Interim financial statements (unaudited)

as at 30 September 2021

Contents

BIS

Management report

The Bank's portfolios are organised into simple layers, which helps with portfolio management and supports the analysis of profit and risk. The structure of the main portfolios is as follows:

The own funds and the overall own gold position relate to the investment of the Bank's shareholders' equity. They are primarily accounted for as fair value through other comprehensive income. This means that they are presented in the balance sheet at fair value, while their contribution to the profit reflects the accrual of interest along with realised gains/losses on sales. The Bank's total comprehensive income includes their total change in fair value, including unrealised valuation movements.

The borrowed funds represent deposits from central banks and other official sector customers in currency and gold, and the investment of the proceeds and associated hedging through derivative financial instruments. These portfolios are managed on an overall fair value basis. They are primarily accounted for at fair value through profit and loss. This means that they are presented in the balance sheet at fair value and their contribution to the Bank's profit reflects the total change in value, including interest accruals and realised and unrealised valuation movements.

There are also other portfolios associated with the Bank's operating expenses, with the provision of asset management services and foreign exchange and gold services.

Net profit

Net profit for the first half of 2021/22 was SDR 238 million. This was SDR 701 million lower than the exceptional profit in the same period of the previous financial year, driven by two main factors.

First and most significant, the total income on the borrowed funds in the first half of 2021/22 was SDR 220 million reflecting subdued market conditions. The average volume of currency deposits (measured on a settlement date basis) was SDR 274 billion, and the margin averaged 16 basis points. By comparison, the total income on the borrowed funds in the first half of 2020/21 was SDR 632 million higher, at SDR 852 million, boosted by the exceptional impact of significant unrealised valuation gains as markets reverted to pre-pandemic conditions.

Second, the total income on the own funds in the first half of 2021/22 was SDR 150 million, which was SDR 63 million lower than in the first six months of 2020/21. This reflects the persistent low interest rates, as well as a reduction in the duration of the own funds investments.

Total comprehensive income

The total comprehensive income in the first six months of 2021/22 was SDR 329 million. In addition to the items reflected in net profit, total comprehensive income included an increase in the gold revaluation account of SDR 155 million (due to a 4% increase in the gold price), partially offset by a decrease in the securities revaluation account of SDR 66 million (owing to the realisation of SDR 81 million of gains in profit, and the valuation impact of a small decrease in bond yields). By comparison, the total comprehensive income was SDR 1,340 million in the first six months of 2020/21 (reflecting a higher net profit and a larger increase in the gold price).

The dividend for the 2020/21 financial year of SDR 294 million was paid during the first half of 2021/22 and, after taking this into account, the Bank's shareholders' equity increased to SDR 22,858 million at 30 September 2021.

Balance sheet

As at

SDR millions	Note	**30 September 2021**	31 March 2021
Assets			
Cash and cash equivalents	1	56,936.4	50,854.6
Securities purchased under resale agreements		64,477.1	78,572.0
Loans and advances		52,524.8	45,544.4
Government and other securities		119,721.8	127,079.5
Gold and gold loans		38,667.9	41,665.7
Derivative financial instruments		5,879.1	7,621.8
Accounts receivable and other assets		4,825.0	4,618.0
Land, buildings and equipment	2	197.9	198.4
Total assets		**343,230.0**	356,154.4
Liabilities			
Currency deposits	3	285,138.9	288,014.7
Securities sold under repurchase agreements		12.7	–
Gold deposits		17,085.9	18,848.9
Derivative financial instruments		1,267.1	2,208.1
Accounts payable		15,905.4	23,319.7
Other liabilities		962.5	940.0
Total liabilities		**320,372.5**	333,331.4
Shareholders' equity			
Share capital	4	710.2	710.2
Less: shares held in treasury	4	(1.7)	(1.7)
Statutory reserves		18,085.0	17,141.8
Profit and loss account		238.5	1,237.3
Other equity accounts		3,825.5	3,735.4
Total shareholders' equity		**22,857.5**	22,823.0
Total liabilities and shareholders' equity		**343,230.0**	356,154.4

Profit and loss account

For the six months ended 30 September

SDR millions	Note	**2021**	2020
Interest income	5	105.5	141.9
Interest expense	6	(75.3)	(74.5)
Change in ECL impairment provision		(0.7)	0.1
Net income on financial assets and liabilities at fair value through profit and loss		277.6	923.7
Net interest and valuation income		**307.1**	991.3
Net gain / (loss) on sales of currency assets at fair value through other comprehensive income		81.4	90.6
Net fee income		3.5	3.3
Net foreign exchange income		(0.9)	0.9
Total income		**391.1**	1,086.0
Administrative expense		(139.6)	(134.2)
Depreciation and amortisation		(13.0)	(12.4)
Operating expense		**(152.6)**	(146.6)
Net profit		**238.5**	939.4

Statement of comprehensive income

For the six months ended 30 September

SDR millions	**2021**	2020
Net profit	**238.5**	939.4
Other comprehensive income		
Items that are or may be reclassified subsequently to profit and loss		
Currency assets at fair value through other comprehensive income		
Net change in fair value during the year	15.0	(36.5)
Net change in expected credit loss impairment provision	0.7	–
Reclassification to profit and loss	(81.4)	(90.6)
Net movement on currency assets at fair value through other comprehensive income	**(65.7)**	(127.1)
Gold at fair value through other comprehensive income		
Net change in fair value during the year	154.7	528.2
Reclassification to profit and loss	–	–
Net movement on gold at fair value through other comprehensive income	**154.7**	528.2
Items that will not be reclassified to profit and loss		
Re-measurement of defined benefit obligations	1.1	(0.7)
Total comprehensive income	**328.6**	1,339.9

Statement of cash flows

For the six months ended 30 September

SDR millions	Notes	2021	2020
Cash flow from / (used in) operating activities			
Interest income received		133.6	177.2
Interest expenses paid		(65.6)	(66.3)
Net fee income		3.5	3.3
Net foreign exchange transaction gain		3.8	4.6
Administrative expense		(139.6)	(134.2)
Adjustments for non-cash flow items			
Net income on financial assets and liabilities at fair value through profit and loss (FVPL)		277.6	923.7
Net change in ECL impairment provision		(0.7)	0.1
Net foreign exchange translation gain		(4.7)	(3.7)
Lease interest expense	6	(0.1)	(0.1)
Change in accruals		(37.2)	(43.4)
Change in operating assets and liabilities			
Currency deposits		(3,935.2)	37,278.5
Currency banking assets		8,400.1	(33,916.1)
Gold deposits		(1,762.9)	2,688.4
Gold banking assets		3,151.9	(12,699.1)
Securities sold under repurchase agreements		12.7	–
Change in cash collateral balance on derivatives transactions		(0.7)	(1.7)
Accounts receivable and other assets		(5.4)	(2.6)
Accounts payable and other liabilities		26.0	32.5
Net derivative financial instruments		801.7	2,269.4
Net cash flow from / (used in) operating activities		**6,858.8**	(3,489.5)
Cash flow from / (used in) investment activities			
Change in currency investment assets		(468.8)	(260.8)
Change in securities sold under repurchase agreements in investment portfolios		–	(148.8)
Capital expenditure on land, buildings and equipment		(12.7)	(12.5)
Net cash flow used in investment activities		**(481.5)**	(422.1)

SDR millions		2021	2020
Cash flow from financing activities			
Dividends paid	7	(294.1)	–
Repayment of principal on lease liabilities		(1.4)	(1.3)
Net cash flow used in financing activities		**(295.5)**	(1.3)
Total net cash flow		**6,081.8**	(3,912.9)
Net effect of exchange rate changes on cash and cash equivalents		(111.9)	545.4
Net movement in cash and cash equivalents		6,193.7	(4,458.3)
Net change in cash and cash equivalents		**6,081.8**	(3,912.9)
Cash and cash equivalents, beginning of year	1	**50,854.6**	54,021.4
Cash and cash equivalents, end of year	1	**56,936.4**	50,108.4

Movements in shareholders' equity

For the six months ended 30 September 2021

SDR millions	Note	Share capital	Shares held in treasury	Statutory reserves	Profit and loss	Other equity accounts: Defined benefit obligations	Other equity accounts: Gold and securities revaluation	Shareholders' equity
Balance as at 31 March 2021		**710.2**	**(1.7)**	**17,141.8**	**1,237.3**	**83.0**	**3,652.4**	**22,823.0**
Payment of 2020/21 dividend	7	–	–	–	(294.1)	–	–	(294.1)
Allocation of 2020/21 profit		–	–	943.2	(943.2)	–	–	–
Total comprehensive income		–	–	–	238.5	1.1	89.0	328.6
Balance as at 30 September 2021		**710.2**	**(1.7)**	**18,085.0**	**238.5**	**84.1**	**3,741.4**	**22,857.5**

For the six months ended 30 September 2020

SDR millions	Note	Share capital	Shares held in treasury	Statutory reserves	Profit and loss	Other equity accounts: Defined benefit obligations	Other equity accounts: Gold and securities revaluation	Shareholders' equity
Balance as at 31 March 2020		706.4	(1.7)	16,867.8	165.5	(45.7)	3,947.6	21,639.9
Payment of 2019/20 dividend	7	–	–	–	–	–	–	–
Allocation of 2019/20 profit		–	–	165.5	(165.5)	–	–	–
Total comprehensive income		–	–	–	939.4	(0.7)	401.2	1,339.9
Balance as at 30 September 2020		706.4	(1.7)	17,033.3	939.4	(46.4)	4,348.8	22,979.8

Accounting policies

The accounting policies adopted by the Bank for these interim financial statements are consistent with those described in the annual financial statements within the Bank's Annual Report. The interim financial statements contain selected disclosures, but do not contain all the information provided in the Bank's annual financial statements. They should be read in conjunction with the Bank's latest annual financial statements.

All figures in these interim financial statements are presented in SDR millions unless otherwise stated. Amounts are rounded to the nearest SDR 0.1 million, and consequently there may be small differences both within and between disclosures.

Critical judgments and estimates

The preparation of the financial statements requires the Bank's Management to make assumptions and use estimates to arrive at reported amounts. In doing so, Management exercises judgment based on reliable information. Actual results could differ significantly from these estimates.

In preparing these interim financial statements, the significant judgments made by Management were similar to those applied in the annual financial statements, and there had been no material revisions to the nature of the amounts reported in the annual financial statements.

Notes to the financial statements

1. Cash and cash equivalents

Cash and cash equivalents comprise sight accounts at central and commercial banks, as well as notice accounts at commercial banks and international financial institutions. Included within the cash balances is collateral received from counterparties in relation to derivatives transactions. More detail on this collateral is included in the "Risk management" section of these financial statements, note 2C, "Credit risk mitigation". Cash balances are analysed in the table below:

As at

SDR millions	**30 September 2021**	31 March 2021
Balance at central banks	55,192.0	50,151.0
Balance at commercial banks	114.3	48.7
Total cash and sight accounts	**55,306.3**	50,199.7
Notice accounts	1,630.1	654.9
Total cash and cash equivalents	**56,936.4**	50,854.6

2. Land, buildings and equipment, and depreciation

There were no material purchases or sales of fixed assets during the reporting period. The depreciation expense for the period ended 30 September 2021 was SDR 13.0 million (30 September 2020: SDR 12.4 million).

3. Currency deposits

Currency deposits comprise the following products:

As at

SDR millions	**30 September 2021**	31 March 2021
Repayable at one to three days' notice		
Sight and notice deposit accounts	42,356.0	29,993.3
Medium-Term Instruments	17,380.1	19,346.8
Callable MTIs	715.7	718.5
Fixed Rate Investments at the BIS	105,036.8	115,441.7
	165,488.6	165,500.2
Other currency deposits		
Floating Rate Investments of the BIS	1,446.0	1,244.0
Fixed-term deposits	117,392.0	120,331.2
Dual Currency Deposits	812.3	939.3
	119,650.3	122,514.5
Total currency deposits	**285,138.9**	288,014.7

4. Share capital

The Bank's share capital consists of:

As at

SDR millions	**30 September 2021**	31 March 2021
Authorised capital: 600,000 shares, each of SDR 5,000 par value, of which SDR 1,250 is paid up	3,000.0	3,000.0
Issued capital: 568,125 shares	2,840.6	2,840.6
Paid-up capital (25%)	**710.2**	710.2

During the financial year ended 31 March 2021, the Bank issued 3,000 shares to the central bank of Vietnam. As at 30 September 2021 the number of member central banks was 63 (30 September 2020: 62).

The number of shares eligible for dividend is:

As at	**30 September 2021**	31 March 2021
Issued shares	568,125	568,125
Shares held in treasury	(1,000)	(1,000)
Outstanding shares eligible for dividend	**567,125**	567,125
Of which:		
Eligible for full dividend	567,125	564,125
New shares eligible for dividend pro rata from the value date of subscription	–	3,000

Shares held in treasury consist of 1,000 shares of the Albanian issue which were suspended in 1977.

5. Interest income

For the six months ended 30 September

SDR millions	**2021**	2020
Assets classified as amortised cost		
Cash and cash equivalents	0.4	0.3
Gold loan and sight accounts denominated in gold	–	0.5
	0.4	0.8
Financial assets classified as FVOCI		
Government and other securities	82.3	104.4
	82.3	104.4
Interest income on liabilities classified as amortised cost	**22.8**	36.7
Total interest income	**105.5**	141.9

Total interest income is net of “negative” interest income on assets of SDR 69.7 million (2020: SDR 65.5 million).

6. Interest expense

For the six months ended 30 September

SDR millions	**2021**	2020
Liabilities classified as amortised cost		
Currency deposits: sight and notice deposit accounts	(5.5)	(8.9)
Gold deposits	–	–
Interest on lease liabilities	(0.1)	(0.1)
	(5.6)	(9.0)
Interest expense on assets classified as amortised cost or FVOCI	**(69.7)**	(65.5)
Total interest expense	**(75.3)**	(74.5)

Total interest expense is net of "negative" interest expense on liabilities classified as amortised cost of SDR 22.8 million (2020: SDR 36.7 million).

7. Dividends

On 8 July 2021, the Bank paid a dividend of SDR 294.1 million for the financial year 2020/21. The Bank did not pay a dividend in the first six months of 2020/21.

8. Fair value hierarchy

The Bank categorises its financial instrument fair value measurements using a hierarchy that reflects the observability of inputs used in measuring that value. A valuation level is assigned according to the least observable input that is significant to the fair value measurement in its entirety. An input is determined to be significant if its contribution to the value of the financial instrument is greater than 5%. Market liquidity is a consideration in determining whether an input is observable, and hence its fair value hierarchy level. The fair value hierarchy used by the Bank comprises the following levels:

Level 1 – Instruments valued using unadjusted quoted prices in active markets for identical financial instruments.

Level 2 – Instruments valued with valuation techniques using inputs which are observable for the financial instrument either directly (ie as a price) or indirectly (ie derived from prices for similar financial instruments). This includes observable interest and foreign exchange rates, spreads and volatilities. It includes also instruments valued using unadjusted quoted prices in less active markets.

Level 3 – Instruments valued using valuation techniques where the significant inputs are not observable in financial markets. This includes illiquid prices and spreads derived from illiquid prices. It includes also instruments valued using unadjusted quoted prices in illiquid markets.

As at 30 September 2021

SDR millions	Level 1	Level 2	Level 3	**Total**
Financial assets classified as FVPL				
Securities purchased under resale agreements	–	64,477.1	–	64,477.1
Loans and advances	–	52,524.8	–	52,524.8
Government and other securities	78,985.2	23,313.2	1,356.7	103,655.1
Derivative financial instruments	1.4	5,877.7	–	5,879.1
Financial assets classified as FVOCI				
Government and other securities	14,966.9	1,028.1	71.7	16,066.7
Total financial assets accounted for at fair value	**93,953.5**	**147,220.9**	**1,428.4**	**242,602.8**
Financial liabilities classified as FVPL				
Currency deposits	–	(242,782.9)	–	(242,782.9)
Securities sold under repurchase agreements	–	(12.7)	–	(12.7)
Derivative financial instruments	(4.2)	(1,262.9)	–	(1,267.1)
Total financial liabilities accounted for at fair value	**(4.2)**	**(244,058.5)**	**–**	**(244,062.7)**

As at 31 March 2021

SDR millions	Level 1	Level 2	Level 3	Total
Financial assets classified as FVPL				
Securities purchased under resale agreements	–	78,572.0	–	78,572.0
Loans and advances	–	45,544.4	–	45,544.4
Government and other securities	84,782.3	25,956.9	549.8	111,289.0
Derivative financial instruments	2.4	7,619.4	–	7,621.8
Financial assets classified as FVOCI				
Securities purchased under resale agreements	–	–	–	–
Government and other securities	14,816.4	830.0	144.1	15,790.5
Total financial assets accounted for at fair value	99,601.1	158,522.7	693.9	258,817.7
Financial liabilities classified as FVPL				
Currency deposits	–	(258,021.4)	–	(258,021.4)
Derivative financial instruments	(2.8)	(2,205.3)	–	(2,208.1)
Total financial liabilities accounted for at fair value	(2.8)	(260,226.7)	–	(260,229.5)

A. Transfers between levels in the fair value hierarchy

Of the debt securities categorised as level 1 as at 30 September 2021, SDR 837.6 million related to assets that were categorised as level 2 as at 31 March 2021. Of the debt securities categorised as level 2 as at 30 September 2021, SDR 3,103.9 million related to assets that were categorised as level 1 and SDR 74.5 million related to assets that were categorised as level 3 as at 31 March 2021. Of the debt securities categorised as level 3 as at 30 September 2021, SDR 843.5 million related to debt securities that were categorised as level 1 and SDR 11.3 million related to assets that were categorised as level 2 as at 31 March 2021.

The transfer of assets between levels 1, 2 and 3 reflected specific market conditions existing at the reporting dates that affected the observability of the market prices as defined above. No liabilities or other type of assets were transferred between the fair value hierarchy levels.

B. Assets and liabilities categorised at fair value level 3

The accuracy of the Bank's valuations is ensured through an independent price verification exercise performed by the valuation control function within the Finance unit.

As at 30 September 2021, a small percentage of the Bank's financial instrument valuations were produced using valuation techniques that utilised significant unobservable inputs. These financial instruments are categorised as level 3. For these instruments, the determination of fair value requires subjective assessment and judgment depending on liquidity, pricing assumptions, the current economic and competitive environment and the risks affecting the specific instrument. In such circumstances, valuation is determined based on Management's own judgments about the assumptions that market participants would use in pricing the asset or liability (including assumptions about risk). Both observable and unobservable inputs may be used to determine the fair value of positions that have been classified within level 3. As a result, the unrealised gains and losses for assets and liabilities within level 3 presented in the table below may include changes in fair value that were attributable to both observable and unobservable inputs.

The financial instruments categorised as level 3 comprise illiquid bonds. During the financial period ended 30 September 2021, the Bank categorised SDR 1,428.4 million of securities as level 3 in the fair value hierarchy. Of these securities, SDR 547.5 million were valued using illiquid prices, and SDR 880.9 million were valued using illiquid spreads.

As at 30 September 2021

SDR millions	FVPL	FVOCI	**Total**
Balance at the beginning of the year	**549.8**	144.1	**693.9**
Purchases	199.2	26.0	225.2
Sales	(202.3)	(52.3)	(254.6)
Transfers in	809.2	45.7	854.9
Transfers out	–	(91.8)	(91.8)
Valuation impact recognised in net profit	**0.8**	**–**	**0.8**
Valuation impact recognised in other comprehensive income	**–**	**–**	**–**
Balance at end of the year	**1,356.7**	**71.7**	**1,428.4**
Unrealised gains / (losses) relating to assets still held as at the reporting date	–	0.5	0.5

C. Quantitative disclosures of valuation techniques

The following table provides the representative range of minimum and maximum values and the associated weighted averages of each significant unobservable input for level 3 assets by the related valuation technique most significant to the related financial instrument.

As at 30 September 2021

	Fair value *(SDR millions)*	Valuation technique	Unobservable input	Minimum value of input	Maximum value of input	Weighted average of input	Unit	Relationship of unobservable input to fair value
Debt securities	880.9	Price	Bond prices	100.1	104.8	100.4	Points	A change in the prices of 1 point would increase / decrease the fair value by SDR 8.8 million
Debt securities	547.5	Discounted cash flow based on spread to yield curve	Bond spreads	(72.0)	34.0	(6.2)	Basis-points	A change in the spreads of 100 basis-points would increase / decrease the fair value by SDR 4.7 million
Total level 3 assets at fair value	**1,428.4**							

D. Financial instruments not measured at fair value

In accordance with its accounting policies, the Bank accounts for certain financial instruments at amortised cost. Using the same valuation techniques as used for fair valued financial instruments, Management estimates that the fair values of these financial instruments would be materially the same as the carrying values shown in these financial statements for both 30 September 2021 and 31 March 2021. If the valuation of these instruments were categorised using the fair value hierarchy, the valuation of "gold loans" would be considered level 2. All other amortised cost financial instruments would be considered level 1.

E. Impact of changes in the Bank's creditworthiness

The fair value of the Bank's liabilities may be affected by any change in its creditworthiness. If the Bank's creditworthiness deteriorated, the value of its liabilities would decrease, and the change in value would be reflected as a movement in other comprehensive income. The Bank regularly assesses its creditworthiness as part of its risk management processes. The Bank's assessment of its creditworthiness did not indicate a change which could have had an impact on the fair value of the Bank's liabilities during the period under review.

9. Related parties

The Bank considers the following to be its related parties:

- the members of the Board of Directors;
- the senior officials of the Bank;
- close family members of the above individuals;
- the Bank's post-employment benefit arrangements; and
- central banks whose Governor is a member of the Board of Directors and institutions that are connected with these central banks.

A list of the members of the Board of Directors and senior officials is shown in the sections of the Annual Report entitled "Board of Directors" and "BIS Management". Note 12 of the financial statements in the Annual Report provides details of the Bank's post-employment benefit arrangements.

A. Related party individuals

Related party transactions with members of the Board of Directors and senior officials in the period ended 30 September 2021 were similar in nature to those disclosed in the Bank's most recent annual financial statements. No related party transactions that took place with members of the Board of Directors and senior officials materially affected the financial position or performance of the Bank during the financial period.

B. Related party institutions

The Bank pays a dividend to its shareholders, as described in note 25 of the Bank's latest annual financial statements. The dividends paid to shareholders in the period ended 30 September 2021 (for the financial year 2020/21) was SDR 294.1 million. No dividend was paid for the financial year 2019/20.

The BIS provides banking services to its customers, which are predominantly central banks, monetary authorities, international financial institutions. In fulfilling this role, the Bank, in the normal course of business, enters into transactions with customers which are related parties (as defined above). These transactions include making advances, and taking currency and gold deposits. It is the Bank's policy to enter into transactions with related party customers on similar terms and conditions to transactions with other, non-related party customers. The following tables show balances relating to these transactions, which the Bank believes are representative of the general level of business undertaken with related party customers during the year.

Balances with related party customers

As at	**30 September 2021**			31 March 2021		
	Balance sheet total	Balance with related parties		Balance sheet total	Balance with related parties	
	SDR millions	*SDR millions*	*%*	*SDR millions*	*SDR millions*	*%*
Assets						
Cash and cash equivalents	56,936.4	**50,824.3**	89.3	50,854.6	49,160.9	96.7
Securities purchased under resale agreements	64,477.1	**6,132.6**	9.5	78,572.0	2,515.2	3.2
Loans and advances	52,524.8	**7,406.3**	14.1	45,544.4	8,030.3	17.6
Government and other securities	119,721.8	**4,016.6**	3.4	127,079.5	3,810.4	3.0
Gold and gold loans	38,667.9	**38,586.2**	99.8	41,665.7	41,471.6	99.5
Derivative financial instruments	5,879.1	**49.0**	0.8	7,621.8	51.8	0.7
Other assets	26.5	**1.2**	4.5	21.5	1.1	5.1
Liabilities						
Currency deposits	(285,138.9)	**(132,303.6)**	46.4	(288,014.7)	(135,952.7)	47.2
Gold deposits	(17,085.9)	**(11,931.9)**	69.8	(18,848.9)	(11,480.6)	60.9
Derivative financial instruments	(1,267.1)	**(44.8)**	3.5	(2,208.1)	(41.6)	1.9

Main profit and loss items arising from transactions with related party customers

For the six months ended 30 September	2021			2020		
	Profit and loss total	Balance with related parties		Profit and loss total	Balance with related parties	
	SDR millions	*SDR millions*	*%*	*SDR millions*	*SDR millions*	*%*
Interest income	105.5	**20.2**	19.1	141.9	31.7	22.3
Interest expense	(75.3)	**(64.7)**	85.9	(74.5)	(61.7)	82.8
Net change in ECL impairment provision	(0.7)	**–**	–	0.1	–	–
Net income on financial assets and liabilities at FVPL						
Financial assets	(86.0)	**11.1**	–	642.1	14.7	2.3
Financial liabilities	(205.7)	**(17.7)**	8.6	(433.4)	(190.4)	43.9
Derivative financial instruments	569.3	**19.7**	3.5	715.0	10.8	1.5

10. Contingent liabilities

In the opinion of the Bank’s Management, there were no significant contingent liabilities at 30 September 2021 (31 March 2021: nil).

11. Subsequent events

Since the period-end date of 30 September 2021, there have been no material events that would affect the information presented in the financial statements.

Capital adequacy

1. Capital adequacy framework

As an international financial institution that is overseen by a Board composed of Governors of major central banks and that has no national supervisor, the Bank is committed to maintaining its superior credit quality and financial strength, in particular in situations of financial stress.

The Bank assesses its capital adequacy on a continuous basis. Its capital planning process focuses on two elements: an economic capital framework and a financial leverage framework. The disclosures in this section relating to credit, market, operational and liquidity risk are based on the Bank's own assessment of capital adequacy derived in accordance with these two BIS frameworks.

Regulatory capital ratios are not used as indicators of BIS capital adequacy because key aspects of the business model for the BIS banking activities are not adequately captured. In the main, these relate to the high level of solvency targeted by the Bank as well as the way regulatory capital ratios reflect portfolio concentrations and interest rate risk in the banking book.

To facilitate comparability, the Bank has implemented a framework that is consistent with guidance issued by the Basel Committee on Banking Supervision (BCBS). Following this, the Bank discloses a Common Equity Tier 1 capital ratio (Pillar 1), risk-weighted assets and more detailed related information. In addition, the Bank calculates for reference a Liquidity Coverage Ratio.

The Bank maintains a capital position substantially in excess of the regulatory minimum requirement in order to ensure its superior credit quality.

2. Economic capital

The Bank's economic capital methodology relates its risk-bearing capacity to the amount of economic capital needed to absorb potential losses arising from its exposures. Consistent with guidance from the BCBS, the risk-bearing capacity is defined as Common Equity Tier 1 capital which is based on components of the Bank's equity as set out in the following table.

Common Equity Tier 1 capital includes the profit and loss account. It is adjusted by the Bank's current estimate of the amount of the profit and loss account that will be paid as a dividend (the "dividend adjustment"), to ensure that Common Equity Tier 1 capital includes only the component of the profit and loss account that is expected to be allocated to statutory reserves.

As at *SDR millions*	**30 September 2021**	31 March 2021
Share capital	710.2	710.2
Statutory reserves per balance sheet	18,085.0	17,141.8
Less: shares held in treasury	(1.7)	(1.7)
Share capital and reserves	**18,793.5**	17,850.2
Securities revaluation account	150.5	216.2
Gold revaluation account	3,590.9	3,436.2
Re-measurement of defined benefit obligations	84.1	83.0
Other equity accounts	**3,825.5**	3,735.4
Expected loss	(92.0)	(151.8)
Intangible assets	(25.8)	(29.4)
Prudential adjustments	**(117.8)**	(181.1)
Profit and loss account	**238.5**	1,237.3
Dividend adjustment	**(77.8)**	(294.1)
Common Equity Tier 1 capital	**22,661.9**	22,347.8

As part of the capital planning process, Management allocates economic capital to risk categories within its risk-bearing capacity. Allocations are made to each category of financial risk (ie credit and market risk) as well as operational risk. Capital is also assigned to a minimum cushion of capital that is not utilised by risk categories ("minimum capital cushion") providing an additional margin of safety. The difference between its risk-bearing capacity and the total economic capital utilisation, the "available economic capital", is available for further risk-taking.

Reflecting the high level of solvency targeted by the Bank, the economic capital framework measures economic capital to a 99.99% confidence level assuming a one-year horizon, except for FX settlement risk. The amount of economic capital set aside for FX settlement risk is based on an assessment by Management. The Bank's economic capital framework is subject to regular review and calibration.

The following table summarises the Bank's economic capital allocation and utilisation as well as the resulting available economic capital:

As at	30 September 2021		31 March 2021	
SDR millions	Allocation	Utilisation	Allocation	Utilisation
Insolvency and transfer risk	8,500.0	6,347.2	7,700.0	6,050.4
FX settlement risk	400.0	400.0	400.0	400.0
Credit risk	8,900.0	6,747.2	8,100.0	6,450.4
Market risk	5,300.0	4,235.2	5,300.0	3,987.6
Operational risk	1,100.0	1,100.0	1,100.0	1,100.0
Minimum capital cushion	3,399.3	3,399.3	3,352.2	3,352.2
Total economic capital (A)	**18,699.3**	**15,481.7**	17,852.2	14,890.2
Common Equity Tier 1 capital (B)		**22,661.9**		22,347.8
Available economic capital (B) – (A)		**7,180.2**		7,457.6

3. Financial leverage

The Bank complements its capital adequacy assessment with a financial leverage framework using a ratio that compares the Bank's Common Equity Tier 1 capital with its total exposure. The exposure measure is supplemented by the pension fund asset value as well as regulatory exposure adjustments relating to committed and uncommitted facilities, repurchase agreements and derivatives.

The following table shows the calculation of the Bank's financial leverage ratio:

SDR millions	30 September 2021	31 March 2021
Common Equity Tier 1 capital (A)	**22,661.9**	22,347.8
Total balance sheet assets	**343,230.0**	356,154.4
Derivatives	7,338.4	7,346.0
Securities purchased under resale agreements	63.3	25.4
Committed and uncommitted facilities	4,790.8	4,979.1
Pension fund assets	1,333.2	1,286.1
Exposure adjustments	**13,525.7**	13,636.6
Total BIS exposure (B)	**356,755.7**	369,791.0
BIS leverage ratio (A) / (B)	**6.4%**	6.0%

4. Common Equity Tier 1 capital ratio

The economic capital framework and the financial leverage framework described above are the main tools used for assessing the Bank's capital adequacy. Risk-weighted assets, minimum capital requirements and the Common Equity Tier 1 capital ratio are disclosed to facilitate comparability. Guidance issued by the BCBS includes several approaches for calculating risk-weighted assets and the corresponding minimum capital requirements. In principle, the minimum capital requirements are determined by taking 8% of the risk-weighted assets.

For credit risk, the Bank has adopted the advanced internal ratings-based approach for the majority of its exposures. Under this approach, the risk weighting for a transaction is determined by the relevant

Basel risk weight function using the Bank's own estimates for key inputs. Expected loss is calculated for credit risk exposures subject to the advanced internal ratings-based approach and is calculated at the balance sheet date. In accordance with the requirements of the Basel Framework, the expected loss is compared with write-offs, if applicable, and any shortfall is deducted from the Bank's Common Equity Tier 1 capital. For securitisation exposures and relevant other assets, the Bank has adopted the standardised approach. Under this approach, risk weightings are mapped to exposure types.

Risk-weighted assets for market risk are derived following an internal models approach based on a value-at-risk (VaR) methodology calibrated to stressed and non-stressed market conditions. For operational risk, the advanced measurement approach is used. This approach also relies on VaR.

More details on the assumptions underlying the calculations are provided in the sections on credit risk, market risk and operational risk.

The following table provides information on risk-weighted assets and related minimum capital requirements:

As at		30 September 2021			31 March 2021		
	Approach used	Amount of exposure	Risk-weighted assets	Minimum capital requirement	Amount of exposure	Risk-weighted assets	Minimum capital requirement
SDR millions			(A)	(B)		(A)	(B)
Credit risk							
Exposure to sovereigns, banks and corporates	Advanced internal ratings-based approach, where (B) is derived as (A) x 8%	234,216.4	31,895.8	2,551.7	227,562.6	30,400.6	2,432.0
Securitisation exposures and other assets	Standardised approach, where (B) is derived as (A) x 8%	424.4	1,283.8	102.7	413.1	1,423.0	113.8
Market risk							
Exposure to foreign exchange risk and gold price risk	Internal models approach, where (A) is derived as (B) / 8%	–	32,201.5	2,576.1	–	37,453.7	2,996.3
Operational risk							
	Advanced measurement approach, where (A) is derived as (B) / 8%	–	8,785.1	702.8	–	8,957.5	716.6
Total			**74,166.2**	5,933.3		78,234.7	6,258.8

The Common Equity Tier 1 capital ratio is set out in the following table:

As at

SDR millions	**30 September 2021**	31 March 2021
Total Common Equity Tier 1 capital (A)	**22,661.9**	22,347.8
Total risk-weighted assets (B)	**74,166.2**	78,234.7
Common Equity Tier 1 capital ratio (A) / (B)	**30.6%**	28.6%

Risk management

1. Risks faced by the Bank

The Bank supports its customers, predominantly central banks, monetary authorities and international financial institutions, in the management of their reserves and related financial activities.

Banking activities form an essential element of meeting the Bank's objectives and ensure its financial strength and independence. The BIS engages in banking activities that are customer-related as well as activities that are related to the investment of its shareholders' equity, each of which may give rise to financial risk comprising credit risk, market risk and liquidity risk. The Bank is also exposed to operational risk.

Within the risk frameworks defined by the Board of Directors, the Management of the Bank has established risk management policies designed to ensure that risks are identified, appropriately measured and controlled as well as monitored and reported.

2. Credit risk

Credit risk arises because a counterparty may fail to meet its obligations in accordance with the agreed contractual terms and conditions. A financial asset is considered past due when a counterparty fails to make a payment on the contractual due date.

The Bank manages credit risk within a framework and policies set by the Board of Directors and Management. These are complemented by more detailed guidelines and procedures at the level of the independent risk management function.

A. Credit risk assessment

Credit risk is continuously controlled at both a counterparty and an aggregated level. The independent risk management function performs credit assessments for material counterparties following a well-defined internal rating process. As part of this process, counterparty financial statements and market information are analysed. The main assessment criterion in these reviews is the ability of the counterparties to meet interest and principal repayment obligations in a timely manner. The rating methodologies depend on the nature of the counterparty. Based on the internal rating and specific counterparty features, the Bank sets a series of credit limits covering individual counterparties and countries. Internal ratings are assigned to all counterparties. On a general basis, ratings and related limits are reviewed at least annually for material counterparties with internal ratings (expressed as equivalent external ratings) of 'BBB+' or below.

Credit risk limits at the counterparty level are approved by the Bank's Management and fit within a framework set by the Board of Directors.

On an aggregated level, credit risk, including default and country transfer risk, is measured, monitored and controlled based on the Bank's economic capital calculation for credit risk. To calculate economic capital for credit risk, the Bank uses a portfolio VaR model. Management limits the Bank's overall exposure to credit risk by allocating an amount of economic capital to credit risk.

B. Default risk

The tables in this section show the exposure of the Bank to default risk, without taking into account any impairment allowance, collateral held or other credit enhancements available to the Bank. Credit risk is mitigated through the use of collateral and legally enforceable netting or setoff agreements. The corresponding assets and liabilities are not offset on the balance sheet.

The exposures set out in the tables below are based on the gross carrying value of the assets in the balance sheet as categorised by sector, geographical region and credit quality. The gross carrying value is the fair value of the financial instruments, except in the case of very short-term financial instruments (sight and notice accounts) and gold. Provisions for estimated credit losses on instruments valued at amortised cost are not included in the exposure amounts. Commitments are reported at their notional amounts. Gold and gold loans exclude gold bar assets held in custody at central banks, and accounts receivable and other assets do not include unsettled liabilities issued because these items do not represent credit exposures of the Bank.

The substantial majority of the Bank's assets are placed in local currency central bank cash, or in securities issued by governments and financial institutions rated A– or above by at least one of the major external credit assessment institutions. Limitations on the number of high-quality counterparties in these sectors mean that the Bank is exposed to single-name concentration risk. As at 30 September 2021, excluding local currency cash at central banks and exposures largely mitigated by collateral arrangements, there was one advanced economy sovereign comprising more than 5% of the total on-balance sheet exposure reported in the tables below. This exposure was between 10% and 15% of the total on-balance sheet exposure (31 March 2021: one exposure between 10% and 15%).

Default risk by asset class and issuer type

The following tables show the exposure of the Bank to default risk by asset class and issuer type, without taking into account any impairment loss allowance, collateral held or other credit enhancements available to the Bank. "Public sector" includes international and other public sector institutions.

As at 30 September 2021

SDR millions	Sovereign and central banks	Public sector	Banks	Corporate	Securitisation	Total
On-balance sheet exposure						
Cash and cash equivalents	55,192.0	1,614.7	129.7	–	–	56,936.4
Gold and gold loans	–	–	81.8	–	–	81.8
Securities purchased under resale agreements	11,063.1	–	41,384.1	12,029.9	–	64,477.1
Loans and advances	11,266.9	152.9	41,105.0	–	–	52,524.8
Government and other securities	88,953.0	13,697.7	8,162.1	8,731.5	177.5	119,721.8
Derivative financial instruments	180.3	21.0	5,677.5	0.3	–	5,879.1
Accounts receivable and other assets	6.4	31.0	49.3	12.8	–	99.5
Total on-balance sheet exposure	**166,661.7**	**15,517.3**	**96,589.5**	**20,774.5**	**177.5**	**299,720.5**
Commitments						
Undrawn unsecured facilities	212.7	–	–	–	–	212.7
Total commitments	**212.7**	**–**	**–**	**–**	**–**	**212.7**
Total exposure	**166,874.4**	**15,517.3**	**96,589.5**	**20,774.5**	**177.5**	**299,933.2**

As at 31 March 2021

SDR millions	Sovereign and central banks	Public sector	Banks	Corporate	Securitisation	Total
On-balance sheet exposure						
Cash and cash equivalents	50,151.0	635.3	68.3	–	–	50,854.6
Gold and gold loans	479.4	–	194.1	–	–	673.5
Securities purchased under resale agreements	5,074.4	–	58,832.5	14,665.1	–	78,572.0
Loans and advances	12,120.3	82.7	33,341.4	–	–	45,544.4
Government and other securities	93,959.5	15,632.3	8,350.8	8,945.3	191.6	127,079.5
Derivative financial instruments	345.9	15.2	7,260.1	0.6	–	7,621.8
Accounts receivable and other assets	8.1	31.7	1,437.9	5.9	–	1,483.6
Total on-balance sheet exposure	162,138.6	16,397.2	109,485.1	23,616.9	191.6	311,829.4
Commitments						
Undrawn unsecured facilities	211.6	–	–	–	–	211.6
Total commitments	211.6	–	–	–	–	211.6
Total exposure	162,350.2	16,397.2	109,485.1	23,616.9	191.6	312,041.0

Default risk by geographical region

The following tables represent the exposure of the Bank to default risk by asset class and geographical region, without taking into account any impairment loss allowance, collateral held or other credit enhancements available to the Bank. Exposures are allocated to regions based on the country of incorporation of each legal entity.

As at 30 September 2021

SDR millions	Africa and Europe	Asia-Pacific	Americas	International institutions	Total
On-balance sheet exposure					
Cash and cash equivalents	26,363.2	28,934.7	24.0	1,614.5	56,936.4
Gold and gold loans	81.8	–	–	–	81.8
Securities purchased under resale agreements	44,809.7	13,351.7	6,315.7	–	64,477.1
Loans and advances	40,989.5	7,804.6	3,659.7	71.0	52,524.8
Government and other securities	34,644.4	56,249.2	25,029.1	3,799.1	119,721.8
Derivative financial instruments	4,523.5	518.1	819.8	17.7	5,879.1
Accounts receivable and other assets	62.7	3.6	32.6	0.6	99.5
Total on-balance sheet exposure	**151,474.8**	**106,861.9**	**35,880.9**	**5,502.9**	**299,720.5**
Commitments					
Undrawn unsecured facilities	–	212.7	–	–	212.7
Total commitments	**–**	**212.7**	**–**	**–**	**212.7**
Total exposure	**151,474.8**	**107,074.6**	**35,880.9**	**5,502.9**	**299,933.2**

As at 31 March 2021

SDR millions	Africa and Europe	Asia-Pacific	Americas	International institutions	Total
On-balance sheet exposure					
Cash and cash equivalents	38,665.6	11,524.9	28.8	635.3	50,854.6
Gold and gold loans	673.5	–	–	–	673.5
Securities purchased under resale agreements	65,081.8	10,516.6	2,973.6	–	78,572.0
Loans and advances	38,813.9	4,614.4	2,116.1	–	45,544.4
Government and other securities	38,569.1	56,996.1	27,334.4	4,179.9	127,079.5
Derivative financial instruments	5,917.7	456.5	1,238.2	9.4	7,621.8
Accounts receivable and other assets	1,410.3	3.7	69.5	0.1	1,483.6
Total on-balance sheet exposure	189,131.9	84,112.2	33,760.6	4,824.7	311,829.4
Commitments					
Undrawn unsecured facilities	–	211.6	–	–	211.6
Total commitments	–	211.6	–	–	211.6
Total exposure	189,131.9	84,323.8	33,760.6	4,824.7	312,041.0

Default risk by counterparty / issuer rating

The following tables show the exposure of the Bank to default risk by class of financial asset and counterparty /issuer rating, without taking into account any impairment allowance, collateral held or other credit enhancements available to the Bank. The ratings shown reflect the Bank's internal ratings expressed as equivalent external ratings.

As at 30 September 2021

SDR millions	AAA	AA	A	BBB	BB and below	Unrated	Total
On-balance sheet exposure							
Cash and cash equivalents	26,550.9	5,656.5	24,600.6	127.7	0.7	–	56,936.4
Gold and gold loans	–	–	81.8	–	–	–	81.8
Securities purchased under resale agreements	–	18,162.5	23,201.2	23,113.4	–	–	64,477.1
Loans and advances	1,064.8	9,741.0	38,540.5	453.6	2,724.9	–	52,524.8
Government and other securities	4,467.2	42,075.0	61,099.7	12,079.9	–	–	119,721.8
Derivative financial instruments	–	521.0	4,994.3	309.4	0.4	54.0	5,879.1
Accounts receivable and other assets	–	29.7	45.3	3.2	1.6	19.7	99.5
Total on-balance sheet exposure	**32,082.9**	**76,185.7**	**152,563.4**	**36,087.2**	**2,727.6**	**73.7**	**299,720.5**
Commitments							
Undrawn unsecured facilities	–	–	–	212.7	–	–	212.7
Total commitments	**–**	**–**	**–**	**212.7**	**–**	**–**	**212.7**
Total exposure	**32,082.9**	**76,185.7**	**152,563.4**	**36,299.9**	**2,727.6**	**73.7**	**299,933.2**

As at 31 March 2021

SDR millions	AAA	AA	A	BBB	BB and below	Unrated	Total
On-balance sheet exposure							
Cash and cash equivalents	34,478.9	5,681.7	10,560.8	132.6	0.6	–	50,854.6
Gold and gold loans	–	479.4	194.1	–	–	–	673.5
Securities purchased under resale agreements	–	17,180.2	39,948.6	21,443.2	–	–	78,572.0
Loans and advances	1,409.4	9,889.3	31,151.1	413.9	2,680.7	–	45,544.4
Government and other securities	6,065.0	46,484.2	61,695.8	12,834.5	–	–	127,079.5
Derivative financial instruments	0.3	647.4	6,367.0	461.6	0.5	145.0	7,621.8
Accounts receivable and other assets	185.4	25.8	447.7	809.5	1.2	14.0	1,483.6
Total on-balance sheet exposure	42,139.0	80,388.0	150,365.1	36,095.3	2,683.0	159.0	311,829.4
Commitments							
Undrawn unsecured facilities	–	–	–	211.6	–	–	211.6
Total commitments	–	–	–	211.6	–	–	211.6
Total exposure	42,139.0	80,388.0	150,365.1	36,306.9	2,683.0	159.0	312,041.0

C. Credit risk mitigation

Netting

Netting agreements give the Bank a legally enforceable right to net transactions with counterparties under potential future conditions, notably an event of default. Such master netting or similar agreements apply to counterparties with which the Bank conducts most of its derivatives transactions, as well as to counterparties used for repurchase and reverse repurchase agreement transactions. Where required, netting is applied when determining the amount of collateral to be requested or provided, but the Bank does not typically settle assets and liabilities on a net basis during the normal course of business. As such, the amounts shown in the Bank's balance sheet are the gross amounts.

Collateral

The Bank mitigates credit risk by requiring counterparties to provide collateral. The Bank receives collateral in respect of most derivative contracts and reverse repurchase agreements and for advances made under collateralised facility agreements. During the term of these transactions, further collateral may be called or collateral may be released based on the movements in value of both the underlying instrument and the collateral that has been received. The Bank is required to provide collateral in respect of repurchase agreements and some derivative contracts.

For derivative contracts and reverse repurchase agreements, the Bank accepts as collateral high-quality sovereign, state agency and supranational securities and, in a limited number of cases, cash. For advances made under collateralised facility agreements, collateral accepted includes currency deposits with the Bank, units in the BIS Investment Pools and gold.

Under the terms of its collateral arrangements, the Bank is permitted to sell or reuse collateral received on derivative contracts and reverse repurchase agreements, but upon expiry of the transaction must return equivalent financial instruments to the counterparty. At 30 September 2021, the Bank had not sold, lent or reused any of the collateral it held (31 March 2021: nil).

The fair value of collateral held which the Bank had the right to sell was:

As at

SDR millions	**30 September 2021**	31 March 2021
Collateral held in respect of:		
Derivatives	4,113.6	5,245.7
Securities purchased under resale agreements	45,348.5	56,072.8
Total	**49,462.1**	61,318.5

Financial assets and liabilities subject to netting or collateralisation

The tables below show the categories of assets and liabilities which are either subject to collateralisation, or for which netting agreements would apply under potential future conditions such as the event of default of a counterparty.

The amount of collateral required is usually based on valuations performed on the previous business day, whereas the Bank's balance sheet reflects the valuations of the reporting date. Due to this timing difference, the valuation of collateral can be higher than the valuation of the underlying contract in the

Bank's balance sheet. The amount of the collateral obtained is also impacted by thresholds, minimum transfer amounts and valuation adjustments ("haircuts") specified in the contracts. In these tables, the mitigating effect of collateral has been limited to the balance sheet value of the underlying net asset.

Some of the securities purchased under resale agreements presented in the table below relate to the utilisation of uncommitted credit lines by the Bank's central bank customers.

The Bank also receives collateral in respect of advances under certain committed and uncommitted facilities. Such collateral can be in the form of currency deposits with the BIS, or units in BIS investment pools.

In certain derivatives transactions, the Bank has provided or received collateral in the form of cash and cash equivalents, with the corresponding balance recorded as part of other assets or other liabilities, respectively, in the balance sheet. For some dedicated mandates the Bank receives collateral from the mandate customer in respect of derivative financial instruments transacted on their behalf. This collateral is in the form of currency deposits with the BIS, and is recorded as such in the balance sheet.

As at 30 September 2021	Effect of risk mitigation					Analysed as:	
SDR millions	Gross carrying amount as per balance sheet	Adjustments for settlement date effects	Enforceable netting agreements	Collateral (received) / provided (limited to balance sheet value)	Exposure after risk mitigation	Amounts not subject to risk mitigation agreements	Amounts subject to risk mitigation agreements
Financial assets							
Securities purchased under resale agreements	64,477.1	(13,260.7)	–	(51,153.3)	63.1	–	63.1
Advances	2,795.8	–	–	(2,795.8)	–	–	–
Derivative financial instruments	5,879.1	–	(633.7)	(4,091.7)	1,153.7	95.6	1,058.1
Financial liabilities							
Securities sold under repurchase agreements	(12.7)	–	–	12.7	–	–	–
Derivative financial instruments	(1,267.1)	–	633.7	16.9	–	–	–

As at 31 March 2021	Effect of risk mitigation					Analysed as:	
SDR millions	Gross carrying amount as per balance sheet	Adjustments for settlement date effects	Enforceable netting agreements	Collateral (received) / provided (limited to balance sheet value)	Exposure after risk mitigation	Amounts not subject to risk mitigation agreements	Amounts subject to risk mitigation agreements
Financial assets							
Securities purchased under resale agreements	78,572.0	(20,437.3)	–	(58,109.5)	25.2	–	25.2
Advances	2,680.7	–	–	(2,680.7)	–	–	–
Derivative financial instruments	7,621.8	–	(1,090.7)	(5,246.3)	1,284.8	140.3	1,144.5
Financial liabilities							
Securities sold under repurchase agreements	–	–	–	–	–	–	–
Derivative financial instruments	(2,208.1)	–	1,090.7	15.7	–	–	–

As at 30 September 2021, the Bank pledged SDR 15.1 million (31 March 2021: SDR 13.0 million) of debt securities as collateral under its obligations related to derivative financial instrument contracts. The counterparties have an obligation to return these securities to the Bank.

D. Minimum capital requirements for credit risk

Exposure to sovereigns, banks and corporates

For the calculation of risk-weighted assets for exposures to sovereigns, banks and corporates, the Bank has adopted an approach that is consistent with the advanced internal ratings-based approach.

As a general rule, under this approach risk-weighted assets are determined by multiplying the credit risk exposures with risk weights derived from the relevant BCBS regulatory risk weight function using the Bank's own estimates for key inputs. These estimates for key inputs are also relevant to the Bank's economic capital calculation for credit risk.

The credit risk exposure for a transaction or position is referred to as the exposure at default (EAD). The Bank determines the EAD as the notional amount of on- and off-balance sheet credit exposures, except for securities and derivative contracts. The EAD for securities is based on market value, the EAD for derivatives is calculated using an approach consistent with the internal models method. In line with the EAD methodology for derivatives, the Bank calculates effective expected positive exposures that are then multiplied by a factor alpha as set out in the framework.

Key inputs to the risk weight function are a counterparty's estimated one-year probability of default (PD) as well as the estimated loss-given-default (LGD) and maturity for each transaction.

Due to the high credit quality of the Bank's investments and the conservative credit risk management process at the BIS, the Bank is not in a position to estimate PDs and LGDs based on its own default experience. The Bank calibrates each counterparty PD estimate through a mapping of internal rating grades to external credit assessments taking external default data into account. Similarly, LGD estimates are derived from external data. Where appropriate, these estimates are adjusted to reflect the risk-reducing effects of collateral obtained giving consideration to market price volatility, re-margining and revaluation frequency. The recognition of the risk-reducing effects of collateral obtained for derivative contracts, reverse repurchase agreements and collateralised advances is accounted for in calculating the EAD.

The table below details the calculation of risk-weighted assets. The exposures are measured taking netting and collateral benefits into account. The total amount of exposures reported in the table as at 30 September 2021 includes SDR 23.8 million for interest rate contracts (31 March 2021: SDR 50.7 million) and SDR 913.0 million for FX and gold contracts (31 March 2021: SDR 1,194.4 million). In line with the Basel Framework, the minimum capital requirement is determined as 8% of risk-weighted assets.

As at 30 September 2021

Internal rating grades expressed as equivalent external rating grades *SDR millions / percentages*	Amount of exposure *SDR millions*	Exposure-weighted PD *%*	Exposure-weighted average LGD *%*	Exposure-weighted average risk weight *%*	Risk-weighted assets *SDR millions*
AAA	31,320.1	0.01	7.5	0.9	284.0
AA	64,185.5	0.02	39.2	10.7	6,882.1
A	125,579.5	0.05	44.6	15.0	18,876.7
BBB	13,065.3	0.23	55.9	42.5	5,549.7
BB and below	66.0	78.46	58.4	127.9	84.4
Total	**234,216.4**				**31,676.7**

As at 31 March 2021

Internal rating grades expressed as equivalent external rating grades *SDR millions / percentages*	Amount of exposure *SDR millions*	Exposure-weighted PD *%*	Exposure-weighted average LGD *%*	Exposure-weighted average risk weight *%*	Risk-weighted assets *SDR millions*
AAA	41,488.3	0.01	6.8	0.7	300.7
AA	66,471.8	0.03	42.2	11.3	7,504.1
A	105,490.0	0.06	49.3	15.8	16,651.5
BBB	13,911.3	0.20	55.4	37.3	5,193.2
BB and below	201.2	79.54	58.8	136.2	274.1
Total	227,562.6				29,923.6

At 30 September 2021, the minimum capital requirement for credit risk related to exposures to sovereigns, banks and corporates was SDR 2,534.1 million (31 March 2021: SDR 2,393.9 million).

The following table summarises the impact of collateral arrangements on the amount of credit exposure after taking netting into account:

SDR millions	Amount of exposure after taking netting into account	Benefits from collateral arrangements	Amount of exposure after taking into account netting and collateral arrangements
As at 30 September 2021	300,712.2	66,495.8	**234,216.4**
As at 31 March 2021	312,777.4	85,214.8	227,562.6

Securitisation exposures

The Bank invests in securitisation exposures based on traditional, ie non-synthetic, securitisation structures. Given the scope of the Bank's activities, risk-weighted assets are determined according to the standardised approach for securitisation. Under this approach, external credit assessments of the securities are used to determine the relevant risk weights. External credit assessment institutions used for this purpose are Moody's Investors Service, Standard & Poor's and Fitch Ratings. Risk-weighted assets are then derived as the product of the market values of the exposures and the associated risk weights. In line with the BCBS framework, the minimum capital requirement is determined as 8% of risk-weighted assets.

The following table shows the Bank's investments in securitisation analysed by type of securitised assets:

As at 30 September 2021

SDR millions	External rating	Amount of exposures	Risk weight	Risk-weighted assets
Securities backed by other receivables (government-sponsored)	AAA	96.0	20%	19.2
Securities backed by mortgages		81.4	1250%	1,017.8
Total		**177.5**		**1,037.0**

As at 31 March 2021

SDR millions	External rating	Amount of exposures	Risk weight	Risk-weighted assets
Securities backed by other receivables (government-sponsored)	AAA	97.0	20%	19.4
Securities backed by mortgages		94.6	1250%	1,182.1
Total		191.6		1,201.5

At 30 September 2021, the minimum capital requirement for securitisation exposures was SDR 83.0 million (31 March 2021: SDR 96.1 million).

3. Market risk

The Bank is exposed to market risk through adverse movements in market prices. The main components of the Bank's market risk are gold price risk, interest rate risk and foreign exchange risk. The Bank measures market risk and calculates economic capital based on a VaR methodology using a Monte Carlo simulation technique. Risk factor volatilities and correlations are estimated, subject to an exponential weighting scheme, over a six-year observation period. Furthermore, the Bank computes sensitivities to certain market risk factors.

In line with the Bank's objective of maintaining its superior credit quality, economic capital is measured at the 99.99% confidence level assuming a one-year holding period. The Bank calculates the economic capital utilisation for market risk on the basis of a stressed market data set. The Bank's Management manages market risk economic capital usage within a framework set by the Board of Directors. VaR limits are supplemented by operating limits.

To ensure that models provide a reliable measure of potential losses over the one-year time horizon, the Bank has established a comprehensive regular backtesting framework, comparing daily performance with corresponding VaR estimates. The results are analysed and reported to Management.

The Bank also supplements its market risk measurement based on VaR modelling and related economic capital calculations with a series of stress tests. These include severe historical scenarios, adverse hypothetical macroeconomic scenarios and sensitivity tests of gold price, interest rate and foreign exchange rate movements.

A. Gold price risk

Gold price risk is the exposure of the Bank's financial condition to adverse movements in the price of gold.

The Bank is exposed to gold price risk principally through its holdings of gold investment assets. These gold investment assets are held in custody or placed on deposit with commercial banks. At 30 September 2021, the Bank's net gold investment assets were 102 tonnes with a value of SDR 4,093.8 million, approximately 18% of shareholders' equity (31 March 2021: 102 tonnes, SDR 3,939.6 million, representing 17% of shareholders' equity). The Bank sometimes also has small exposures to gold price risk arising from its banking activities with central and commercial banks. Gold price risk is measured within the Bank's VaR methodology, including its economic capital framework and stress tests.

B. Interest rate risk

Interest rate risk is the exposure of the Bank's financial condition to adverse movements in interest rates, including credit spreads. The Bank is exposed to interest rate risk through the interest-bearing assets relating to the management of its equity held in its investment portfolios and investments relating to its banking portfolios. The investment portfolios are managed using a fixed-duration benchmark of bonds.

The Bank measures and monitors interest rate risk using a VaR methodology and sensitivity analyses taking into account movements in relevant money market rates, government bond yields, swap rates and credit spreads.

The following tables show the impact on the Bank's equity of a 1% upward shift in the relevant yield curve per time band:

As at 30 September 2021

SDR millions	Up to 6 months	6 to 12 months	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	Over 5 years	Total
Euro	(9.5)	(17.7)	(48.4)	(28.8)	(19.3)	1.2	(6.5)	(129.0)
Japanese yen	23.8	0.6	(0.3)	0.3	–	–	–	24.3
Pound sterling	1.3	(3.4)	(9.4)	(8.4)	(5.0)	(2.2)	(2.4)	(29.5)
Renminbi	(1.0)	(2.1)	(9.1)	(5.7)	(15.0)	(11.2)	(21.1)	(65.2)
Swiss franc	19.2	(0.1)	(0.1)	(0.2)	(0.1)	(2.0)	(0.5)	16.2
US dollar	(12.3)	(16.4)	(31.6)	(29.0)	(27.9)	(33.1)	(140.5)	(290.8)
Other currencies	0.8	(0.1)	(0.4)	(1.2)	(0.3)	(0.7)	(0.3)	(2.1)
Total	**22.3**	**(39.1)**	**(99.3)**	**(73.0)**	**(67.7)**	**(47.9)**	**(171.3)**	**(476.0)**

As at 31 March 2021

SDR millions	Up to 6 months	6 to 12 months	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	Over 5 years	Total
Euro	(5.0)	(14.9)	(30.5)	(29.0)	(28.2)	(6.7)	(9.8)	(124.2)
Japanese yen	18.2	0.5	(0.1)	–	(0.2)	0.1	0.1	18.7
Pound sterling	0.3	(3.5)	(8.7)	(11.8)	(5.3)	(0.6)	(2.4)	(31.9)
Renminbi	(0.8)	(3.5)	(6.8)	(7.3)	(8.2)	(15.6)	(20.9)	(63.1)
Swiss franc	12.5	(0.1)	(0.2)	(0.2)	(0.1)	(1.7)	(1.1)	9.1
US dollar	(12.4)	(12.1)	(38.3)	(25.9)	(29.1)	(36.3)	(83.1)	(237.3)
Other currencies	(0.5)	(0.1)	(0.7)	(0.8)	(0.9)	(0.5)	(0.5)	(4.1)
Total	12.4	(33.6)	(85.3)	(74.9)	(72.1)	(61.3)	(117.9)	(432.8)

C. Foreign exchange risk

The Bank's functional currency, the SDR, is a composite currency comprising fixed amounts of USD, EUR, JPY, GBP and Renminbi. Currency risk is the exposure of the Bank's financial condition to adverse movements in exchange rates. The Bank is exposed to foreign exchange risk primarily through the assets relating to the management of its equity. The Bank is also exposed to foreign exchange risk through managing its customer deposits and through acting as an intermediary in foreign exchange transactions. The Bank reduces its foreign exchange exposures by matching the relevant assets to the constituent currencies of the SDR on a regular basis, and by limiting currency exposures arising from customer deposits and foreign exchange transaction intermediation.

D. Minimum capital requirements for market risk

For the calculation of minimum capital requirements for market risk under the Basel Framework, the Bank has adopted a banking book approach consistent with the scope and nature of its business activities. Consequently, market risk-weighted assets are determined for gold price risk and foreign exchange risk, but not for interest rate risk. The related minimum capital requirement is derived using the VaR-based internal models method. Under this method, VaR calculations are performed using the Bank's VaR methodology, assuming a 99% confidence level and a 10-day holding period for both a stressed and non-stressed market data sets.

The actual minimum capital requirement is derived as the sum of the minimum capital requirements based on the VaR calculated for both the stressed and non-stressed market data sets. For each data set, the higher of the VaR on the calculation date and the average of the daily VaR measures on each of the preceding 60 business days (including the calculation date) is used subject to a multiplication factor of three plus a potential add-on depending on backtesting results. For the period under consideration, six backtesting outliers were reported, resulting in a backtesting add-on of 0.5. The following table summarises the market risk development relevant to the calculation of minimum capital requirements and the related risk-weighted assets over the reporting period:

As at	30 September 2021			31 March 2021		
	VaR	Risk-weighted assets	Minimum capital requirement	VaR	Risk-weighted assets	Minimum capital requirement
SDR millions		(A)	(B)		(A)	(B)
Market risk, where (A) is derived as (B) / 8%	544.3	32,201.5	**2,576.1**	538.0	37,453.7	2,996.3

4. Operational risk

Operational risk is defined by the Bank as the risk of financial loss, or damage to the Bank's reputation, or both, resulting from one or more risk causes, as outlined below:

- Human factors: insufficient personnel, lack of requisite knowledge, skills or experience, inadequate training and development, inadequate supervision, loss of key personnel, inadequate succession planning, or lack of integrity or ethical standards.
- Failed or inadequate processes: a process is poorly designed or unsuitable, or is not properly documented, understood, implemented, followed or enforced.
- Failed or inadequate systems: a system is poorly designed, unsuitable or unavailable, or does not operate as intended.
- External events: the occurrence of an event having an adverse impact on the Bank but outside its control.

Operational risk includes legal risk, but excludes strategic risk.

The Bank's operational risk management framework, policies and procedures comprise the management and measurement of operational risk, including the determination of the relevant key parameters and inputs, business continuity planning and the monitoring of key risk indicators.

The Bank has established a procedure of immediate reporting for operational risk-related incidents. The Operational Transformation and Resiliency unit develops action plans with the respective units and follows up on their implementation on a regular basis.

For the measurement of operational risk economic capital and operational risk-weighted assets, the Bank has adopted a VaR approach using a VaR-based Monte Carlo simulation technique that is consistent with the advanced measurement approach. Consistent with the BCBS recommendations, the quantification of operational risk does not take into account reputational risk. Internal and external loss data as well as scenario estimates are key inputs in the calculations.

Minimum capital requirements for operational risk

The calculation of the minimum capital requirement for operational risk is determined assuming a 99.9% confidence level and a one-year time horizon. The following table shows the minimum capital requirements for operational risk, and the related risk-weighted assets:

As at	30 September 2021			31 March 2021		
	VaR	Risk-weighted assets	Minimum capital requirement	VaR	Risk-weighted assets	Minimum capital requirement
SDR millions		(A)	(B)		(A)	(B)
Operational risk, where (A) is derived as (B) / 8%	702.8	8,785.1	**702.8**	716.6	8,957.5	716.6

5. Liquidity risk

Liquidity risk arises when the Bank may not be able to meet expected or unexpected current or future cash flows and collateral needs without affecting its daily operations or its financial condition.

Outstanding balances in the currency and gold deposits from central banks, international organisations and other public institutions are the key drivers of the size of the Bank's balance sheet. The Bank is exposed to funding liquidity risk mainly because of the short-term nature of its deposits and because it undertakes to repurchase at fair value certain of its currency deposit instruments at one or two business days' notice. In line with the Bank's objective to maintain a high level of liquidity, it has developed a liquidity management framework, including a ratio, based on conservative assumptions for estimating the liquidity available and the liquidity required.

Liquidity ratio

The Bank has adopted a liquidity risk framework taking into account regulatory guidance issued by the BCBS related to the Liquidity Coverage Ratio (LCR). The framework is based on a liquidity ratio that compares the Bank's available liquidity with a liquidity requirement over a one-month time horizon assuming a stress scenario. In line with the BCBS liquidity risk framework, the underlying stress scenario combines an idiosyncratic and a market crisis. However, the liquidity ratio differs in construction from the LCR to reflect the nature and scope of the BIS banking activities – in particular, the short-term nature of the Bank's assets and liabilities. Within the Bank's liquidity framework, the Board of Directors has set a limit for the Bank's liquidity ratio which requires the liquidity available to be at least 100% of the potential liquidity requirement.

The liquidity available is determined as the cash inflow from financial instruments over a one-month horizon, along with potential additional liquidity which could be generated from the disposal of highly liquid securities, or by entering into sale and repurchase agreements for a part of the Bank's remaining unencumbered high-quality liquid securities. In calculating the amount of potential additional liquidity, an assessment is performed to identify securities which are of high credit quality and highly liquid. This is followed by a projection of the amounts that could reasonably be generated through selling these securities or entering into repurchase transactions.

The Bank determines the liquidity required as the sum of the cash outflow from financial instruments over a one-month horizon, the estimated early withdrawal of currency deposits, and the estimated drawings of undrawn facilities. As regards currency deposits, it is assumed that all deposits that mature within the time horizon are not rolled over and that a proportion of non-maturing currency deposits is withdrawn from the Bank prior to contractual maturity. At 30 September 2021, the estimated outflow of currency deposits in response to the stress scenario amounted to 44.3% (31 March 2021: 49.0%) of the total stock of currency deposits. Moreover, it is assumed that undrawn facilities committed by the Bank would be fully drawn by customers, along with a proportion of undrawn uncommitted facilities.

The following table shows the Bank's estimated liquidity available, the liquidity required and the resulting liquidity ratio:

As at *SDR billions*	**30 September 2021**	31 March 2021
Liquidity available		
Estimated cash inflows	124.6	130.9
Estimated liquidity from sales of highly liquid securities	41.2	43.2
Estimated sale and repurchase agreements	11.0	9.6
Total liquidity available (A)	**176.8**	183.7
Liquidity required		
Estimated withdrawal of currency deposits	122.2	138.3
Estimated drawings of facilities	2.7	2.7
Estimated other outflows	1.7	1.3
Total liquidity required (B)	**126.5**	142.4
Liquidity ratio (A) / (B)	**139.7%**	129.0%

For reference, the Bank also calculates an LCR following the principles set out in the guidance issued by the BCBS. At 30 September 2021, the Bank's LCR stood at 219.9% (31 March 2021: 184.8%).