

FOREIGN EXCHANGE RESERVES

Management of Norges Bank's foreign exchange reserves

2 | 2020

AUGUST 2020

REPORT FOR
SECOND QUARTER 2020

Contents

Management of the foreign exchange reserves	1
Foreign exchange reserves	2
Fixed income investments	2
Equity investments	4
Petroleum buffer portfolio	5
Financial risk	5
Norges Bank's commitments to the IMF	6
Key figures	8

Management of the foreign exchange reserves

The foreign exchange reserves shall be available for transactions in the foreign exchange market 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 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 and sovereign 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 by France, Germany, Japan, the UK and the US. The equity portfolio's benchmark index is a 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 purpose of the petroleum buffer portfolio is to provide for an appropriate management of the government's need for converting foreign currency and NOK, and to make transfers to and from the Government Pension Fund Global (GPF). The petroleum buffer portfolio is invested in short-term fixed income instruments. No benchmark index has been set for the petroleum buffer portfolio.

MAIN POINTS FROM 2020 Q2

- The market value of Norges Bank's foreign exchange reserves was NOK 655.2bn at the end of 2020 Q2, a reduction of NOK 33.6bn during the quarter.
- The return on the reserves was 4.0% in Q2, in international currency terms. The return on equity investments was 19.0%, while the return on fixed income investments was 0.4%. In NOK terms, the return on the foreign exchange reserves was -3.7%.
- The size and liquidity of the foreign exchange reserves are regarded as sufficient for meeting Norges Bank's commitments.

Foreign exchange reserves

The market value of the foreign exchange reserves was NOK 655.2bn at the end of 2020 Q2. The value decreased by NOK 33.6bn during the quarter. A stronger krone reduced the value by NOK 47.9bn, while net transfers amounted to NOK -6.9bn. Return in international currency terms increased the value by NOK 24.7bn.

Chart 1 Composition of the foreign exchange reserves. In billions of NOK

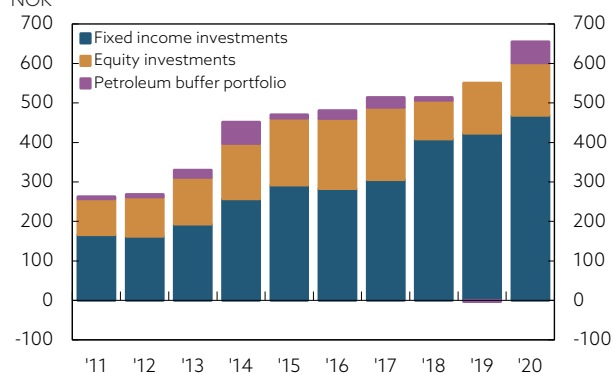


Table 1 Market value

	2020 Q2			Foreign exchange reserves	Year to date in 2020			Foreign exchange reserves
	Fixed income investments	Equity investments	Petroleum buffer portfolio		Fixed income investments	Equity investments	Petroleum buffer portfolio	
In billions of NOK								
Market value (opening)	510.3	120.8	57.6	688.7	423.4	127.3	-3.5	547.2
Market value (closing)	468.8	133.1	53.4	655.2	468.8	133.1	53.4	655.2
Change in market value	-41.6	12.3	-4.3	-33.6	45.4	5.8	56.9	108.0
Net transfers	-6.1	0.0	-0.8	-6.9	-8.4	0.0	60.6	52.2
Return in NOK terms	-35.5	12.3	-3.4	-26.6	53.8	5.8	-3.7	55.9

Table 2 Details of fixed income and equity investments

	2020 Q2			Total	Year to date in 2020			Total
	Fixed income investments	Equity investments			Fixed income investments	Equity investments		
In billions of NOK								
Return in NOK terms								
		-35.5	12.3	-23.2	53.6	5.8		59.4
Return in international currency terms		2.2	22.6	24.7	13.3	-3.9		9.4
Movements in the krone exchange rate		-37.7	-10.3	-47.9	40.5	9.6		50.2
In percent								
Return in NOK terms		-7.01	10.17	-3.71	12.54	4.53		10.72
Return in international currency terms		0.44	18.99	4.00	2.98	-4.34		1.32
Relative return in international currency terms		0.03	0.03	-	0.02	-0.03		-
Expected relative volatility in NOK terms (annualised)		0.04	0.08	-	0.04	0.08		-

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. Therefore, unless stated otherwise, return will henceforth be measured in international currency. The petroleum buffer portfolio, which is not held for the purpose of crisis management, is excluded from the measurement of return.

Fixed income investments

The market value of the fixed income investments at the end of 2020 Q2 was NOK 468.8bn, a decline of NOK 41.6bn during the quarter. A stronger krone reduced the value by NOK 37.7bn. The return in international currency terms increased the value by NOK 2.2bn, equivalent to 0.4%. Net outflows from the fixed income portfolio amounted to NOK 6.1bn for the quarter.

Table 3 Return on fixed income investments

	2020 Q2	2020 YTD
In NOK terms		
Return (percent)	-7.01	12.54
Return (millions of NOK)	-35 537	53 600
In international currency terms		
Return (percent)	0.44	2.98
Return (millions of NOK)	2 179	13 276
Relative return (percentage points)	0.03	0.02
Relative return (millions of NOK)	152	85

US government bond yields showed little change throughout Q2. Both short- and long-term government bond yields ended the quarter somewhat lower. The Federal Reserve kept its policy rate unchanged at close to zero and continued its asset purchase programme aimed at government bonds, mortgage-backed securities and corporate bonds. Investments denominated in USD accounted for 50% of the fixed income portfolio and earned a return of 0.5% in domestic currency terms, driven by some decline in yields and current interest income.

After falling markedly in Q1, long-term German yields showed little change in Q2. Long-term French yields fell somewhat during Q2. In the quarter as a whole, both German and French short-term yields showed little change. Investments denominated in EUR accounted for 34% of the portfolio and earned a return of 0.4%, primarily owing to the decline in French yields.

UK yields declined somewhat more than in the other markets in Q2. Short-term government bond yields ended the quarter 20 basis points lower, while long-term government bond yields fell somewhat less. The decline in yields is the main reason GBP-denominated investments, which account for 8% of the fixed income portfolio, generated a return of approximately 0.9% in domestic currency terms.

Both short- and long-term Japanese yields remained stable through Q2. Throughout Q2, the ten-year yield has remained close to 0%, which is the target for the Bank of Japan's yield curve control strategy. JPY-denominated investments, which account for 8% of the fixed income portfolio, earned a return of -0.1% in JPY terms during the period.

Table 4 Fixed income investments by currency at the end of Q2. Market value in billions of NOK

	Market value	Share	Duration	Yield
Total	468.8	100.00	3.82	-0.08
EUR	159.5	34.02	4.37	-0.54
GBP	37.3	7.96	4.14	-0.03
JPY	37.4	7.98	4.13	-0.14
USD	234.6	50.04	3.35	0.24

BENCHMARK INDEX FOR THE FIXED INCOME PORTFOLIO

The benchmark index for fixed income investments is provided by Bloomberg and is a market value-weighted index of all nominal government bonds with a residual maturity of between one month and 10 years issued by France, Germany, Japan, the UK and the US. The currency weighting in the fixed income index is 50% USD, 34% EUR, 8% GBP and 8% JPY.

Chart 2 Principal and coupon due per year at the end of Q2. In billions of NOK.

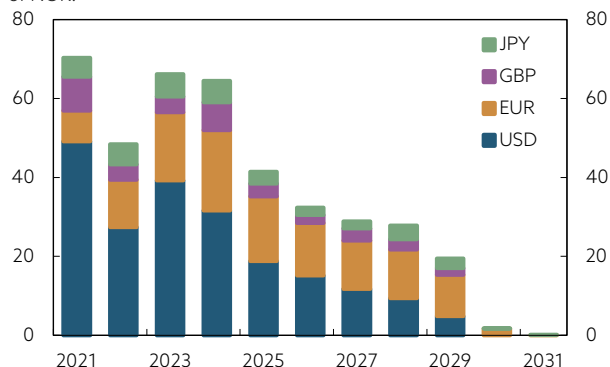
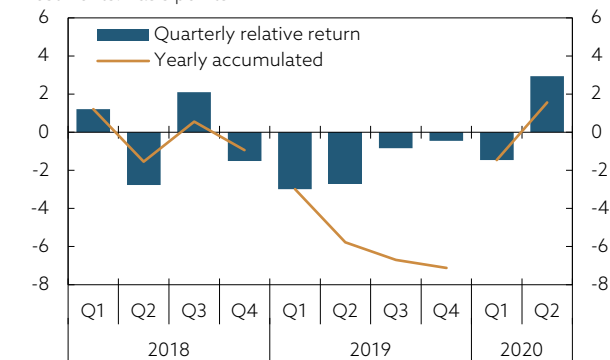


Chart 3 Return measured in international currency terms. Fixed income investments. Percent



Chart 4 Relative return in international currency terms. Fixed income investments. Basis points



Equity investments

The market value of the equity portfolio at the end of 2020 Q2 was NOK 133.1bn, an increase of NOK 12.3bn since Q1. The return in international currency terms increased the market value by NOK 22.6bn, while a stronger krone, in isolation, reduced the value of the portfolio by NOK 10.3bn.

Following the pronounced decline in Q1, markets have recovered considerably in Q2. The market recovery in Q2 was characterised by uneven performance by different sectors.

North American equities posted the strongest return at 21.1%. European and Asian equities posted returns of 15.4% and 11.3%, respectively. The technology sector posted the strongest returns in Q2, 30.2%, while equities related to utilities and water supply posted the weakest returns, 6.3%.

Table 5 Return on equity investments

	2020 Q2	2020 YTD
In NOK terms		
Return (percent)	10.17	4.53
Return (millions of NOK)	12 282	5 766
In international currency terms		
Return (percent)	18.99	-4.34
Return (millions of NOK)	22 551	-3 880
Relative return (percentage points)	0.03	-0.03
Relative return (in millions of NOK)	37	-36

BENCHMARK INDEX FOR THE EQUITY PORTFOLIO

The benchmark index for equity investments is a tax-adjusted version of the FTSE All-World Developed Market Index, limited to euro area countries, the US, Japan, the UK, Canada, Australia, Switzerland, Sweden and Denmark.

Chart 5 Return in international currency terms. Equity investments. Percent



Chart 6 Relative return in international currency terms. Equity investments. Basis points

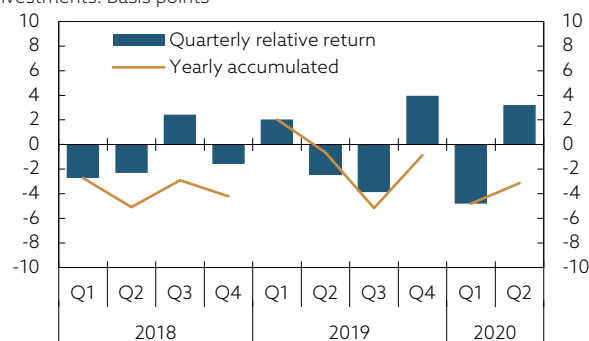


Table 6 Equity investments excluding cash funds by industry at end-2020 Q2. In billions of NOK

	Market value	Share (%)
Oil and gas	4	3%
Materials	5	3%
Industrials	16	12%
Consumer goods	14	11%
Health care	19	14%
Consumer services	17	13%
Telecommunications	3	3%
Utilities	3	3%
Financials	23	17%
Technology	29	22%

Table 7 Equity investments by currency at end-2020 Q2. In billions of NOK

	Market value	Share (%)
AUD	3	2%
CAD	3	2%
CHF	5	3%
DKK	1	1%
EUR	14	11%
GBP	6	5%
JPY	12	9%
SEK	1	1%
USD	87	66%

Petroleum buffer portfolio

At the end of 2020 Q2, the market value of the petroleum buffer portfolio was NOK 53.4bn, a decline of NOK 4.3bn. During Q2, NOK 18.4bn worth of foreign exchange was purchased from the State's Direct Financial Interest (SDFI). At the same time, Norges Bank sold NOK 124.2bn worth of foreign exchange in the market. During Q2, a total of NOK 105bn was transferred from the GPFG to the petroleum buffer portfolio.

Chart 7 Absolute volatility, excluding exchange rate movements. Foreign exchange reserves. Percent

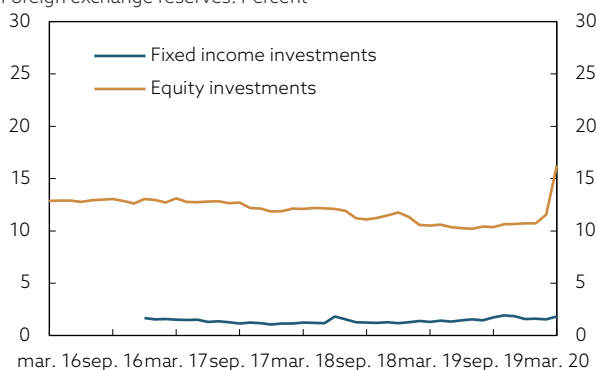
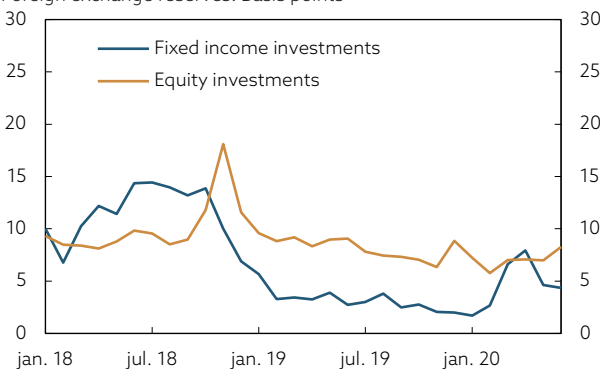


Chart 8 Relative volatility, including exchange rate movements. Foreign exchange reserves. Basis points



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 major 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 2020 Q2 excluding exchange rate movements was 18,0% and 1,5%, respectively. This corresponds to an expected annual fluctuation in value of approximately NOK 24bn and NOK 7.0bn, respectively. At the same time, expected relative volatility for equity and fixed income investments was 0.08 and 0.04 percentage point, respectively.

EXPECTED RELATIVE VOLATILITY

Under the Executive Board's principles for the foreign exchange reserves, maximum expected relative volatility is set at 0.5 percentage point for both fixed income and equity portfolios. Relative volatility of 50 basis points means that the excess return on the portfolio is expected to be within ± 0.5 percentage point in two out of three years.

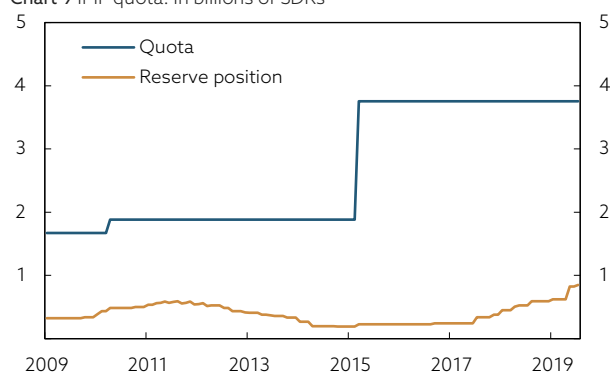
Credit and counterparty risk is defined as the risk of losses if issuers or counterparties default on payment obligations. The credit risk on bond and Treasury bill investments in the foreign exchange reserves is low. The lowest credit ratings from the three largest rating agencies Fitch, Moody's and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

Norges Bank's commitments to the IMF

Pursuant to the Norges Bank Act, Norges Bank shall meet the commitments ensuing from membership of the IMF. This membership entails a standing commitment to furnish foreign exchange for IMF loans to other member countries. Loan resource commitments under the quota, NAB, bilateral agreements and the PRGT total SDR 12 021m, of which the IMF had drawn SDR 1 163m at the end of 2020 Q2. A further SDR 10 859m may thus be drawn under these arrangements. The size and liquidity of the foreign exchange reserves are assessed to be sufficient to meet Norges Bank's international commitments. See Table 12 under Key figures for further details.

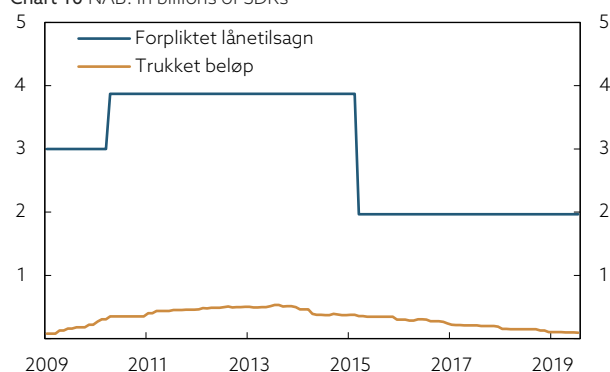
QUOTA SUBSCRIPTIONS are the IMF's primary source of funding and reflect the member country's relative size in the global economy. In 2010, the IMF approved the 14th General Review of Quotas, under which IMF quota subscriptions doubled with effect from 2016. Norway's quota subscription increased to SDR 3 755m¹. At the end of 2020 Q1, the amount drawn² totalled SDR 825m. In Q2, the amount drawn increased by SDR 225m.

Chart 9 IMF 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. At the same time as the quota increase, Norway's resource commitments under the NAB were reduced by approximately the same amount. Norges Bank's commitments under the NAB now amount to SDR 1 967m (Chart 10). Total outstanding drawings were SDR 94m at the end of 2020 Q2. Repayments made under the NAB during the quarter totalled SDR 5m. Since the quota increase in 2016, the IMF funds all new loans by drawing on the quotas. The IMF's Executive Board must specifically decide to activate the NAB in order to fund new lending by drawing on the NAB. Payments for loans approved by the IMF before 26 February 2016 will continue to be partly funded by drawing on the NAB.

Chart 10 NAB. In billions of SDRs



BILATERAL AGREEMENTS serve as the IMF's third line of defence after quota subscriptions and the NAB. In 2009, Norges Bank provided the IMF with a borrowing agreement of SDR 3 000m, which was continued under the NAB. In 2012, Norges Bank provided the IMF with a borrowing facility under a bilateral borrowing agreement of SDR 6 000m, to be drawn on only in very special circumstances. This agreement expired in November 2016 and was never drawn on. In April 2017, on behalf of the Ministry of Finance, Norges Bank signed a new bilateral agreement with the IMF for the same amount, which remained in effect until the end of 2019. In June 2019, the Ministry of Finance approved Norges Bank's extension of the agreement for one year. At the end of 2020 Q2, no amounts had been drawn on the new borrowing agreement.

¹ Special Drawing Right (SDR). 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.

² The amount drawn is equal to Norway's reserve position in the IMF.

PRGT (Poverty Reduction and Growth Trust) is an agreement signed by the Ministry of Finance and the IMF under which Norway will furnish SDR 300m in loan resources to the IMF's programme for low-income countries. Norges Bank is the agent for the loan and administers the commitments. This facility is now fully drawn, and under the agreement from 2010, only repayments will now be made (Chart 11). Repayments made under the PRGT in 2020 Q2 totalled SDR 11m. In November 2016, a new borrowing agreement was signed under which Norway will provide the PRGT with an additional SDR 300m. In Q2, SDR 219m had been drawn on the 2016 agreement. With effect from 1 July 2020, an additional borrowing agreement was entered into (the 2020 agreement) under which Norway will provide the PRGT with SDR 400m.

SDR HOLDINGS are allocated by the IMF to member countries. Member countries may change their SDR holdings by purchasing from or selling to members who have voluntarily agreed to be a counterparty in SDR transactions. In 2009, Norges Bank entered into 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, if other countries wish to sell SDRs, Norges Bank may have to increase holdings of SDRs to SDR 2 345m. Purchases of SDRs are charged to the foreign exchange reserves. The agreement also gives Norges Bank the right to sell SDRs. At the end of 2020 Q2, holdings of SDRs were SDR 1 625m, virtually unchanged from the previous quarter (Chart 12).

Chart 11 PRGT. In hundreds of millions of SDRs

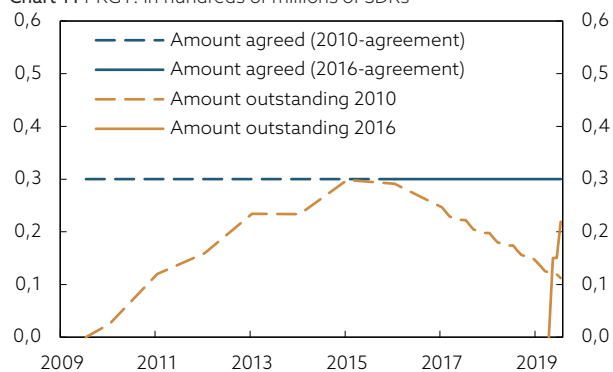
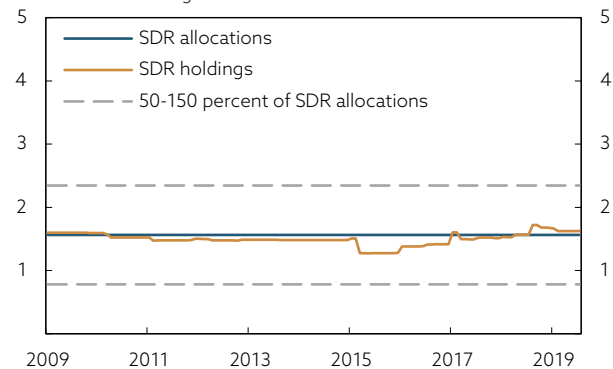


Chart 12 SDR holdings. In billions of SDRs



Key figures

Table 8 Market value. In billions of NOK

	2020 Q2	2020 Q1 – Q2	2019 Q2	2019 Q1 – Q2
Market value of fixed income and equity investments	601.8	-	524.5	-
Change in market value	-29.3	51.2	7.1	18.2
Net transfers	-6.1	-8.4	-0.1	-0.9
Return in NOK	-23.2	59.6	7.2	19.1
<i>Return in international currency</i>	24.7	9.4	10.0	26.7
<i>Change due to movements in the krone exchange rate</i>	-47.9	50.2	-2.8	-7.6
Market value of the petroleum buffer portfolio	53.4	-	17.2	
Change in market value	-4.3	56.9	-2.4	9.4
Net transfers	-0.8	60.6	-2.4	9.5
<i>Foreign exchange purchases from the SDFI</i>	18.4	56.0	37.5	81.9
<i>Foreign exchange purchases from the market</i>	-124.2	-167.2	-34.2	-63.5
<i>Transfers from the GPPG</i>	105.0	171.8	-5.7	-9.0
Return in NOK	-3.4	-3.7	0.0	0.0
Market value of the foreign exchange reserves	655.2	-	541.7	-

Table 9 Return in international currency terms. Percent

	2020 Q2	2020 Q1 – Q2	2019 Q2	2019 Q1 – Q2
Return on fixed income investments	0.44	2.98	1.40	2.58
Return on equity investments	18.99	-4.34	3.83	16.74
Return on the foreign exchange reserves¹	4.00	1.32	1.91	5.31
Return on the benchmark index for fixed income investments	0.41	2.97	1.43	2.63
Return on the benchmark index for equity investments	18.96	-4.31	3.85	16.75
Relative return on fixed income investments	0.03	0.02	-0.03	-0.06
Relative return on equity investments	0.03	-0.03	-0.02	-0.01

¹Excluding the petroleum buffer portfolio

Table 10 Return in NOK terms. Percent

	2020 Q2	2020 Q1 – Q2	2019 Q2	2019 Q1 – Q2
Return on fixed income investments	-7.01	12.54	0.91	1.03
Return on equity investments	10.17	4.53	3.21	15.26
Return on the foreign exchange reserves¹	-3.71	10.72	1.40	3.77
Return on the benchmark index for fixed income investments	-7.04	12.52	0.94	1.09
Return on the benchmark index for equity investments	10.14	4.56	3.24	15.26
Relative return on fixed income investments	0.03	0.02	-0.03	-0.06
Relative return on equity investments	0.03	-0.03	-0.02	-0.01

¹ Excluding the petroleum buffer portfolio

Table 11 Key figures at quarter-end. Annualised data measured in international currency terms. Percent

	Past year	Past 3 years	Past 5 years	Past 10 years
Return on the foreign exchange reserves	3.70	3.92	3.86	5.63
Fixed income investments				
Return on fixed income investments	3.26	2.32	1.80	2.54
Return on the benchmark index	3.26	2.34	1.80	2.38
Relative return	0.00	-0.02	0.00	0.16
Realised absolute volatility ¹	1.80	1.58	1.61	2.20
Realised relative volatility ¹	0.05	0.06	0.05	0.28
Information rate ²	0.05	-0.32	-0.06	0.59
Equity investments				
Return on equity investments	5.14	7.83	8.06	11.39
Return on benchmark index	5.17	7.83	7.96	11.19
Relative return	-0.04	0.00	0.10	0.21
Realised absolute volatility ¹	20.59	15.53	13.87	12.50
Realised relative volatility ¹	0.07	0.09	0.14	0.22
Information rate ²	-0.50	-0.04	0.74	0.96

¹ Realised volatility is a measure of the fluctuation in monthly return values, expressed here by the annualised empirical standard deviation. Absolute/relative volatility expresses risk related to absolute/relative return.

² Information rate (IR) is a risk-adjusted return measure. IR is the ratio between excess return and the portfolio's realised relative market risk (measured by relative volatility).

Table 12 Claims on and liabilities to the International Monetary Fund (IMF) at quarter-end.

	Loan resource commitments ²	Recognised in the balance sheet			Total amount
		Draw non commitments	Subscription ³	SDRs	
Financial assets					
IMF subscription (quota) ¹	-	-	49 894	-	49 894
Holdings of SDRs	-	-	-	21 591	21 591
Loans to the IMF - NAB	26 131	1 248	-	-	1 248
Loans to the IMF - Bilateral agreement	79 722	-	-	-	-
Loans to the IMF - PRGT	7 972	4 404	-	-	4 404
Claims on the IMF	-	5 652	49 894	21 591	77 137
Financial liabilities					
Krone liability to the IMF	-	-	38 601	-	38 601
Equivalent value of SDR allocations	-	-	-	20 771	20 771
Liabilities to the IMF	-	-	38 601	20 771	59 372
Net positions with the IMF	-	5 652	11 293	820	17 765

¹ The IMF allocates quotas to member countries, which primarily reflect member countries' relative size in the world economy. The quota provides the basis for determining the member country's voting power in the IMF, the member's financial contribution to the IMF, the amount of financing the member can access in the event of balance of payment problems and the amount of SDRs the member is allocated.

² Commitments giving the IMF a borrowing facility with Norges Bank up to an agreed amount. Only the portion drawn is recognised in the balance sheet. Norges Bank's commitments to the IMF are in SDRs; amounts have been translated into NOK.

³ The net position is referred to as the reserve tranche position (RTP) comprising Norway's IMF quota less Norway's krone liability to the IMF, ie the net amount at the bottom of the column.