

Markets

Foreign exchange reserves

Management of the foreign exchange reserves

2024 Q3

8 November 2024

Table of contents

Main points	2
Management of the foreign exchange reserves	3
Composition	3
Foreign exchange reserves	4
Fixed income investments	5
Equity investments	7
Petroleum buffer portfolio	8
Financial risk	9
Commitments to the IMF	10
Commitments to the IMF	11
Annex	13

Main points

NOK 781.9bn

Market value of the foreign exchange reserves

3.3%

Return on the foreign exchange reserves in international currency terms

4.7%

Return on the foreign exchange reserves in NOK terms

4.7%

Return on equity investments in international currency terms

2.9%

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 as part of the conduct of monetary policy or 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 limits.

Composition

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

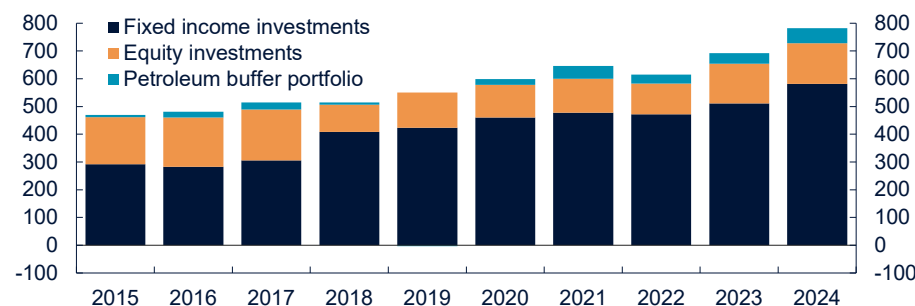
The fixed income portfolio's benchmark index is a market-weighted index of all nominal government bonds with a residual maturity of between one month and 10 years issued in local currency by China, France, Germany, Japan, the UK and the US.

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 (GPF), 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 Q3. In billions of NOK



Foreign exchange reserves

The market value of the foreign exchange reserves was NOK 781.9bn at the end of 2024 Q3, an increase by NOK 35.3bn in Q3. The return in international currency terms increased the value of the equity and fixed income portfolio by NOK 23.0bn. A weaker krone increased the value by NOK 9.9bn. Net transfers amounted to -0.2bn for the equity and fixed income portfolio. The value of the petroleum buffer portfolio increased by NOK 2.5bn. In NOK terms, the return amounted to 0.7bn, while net transfers totalled 1.8bn.

Rebalancing of the equity and fixed income portfolios

In accordance with the Executive Board's principles, if the equity allocation deviates by more than 4 percentage points on the final trading day of the month, the portfolio must be rebalanced to a strategic equity allocation of 20%. The rebalancing must take place on the final trading day of the subsequent month. On the final trading day in June, the equity portfolio amounted to 24.3% of the total equity and fixed income portfolio of NOK 694.9bn. Rebalancing was implemented on the final trading day in July with a transfer from the equity portfolio to the fixed income portfolio of NOK 31.7bn.

NOK 781.9bn

in market value, up 35.3bn in 2024 Q3

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.

TABLE 1 Market value of the foreign exchange reserves

In billions of NOK. 2024 Q3 and so far in 2024

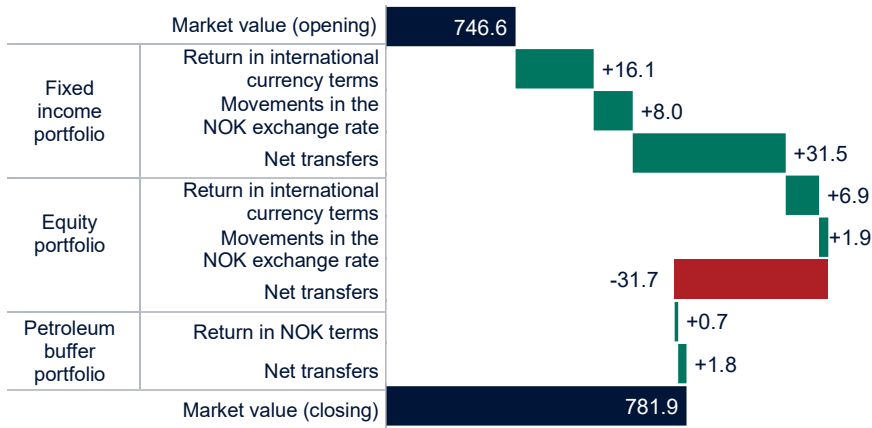
	2024 Q3				2024			
	Fixed income investments	Equity investments	Petroleum buffer portfolio	Foreign exchange reserves	Fixed income investments	Equity investments	Petroleum buffer portfolio	Foreign exchange reserves
Market value (opening)	526.4	168.5	51.7	746.6	511.3	143.1	37.7	692.1
Market value (closing)	582.1	145.7	54.2	781.9	582.1	145.7	54.2	781.9
Change in market value	55.7	-22.9	2.5	35.3	70.8	2.5	16.5	89.8
Return in NOK terms	24.2	8.8	0.7	33.7	37.3	34.2	4.1	75.7
Net transfers	31.5	-31.7	1.8	1.6	33.4	-31.7	12.4	14.1

TABLE 2 Details of fixed income and equity investments

2024 Q3 and so far in 2024

	2024 Q3			2024		
	Fixed income investments	Equity investments	Total	Fixed income investments	Equity investments	Total
<i>In billions of NOK</i>						
Return in NOK terms	24.2	8.8	33.0	37.3	34.2	71.5
Return in international currency terms	16.1	6.9	23.0	15.3	27.8	43.1
Movements in the krone exchange rate	8.0	1.9	9.9	22.0	6.4	28.4
<i>In percent</i>						
Return in international currency terms	2.9	4.7	3.3	2.8	19.5	6.3
Return in NOK terms	4.6	5.4	4.7	7.3	24.1	10.9
Relative return in NOK terms (bps)	0.7	-0.9		1.7	1.0	
Expected relative volatility in NOK terms (annualised, bps)	2.0	4.1				

CHART 2 Change in market value
In billions of NOK. 2024 Q3



Fixed income investments

The market value of the fixed income investments was NOK 582.1bn at the end of 2024 Q3, an increase of NOK 55.7bn from the previous quarter. The return in international currency terms increased the value by NOK 16.1bn, equivalent to 2.9%. A weaker krone reduced the value by NOK 8bn. Net inflows to the fixed income portfolio amounted to NOK 31.5bn, reflecting a rebalancing between the equity and fixed income portfolios of NOK 31.7bn and transactions with the IMF of -0.2bn.

NOK 582.1bn

in market value, up NOK 55.7bn since 2024 Q2

TABLE 3 Fixed income investments by currency

Market value in billions of NOK. 30 September 2024

	Market value	Share	Duration	Yield
Total	582.1	100.0	3.5	3.1
CNY	11.6	2.0	3.7	1.8
EUR	198.0	34.0	3.9	2.4
GBP	40.6	7.0	3.9	4.0
JPY	40.9	7.0	3.9	0.4
USD	290.9	50.0	3.2	3.9

CHART 3 Principal and coupon due per year

In billions of NOK

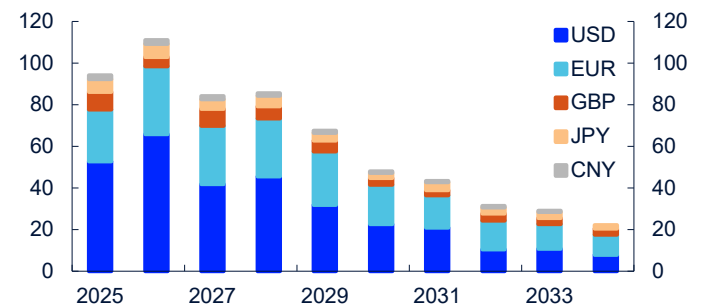


CHART 4 Return on fixed income investments

In international currency terms. Percent



CHART 5 Relative return on fixed income investments

In NOK terms. Basis points



US US government bond yields fell substantially in 2024 Q3. Short-term yields ended the quarter more than 100 basis points lower. Yields with longer maturities also fell, but somewhat less than short-term yields. The Federal Reserve cut its policy rate by 50 basis points in September. Investments denominated in USD earned a return of 3.6% in Q3.

3.6%

return on USD investments

Europe European government bond yields fell markedly in Q3. Short-term German government bond yields fell by more than 80 basis points, while yields with longer maturities fell by around 40 basis points. The ECB lowered policy rates by 25 basis points for the second time in 2024. Investments denominated in EUR earned a return of 2.8% in Q3.

2.8%

return on EUR investments

UK UK government bond yields fell in Q3. The decline was most pronounced for short-term yields, which fell around 50 basis points. The Bank of England lowered Bank Rate by 25 basis points to 5.0%. Investments denominated in GBP earned a return of 2.0% in Q3.

2.0%

return on GBP investments

Japan Long-term Japanese government bond yields fell by around 20 basis points in Q3, reversing the rise from Q2. Short-term yields were little changed. The Bank of Japan raised its policy rate to 0.25% at the end of July. Investments denominated in JPY earned a return of 0.7% in Q3.

0.7%

return on JPY investments

China Chinese government bond yields fell by around 10 basis points in Q3. Investments denominated in CNY earned a return of 0.8% in Q3.

0.8%

return on CNY investments

Equity investments

The market value of the equity portfolio was NOK 145.7bn at the end of 2024 Q3, a decrease of NOK 22.9bn since the end of Q2. The decrease is due to the rebalancing in July of the equity portfolio to the fixed income portfolio, which amounted to NOK 31.7bn. The return in international currency terms increased the market value by NOK 6.9bn, while a weaker krone, in isolation, increased the value of the portfolio by NOK 1.9bn.

NOK 145.7bn

in market value, down NOK 22.9bn since 2024 Q2

The return on the equity portfolio in international currency terms was 4.7%. European equities posted a return of 5.1%, North American equities posted 4.4% and Asian equities 4.3%. Equities in the real estate sector posted the strongest return in Q3, at 14.6%. The manufacturing sector made the largest contribution to the return on the portfolio, at 1.3 percentage points, with a return of 10.2% in Q3. Energy-sector equities posted the weakest return in Q3, at -1.6%.

TABLE 4 Equity investments by sector and currency

Market value in billions of NOK. 30 September 2024

Sector	Market value	Share	Currency	Market value	Share
Basic materials	4	3 %	AUD	3	2 %
Durable goods	21	14 %	CAD	4	3 %
Consumer goods	7	5 %	CHF	4	3 %
Energy	5	3 %	DKK	1	1 %
Financials	20	14 %	EUR	13	9 %
Healthcare	17	12 %	GBP	5	4 %
Industrials	19	13 %	JPY	10	7 %
Real estate	3	2 %	SEK	1	1 %
Technology	43	29 %	USD	105	72 %
Telecommunications	3	2 %			
Utilities	4	2 %			

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 54.2bn at the end of 2024 Q3, an increase of NOK 2.5bn. During Q3, NOK 74.4bn worth of foreign exchange was purchased from the State's Direct Financial Interest (SDFI), and NOK 99.0bn worth of foreign exchange was transferred to the GPFG. At the same time, Norges Bank purchased NOK 26.4bn worth of foreign exchange in the market.¹ The return on the portfolio came to NOK 0.7bn, primarily owing to a weaker krone.

TABLE 5 Cash flow and return on the petroleum buffer portfolio

In billions of NOK. Per quarter and annual total. 2024

	2024 Q1	2024 Q2	2024 Q3	2024
Net transfers	2.6	8.0	1.8	12.4
<i>FX purchases from the SDFI</i>	77.4	70.8	74.4	222.6
<i>FX purchases in the market</i>	21.4	28.8	26.4	76.5
<i>Transfers to the GPFG</i>	-96.2	-91.6	-99.0	-286.8
Return in NOK	4.0	-0.6	0.7	4.1

Transferred foreign exchange to the GPFG equivalent to

NOK 99.0bn

Purchased foreign exchange from SDFI equivalent to

NOK 74.4bn

Purchased foreign exchange in the market equivalent to

NOK 26.4bn

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: <https://www.norges-bank.no/en/topics/liquidity-and-markets/Foreign-exchange-purchases-for-GPFG/>

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 Q3, excluding exchange rate movements, was 17.1% and 2.4%, respectively. Both equity and fixed income portfolios are managed to track the benchmark closely. At the end of Q3, expected relative volatility for equity and fixed income investments was 0.04 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.

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 8 Expected absolute volatility

Excluding exchange rate movements. Percent

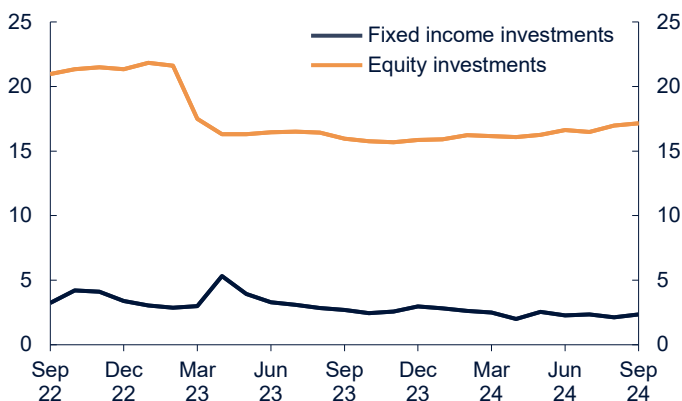
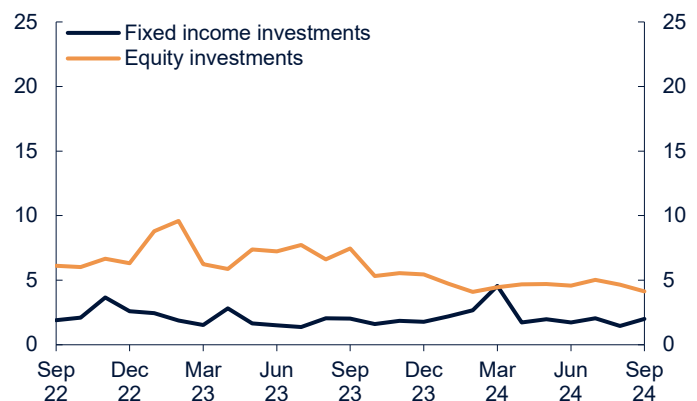


CHART 9 Expected relative volatility

Including exchange rate movements. Basis points



Commitments to the IMF

Pursuant to the Central Bank Act, Norges Bank shall administer the rights and obligations incumbent on Norway as a consequence of its membership of the International Monetary Fund (IMF). This membership entails a standing commitment to furnish foreign exchange for IMF loans to member countries.

Total commitments
SDR 10.8bn

Amount drawn
SDR 1.6bn

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 September 2024. At the end of 2024 Q3, the IMF had drawn SDR 1 583m and the total remaining amount that can be drawn under these arrangements is SDR 9 540m. 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.

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 September 2024,
SDR 1 = NOK 14.25

TABLE 6 Details of IMF lending programmes

In thousands of SDRs

	Agreed amount	Amount drawn	Amount remaining	Change in amount drawn in 2024 Q3	Change in amount drawn in 2024
Total	10 823 080	1 583 354	9 539 726	-3 944	-75 018
Quota	3 754 700	980 739	2 773 961	-12 234	-79 346
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	602 615	247 385	8 290	8 290

TABLE 7 Details of SDR holdings

In thousands of SDRs

	SDR allocations	SDR holdings	Remaining voluntary purchases	Change in holdings in 2024 Q3	Change in holdings in 2024
SDR holdings	5 161 781	5 485 626	2 257 046	38 293	15 964

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 reduced by SDR 12.2m in 2024 Q3.

CHART 10 Quota

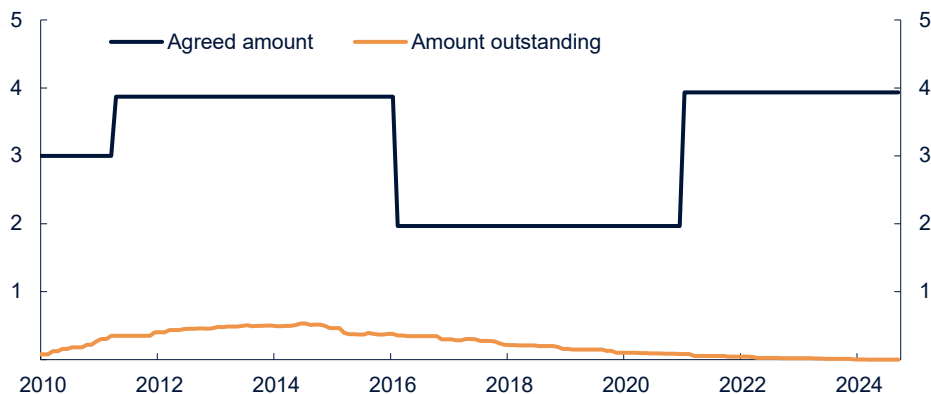
In billions of SDRs



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 Q3. No amounts were drawn from the NAB in Q3.

CHART 11 NAB

In billions of SDRs



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 and has a borrowing facility of SDR 2 585m. In August 2023, the agreement was extended by one year, until 31 December 2024. At the end of 2024 Q3, 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, the 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

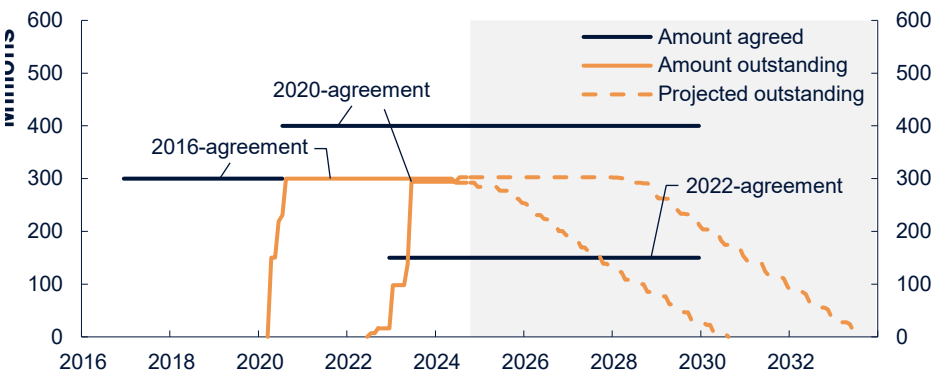
Under the burden sharing mechanism, member debtors and lenders share the cost of settling overdue obligations on outstanding credit to the IMF through an interest rate adjustment.

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 low-income 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. A total of SDR 8.3m was drawn under this agreement in 2024 Q3. In December 2022, an additional borrowing agreement for SDR 150m was entered into. This agreement had not been drawn on at the end of Q3. Norges Bank is the agent for PRGT loans and administers the commitments.

CHART 12 PRGT agreements

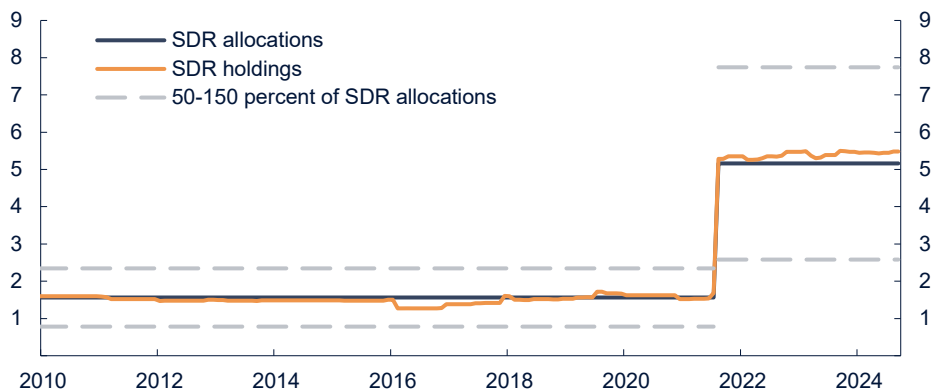
In millions of SDRs



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 Q3, SDR holdings were decreased by SDR 6m. At the end of Q3, Norway’s holdings amounted to SDR 5 486m.

CHART 13 SDR holdings

In billions of SDRs



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 September 2024

		Past year	Past three years	Past five years	Past 10 years
Foreign exchange reserves		11.6	1.9	3.0	3.6
Fixed income investments	Portfolio	6.4	-0.4	0.0	0.9
	Benchmark index	6.4	-0.4	0.0	0.9
	Relative return (bps)	1.9	3.7	2.5	-0.6
Equity investments	Portfolio	31.5	10.5	14.0	11.6
	Benchmark index	31.5	10.4	14.0	11.6
	Relative return (bps)	0.0	6.1	7.8	9.4

TABLE II Duration of and yield on fixed income investments

Past five quarters

	2024 Q3	2024 Q2	2024 Q1	2023 Q4	2023 Q3
Duration	3.5	3.5	3.5	3.5	3.5
CNY	3.7	3.7	3.7	3.6	3.6
EUR	3.9	3.9	3.9	3.9	4.0
GBP	3.9	3.8	3.9	3.8	3.8
JPY	3.9	4.0	3.9	4.1	4.1
USD	3.2	3.1	3.1	3.2	3.1
Yield	3.1	3.7	3.6	3.3	4.0
CNY	1.8	1.9	2.1	2.3	2.4
EUR	2.4	2.9	2.8	2.4	3.2
GBP	4.0	4.3	4.1	3.7	4.5
JPY	0.4	0.5	0.3	0.2	0.2
USD	3.9	4.8	4.6	4.2	5.0