

FOREIGN EXCHANGE RESERVES

Management of the foreign exchange reserves

4 | 2020

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REPORT FOR
FOURTH QUARTER
2020

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1 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, China, 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 (GPFG). 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 Q4

- The market value of the Norges Bank's foreign exchange reserves was NOK 598.4bn, a reduction of NOK 40.3bn since Q3.
- The return on the foreign exchange reserves was 2.8% in international currency terms. The return on equity investments was 12.2%, while the return on fixed income investments was -0.1%. In NOK terms, the return on the foreign exchange reserves was -4.1%.
- The size and liquidity of the foreign exchange reserves are regarded as sufficient for meeting Norges Bank's commitments.

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.

Foreign exchange reserves

The market value of the foreign exchange reserves was NOK 598.4bn at the end of 2020 Q4. The value decreased by NOK 40.3bn from the previous quarter. A stronger krone reduced the value of the equity and fixed income portfolios by NOK 42.2bn and the value of the petroleum buffer portfolio by NOK 2.2bn. Net transfers amounted to NOK -12.7bn. Return in international currency terms increased the value by NOK 16.9bn. In 2020, the market value of the foreign exchange reserves increased by NOK 51.3bn.

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

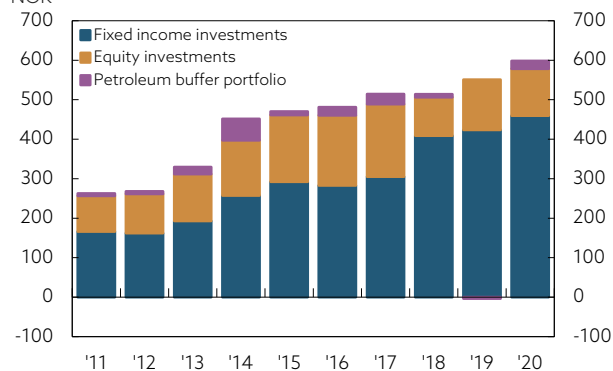


Table 1-1 Market value

	2020 Q4			Foreign exchange reserves	2020			Foreign exchange reserves
	Fixed income investments	Equity investments	Petroleum buffer portfolio		Fixed income investments	Equity investments	Petroleum buffer portfolio	
<i>In billions of NOK</i>								
Market value (opening)	462.5	139.9	36.4	638.7	423.4	127.3	-3.5	547.2
Market value (closing)	459.8	118.6	20.0	598.4	459.8	118.6	20.0	598.4
Change in market value	-2.7	-21.2	-16.4	-40.3	36.4	-8.7	23.5	51.3
Net transfers	28.4	-27.0	-14.1	-12.7	17.9	-27.0	29.4	20.2
Return in NOK terms	-31.1	5.8	-2.2	-27.6	18.6	18.3	-5.9	31.0

Table 1-2 Details of fixed income and equity investments

	2020 Q4			Total	2020			Total
	Fixed income investments	Equity investments			Fixed income investments	Equity investments		
<i>In billions of NOK</i>								
Return in NOK terms		-31.1	5.8	-25.3	18.6	18.3		36.9
Return in international currency terms		-0.3	17.2	16.9	13.6	22.6		36.2
Movements in the krone exchange rate		-30.8	-11.4	-42.2	5.0	-4.3		0.7
<i>In percent</i>								
Return in international currency terms		-0.06	12.22	2.79	3.05	14.90		5.86
Return in NOK terms		-6.62	4.17	-4.12	4.16	14.45		6.63
Relative return in NOK terms		0.00	0.04	-	0.01	-0.03		-
Expected relative volatility in NOK terms (annualised)		0.02	0.08	-	0.02	0.08		-

Fixed income investments

The market value of the fixed income investments was NOK 459.8bn, a decline of NOK 2.7bn from the previous quarter. A stronger krone reduced the value by NOK 30.8bn. The return in international currency terms reduced the value by NOK 0.3bn, equivalent to -0.1%. Net inflows to the fixed income portfolio amounted to NOK 28.4bn in connection with rebalancing to the strategic equity weighting. The fixed income portfolio earned a return in line with the benchmark index in Q4 (Table 1-2 and Chart 1-3).

Chart 1-2 Return in international currency terms. Fixed income investments. Percent



Table 1-3 Fixed income investments by currency at the end of 2020 Q4. Market value in billions of NOK

Market value	Share	Duration	Yield	
Total	459.80	100.00	3.86	-0.08
CNY	2.30	0.50	3.25	2.47
EUR	156.07	33.94	4.36	-0.68
GBP	35.68	7.76	4.56	-0.03
JPY	35.80	7.79	3.96	-0.10
USD	229.95	50.01	3.40	0.30

US The US Treasury yield curve steepened during Q4. While short-term yields ended broadly unchanged, long-term yields rose by around 20 basis points. There was considerable volatility in government bond yields in the period. Investments denominated in USD accounted for 50% and earned a return of -0.2% during Q4.

EUROPE Movements in sovereign yields in both Germany and France were relative substantial at times in Q4, but both short-term and long-term yields ended broadly unchanged in both countries. Investments denominated in EUR accounted for 34% of the portfolio and earned a return of 0.1%.

CHINESE GOVERNMENT BONDS In May 2020, the Executive Board gave its approval to begin investing in Chinese government bonds during the second half of 2020. The decision on the start date for these investments was delegated to the Governor. The phase-in will be gradual. The initial investments were made at the turn of the month November/December with a share of 0.5% of the fixed income portfolio.

Chart 1-3 Relative return in NOK terms. Fixed income investments. Basis points

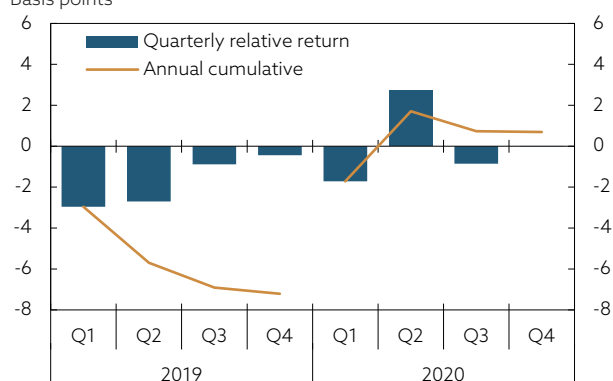
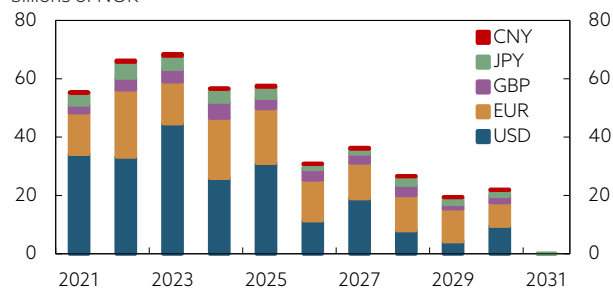


Chart 1-4 Principal and coupon due per year at the end of 2020 Q4. In billions of NOK



UK UK government bond yields fell in Q4. Short yields fell the most, and the yield curve steepened somewhat. Investments denominated in GBP accounted for 7.75% of the fixed income portfolio and earned a return of 0.2%.

JAPAN Both short-term and long-term Japanese yields ended the quarter virtually unchanged. The 10-year yield remained above 0% target of the Bank of Japan's yield curve control strategy during the entire quarter. Investments denominated in JPY accounted for 7.75% of the fixed income portfolio and generated a return of 0.0%.

Equity investments

The market value of the equity portfolio was NOK 118.6bn at the end of 2020 Q4, a reduction of NOK 21.2bn from Q3. The return in international currency terms increased the market value by NOK 17.2bn, while a stronger krone, in isolation, reduced the value of the portfolio by NOK 11.4bn. NOK 27bn was transferred from the equity to the fixed income portfolio during the quarter. The return on the portfolio was 4 basis points higher than the benchmark index.

European equities posted the highest return, 14.0%. North American and Asian equities posted returns of 11.4% and 13.4%, respectively. Oil and gas equities posted the strongest returns in Q4, 24.3%, while health sector equities posted the lowest return, 5.0%.

Chart 1-5 Return in international currency terms. Equity investments.

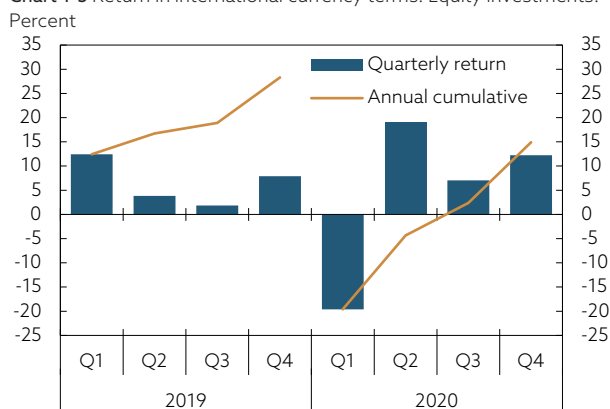


Chart 1-6 Relative return in NOK terms. Equity investments. Basis points

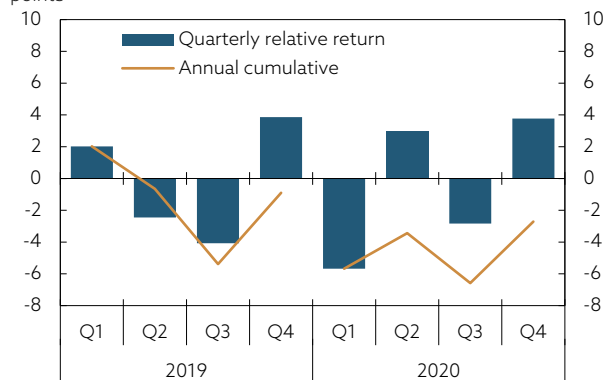


Table 1-4 Equity investments by sector and relative to the benchmark index. At the end of 2020 Q4. In billions of NOK

	Market value	Share
Oil and gas	3	3%
Materials	4	4%
Industrials	15	13%
Consumer goods	13	11%
Health care	15	13%
Consumer services	15	13%
Telecommunications	3	2%
Utilities	3	2%
Financials	21	17%
Technology	27	22%

Tabell 1-5 Equity investments by currency and relative to the benchmark index. At the end of 2020 Q4. In billions of NOK

	Market value	Share
AUD	3	2%
CAD	3	2%
CHF	4	3%
DKK	1	1%
EUR	13	11%
GBP	5	4%
JPY	11	9%
SEK	1	1%
USD	79	66%

Petroleum buffer portfolio

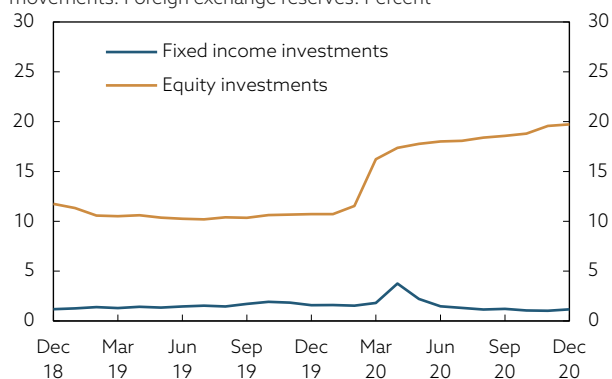
The market value of the petroleum buffer portfolio was NOK 20.0bn, a reduction of NOK 16.4bn. During 2020 Q4, NOK 27.4bn worth of foreign exchange was purchased from the State's Direct Financial Interest (SDFI). At the same time, Norges Bank sold NOK 66.7 worth of foreign exchange in the market. A total of NOK 25.2bn was transferred from the GPF to the petroleum buffer portfolio.

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 2020 Q4 excluding exchange rate movements was 19.7% and 1.2%, respectively. This corresponds to an expected annual fluctuation in value of approximately NOK 23.4bn and NOK 5.3bn, respectively. At the same time, expected relative volatility for equity and fixed income investments was 0.08 and 0.02 percentage point, respectively.

Chart 1-7 Expected absolute volatility, excluding exchange rate movements. Foreign exchange reserves. Percent

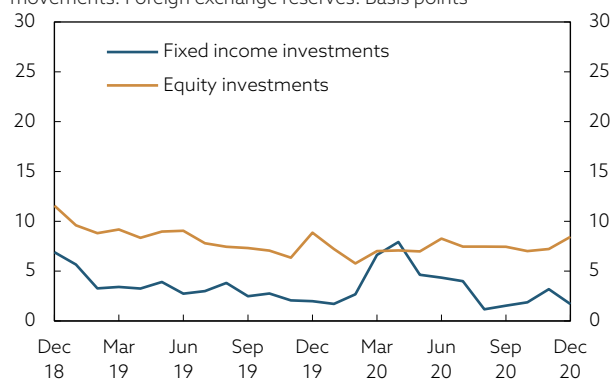


EXPECTED RELATIVE VOLATILITY

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.

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, A+ for the Chinese government and A for the Japanese government.

Chart 1-8 Expected relative volatility, including exchange rate movements. Foreign exchange reserves. Basis points



2 COMMITMENTS TO THE IMF

Pursuant to the Central Bank Act, Norges Bank shall meet the commitments ensuing from membership of the International Monetary Fund (IMF). This membership entails a standing commitment to furnish foreign exchange for IMF loans to other member countries.

Loan resource commitments under the quota, the New Arrangements to Borrow (NAB), bilateral agreements and the Poverty Reduction and Growth Trust (PRGT) were SDR 12 4121m at 31 December 2020, of which the IMF had drawn SDR 1 425m at the end of 2020 Q4. The total remaining amount that can be drawn under these arrangements is SDR 10 996m¹. The size and liquidity of the foreign exchange reserves are assessed to be sufficient to meet Norges Bank's international commitments.

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 755m². At the end of 2020 Q4, the amount drawn³ increased by SDR 110m from Q3 to a total of SDR 960m (Chart 2-1).

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. In parallel with the quota increase in 2016, Norway's resource commitments under the NAB were reduced by approximately the same amount. Since the quota increase, the IMF only funds new loans by drawing on the quotas. The IMF Executive Board must specifically decide to activate the NAB to fund new lending by drawing on the NAB. Norges Bank's commitments under the NAB now amount to SDR 1 967m (Chart 2-2). Total outstanding drawings were SDR 84m at the end of 2020 Q4. SDR 3m was repaid in Q4.

Chart 2-1 IMF quota. In billions of SDRs

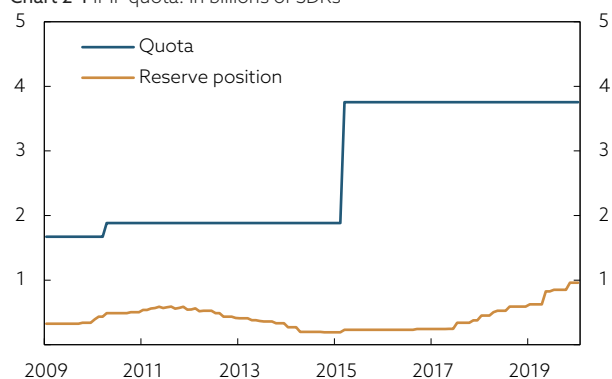
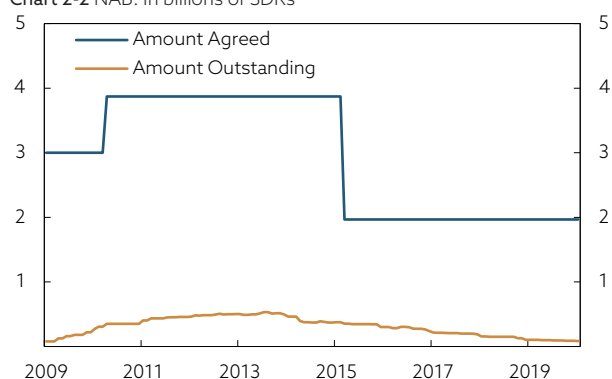


Chart 2-2 NAB. In billions of SDRs



¹ The commitments include the 2020 arrangement under PRGT, but not the 2010 and 2016 agreements, as they can no longer be drawn on. The same applies for the total remaining amount that can be drawn. Amount outstanding includes all arrangements.

² 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.

³ The amount drawn is equal to Norway's reserve position in the IMF.

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. This agreement expired in November 2016 and was never drawn on. In April 2017, 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, Norges Bank extended the agreement for one year. At the end of 2020 Q4, no amounts had been drawn on this borrowing agreement. Norges Bank's borrowing agreements with the IMF are subject to the approval of the Ministry of Finance (cf Section 3-10, Sub-section 2, of the Central Bank Act).

PRGT The Ministry of Finance has signed loan agreements with the IMF under the PRGT (Poverty Reduction and Growth Trust), which contribute to the IMF's borrowing arrangements for low-income member countries. Norges Bank signed borrowing agreements in both 2010 and 2016, and under each, Norway provided SDR 300m. These facilities for the PRGT are now fully drawn and under the agreements, only repayments will now be made (Chart 2-3 and

Chart 2-4). Repayments made under the 2010 agreement in 2020 Q4 totalled SDR 11m. In 2020 Q4, the 2016 agreement was not drawn on. 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. At the end of Q4, this agreement had not been drawn on. Norges Bank is the agent for PRGT loans and administers the commitments.

Chart 2-3 PRGT 2010 agreement. In billions of SDRs

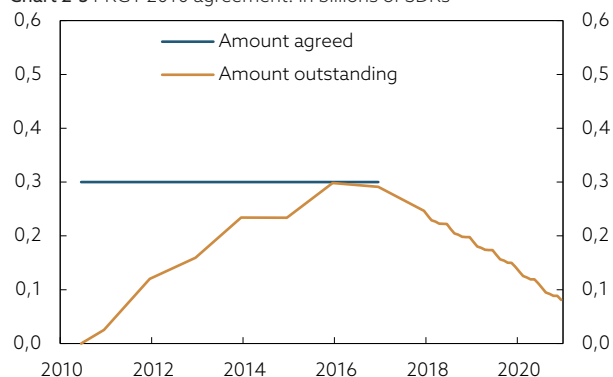
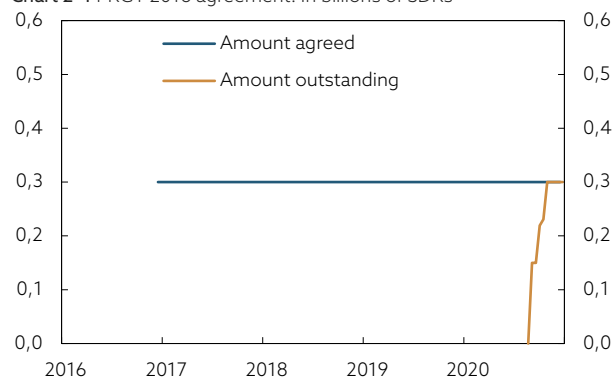
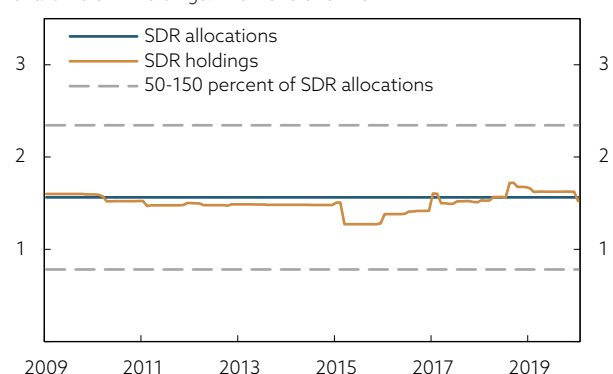


Chart 2-4 PRGT 2016 agreement. In billions of SDRs



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. In 2020 Q4, SDR holdings were reduced by around SDR 193m to SDR 1 524m (Chart 2-5).

Chart 2-5 SDR holdings. In billions of SDRs



INTEREST RATE ON THE ARRANGEMENTS

Norges Bank receives SDR interest payments on the reserve position, the NAB 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 sharing⁴. 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. For the PRGT, Norges Bank receives the corresponding six-month government bond yield, with a floor of 0%.

⁴ 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.

ANNEX KEY FIGURES

Table 1 Key figures at quarter-end. Annualised values in international currency terms. Percent

	Past year	Past three years	Past five years	Past 10 years
Return on the fixed income investments	5.86	4.22	4.82	5.36
<i>Fixed income investments</i>				
Return on fixed income investments	3.05	2.29	1.69	2.48
Return on the benchmark index	3.04	2.31	1.69	2.39
Relative return	0.01	-0.02	0.00	0.09
<i>Equity investments</i>				
Return on equity investments	14.90	11.10	12.50	11.40
Return on the benchmark index	14.92	11.12	12.39	11.26
Relative return	-0.03	-0.03	0.10	0.14

Table 2 Duration of and yield on fixed income investments. Past five quarters

	2020 Q4	2020 Q3	2020 Q2	2020 Q1	2019 Q4
Duration	3.86	3.86	3.82	3.64	3.72
CNY	3.25				
EUR	4.36	4.39	4.37	4.01	4.22
GBP	4.56	4.20	4.14	4.01	3.89
JPY	3.96	4.08	4.13	4.14	4.15
USD	3.40	3.40	3.35	3.27	3.29
Yield	-0.08	-0.10	-0.08	0.02	0.73
CNY	2.47				
EUR	-0.68	-0.61	-0.54	-0.48	-0.43
GBP	-0.03	-0.01	-0.03	0.16	0.61
JPY	-0.10	-0.11	-0.14	-0.14	-0.15
USD	0.30	0.24	0.24	0.34	1.68