite's portfolio is immaterial.

Sub-advisors

Norges Bank Investment Management uses external investment managers to handle parts of the portfolio. Norges Bank Investment Management awards management mandates to organisations with expertise in clearly defined sectors, countries or regions. The fund's externally managed mandates had assets under management worth 389 billion kroner at the end of 2019. This was equivalent to approximately 3.9 percent of the composite's total value. There was a total of 83 external mandates, all equity, managed by 74 different investment managers as at year-end 2019. The graph below shows the composition of externally managed assets at each year-end since inception as well as its share of the composite's net asset value. The complete list of organisations managing assets on behalf of Norges Bank Investment Management is available on our website www.nbim.no.



Benchmark description

The Government Pension Fund Global composite was assigned a benchmark on 1 January 2017, after the Ministry of Finance changed its management mandate to specify that all the fund's investments, including the real estate investments, are to be measured against the fund's benchmark index consisting of global equity and bond indices. The current strategic benchmark index weights, adopted on 1 May 2019, are 70 percent for equity and 30 percent for fixed income.

In the period from 1 January 2017 to 1 May 2019 the strategic weights for the benchmark assigned by the Ministry of Finance were 62.5 percent equity and 37.5 percent fixed income. On 30 June 2017, the Ministry of Finance set a target for moving the strategic benchmark weights to 70 percent for equity and 30 percent for fixed income. On 1 May 2019, the transition was complete and the strategic benchmark weights were amended to 70 percent for equity and 30 percent for fixed income.

For periods prior to 2017 no benchmark returns are presented, as no appropriate benchmark had previously been assigned to the real estate portion of the fund. Any benchmark for the total portfolio would have excluded this asset class; therefore, none had been deemed appropriate.

The equity part of the strategic benchmark index is composed on the basis of the FTSE Global All Cap Index. The benchmark is market capitalisation weighted with an additional layer of country factors applied to it. The equities in the benchmark index are assigned the following factors based on their country of origin: European developed markets excluding Norway 2.5, USA and Canada 1, other developed markets 1.5 and emerging markets 1.5. The allocation to countries and regions and the distinction between developed and emerging markets are based on the FTSE Global All Cap Index. New markets added to the FTSE Global All Cap Index from 1 January 2019 onwards are assigned a weight of 0. The benchmark is adjusted for the Norges Bank's tax position on dividends. Securities issued by companies excluded by Norges Bank pursuant to the guidelines for observation and exclusion from the Government Pension Fund Global are not included in the benchmark

index for the equity portfolio. At year-end the equity benchmark consisted of 47 countries and around 8,600 securities.

The fixed-income part of the strategic benchmark index consists of 70 percent government debt (nominal and inflation-linked government bonds, and including bonds issued by supranational organisations) and 30 percent corporate debt (corporate bonds, including covered bonds). The index consists of the Bloomberg Barclays Global Treasury, GDP weighted by country, the Bloomberg Barclays Global Inflation-Linked index (Series L), and the subgroup Supranational (within government related) in the Bloomberg Barclays Global Aggregate bond index for the government sector and all corporate bonds and the subgroup covered bonds within Bloomberg Barclays Global Aggregate limited to the currencies US dollars, Canadian dollars, euros, British pounds, Swedish kronor, Danish kroner and Swiss francs. The Bloomberg Barclays indices are not adjusted for withholding tax but are adjusted for excluded companies/issuers. At year-end the benchmark consisted of 22 currencies and around 14,500 securities.

In the operational management of the fund, to ensure an overall risk management of the fund, the listed and unlisted real estate investments are assigned benchmarks with a combination of bonds and equities from the overall GPFG benchmarks tailor-made to the actual currency composition and characteristics of the real estate investments. The remaining investments are assigned benchmarks where the actual composition of the unlisted and listed real estate benchmark are adjusted from the actual benchmark.

The actual weights of the benchmark as at 31 December 2019 are shown below together with historical strategic changes to the benchmark.

Country for equity benchmark (Currency for fixed-income benchmark)	Equities Actual benchmark indices	Fixed-income Actual benchmark indices
Asset class weights	71.14	28.86
USA (USD)	39.43	45.90
Canada (CAD)	2.20	2.85
Brazil	0.93	
Mexico (MXN)	0.29	1.54
Chile (CLP)	0.10	0.09
Colombia	0.05	
Peru	0.01	
Total Americas	43.01	50.38
France	5.15	
Germany	4.62	
Netherlands	2.04	
Spain	1.51	
Italy	1.45	
Finland	0.66	
Belgium	0.62	
Austria	0.18	

Country for equity benchmark (Currency for fixed-income benchmark)	Equities Actual benchmark indices	Fixed-income Actual benchmark indices
Ireland	0.14	
Portugal	0.11	
Greece	0.05	
<i>Euro-area (EUR)</i>	<i>16.53</i>	<i>27.57</i>
United Kingdom (GBP)	8.76	5.47
Switzerland (CHF)	4.84	0.85
Sweden (SEK)	1.66	0.72
Denmark (DKK)	1.00	0.50
Russia (RUB)	0.46	0.51
Poland (PLN)	0.19	0.67
Turkey	0.09	
Hungary (HUF)	0.04	0.17
Czech Republic (CZK)	0.01	0.27
Total Europe	33.57	36.72
Japan (JPY)	8.43	7.00
China	4.17	
Australia (AUD)	2.37	1.85
South Korea (KRW)	1.55	1.94
Taiwan	1.74	
India	1.18	
Hong Kong (HKD)	1.16	0.03
Thailand (THB)	0.41	0.57
Singapore (SGD)	0.45	0.36
Malaysia (MYR)	0.27	0.42
Indonesia	0.25	
New Zealand (NZD)	0.14	0.27
Philippines	0.14	
Pakistan	0.02	
Total Asia / Oceania	22.28	12.44
South Africa	0.62	
Israel (ILS)	0.18	0.46
Qatar	0.12	
Kuwait	0.10	
United Arab Emirates	0.10	
Egypt	0.02	
Total Middle East and Africa	1.14	0.46

Figures in percent.

Strategic benchmark changes	Implementation
Capital Allocation	
Equity allocation was set to 62.5% and fixed income 37.5%	January 2017
Equity allocation was increased to 70% and fixed income allocation reduced to 30%	May 2019

Benchmark rebalancing

The actual benchmark weights may differ from the strategic benchmark weights due to the price movements in the market. For example, a stronger increase in equity prices will push the equity portion above its strategic weight. As a result, the actual benchmark portfolio may deviate from the strategic long-term benchmark portfolio. Inflows and outflows are determined based on asset class weight in the actual benchmark.

The Ministry of Finance has set rules for rebalancing back to the strategic weights. These rules specify the maximum permitted deviation between the weights in the actual benchmark portfolio and the strategic benchmark portfolio before the benchmark must be rebalanced back to strategic weights. Rebalancing shall take place when the equity share in the actual benchmark index differs by more than 2 percentage points from the equity weight in the strategic benchmark index on the last trading day of the month. The Ministry of Finance has set more detailed provisions on the rebalancing of the actual benchmark index.

Portfolio rebalancing

Inflows and outflows to the portfolio are treated independently of the benchmark. The portfolio is rebalanced independently of the benchmark but is governed by the tracking error limits.

Fee schedule

Performance numbers are gross of management fees and custodial fees, but net of all trading expenses (transaction costs). In addition, non-reclaimable withholding taxes are deducted in the performance numbers. The management expense ratio was 5 basis points for 2019, at the same level as in 2018. The table below shows the different components of the total management costs. Note that this table also covers internal costs (e.g. personnel costs, IT/support systems costs) in relation to real estate investment management, but not direct costs incurred in the real estate holdings structure.

Management costs	2019		2018	
	Amount	Percent	Amount	Percent
Custody and settlement costs	431		385	
Minimum fees to external managers	611		724	
Performance based fees to external managers	291		673	
Internal and other costs	2,979		2,763	
Total management costs	4,312	0.05	4,544	0.05
Total management cost excl. performance based fees	4,021	0.04	3,872	0.05

Amounts stated in millions of Norwegian kroner.

Performance results: Government Pension Fund Global
ex. real estate through the end of 2016
31 December 1997 – 31 December 2019

NORGES BANK
INVESTMENT
MANAGEMENT
PERFORMANCE RESULTS

Report presented as at: 31 December 2019
Reported assets' currency: Norwegian kroner
Reported returns' currency: Currency basket¹

Year	Com- posite Return ²	Bench- mark Return ²	Relative Return ²	Com- posite 3-Yr St Dev ³	Bench- mark 3-Yr St Dev ³	Number of Port- folios ⁴	Composite Assets ⁵	Firm Assets ⁵
1998	9.26	9.08	0.18			1	171,832	279,205
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2010	9.62	8.57	1.06	13.30	12.13	1	3,077,441	3,317,700
2011	-2.55	-2.42	-0.13	10.53	9.96	1	3,300,444	3,539,396
2012	13.45	13.24	0.21	8.25	8.05	1	3,790,646	4,043,153
2013	15.97	14.98	0.99	7.27	7.11	1	4,985,940	5,311,043
2014	7.53	8.30	-0.77	5.76	5.62	1	6,289,870	6,778,049
2015	2.52	2.07	0.45	6.80	6.68	1	7,239,955	7,886,255
2016	7.12	6.97	0.15	6.67	6.55	1	7,268,738	7,687,711
2017	13.66	12.96	0.70	6.33	6.25	1	8,488,455	8,672,176
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Notes:

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- ² Returns are gross-of-fees and stated in percent. Relative return is supplemental information.
- ³ Three-year annualised ex-post standard deviation in percent using 36 monthly returns.
- ⁴ A measure of internal dispersion is not provided since the composite contains only one portfolio.
- ⁵ Assets are stated in millions of Norwegian kroner.

	3 Years	5 Years	10 Years	Since inception
Composite return ¹	8.57	7.05	7.83	6.09
Benchmark return ¹	8.40	6.82	7.59	5.84
Relative return ¹	0.18	0.23	0.24	0.25
Standard deviation of composite return ²	6.94	7.15	7.18	7.43
Standard deviation of benchmark return ²	6.87	7.06	7.04	7.07
Tracking error ³	0.32	0.33	0.36	0.67
Information ratio ⁴	0.53	0.66	0.64	0.39
Composite Sharpe ratio ⁵	1.00	0.85	1.02	0.58
Benchmark Sharpe ratio ⁵	0.98	0.83	1.00	0.57
Jensen's alpha ⁶	0.10	0.15	0.10	0.07
Appraisal ratio ⁷	0.33	0.46	0.31	0.12

Notes: All figures are annualised.

¹ Gross-of-fees returns stated in percent. Relative return is supplemental information.

² Ex-post standard deviation in percent using monthly returns.

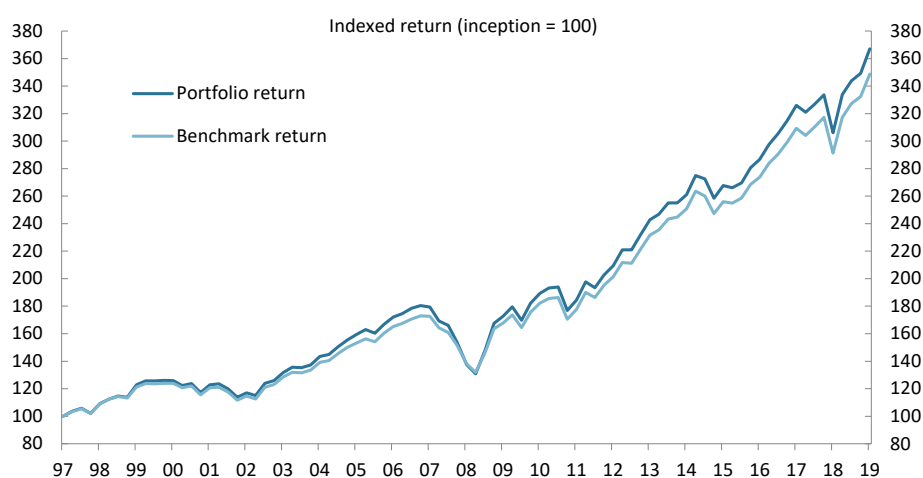
³ Ex-post standard deviation of monthly relative returns.

⁴ Average relative return divided by the tracking error.

⁵ Average monthly return in excess of the risk-free rate divided by the standard deviation of monthly returns.

⁶ Average return in excess of the risk-free rate minus beta-adjusted benchmark excess return.

⁷ Jensen's alpha divided by the standard deviation of the residuals of the CAPM regression.



Composite name change

As of 1 January 2019, the Government Pension Fund Global (ex. real estate until end of 2016) composite has been renamed the Government Pension Fund Global ex. real estate through the end of 2016 composite.

Composite creation date and inception date

The composite inception date and the composite creation date of the Government Pension Fund Global ex. real estate through the end of 2016 composite are both 31 December 1997.

Composite description

Norges Bank Investment Management manages the Pension Fund on behalf of the Ministry of Finance. The fund is invested in three asset classes: equity, fixed income and real estate. The Government Pension Fund Global ex. real estate through the end of 2016 composite is from 2017 onwards the same as the Government Pension Fund Global composite. However, before 2017 the composite excluded the real estate investments because those investments were not part of the assets that were compared with the benchmark assigned by the Ministry of Finance.

Since 1 January 2017, all the fund's investments, including the real estate investments, are measured against the assigned equity and fixed-income benchmark, and the strategic weights for the benchmark assigned by the Ministry of Finance were amended to 62.5 percent equity and 37.5 percent fixed income. It is up to Norges Bank Investment Management to decide whether and how much to invest in unlisted real estate, within a limit of 7 percent of the fund. On 1 May 2019, the strategic benchmark weights were amended to 70 percent for equity and 30 percent for fixed income.

In the period from June 2009 to December 2016, the strategic weights were 60 percent equity and 40 percent fixed income, with real estate investments, when introduced in 2011, gradually reducing the fixed-income weight according to their market value. Before June 2009, the strategic weights were 40 percent equity and 60 percent fixed income.

Norges Bank Investment Management seeks to achieve the highest possible return after costs measured in the Pension Fund's currency basket and within the applicable management framework. The Ministry of Finance has, however, set limits for how much risk Norges Bank Investment Management may take in its active management of the Pension Fund. The management shall be organised with the aim that the expected annualised standard deviation for the relative return between the Pension Fund and the associated benchmark index (expected tracking error) does not exceed 1.25 percentage points. This level was increased from 1.00 percentage point on February 1, 2016.

The fund is not allowed to invest in companies that Norges Bank has excluded from the investment universe and further not in securities issued by a Norwegian enterprise, securities denominated in Norwegian kroner, real estate located in Norway or real estate companies, real estate funds or similar structures where the primary purpose is to invest in Norway.

From the second quarter of 2000 and up to the fourth quarter of 2002, a tactical allocation fund was included in the numbers for the Government Pension Fund Global ex. real estate through the end of 2016 composite, but not at asset class level. Its mandate was to invest across asset classes using quantitative analysis, and it had average total assets under management of around 4 billion kroner during that period.

Derivatives, leverage and short positions

Norges Bank Investment Management's access to the use of financial derivatives is regulated as part of the provisions on the management of the

Government Pension Fund Global laid down by the Ministry of Finance. Specifically, financial derivatives that are naturally linked to investments in the equity and bond portfolio may be used. In accordance with the investment mandate, the Pension Fund may use exchange traded future and option contracts and over-the-counter (OTC) derivative contracts, e.g. interest-rate swaps, in order to achieve the lowest possible transaction cost, and to efficiently rebalance the portfolio. The segmented net fair values and exposure of the financial derivatives for the last two years are shown in the table below.

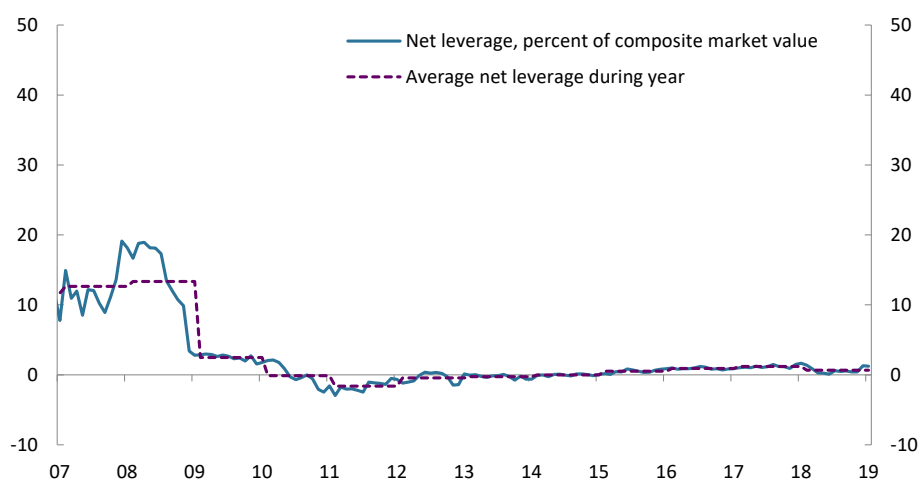
Financial derivatives	Average exposure through year				Net fair value at year-end	
	2019		2018		2019	2018
	Purchased	Sold	Purchased	Sold		
Foreign exchange contracts	264,770	-	224,679	-	-132	-915
Exchange traded futures	17,986	26,482	22,494	16,820	3	28
Interest-rate swaps	9,067	17,615	17,111	22,022	-263	145
Warrants and rights	92	-	170	-	159	40
Contracts for difference	43,186	41,398	36,857	38,399	34	9
Participatory certificates	-	-	536	-	-	-

Figures in millions of Norwegian kroner.

Foreign exchange contracts consist of foreign currency exchange contracts with normal settlement for future delivery and non-deliverable contracts. Exchange traded futures consist of equity index futures and listed government bonds futures. Interest-rate swaps are agreements where the fund receives or pays a fixed rate of interest in exchange for a floating rate. Warrants and rights are options to buy a stock at an agreed price within a certain timeframe. Participatory certificates are instruments issued to international investors by registered foreign institutional investors to acquire an economic interest in listed shares. Contracts for difference are agreements where two counterparties exchange cash flows based on changes in the value of an underlying equity or index.

Leverage may be used with a view to performing the management task in an effective manner, but not with a view to increasing the investment portfolio's exposure to risky assets in the equity and bond portfolio. More specifically, leveraging the equity and fixed-income portfolio is not permitted beyond what is necessary to minimise transaction costs or is a normal part of investment management, and not in excess of 5 percent of the net asset value of the combined equity and fixed-income portfolios. At the end of 2019, the net leverage was 1.1 percent of the aggregated equity and fixed-income portfolios. For the unlisted real estate portfolio, the maximum allowed debt ratio is 35 percent, equating to a net leverage level of 54 percent for that portfolio. The debt ratio of the unlisted real estate portfolio was 6.1 percent of total real estate assets at the end of 2019. For the composite as a whole, the net leverage was 1.2 percent at the end of 2019 and 0.7 percent on average during 2019.

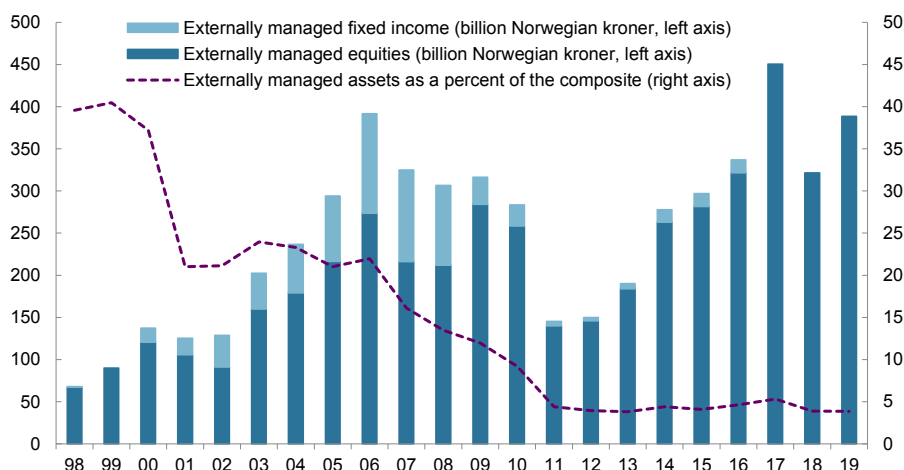
The use of leverage was scaled back in the second half of 2009 due to changes in market conditions and a reorganisation of Norges Bank Investment Management's fixed-income management. Historically, leverage has predominantly been used within the fixed-income composite to exploit differences in rates or credit spreads by combining derivatives, forward contracts and repurchase agreements. Within the equity segment leverage is mainly used to efficiently handle fund management activities and has historically been insignificant. Net leverage is calculated by comparing net exposure and actual market value (net asset value). Net exposure is found by converting all derivatives to underlying exposure. Prior to 2011 the leverage was calculated from the net sum of all cash positions. Below, the net leverage in percent of the composite's fair value is shown as a time series.



Short positions are permitted in the management of the Pension Fund given that Norges Bank Investment Management has access to the securities through an established borrowing arrangement. However, restrictions are laid down as part of the CEO investment mandate issued by Norges Bank's Executive Board. The current use of short positions in the composite's portfolio are immaterial.

Sub-advisors

Norges Bank Investment Management uses external investment managers to handle parts of the portfolio. Norges Bank Investment Management awards management mandates to organisations with expertise in clearly defined sectors, countries and/or regions. The fund's externally managed mandates had assets under management worth 389 billion kroner at the end of 2019. This was equivalent to 3.9 percent of the composite's total value. There was a total of 83 external mandates, all equity, managed by 74 different investment managers as at year-end 2019. The graph below shows the composition of externally managed assets at each year-end since inception as well as its share of the composite's net asset value. The complete list of organisations managing assets on behalf of Norges Bank Investment Management is available on our website www.nbim.no.



Benchmark description

Since 1 January 2017, all the fund's investments, including the real estate investments, are measured against the assigned equity and fixed-income benchmark, and the strategic weights for the benchmark assigned by the Ministry of Finance were amended to 62.5 percent equity and 37.5 percent fixed income. In a subsequent update to the mandate on 30 June 2017, the Ministry of Finance set a target for eventually moving the strategic benchmark weights to 70 percent for equity and 30 percent for fixed income. On 1 May 2019, the strategic benchmark weights were amended to 70 percent for equity and 30 percent for fixed income.

The equity part of the strategic benchmark index is composed on the basis of the FTSE Global All Cap Index. The benchmark is market capitalisation weighted with an additional layer of country factors applied to it. The equities in the benchmark index are assigned the following factors based on their country of origin: European developed markets excluding Norway 2.5, USA and Canada 1, other developed markets 1.5 and emerging markets 1.5. The allocation to countries and regions and the distinction between developed and emerging markets are based on the FTSE Global All Cap Index. New markets added to the FTSE Global All Cap Index from 1 January 2019 onwards are assigned a weight of 0. The benchmark is adjusted for the Norges Bank's tax position on dividends. Securities issued by companies excluded by Norges Bank pursuant to the guidelines for observation and exclusion from the Government Pension Fund Global are not included in the benchmark index for the equity portfolio. At year-end the equity benchmark consisted of 47 countries and around 8,600 securities.

The fixed-income part of the strategic benchmark index consists of 70 percent government debt (nominal and inflation-linked government bonds, and including bonds issued by supranational organisations) and 30 percent corporate debt (corporate bonds, including covered bonds). The index consists of the Bloomberg Barclays Global Treasury, GDP weighted by country, the Bloomberg Barclays Global Inflation-Linked index (Series L), and the subgroup Supranational (within government related) in the Bloomberg Barclays Global Aggregate bond index for the government sector and all

corporate bonds and the subgroup covered bonds within Bloomberg Barclays Global Aggregate limited to the currencies US dollars, Canadian dollars, euros, British pounds, Swedish kronor, Danish kroner and Swiss francs. The Bloomberg Barclays indices are not adjusted for withholding tax but are adjusted for excluded companies/issuers. At year-end the benchmark consisted of 22 currencies and around 14,500 securities.

In the operational management of the fund, to ensure an overall risk management of the fund, the listed and unlisted real estate investments are assigned benchmarks with a combination of bonds and equities from the overall GPFG benchmarks tailor-made to the actual currency composition and characteristics of the real estate investments. The remaining investments are assigned benchmarks where the actual composition of the unlisted and listed real estate benchmark are adjusted from the actual benchmark.

In the period from June 2009 to December 2016, the benchmark's strategic weights were 60 percent equity and 40 percent fixed income, with real estate investments, when introduced in 2011, gradually reducing the fixed-income weight according to their market value. Before June 2009, the strategic weights were 40 percent equity and 60 percent fixed income.

The actual weights of the benchmark as at 31 December 2019 are shown below together with historical strategic changes to the benchmark.

Country for equity benchmark (Currency for fixed-income benchmark)	Equities Actual benchmark indices	Fixed-income Actual benchmark indices
Asset class weights	71.14	28.86
USA (USD)	39.43	45.90
Canada (CAD)	2.20	2.85
Brazil	0.93	
Mexico (MXN)	0.29	1.54
Chile (CLP)	0.10	0.09
Colombia	0.05	
Peru	0.01	
Total Americas	43.01	50.38
France	5.15	
Germany	4.62	
Netherlands	2.04	
Spain	1.51	
Italy	1.45	
Finland	0.66	
Belgium	0.62	
Austria	0.18	
Ireland	0.14	
Portugal	0.11	
Greece	0.05	
<i>Euro-area (EUR)</i>	<i>16.53</i>	<i>27.57</i>
United Kingdom (GBP)	8.76	5.47

Country for equity benchmark (Currency for fixed-income benchmark)	Equities Actual benchmark indices	Fixed-income Actual benchmark indices
Switzerland (CHF)	4.84	0.85
Sweden (SEK)	1.66	0.72
Denmark (DKK)	1.00	0.50
Russia (RUB)	0.46	0.51
Poland (PLN)	0.19	0.67
Turkey	0.09	
Hungary (HUF)	0.04	0.17
Czech Republic (CZK)	0.01	0.27
Total Europe	33.57	36.72
Japan (JPY)	8.43	7.00
China	4.17	
Australia (AUD)	2.37	1.85
South Korea (KRW)	1.55	1.94
Taiwan	1.74	
India	1.18	
Hong Kong (HKD)	1.16	0.03
Thailand (THB)	0.41	0.57
Singapore (SGD)	0.45	0.36
Malaysia (MYR)	0.27	0.42
Indonesia	0.25	
New Zealand (NZD)	0.14	0.27
Philippines	0.14	
Pakistan	0.02	
Total Asia / Oceania	22.28	12.44
South Africa	0.62	
Israel (ILS)	0.18	0.46
Qatar	0.12	
Kuwait	0.10	
United Arab Emirates	0.10	
Egypt	0.02	
Total Middle East and Africa	1.14	0.46

Figures in percent.

Strategic benchmark changes	Implementation
Capital Allocation	
Equity is introduced to the fund and allocation is set at 40%	June 1998
Equity allocation is increased to 60% and Fixed Income reduced to 40%	June 2009
Equity allocation was increased to 62.5% and fixed income reduced 37.5%	January 2017
Equity allocation was increased to 70% and fixed income allocation reduced to 30%	May 2019

Strategic benchmark changes	Implementation
Equity	
Inclusion of Emerging Markets	
Brazil, Mexico, Greece, Turkey, Taiwan, Thailand and South Korea	January 2001
Small-cap included in the benchmark	March 2008
Benchmark consisting of countries in categories "Developed", "Advanced Emerging" and "Secondary Emerging" within FTSE All Cap and specific country list is discontinued	December 2008
Country market capitalisation factors introduced. Strategic weights on regions removed	July 2012
The actual composition of stocks in the real estate benchmark is eliminated from the equity benchmark	January 2017
Fixed income	
Introduction of corporate and securitised bonds	December 2003
Asia/Oceania regional fixed income weight reduced by 10% (offset by a 5% increase in the regional weights for America and Europe)	December 2003
Inflation linked government bonds included in the benchmark	November 2005
Reduction of 5% in the regional Asia weight met with a corresponding increase in the Europe weight	September 2006
GDP weighting of government segment and 70%/30% split of government/private segments introduced. Strategic weights on regions removed	February 2012
Emerging market currencies introduced to benchmark	July 2012
Weighting factors introduced for selected currencies in the government segment	April 2014
The actual composition of bonds in the real estate benchmark is eliminated from the fixed-income benchmark	January 2017
Real estate	
Combination of bonds and equities as part of the overall GPFG benchmarks tailor-made to the actual currency composition and characteristics of the investments	January 2017

Benchmark rebalancing

The actual benchmark weights may differ from the strategic benchmark weights due to the price movements in the market. For example, a stronger increase in equity prices will push the equity portion above its strategic weight. As a result, the actual benchmark portfolio may deviate from the strategic long-term benchmark portfolio. Inflows and outflows are determined based on asset class weights in the actual benchmark.

The Ministry of Finance has set rules for rebalancing back to the strategic weights. These rules specify the maximum permitted deviation between the weights in the actual benchmark portfolio and the strategic benchmark portfolio before the benchmark must be rebalanced back to strategic

weights. Rebalancing shall take place when the equity share in the actual benchmark index differs by more than 2 percentage points from the equity weight in the strategic benchmark index on the last trading day of the month. The Ministry of Finance has set more detailed provisions on the rebalancing of the actual benchmark index.

Portfolio rebalancing

Inflows and outflows to the portfolio are treated independently of the benchmark. The portfolio is rebalanced independently of the benchmark but is governed by the tracking error limits.

Fee schedule

Performance numbers are gross of management fees and custodial fees, but net of all trading expenses (transaction costs). In addition, non-reclaimable withholding taxes are deducted in the performance numbers. The management expense ratio was 5 basis points for 2019, at the same level as in 2018. The table below shows the different components of the total management costs. Note that this table also covers internal costs (e.g. personnel costs, IT/support systems costs) in relation to real estate investment management, but not direct costs incurred in the real estate holdings structure.

Management costs	2019		2018	
	Amount	Percent	Amount	Percent
Custody and settlement costs	431		385	
Minimum fees to external managers	611		724	
Performance based fees to external managers	291		673	
Internal and other costs	2,979		2,763	
Total management costs	4,312	0.05	4,544	0.05
Total management cost excl. performance based fees	4,021	0.04	3,872	0.05

Amounts stated in millions of Norwegian kroner.

Performance results: Government Pension Fund Global equity

31 December 1998 – 31 December 2019

NORGES BANK
INVESTMENT
MANAGEMENT
PERFORMANCE RESULTS

Report presented as at: 31 December 2019

Reported assets' currency: Norwegian kroner

Reported returns' currency: Currency basket¹

Year	Com- posite Return ²	Bench- mark Return ²	Relative Return ²	Com- posite 3-Yr St Dev ³	Bench- mark 3-Yr St Dev ³	Number of Port- folios ⁴	Composite Assets ⁵	Firm Assets ⁵
1999	34.81	31.32	3.49			1	93,651	340,855
2000	-5.82	-6.31	0.49			1	152,829	522,544
2001	-14.60	-14.66	0.06	15.24	14.81	1	246,412	739,116
2002	-24.39	-24.47	0.07	16.94	16.74	1	230,993	743,670
2003	22.84	22.33	0.51	18.15	18.02	1	361,165	1,044,264
2004	13.00	12.21	0.79	15.30	15.26	1	416,298	1,236,653
2005	22.49	20.33	2.16	9.71	9.53	1	582,305	1,648,874
2006	17.04	17.13	-0.09	7.66	7.17	1	725,922	2,047,074
2007	6.82	5.67	1.15	8.70	8.25	1	957,895	2,261,368
2008	-40.71	-39.56	-1.15	17.01	16.28	1	1,128,937	2,498,961
2009	34.27	32.41	1.86	20.85	20.19	1	1,644,106	2,851,020
2010	13.34	12.61	0.73	22.20	21.56	1	1,891,250	3,317,700
2011	-8.84	-8.36	-0.48	17.74	17.46	1	1,944,722	3,539,396
2012	18.06	17.54	0.52	14.29	14.03	1	2,335,830	4,043,153
2013	26.28	24.99	1.28	12.39	12.12	1	3,106,944	5,311,043
2014	7.90	8.73	-0.82	9.14	8.95	1	3,939,923	6,778,049
2015	3.83	3.00	0.83	10.24	10.05	1	4,571,808	7,886,255
2016	8.72	8.58	0.15	10.50	10.29	1	4,691,863	7,687,711
2017	19.44	18.68	0.76	9.99	9.80	1	5,653,440	8,672,176
2018	-9.49	-8.80	-0.69	9.73	9.57	1	5,477,159	8,353,411
2019	26.02	25.65	0.37	10.34	10.22	1	7,145,463	10,215,370

Notes:

¹ The currency basket corresponds to the currency composition in the fund's benchmark portfolio. The basket consisted of 36 international currencies at the end of 2019. The use of the currency basket is mandated by the Ministry of Finance.

² Returns are gross-of-fees and stated in percent. Relative return is supplemental information.

³ Three-year annualised ex-post standard deviation in percent using 36 monthly returns.

⁴ A measure of internal dispersion is not provided since the composite contains only one portfolio.

⁵ Assets are stated in millions of Norwegian kroner.

	3 Years	5 Years	10 Years	Since inception
Composite return ¹	10.86	8.99	9.84	6.21
Benchmark return ¹	10.79	8.75	9.63	5.78
Relative return ¹	0.06	0.24	0.21	0.43
Standard deviation of composite return ²	10.34	10.94	11.53	14.08
Standard deviation of benchmark return ²	10.22	10.77	11.33	13.76
Tracking error ³	0.37	0.41	0.43	0.75
Information ratio ⁴	0.19	0.59	0.51	0.61
Composite Sharpe ratio ⁵	0.90	0.75	0.83	0.38
Benchmark Sharpe ratio ⁵	0.90	0.74	0.83	0.35
Jensen's alpha ⁶	-0.03	0.12	0.05	0.35
Appraisal ratio ⁷	-0.09	0.31	0.14	0.51

Notes: All figures are annualised.

¹ Gross-of-fees returns stated in percent. Relative return is supplemental information.

² Ex-post standard deviation in percent using monthly returns.

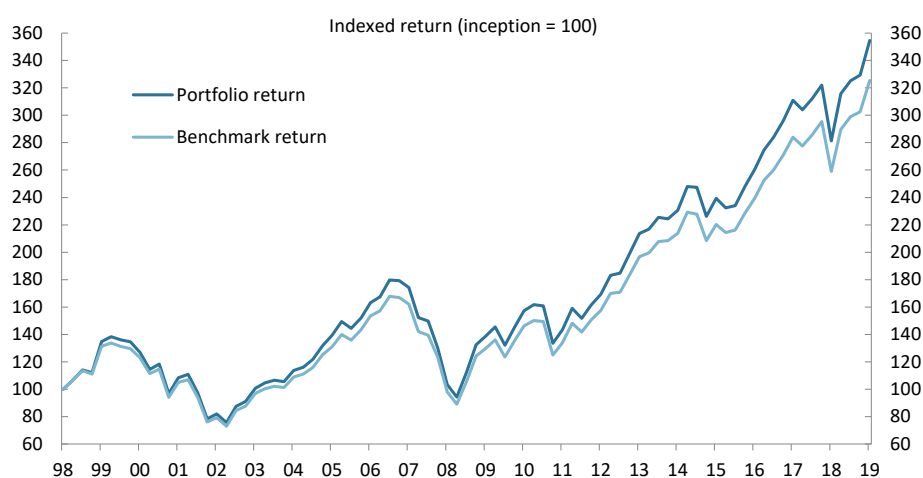
³ Ex-post standard deviation of monthly relative returns.

⁴ Average relative return divided by the tracking error.

⁵ Average monthly return in excess of the risk-free rate divided by the standard deviation of monthly returns.

⁶ Average return in excess of the risk-free rate minus beta-adjusted benchmark excess return.

⁷ Jensen's alpha divided by the standard deviation of the residuals of the CAPM regression.



Composite creation date and inception date

The composite inception date and the composite creation date of the Government Pension Fund Global equity composite are both 31 December 1998.

Composite description

Norges Bank Investment Management manages the Pension Fund on behalf of the Ministry of Finance. The Government Pension Fund Global equity composite is a carve-out of the Government Pension Fund Global composite, which only includes the fund's portfolio holdings in, or relating to, the equity asset class. The composite's investment strategies can be grouped into three broad categories: strategies for allocation, security selection and asset management.

Strategies for allocation aim to improve the composite's exposure to broad markets and sources of return, in both the medium and the long term. An internal reference portfolio was established in 2011. Through a series of adjustments of these publicly available indices, the internal reference portfolio seeks to improve diversification, gain exposure to systematic factors and ensure cost-efficient implementation of changes to the investment strategy.

Security selection strategies seek to generate excess return over assigned benchmarks. Internally managed equity security selection strategies make concentrated investments based on a thorough understanding of individual companies while external managers are used for security selection strategies in segments and markets where local knowledge is of particular relevance, such as for example in emerging and frontier equity markets.

Asset management strategies aim to implement the targeted market exposure, balancing transaction costs and risk and return considerations. Securities lending is an integrated part of our asset management strategies where counterparty default risk exposure is actively managed.

The selected list of listed real estate holdings (REITs) that are otherwise regarded as a part of the real estate management, are included in this equity composite because formally they are of the asset class equity. They are not a part of the equity management composite, however, but are included as part of the real estate management composite.

During 1998, the equity part of the Pension Fund was established as part of a transition process. In this process, large cash inflows and subsequent large asset purchases took place. No return numbers or assets are reported for 1998. Irrespective of this, the equity portfolio's fair value is included in the total Pension Fund's assets and the firm assets as at 31 December 1998.

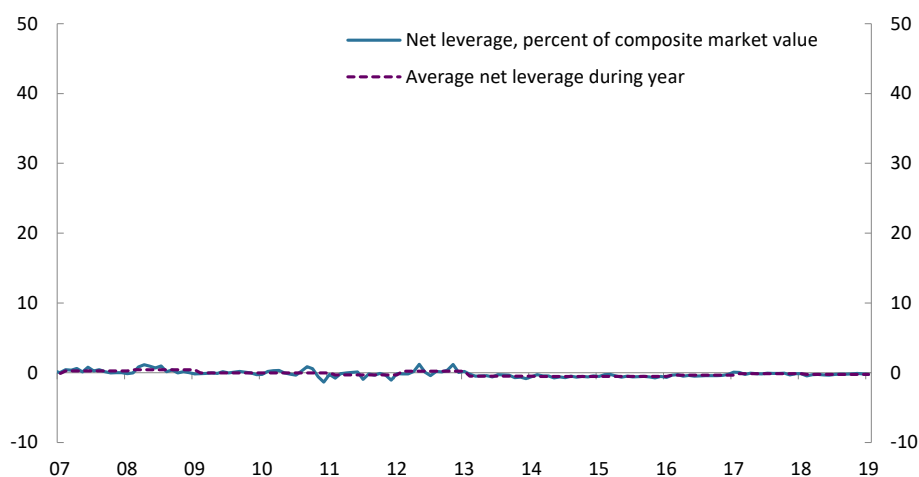
Derivatives, leverage and short positions

Norges Bank Investment Management's access to the use of financial derivatives is regulated as part of the provisions on the management of the Government Pension Fund Global laid down by the Ministry of Finance. Specifically, financial derivatives that are naturally linked to investments in the equity portfolio may be used. In accordance with this investment mandate, the Pension Fund may use foreign exchange contracts, exchange traded futures, equity warrants, rights and swaps and other related derivatives, in order to achieve the lowest possible transaction cost and to efficiently rebalance the portfolio. Within the equity asset class, the use of derivatives has been limited and have been used for efficient portfolio management. The segmented net fair values and exposure of the financial derivatives for the last two years are shown in a table below.

Financial derivatives	Average exposure through year				Net fair value at year-end	
	2019		2018		2019	2018
	Purchased	Sold	Purchased	Sold		
Foreign exchange contracts	698	-	1,378	-	22	-5
Exchange traded futures	4,213	4,393	2,758	5,566	3	33
Warrants and rights	92	-	170	-	159	40
Contracts for difference	43,186	41,398	36,857	38,399	34	9
Participatory certificates	-	-	536	-	-	-

Figures in millions of Norwegian kroner.

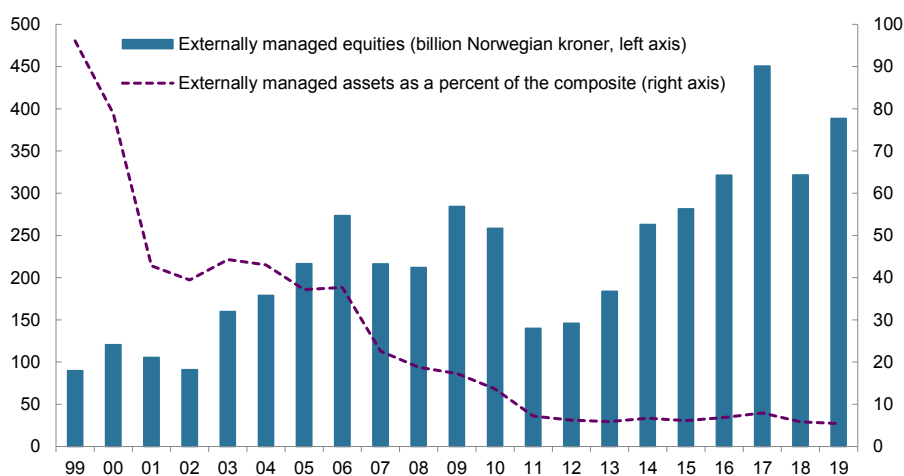
Leverage may be used with a view to performing the management task in an effective manner, but not with a view to increasing the investment portfolio's exposure to risky assets in the equity portfolio. More specifically, leveraging the portfolio is not permitted beyond what is necessary to minimise transaction costs or is a normal part of investment management, and not in excess of 5 percent of the net asset value of the combined equity and fixed-income portfolios. Within the equity segment leverage is mainly used to efficiently handle fund management activities and has historically not been material. Net leverage is calculated by comparing net exposure and actual market value (net asset value). Net exposure is found by converting all derivatives to underlying exposure. Prior to 2011 the leverage was calculated from the net sum of all cash positions. Below, the net leverage in percent of the composite's fair value is shown as a time series.



Short positions are permitted in the management of the Pension Fund given that Norges Bank Investment Management has access to the securities through an established borrowing arrangement. However, restrictions are laid down as part of the CEO investment mandate issued by Norges Bank's Executive Board. The current use of short positions in the composite's portfolio is immaterial.

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Norges Bank Investment Management uses external investment managers to handle parts of the portfolio. Norges Bank Investment Management awards management mandates to organisations with expertise in clearly defined sectors and/or regions. The fund's externally managed equity mandates had assets under management worth 389 billion kroner at the end of 2019. This was equivalent to around 5.4 percent of the composite's total value. There were a total of 83 external equity mandates managed by 74 different investment managers as at year-end 2019. The graph below shows the value of externally managed assets in the composite at each year-end since inception as well as its share of the composite's net asset value. The complete list of organisations managing equity assets on behalf of Norges Bank Investment Management is available on our website www.nbim.no.



Benchmark description

Since 1 January 2017, all the fund's investments, including the real estate investments, are measured against the assigned equity and fixed-income benchmark, and the strategic weights for the benchmark assigned by the Ministry of Finance were amended to 62.5 percent equity and 37.5 percent fixed income. In a subsequent update to the mandate on 30 June 2017, the Ministry of Finance set a target for eventually moving the strategic benchmark weights to 70 percent for equity and 30 percent for fixed income. On 1 May 2019, the strategic benchmark weights were amended to 70 percent for equity and 30 percent for fixed income.

The equity part of the strategic benchmark index is composed on the basis of the FTSE Global All Cap Index. The benchmark is market capitalisation weighted with an additional layer of country factors applied to it. The equities in the benchmark index are assigned the following factors based on their country of origin: European developed markets excluding Norway 2.5, USA and Canada 1, other developed markets 1.5 and emerging markets 1.5. The allocation to countries and regions and the distinction between developed and emerging markets are based on the FTSE Global All Cap Index. New markets added to the FTSE Global All Cap Index from 1 January 2019 onwards are assigned a weight of 0. The benchmark is adjusted for the Norges Bank's tax position on dividends. Securities issued by companies excluded by

Norges Bank pursuant to the guidelines for observation and exclusion from the Government Pension Fund Global are not included in the benchmark index for the equity portfolio. At year-end the equity benchmark consisted of 47 countries and around 8,600 securities.

The actual weights of the benchmark as at 31 December 2019 are shown below together with historical strategic changes to the benchmark.

Country for equity benchmark	Actual benchmark index
Total	100.00
USA	39.43
Canada	2.20
Brazil	0.93
Mexico	0.29
Chile	0.10
Colombia	0.05
Peru	0.01
Total Americas	43.01
France	5.15
Germany	4.62
Netherlands	2.04
Spain	1.51
Italy	1.45
Finland	0.66
Belgium	0.62
Austria	0.18
Ireland	0.14
Portugal	0.11
Greece	0.05
<i>Euro-area</i>	16.53
United Kingdom	8.76
Switzerland	4.84
Sweden	1.66
Denmark	1.00
Russia	0.46
Poland	0.19
Turkey	0.09
Hungary	0.04
Czech Republic	0.01
Total Europe	33.57
Japan	8.43
China	4.17
Australia	2.37
South Korea	1.55
Taiwan	1.74
India	1.18
Hong Kong	1.16
Singapore	0.45
Thailand	0.41
Malaysia	0.27
Indonesia	0.25
Philippines	0.14
New Zealand	0.14
Pakistan	0.02
Total Asia / Oceania	22.28

Country for equity benchmark	Actual benchmark index
South Africa	0.62
Israel	0.18
Qatar	0.12
Kuwait	0.10
United Arab Emirates	0.10
Egypt	0.02
Total Middle East and Africa	1.14

Figures in percent.

Strategic benchmark changes	Implementation
Inclusion of Emerging Markets:	
Brazil, Mexico, Greece, Turkey, Taiwan, Thailand and South Korea	January 2001
Small-cap included in the benchmark	March 2008
Benchmark consisting of countries in categories "Developed", "Advanced Emerging" and "Secondary Emerging" within FTSE All Cap and specific country list is discontinued	December 2008
Country market capitalisation factors introduced. Strategic weights on regions removed	July 2012

Fee schedule

Performance numbers are gross of management fees and custodial fees, but net of all trading expenses (transaction costs). In addition, non-reclaimable withholding taxes are deducted in the performance numbers. The management expense ratio for the Pension Fund as a whole was 5 basis points for 2019, at the same level as in 2018. For this equity composite, the expense ratio was 5 basis points for 2019, compared with 6 basis points in 2018.

Performance results: Government Pension Fund Global equity management 31 December 1998 – 31 December 2019

NORGES BANK
INVESTMENT
MANAGEMENT
PERFORMANCE RESULTS

Report presented as at: 31 December 2019

Reported assets' currency: Norwegian kroner

Reported returns' currency: Currency basket¹

Year	Com- posite Return ²	Bench- mark Return ²	Relative Return ²	Com- posite 3-Yr St Dev ³	Bench- mark 3-Yr St Dev ³	Number of Port- folios ⁴	Composite Assets ⁵	Firm Assets ⁵
1999	34.81	31.32	3.49			1	93,651	340,855
2000	-5.82	-6.31	0.49			1	152,829	522,544
2001	-14.60	-14.66	0.06	15.24	14.81	1	246,412	739,116
2002	-24.39	-24.47	0.07	16.94	16.74	1	230,993	743,670
2003	22.84	22.33	0.51	18.15	18.02	1	361,165	1,044,264
2004	13.00	12.21	0.79	15.30	15.26	1	416,298	1,236,653
2005	22.49	20.33	2.16	9.71	9.53	1	582,305	1,648,874
2006	17.04	17.13	-0.09	7.66	7.17	1	725,922	2,047,074
2007	6.82	5.67	1.15	8.70	8.25	1	957,895	2,261,368
2008	-40.71	-39.56	-1.15	17.01	16.28	1	1,128,937	2,498,961
2009	34.27	32.41	1.86	20.85	20.19	1	1,644,106	2,851,020
2010	13.34	12.61	0.73	22.20	21.56	1	1,891,250	3,317,700
2011	-8.84	-8.36	-0.48	17.74	17.46	1	1,944,722	3,539,396
2012	18.06	17.54	0.52	14.29	14.03	1	2,335,830	4,043,153
2013	26.28	24.99	1.28	12.39	12.12	1	3,106,944	5,311,043
2014	7.90	8.73	-0.82	9.14	8.95	1	3,939,923	6,778,049
2015	3.83	3.00	0.83	10.24	10.05	1	4,571,808	7,886,255
2016	8.72	8.58	0.15	10.50	10.29	1	4,691,863	7,687,711
2017	19.50	18.70	0.79	9.99	9.80	1	5,580,827	8,672,176
2018	-9.49	-8.80	-0.69	9.75	9.56	1	5,395,801	8,353,411
2019	26.13	25.62	0.51	10.39	10.21	1	7,004,117	10,215,370

Notes:

¹ The currency basket corresponds to the currency composition in the fund's benchmark portfolio. The basket consisted of 36 international currencies at the end of 2019. The use of the currency basket is mandated by the Ministry of Finance.

² Returns are gross-of-fees and stated in percent. Relative return is supplemental information.

³ Three-year annualised ex-post standard deviation in percent using 36 monthly returns.

⁴ A measure of internal dispersion is not provided since the composite contains only one portfolio.

⁵ Assets are stated in millions of Norwegian kroner.

	3 Years	5 Years	10 Years	Since inception
Composite return ¹	10.90	9.02	9.85	6.22
Benchmark return ¹	10.79	8.75	9.63	5.78
Relative return ¹	0.11	0.27	0.23	0.44
Standard deviation of composite return ²	10.39	10.97	11.55	14.08
Standard deviation of benchmark return ²	10.21	10.77	11.32	13.76
Tracking error ³	0.36	0.41	0.43	0.75
Information ratio ⁴	0.34	0.67	0.55	0.62
Composite Sharpe ratio ⁵	0.90	0.75	0.83	0.38
Benchmark Sharpe ratio ⁵	0.91	0.74	0.83	0.35
Jensen's alpha ⁶	-0.04	0.12	0.05	0.36
Appraisal ratio ⁷	-0.13	0.34	0.14	0.52

Notes: All figures are annualised.

¹ Gross-of-fees returns stated in percent. Relative return is supplemental information.

² Ex-post standard deviation in percent using monthly returns.

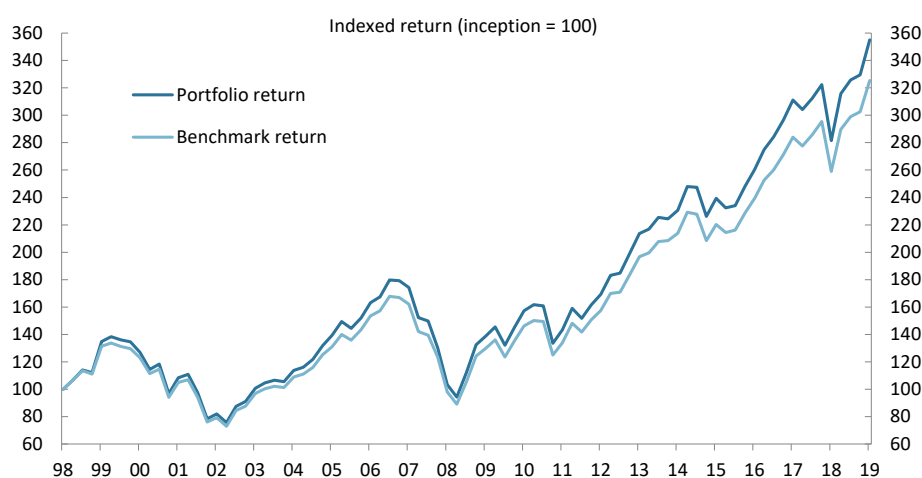
³ Ex-post standard deviation of monthly relative returns.

⁴ Average relative return divided by the tracking error.

⁵ Average monthly return in excess of the risk-free rate divided by the standard deviation of monthly returns.

⁶ Average return in excess of the risk-free rate minus beta-adjusted benchmark excess return.

⁷ Jensen's alpha divided by the standard deviation of the residuals of the CAPM regression.



Composite creation date and inception date

The inception date of the Government Pension Fund Global equity management composite is 31 December 1998. The composite creation date is 31 December 2017.

Composite description

Norges Bank Investment Management manages the Pension Fund on behalf of the Ministry of Finance. The Government Pension Fund Global equity management composite is a carve-out of the Government Pension Fund Global composite, which only includes the fund's portfolio holdings in, or relating to, the equity asset class and excluding selected listed real estate holdings that is managed as part of the real estate strategy. The composite's

investment strategies can be grouped into three broad categories: strategies for allocation, security selection and asset management.

Strategies for allocation aim to improve the composite's exposure to broad markets and sources of return, in both the medium and the long term. An internal reference portfolio was established in 2011. Through a series of adjustments of these publicly available indices, the internal reference portfolio seeks to improve diversification, gain exposure to systematic factors and ensure cost-efficient implementation of changes to the investment strategy.

Security selection strategies seek to generate excess return over assigned benchmarks. Internally managed equity security selection strategies make concentrated investments based on a thorough understanding of individual companies while external managers are used for security selection strategies in segments and markets where local knowledge is of particular relevance, such as for example in emerging and frontier equity markets.

Asset management strategies aim to implement the targeted market exposure, balancing transaction costs and risk and return considerations. Securities lending is an integrated part of our asset management strategies where counterparty default risk exposure is actively managed.

During 1998, the equity part of the Pension Fund was established as part of a transition process. In this process, large cash inflows and subsequent large asset purchases took place. No return numbers or assets are reported for 1998. Irrespective of this, the equity portfolio's fair value is included in the total Pension Fund's assets and the firm assets as at 31 December 1998.

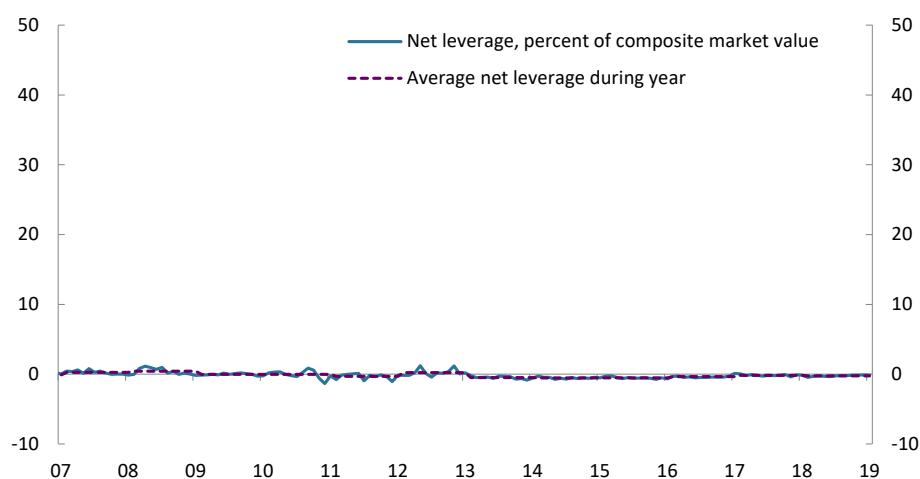
Derivatives, leverage and short positions

Norges Bank Investment Management's access to the use of financial derivatives is regulated as part of the provisions on the management of the Government Pension Fund Global laid down by the Ministry of Finance. Specifically, financial derivatives that are naturally linked to investments in the equity portfolio may be used. In accordance with this investment mandate, the Pension Fund may use foreign exchange contracts, exchange traded futures, equity warrants, rights and swaps and other related derivatives, in order to achieve the lowest possible transaction cost and to efficiently rebalance the portfolio. Within the equity management the use of derivatives has been limited and have been used for efficient portfolio management. The segmented net fair values and exposure of the financial derivatives for the last two years are shown in a table below.

Financial derivatives	Average exposure through year				Net fair value at year-end	
	2019		2018		2019	2018
	Purchased	Sold	Purchased	Sold		
Foreign exchange contracts	698	-	1,378	-	22	-5
Exchange traded futures	4,213	4,393	2,758	5,566	3	33
Warrants and rights	92	-	170	-	159	40
Contracts for difference	43,186	41,398	36,857	38,399	34	9
Participatory certificates	-	-	536	-	-	-

Figures in millions of Norwegian kroner.

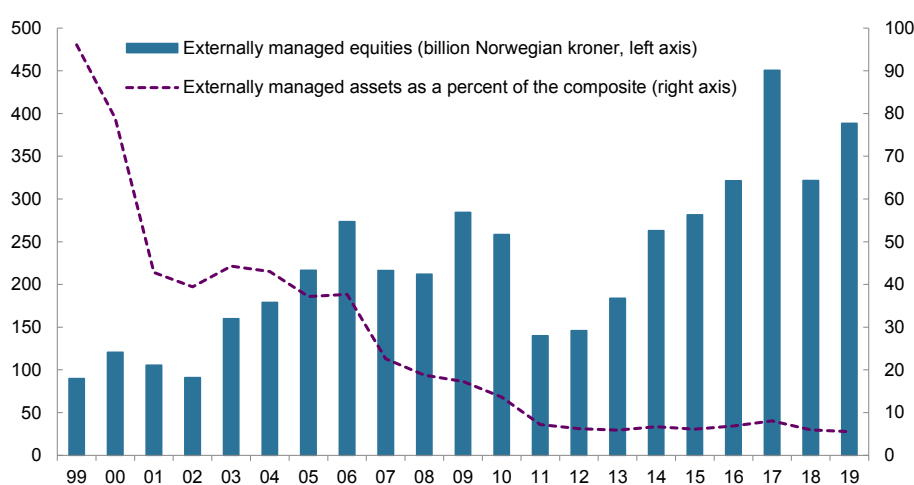
Leverage may be used with a view to performing the management task in an effective manner, but not with a view to increasing the investment portfolio's exposure to risky assets in the equity portfolio. More specifically, leveraging the portfolio is not permitted beyond what is necessary to minimise transaction costs or is a normal part of investment management, and not in excess of 5 percent of the net asset value of the combined equity and fixed-income portfolios. Within the equity segment leverage is mainly used to efficiently handle fund management activities and has historically not been material. Net leverage is calculated by comparing net exposure and actual market value (net asset value). Net exposure is found by converting all derivatives to underlying exposure. Prior to 2011 the leverage was calculated from the net sum of all cash positions. Below, the net leverage in percent of the composite's fair value is shown as a time series.



Short positions are permitted in the management of the Pension Fund given that Norges Bank Investment Management has access to the securities through an established borrowing arrangement. However, restrictions are laid down as part of the CEO investment mandate issued by Norges Bank's Executive Board. The current use of short positions in the composite's portfolio is immaterial.

Sub-advisors

Norges Bank Investment Management uses external investment managers to handle parts of the portfolio. Norges Bank Investment Management awards management mandates to organisations with expertise in clearly defined sectors and/or regions. The fund's externally managed equity mandates had assets under management worth 389 billion kroner at the end of 2019. This was equivalent to 5.5 percent of the composite's total value. There were a total of 83 external equity mandates managed by 74 different investment managers as at year-end 2019. The graph below shows the value of externally managed assets in the composite at each year-end since inception as well as its share of the composite's net asset value. The complete list of organisations managing equity assets on behalf of Norges Bank Investment Management is available on our website www.nbim.no.



Benchmark description

Since 1 January 2017, all the fund's investments, including the real estate investments, are measured against the assigned equity and fixed-income benchmark, and the strategic weights for the benchmark assigned by the Ministry of Finance were amended to 62.5 percent equity and 37.5 percent fixed income. In a subsequent update to the mandate on 30 June 2017, the Ministry of Finance set a target for eventually moving the strategic benchmark weights to 70 percent for equity and 30 percent for fixed income. On 1 May 2019, the strategic benchmark weights were amended to 70 percent for equity and 30 percent for fixed income.

The equity part of the strategic benchmark index is composed on the basis of the FTSE Global All Cap Index. The benchmark is market capitalisation weighted with an additional layer of country factors applied to it. The equities in the benchmark index are assigned the following factors based on their country of origin: European developed markets excluding Norway 2.5, USA and Canada 1, other developed markets 1.5 and emerging markets 1.5. The allocation to countries and regions and the distinction between developed and emerging markets are based on the FTSE Global All Cap Index. New markets added to the FTSE Global All Cap Index from 1 January 2019 onwards are assigned a weight of 0. The benchmark is adjusted for the Norges Bank's tax position on dividends. Securities issued by companies excluded by

Norges Bank pursuant to the guidelines for observation and exclusion from the Government Pension Fund Global are not included in the benchmark index for the equity portfolio. At year-end the equity benchmark consisted of 47 countries and around 8,600 securities.

The fund is invested in equity, fixed income and listed and unlisted real estate. The real estate investments are assigned a benchmark with combination of bonds and equities from the overall GPFG benchmarks tailor-made to the actual currency composition and characteristics of the real estate investments. The equity management composite is assigned a benchmark where the actual composition of the equity part of the unlisted and listed real estate benchmark are taken out from the equity part of the strategic benchmark.

The actual weights of the benchmark as at 31 December 2019 are shown below together with historical strategic changes to the benchmark.

Country for equity benchmark	Actual benchmark index
Total	100.00
USA	39.05
Canada	2.25
Brazil	0.96
Mexico	0.30
Chile	0.10
Colombia	0.06
Peru	0.01
Total Americas	42.72
France	5.07
Germany	4.48
Netherlands	2.05
Spain	1.52
Italy	1.46
Finland	0.66
Belgium	0.63
Austria	0.18
Ireland	0.14
Portugal	0.11
Greece	0.05
<i>Euro-area</i>	16.34
United Kingdom	8.54
Switzerland	4.93
Sweden	1.66
Denmark	1.03
Russia	0.47
Poland	0.20
Turkey	0.09
Hungary	0.04
Czech Republic	0.01
Total Europe	33.31
Japan	8.62
China	4.27
Australia	2.42
South Korea	1.59
Taiwan	1.78

Country for equity benchmark	Actual benchmark index
India	1.21
Hong Kong	1.19
Singapore	0.46
Thailand	0.42
Malaysia	0.28
Indonesia	0.26
Philippines	0.15
New Zealand	0.14
Pakistan	0.02
Total Asia / Oceania	22.80
South Africa	0.63
Israel	0.18
Qatar	0.13
Kuwait	0.10
United Arab Emirates	0.10
Egypt	0.02
Total Middle East and Africa	1.17

Figures in percent.

Strategic benchmark changes	Implementation
Inclusion of Emerging Markets:	
Brazil, Mexico, Greece, Turkey, Taiwan, Thailand and South Korea	January 2001
Small-cap included in the benchmark	March 2008
Benchmark consisting of countries in categories "Developed", "Advanced Emerging" and "Secondary Emerging" within FTSE All Cap and specific country list is discontinued	December 2008
Country market capitalisation factors introduced. Strategic weights on regions removed	July 2012
The actual composition of stocks in the real estate benchmark is eliminated from the equity benchmark	January 2017

Fee schedule

Performance numbers are gross of management fees and custodial fees, but net of all trading expenses (transaction costs). In addition, non-reclaimable withholding taxes are deducted in the performance numbers. The management expense ratio for the Pension Fund as a whole was 5 basis points for 2019, at the same level as in 2018. For this equity management composite, the expense ratio was 5 basis points for 2019, compared with 6 basis points in 2018.

Performance results: Government Pension Fund Global fixed income

31 December 1997 – 31 December 2019

NORGES BANK
INVESTMENT
MANAGEMENT
PERFORMANCE RESULTS

Report presented as at: 31 December 2019
Reported assets' currency: Norwegian kroner
Reported returns' currency: Currency basket¹

Year	Com- posite Return ²	Benchmark Return ²		Relative Return ²		Com- posite Dev ³	Benchmark 3-Yr St Dev ³		Num- ber of Port- folios ⁴	Composite Assets ⁵	Firm Assets ⁵
		Asset class	Mngt.	Asset class	Mngt.		Asset class	Mngt.			
1998	9.31	9.10	9.10	0.21	0.21				1	102,300	279,205
1999	-0.99	-1.00	-1.00	0.01	0.01				1	128,751	340,855
2000	8.41	8.34	8.34	0.07	0.07	2.67	2.69	2.69	1	227,323	522,544
2001	5.04	4.96	4.96	0.08	0.08	2.95	2.93	2.93	1	362,945	739,116
2002	9.90	9.41	9.41	0.49	0.49	3.11	3.08	3.08	1	378,014	743,670
2003	5.26	4.77	4.77	0.48	0.48	3.93	3.90	3.90	1	484,141	1,044,264
2004	6.10	5.73	5.73	0.37	0.37	3.70	3.70	3.70	1	600,104	1,236,653
2005	3.82	3.46	3.46	0.36	0.36	3.39	3.40	3.40	1	816,746	1,648,874
2006	1.93	1.68	1.68	0.25	0.25	2.63	2.67	2.67	1	1,057,761	2,047,074
2007	2.96	4.26	4.26	-1.29	-1.29	2.45	2.59	2.59	1	1,060,749	2,261,368
2008	-0.54	6.06	6.06	-6.60	-6.60	4.19	3.90	3.90	1	1,146,489	2,498,961
2009	12.49	5.13	5.13	7.36	7.36	5.02	4.06	4.06	1	995,937	2,851,020
2010	4.11	2.58	2.58	1.53	1.53	5.20	4.22	4.22	1	1,186,191	3,317,700
2011	7.03	6.51	6.51	0.52	0.52	3.79	3.17	3.17	1	1,355,722	3,539,396
2012	6.68	6.97	6.97	-0.29	-0.29	2.72	2.81	2.81	1	1,454,816	4,043,153
2013	0.10	-0.15	-0.15	0.25	0.25	2.67	2.89	2.89	1	1,878,996	5,311,043
2014	6.88	7.59	7.59	-0.70	-0.70	2.40	2.63	2.63	1	2,349,948	6,778,049
2015	0.33	0.57	0.57	-0.24	-0.24	2.64	2.92	2.92	1	2,668,147	7,886,255
2016	4.32	4.16	4.16	0.16	0.16	2.85	3.10	3.10	1	2,576,875	7,687,711
2017	3.31	2.88	2.92	0.43	0.39	2.80	3.00	3.00	1	2,616,372	8,672,176
2018	0.56	0.56	0.57	0.00	-0.01	2.56	2.74	2.73	1	2,532,774	8,353,411
2019	7.56	7.35	7.45	0.21	0.11	2.56	2.69	2.66	1	2,669,606	10,215,370

Notes:

- ¹ The currency basket corresponds to the currency composition in the fund's benchmark portfolio. The basket consisted of 36 international currencies at the end of 2019. The use of the currency basket is mandated by the Ministry of Finance.
- ² Returns are gross-of-fees and stated in percent. Relative return is supplemental information.
- ³ Three-year annualised ex-post standard deviation in percent using 36 monthly returns.
- ⁴ A measure of internal dispersion is not provided since the composite contains only one portfolio.
- ⁵ Assets are stated in millions of Norwegian kroner.

Composite versus asset class benchmark:

	3 Years	5 Years	10 Years	Since inception
Composite return ¹	3.77	3.18	4.05	4.69
Benchmark return ¹	3.56	3.07	3.86	4.54
Relative return ¹	0.21	0.11	0.19	0.15
Standard deviation of composite return ²	2.56	2.83	2.74	3.28
Standard deviation of benchmark return ²	2.69	3.01	2.91	3.17
Tracking error ³	0.35	0.39	0.46	0.99
Information ratio ⁴	0.57	0.26	0.38	0.15
Composite Sharpe ratio ⁵	0.85	0.77	1.28	0.84
Benchmark Sharpe ratio ⁵	0.73	0.69	1.14	0.82
Jensen's alpha ⁶	0.31	0.24	0.40	0.17
Appraisal ratio ⁷	0.96	0.71	0.96	0.17

Notes: All figures are annualised.

¹ Gross-of-fees returns stated in percent. Relative return is supplemental information.

² Ex-post standard deviation in percent using monthly returns.

³ Ex-post standard deviation of monthly relative returns.

⁴ Average relative return divided by the tracking error.

⁵ Average monthly return in excess of the risk-free rate divided by the standard deviation of monthly returns.

⁶ Average return in excess of the risk-free rate minus beta-adjusted benchmark excess return.

⁷ Jensen's alpha divided by the standard deviation of the residuals of the CAPM regression.

Composite versus asset management benchmark:

	3 Years	5 Years	10 Years	Since inception
Composite return ¹	3.77	3.18	4.05	4.69
Benchmark return ¹	3.60	3.10	3.87	4.55
Relative return ¹	0.16	0.08	0.17	0.14
Standard deviation of composite return ²	2.56	2.83	2.74	3.28
Standard deviation of benchmark return ²	2.66	2.99	2.90	3.16
Tracking error ³	0.32	0.37	0.46	0.99
Information ratio ⁴	0.48	0.20	0.36	0.14
Composite Sharpe ratio ⁵	0.85	0.77	1.28	0.84
Benchmark Sharpe ratio ⁵	0.76	0.71	1.15	0.83
Jensen's alpha ⁶	0.25	0.20	0.38	0.16
Appraisal ratio ⁷	0.80	0.62	0.92	0.16

Notes: All figures are annualised.

¹ Gross-of-fees returns stated in percent. Relative return is supplemental information.

² Ex-post standard deviation in percent using monthly returns.

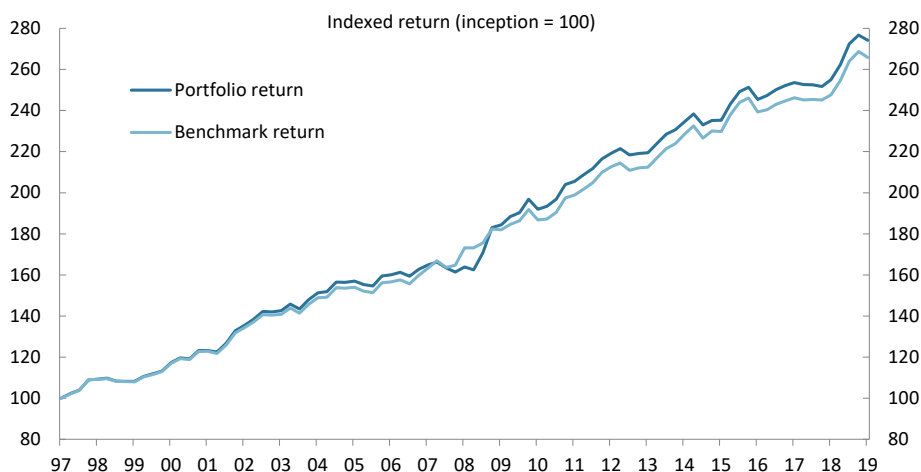
³ Ex-post standard deviation of monthly relative returns.

⁴ Average relative return divided by the tracking error.

⁵ Average monthly return in excess of the risk-free rate divided by the standard deviation of monthly returns.

⁶ Average return in excess of the risk-free rate minus beta-adjusted benchmark excess return.

⁷ Jensen's alpha divided by the standard deviation of the residuals of the CAPM regression.



Composite creation date and inception date

The composite inception date and the composite creation date of the Government Pension Fund Global fixed income composite are both 31 December 1997.

Composite description

Norges Bank Investment Management manages the Pension Fund on behalf of the Ministry of Finance. The Government Pension Fund Global fixed-income composite is a carve-out of the Government Pension Fund Global composite, which only includes the fund's portfolio holdings in, or relating to, the fixed-income asset class. The composite's investment strategies can be grouped into three broad categories: strategies for allocation, security selection and asset management.

Strategies for allocation aim to improve the composite's exposure to broad markets and sources of return, in both the medium and the long term. An internal reference portfolio was established in 2011. Through a series of adjustments of these publicly available indices, the internal reference portfolio seeks to improve diversification, gain exposure to systematic factors and ensure cost-efficient implementation of changes to the investment strategy.

Security selection strategies seek to generate excess return over specialised benchmarks. Internally managed fixed-income security selection strategies focus on fundamental analysis and concentrated holdings.

Asset management strategies aim to implement the targeted market exposure, balancing transaction costs and risk and return considerations. Securities lending is an integrated part of our asset management strategies where counterparty default risk exposure is actively managed.

Derivatives, leverage and short positions

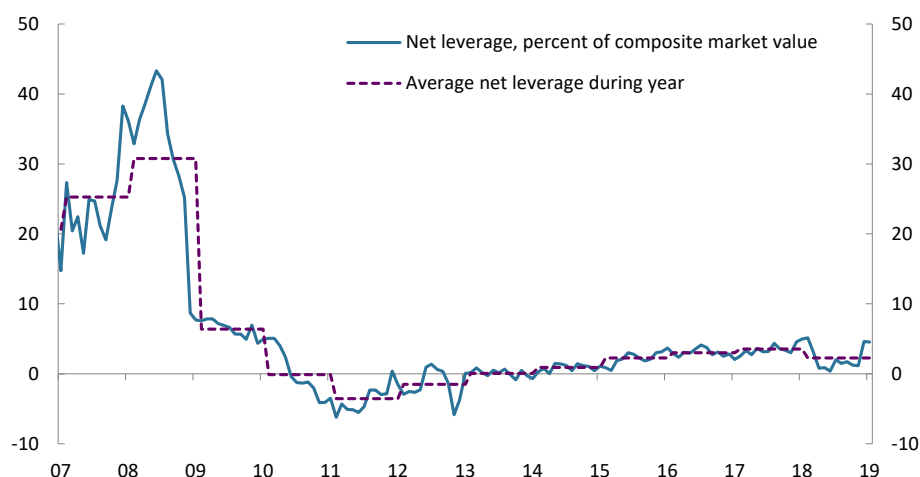
Norges Bank Investment Management's access to the use of financial derivatives is regulated as part of the provisions on the management of the Government Pension Fund Global laid down by the Ministry of Finance and available on their website. Specifically, financial derivatives that are naturally

linked to investments in the fixed-income portfolio may be used. In accordance with this investment mandate, the Pension Fund may use exchange traded futures, interest-rate swaps, foreign exchange contracts and other related derivatives in order to achieve the lowest possible transaction cost, and to efficiently rebalance the portfolio. The segmented net fair values and average exposure of the financial derivatives in the composite for the last two years are shown in a table below.

Financial derivatives	Average exposure through year				Net fair value at year-end	
	2019		2018		2019	2018
	Purchased	Sold	Purchased	Sold		
Foreign exchange contracts	264,878	-	224,627	-	-154	-909
Exchange traded futures	13,772	22,088	19,736	11,254	0	-5
Interest-rate swaps	9,067	17,615	17,111	22,022	-263	145

Figures in millions of Norwegian kroner.

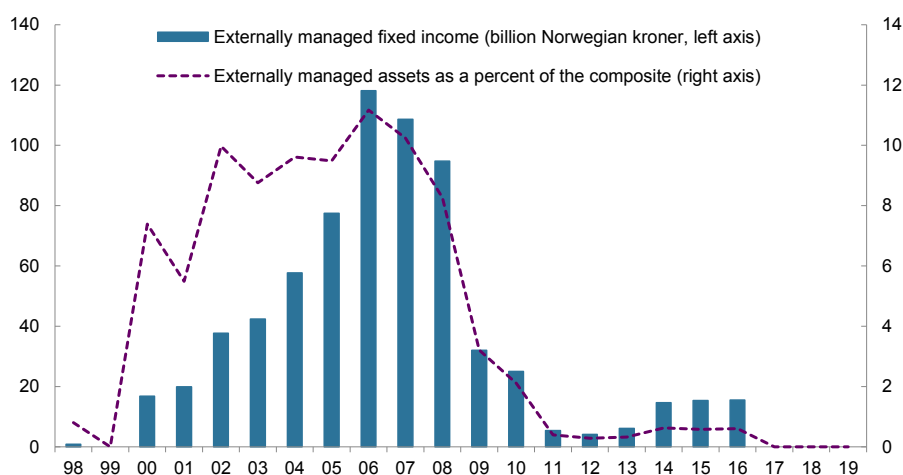
Leverage may be used with a view to performing the management task in an effective manner, but not with a view to increasing the investment portfolio's exposure to risky assets in the bond portfolio. More specifically, leveraging the fixed-income portfolio is not permitted beyond what is necessary to minimise transaction costs or is a normal part of investment management, and not in excess of 5 percent of the net asset value of the combined equity and fixed-income portfolios. The use of leverage was scaled back in the second half of 2009 due to changes in market conditions and a reorganisation of Norges Bank Investment Management's fixed-income management. Historically, leverage has predominantly been used within the fixed-income composite to exploit differences in rates or credit spreads by combining derivatives, forward contracts and repurchase agreements. Net leverage is calculated by comparing net exposure and actual market value (net asset value). Net exposure is found by converting all derivatives to underlying exposure. Prior to 2011 the leverage was calculated from the net sum of all cash positions. Below, the net leverage in percent of the composite's fair value is shown as a time series.



Short positions are permitted in the management of the Pension Fund given that Norges Bank Investment Management has access to the securities through an established borrowing arrangement. However, restrictions are laid down as part of the CEO investment mandate issued by Norges Bank's Executive Board. The current use of short positions in the composite's portfolio is immaterial.

Sub-advisors

Norges Bank Investment Management currently has since 2017 no fixed-income assets managed by external investment managers. However, external fixed-income managers have been used to varying degrees for the management of parts of the composite historically. The graph below shows the value of externally managed assets in the composite at each year-end since inception as well its a share of the composite's net asset value.



Benchmark description

Since 1 January 2017, all the fund's investments, including the real estate investments, are measured against the assigned equity and fixed-income benchmark, and the strategic weights for the benchmark assigned by the Ministry of Finance were amended to 62.5 percent equity and 37.5 percent fixed income. In a subsequent update to the mandate on 30 June 2017, the Ministry of Finance set a target for eventually moving the strategic benchmark weights to 70 percent for equity and 30 percent for fixed income. On 1 May 2019, the strategic benchmark weights were amended to 70 percent for equity and 30 percent for fixed income.

The fixed-income part of the strategic benchmark index consists of 70 percent government debt (nominal and inflation-linked government bonds, and including bonds issued by supranational organisations) and 30 percent corporate debt (corporate bonds, including covered bonds). The index consists of the Bloomberg Barclays Global Treasury, GDP weighted by country, the Bloomberg Barclays Global Inflation-Linked index (Series L), and the subgroup Supranational (within government related) in the Bloomberg Barclays Global Aggregate bond index for the government sector and all corporate bonds and the subgroup covered bonds within Bloomberg Barclays Global Aggregate limited to the currencies US dollars, Canadian dollars,

euros, British pounds, Swedish kronor, Danish kroner and Swiss francs. The Bloomberg Barclays indices are not adjusted for withholding tax but are adjusted for excluded companies/issuers. At year-end the benchmark consisted of 22 currencies and around 14,500 securities.

In the operational management of the fund, to ensure an overall risk management of the fund, the listed and unlisted real estate investments are assigned benchmarks with a combination of bonds and equities from the overall GPFM benchmarks tailor-made to the actual currency composition and characteristics of the real estate investments. The remaining investments are assigned benchmarks where the actual composition of the unlisted and listed real estate benchmark are adjusted from the actual benchmark.

The fixed-income composite is assigned both the fixed-income component of the strategic asset class benchmark as well as the operational management benchmarks where the benchmark constituencies in the real estate benchmarks are adjusted out from the fixed-income benchmark. The composite is presented versus both benchmarks, with the strategic asset class benchmark indicated as type *Asset class* and the operational management benchmark indicated with type *Management* or *Mngt*.

The actual weights of the benchmarks as at 31 December 2019 are shown below together with historical strategic changes to the benchmark.

Country for equity benchmark	Actual benchmark index	Country for equity benchmark	Actual benchmark index
Total	100.00	Total	100.00
USA (USD)	45.90	USA (USD)	45.85
Canada (CAD)	2.85	Canada (CAD)	3.10
Mexico (MXN)	1.54	Mexico (MXN)	1.68
Chile (CLP)	0.09	Chile (CLP)	0.10
Total Americas	50.38	Total Americas	50.72
<i>Euro-area (EUR)</i>	<i>27.57</i>	<i>Euro-area (EUR)</i>	<i>27.31</i>
United Kingdom (GBP)	5.47	United Kingdom (GBP)	4.35
Switzerland (CHF)	0.85	Switzerland (CHF)	0.65
Sweden (SEK)	0.72	Sweden (SEK)	0.70
Poland (PLN)	0.67	Poland (PLN)	0.73
Russia (RUB)	0.51	Russia (RUB)	0.55
Denmark (DKK)	0.50	Denmark (DKK)	0.54
Czech Republic (CZK)	0.27	Czech Republic (CZK)	0.30
Hungary (HUF)	0.17	Hungary (HUF)	0.18
Total Europe	36.72	Total Europe	35.32
Japan (JPY)	7.00	Japan (JPY)	7.53
South Korea (KRW)	1.94	South Korea (KRW)	2.11
Australia (AUD)	1.85	Australia (AUD)	2.02
Thailand (THB)	0.57	Thailand (THB)	0.63
Malaysia (MYR)	0.42	Malaysia (MYR)	0.46
Singapore (SGD)	0.36	Singapore (SGD)	0.39
New Zealand (NZD)	0.27	New Zealand (NZD)	0.29
Hong Kong (HKD)	0.03	Hong Kong (HKD)	0.03
Total Asia / Oceania	12.44	Total Asia / Oceania	13.46
Israel (ILS)	0.46	Israel (ILS)	0.50
Total Middle East and Africa	0.46	Total Middle East and Africa	0.50

Figures in percent.

Strategic benchmark changes	Implementation
Introduction of corporate and securitised bonds	December 2003
Asia/Oceania regional fixed income weight reduced by 10% (offset by a 5% increase in the regional weights for America and Europe)	December 2003
Inflation linked government bonds included in the benchmark	November 2005
Reduction of 5% in the regional Asia weight met with a corresponding increase in the Europe weight	September 2006
GDP weighting of government segment and 70%/30% split of government/private segments introduced. Strategic weights on regions removed	February 2012
Emerging market currencies introduced to benchmark	July 2012
Weighting factors introduced for selected currencies in the government segment	April 2014
The actual composition of bonds in the real estate benchmark is eliminated from the fixed-income management benchmark. The strategic fixed-income benchmark is not affected by this change	January 2017

Fee schedule

Performance numbers are gross of management fees and custodial fees, but net of all trading expenses (transaction costs). In addition, non-reclaimable withholding taxes are deducted in the performance numbers. The management expense ratio for the Pension Fund as a whole was 5 basis points for 2019, at the same level as in 2018. For this fixed-income composite, the expense ratio was 3 basis points for 2019, at the same level as in 2018.

Performance results: Government Pension Fund Global real estate

31 March 2011 – 31 December 2019

NORGES BANK
INVESTMENT
MANAGEMENT
PERFORMANCE RESULTS

Report presented as at: 31 December 2019
Reported assets' currency: Norwegian kroner
Reported returns' currency: Currency basket¹

Year	Com- posite Return ²	Bench- mark Return ²	Relative Return ²	Com- posite 3-Yr St Dev ³	Bench- mark 3-Yr St Dev ³	Number of Port- folios ⁴	Com- posite Assets ⁵	External Valuation ⁶	Firm Assets ⁵
2011 ⁷	-4.37					1	11,129	100	3,539,396
2012	5.77					1	25,123	100	4,043,153
2013	11.79					1	51,794	100	5,311,043
2014	10.42			4.24		1	140,868	100	6,778,049
2015	9.99			3.72		1	235,199	100	7,886,255
2016	0.78			4.30		1	241,756	100	7,687,711
2017	7.52	6.77	0.75	4.09		1	218,643	100	8,672,176
2018	7.53	-2.06	9.59	4.12		1	246,013	100	8,353,411
2019	6.84	13.02	-6.18	3.10	3.49	1	273,014	100	10,215,370

Notes:

- ¹ The currency basket corresponds to the currency composition in the fund's benchmark portfolio. The basket consisted of 36 international currencies at the end of 2019. The use of the currency basket is mandated by the Ministry of Finance.
- ² Returns are gross-of-fees and stated in percent. A benchmark was not assigned to the composite until 1 January 2017. Hence, benchmark and relative returns are not available for the years 2011 to 2016. Relative return is supplemental information.
- ³ Three-year annualised ex-post standard deviation in percent using 36 monthly returns. The measure is not provided for 2011, 2012 and 2013, since the inception date is 31 March 2011 and a full 36 months history is not available. The measure is also not provided for the benchmark before 2019, since 36 months of data were not available for it before then.
- ⁴ A measure of internal dispersion is not provided since the composite contains only one portfolio.
- ⁵ Assets are stated in millions of Norwegian kroner.
- ⁶ Percentage of composite assets valued using an external valuation.
- ⁷ Partial year; from inception date 31 March 2011.

Real estate component returns

Year	Composite Return	Unlisted Real Estate Return	Unlisted Real Estate Income Return	Unlisted Real Estate Capital Return	Listed Real Estate Return
2011	-4.37	-4.37	2.11	-6.35	
2012	5.77	5.77	4.23	1.53	
2013	11.79	11.79	4.52	6.98	
2014	10.42	9.65	4.23	5.26	5.97
2015	9.99	10.79	4.03	6.55	7.77
2016	0.78	1.70	3.72	-2.00	-2.34
2017	7.52	7.52	3.69	3.75	
2018	7.53	7.53	3.60	3.82	
2019	6.84	6.84	3.61	3.14	

Notes:

Returns are in the fund's currency basket and stated in percentage points.
Listed real estate returns are not presented for the years 2011, 2012, 2013, 2017, 2018 and 2019, as listed real estate investments were only a part of the Pension Fund real estate composite in the period from 1 November 2014 to the end of 2016.

	3 Years	5 Years	Since inception
Composite return ¹	7.30	6.49	6.32
Benchmark return ¹	5.73		
Relative return ¹	1.57		
Standard deviation of composite return ²	3.10	3.62	4.23
Standard deviation of benchmark return ²	3.49		
Tracking error ³	4.61		
Information ratio ⁴	0.32		
Composite Sharpe ratio ⁵	1.79	1.49	1.34
Benchmark Sharpe ratio ⁵	1.17		
Jensen's alpha ⁶	5.44		
Appraisal ratio ⁷	1.72		

Notes: All figures are annualised.

¹ Gross-of-fees returns stated in percent. Relative return is supplemental information.

² Ex-post standard deviation in percent using monthly returns.

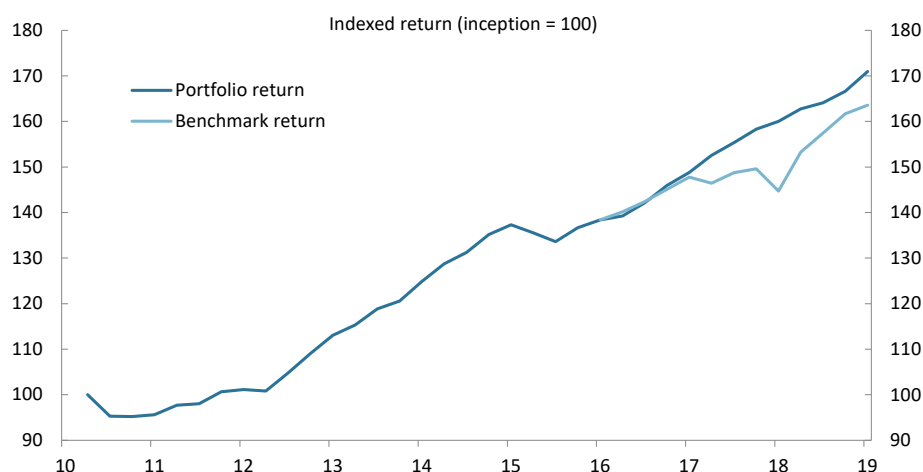
³ Ex-post standard deviation of monthly relative returns.

⁴ Average relative return divided by the tracking error.

⁵ Average monthly return in excess of the risk-free rate divided by the standard deviation of monthly returns.

⁶ Average return in excess of the risk-free rate minus beta-adjusted benchmark excess return.

⁷ Jensen's alpha divided by the standard deviation of the residuals of the CAPM regression.



Composite creation date and inception date

The composite inception date and the composite creation date of the Government Pension Fund Global real estate composite are both 31 March 2011.

Composite description

Norges Bank Investment Management manages the Pension Fund on behalf of the Ministry of Finance. The Government Pension Fund Global real estate composite is a carve-out of the Government Pension Fund Global composite, which only includes the fund's portfolio holdings in, or relating to, the unlisted real estate asset class. In addition to the unlisted real estate investments, the composite also held listed real estate investments limited to around 25 percent of the composite's net asset value in the period from 1 November 2014 to the end of 2016.

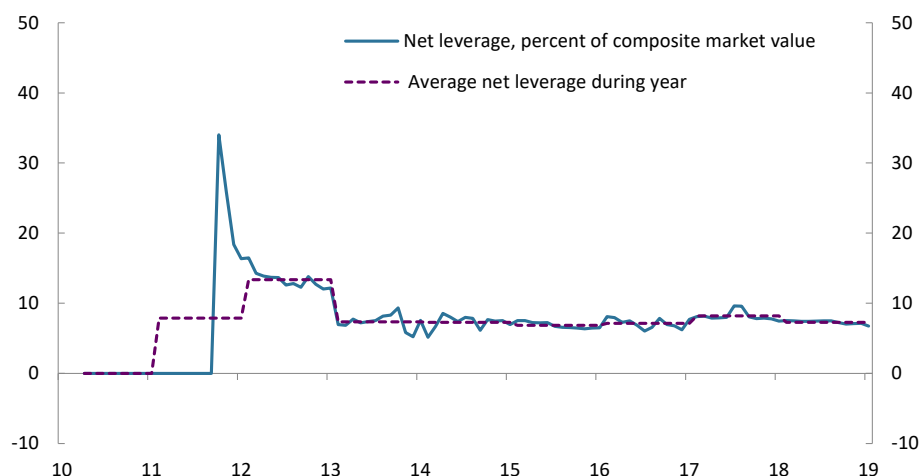
In March 2010, the fund was given a mandate to invest up to 5 percent of its assets in real estate, while correspondingly reducing the share of fixed-income investments. Real estate investments take place over time and are spread over different types of sectors and countries. The real estate portfolio mainly invests in commercial property types located within well-developed markets.

The management mandate issued by the Ministry of Finance on 1 January 2017 set a limit on investments in unlisted real estate at 7 percent of the Pension Fund. The real estate composite may be invested in unlisted real estate or in equity and interest-bearing instruments issued by non-listed companies, fund structures and other legal entities whose primary business is the acquisition, development, management or financing of real estate. These investments may be made through Norwegian or other legal entities, but not in real estate located in Norway. The fund's unlisted property investments are made through corporate structures. The companies are directly or indirectly wholly owned by Norges Bank or jointly owned with co-investors, and ownership control is exercised at several levels. The legal entities have their own boards where we usually appoint or nominate directors. Real estate is defined as rights to land and any buildings thereon. Norges Bank's Executive Board has further set specific limits on real estate management.

Derivatives and leverage

The access to the use of financial derivatives is regulated as part of the provisions on the management of the Government Pension Fund Global laid down by the Ministry of Finance and available on their website. The composite, through its property managing real estate subsidiaries, may include derivative instruments in the normal course of investment management. At year-end 2019 the portfolio includes minor derivatives positions in the real estate subsidiaries in the United Kingdom. Derivatives have not been used to manage risk at portfolio level during 2019.

The Norges Bank's Executive Board has specified that the maximum allowed debt ratio of the unlisted real estate portfolio is 35 percent. The debt ratio is calculated as the ratio of debt on gross asset property value. At year-end 2019 the debt ratio of the unlisted real estate portfolio was 6.1. Net leverage is the ratio of net exposure and actual market value. Through 2019, the average net leverage was 7.3 percent. Below, the net leverage in percent of the composite's fair value is shown as a time series.



Description of discretion

Within the mandate, Norges Bank Investment Management has discretion in its investment selection activities. Regarding rights to dispose of the assets, there exist certain general lock-up provisions on the current portfolio of investments as set forth in the agreements with Norges Bank Investment Management's counterparts.

Valuation

Unlisted real estate investments are measured at fair value on the basis of International Financial Reporting Standards (IFRS). At each calendar quarter the fair value estimates are updated for all assets. The process is supported, each quarter, by external independent valuation reports. The valuations are provided by independent and certified specialists whom provide valuations according to internationally recognized valuation standards.

Calculation methodology – unlisted real estate

In addition to the general disclosures on calculation methodology, this section describes specific methodology related to real estate. Composite total returns are calculated monthly and income and capital component returns are calculated daily both on a time-weighted basis and geometrically linked across months. Returns include cash and cash equivalents. The linking of component returns across months results in a residual when comparing annual total returns and the sum of annual component returns. This is a result of compounding, and no adjustments are made to counter this effect. Returns are gross-of-fees. Returns are presented after transaction costs and after expensed operating costs relating to the operations of the real estate investment structure. Operating costs include bank charges, consulting and legal fees and administration expenses. Transaction costs are included in the capital return component and operating costs are included in the income return component. Returns are presented before Norges Bank Investment Management's internal costs. Returns are measured in the currency basket corresponding to the currencies in the Pension Fund's equity and fixed-income benchmark.

Benchmark description

Since 1 January 2017, all the fund's investments, including the real estate investments, are measured against the assigned equity and fixed-income benchmark. Prior to this, the investment mandate from the Ministry of Finance did not specify a benchmark for the real estate asset class. As the real estate portfolio was still considered under development Norges Bank Investment Management concluded that given the development state of the portfolio, comparing the return against available benchmarks could be misleading. Hence, no benchmark returns were presented.

The real estate composite is assigned a benchmark with combination of bonds and equities from the overall GPFG benchmarks, tailor-made to the actual currency composition and characteristics of the real estate investments. The rules for this benchmark are decided by the Investment Risk Committee in Norges Bank Investment Management. The actual weights of the benchmark as at 31 December 2019 are shown below.

Country for equity benchmark (Currency for fixed-income benchmark)	Equities Actual benchmark index	Fixed income Actual benchmark index
Asset class weights	33.64	66.36
USA (USD)	51.47	48.77
Total Americas	51.47	48.77
France	8.53	
Germany	7.64	
Netherlands	3.38	
Spain	2.50	
Italy	2.41	
Finland	1.09	
Belgium	1.03	
Austria	0.29	
Ireland	0.22	
Portugal	0.18	
<i>Euro-area (EUR)</i>	<i>27.29</i>	<i>25.74</i>
United Kingdom (GBP)	17.65	19.94
Switzerland (CHF)	2.19	4.08
Total Europe	47.13	49.76
Japan (JPY)	1.40	1.48
Total Asia / Oceania	1.40	1.48

Figures in percent.

Fee schedule

Performance figures are gross of investment management fees in relation to real estate investment management. However, all costs occurring in the unlisted real estate holding structures, all trading expenses (transaction costs, including stamp duty), taxes, and fixed and variable asset management fees, are included. The management expense ratio for the Pension Fund as a whole was 5 basis points for 2019, at the same level as in 2018. The reimbursable investment management fees in relation to the unlisted real estate investment management of the composite totalled 15 basis points in 2019, down from 19 basis points in 2018.

Performance results: Government Pension Fund Global real estate management 31 March 2011 – 31 December 2019

NORGES BANK
INVESTMENT
MANAGEMENT
PERFORMANCE RESULTS

Report presented as at: 31 December 2019
Reported assets' currency: Norwegian kroner
Reported returns' currency: Currency basket¹

Year	Com- posite Return ²	Bench- mark Return ²	Relative Return ²	Com- posite 3-Yr St Dev ³	Bench- mark 3-Yr St Dev ³	Number of Port- folios ⁴	Com- posite Assets ⁵	External Valuation ⁶	Firm Assets ⁵
2011 ⁷	-4.37					1	11,129	100	3,539,396
2012	5.77					1	25,123	100	4,043,153
2013	11.79					1	51,794	100	5,311,043
2014	10.42			4.24		1	140,868	100	6,778,049
2015	9.99			3.72		1	235,199	100	7,886,255
2016	0.78			4.30		1	241,756	100	7,687,711
2017	9.03	8.32	0.70	4.11		1	291,256	100	8,672,176
2018	2.76	-2.74	5.49	4.58		1	327,371	100	8,353,411
2019	10.36	14.25	-3.89	4.16	4.04	1	414,359	100	10,215,370

Notes:

- ¹ The currency basket corresponds to the currency composition in the fund's benchmark portfolio. The basket consisted of 36 international currencies at the end of 2019. The use of the currency basket is mandated by the Ministry of Finance.
- ² Returns are gross-of-fees and stated in percent. A benchmark was not assigned to the composite until 1 January 2017. Hence, benchmark and relative returns are not available for the years 2011 to 2016. Relative return is supplemental information.
- ³ Three-year annualised ex-post standard deviation in percent using 36 monthly returns. The measure is not provided for 2011, 2012 and 2013, since the inception date is 31 March 2011 and a full 36 months history is not available. The measure is also not provided for the benchmark before 2019, since 36 months of data were not available for it before then.
- ⁴ A measure of internal dispersion is not provided since the composite contains only one portfolio.
- ⁵ Assets are stated in millions of Norwegian kroner.
- ⁶ Percentage of composite assets valued using an external valuation.
- ⁷ Partial year; from inception date 31 March 2011.

Real estate component returns

Year	Composite Return	Unlisted Real Estate Return	Unlisted Real Estate Income Return	Unlisted Real Estate Capital Return	Listed Real Estate Return
2011	-4.37	-4.37	2.11	-6.35	
2012	5.77	5.77	4.23	1.53	
2013	11.79	11.79	4.52	6.98	
2014	10.42	9.65	4.23	5.26	5.97
2015	9.99	10.79	4.03	6.55	7.77
2016	0.78	1.70	3.72	-2.00	-2.34
2017	9.03	7.52	3.69	3.75	14.15
2018	2.76	7.53	3.60	3.82	-10.34
2019	10.36	6.84	3.61	3.14	20.88

Notes:

Returns are in the fund's currency basket and stated in percentage points.
Listed real estate returns are not presented for the years 2011, 2012 and 2013, as listed real estate investments were included in the Pension Fund's real estate management composite from November 2014.

	3 Years	5 Years	Since inception
Composite return ¹	7.33	6.51	6.33
Benchmark return ¹	6.38		
Relative return ¹	0.95		
Standard deviation of composite return ²	4.16	4.21	4.53
Standard deviation of benchmark return ²	4.04		
Tracking error ³	4.23		
Information ratio ⁴	0.21		
Composite Sharpe ratio ⁵	1.35	1.29	1.26
Benchmark Sharpe ratio ⁵	1.17		
Jensen's alpha ⁶	3.33		
Appraisal ratio ⁷	0.89		

Notes: All figures are annualised.

¹ Gross-of-fees returns stated in percent. Relative return is supplemental information.

² Ex-post standard deviation in percent using monthly returns.

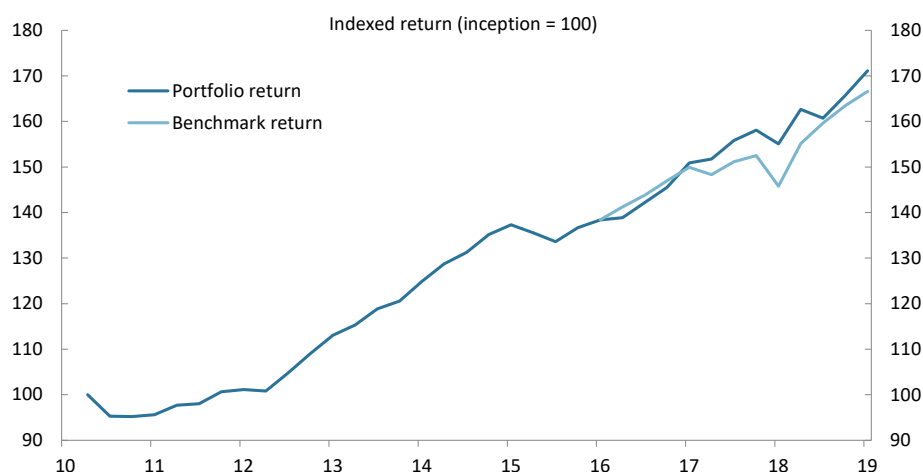
³ Ex-post standard deviation of monthly relative returns.

⁴ Average relative return divided by the tracking error.

⁵ Average monthly return in excess of the risk-free rate divided by the standard deviation of monthly returns.

⁶ Average return in excess of the risk-free rate minus beta-adjusted benchmark excess return.

⁷ Jensen's alpha divided by the standard deviation of the residuals of the CAPM regression.



Composite creation date and inception date

The inception date of the Government Pension Fund Global real estate management composite is 31 March 2011. The composite creation date is 31 December 2017.

Composite description

Norges Bank Investment Management manages the Pension Fund on behalf of the Ministry of Finance. The Government Pension Fund Global real estate management composite is a carve-out of the Government Pension Fund Global composite, which only includes the fund's portfolio holdings in, or relating to, the real estate asset class in addition to selected listed real estate holdings managed together with the unlisted real estate in the overall real estate strategy.

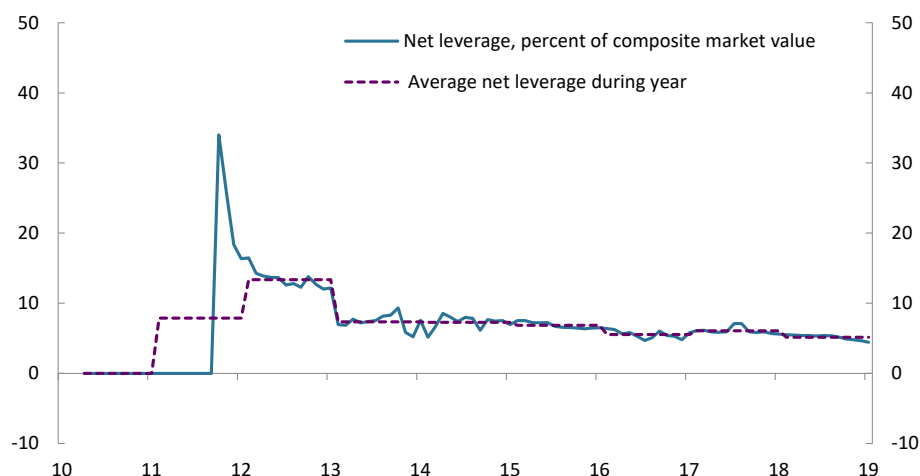
In March 2010, the fund was given a mandate to invest up to 5 percent of its assets in real estate, while correspondingly reducing the share of fixed-income investments. Real estate investments take place over time and are spread over different types of sectors and countries. The real estate portfolio mainly invests in commercial property types located within well-developed markets. In addition to the unlisted real estate investments, the composite also includes listed real estate investments since 1 November 2014.

The management mandate issued by the Ministry of Finance on 1 January 2017 set a limit for investments in unlisted real estate at 7 percent of the Pension Fund. The real estate management composite may, in addition to listed real estate, be invested in unlisted real estate or in equity and interest-bearing instruments issued by non-listed companies, fund structures and other legal entities whose primary business is the acquisition, development, management or financing of real estate, as well as in listed real estate. These investments may be made through Norwegian or other legal entities, but not in real estate located in Norway. The fund's unlisted property investments are made through corporate structures. The companies are directly or indirectly wholly owned by Norges Bank or jointly owned with co-investors, and ownership control is exercised at several levels. The legal entities have their own boards where we usually appoint or nominate directors. Real estate is defined as rights to land and any buildings thereon. Norges Bank's Executive Board has further set specific limits on the real estate management.

Derivatives and leverage

The access to the use of financial derivatives is regulated as part of the provisions on the management of the Government Pension Fund Global laid down by the Ministry of Finance and available on their website. The composite, through its property managing real estate subsidiaries, may include derivative instruments in the normal course of investment management. At year-end 2019 the portfolio includes minor derivatives positions in the real estate subsidiaries in the United Kingdom. Derivatives have not been used to manage risk at portfolio level during 2019.

The Norges Bank's Executive Board has specified that the maximum allowed debt ratio of the unlisted real estate portfolio is 35 percent. The debt ratio is calculated as the ratio of debt on gross asset property value. At year-end 2019 the debt ratio of the unlisted real estate portfolio was 6.1. Net leverage is the ratio of net exposure and actual market value. Through 2019, the average net leverage was 5.2 percent. Below, the net leverage in percent of the composite's fair value is shown as a time series.



Description of discretion

Within the mandate, Norges Bank Investment Management has discretion in its investment selection activities. Regarding rights to dispose of the assets, there exist certain general lock-up provisions on the current portfolio of investments as set forth in the agreements with Norges Bank Investment Management's counterparts.

Valuation

Unlisted real estate investments are measured at fair value on the basis of International Financial Reporting Standards (IFRS). At each calendar quarter the fair value estimates are updated for all assets. The process is supported, each quarter, by external independent valuation reports. The valuations are provided by independent and certified specialists whom provide valuations according to internationally recognized valuation standards.

Calculation methodology – unlisted real estate

In addition to the general disclosures on calculation methodology, this section describes specific methodology related to unlisted real estate. Composite total returns are calculated monthly and income and capital component returns are calculated daily both on a time-weighted basis and geometrically linked across months. Returns include cash and cash equivalents. The linking of component returns across months results in a residual when comparing annual total returns and the sum of annual component returns. This is a result of compounding, and no adjustments are made to counter this effect. Returns are gross-of-fees. Returns are presented after transaction costs and after expensed operating costs relating to the operations of the real estate investment structure. Operating costs include bank charges, consulting and legal fees and administration expenses. Transaction costs are included in the capital return component and operating costs are included in the income return component. Returns are presented before Norges Bank Investment Management's internal costs. Returns are measured in the currency basket corresponding to the currencies in the Pension Fund's equity and fixed-income benchmark.

Benchmark description

Since 1 January 2017, all the fund's investments, including the real estate investments, are measured against the assigned equity and fixed-income benchmark. Prior to this, the investment mandate from the Ministry of Finance did not specify a benchmark for the real estate asset class. As the real estate portfolio was still considered under development Norges Bank Investment Management concluded that given the development state of the portfolio, comparing the return against available benchmarks could be misleading. Hence, no benchmark returns were presented.

The real estate management composite is assigned a benchmark with combination of bonds and equities from the overall GPFG benchmarks, tailor-made to the actual currency composition and characteristics of the real estate management. The rules for this benchmark are decided by the Investment Risk Committee in Norges Bank Investment Management. The actual weights of the benchmark as at 31 December 2019 are shown below.

Country for equity benchmark (Currency for fixed-income benchmark)	Equities Actual benchmark indices	Fixed-income Actual benchmark indices
Asset class weights	41.75	58.25
USA (USD)	54.87	46.53
Total Americas	54.87	46.53
Germany	10.12	
France	8.34	
Netherlands	1.79	
Spain	1.33	
Italy	1.28	
Finland	0.58	
Belgium	0.55	
Austria	0.16	
Ireland	0.12	
Portugal	0.10	
Euro-area (EUR)	24.37	30.48
United Kingdom (GBP)	17.52	17.96
Switzerland (CHF)	1.16	3.07
Sweden (SEK)	1.34	0.85
Total Europe	44.39	52.36
Japan (JPY)	0.74	1.11
Total Asia / Oceania	0.74	1.11

Figures in percent.

Fee schedule

Performance numbers are gross of investment management fees in relation to real estate investment management of the unlisted real estate part of the composite. However, all costs occurring in the unlisted real estate holding structures, all trading expenses (transaction costs, including stamp duty), taxes, and fixed and variable asset management fees, are included. The management expense ratio for the Pension Fund as a whole was 5 basis points for 2019, at the same level as in 2018. The reimbursable investment

management fees in relation to the unlisted real estate investment management of the composite totalled 15 basis points for 2019, down from 19 basis points in 2018. For this real estate management composite, the expense ratio was 12 basis points in 2019, down from 15 basis points in 2018.

Performance results: Government Pension Fund Global unlisted real estate 31 March 2011 – 31 December 2019

NORGES BANK
INVESTMENT
MANAGEMENT
PERFORMANCE RESULTS

Report presented as at: 31 December 2019
Reported assets' currency: Norwegian kroner
Reported returns' currency: Currency basket¹

Year	Com- posite Return ²	Bench- mark Return ²	Relative Return ²	Com- posite 3-Yr St Dev ³	Bench- mark 3-Yr St Dev ³	Number of Port- folios ⁴	Com- posite Assets ⁵	External Valuation ⁶	Firm Assets ⁵
2011 ⁷	-4.37					1	11,129	100	3,539,396
2012	5.77					1	25,123	100	4,043,153
2013	11.79					1	51,794	100	5,311,043
2014	9.65			4.25		1	107,637	100	6,778,049
2015	10.79			3.96		1	181,141	100	7,886,255
2016	1.70			4.02		1	190,670	100	7,687,711
2017	7.52	6.77	0.75	3.80		1	218,643	100	8,672,176
2018	7.53	-2.06	9.59	3.60		1	246,013	100	8,353,411
2019	6.84	13.02	-6.18	3.10	3.49	1	273,014	100	10,215,370

Notes:

- ¹ The currency basket corresponds to the currency composition in the fund's benchmark portfolio. The basket consisted of 36 international currencies at the end of 2019. The use of the currency basket is mandated by the Ministry of Finance.
- ² Returns are gross-of-fees and stated in percent. A benchmark was not assigned to the composite until 1 January 2017. Hence, benchmark and relative returns are not available for the years 2011 to 2016. Relative return is supplemental information.
- ³ Three-year annualised ex-post standard deviation in percent using 36 monthly returns. The measure is not provided for 2011, 2012 and 2013, since the inception date is 31 March 2011 and a full 36 months history is not available. The measure is also not provided for the benchmark before 2019, since 36 months of data were not available for it until then.
- ⁴ A measure of internal dispersion is not provided since the composite contains only one portfolio.
- ⁵ Assets are stated in millions of Norwegian kroner.
- ⁶ Percentage of composite assets valued using an external valuation.
- ⁷ Partial year; from inception date 31 March 2011.

Unlisted real estate component returns

Year	Composite return	Income return	Capital return
2011	-4.37	2.11	-6.35
2012	5.77	4.23	1.53
2013	11.79	4.52	6.98
2014	9.65	4.23	5.26
2015	10.79	4.03	6.55
2016	1.70	3.72	-2.00
2017	7.52	3.69	3.75
2018	7.53	3.60	3.82
2019	6.84	3.61	3.14

Note: Returns are in the fund's currency basket and stated in percentage points.

	3 Years	5 Years	Since inception
Composite return ¹	7.30	6.83	6.43
Benchmark return ¹	5.73		
Relative return ¹	1.57		
Standard deviation of composite return ²	3.10	3.43	4.14
Standard deviation of benchmark return ²	3.49		
Tracking error ³	4.61		
Information ratio ⁴	0.32		
Composite Sharpe ratio ⁵	1.79	1.66	1.39
Benchmark Sharpe ratio ⁵	1.17		
Jensen's alpha ⁶	5.44		
Appraisal ratio ⁷	1.72		

Notes: All figures are annualised.

¹ Gross-of-fees returns stated in percent. Relative return is supplemental information.

² Ex-post standard deviation in percent using monthly returns.

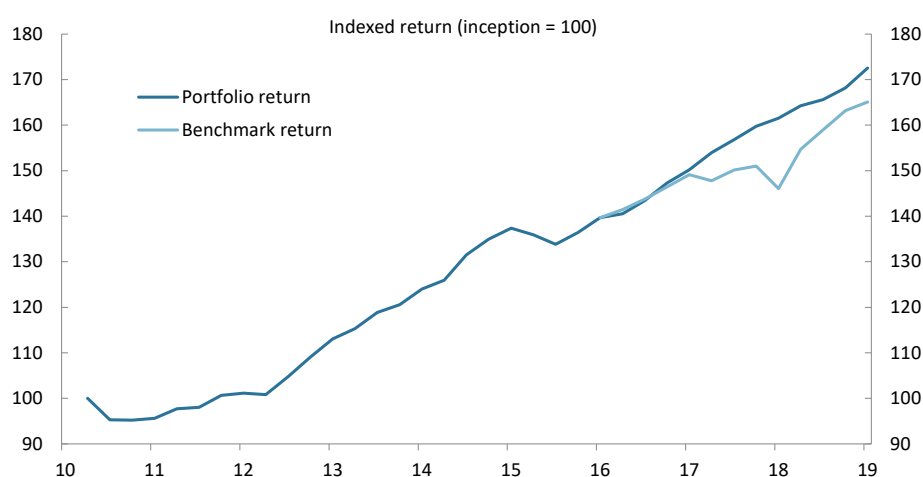
³ Ex-post standard deviation of monthly relative returns.

⁴ Average relative return divided by the tracking error.

⁵ Average monthly return in excess of the risk-free rate divided by the standard deviation of monthly returns.

⁶ Average return in excess of the risk-free rate minus beta-adjusted benchmark excess return.

⁷ Jensen's alpha divided by the standard deviation of the residuals of the CAPM regression.



Composite creation date and inception date

The composite inception date of the Government Pension Fund Global unlisted real estate composite is 31 March 2011. The composite's creation date is 31 December 2015.

Composite description

Norges Bank Investment Management manages the Pension Fund on behalf of the Ministry of Finance. The Government Pension Fund Global unlisted real estate composite is a carve-out of the Government Pension Fund Global composite, which only includes the fund's portfolio holdings in, or relating to, the unlisted real estate asset class.

In March 2010, the fund was given a mandate to invest up to 5 percent of its assets in real estate, while correspondingly reducing the share of fixed-income investments. Unlisted real estate investments take place over time

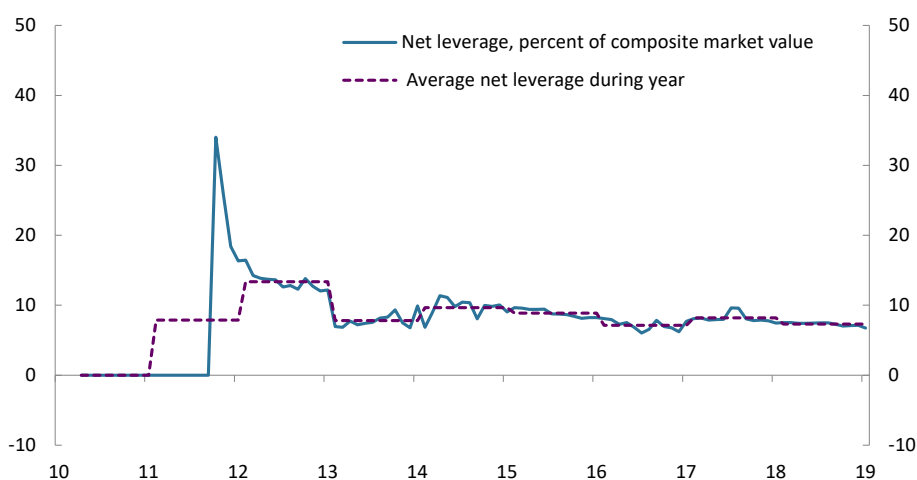
and are spread over different types of sectors and countries. The real estate portfolio mainly invests in commercial property types located within well-developed markets.

The management mandate issued by the Ministry of Finance set a limit on investments in unlisted real estate at 7 percent of the Pension Fund. The unlisted real estate composite may be invested in unlisted real estate or in equity and interest-bearing instruments issued by non-listed companies, fund structures and other legal entities whose primary business is the acquisition, development and management or financing of real estate. These investments may be made through Norwegian or other legal entities, but not in real estate located in Norway. The fund's unlisted property investments are made through corporate structures. The companies are directly or indirect wholly owned by Norges Bank or jointly owned with co-investors, and ownership control is exercised at several levels. The legal entities have their own boards where we usually appoint or nominate directors. Real estate is defined as rights to land and any buildings thereon. Norges Bank's Executive Board has further set specific limits on real estate management.

Derivatives and leverage

The access to the use of financial derivatives is regulated as part of the provisions on the management of the Government Pension Fund Global unlisted real estate laid down by Norges Bank Investment Management's CEO. The composite, through its property managing real estate subsidiaries, may include derivative instruments in the normal course of investment management. At year-end 2019 the portfolio includes minor derivatives positions in the real estate subsidiaries in the United Kingdom. Derivatives have not been used to manage risk at portfolio level during 2019.

The Norges Bank's Executive Board has specified that the maximum allowed debt ratio of the unlisted real estate portfolio is 35 percent. The debt ratio is calculated as the ratio of debt on gross asset property value. At year-end 2019 the debt ratio of the unlisted real estate portfolio was 6.1. Net leverage is the ratio of net exposure and actual market value. Through 2019, the average net leverage was 7.3 percent. Below, the net leverage in percent of the composite's fair value is shown as a time series.



Description of discretion

Within the mandate, Norges Bank Investment Management has discretion in its investment selection activities. Regarding rights to dispose of the assets, there exist certain general lock-up provisions on the current portfolio of investments as set forth in the agreements with Norges Bank Investment Management's counterparts.

Valuation

Unlisted real estate investments are measured at fair value on the basis of International Financial Reporting Standards (IFRS). At each calendar quarter the fair value estimates are updated for all assets. The process is supported, each quarter, by external independent valuation reports. The valuations are provided by independent and certified specialists whom provide valuations according to internationally recognized valuation standards.

Calculation methodology - unlisted real estate

In addition to the general disclosures on calculation methodology, this section describes specific methodology related to unlisted real estate. Composite total returns are calculated monthly, and income and capital component returns are calculated daily both on a time-weighted basis and geometrically linked across months. Returns include cash and cash equivalents. The linking of component returns across months results in a residual when comparing annual total returns and the sum of annual component returns. This is a result of compounding, and no adjustments are made to counter this effect. Returns are gross-of-fees. Returns are presented after transaction costs and after expensed operating costs relating to the operations of the real estate investment structure. Operating costs include bank charges, consulting and legal fees and administration expenses. Transaction costs are included in the capital return component and operating costs are included in the income return component. Returns are presented before Norges Bank Investment Management's internal costs. Returns are measured in the currency basket corresponding to the currencies in the Pension Fund's equity and fixed-income benchmark.

Benchmark description

Since 1 January 2017, all the fund's investments, including the real estate investments, are measured against the assigned equity and fixed-income benchmark. Prior to this, the investment mandate from the Ministry of Finance did not specify a benchmark for the real estate asset class. As the real estate portfolio was still considered under development, Norges Bank Investment Management concluded that given the development state of the portfolio, comparing the return against available benchmarks could be misleading. Hence no benchmark returns were presented.

The unlisted real estate composite is assigned a benchmark with combination of bonds and equities from the overall GPFG benchmarks, tailor-made to the actual currency composition and characteristics of the unlisted real estate investments. The rules for this benchmark are decided by the Investment Risk Committee in Norges Bank Investment Management. The actual weights of the benchmark as at 31 December 2019 are shown below.

Country for equity benchmark (Currency for fixed-income benchmark)	Equities Actual benchmark indices	Fixed-income Actual benchmark indices
Asset class weights	33.64	66.36
USA (USD)	51.47	48.77
Total Americas	51.47	48.77
France	8.53	
Germany	7.64	
Netherlands	3.38	
Spain	2.50	
Italy	2.41	
Finland	1.09	
Belgium	1.03	
Austria	0.29	
Ireland	0.22	
Portugal	0.18	
<i>Euro-area (EUR)</i>	<i>27.29</i>	<i>25.74</i>
United Kingdom (GBP)	17.65	19.94
Switzerland (CHF)	2.19	4.08
Total Europe	47.13	49.76
Japan (JPY)	1.40	1.48
Total Asia / Oceania	1.40	1.48

Figures in percent.

Fee schedule

Performance numbers are gross of investment management fees in relation to real estate investment management. However, all costs occurring in the unlisted real estate holding structures, all trading expenses (transaction costs, including stamp duty), taxes, and fixed and variable asset management fees, are included. The management expense ratio for the Pension Fund as a whole was 5 basis points for 2019, at the same level as in 2018. The reimbursable investment management fees in relation to the unlisted real estate investment management of the composite totalled 15 basis points for 2019, down from 19 basis points in 2018.

Performance results: The investment portfolio of Norges Bank's foreign exchange reserves, equity 31 December 2001 – 31 December 2019

NORGES BANK
INVESTMENT
MANAGEMENT
PERFORMANCE RESULTS

Report presented as at: 31 December 2019

Reported assets' currency: Norwegian kroner

Reported returns' currency: Norwegian kroner

Year	Com- posite Return ¹	Bench- mark Return ¹	Relative Return ¹	Com- posite 3-Yr St Dev ²	Bench- mark 3-Yr St Dev ²	Number of Port- folios ³	Com- posite Assets ⁴	Firm Assets ⁴
2002	-36.81	-36.30	-0.50			1	16,909	743,670
2003	29.42	29.99	-0.58			1	34,190	1,044,264
2004	6.51	7.07	-0.56	18.35	18.30	1	56,134	1,236,653
2005	24.09	23.92	0.17	12.22	12.17	1	70,669	1,648,874
2006	14.72	14.99	-0.27	10.77	10.83	1	92,143	2,047,074
2007	-3.75	-2.94	-0.81	10.74	10.56	1	88,953	2,261,368
2008	-26.59	-26.07	-0.52	14.26	13.99	1	70,552	2,498,961
2009	13.02	12.14	0.88	17.11	16.83	1	82,865	2,851,020
2010	12.25	11.66	0.59	17.31	17.09	1	93,835	3,317,700
2011	-3.81	-3.81	0.00	14.36	14.29	1	90,720	3,539,396
2012	9.38	9.21	0.17	9.42	9.37	1	99,230	4,043,153
2013	39.56	38.91	0.65	8.95	8.90	1	118,532	5,311,043
2014	29.79	29.54	0.24	7.39	7.38	1	139,984	6,778,049
2015	17.85	17.82	0.03	9.20	9.21	1	169,245	7,886,255
2016	5.59	5.09	0.50	11.58	11.63	1	177,217	7,687,711
2017	16.86	16.79	0.07	11.74	11.79	1	183,721	8,672,176
2018	-2.88	-2.84	-0.04	11.80	11.83	1	97,465	8,353,411
2019	30.60	30.61	-0.01	11.05	11.03	1	127,287	10,215,370

Notes:

¹ Returns are gross-of-fees and stated in percent. Relative return is supplemental information.

² Three-year annualised ex-post standard deviation in percent using 36 monthly returns.

³ A measure of internal dispersion is not provided since the composite contains only one portfolio.

⁴ Assets are stated in millions of Norwegian kroner.

	3 Years	5 Years	10 Years	Since inception
Composite return ¹	14.02	13.02	14.71	7.86
Benchmark return ¹	14.01	12.91	14.50	7.91
Relative return ¹	0.00	0.11	0.21	-0.05
Standard deviation of composite return ²	11.05	11.64	10.41	13.49
Standard deviation of benchmark return ²	11.03	11.65	10.41	13.40
Tracking error ³	0.09	0.14	0.21	0.40
Information ratio ⁴	0.05	0.74	0.88	-0.08
Composite Sharpe ratio ⁵	1.11	1.03	1.33	0.54
Benchmark Sharpe ratio ⁵	1.11	1.02	1.31	0.54
Jensen's alpha ⁶	-0.02	0.12	0.18	-0.08
Appraisal ratio ⁷	-0.21	0.86	0.86	-0.20

Notes: All figures are annualised.

¹ Gross-of-fees returns stated in percent. Relative return is supplemental information.

² Ex-post standard deviation in percent using monthly returns.

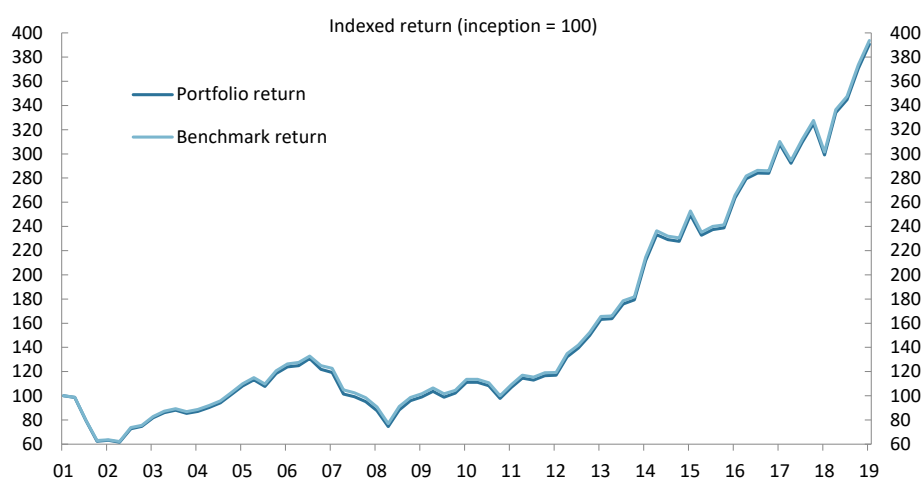
³ Ex-post standard deviation of monthly relative returns.

⁴ Average relative return divided by the tracking error.

⁵ Average monthly return in excess of the risk-free rate divided by the standard deviation of monthly returns.

⁶ Average return in excess of the risk-free rate minus beta-adjusted benchmark excess return.

⁷ Jensen's alpha divided by the standard deviation of the residuals of the CAPM regression.



Composite creation date and inception date

The composite inception date and the composite creation date of the investment portfolio of Norges Bank's foreign exchange reserves, equity are 31 December 2001.

Composite description

Norges Bank Investment Management has been responsible for the management of the long-term investment portfolio of the Norges Bank's foreign exchange reserves. The long-term investment portfolio has been managed with the objective to achieve the highest possible long-term return and in a way that ensures sufficient liquidity, subject to the constraints set out in the management guidelines issued by the Central Bank Governor and the principles for management set by Norges Bank's Executive Board.

In November 2016 the responsibility for the fixed-income part of the portfolio was moved to Norges Banks Markets and ICT division. The equity part of the portfolio remains under management by Norges Bank Investment Management.

The investment portfolio of Norges Bank's foreign exchange reserves, equity is the equity composite of the Reserves Fund. The investment strategy for equity management has been relatively stable throughout its history with enhanced indexing as the core strategy. During 2001, the equity part of the Reserves Fund was established as part of a transition process. In this process large cash inflows and subsequent large asset purchases were incurred. No return numbers or fair values are reported for 2001. Irrespective of this, the equity portfolio's fair value is included in the firm assets as at 31 December 2001.

Until 2010, the management of the portfolio was based on the same overall processes and procedures as the management of the Pension Fund, albeit different investment mandates. However, in February 2010 Norges Bank's Executive Board adopted new guidelines for the management of the portfolio with more focus towards holding liquid assets. For the equity management, emerging markets were removed, and custom regional weights were replaced by market capitalisation weights. The changes were effective from June 2010 on the benchmark side, while the changes in the portfolio were implemented gradually. After the removal of the fixed-income part of the portfolio, the composite's base currency was changed to Norwegian kroner, as the currency basket calculated on the overall portfolio was no longer representative.

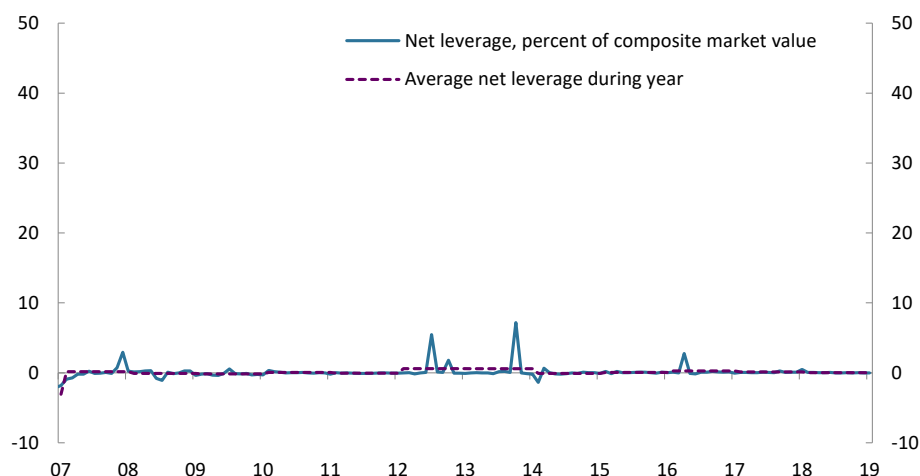
Derivatives, leverage and short positions

Norges Bank's Executive Board has laid down guidelines for the Reserves Fund's investments. These guidelines state that the portfolio may be invested in derivatives that are naturally linked to listed equity instruments fixed-income securities and money market instruments. However, the use of derivatives in the Reserves Fund's equity composite is very limited and immaterial for the investment strategy.

Financial derivatives	Average exposure through year				Net fair value at year-end	
	2019		2018		2019	2018
	Purchased	Sold	Purchased	Sold		
Exchange traded futures	2	109	147	546	0	0
Warrants and rights	1	-	5	-	7	-

Figures in millions of Norwegian kroner.

Leverage in the composite is mainly used to efficiently handle fund management activities and has been immaterial. Net leverage is calculated by comparing net exposure and actual market value (net asset value). Net exposure is found by converting all derivatives to underlying exposure. Prior to 2011, the leverage was calculated from the net sum of all cash positions. Below, the net leverage in percent of the composite's fair value is shown as a time series.



* The leverage shown in June 2013, September 2014 and March 2017 was related to rebalancing of the portfolio.

Short positions are permitted in the management of the equity portfolio of the Reserves Fund given that Norges Bank Investment Management has access to the securities through an established borrowing arrangement. However, restrictions exist in the management guidelines laid down by the Central Bank Governor. The current use of short positions in the composite's portfolio is immaterial.

Sub-advisors

Norges Bank Investment Management currently does not use external investment managers in the equity portfolio of the Reserves Fund. However, external managers were previously used to manage parts of the Reserves Fund equity composite's portfolio from its inception until March 2005.

Benchmark description

The strategic benchmark index for the investment portfolio of Norges Bank's foreign exchange reserves, equity composite is a market capitalisation weighted custom benchmark compiled by FTSE Russell. It consists of the FTSE All World Developed Market Index limited to members of the Eurozone, United States, United Kingdom, Japan, Canada, Australia, Switzerland, Sweden and Denmark. It is adjusted for Norges Bank's tax position on dividends and for excluded companies following the exclusion list in the Pension Fund.

At year-end the benchmark consisted of around 1,800 securities from 18 countries. The actual country weights of the benchmark as at 31 December 2019 are shown below, together with a summary of historical strategic changes to the benchmark.

Country for equity benchmark	Actual benchmark index
Total	100.00
USA	63.23
Canada	3.18
Total Americas	66.41
France	3.62
Germany	3.12
Netherlands	1.38
Spain	1.02
Italy	0.94
Finland	0.43
Belgium	0.36
Ireland	0.09
Austria	0.08
Portugal	0.06
<i>Euro-area</i>	<i>11.10</i>
United Kingdom	5.66
Switzerland	3.31
Sweden	0.96
Denmark	0.66
Total Europe	21.69
Japan	9.29
Australia	2.61
Total Asia / Oceania	11.90

Figures in percent.

Strategic benchmark changes	Implementation
Inclusion of developed Emerging Markets	November 2004
Benchmark changed from FTSE All World to FTSE All Cap	September 2007
Emerging markets removed from the benchmark	June 2010
Benchmark changed from FTSE All Cap to FTSE All World Developed Market indices limited to a small number of countries	March 2015

Fee schedule

Performance numbers are gross of management fees and custodial fees, but net of all trading expenses (transaction costs). In addition, non-reclaimable withholding taxes are deducted in the performance numbers. The management expense ratio for the Reserves Fund equity composite was 5 basis points for 2019, at the same level as in 2018.