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Asset and Liability Management Report as at 31 December 2022

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Useful references: IFAD Asset and Liability Management Framework (EB 2019/128/R.46); IFAD Risk Appetite Statement (EB 2021/134/R.21/Rev.1).

Action: The Executive Board is invited to take note of the Report on Asset and Liability Management as at 31 December 2022.

Technical questions:

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Executive summary

1. IFAD has implemented asset and liability management practices based on robust tools for data analysis, metric calculation and reporting of results.

2. The report highlights IFAD's exposure to interest rate risk, currency risk and liquidity risk as at 31 December 2022.

3. Main highlights:

    (a) Liquidity risk:

        (i) Liquidity ratios were in compliance with the related policy limits:

            - Minimum liquidity ratio of 118 per cent (minimum 100 per cent);
            - Liquidity ratio of 14 per cent (minimum 5 per cent);
            - Debt-service coverage ratio of 11 per cent (maximum 50 per cent); and
            - 12-month Standard & Poor's liquidity ratio of 1.3 (>1).

        (ii) The residual life of ordinary term loans largely matches that of borrowing.

        (iii) Bullet maturities[1] of private placements generate some exposure to refinancing risk in the long term (7 and 10 years).

    (b) Interest and currency risks:

        (i) Interest rate and currency risks are driven mainly by IFAD's core concessional portfolio, which is concentrated in long-term fixed rate loans denominated in special drawing rights funded primarily by equity.

        (ii) The debt-funded portion of the balance sheet remains relatively well matched in terms of currency risk.

        (iii) IFAD's balance sheet is long on United States dollar assets, with a gap of US$1 billion between assets and liabilities.

[1] A single repayment of principal on the borrowing's maturity date.

I. Implementation of the IFAD Asset and Liability Management Framework

1. The IFAD Asset and Liability Management Framework was approved by the Executive Board in December 2019.[2] Since then, Management has been working on implementation of the framework, including the enhancement of data quality, methodology, calculation tools and framework governance.

2. The Office of Enterprise Risk Management (RMO) has presented periodic reports to update the Executive Board on the operationalization of the framework, including an assessment of IFAD's balance sheet exposure to certain risks. The reports have also provided recommendations for further improvements such as periodic reporting on a full suite of asset and liability management (ALM) metrics by the Treasury Services Division (TRE).

3. As the first line of defence responsible for financial risk assessment and management, TRE has strengthened its capabilities to assess and measure risks stemming from any mismatch between assets and liabilities on IFAD's balance sheet.

4. TRE has developed a robust in-house tool for the measurement of key ALM metrics and indicators as prescribed in the ALM framework and now produces a semi-annual report to better identify and quantify exposure to liquidity, interest rate and currency risks (see annex I for a summary of ALM risks and related metrics prescribed by IFAD policy documents).

5. This report provides a quantification of IFAD's key balance sheet risks.

II. IFAD's balance sheet

6. IFAD's balance sheet has been growing in complexity over the last 10 years, mainly due to the evolution of its capital structure. While the Fund's assets are mainly funded by equity, leverage has been growing steadily since its introduction in the Ninth Replenishment of IFAD's Resources period.

7. Given IFAD's focus on concessional lending and replenishment-driven structure, as illustrated in chart 1 in appendix I, the main characteristics of IFAD's balance sheet are:

   (a) **Assets**:

      (i) 79 per cent of assets are comprised of loans, of which 79 per cent are on highly concessional terms (62 per cent of IFAD total assets);

      (ii) 14 per cent of assets are represented by the liquidity portfolio; and

      (iii) The remaining 7 per cent relates to other assets (contribution receivables, fixed or right-of-use assets and other receivables).

   (b) **Debt and equity**:

      (i) Equity and concessional partner loans (CPLs) fund 80 per cent of the balance sheet;

      (ii) Outstanding borrowing represents 19 per cent of liabilities, of which 90 per cent is non-concessional debt (private placements and sovereign borrowing loans); and

      (iii) The remaining 3 per cent relates to other liabilities (mainly payables and deferred revenues).

[2] EB 2019/128/R.46.

III. Liquidity risk

8. IFAD minimizes liquidity risk by holding sufficient liquid assets to enable it to meet cash outflow requirements in a timely manner and ensure compliance with the minimum liquidity requirement (MLR) and other financial ratios, without having to resort to requests for additional funding from Member States.

9. As at 31 December 2022, IFAD's liquidity after application of liquidity haircut (stressed liquidity) over the MLR was 118 per cent, which was in compliance with IFAD's Liquidity Policy.[3]

10. Liquidity ratios of credit rating agencies are also monitored as a complementary tool for liquidity management. The Standard and Poor's (S&P) liquidity ratio stood at 1.3 for 12 months and 2.7 for six months,[4] which is considered strong by S&P (see table 1 in appendix II for a summary of key liquidity metrics).

11. IFAD's undisbursed balance is comprised of cumulative approved, but not yet disbursed, loans and grants. The undisbursed balance stood at US$4.4 billion as of the report date. Any maturity mismatch between debt and loan assets funded by debt increases liquidity and refinancing risks. Maturity gap analysis monitors the alignment between the average tenor of debt and loans to identify refinancing risk and funding gaps.

12. Charts 2 in appendix I show the repayment profile of the debt stock and its repayment concentration. The bullet maturities of private placements are visible in 2029 and 2037. Specifically, the debt repayment due in 2029 is 9 per cent of the total future debt principal and interest repayments

13. Charts 3 in appendix I show that more than 90 per cent of borrowing has maturities of less than 20 years and 76 per cent has a floating interest rate, broadly aligned to the terms of ordinary loans.

14. One of the pillars of the Integrated Borrowing Framework is that proceeds from borrowing must be used to finance IFAD's loan assets at the prevailing pricing conditions, ensuring no subsidy from IFAD's own resources.

15. This condition is met when the average cost of funding is the same or lower than the all-in interest rate charged on loan assets that are financed by borrowing.[5] As at 31 December 2022, this was the case, as the weighted-average spread differential between ordinary term loans and borrowing was positive for both United States dollars (37 bps) and euros (56 bps), as shown in table 2 in appendix II.

16. The residual life of ordinary term loans is slightly shorter than the residual life of borrowing (excluding debt at concessional terms).[6]

17. Table 3 in appendix II shows the maturity bucket by borrowing and confirms that borrowing is mainly matched to debt-funded assets (ordinary term loans) for the maturity buckets up to five years. In longer tenor buckets, however, bullet maturities of private placements in 2029 and 2037 widen the gap, generating exposure to refinancing risk in the long term.

[3] EB 2020/131(R)/R.20.
[4] Ratios calculated by TRE based on S&P methodology. Official ratios will be published by S&P later this year.
[5] Management has proposed to update its ordinary loan pricing methodology with a funding cost pass-through (FCPT) mechanism to pass on IFAD's cost of funding to borrowers when pricing ordinary loans. The FCPT mechanism was approved by the Executive Board in May 2023.
[6] Contractual maturity is the period from the issue date to the redemption date. Residual maturity is the period from the reference date (31 December 2022 for this report) to the redemption date.

IV. Interest rate risk

18. IFAD's interest rate risk management objective is to reduce the risk of loss resulting from a mismatch of duration[7] between assets (investment portfolio[8] and loan portfolio) and liabilities (borrowing).

19. The current approach to interest rate risk management is based on the following principles:

    (a) Regular grants and grants for countries in debt distress are financed by contributions.

    (b) Fixed-rate loan assets (highly/super highly concessional and blend term loans) are financed by equity and by fixed-rate liabilities at concessional terms, i.e. CPLs.

    (c) Ordinary term loans are funded by non-concessional debt.

20. IFAD's balance sheet has a positive duration gap of 6.1 years with an economic value of equity (EVE) of US$7.2 billion (chart 4 in appendix I and table 4a in appendix II). This means that if interest rates go up, the value of assets will decrease more than the value of liabilities.

21. It is important to note that the interest rate risk is driven by loan assets funded by equity (table 4b, appendix II), while for assets funded by borrowing the duration gap is negligible (table 4c, appendix II). This is because the majority of assets are long-dated, fixed-rate loans (mainly on highly concessional and blend terms) that are more sensitive to changes in interest rates because of their long duration. The small duration gap for the balance sheet funded by debt is mainly due to two concessional and fixed-rate sovereign loans from Canada totalling US$340 million, similar to CPLs and not swapped to floating rate.

22. The potential impact of stressed scenarios for interest rate changes on IFAD equity was simulated through a sensitivity analysis of EVE, which included an increase (steepening) or decrease (flattening) in the baseline forward curve slope by 2.5 times.

23. One of these scenarios considers a 100 basis point (or 1 per cent) increase in global interest rates, and would reduce IFAD's EVE by US$419 million, while a decrease by 100 basis points would increase EVE by US$478 million (table 5, appendix II).

24. An increase in the interest rate of 300 basis points would impact IFAD's EVE negatively by US$1.1 billion. Conversely, a decrease of 300 basis points in the interest rate would increase IFAD's EVE by US$1.5 billion (table 5, appendix II).

25. With regards to repricing gap analysis (see tables 5a and 5b in appendix II), IFAD had a positive gap for the first year of US$1.1 billion. This means that when rates rise, IFAD's revenues are likely to rise – this makes the IFAD balance sheet asset-sensitive to changes in interest rates. The main contributors to the positive gap are the liquidity and investment portfolio and ordinary loans, partially offset by the repricing of borrowing.

26. The sensitivity analysis of net interest income shows that, overall, an increase (decrease) in the interest rate by 100 basis points would generate an additional US$9 million in income (US$8 million in expenses).

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[7] Duration represents the weighted average time to repricing of an asset or liability, where the weights are discounted cash flows. The duration gap is the difference between the duration of assets, weighted by United States dollar value of assets, and the duration of liabilities, weighted by United States dollar value of liabilities.

[8] The portfolio's conditional value at risk was 0.82 per cent, within the risk tolerance level of 3 per cent defined in the Investment Policy Statement. The portfolio duration was 0.20 years and the dollar duration (DV01) was US$33,160 (EB 2023/138/R.21).

27. For the debt-funded part of the balance sheet, the net interest income impact of such a change would be US$3 million of income (US$3 million loss), therefore showing a lower sensitivity to the change in interest rates due to the lower repricing gap between debt and debt-funded assets.

V. Currency risk

28. Currency risk arises from the potential for losses stemming from changes in foreign exchange rates. IFAD's equity is exposed to foreign exchange risk to the extent that assets and liabilities are denominated in different currencies.

29. As shown in table 6 in appendix II, IFAD's balance sheet is still mainly denominated in special drawing rights (SDR), since the majority of outstanding loan assets are denominated in the SDR currency. For other currencies, assets and liabilities show some positive gaps for the euro (49 million), Japanese yen (58 million) and Chinese yuan renminbi (57 million), with the biggest gap for the United States dollar (992 million).

30. Tables 6a and 6b in appendix II show that the main currency exposure is driven by SDR-denominated concessional loans funded by equity.

31. While the undisbursed loan balances are denominated mainly in euros and United States dollars, most outstanding disbursed loans are denominated in SDR, mainly on highly concessional terms. This is the legacy of lending in SDR as the main denomination currency before IFAD's single-currency lending became effective in 2016, which allowed IFAD borrowers to denominate new financing in United States dollars or euros as an alternative to SDR.

32. The current currency alignment approach requires cash flow analysis over the next 24 months to ensure that IFAD has enough of each currency to fund the projected outflows in that currency. In case of a deficit for any currency above 10 per cent of total projected outflows, TRE puts in place a currency forward to hedge the exposure above the limit. Table 7 in appendix II shows the projected currency composition as at 31 December 2022. No currency gap outside of the 10 per cent threshold was observed.

VI. Conclusions

33. IFAD's ALM has been implemented and reporting on balance sheet risk exposures by TRE has started.

34. As IFAD's assets and liabilities are expected to have a more diversified profile in the future, perfect matching will not always be possible.

35. It is important to note that the structure of IFAD's balance sheet will continue to reflect its mission to focus on long-dated, fixed-interest rate, highly concessional lending on the asset side, which are the main source of gaps for interest rate risk and currency risk.

36. Based on the composition of the balance sheet as of the end of 2022, exposure to ALM risks was still relatively low and manageable. In line with best ALM practices, Management will actively monitor the evolution of IFAD's balance sheet and report on any exposure semi-annually.

Asset and liability management metrics

1. The ALM framework is structured around the following overarching principles:

   (a) **To maintain sufficient liquidity to meet IFAD's obligations,** i.e. disbursement obligations to IFAD's clients and the servicing of IFAD's outstanding debt;

   (b) **To protect IFAD from fluctuations in interest rates** in order to reduce volatility in earnings and preserve IFAD's capital; and

   (c) **To adequately manage the currency composition of its assets and liabilities** to limit losses deriving from fluctuations or adverse reduction in the financing capacity of IFAD

Table 1
Summary of ALM risks and related metrics

Risk exposure	*Risk definition*	*Risk identification and assessment*	*ALM metrics*
Liquidity	Potential impact on credit strength and reputation due to inability to meet cash flow needs in a timely manner	Maturity mismatch between assets and liabilities Mismatch between availability of sources and required uses of funds	• **Maturity gap** • **Liquidity gap** • **Liquidity ratios**
Interest rate	Potential for loss due to adverse movements in interest rates	Exposure and sensitivity of IFAD balance sheet to interest rate risk	• **Duration gap** • **Repricing gap** • **Net interest income** • **Economic value of equity**
Currency	Potential for losses due to changes in foreign exchange rates	Net currency position analysis for IFAD balance sheet	• **Currency gaps**

2. The metrics in table 1 (appendix II) are calculated by an ALM engine developed in house. Data input is gathered from financial market data providers, such as Bloomberg and the International Monetary Fund (IMF), as well as data output from IFAD's financial model.

3. This set-up achieves two main objectives:

   (a) It increases efficiency because of economies of scale, as the IFAD financial model projects cash flows of assets and liabilities required for ALM calculations; and

   (b) It ensures consistency of financial reporting across the different functions of liquidity forecast and planning and ALM, as the same data input and output are shared between the two models.

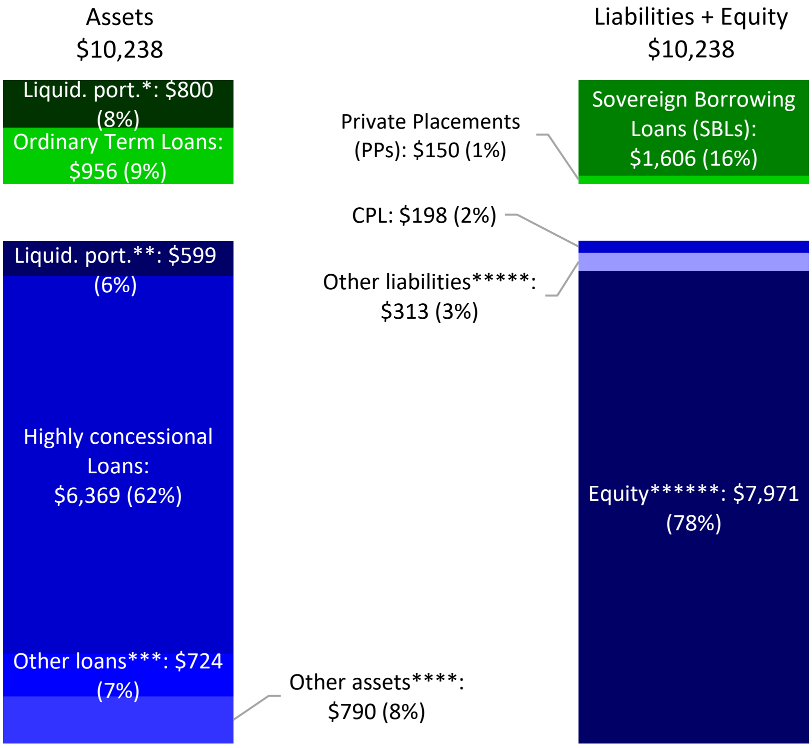
Key assumptions

1. Cut-off date: 30 December 2022.
2. All analysis based on IFAD-only balance sheet (excluding supplementary funds).
3. Static ALM approach: only existing items and their projected cash flows were considered, i.e. no planned business, unless stated otherwise.
4. Undisbursed loans and pledges without instruments of contribution or promissory notes were considered as off-balance sheet items.
5. Discount curves were derived from overnight index swaps. Net present value was converted to United States dollars, as the reporting currency, using the spot rate as of the cut-off date.
6. In the absence of a benchmark yield curve for SDR, the IMF approach was used – the currency value of the SDR is determined by summing the values in United States dollars based on market exchange rates of a weighted basket of major currencies (United States dollar, euro, Japanese yen, pound sterling and Chinese yuan renminbi).
7. Interest rate indices: Secured Overnight Financing Rate (SOFR) for the United States dollar, Euro Interbank Offered Rate (EURIBOR) for the euro, Shanghai Interbank Offered Rate (SHIBOR) for the Chinese yuan renminbi, Tokyo Overnight Average Rate (TONAR) for the Japanese yen and Sterling Overnight Index Average (SONIA) for pound sterling (unless stated otherwise).[9]
8. No amortization of equity was assumed.
9. To generate interest on ordinary loans with floating interest rates, the zero-floor policy was considered (the pricing element linked to the variable spread on International Bank for Reconstruction and Development funding cost was projected as flat).
10. The parallel shocks for the stress scenarios are equal for all forward rates curves, e.g. the 100 bps shock was the same for SOFR and six-month EURIBOR.
11. The cash flows for IFAD loans take into account projected cancellations and disbursement caps.

[9] For pricing IFAD loans linked to a market-based variable reference rate, SOFR was used rather than six-month LIBOR as part of the transition to SOFR since April 2022 (EB 2021/134/INF.5).

Chart 1 – IFAD schematic balance sheet

As of December 31, 2022. All figures in US$ million[10]



Footnotes:

(*) Computed as residual from Total Debt (SBLs+PPs) - Ordinary Term Loans

(**) Computed as residual of the Total Liquidity Portfolio - Liquidity Portfolio funded by Borrowing

(***) Other loans consists of Hardened Term, Intermediate Term, Debt Settlement and Blend Loans

(****) Other assets consists of Contribution and Other Receivables, Fixed and Intangible Assets, and Right-of-Use-Assets

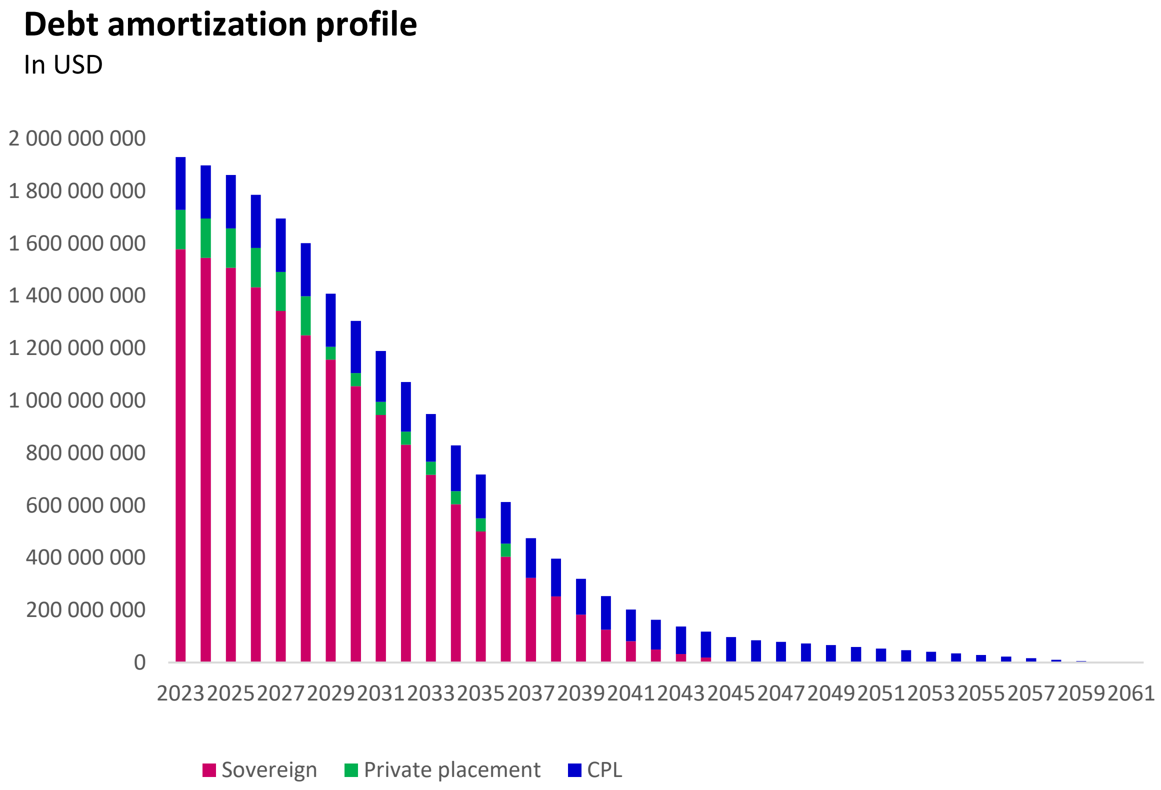
(*****) Other liabilities consists of Undisbursed Grants, Deferred Revenues, Payables, and other liabilities

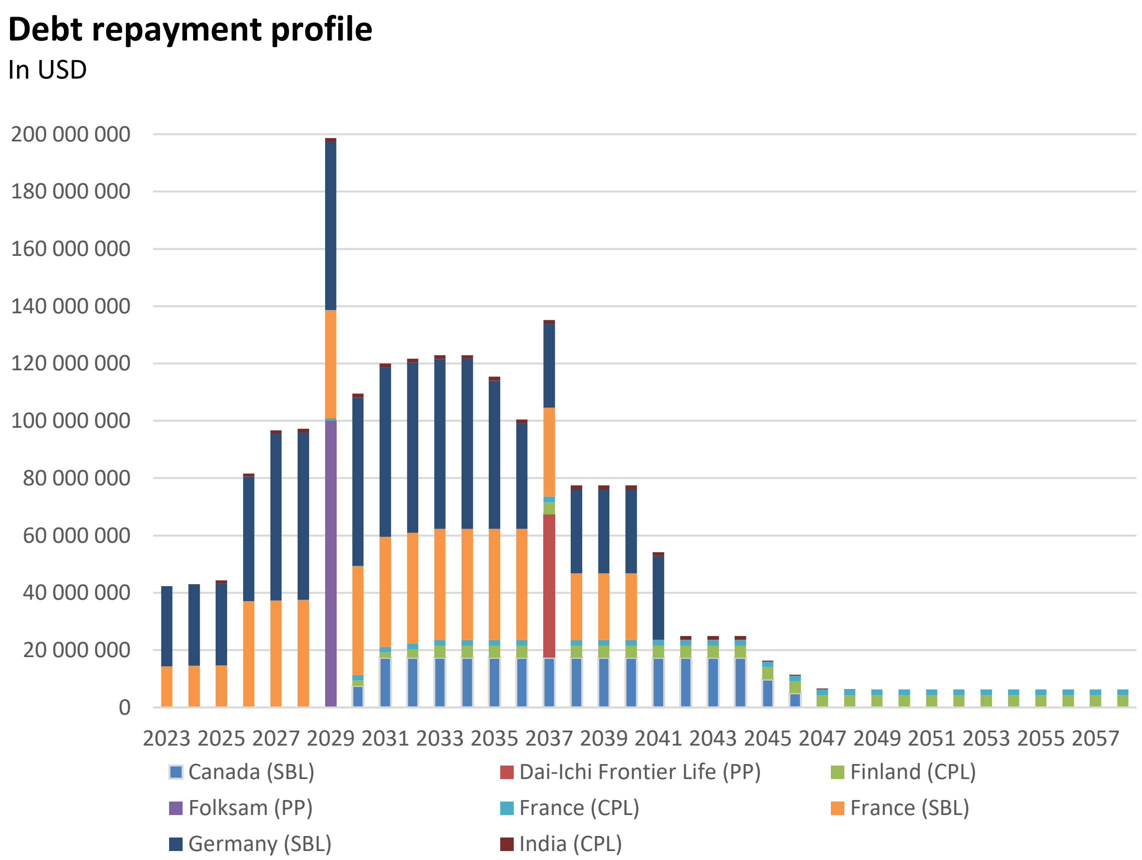
(******) Computed as Total Assets - Total Liabilities

Source: IFAD TRE

[10] Figures for some minor balance sheet items presented throughout this report do not perfectly match the accounting information in IFAD-only financial statement due to assumptions used for financial projections that are different from accounting assumptions.

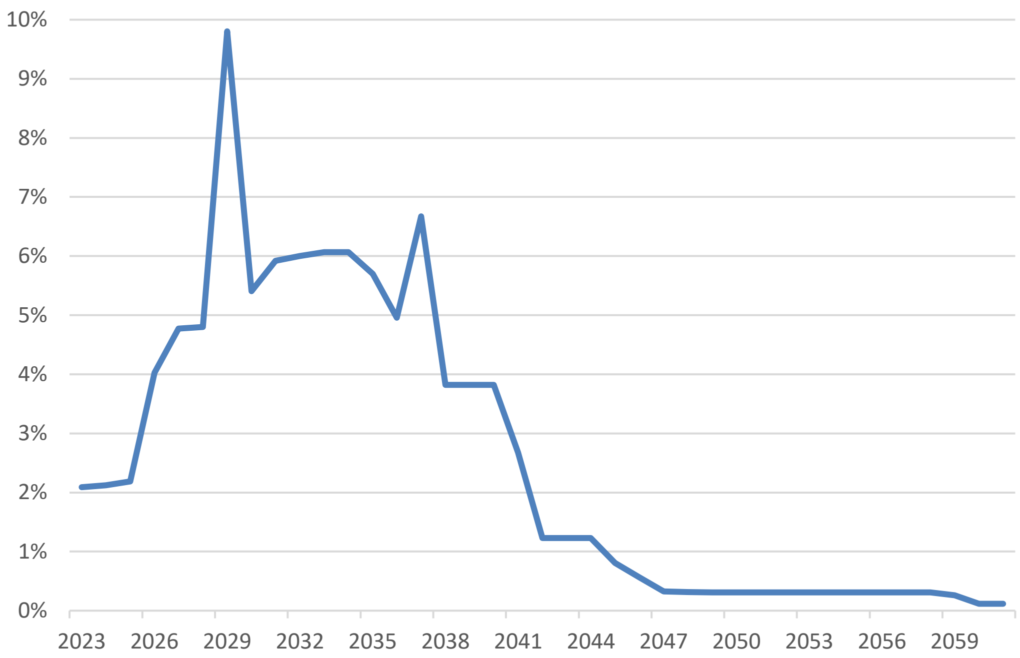
Charts 2 – Maturity profile of debt stock and repayment concentration



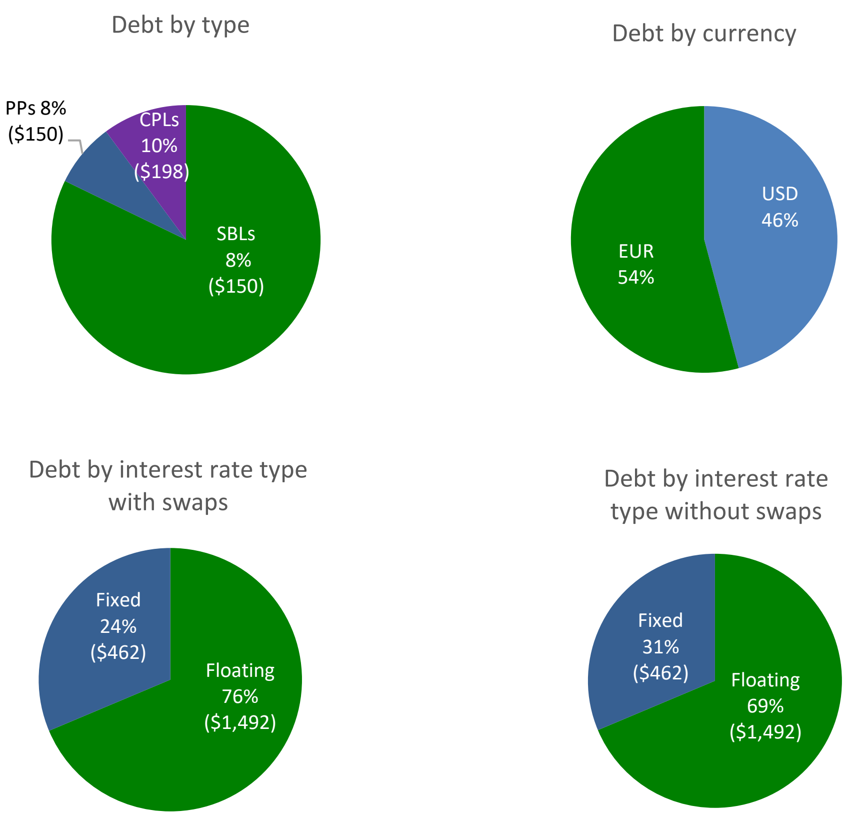


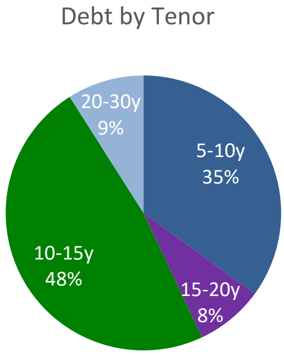
Debt concentration

Debt principal repayment as a share of total debt services



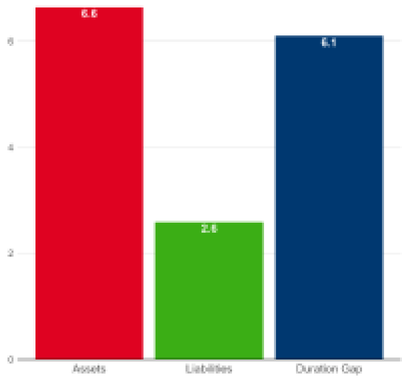
Charts 3 – IFAD debt stock statistics



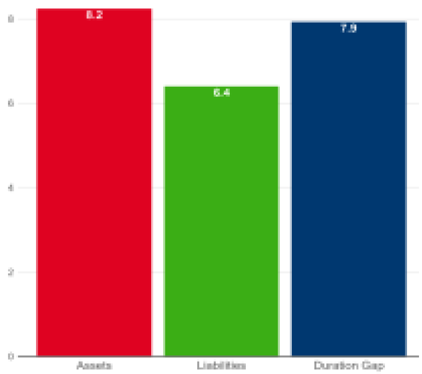


Charts 4 – Duration gap

All Balance sheet items



Balance sheet items funded by equity



Balance sheet items funded by borrowing

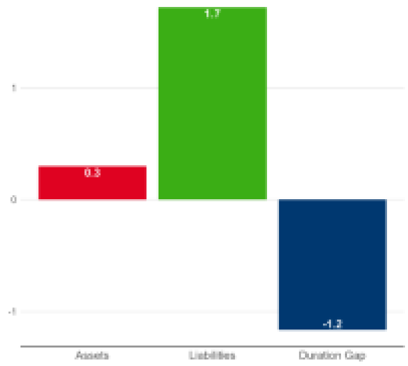


Table 1 – Key liquidity metrics

Metric	Value	Limit
IFAD Liquidity (USD million)	1 445	-
IFAD stressed liquidity (USD million)	1 179	-
Liquidity haircut (percent)	18.4	-
Liquidity haircut (USD million)	266	
MLR[11] (USD million)	997	-
MLR ratio (percent)	118	100
Liquidity ratio (percent)	14.5	>5
Debt-service coverage ratio (percent)	10.5	<50
S&P liquidity ratio (12 months)	1.3	>1

Table 2 – Maturity gap and interest rate spread analysis by currency

Ordinary Loans and Debt statistics: terms and spreads
Floating rate instruments only. Weighted by outstanding amount

Currency	Remaining Tenor (years)			IR Spread (bps)		
	Loans (c)	Debt (d)	Gap (c-d)	Loans (e)	Debt (f)	Gap (e-f)
EUR	6.9	8.2	**−1.3**	94.7	39.2	**55.5**
USD	8.5	10.9	**−2.4**	107.5	70.6	**36.8**
XDR	4.6	-	**4.6**	98	-	**98**

Source: IFAD TRE
Note 1: Excludes loans suspended, CPL debts and concessional fixed-rate loans from Canada. Includes Venezuela loan.
Note 2: WA IR Spread are expressed on top of the benchmark rate (EUR: EURIBOR 6M; USD: SOFR; SDR: SDR weighted rate based on O/N SOFR, O/N TONA, O/N SONIA + applicable spread adjustment for O/N rates, EURIBOR 6m and SHIBOR 6M)

Table 3 – Maturity gap by maturity bucket[12]

Maturity gap - ON-BS items only
As of 31 December 2022 - In million USD

				Weighted Average Li	
Bucket	Assets	Liabilities	Gap	Assets	Liabilitie
0 to 15 D	1,398	1	1,397	0.00	0.0
16 to 30 D	30	1	26	0.00	0.0
31 to 60 D	180	1	175	0.00	0.0
61 to 90 D	107	11	95	0.00	0.0
91 to 180 D	184	30	155	0.01	0.0
181 to 360 D	288	53	235	0.02	0.0
1 to 2 y	791	100	691	0.10	0.0
2 to 3 y	523	70	453	0.12	0.0
3 to 5 y	995	261	735	0.35	0.4
5 to 10 y	2,367	767	1,599	1.57	2.3
More than 10 y	4,555	1,168	3,387	6.07	7.21
Total	**11,418**	**2,464**	**8,954**		

Note: Doesn't include Other Assets and Liabilities
Source: IFAD TRE

Maturity gap - ON-BS items only, funded by Equity
As of 31 December 2022 - In million USD

				Weighted Average Life	
Bucket	Assets	Liabilities	Gap	Assets	Liabilities
0 to 15 D	599	0	599	0.00	0.00
16 to 30 D	28	1	26	0.00	0.00
31 to 60 D	173	1	172	0.00	0.00
61 to 90 D	100	2	95	0.00	0.00
91 to 180 D	144	4	140	0.01	0.01
181 to 360 D	228	9	219	0.02	0.02
1 to 2 y	670	15	655	0.11	0.08
2 to 3 y	409	11	398	0.11	0.10
3 to 5 y	761	14	747	0.33	0.20
5 to 10 y	1,884	29	1,856	1.53	0.78
More than 10 y	4,371	192	4,178	7.10	10.51
Total	**9,365**	**278**	**9,087**		

Note: Doesn't include Other Assets and Liabilities
Source: IFAD TRE

Maturity gap - ON-BS items only, funded by Borrowing
As of 31 December 2022 - In million USD

				Weighted Average Life	
Bucket	Assets	Liabilities	Gap	Assets	Liabilities
0 to 15 D	800	1	798	0.01	0.00
16 to 30 D	2	0	2	0.00	0.00
31 to 60 D	7	0	7	0.00	0.00
61 to 90 D	7	9	−3	0.00	0.00
91 to 180 D	40	25	15	0.01	0.00
181 to 360 D	60	44	16	0.02	0.02
1 to 2 y	122	85	37	0.09	0.06
2 to 3 y	115	59	56	0.14	0.07
3 to 5 y	234	247	−13	0.46	0.46
5 to 10 y	482	739	−257	1.78	2.56
More than 10 y	184	976	−792	1.36	6.79
Total	**2,052**	**2,186**	**−133**		

Note: Doesn't include Other Assets and Liabilities
Source: IFAD TRE

[11] The MLR is calculated as the sum of next 12-month disbursements (USD 920 million) and debt service (USD 77 million).
[12] It includes all assets and liabilities projected cash flows, e.g., future accrued interests and operating expenses, slotted in maturity buckets at their present value.

Table 4.a – Duration gap and EVE of IFAD balance sheet

Duration Gap

As of 31 December 2022 - In million USD

Item type	Item sub type	IR Type	Economic Value[1]	Weighted Duration (years)[2]	Yield Based DV01[3]	Duration Attribution
Assets						
Contributions	Pledges and IOC/PN	-	826	1.0	0.1	1%
Investments (cash+bonds+swaps)	Investments (cash+bonds+swaps)	Both	[4] 1,452	0.2	0.0	<1%
Loans	Blend	Fixed	482	8.3	0.4	7%
Loans	Hardened terms	Fixed	31	4.1	0.0	<1%
Loans	Highly concessional	Fixed	5,013	10.8	5.3	90%
Loans	Intermediate terms	Fixed	152	4.1	0.1	1%
Loans	Ordinary	Floating	1,014	0.3	0.0	<1%
Other assets	Other receivables	-	156	-	0.0	-
Sub total	-	-	**9,126**	**6.6**	**5.9**	**100%**
Liabilities						
Debt	CPL	Fixed	118	19.3	0.2	46%
Debt	Private placement	Fixed	147	7.7	0.1	23%
Debt	Sovereign	Fixed	162	14.4	0.2	47%
Debt	Sovereign	Floating	1,250	0.3	0.0	7%
Debt	Swaps	Fixed	-147	7.7	-0.1	-23%
Debt	Swaps	Floating	156	<0.1	0.0	<1%
Other liabilities[5]	Other liabilities	-	238	-	0.0	-
Sub total	-	-	**1,923**	**2.6**	**0.5**	**100%**
Total	-	-	**7,202**	[6] **6.1**	**5.4**	**100%**

[1] Present value of future cash flows except otherwise noted, discounted with swap curve prevailing at the cut-off date

[2] Macaulay durations for each individual item, then grouped and weighted by market value

[3] Yield-based DV01 = Modified Duration x Market Value / 10,000. This metrics shows the potential loss as a result of an increase of 1bp in IR and it's normally expressed as a positive value (thus, a negative value in the yield-based DV01 would represent a gain).
Modified Duration = Duration / (1+yield), where yield are par rates built fron the OIS Swap Curve prevailing at the cutoff-date

[4] Cash at outstanding amount and bonds and swaps at market value

[5] Includes deferred revenues, payables and other liabilities

[6] Duration Gap = Asset Duration - (Liabilities Duration x Market Value Liabilities / Market Value Assets)

Source: IFAD TRE

Table 4.b – Duration gap for equity funded balance sheet

Duration Gap - Items funded by equity

As of 31 December 2022 - In million USD

Item type	Item sub type	IR Type	Economic Value[1]	Weighted Duration (years)[2]	Yield Based DV01[3]	Duration Attribution
Assets						
Contributions	Pledges and IOC/PN	-	826	1.0	0.1	1%
Investments (cash+bonds+swaps)	Investments (cash+bonds+swaps)	Both	[4] 622	0.2	0.0	<1%
Loans	Blend	Fixed	482	8.3	0.4	7%
Loans	Hardened terms	Fixed	31	4.1	0.0	<1%
Loans	Highly concessional	Fixed	5,013	10.8	5.3	90%
Loans	Intermediate terms	Fixed	152	4.1	0.1	1%
Other assets	Other receivables	-	156	-	0.0	-
Sub total	-	-	**7,282**	**8.2**	**5.8**	**100%**
Liabilities						
Debt	CPL	Fixed	118	19.3	0.2	100%
Other liabilities[5]	Other liabilities	-	238	-	0.0	-
Sub total	-	-	**356**	**6.4**	**0.2**	**100%**
Total	-	-	**6,926**	[6] **7.9**	**5.6**	**100%**

[1] Present value of future cash flows except otherwise noted, discounted with swap curve prevailing at the cut-off date

[2] Macaulay durations for each individual item, then grouped and weighted by market value

[3] Yield-based DV01 = Modified Duration x Market Value / 10,000. This metrics shows the potential loss as a result of an increase of 1bp in IR and it's normally expressed as a positive value (thus, a negative value in the yield-based DV01 would represent a gain).
Modified Duration = Duration / (1+yield), where yield are par rates built fron the OIS Swap Curve prevailing at the cutoff-date

[4] Cash at outstanding amount and bonds and swaps at market value

[5] Includes deferred revenues, payables and other liabilities

[6] Duration Gap = Asset Duration - (Liabilities Duration x Market Value Liabilities / Market Value Assets)

Source: IFAD TRE

Table 4.c – Duration gap for debt-funded balance sheet

Duration Gap - Items funded by Borrowing

As of 31 December 2022 - In million USD

Item type	Item sub type	IR Type	Economic Value[1]	Weighted Duration (years)[2]	Yield Based DV01[3]	Duration Attribution
Assets						
Investments (cash+bonds+swaps)	Investments (cash+bonds+swaps)	Both	[4] 830	0.2	0.0	37%
Loans	Ordinary	Floating	1,014	0.3	0.0	63%
Sub total	-	-	**1,844**	**0.3**	**0.1**	**100%**
Liabilities						
Debt	Private placement	Fixed	147	7.7	0.1	42%
Debt	Sovereign	Fixed	162	14.4	0.2	86%
Debt	Sovereign	Floating	1,250	0.3	0.0	13%
Debt	Swaps	Fixed	−147	7.7	−0.1	−42%
Debt	Swaps	Floating	156	<0.1	0.0	<1%
Sub total	-	-	**1,567**	**1.7**	**0.3**	**100%**
Total	-	-	**277**	[5] **−1.2**	**−0.2**	**100%**

[1] Present value of future cash flows except otherwise noted, discounted with swap curve prevailing at the cut-off date

[2] Macaulay durations for each individual item, then grouped and weighted by market value

[3] Yield-based DV01 = Modified Duration x Market Value / 10,000. This metrics shows the potential loss as a result of an increase of 1bp in IR and it's normally expressed as a positive value (thus, a negative value in the yield-based DV01 would represent a gain).
Modified Duration = Duration / (1+yield), where yield are par rates built fron the OIS Swap Curve prevailing at the cutoff-date

[4] Cash at outstanding amount and bonds and swaps at market value

[5] Duration Gap = Asset Duration - (Liabilities Duration x Market Value Liabilities / Market Value Assets)

Source: IFAD TRE

Table 5 – EVE sensitivities

Economic Value of Equity - All BS items

As of 31 December 2022 - In million USD

Economic Value of Equity

As of 31 December 2022 - In million USD

Maturity Bucket	Nominal Value[1]	Economic Value of Assets[2]	Economic Value of Liabilities[2]	Economic Value of Equity (EVE)[2]	DV01 Inc. concess. items	DV01 Exc. concess. items	Sensitivity Analysis: Parallel -100bps	Parallel -200bps	Parallel -300bps	Parallel +100bps	Parallel +200bps	Parallel +300bps	Steepening[3]	Flattening[3]
At sight	7,337	573	238	335	0	0	0	0	0	0	0	0	0	0
1-6M	267	634	37	597	0	0	−3	−7	−10	4	7	11	1	−1
7-12M	49	454	44	400	0	0	1	2	3	−1	−2	−4	−1	1
1-2Y	286	1,096	80	1,015	0	0	10	20	29	−10	−19	−29	−22	22
2-3Y	32	693	54	639	0	0	9	18	27	−9	−19	−28	−21	21
3-4Y	0	676	102	574	0	0	18	38	54	−18	−35	−51	−24	24
4-5Y	0	494	110	384	0	0	17	34	51	−16	−32	−47	−15	15
5-10Y	0	1,858	574	1,284	−1	0	92	184	283	−87	−168	−244	−58	60
10-15Y	0	1,187	421	766	−1	0	89	178	275	−80	−151	−215	−40	42
15-20Y	0	727	184	543	−1	0	87	178	279	−74	−138	−194	−30	33
+20Y	0	734	79	655	−1	0	160	349	553	−127	−229	−310	25	−25
Total	**7,971**	**9,126**	**1,923**	**7,202**	-	-	-	-	-	-	-	-	-	-
Change in Economic Value (in mill. USD)	-	-	-	-	**−4**	**0**	**478**	**991**	**1,545**	**−419**	**−787**	**−1,110**	**−185**	**193**
Change in Economic Value (as % of Nominal)	-	-	-	-	**0**	-	**6**	**12**	**19**	**−5**	**−10**	**−14**	**−2**	**2**

[1] Includes balances outstanding for investment, Loans, Debt and Other Assets and Liabilities, and contributions receivables (IOC/PN)

[2] Present value of future cash flows discounted at the forward curve prevailing at the cut-off date

[3] An increase (steepening) or decrease (flatteing) of the baseline forward curve slope by 2.5 times

Note: including disbursed items only.
Source: IFAD TRE

Table 5.a - Repricing gap and net interest income sensitivity of IFAD balance sheet

NII Sensitivity Analysis - All BS items

As of 31 December 2022 - In million USD, by maturity bucket

				Sensitivity Analysis								
	Assets	Liabilities	Gap	Steepening	Flattening	+1bps	+100bps	+200bps	+300bps	-100bps	-200bps	-300bps
At sight	417	0	417	−4	4	0	4	8	13	−4	−8	−12
1M	140	322	−182	1	−1	0	−2	−4	−5	2	3	5
2M	249	0	249	−1	1	0	2	4	7	−2	−4	−6
3M	483	201	282	−1	1	0	2	4	7	−2	−4	−7
4M	242	0	242	−1	1	0	2	3	5	−2	−3	−5
5M	441	454	−13	0	0	0	0	0	0	0	0	0
6M	344	499	−155	0	0	0	−1	−2	−3	1	2	3
7M	105	0	105	0	0	0	0	1	1	0	−1	−1
8M	18	0	18	0	0	0	0	0	0	0	0	0
9M	56	0	56	0	0	0	0	0	0	0	0	0
10M	49	0	49	0	0	0	0	0	0	0	0	0
11M	46	0	46	0	0	0	0	0	0	0	0	0
12M	0	0	0	0	0	0	0	0	0	0	0	0
Repricing Gap	**2,589**	**1,477**	**1,113**	**−6**	**6**	**0**	**9**	**17**	**26**	**−8**	**−17**	**−25**

Source: IFAD TRE

Table 5.b - Repricing gap and net interest income sensitivity of assets funded by borrowing

NII Sensitivity Analysis - BS items funded by Borrowing

As of 31 December 2022 - In million USD, by maturity bucket

				Sensitivity Analysis								
	Assets	Liabilities	Gap	Steepening	Flattening	+1bps	+100bps	+200bps	+300bps	-100bps	-200bps	-300bps
At sight	238	0	238	−2	2	0	2	5	7	−2	−5	−7
1M	95	322	−227	2	−2	0	−2	−4	−7	2	4	8
2M	179	0	179	−1	1	0	2	3	5	−2	−3	−5
3M	361	201	160	−1	1	0	1	3	4	−1	−3	−4
4M	178	0	178	0	0	0	1	3	4	−1	−3	−4
5M	324	454	−130	0	0	0	−1	−2	−2	1	2	2
6M	296	499	−203	0	0	0	−1	−2	−3	1	2	3
7M	55	0	55	0	0	0	0	1	1	0	−1	−1
8M	0	0	0	0	0	0	0	0	0	0	0	0
9M	16	0	16	0	0	0	0	0	0	0	0	0
10M	15	0	15	0	0	0	0	0	0	0	0	0
11M	9	0	9	0	0	0	0	0	0	0	0	0
12M	0	0	0	0	0	0	0	0	0	0	0	0
Repricing Gap	**1,766**	**1,476**	**290**	**−2**	**2**	**0**	**3**	**5**	**8**	**−3**	**−5**	**−8**

Source: IFAD TRE

Table 6 – Balance sheet net currency position

Net Position by Currency - ON-BS items only

As of 31 December 2022 - Outstanding balances, in million USD

Currency	Assets	Liabilities	Net Position	Share
SDR	6,649	10	6,639	83%
USD	2,150	1,158	992	12%
EUR	1,147	1,099	49	1%
JPY	58	0	58	1%
GBP	−11	0	−11	−0%
CNY	57	0	57	1%
SEK	50	0	50	1%
CAD	44	0	44	1%
NOK	43	0	43	1%
CHF	50	0	50	1%
Others	0	0	0	0%
Total	**10,238**	**2,266**	**7,971**	**100%**

Source: IFAD TRE

Table 6a. –Net currency position of assets funded by equity

Net Currency Position - ON-BS items only, funded by Equity

As of 31 December 2022 - Outstanding balances, in million USD

Item type	Item sub type	USD	EUR	CNY	JPY	GBP	SDR	Total
Assets								
Contributions	IOC - PN	195	324	56	58	-	-	**634**
Investments (cash+bonds)	Cash	142	36	0	0	1	-	**178**
Investments (cash+bonds)	Investments	228	192	-	-	-	-	**420**
Loans outstanding	Blend	264	26	-	-	-	245	**534**
Loans outstanding	Hardened terms	-	-	-	-	-	34	**34**
Loans outstanding	Highly concessional	440	134	-	-	-	5,796	**6,369**
Loans outstanding	Intermediate terms	-	-	-	-	-	156	**156**
Other assets	Other receivables	182	−36	0	0	−12	22	**156**
Sub total	-	**1,450**	**676**	**57**	**58**	**−11**	**6,252**	**8,482**
Liabilities								
Debt	CPL	27	171	-	-	-	-	**198**
Other liabilities	Other liabilities	205	30	-	0	0	3	**238**
Undisbursed Grants	Grant	58	10	-	-	-	7	**75**
Sub total	-	**289**	**211**	-	**0**	**0**	**10**	**511**
Net Position	-	**1,161**	**465**	**57**	**58**	**−12**	**6,242**	**7,971**

Note: Following the current procedure, NOK, SEK, CHF were grouped in the EUR column (representing 29% of the Euro Net Position), and other currencies not shown in the table were grouped into the USD column (representing 4% of the USD Net Position)

Source: IFAD TRE

Table 6.b – Net currency position of assets funded by borrowing

Net Currency Position - ON-BS items only, funded by Borrowing
As of 31 December 2022 - Outstanding balances, in million USD

Item type	Item sub type	USD	EUR	CNY	GBP	JPY	SDR	Total
Assets								
Investments (cash+bonds)	Cash	190	48	0	1	0	-	**238**
Investments (cash+bonds)	Investments	305	256	-	-	-	-	**561**
Loans outstanding	Ordinary	250	309	-	-	-	397	**956**
Sub total	-	**745**	**613**	**0**	**1**	**0**	**397**	**1,756**
Liabilities								
Debt	Private placement	150	-	-	-	-	-	**150**
Debt	Sovereign	719	887	-	-	-	-	**1,606**
Sub total	-	**869**	**887**	-	-	-	-	**1,756**
Net Position	-	**−124**	**−274**	**0**	**1**	**0**	**397**	**0**

Note: Following the current procedure, CHF were grouped in the EUR column (representing -3% of the Euro Net Position), and other currencies not shown in the table were grouped into the USD column (representing 0% of the USD Net Position)
Source: IFAD TRE

Table 7 – 24-month cash flow currency alignment

IFAD Currency Composition as at 31/12/2022 Including Hedging
(Thousands of United States dollars equivalent - based on 24-Month Projected Cashflow)

Category	CNY Group	EUR Group	GBP Group	JPY Group	USD Group	Grand Total
Inflows						
Cash	144	43 567	1 483	36	328 238	373 468
Investments	19	465 328	3	0	572 045	1 037 395
Contributions	59 597	319 305	34 522	33 356	299 590	746 370
Projected Reflows	67 386	216 194	41 374	43 384	285 034	653 371
Debt Drawdowns	0	154 005	0	0	313 333	467 338
Assets Total	**127 146**	**1 198 399**	**77 383**	**76 776**	**1 798 240**	**3 277 944**
Outflows						
Projected Disbursements	(45 789)	(591 702)	(28 114)	(29 479)	(979 733)	(1 674 817)
Projected Operating Expenses		(43 610)			(283 216)	(326 826)
Debt Repayments & Interests	0	(93 127)	0	0	(48 708)	(141 834)
Commitments Total	**(45 789)**	**(728 438)**	**(28 114)**	**(29 479)**	**(1 311 657)**	**(2 143 477)**
Current Hedging						
Currency Forwards	0	0	0	0	0	0
Hedging Total	0	0	0	0	0	0
Deficit	**0**	**0**	**0**	**0**	**0**	**0**
Deficit as % of Commitments	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%