

# Government Pension Fund Global Half-year report 2023

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# Investments



The fund's market value increased 2,870 billion kroner to 15,299 billion kroner in the first half of 2023, driven by a strong equity market and a weaker krone. The fund's return for the period was 10.0 percent, or 1,501 billion kroner, which is 0.23 percentage point less than the return on the benchmark index.

Equity investments had a market value of 10,901 billion at the end of the period, fixed-income investments 4,037 billion kroner, unlisted real estate investments 345 billion kroner and unlisted renewable energy infrastructure investments 16 billion kroner. Equities made up 71.3 percent of the value of the fund, fixed income 26.4 percent, unlisted real estate 2.3 percent and unlisted renewable energy infrastructure 0.1 percent.

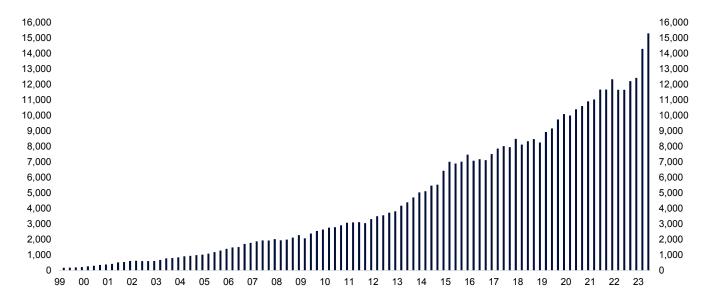
The change in the fund's market value consists of the return of 1,501 billion kroner, transfers from the government of 389 billion kroner, and 980 billion kroner from the weaker krone.

The fund is invested in international securities and unlisted real estate and infrastructure in foreign currency. Returns are therefore measured primarily in international currency – a weighted combination of the currencies in the fund's benchmark indices for equities and bonds. Unless otherwise stated, the results in this report are measured in this currency basket.

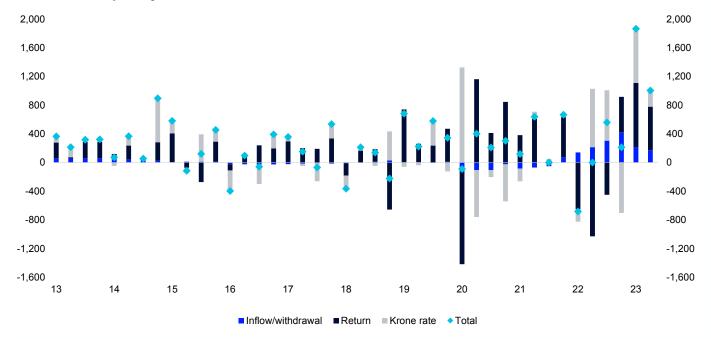
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The fund's return for the period was 10.0 percent, or 1,501 billion kroner.

CHART1 Quarterly development of the fund's market value in billions of kroner.



**CHART 2** Quarterly changes in the fund's market value in billions of kroner.

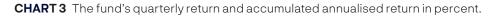


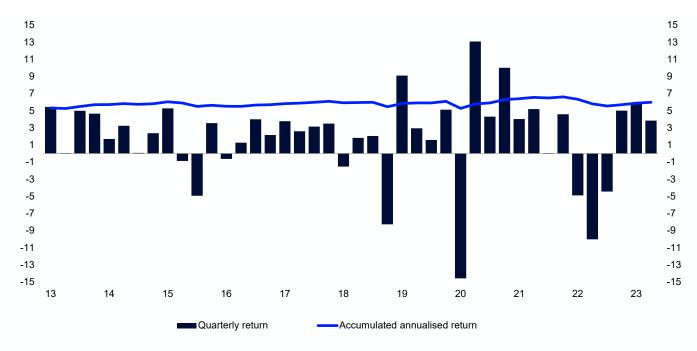
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	First half 2023	1Q 2023	2022
Market value			
Equity investments	10,901	10,023	8,672
Fixed-income investments	4,037	3,909	3,412
Unlisted real estate investments	345	348	330
Unlisted infrastructure investments	16	14	15
Market value of fund <sup>1</sup>	15,299	14,294	12,429
Accrued, not paid, management fees <sup>2</sup>	0	-2	0
Owner's capital <sup>1</sup>	15,300	14,292	12,429
Inflow of capital	392	217	1,090
Withdrawal of capital	-	-	-
Paid management fees <sup>3</sup>	-3	0	-5
Return on fund	1,501	893	-1,637
Changes due to fluctuations in krone	980	755	642
Total change in market value	2,870	1,865	90
Changes in value since first capital inflow in 1996			
Total inflow of capital	5,136	4,961	4,744
Total withdrawal of capital <sup>2</sup>	-687	-685	-687
Return on equity investments	6,755	6,104	5,280
Return on fixed-income investments	1,018	1,044	970
Return on unlisted real estate investments	98	114	119
Return on unlisted infrastructure investments	1	1	2
Management fees <sup>3</sup>	-67	-65	-63
Changes due to fluctuations in krone	3,046	2,820	2,065
Market value of fund	15,299	14,294	12,429
Return on fund	7,871	7,263	6,370
Return after management costs	7,805	7,198	6,307

<sup>1</sup> The fund's market value shown in this table does not take into account the management fee. Owner's capital in the financial statements equals the fund's market value less accrued, not paid, management fees.

 $<sup>^2 \</sup>quad \text{Total withdrawal of capital shown in this table is adjusted for accrued, not paid, management fees.} \\$ 

<sup>&</sup>lt;sup>3</sup> Management fees are describe in note 11 in the financial statements.





**TABLE 2** Return figures in percent. Measured in the fund's currency basket.

	First half 2023	2Q 2023	1Q 2023
Equity investments	13.66	5.79	7.44
Fixed-income investments	2.25	-0.47	2.73
Unlisted real estate investments	-4.57	-3.59	-1.01
Unlisted infrastructure investments	-6.53	-2.87	-3.77
Return on fund	10.00	3.85	5.92
Management costs	0.02	0.01	0.01
Return on fund after management costs	9.97	3.83	5.91

TABLE 3 Historical key figures in percent as at 30 June 2023. Annualised data, measured in the fund's currency basket.

	Since 01.01.1998	Last 10 years	Last 12 months
Fund return	5.99	7.14	10.38
Annual price inflation	2.11	2.40	3.87
Annual management costs	0.08	0.05	0.04
Net real return on fund	3.72	4.58	6.23
The fund's actual standard deviation	8.37	9.35	13.58

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Equity investments returned 13.7 percent.

### Return on equity investments

The fund's equity investments had a strong first half after a weak 2022. Equity investments returned 13.7 percent for the period. The strongest returns were in technology, consumer discretionary and industrials. Energy had the weakest return.

### Tech stocks perform best

Technology companies delivered the period's strongest return of 38.6 percent after a poor year in 2022. The sector benefited from strong demand for new Al solutions from the biggest internet and software companies and their semiconductor suppliers.

Consumer discretionary was the second-strongest sector with a return of 20.7 percent. Consumption and economic activity held up despite higher prices and higher interest rates, and the lifting of pandemic restrictions in China led to further optimism, especially among luxury goods companies.

Industrials were the third-strongest sector with a return of 15.0 percent. Further strong growth in orders and increased demand outweighed fears of recession. Prices held up and costs slowed, leading in many cases to very high margins and strong earnings.

Energy companies returned 0.4 percent. Prices for oil, gas and refined products fell back from the very high levels of 2022. The oil market was hit by excess supply, while gas prices dropped as a result of a mild winter, lower industrial demand and so higher stock levels.

**TABLE 4** Return on the fund's equity investments in first half of 2023. In percent. Measured in international currency.

Market	Return	Share of equity investments
North America	17.3	48.6
Europe	13.3	28.4
Asia and Oceania	6.4	20.4
Emerging markets	5.1	10.2

**TABLE 5** Return on the fund's equity investments in first half of 2023. In percent. Measured in international currency and sorted by sector.

Sector	Return	Share of equity investments <sup>1</sup>
Basic Materials	4.1	4.0
Consumer Staples	3.7	6.1
Consumer Discretionary	20.7	14.2
Financials	5.6	14.3
Health Care	2.8	11.8
Industrials	15.0	13.1
Energy	0.4	3.9
Technology	38.6	21.2
Telecommunications	5.4	3.3
Utilities	5.6	2.5
Real Estate	1.0	4.9

<sup>&</sup>lt;sup>1</sup> Does not sum up to 100 percent because cash and derivatives are not included.

**CHART 4** Price developments in regional equity markets. Measured in US dollars, except for the Stoxx Europe 600, which is measured in euros. Indexed total return 31.12.2022 = 100. Source: Bloomberg.



**CHART 5** Price developments in stock sectors in the FTSE Global All Cap Index. Measured in US dollars. Indexed total return 31.12.2022 = 100. Source: FTSE Russell.

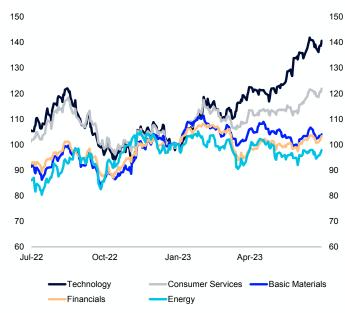


TABLE 6 The fund's largest equity holdings as at 30 June 2023 in millions of kroner.

Company	Country	Holding
AppleInc	US	358,871
Microsoft Corp	US	332,607
Alphabet Inc	US	174,063
Amazon.com Inc	US	152,257
NVIDIA Corp	US	131,730
Nestle SA	Switzerland	100,258
Meta Platforms Inc	US	99,940
Taiwan Semiconductor Manufacturing Co Ltd	Taiwan	84,753
ASML Holding NV	Netherlands	84,696
TeslaInc	US	80,038
Novo Nordisk A/S	Denmark	74,191
Shell PLC	UK	69,285
Berkshire Hathaway Inc	US	67,685
Roche Holding AG	Switzerland	65,295
Samsung Electronics Co Ltd	South Korea	63,312
LVMH Moet Hennessy Louis Vuitton SE	France	59,129
Novartis AG	Switzerland	58,074
Exxon Mobil Corp	US	57,086
AstraZeneca PLC	UK	55,333
JPMorgan Chase & Co	US	53,937



Fixed-income investments returned 2.2 percent.

### Return on fixed-income investments

Fixed-income investments returned 2.2 percent for the first half of the year. Inflation has fallen in our main markets. Central banks continued to tighten monetary policy in most markets where the fund is invested. This had little impact on long-term interest rates, resulting in an inverted yield curve - higher interest rates for short-term loans than for long-term loans. This meant that the market value of our bond investments held up.

### Higher policy rates

Government bonds returned 1.1 percent for the first half and accounted for 55.6 percent of the fund's fixed-income investments at the end of the period. The fund's three largest holdings were of US, Japanese and German government bonds.

US Treasuries accounted for 24.7 percent of fixed-income investments and returned 1.4 percent. The Federal Reserve raised its policy rate by 0.75 percentage point in the first half of the year while signalling further increases in the second half of the year.

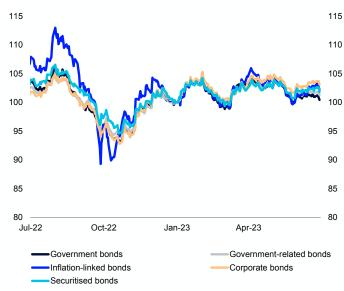
Euro-denominated government bonds amounted to 11.7 percent of fixed-income investments and returned 4.7 percent. The European Central Bank raised its policy rate by a total of 1.5 percentage points in the first half of the year. The euro strengthened during the period.

Japanese government bonds made up 8.5 percent of fixed-income investments and returned -6.8 percent. The Bank of Japan did not change its policy rate during the period. The weak return was down to a weaker yen.

**CHART 6** 10-year government bond yields in percent. Source: Bloomberg.



**CHART 7** Price developments in fixed-income sectors. Measured in US dollars. Indexed total return 31.12.2022 = 100. Source: Bloomberg Barclays Indices.



**TABLE 7** Return on the fund's fixed-income investments in the first half of 2023. In percent. Measured in international currency and sorted by sector.

Sector	Return	Share of fixed-income investments <sup>1</sup>
Government bonds <sup>2</sup>	1.1	55.6
Government-related bonds <sup>2</sup>	3.1	10.5
Inflation-linked bonds <sup>2</sup>	2.0	7.0
Corporate bonds	3.5	24.4
Securitised bonds	2.9	7.0

 $<sup>^{\</sup>rm 1}$  Does not sum up to 100 percent because cash and derivatives are not included.

**TABLE 8** The fund's largest bond holdings as at 30 June 2023 in millions of kroner.

Issuer	Country	Holding
Government of United States of America	US	1,117,091
Government of Japan	Japan	358,321
Government of Germany	Germany	187,667
United Kingdom Government	UK	134,296
Government of France	France	117,024
Government of Canada	Canada	99,598
Monetary Authority of Singapore	Singapore	88,582
Government of Italy	Italy	60,800
European Union	International organisations	51,801
Government of the Netherlands	Netherlands	48,284
Canada Mortgage & Housing Corp	Canada	45,306
Government of Australia	Australia	42,404
Bank of America Corp	US	33,695
Government of Spain	Spain	27,124
Government of Austria	Austria	26,020
Government of Singapore	Singapore	21,715
European Financial Stability Facility	International organisations	21,172
JPMorgan Chase & Co	US	20,483
Morgan Stanley	US	19,673
Government of Belgium	Belgium	18,371

<sup>&</sup>lt;sup>2</sup> Governments may issue different types of bonds, and the fund's investments in these bonds are grouped accordingly. Bonds issued by a country's government in the country's own currency are categorised as government bonds. Bonds issued by a country's government in another country's currency are government-related bonds. Inflation-linked bonds issued by governments are grouped with inflation linked bonds.

Total real estate investments returned -2.0 percent.

### Return on real estate investments

Total real estate investments returned -2.0 percent for the first half and amounted to 3.9 percent of the fund at the end of the period. Unlisted and listed real estate investments are managed under a combined strategy for real estate.

Unlisted real estate investments made up 58.4 percent of the overall real estate portfolio and returned -4.6 percent, while investments in listed real estate returned 1.7 percent.

The main driver behind the negative return on unlisted real estate was the office sector, with US investments in particular falling sharply in value during the period. This was due mainly to increased vacancy, which means reduced income for investors. The return on the listed portfolio was also affected by the negative performance in the US office sector.

**TABLE 9** Value of real estate investments in millions of kroner as at 30 June 2023.

	Value <sup>1</sup>
Unlisted real estate investments	344,529
Listed real estate investments	245,881
Total real estate investments	590,410

<sup>&</sup>lt;sup>1</sup> Including bank deposits and other receivables.

**TABLE 10** Return on unlisted real estate investments in the first half of 2023. In percentage points.

	Return
Rental income	1.6
Changes in value	-7.3
Transaction costs	-0.1
Result of currency adjustments	1.3
Total	-4.6



Investments
in unlisted
renewable energy
infrastructure
returned
-6.5 percent.

# Return on unlisted renewable energy infrastructure investments

Investments in unlisted renewable energy infrastructure returned -6.5 percent for the first half of the year, due mainly to lower expected power prices.

The fund made two new investments during the period. In January, we signed an agreement to acquire a 49 percent interest in a portfolio of solar and onshore wind assets in Spain for 600 million euros, or around 6.4 billion kroner. In March, we signed an agreement to purchase a 16.6 percent stake in He Dreiht, a 960 MW offshore wind project under construction in Germany, for 430 million euros, or around 4.9 billion kroner.

**TABLE 11** Value of unlisted renewable energy infrastructure investments in millions of kroner as at 30 June 2023.

	Value <sup>1</sup>
Unlisted infrastructure investments	16,353

<sup>&</sup>lt;sup>1</sup> Including bank deposits and other receivables.

**TABLE 12** Return of unlisted renewable energy infrastructure investments in the first half of 2023. In percent.

	Return
Unlisted infrastructure investments	-6.5

### The fund's relative return

The return on the fund for the first half of the year was 0.23 percentage point less than the return on the benchmark index from the Ministry of Finance, corresponding to a relative return of -33 billion kroner. We break the relative return down between equity, fixed-income and real asset management, and an allocation effect between them.

Investments in unlisted real estate and renewable energy infrastructure made the most negative contribution to the fund's relative return for the period, measured against the equities and bonds sold to finance these investments. Unlisted real estate investments contributed -0.26 percentage point, driven primarily by investments in the US office sector. Listed real estate investments contributed -0.07 percentage point, and investments in renewable energy infrastructure also made a slightly negative contribution.

Equity management made a positive contribution of 0.13 percentage point to the fund's relative return for the period. Investments in technology and financials made the most positive contributions, while consumer discretionary made the most negative.

Fixed-income management contributed 0.06 percentage point to the relative return for the period. The fund's fixed-income investments include an allocation to emerging markets, which made a positive contribution to the relative return.

The relative return may also be affected by an allocation effect between these management areas. The contribution from this effect during the period was -0.08 percentage point, as the fund was underweight in equities relative to bonds.

CHART 8 The fund's quarterly relative return and accumulated annualised relative return in percentage points. Calculations based on aggregated equity and fixed-income investments until end of 2016.

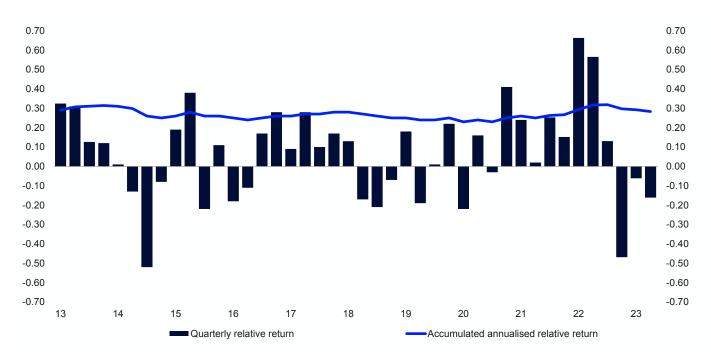


TABLE 13 Historic relative return in percentage points as at 30 June 2023. Annualised figures measured in the fund's currency basket.

	Since 01.01.1998	Last 15 years	Last 10 years	Last 5 years	Last 12 months
Relative return on fund (percentage points) <sup>1</sup>	0.28	0.26	0.25	0.34	-0.58
The fund's tracking error (percentage points) <sup>1</sup>	0.65	0.74	0.41	0.46	0.59
The fund's information ratio (IR) <sup>1,2</sup>	0.45	0.36	0.56	0.69	-0.99

Based on aggregated equity and fixed-income investments until end of 2016.

**TABLE 14** Contributions from management areas to the fund's relative return in percentage points in the first half of 2023.

	Total
Equity management	0.13
Fixed-income management	0.06
Real assets management	-0.34
Allocation effect	-0.08
Total	-0.23

The fund's information ratio (IR) is the ratio of the fund's average monthly relative return to the fund's tracking error. The IR indicates how much relative return has been achieved per unit of relative risk.

### Investment framework

The fund is managed on the basis of limits set in the mandate from the Ministry of Finance.

**TABLE 15** Key figures for the fund's risk and exposure.

	Limits set by the Ministry of Finance	30.06.2023
Allocation	Equity portfolio 60–80 percent of fund's market value <sup>1</sup>	71.1
	Unlisted real estate no more than 7 percent of the fund's market value	2.3
	Fixed-income portfolio 20–40 percent of fund's market value <sup>1</sup>	27.1
	Unlisted renewable energy infrastructure no more than 2 percent of the fund's market value	0.1
Market risk	1.25 percentage points expected relative volatility for the fund's investments	0.4
Credit risk	Maximum 5 percent of fixed-income investments may be rated below BBB-	1.1
Emerging markets	Maximum 5 percent of fixed-income investments may be in emerging markets	3.0
Ownership	Maximum 10 percent of voting shares in a listed company in the equity portfolio <sup>2</sup>	9.6

<sup>&</sup>lt;sup>1</sup> Derivatives are represented with their underlying economic exposure.

### Operational risk management

Norges Bank's Executive Board has decided there must be less than a 20 percent probability that operational risk factors will have a financial impact of 750 million kroner or more over a 12-month period.

Estimated operational risk exposure remained within the Executive Board's tolerance limit in the first half of the year. A total of 81 unwanted operational events were registered, with an estimated financial impact of around 1.1 billion kroner. Most of this financial impact was due to a minor error that was discovered in our calculation of the currency allocation in the government bond portion of the Ministry of Finance's benchmark index for the bond portfolio as a result of the wrong data being used.

<sup>2</sup> Investments in listed and unlisted real estate companies are exempt from this restriction.



We voted on a total of 94,731 proposals at 8,522 shareholder meetings in the first half of 2023.

### Responsible investment

The first half of the year is the busy season for voting, with more than two thirds of companies' annual shareholder meetings taking place between April and June. Voting is one of the most important instruments available to us for exercising our ownership rights. We voted on a total of 94,731 proposals at 8,522 shareholder meetings in the first half. All of <u>our voting</u> is continuously updated on www.nbim.no. In addition to a separate review on <u>how we voted during the period</u> and information on <u>how our voting</u> works in practice.

We had 1,675 meetings with companies in the first half of the year, raising governance and sustainability issues at 63.6 percent of them. These issues mostly concerned capital management, climate change and human capital.

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Auditor's report

# **Income statement**

Amounts in NOK million	Note	1H 2O23	1H 2O22	2022
Profit/loss on the portfolio before foreign exchange gain/loss				
Income/expense from:				
- Equities	4	1470 655	-1383671	-1201835
- Bonds	4	53 550	-339903	-453128
- Unlisted real estate	6	-20 834	21732	-2 213
- Unlisted infrastructure	7	-1769	-1162	897
- Financial derivatives	4	8 177	21 271	23 926
- Secured lending		4193	2008	4 8 4 5
- Secured borrowing		-5808	-101	-4792
Tax expense		-6742	-563	-4850
Interest income/expense		-87	4	-22
Other income/expense		11	-13	-4
Profit/loss on the portfolio before foreign exchange gain/loss		1501345	-1680400	-1 637 176
Foreign exchange gain/loss	10	980 432	642 339	641 850
Profit/loss on the portfolio		2 481777	-1 038 061	-995 326
Management fee	11	-3 502	-2780	-5 226
Profit/loss and total comprehensive income		2 478 274	-1040 841	-1000551

# **Balance sheet**

Amounts in NOK million	Note	30.06.2023	31.12.2022
Assets			
Deposits in banks		13 433	12 061
Securedlending		365 427	462 982
Cash collateral posted		3 857	21 601
Unsettled trades		113 090	11 428
Equities	5	10 355 651	8 138 602
Equities lent	5	482329	451799
Bonds	5	3 823 460	2 9 6 8 2 7 2
Bondslent	5	393 327	886 555
Financial derivatives	5	25 899	20 498
Unlisted real estate	6	343 711	329732
Unlisted infrastructure	7	15 717	14 489
Withholdingtaxreceivable		10 493	8 937
Other assets		3 688	2 017
Management fee receivable		198	274
Total assets		15 950 281	13 329 248
Liabilities and owner's capital			
Secured borrowing		480 355	796 082
Cash collateral received		22 109	14 801
Unsettled trades		119 860	44 329
Financial derivatives	5	22 717	40 159
Deferredtax		5 519	4488
Other liabilities		113	56
Total liabilities		650 673	899 915
Owner's capital		15 299 608	12 429 334
Total liabilities and owner's capital		15 950 281	13 329 248

# Statement of cash flows

Amounts in NOK million, receipt (+) / payment (-)	te 1H 2023	1H 2022	2022
Operating activities			
Receipts of dividend from equities	135 67	103720	190 235
Receipts of interest from bonds	41 148	3 24789	55 724
Receipts of interest and dividend from unlisted real estate	6 3367	2969	6156
Receipts of interest and dividend from unlisted infrastructure	7 457	96	162
Net receipts of interest and fee from secured lending and borrowing	-3 029	1939	1 521
Receipts of dividend, interest and fee from holdings of equities, bonds, unlisted real estate and unlisted infrastructure	177 614	133 513	253 797
Net cash flow from purchase and sale of equities	-318 659	-157 205	-719 766
Net cash flow from purchase and sale of bonds	37 690	-157 636	-702 877
Net cash flow to/from investments in unlisted real estate	6 -4382	2 2148	-3 930
Net cash flow to/from investments in unlisted infrastructure	7 -1923	373	1143
Net cash flow financial derivatives	-13 468	3 27844	52 485
Net cash flow cash collateral related to derivative transactions	22 905	7052	-16 013
Net cash flow secured lending and borrowing	-274 653	-192 642	52 860
Net payment of taxes	-726	-8 281	-11 058
Net cash flow related to interest on deposits in banks and bank overdraft	55	-5	30
Net cash flow related to other income/expense, other assets and other liabilities	1298	3 254	478
Management fee paid to Norges Bank <sup>1</sup>	-3 426	-2264	-4964
Net cash inflow/outflow from operating activities	-384 210	-346 849	-1 097 816
Financing activities			
Inflow from the Norwegian government	390 427	355 942	1089712
Withdrawal by the Norwegian government			-
Net cash inflow/outflow from financing activities	390 427	355 942	1089712
Net change deposits in banks			
Deposits in banks at 1 January	12 06	18 450	18 450
Net increase/decrease of cash in the period	6 216	9 094	-8104
Net foreign exchange gain/loss on cash	-4844	4 591	1715
Deposits in banks at end of period	13 433	32134	12 061

<sup>1</sup> Management fee in the statement of cash flows consists of transfers to/from the krone account in connection with the settlement of management costs incurred in Norges Bank.

# Statement of changes in owner's capital

Amounts in NOK million	Inflows from owner	Retained earnings	Total owner's capital
1January 2022	2967570	9 372 515	12 340 085
Profit/loss and total comprehensive income	-	-1 040 841	-1 040 841
Inflow during the period	358 000	-	358 000
Withdrawal during the period	-	-	-
30 June 2022	3 325 570	8 331 674	11 657 245
1July 2022	3 325 570	8 331 674	11 657 245
Profit/loss and total comprehensive income	-	40 290	40 290
Inflow during the period	731800	-	731800
Withdrawal during the period	-	-	-
31 December 2022	4 057 370	8 371 964	12 429 334
1January 2023	4 057 370	8 371 964	12 429 334
Profit/loss and total comprehensive income	-	2 478 274	2 478 274
Inflow during the period	392 000	-	392 000
Withdrawal during the period	-	-	-
30 June 2023	4 449 370	10 850 238	15 299 608

### Note 1 General information

### Introduction

Norges Bank is Norway's central bank. The bank is a separate legal entity and is owned by the state. Norges bank manages the Government Pension Fund Global (GPFG) on behalf of the Ministry of Finance, in accordance with section 3, second paragraph of the Government Pension Fund Act and the management mandate for the GPFG, issued by the Ministry of Finance.

The GPFG shall support government saving to finance future expenditure and underpin long-term considerations relating to the use of Norway's petroleum revenues. The Norwegian Parliament has established the legal framework in the Government Pension Fund Act, and the Ministry of Finance has formal responsibility for the fund's management. The Executive Board of Norges Bank has delegated day-to-day management of the GPFG to Norges Bank Investment Management (NBIM).

The Ministry of Finance has placed funds for investment in the GPFG in the form of a Norwegian krone deposit with Norges Bank (the krone account). Norges Bank manages the krone account in its own name by investing the funds in an investment portfolio consisting of listed equities, bonds, real estate and renewable energy infrastructure. The GPFG is invested in its entirety outside of Norway.

Transfers are made to and from the krone account in accordance with the management mandate. When the Norwegian State's petroleum revenue exceeds the use of petroleum revenue in the fiscal budget, deposits will be made into the krone account. In the opposite situation, withdrawals will be made. Transfers to and from the krone account lead to a corresponding change in owner's capital.

### Approval of the interim financial statements

The interim financial statements of Norges Bank for the first half of 2023, which only encompass the financial reporting for the GPFG, were approved by the Executive Board on 10 August 2023.

# Note 2 Accounting policies

### **Basis of preparation**

The Regulation on the financial reporting of Norges Bank (the Regulation), which has been laid down by the Ministry of Finance, requires that the financial reporting of the GPFG is prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU.

The condensed interim financial statements for the first half of 2023 are prepared in accordance with IAS 34 Interim Financial Reporting. The interim financial statements are presented in Norwegian kroner (NOK), rounded to the nearest million. Rounding differences may occur.

The interim financial statements are prepared using the same accounting policies and calculation methods as applied and disclosed in the annual report for 2022. The condensed interim financial statements do not include all the information and disclosures required in annual financial statements and should therefore be read in conjunction with the annual report for 2022.

### Significant estimates and accounting judgements

The preparation of the interim financial statements involves the use of uncertain estimates and assumptions relating to future events that affect the reported amounts for assets, liabilities, income and expenses. Estimates are based on historical experience and reflect management's expectations about future events. Actual outcomes may deviate from estimates. The preparation of the interim financial statements also involves the use of judgement when applying accounting policies, which may have a significant impact on the financial statements.

In cases where there are particularly uncertain estimates or accounting judgements, this is described in the respective notes.

# **Note 3 Returns**

Table 3.1 Returns

	1H 2023	1H 2022	2022
Returns measured in the fund's currency basket (percent)			
Return on equity investments	13.66	-17.05	-15.36
Return on fixed-income investments	2.25	-9.32	-12.11
Return on unlisted real estate investments	-4.57	7.12	0.07
Return on unlisted infrastructure investments	-6.53	-13.29	5.12
Return on fund	10.00	-14.41	-14.11
Relative return on fund (percentage points) <sup>1</sup>	-0.23	1.13	0.87
Returns measured in Norwegian kroner (percent)			
Return on equity investments	23.80	-11.19	-9.27
Return on fixed-income investments	11.36	-2.91	-5.78
Return on unlisted real estate investments	3.94	14.69	7.27
Return on unlisted infrastructure investments	1.81	-7.16	12.69
Return on fund	19.80	-8.36	-7.93

<sup>&</sup>lt;sup>1</sup> The relative return on the fund for 1H 2022 has been adjusted down by 0.01 percentage point due to an update of the return on the benchmark index.

For additional information on the calculation methods used when measuring returns, see note 3 Returns in the annual report for 2022.

# Note 4 Income/expense from equities, bonds and financial derivatives

Tables 4.1 to 4.3 specify the income and expense elements for equities, bonds and financial derivatives, where the line Income/expense shows the amount recognised in profit or loss for the respective income statement line.

 Table 4.1
 Specification Income/expense from equities

Amounts in NOK million	1H 2023	1H 2022	2022
Dividends	143 696	114 063	197 631
Realised gain/loss	110 967	151 303	191774
Unrealised gain/loss	1215 992	-1649 037	-1591241
Income/expense from equities before foreign exchange gain/loss	1470 655	-1383671	-1201835

 Table 4.2
 Specification Income/expense from bonds

Amounts in NOK million	1H 2O23	1H 2022	2022
Interest	51263	28 019	66 093
Realised gain/loss	-63 804	-58 224	-130 749
Unrealised gain/loss	66 090	-309 698	-388 472
Income/expense from bonds before foreign exchange gain/loss	53 550	-339 903	-453128

 Table 4.3
 Specification Income/expense from financial derivatives

Amounts in NOK million	1H 2023	1H 2022	2022
Interest	817	5780	7 4 4 9
Realised gain/loss	6502	7703	12 616
Unrealised gain/loss	858	7788	3 862
Income/expense from financial derivatives before foreign exchange gain/loss	8 177	21 271	23 926

# Note 5 Holdings of equities, bonds and financial derivatives

Table 5.1 Equities

	30.06	30.06.2023		2022
Amounts in NOK million	Fair value incl. earned dividends	Earned dividends	Fair value incl. earned dividends	Earned dividends
Equities	10 837 980	15 237	8 590 402	10 306
Total equities	10 837 980	15 237	8 590 402	10 306
Of which equities lent	482329		451799	

Table 5.2 Bonds

	30.06.2023				31.12.2022	
Amounts in NOK million	Notional value	Fair value incl. earned interest	Earned interest	Notional value	Fair value incl. earned interest	Earned interest
Government bonds	2 432 539	2 243 091	13 869	2366163	2165605	10 509
Government-related bonds	461747	421964	2 917	427 547	381848	2034
Inflation-linked bonds	294 497	283 953	701	250 560	243 441	485
Corporate bonds	1081781	985 761	9998	930 570	829 314	8145
Securitised bonds	316 789	282 018	1443	269 778	234 618	1045
Total bonds	4 587 352	4 216 787	28 928	4 244 619	3 854 827	22 218
Of which bonds lent		393 327			886 555	

### Financial derivatives

Financial derivatives such as foreign exchange derivatives, interest rate derivatives, credit derivatives and futures, are used to adjust the exposure in various portfolios as a cost-efficient alternative to trading in the underlying securities. Foreign exchange derivatives are also used in connection with liquidity management. Equity derivatives with an option component are often a result of corporate actions, and can be converted into equities or sold. The GPFG also uses equity swaps in combination with purchase and sale of equities. Equity swaps are not recognised in the balance sheet. See the accounting policy in note 13 Secured lending and borrowing in the annual report for 2022 for further information.

Table 5.3 specifies financial derivatives recognised in the balance sheet. Notional amounts are the basis for calculating any cash flows and gains/losses for derivative contracts. This provides information on the extent to which different types of financial derivatives are used.

**Table 5.3** Financial derivatives

	30.06.2023			31.12.2022		
	Notional –	Fair value		Notional -	Fair va	lue
Amounts in NOK million	amount	Asset	Liability	amount	Asset	Liability
Foreign exchange derivatives	908 478	10 643	8 351	1 028 213	6 955	28 135
Interest rate derivatives	567742	14 762	12 781	390 528	13 049	11 615
Credit derivatives	97 520	84	1553	53 290	-	375
Equity derivatives <sup>1</sup>	-	405	-	-	274	-
Exchange-traded futures contracts <sup>2</sup>	101731	5	31	91638	221	34
Total financial derivatives	1 675 471	25 899	22 717	1563669	20 498	40 159

Notional amounts are not considered relevant for equity derivatives and are therefore not included in the table.

<sup>&</sup>lt;sup>2</sup> Exchange-traded futures contracts are settled daily with margin payments and fair value is normally zero at the balance sheet date, with the exception of futures contracts in certain markets where there is different timing for setting the market value for recognition in the balance sheet and daily margining.

### Note 6 Unlisted real estate

Investments in unlisted real estate are made through subsidiaries of Norges Bank, exclusively established as part of the management of the GPFG. Subsidiaries presented as Unlisted real estate in the balance sheet are measured at fair value through profit or loss. The fair value of unlisted real estate is equivalent to the sum of the GPFG's share of assets and liabilities in the underlying subsidiaries, measured at fair value. For further information, see note 2 Accounting policies and note 8 Fair value measurement in the annual report for 2022.

Income/expense, changes in carrying amounts and cash flows related to investments in unlisted real estate are specified in the tables below. See note 6 Unlisted real estate in the annual report for 2022 for further information on the principles applied in the tables.

 Table 6.1
 Income/expense from unlisted real estate

Amounts in NOK million	1H 2023	1H 2022	2022
Payments of interest and dividend	3 3 6 7	2969	6 156
Unrealised gain/loss <sup>1</sup>	-24 201	18 762	-8369
Income/expense from unlisted real estate before foreign exchange gain/loss	-20 834	21732	-2 213

<sup>&</sup>lt;sup>1</sup> Earned interest and dividends which are not cash-settled are included in Unrealised gain/loss.

**Table 6.2** Changes in carrying amounts unlisted real estate

Amounts in NOK million	30.06.2023	31.12.2022
Unlisted real estate at 1 January	329732	310 134
Net cash flow to/from investments	4382	3 930
Unrealised gain/loss	-24 201	-8369
Foreign exchange gain/loss	33 798	24 036
Unlisted real estate, closing balance for the period	343 711	329732

Table 6.3 specifies cash flows between the GPFG and subsidiaries presented as Unlisted real estate, related to ongoing operations and other activities.

Table 6.3Cash flow unlisted real estate

Amounts in NOK million	1H 2O23	1H 2022	2022
Interest from ongoing operations	1007	649	1568
Dividend from ongoing operations	2360	1933	4200
Repayments of intercompany loans and paid-in capital from ongoing operations	761	652	1694
Cash flow from ongoing operations unlisted real estate	4128	3 2 3 4	7 463
Payments for new investments	-4449	-724	-7 074
Payments for property development	-876	-415	-1186
Net payments external debt	-	72	72
Repayments of intercompany loans from sales	182	2564	2564
Interest from sales	-	219	219
Dividend from sales	-	168	168
Cash flow to/from other activities unlisted real estate	-5144	1884	-5 237
Net cash flow unlisted real estate <sup>1</sup>	-1 016	5 118	2 2 2 2 5

<sup>1</sup> Shown in the statement of cash flows as Receipts of interest and dividend from unlisted real estate and Net cash flow to/from investments in unlisted real estate. In the first half of 2023 this amounted to NOK 3 367 million and NOK -4 382 million, respectively (NOK 2 969 million and NOK 2148 million in the first half of 2022).

### Underlying real estate companies

Real estate subsidiaries have investments in other non-consolidated, unlisted companies. For further information, see note 16 Interests in other entities in the annual report for 2022.

Table 6.4 specifies the GPFG's share of net income generated in the underlying real estate companies, which is the basis for Income/expense from unlisted real estate presented in table 6.1.

 Table 6.4
 Income from underlying real estate companies

Amounts in NOK million	1H 2023	1H 2022	2022
Net rental income	6 9 4 5	6 0 4 4	12 807
External asset management - fixed fees	-540	-525	-1 071
External asset management - variable fees	-2	-13	-33
Internal asset management - fixed fees <sup>1</sup>	-62	-47	-99
Operating costs in wholly-owned subsidiaries <sup>2</sup>	-41	-32	-65
Operating costs in joint ventures	-58	-68	-166
Interest expense external debt	-420	-320	-644
Tax expense	-133	-123	-303
Net income from ongoing operations	5 688	4 916	10 427
Realised gain/loss	1	767	769
Unrealised gain/loss <sup>3</sup>	-26302	16 155	-13 085
Realised and unrealised gain/loss	-26 301	16 922	-12 316
Transaction costs and fees from purchases and sales	-222	-106	-324
Net income underlying real estate companies	-20 834	21 732	-2 213

<sup>1</sup> Internal asset management is carried out on 100 percent owned properties by employees in a wholly-owned, consolidated subsidiary.

Table 6.5 specifies the GPFG's share of assets and liabilities in the underlying real estate companies, which comprises the closing balance for Unlisted real estate presented in table 6.2.

 Table 6.5
 Assets and liabilities underlying real estate companies

Amounts in NOK million	30.06.2023	31.12.2022
Properties	372 869	356 518
External debt	-26787	-24 751
Net other assets and liabilities <sup>1</sup>	-2 370	-2036
Total assets and liabilities underlying real estate companies	343 711	329732

<sup>1</sup> Net other assets and liabilities comprise cash, tax and operational receivables and liabilities.

<sup>2</sup> Operating costs in wholly-owned subsidiaries are measured against the upper limit from the Ministry of Finance, see note 11 Management costs for more information.

Unrealised gain/loss presented in table 6.1 includes net income in the underlying real estate companies which is not distributed back to the GPFG, and will therefore not correspond to Unrealised gains/loss presented in table 6.4.

# Note 7 Unlisted renewable energy infrastructure

Investments in unlisted renewable energy infrastructure (Unlisted infrastructure) are made through subsidiaries of Norges Bank, exclusively established as part of the management of the GPFG. Subsidiaries presented as Unlisted infrastructure in the balance sheet are measured at fair value through profit or loss. The fair value of unlisted infrastructure is equivalent to the sum of the GPFG's share of assets and liabilities in the underlying subsidiaries, measured at fair value. For further information, see note 2 Accounting policies and note 8 Fair value measurement in the annual report for 2022.

Income/expense, changes in carrying amounts and cash flows related to investments in unlisted infrastructure are specified in the tables below. See note 7 Unlisted renewable energy infrastructure in the annual report for 2022 for further information on the principles applied in the tables.

**Table 7.1** Income/expense from unlisted infrastructure

Amounts in NOK million	1H 2023	1H 2022	2022
Payments of interest and dividend	457	96	162
Unrealised gain/loss <sup>1</sup>	-2226	-1257	735
Income/expense from unlisted infrastructure before foreign exchange gain/loss	-1769	-1162	897

<sup>&</sup>lt;sup>1</sup> Earned interest and dividends which are not cash-settled is included in Unrealised gain/loss.

**Table 7.2** Changes in carrying amounts unlisted infrastructure

Amounts in NOK million	30.06.2023	31.12.2022
Unlisted infrastructure at 1 January	14 489	14 287
Net cash flow to/from investments	1923	-1143
Unrealised gain/loss	-2 226	735
Foreign exchange gain/loss	1531	609
Unlisted infrastructure, closing balance for the period	15 717	14 489

Table 7.3 specifies cash flows between the GPFG and subsidiaries presented as Unlisted infrastructure, related to ongoing operations and other activities.

**Table 7.3** Cash flow unlisted infrastructre

Amounts in NOK million	1H 2023	1H 2022	2022
Interest from ongoing operations	143	96	162
Dividend from ongoing operations	314	-	-
Repayments of intercompany loans and paid-in capital from ongoing operations	720	373	1143
Cash flow from ongoing operations unlisted infrastructure	1177	469	1305
Payments for new investments	-2 643	-	-
Cash flow to/from other activities unlisted infrastructure	-2 643	-	-
Net cash flow unlisted infrastructure <sup>1</sup>	-1466	469	1305

<sup>1</sup> Shown in the statement of cash flows as Receipts of interest and dividend from unlisted infrastructure and Net cash flow to/from investments in unlisted infrastructure. In the first half of 2023 this amounted to NOK 457 million and NOK -1 923 million respectively (NOK 96 million and NOK 373 million in the first half of 2023)

### Underlying infrastructure companies

Infrastructure subsidiaries have investments in other non-consolidated, unlisted companies. For further information, see note 16 Interests in other entities in the annual report for 2022.

Table 7.4 specifies the GPFG's share of net income generated in the underlying infrastructure companies, which is the basis for Income/expense from unlisted infrastructure presented in table 7.1.

 Table 7.4
 Income from underlying infrastructure companies

Amounts in NOK million	1H 2023	1H 2022	2022
Net income from sale of renewable energy	757	1143	2 175
Operating costs in wholly-owned subsidiaries <sup>1</sup>	-3	-3	-6
Operating costs in joint ventures	-8	-15	-16
Tax expense	-65	-140	-353
Interest income/expense	12	1	-
Net income from ongoing operations	692	985	1799
Unrealised gain/loss <sup>2</sup>	-2 421	-2 160	-898
Transaction costs and fees from purchases and sales	-40	14	-4
Net income underlying infrastructure companies	-1769	-1162	897

<sup>1</sup> Operating costs in wholly-owned subsidiaries are measured against the upper limit from the Ministry of Finance, see note 11 Management costs for more information.

Table 7.5 specifies the GPFG's share of assets and liabilities in the underlying infrastructure companies, which comprises the closing balance for Unlisted infrastructure as presented in table 7.2.

 Table 7.5
 Assets and liabilities underlying infrastructure companies

Amounts in NOK million	30.06.2023	31.12.2022
Infrastructure assets	14 061	13 983
Net other assets and liabilities <sup>1</sup>	1656	506
Total assets and liabilities underlying infrastructure companies	15 717	14 489

<sup>1</sup> Net other assets and liabilities comprise cash, tax and operational receivables and liabilities.

<sup>&</sup>lt;sup>2</sup> Unrealised gain/loss presented in table 7.1 includes net income in the underlying infrastructure companies which is not distributed back to the GPFG, and will therefore not correspond to Unrealised gains/loss presented in table 7.4.

### Agreements for purchases and sales of infrastructure

Table 7.6 provides an overview of announced agreements for purchases and sales of infrastructure assets which are not completed at the balance sheet date.

**Table 7.6** Announced agreements for purchases of infrastructure assets<sup>1</sup>

Туре	Country	Ownership percent		Price in stated currency (million) <sup>2</sup>		Expected completion
Purchase <sup>3</sup>	Spain	49.0	EUR	522	Q12023	Q42023 - Q22025
Purchase	Germany	16.6	EUR	430	Q12023	Q3 2023

<sup>&</sup>lt;sup>1</sup> Purchases and sales above USD 100 million are announced.

 $<sup>^2\,\,</sup>$  The stated price is for the GPFG's share.

In January 2023, Norges Bank entered into agreements to acquire a 49 percent interest in a portfolio of twelve solar and onshore wind farms in Spain. Of the twelve projects, nine are under development and expected to be completed between Q4 2023 and Q2 2025. Norges Bank will take ownership of these when they become operational. The price in the table represents the remaining payment obligations as of the balance sheet date.

### Note 8 Fair value measurement

Fair value for the majority of assets and liabilities is based on quoted market prices or observable market inputs. If the market is not active, fair value is established using standard valuation techniques. Estimating fair value can be complex and require the use of judgement, in particular when observable inputs are not available. For an overview of valuation models and techniques, as well as definitions and the classification in the three categories in the fair value hierarchy, see note 8 Fair value measurement in the annual report for 2022.

### Significant estimates

Classification in the fair value hierarchy is based on set criteria, some of which may require the use of judgement.

Level 3 investments consist of instruments measured at fair value that are not traded or quoted in active markets. Fair value is determined using valuation techniques that use models with significant use of unobservable inputs. A considerable degree of judgement is applied in determining the assumptions that market participants would use when pricing the asset or liability, when observable market data is not available.

### The fair value hierarchy

**Table 8.1** Categorisation of the investment portfolio by level in the fair value hierarchy

	Lev	el1	Lev	el 2	Leve	el 3	Tot	tal
Amounts in NOK million	30.06.2023	31.12.2022	30.06.2023	31.12.2022	30.06.2023	31.12.2022	30.06.2023	31.12.2022
Equities	10 799 864	8 556 594	36 640	30 602	1476	3 2 0 6	10 837 980	8 590 402
Government bonds	1998127	1929618	244 964	235 987	_	-	2 243 091	2165605
Government-related bonds	364226	303108	56 797	78 406	941	334	421964	381848
Inflation-linked bonds	242 317	204 037	41 636	39 404	_	-	283 953	243 441
Corporate bonds	918 470	740 645	67 287	88 663	4	6	985 761	829 314
Securitised bonds	256 312	202781	25706	31837	-	-	282 018	234 618
Total bonds	3 779 452	3 380 189	436390	474 297	945	340	4 216 787	3 854 827
Financial derivatives (assets)	460	429	25 438	20 024	1	45	25 899	20 498
Financial derivatives (liabilities)	-1584	-409	-21133	-39750	-	-	-22 717	-40 159
Total financial derivatives	-1124	20	4305	-19 726	1	45	3182	-19 661
Unlisted real estate	-	-	-	-	343 711	329732	343 711	329732
Unlisted infrastructure	-	-	-	-	15 717	14 489	15 717	14 489
Other (assets) <sup>1</sup>	-	-	509 988	519 026	-	-	509 988	519 026
Other (liabilities) <sup>2</sup>	-	-	-627 956	-859756	-	-	-627 956	-859756
Total	14 578 192	11 936 803	359 367	144 443	361850	347 812	15 299 410	12 429 059
Total (percent)	95.3	96.0	2.3	1.2	2.4	2.8	100.0	100.0

<sup>1</sup> Other (assets) consists of the balance sheet lines Deposits in banks, Secured lending, Cash collateral posted, Unsettled trades (assets), Withholding tax receivable and Other assets.

The majority of the total portfolio is priced based on observable market prices. At the end of the first half of 2023, 97.6 percent of the portfolio was classified as Level 1 or 2, which is a slight increase compared to year-end 2022.

### **Equities**

Measured as a share of total value, virtually all equities (99.65 percent) were valued based on official closing prices from stock exchanges and classified as Level 1 at the end of the first half. A small share of equities (0.34 percent) were classified as Level 2 at the end of the first half. These are mainly equities for which trading has recently been suspended, or illiquid securities that are not traded daily. The share of equities valued with significant use of unobservable inputs and classified

<sup>2</sup> Other (liabilities) consists of the balance sheet lines Secured borrowing, Cash collateral received, Unsettled trades (liabilities), Deferred tax and Other liabilities.

as Level 3 at the end of the first half was 0.01 percent. These are equities that are not listed, or where trading has been suspended and an adjustment has been applied to the last traded price based on company- or country-specific factors.

### **Bonds**

The majority of bonds have observable, executable market quotes in active markets and 89.63 percent were classified as Level 1 at the end of the first half. Bond holdings that do not have a sufficient number of observable quotes or that are priced based on comparable liquid bonds are classified as Level 2. These amounted to 10.35 percent of bond holdings at the end of the first half. An insignificant share of bond holdings (0.02 percent) that did not have observable quotes were classified as Level 3 at the end of the first half, since the valuation was based on significant use of unobservable inputs.

### Unlisted real estate and unlisted renewable energy infrastructure

All investments in unlisted real estate and unlisted renewable energy infrastructure are classified as Level 3, since models are used to value the underlying assets and liabilities, with extensive use of unobservable market inputs. Properties and investments in unlisted infrastructure are measured at the value determined by external valuers. Exceptions to this policy are newly acquired investments where the purchase price, excluding transaction costs, is normally considered to be the best estimate of fair value, or where there are indications that the external valuation does not reflect fair value and adjustments are therefore warranted.

### Financial derivatives

Some equity derivatives (rights and warrants) and credit derivatives (CDS indices) that are actively traded, are classified as Level 1. The majority of derivatives are classified as Level 2, since the valuation of these is based on standard models using observable market inputs. Certain derivatives are valued based on models with significant use of unobservable inputs and are classified as Level 3.

Other assets and liabilities that are part of the investment portfolio are classified as Level 2.

### Movements between the levels in the fair value hierarchy

Reclassifications between Level 1 and Level 2

There were no significant reclassifications of equity holdings between Level 1 and Level 2 during the first half.

Bond holdings of NOK 81 billion were reclassified from Level 2 to Level 1 during the first half, primarily due to improved liquidity for certain holdings of corporate bonds and government bonds denominated in USD. This was offset by NOK 55 billion of bond holdings that were reclassified from Level 1 to Level 2 due to reduced price observability, primarily for Japanese government bonds and certain holdings of corporate bonds.

### Reclassifications between Level 2 and Level 3

During the first half, NOK 650 million of government-related bonds were reclassified from Level 2 to Level 3. This increased the relative share of bonds classified as Level 3 compared to year-end 2022.

Table 8.2 Changes in Level 3 holdings

Amounts in NOK million	01.01.2023	Purchases	Sales	Settle- ments	Net gain/ loss	Transferred into Level 3	Transferred out of Level 3	Foreign exchange gain/loss	30.06.2023
Equities	3206	-	-9	-4	-1559	5	-6	-157	1476
Bonds	340	152	-147	-54	34	651	-97	65	945
Financial derivatives (assets)	45	-	-44	-	-	-	-	-	1
Unlisted real estate <sup>1</sup>	329 732	4382	-	-	-24 201	-	-	33798	343 711
Unlisted infrastructure <sup>1</sup>	14 489	1923	-	-	-2 226	-	-	1531	15 717
Total	347 812	6 457	-200	-59	-27 952	656	-103	35 238	361850

Amounts in NOK million	01.01.2022	Purchases	Sales	Settle- ments	Net gain/ loss	Transferred into Level 3	Transferred out of Level 3	Foreign exchange gain/loss	31.12.2022
Equities	1349	83	-1014	310	-28 634	27 678	-152	3 585	3206
Bonds	7	237	-	-	-20	103	-	13	340
Financial derivatives (assets)	-	-	-	-	-20	60	-	5	45
Unlisted real estate <sup>1</sup>	310 134	3930	-	-	-8369	-	-	24 036	329732
Unlisted infrastructure <sup>1</sup>	14 287	-1143	-	-	735	-	-	609	14 489
Total	325 777	3108	-1 014	310	-36308	27 841	-152	28 248	347 812

<sup>1</sup> Purchases represent the net cash flow to investments in unlisted real estate and unlisted infrastructure, as presented in the Statement of cash flows.

The share of the portfolio classified as Level 3 was 2.4 percent at the end of the first half, which is a slight decrease compared to year-end 2022. The GPFG's aggregate holdings in Level 3 were NOK 361 850 million at the end of the first half, an increase of NOK 14 038 million compared to year-end 2022.

Equities classified as Level 3 consist primarily of Russian securities that are suspended from trading or trading with restrictions. In line with the methodology applied at year-end, a downward adjustment has been applied to the last traded price of these securities. The adjustment reflects the estimated discount that market participants would demand to reflect the risk associated with the inherent uncertainty in the cash flows of the shareholdings, as well as the inability to access a public market to trade the shares. The adjustment to the last traded price is based on unobservable inputs and is considered to be significant to the fair value measurement. At the end of the first half, these equity securities had a value of NOK 1.3 billion, compared to NOK 3 billion at year-end 2022.

### Sensitivity analysis for Level 3 holdings

The valuation of Level 3 holdings involves the use of judgement when determining the assumptions that market participants would use when observable market data is not available.

Unlisted real estate investments constitute the vast majority of holdings classified as Level 3. The effect of using reasonable alternative assumptions for unlisted real estate investments is shown in the sensitivity analysis in table 8.3. For other holdings classified as Level 3, there are no significant changes to sensitivities compared to year-end 2022.

 Table 8.3
 Additional specification Level 3 and sensitivities - unlisted real estate

			Specifi- cation of	Sensitivities 30.06.2023		Specifi- cation of	Sensitivities 31.12.2022	
Amounts in NOK million	Key assumptions	Change in key assumptions	Level 3 holdings 30.06.2023	Unfavour- able changes	Favour- able changes	Level 3 holdings	Unfavour- able changes	Favour- able changes
	Yield	0.2 percentage point		-16 620	18 655		-15 944	17 896
	Market rent	2.0 percent		-5590	5 5 9 8		-5362	5 370
Unlisted real estate			343711	-22 209	24 253	329732	-21306	23 266

Changes in key assumptions can have a material effect on the valuation of unlisted real estate investments. A number of key assumptions are used, of which yields and growth forecasts for future market rents are the assumptions that have the largest impact when estimating property values. This is illustrated in the sensitivity analysis by using other reasonable assumptions for yields and market rents. The sensitivity analysis is based on a statistically relevant sample that is representative for the unlisted real estate portfolio, and reflects both favourable and unfavourable changes.

In an unfavourable outcome, an increase in the yield of 0.2 percentage point, and a reduction in market rents of 2 percent would result in a decrease in value of the unlisted real estate portfolio of approximately NOK 22 209 million or 6.5 percent (6.5 percent at year-end 2022). In a favourable outcome, a reduction in the yield of 0.2 percentage point and an increase in market rents of 2 percent would result in an increase in value of the unlisted real estate portfolio of approximately NOK 24 253 million or 7.1 percent (7.1 percent at year-end 2022). The isolated effects of changes in yields and future market rents are presented in table 8.3.

Changes outside of the ranges specified above are considered to be less reasonable alternative assumptions, however if the range of alternative assumptions were to be expanded, the value changes would be linear.

### Note 9 Investment risk

Investment risk comprises market risk, credit risk and counterparty risk. For further information on the framework for investment risk, including the main dimensions and measurement methods used to manage investment risk, see note 9 Investment risk in the annual report for 2022.

### Market risk

Market risk is the risk of loss or a change in the market value of the portfolio, or parts of the portfolio, due to changes in financial market variables, as well as real estate and infrastructure values. Norges Bank Investment Management measures market risk both in absolute terms and relative to the benchmark.

### Asset class by country and currency

The portfolio is invested across several asset classes, countries and currencies as shown in table 9.1.

 Table 9.1
 Allocation by asset class, country and currency

	Market v	alue in percent l	by country and curre	ncy <sup>1</sup>	Market value by asse		Assets minus liabilities excluding management fee	
Asset class	Market	30.06.2023	Market	31.12.2022	30.06.2023	31.12.2022	30.06.2023	31.12.2022
Equities	Developed	89.7	Developed	89.1				
	US	47.3	US	44.7				
	Japan	7.3	Japan	7.3				
	UK	6.5	UK	7.0				
	France	4.6	France	4.8				
	Switzerland	4.3	Switzerland	4.5				
	Total other	19.7	Total other	20.8				
	Emerging	10.3	Emerging	10.9				
	China	3.4	China	3.8				
	Taiwan	2.1	India	2.0				
	India	1.9	Taiwan	2.0				
	Brazil	0.6	Brazil	0.5				
	Mexico	0.4	South Africa	0.4				
	Total other	1.9	Total other	2.2				
Total equities					71.25	69.77	10 901 268	8 672 186
Fixed income	Developed	99.8	Developed	99.7				
	US dollar	49.8	US dollar	50.2				
	Euro	29.3	Euro	28.1				
	Japanese yen	7.5	Japanese yen	8.0				
	British pound	4.7	British pound	4.5				
	Canadian dollar	3.6	Canadian dollar	3.8				
	Total other	4.8	Total other	5.1				
	Emerging <sup>2</sup>	0.2	Emerging <sup>2</sup>	0.3				
Total fixed inco	me				26.39	27.45	4 037 260	3 412 044
Unlisted real								
estate	US	49.7	US	51.8				
	UK	17.8	France	16.5				
	France	16.1	UK	16.4				
	Germany	5.7	Germany	5.0				
	Switzerland	3.6	Switzerland	3.4				
	Total other	7.1	Total other	7.0				
Total unlisted re	eal estate				2.25	2.66	344 529	330 300
Total unlisted in	nfrastructure				0.11	0.12	16 353	14 530

 $<sup>^{\</sup>rm 1}$   $\,$  Market value in percent per country and currency includes derivatives and cash.

At the end of the first half, the equity portfolio's share of the fund was 71.3 percent, compared to 69.8 percent at year-end 2022. The bond portfolio's share of the fund was 26.4 percent, compared to 27.5 percent at year-end. The unlisted real estate portfolio's share of the fund was 2.3 percent, compared to 2.7 percent at year-end. The share of unlisted infrastructure in the fund was 0.1 percent, the same as at year-end.

 $<sup>^{2}\,\,</sup>$  The share of individual emerging market currencies in fixed income is insignificant.

### Volatility

Risk models are used to quantify the risk of value changes associated with all or parts of the portfolio. One of the risk measures is expected volatility. Volatility is a standard risk measure based on the statistical concept of standard deviation. Expected volatility is defined as one standard deviation. Tables 9.2 and 9.3 present risk both in terms of the portfolio's absolute risk and the relative risk. All the fund's investments are included in the calculations of expected relative volatility, and are measured against the fund's benchmark index consisting of global equity and bond indices. The fund's management mandate specifies that expected relative volatility shall not exceed 1.25 percentage points.

**Table 9.2** Portfolio risk, expected volatility, percent

	Expected volatility, actual portfolio										
	30.06.2023	Min 2023	Max 2023	Average 2023	31.12.2022	Min 2022	Max 2022	Average 2022			
Portfolio	9.3	8.7	10.8	9.7	10.1	9.6	10.4	10.1			
Equities	11.9	11.3	15.0	12.8	14.2	13.8	14.4	14.2			
Fixed income	10.1	9.8	11.2	10.4	11.1	10.0	11.1	10.7			
Unlisted real estate	12.2	11.8	12.9	12.3	12.1	11.7	12.4	12.0			
Unlisted infrastructure	34.1	14.9	40.0	29.8	14.9	8.9	14.9	11.7			

Table 9.3 Relative risk measured against the fund's benchmark index, expected relative volatility, basis points

	Expected relative volatility								
	30.06.2023	Min 2023	Max 2023	Average 2023	31.12.2022	Min 2022	Max 2022	Average 2022	
Portfolio	35	35	41	38	39	39	53	45	

Risk measured as expected volatility indicates an expected annual fluctuation in the value of the fund of 9.3 percent, or approximately NOK 1 430 billion at the end of the first half, compared to 10.1 percent at year-end 2022. Expected volatility for the equity portfolio was 11.9 percent at the end of the first half, down from 14.2 percent at year-end, while expected volatility for the bond portfolio was 10.1 percent, compared to 11.1 percent at year-end.

The fund's expected relative volatility was 35 basis points at the end of the first half, compared to 39 basis points at year-end 2022.

Expected shortfall is a tail risk measure that quantifies the expected loss of a portfolio in extreme market situations. Expected shortfall measured on relative returns provides an estimate of the annual expected relative underperformance versus the benchmark index for a given confidence level. Using historical simulations, relative returns of the current portfolio compared to the benchmark index are calculated on a weekly basis over a sampling period from January 2007 until the end of the last accounting period. The expected shortfall at a 97.5 percent confidence level is then given by the annualised average relative return, measured in the currency basket for the 2.5 percent worst weeks.

The Executive Board has determined that the fund shall be managed in such a way that the annual expected shortfall measured against the benchmark index does not exceed 3.75 percentage points. At the end of the first half, expected shortfall was 1.04 percentage points, compared to 1.22 percentage points at year-end 2022.

### **Credit risk**

Credit risk is the risk of losses resulting from issuers of bonds defaulting on their payment obligations. Credit risk for the bond portfolio is monitored, among other things, through the use of credit ratings. Fixed-income instruments in the portfolio's benchmark index are all rated investment grade by one of the major credit rating agencies.

**Table 9.4** Bond portfolio specified by credit rating

Amounts in NOK million, 30.06.2023	AAA	AA	А	ВВВ	Lower rating	Total
Government bonds	1480703	259 801	388 447	83 128	31 013	2 243 091
Government-related bonds	206 287	153 283	36799	22 378	3 218	421964
Inflation-linked bonds	177 865	71303	17 397	17388	-	283 953
Corporate bonds	9 957	69 013	460 316	434 846	11 628	985 761
Securitised bonds	238 800	40 523	2 463	232	0	282 018
Total bonds	2 113 612	593 923	905 421	557 972	45 859	4 216 787

Amounts in NOK million, 31.12.2022	AAA	AA	А	ВВВ	Lower rating	Total
Government bonds	1365320	192142	509 240	75 988	22 914	2165605
Government-related bonds	173 893	136 251	51 670	18168	1867	381848
Inflation-linked bonds	154708	58 278	14 368	16 087	-	243 441
Corporate bonds	7 761	61407	366 585	383 325	10 236	829 314
Securitised bonds	198 124	34 817	1677	-	-	234 618
Total bonds	1899805	482 896	943 540	493 569	35 018	3 854 827

The share of bond holdings with credit rating A decreased to 21.5 percent at the end of the first half, from 24.5 percent at the end of 2022. The decrease in the A category was mainly due to reduced holdings of Japanese government bonds. Bonds in the remaining credit rating categories increased somewhat during the period. The share of bond holdings in the Lower rating category increased to 1.1 percent at the end of the first half, from 0.9 percent at year-end. This was mainly due to a small increase in holdings of government bonds in this category. Overall, the credit quality of the bond portfolio was virtually unchanged compared to year-end.

### Counterparty risk

Counterparty risk is the risk of loss due to counterparty bankruptcy or other events leading to counterparties defaulting.

 Table 9.5
 Counterparty risk by type of position

	Risk ex	Risk exposure		
Amounts in NOK million	30.06.2023	31.12.2022		
Derivatives including foreign exchange contracts	72 460	72 319		
Securities lending	51 815	62 291		
Unsecured bank deposits <sup>1</sup> and securities	22 598	21 662		
Repurchase and reverse repurchase agreements	3188	13 986		
Settlement risk towards brokers and long-settlement transactions	5 747	1699		
Total	155 808	171 956		

<sup>&</sup>lt;sup>1</sup> Includes bank deposits in non-consolidated subsidiaries.

Total counterparty risk exposure was reduced to NOK 155.8 billion at the end of the first half, from NOK 172.0 billion at year-end 2022. The decrease in risk exposure was mainly due to reduced exposure from securities lending and repurchase and reverse repurchase agreements, due to lower activity in these instruments. Counterparty risk exposure from securities lending decreased by 17 per cent in the period compared to year-end, while risk exposure from repurchase and reverse repurchase agreements decreased by 77 per cent compared to year-end. The risk exposure from derivatives including currency contracts was virtually unchanged compared to year-end, at NOK 72 billion. Derivatives and currency contracts accounted for 47 per cent of the total risk exposure at the end of the first half. One third of this exposure was to a clearing house.

# Note 10 Foreign exchange gains and losses

### **Accounting judgement**

Gains and losses on financial instruments are due to changes in the price of the instrument (security element) and changes in foreign exchange rates (foreign exchange element). These are presented separately in the income statement. See note 11 Foreign exchange gains and losses in the annual report for 2022 for further information on the method used to allocate the total gain/loss in Norwegian kroner to a security element and a foreign exchange element.

The market value of the fund in Norwegian kroner is impacted by changes in foreign exchange rates. See table 9.1 in note 9 Investment risk for an overview of the allocation of the GPFG's investments per asset class, country and currency. The change in the fund's market value due to changes in foreign exchange rates is presented in table 10.1.

**Table 10.1** Specification foreign exchange gain/loss

Amounts in NOK million	1H 2023	1H 2022	2022
Foreign exchange gain/loss - USD/NOK	436 598	474 222	445 752
Foreign exchange gain/loss - EUR/NOK	254775	60 803	100 638
Foreign exchange gain/loss - JPY/NOK	-10 580	-34 894	-11 871
Foreign exchange gain/loss - GBP/NOK	105 872	2140	-6 685
Foreign exchange gain/loss - CHF/NOK	40 695	18 980	28 912
Foreign exchange gain/loss - other	153 072	121 087	85104
Foreign exchange gain/loss	980 432	642339	641 850

# Note 11 Management costs

Management costs comprise all costs relating to the management of the fund. These are mainly incurred in Norges Bank, but management costs are also incurred in subsidiaries of Norges Bank that are exclusively established as part of the management of the GPFG's investments in unlisted real estate and unlisted renewable energy infrastructure.

### Management costs in Norges Bank

The Ministry of Finance reimburses Norges Bank for costs incurred in connection with the management of the GPFG, in the form of a management fee. The management fee is equivalent to the actual costs incurred by Norges Bank, including performance-based fees to external managers, and is expensed in the income statement line Management fee. Costs included in the management fee are specified in table 11.1.

Table 11.1 Management fee

	1H 2	023	1H 20	022	202	22
Amounts in NOK million		Basis points		Basis points		Basis points
Salary, social security and other personnel-related costs	972		770		1579	
Custody costs	226		242		473	
IT services, systems, data and information	383		311		632	
Research, consulting and legal fees	128		137		247	
Other costs	141		117		274	
Allocated costs Norges Bank	138		153		339	
Base fees to external managers	719		567		963	
Management fee excluding performance-based fees	2707	3.7	2 2 9 7	3.7	4508	3.8
Performance-based fees to external managers	796		483		718	
Management fee	3502	4.6	2780	4.8	5 226	4.4

### Management costs in subsidiaries

Management costs incurred in wholly-owned subsidiaries consist of costs related to the management of the investments in unlisted real estate and unlisted renewable energy infrastructure. These costs are expensed directly in the portfolio result and are not part of the management fee.

Management costs incurred in non-consolidated subsidiaries are presented in the income statement lines Income/expense from unlisted real estate and Income/expense from unlisted infrastructure. Management costs incurred in consolidated subsidiaries are presented in the income statement line Other income/expense. These costs are specified in table 11.2.

Table 11.2 Management costs subsidiaries

	1H 20	1H 2O23		1H 2022		2022	
Amounts in NOK million		Basis points		Basis points		Basis points	
Salary, social security and other personnel-related costs	17		15		30		
IT services, systems, data and information	3		2		4		
Research, consulting and legal fees	26		15		38		
Other costs	27		23		42		
Total management costs subsidiaries <sup>1</sup>	72	0.1	55	0.1	114	0.1	
Of which management costs non-consolidated subsidiaries	45		35		71		
Of which management costs consolidated subsidiaries	27		19		43		

<sup>1</sup> Costs in the first half of 2023 comprised NOK 69 million related to investments in unlisted real estate and NOK 3 million related to investments in unlisted renewable energy infrastructure. For the first half of 2022, NOK 52 million was related to investments in unlisted real estate and NOK 3 million was related to investments in unlisted infrastructure.

### Upper limit for reimbursement of management costs

Every year the Ministry of Finance establishes an upper limit for the reimbursement of management costs. Norges Bank is only reimbursed for costs incurred within this limit. Norges Bank is also reimbursed for performance-based fees to external managers. These fees are not measured against the upper limit.

For 2023, total management costs incurred in Norges Bank and its subsidiaries, excluding performance-based fees to external managers, are limited to NOK 6 200 million. In 2022, the limit was NOK 5 600 million.

At the end of the first half, management costs measured against the upper limit amounted to NOK 2 779 million. This consisted of management costs in Norges Bank, excluding performance-based fees to external managers, of NOK 2 707 million and management costs in subsidiaries of NOK 72 million. Total management costs including performance-based fees to external managers amounted to NOK 3 574 million.

### Costs measured as a share of assets under management

Annualised costs are also measured in basis points, as a share of average assets under management. Average assets under management are calculated based on the market value of the portfolio in Norwegian kroner at the start of each month in the calendar year.

At the end of the first half, management costs incurred in Norges Bank and its subsidiaries, excluding performance-based fees to external managers, corresponded to 3.8 basis points of assets under management. Management costs including performance-based fees to external managers corresponded to 4.7 basis points of assets under management.

### Other operating costs in subsidiaries

In addition to the management costs presented in table 11.2, other operating costs are also incurred in subsidiaries related to the ongoing maintenance, operation and development of the investments. These are not costs related to investing in real estate or renewable energy infrastructure but are costs of operating the underlying investments once they are acquired. Therefore, they are not defined as management costs. Other operating costs are expensed directly in the portfolio result and are not part of the management fee. They are also not included in the costs measured against the upper limit.

Other operating costs incurred in non-consolidated subsidiaries are presented in the income statement lines Income/expense from unlisted real estate and Income/expense from unlisted infrastructure. For further information, see table 6.4 in note 6 Unlisted real estate and table 7.4 in note 7 Unlisted renewable energy infrastructure. Other operating costs incurred in consolidated subsidiaries are presented in the income statement line Other income/expense.

# **Auditor's report**

### To the Supervisory Council of Norges Bank

### Report on review of interim financial information

### Introduction

We have reviewed the accompanying condensed balance sheet of the Government Pension Fund Global as of 30 June 2023 and the related condensed income statement, statement of changes in owner's capital and statement of cash flows for the period 1 January 2023 to 30 June 2023. The Executive Board and management are responsible for the preparation and presentation of this interim financial information in accordance with IAS 34 Interim Financial Reporting. Our responsibility is to express a conclusion on this interim financial information based on our review.

### Scope of review

We conducted our review in accordance with the international standard on review engagements 2410, "Review of Interim Financial Information Performed by the Independent Auditor of the Entity". A review of interim financial information consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

### Conclusion

Based on our review, nothing has come to our attention that causes us to believe that the accompanying interim financial information is not prepared, in all material respects, in accordance with IAS 34 Interim Financial Reporting.

Oslo, 10 August 2023 Ernst & Young AS

### **Kjetil Rimstad**

State Authorized Public Accountant (Norway)

This translation from Norwegian has been prepared for information purposes only.