

2 | 2024

Markets

Foreign exchange reserves

Management of the foreign exchange reserves

2024 Q2

30 August 2024

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Main points

NOK **746.6**bn

Market value of the foreign exchange reserves

0.9%

Return on the foreign exchange reserves in international currency terms

-1.6%

Return on the foreign exchange reserves in NOK terms



Return on equity investments in international currency terms 0.2%

Return on fixed income investments in international currency terms

Management of the foreign exchange reserves

The foreign exchange reserves are to be sufficiently liquid to be available for use in foreign exchange market transactions or as part of the conduct of monetary policy with a view to promoting financial stability and to meet Norges Bank's international commitments. The aim of the management of foreign exchange reserves is the highest possible return within the applicable risk limits.

Composition

The reserves are divided into an equity portfolio, a fixed income portfolio and a petroleum buffer portfolio. The foreign exchange reserves may be invested in cash deposits, Treasury bills, government bonds and equities listed on a regulated and recognised exchange.

The fixed income portfolio's benchmark index is a market-weighted index of all nominal government bonds with a residual maturity of between one month and 10 years issued in local currency by China, France, Germany, Japan, the UK and the US.

The equity portfolio's benchmark index is a market-weighted, tax-adjusted global equity index for medium and large-sized companies limited to nine currencies. The strategic equity allocation of the total equity and fixed income portfolio is 20%.

The petroleum buffer portfolio is intended to receive foreign currency from the State's Direct Financial Interest in petroleum activities (SDFI) and transfers from the Government Pension Fund Global (GPFG), as well as to smooth the government's need for converting foreign currency and NOK. The petroleum buffer portfolio is invested in short-term fixed income instruments. No benchmark index has been set for the petroleum buffer portfolio.

CHART 1 Composition of the foreign exchange reserves

Market value of each portfolio at year-end up to 2023, and at the end of 2024 Q2. In billions of NOK $\,$



Foreign exchange reserves

The market value of the foreign exchange reserves was NOK 746.6bn at the end of 2024 Q2. The value declined by NOK 3.4bn in Q2. The return in international currency terms increased the value of the equity and fixed income portfolios by NOK 6.5bn. A stronger krone reduced the value by NOK 17.5bn. Net transfers amounted to NOK 0.2bn. The value of the petroleum buffer portfolio increased by NOK 7.4bn. In NOK terms, the return amounted to -0.6bn, while net transfers totalled 8.0bn.

TABLE 1 Market value of the foreign exchange reserves

In billions of NOK. 2024 Q2 and so far in 2024

NOK 746.6bn

in market value, down NOK **3.4**bn in 2024 Q2

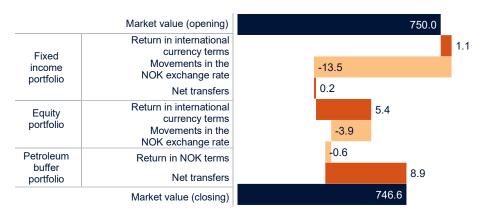
	2024 Q2				2024			
	Fixed income investments	Equity investments	Petroleum buffer portfolio	Foreign exchange reserves	Fixed income investments	Equity investments	Petroleum buffer portfolio	Foreign exchange reserves
Market value (opening)	538.7	167.0	44.3	750.0	511.3	143.1	37.7	692.1
Market value (closing)	526.4	168.5	51.7	746.6	526.4	168.5	51.7	746.6
Change in market value	-12.3	1.5	7.4	-3.4	15.1	25.4	14.0	54.5
Return in NOK terms	-12.5	1.5	-0.6	-11.6	13.2	25.4	3.4	42.0
Net transfers	0.2	0.0	8.0	8.2	2.0	0.0	10.6	12.6

TABLE 2 Details of fixed income and equity investments

2024 Q2 and so far in 2024

	2024 Q2			2024		
	Fixed income investments	Equity investments	Total	Fixed income investments	Equity investments	Total
In billions of NOK						
Return in NOK terms	-12.5	1.5	-11.0	13.2	25.4	38.5
Return in international currency terms	1.1	5.4	6.5	-0.8	20.9	20.1
Movements in the krone exchange rate	-13.5	-3.9	-17.5	13.9	4.5	18.5
In percent	<u>.</u>					
Return in international currency terms	0.2	3.3	0.9	-0.2	14.2	3.0
Return in NOK terms	-2.3	0.9	-1.6	2.6	17.7	5.9
Relative return in NOK terms (bps)	0.8	1.9	1.1	0.9	1.9	1.1
Expected relative volatility in NOK terms (annualised, bps)	1.7	4.6				

CHART 2 Change in market value In billions of NOK. 2024 Q2



Fixed income investments

The market value of the fixed income portfolio was NOK 526.4 at the end of 2024 Q2, a decrease of NOK 12.3bn from the previous quarter. A stronger krone reduced the value by NOK 13.5bn, while the return in international currency increased the value by NOK 1.1bn, equivalent to 0.2%. Net inflows to the fixed income portfolio amounted to NOK 0.2bn, reflecting transactions with the IMF.

International currency

The foreign exchange reserves are held for the purpose of crisis management. Movements in the krone exchange rate will affect Norges Bank's equity but not the Bank's ability to meet commitments in foreign currency. The petroleum buffer portfolio, which is not held for the purpose of crisis management, is excluded from the measurement of return in international currency terms.

NOK 526.4bn

in market value, down NOK **12.3**bn in 2024 Q2

TABLE 3 Fixed income investments by currency

Market value in billions of NOK. 30 June 2024

	Market value	Share	Duration	Yield
Total	526.4	100.0	3.5	3.7
CNY	10.3	2.0	3.7	1.9
EUR	178.8	34.0	3.9	2.9
GBP	36.8	7.0	3.8	4.3
JPY	36.8	7.0	4.0	0.5
USD	263.6	50.1	3.1	4.8

CHART 3 Principal and coupon due per year In billions of NOK

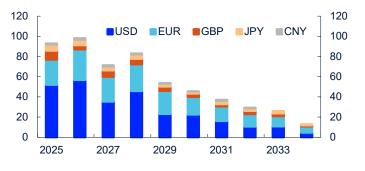


CHART 4 Return on fixed income investments

In international currency terms. Percent

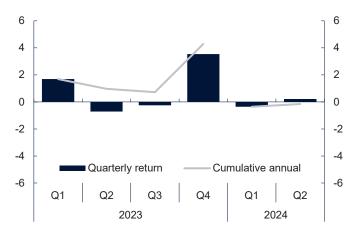
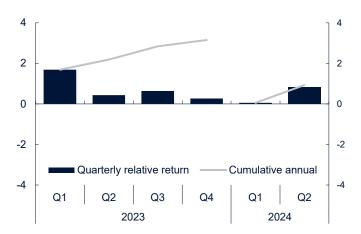


CHART 5 Relative return on fixed income investments In NOK terms. Basis points



US Both short-term and long-term US government bond yields rose by approximately 10-20 basis points in 2024 Q2. The Federal Reserve kept the policy rate unchanged. Investments denominated in USD earned a return of 0.7% in Q2.

Europe European short-term government bond yields declined through Q2, while yields with longer maturities rose approximately 20-40 basis points. The ECB cut the policy rate in June. Investments denominated in EUR earned a return of -0.4% in Q2.

UK long-term government bond yields rose by approximately 20 basis points in Q2. The Bank of England kept its monetary policy stance unchanged. Investments denominated in GBP earned a return of 0.1% in Q2.

Japan Japanese government bond yields rose by approximately 20 basis points in Q2. The rise in long-term yields was somewhat higher than the rise in yields with shorter maturities. The Bank of Japan kept its policy rate unchanged through Q2. Investments in JPY earned a return of -0.8% in Q2.

China Chinese government bond yields declined in Q2. Short-term yields fell by approximately 20 basis points. Investments in JPY earned a return of 1.4% in Q2.

0.7%

return on USD investments

-0.4%

0.1% return on GBP investments

-0.8%

return on JPY investments

1.4%

return on CNY investments

Equity investments

The market value of the equity portfolio was NOK 168.5bn at the end of 2024 Q2, an increase of NOK 1.5bn since the end of 2024 Q1. The return in international currency terms increased the market value by NOK 5.4bn, while a stronger krone, in isolation, reduced the value of the portfolio by NOK 3.9bn.

The return on the equity portfolio was 3.3% in international currency terms. North American equities posted a return of 4.5%, European equities, 1.4% and Asian equities -4.2%. Equities related to the technology sector posted the strongest return in 2024 Q2, at 12.9%, and made the largest contribution to the return on the portfolio, at 3.5 percentage points. Equities related to the manufacturing sector posted the weakest return in Q2, at -3.1%.

NOK 168.5bn

in market value, up NOK **1.5**bn since 2024 Q2

TABLE 4 Equity investments by sector and currency

Market value in billions of NOK. 30 June 2024

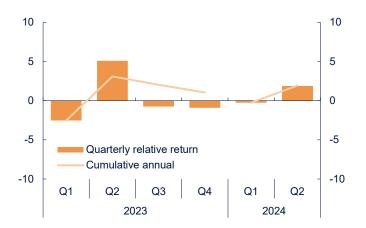
Sector	Market value	Share	Currency	Market value	Share
Basic materials	5	3 %	AUD	3	2 %
Durable goods	24	14 %	CAD	4	2 %
Consumer goods	8	5 %	CHF	4	3 %
Energy	6	3 %	ОКК	2	1 %
Financials	23	14 %	EUR	14	9 %
Healthcare	20	12 %	GBP	6	4 %
Industrials	21	12 %	JPY	12	7 %
Real estate	4	2 %	SEK	2	1 %
Technology	52	31 %	USD	122	72 %
Telecommunications	4	2 %			
Utilities	4	2 %			

30 30 20 20 10 10 0 0 -10 -10 -20 -20 Quarterly return Cumulative annual -30 -30 Q1 Q2 Q3 Q4 Q1 Q2 2023 2024

CHART 6 Return on equity investments

In international currency terms. Percent

CHART 7 Relative return on equity investments In NOK terms. Basis points



Petroleum buffer portfolio

The market value of the petroleum buffer portfolio was NOK 51.7bn at the end of 2024 Q2, an increase of NOK 7.4bn for the quarter. During Q2, NOK 70.8bn worth of foreign exchange was purchased from the State's Direct Financial Interest (SDFI), and NOK 91.6bn worth of foreign exchange was transferred to the GPFG. At the same time, Norges Bank purchased NOK 28.8bn worth of foreign exchange in the market.¹ The return on the portfolio came to NOK -0.6bn, primarily owing to a stronger krone.

TABLE 5 Cash flow and return on the petroleum buffer portfolioIn billions of NOK. Per quarter and annual total. 2024

	2024 Q2	2024 Q1	2024
Net transfers	8.0	2.6	10.6
FX purchases from the SDFI	70.8	77.4	148.2
FX purchases in the market	28.8	21.4	50.1
Transfers to the GPFG	-91.6	-96.2	-187.8
Return in NOK	-0.6	4.0	3.4

Transferred foreign exchange to the GPFG equivalent to



Purchased foreign exchange from SDFI equivalent to NOK 70.8bn

Purchased foreign exchange in the market equivalent to NOK 28.8bn

¹ These cash flows are a part of the petroleum fund mechanism. More information on the petroleum fund mechanism can be found on Norges Bank's website: <u>https://www.norges-bank.no/en/topics/liquidity-and-markets/Foreign-exchange-purchases-for-GPFG/</u>

Financial risk

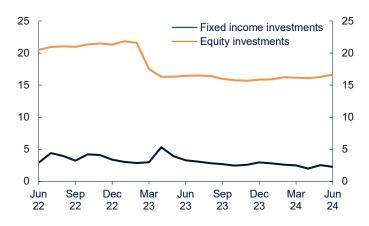
The foreign exchange reserves are invested in foreign currency, while Norges Bank's liabilities are mainly denominated in NOK. This means that movements in the krone exchange rate will have a considerable impact on Norges Bank's earnings in NOK terms. A stronger krone will reduce the krone value of the foreign exchange reserves, while a weaker krone will increase the krone value. For the purpose of crisis management, however, the krone value of the foreign exchange reserves will be of secondary importance. Excluding changes in the krone value, the financial risk associated with the foreign exchange reserves comprises market, credit and counterparty risk.

The foreign exchange reserves' market risk is determined by the composition of investments and movements in equity prices, interest rates and credit spreads. For equity and fixed income investments, expected absolute volatility at the end of 2024 Q2, excluding exchange rate movements, was 16.6% and 2.3%, respectively. Both equity and fixed income portfolios are managed to track the benchmark closely. At the end of Q2, expected relative volatility for equity and fixed income investments was 0.05 and 0.02 percentage point, respectively.

Credit and counterparty risk is defined as the risk of losses if issuers or counterparties default on payment obligations. The credit risk on bond and Treasury bill investments in the foreign exchange reserves is low. The lowest credit ratings from the three largest rating agencies Fitch, Moody's and Standard & Poor's, are equivalent to AAA for the German government, AA+ for the US government, AA- for the French government, AA- for the UK government, A+ for the Chinese government and A for the Japanese government.

CHART 8 Expected absolute volatility

Excluding exchange rate movements. Percent



Expected relative volatility

Under the Executive Board's principles for the foreign exchange reserves, maximum expected relative volatility is set at 50 basis points for both fixed income and equity portfolios. This means that the return on the portfolio relative to the benchmark index is expected to be within ±50 basis points in two out of three years.

CHART 9 Expected relative volatility



Including exchange rate movements. Basis points

Commitments to the IMF

Pursuant to the Central Bank Act, Norges Bank shall administer Norway's rights and fulfil the corresponding obligations ensuing from membership of the International Monetary Fund (IMF). This membership entails a standing commitment to furnish foreign exchange for IMF loans to member countries.

Loan resource commitments under the quota, the New Arrangements to Borrow (NAB), bilateral agreements and the Poverty Reduction and Growth Trust (PRGT) totalled SDR 10 823m at 30 June 2024. At the end of 2024 Q2, the IMF had drawn SDR 1 587m and the total remaining amount that can be drawn under these arrangements is SDR 9 536m. The quota subscription, which determines a country's standing in the IMF, applies to all member countries, but participation in the funding of the IMF's borrowing arrangements is voluntary. The size and liquidity of the foreign exchange reserves are assessed to be sufficient to meet Norges Bank's international commitments.

Total commitments SDR 10.8bn Amount drawn SDR 1.6bn

Special Drawing Rights (SDRs)

The SDR is an instrument the IMF can use to allocate international liquidity. The value of the SDR is based on a basket of five currencies: USD, EUR, JPY, GBP and CNY.

At 30 June 2024, SDR 1 = NOK 14.00

TABLE 6 Details of IMF lending programmes. In thousands of SDRs

The commitments include the 2020 and 2022 arrangements under PRGT. The 2016 agreement can no longer be drawn on. The same applies for the total remaining amount that can be drawn. Amount drawn includes all arrangements.

	Agreed amount	Amount drawn	Amount remaining	Change in amount drawn in 2024 Q2	Change in amount drawn in 2024
Total	10 823 080	1 587 298	9 535 782	18 823	-71 074
Quota	3 754 700	992 973	2 761 727	18 823	-67 112
NAB	3 933 380	0	3 933 380	0	-3 962
Bilateral agreements	2 585 000	0	2 585 000	0	0
PRGT	550 000	594 325	255 675	0	0

TABLE 7 Details of SDR holdings. In thousands of SDRs

	SDR allocations	SDR holdings	Remaining voluntary purchases	Change in holdings in 2024 Q2	Change in holdings in 2024
SDR holdings	5 161 781	5 447 332	2 295 339	-6 309	-22 329

Commitments to the IMF

Quota subscriptions are the IMF's primary source of funding and primarily reflect the member country's relative size in the global economy. Norway's quota subscription is SDR 3 755m. The amount drawn (reserve position) was increased by SDR 18.8m in 2024 Q2.

CHART 10 Quota

In billions of SDRs



NAB (New Arrangements to Borrow) represents the IMF's second line of defence. Under the NAB, a number of member countries and institutions are committed to lending additional resources to the IMF. The IMF Executive Board must specifically decide to activate the NAB to fund new lending by drawing on the NAB. The government, represented by the Ministry of Finance, is the IMF's contractual counterparty. Commitments under the NAB amounted to SDR 3 933m at the beginning of 2024 Q2. No amounts were drawn from the NAB in Q2.

CHART 11 NAB





Bilateral agreements serve as the IMF's third line of defence after quota subscriptions and the NAB. The current agreement entered into force on 1 January 2021 is for a SDR 2 585m borrowing facility. In August 2023, the agreement was extended by one year, until 31 December 2024. At the end of 2024 Q2, no amounts had been drawn on this agreement. Norges Bank is the IMF's contractual counterparty under the bilateral borrowing agreement. Norges Bank's borrowing agreements with the IMF are subject to the approval of the Ministry of Finance (cf Section 3-10, Subsection 2, of the Central Bank Act).

Reserve position

The reserve position is equal to the amount drawn on Norway's quota and corresponds to the difference between the quota and the IMF's krone deposit with Norges Bank.

Interest rate on the arrangements

Norges Bank receives SDR interest payments on the reserve position, the NAB, PRGT and SDR holdings, and pays the SDR interest rate on SDR allocations. The SDR interest rate is a weighted average of the yields on three-month government securities in the countries/currency areas included in the SDR basket. The floor for the SDR interest rate is 0.05%. For the reserve position, an interest deduction is applied for any burden sharing.

Burden sharing mechanism

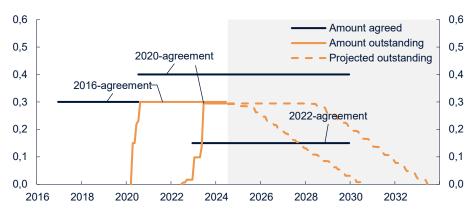
Under the burden sharing mechanism, member debtors and lenders share the cost of settling overdue obligations on outstanding credit to the IMF through an interest rate adjustment.

The basis for the calculation is the reserve position less SDR 60m. The reason for the deduction is that, prior to 1978, only 75% of the quota was included in the calculation.

PRGT The Ministry of Finance has signed loan agreements with the IMF under the PRGT, which contribute to the IMF's borrowing arrangements for lowincome member countries. In 2016, Norway entered a borrowing agreement for SDR 300m. The facility is now fully drawn and under the agreement, only repayments will be made. In 2020, a borrowing agreement for SDR 400m was entered into. No amount was drawn under this agreement in 2024 Q2. In December 2022, an additional borrowing agreement for SDR 150m was entered into. This agreement had not been drawn on at the end of Q2. Norges Bank is the agent for PRGT loans and administers the commitments.

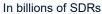
CHART 12 PRGT agreements

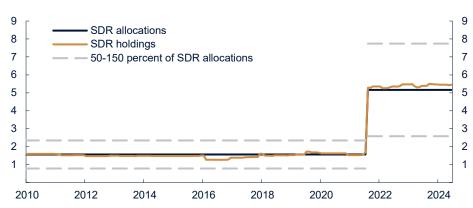




SDR holdings are allocated by the IMF to member countries. Member countries, the IMF and prescribed holders may change their SDR holdings by purchasing from or selling to each other. Individual member countries and prescribed holders have entered agreements with the IMF on participating in SDR trading arrangements intended to support SDR liquidity. In 2009, Norges Bank entered into such an agreement with the IMF on the voluntary purchase and sale of SDRs, as long as holdings remain within 50%-150% of SDR allocations. Thus, Norges Bank's holdings shall be between SDR 2 581m and SDR 7 743m. Purchases of SDRs are charged to the foreign exchange reserves. The agreement also gives Norges Bank the right to sell SDRs. In 2024 Q2, SDR holdings were reduced by SDR 6m. At the end of Q2, Norway's holdings amounted to SDR 5 447m.

CHART 13 SDR holdings





Prescribed holders of SDRs

Prescribed holders of SDRs are 20 official entities authorised by the IMF Executive Board to hold SDRs, although they do not receive SDR allocations.

Prescribed holders:

Four currency union central banks

- European Central Bank
- Bank of Central African States
- Central Bank of West African States
- Eastern Caribbean Central Bank

Twelve development institutions

- African Development Bank
- African Development Fund
- Asian Development Bank
- Caribbean Development Bank
- Development Bank of Latin America
- European Bank for Reconstruction and Development
- Inter-American Development Bank
- International Bank for Reconstruction and Development
- International Development Association
- Islamic Development Bank
- Nordic Investment Bank
- International Fund for Agricultural Development

Four intergovernmental monetary institutions

- Arab Monetary Fund
- Bank of International Settlements
- European Investment Bank
- Latin American Reserve Fund

Annex

TABLE I Return on the foreign exchange reserves

Percent. Annualised values in international currency terms. 30 June 2024

		Past year	Past three years	Past five years	Past 10 years
Foreign exchange reserves		7.2	0.9	2.6	3.4
	Portfolio	3.1	-1.4	-0.4	0.7
Fixed income investments	Benchmark index	3.1	-1.4	-0.4	0.7
	Relative return (bps)	1.9	3.7	2.1	-0.9
	Portfolio	22.4	9.1	13.4	11.3
Equity investments	Benchmark index	22.4	9.0	13.4	11.1
	Relative return (bps)	0.0	9.1	7.1	10.5

TABLE II Duration of and yield on fixed income investments

Past five quarters

	2024 Q2	2024 Q1	2023 Q4	2023 Q3	2023 Q2
Duration	3.5	3.5	3.5	3.5	3.6
CNY	3.7	3.7	3.6	3.6	3.6
EUR	3.9	3.9	3.9	4.0	4.0
GBP	3.8	3.9	3.8	3.8	3.9
JPY	4.0	3.9	4.1	4.1	4.0
USD	3.1	3.1	3.2	3.1	3.2
Yield	3.7	3.6	3.3	4.0	3.7
CNY	1.9	2.1	2.3	2.4	2.3
EUR	2.9	2.8	2.4	3.2	3.0
GBP	4.3	4.1	3.7	4.5	5.0
JPY	0.5	0.3	0.2	0.2	0.0
USD	4.8	4.6	4.2	5.0	4.6