

#### **Executive Board**

142<sup>nd</sup> Session Rome, 18–19 September 2024

# Asset and Liability Management Report as at 31 December 2023

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**FOR: INFORMATION** 

**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 Asset and Liability

Management Report as at 31 December 2023.

**Technical questions:** 

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## **Executive summary**

- 1. The report summarizes IFAD's exposure to liquidity, interest rate and currency risks.
- 2. Liquidity risk:
  - (i) Liquidity ratios are in compliance with the policy limits:
    - (a) Minimum liquidity ratio (MLR) = 138 per cent (minimum 100 per cent);
    - (b) Liquidity ratio = 16 per cent (minimum 5 per cent);
    - (c) Debt-service coverage ratio (DSCR) = 21 per cent (maximum 50 per cent);
    - (d) IFAD-calculated 12-month Standard & Poor's (S&P) liquidity ratio = 1.65 (>1).
  - (ii) The average life of ordinary term loans approximately matches the average life of IFAD's debt.
  - (iii) Bullet maturities<sup>1</sup> of private placements generate some exposure to refinancing risk in the long term.
- 3. Interest and currency risks:
  - (i) Interest rate and currency risks are driven mainly by IFAD's concessional loan portfolio, i.e. long-term fixed-rate loans denominated in special drawing rights (SDR), funded by equity.
  - (ii) The debt-funded portion of the balance sheet remains relatively well matched in terms of currency and interest rate risk.
- 4. Overall, as at 31 December 2023, IFAD's assets and liabilities, including hedging instruments, are structured in a way that mitigates liquidity, interest rate and currency risks to a considerable extent.

#### I. Overview of IFAD's balance sheet

- 5. Assets:
  - (i) Loans make up 79 per cent of total assets, of which 80 per cent correspond to the balance outstanding of loans on highly concessional terms (equivalent to 63 per cent of total assets), 13 per cent correspond to the balance outstanding of loans on ordinary terms, and the remaining 7 per cent relate to loans on other terms (e.g. blend terms) and loan adjustments.
  - (ii) 16 per cent of assets are represented by the liquidity portfolio.
  - (iii) The remaining 5 per cent relate to other assets (contribution receivables, fixed or right-of-use assets and other receivables).
- 6. Debt and equity:
  - (i) Equity and outstanding concessional partner loans (CPLs) fund 76 per cent of the balance sheet.
  - (ii) Outstanding sovereign borrowing loans (SBLs) and private placements (PPs) fund 20 per cent of the balance sheet.
  - (iii) The remaining 4 per cent relates to other liabilities (mainly payables and deferred revenues).

<sup>&</sup>lt;sup>1</sup> A single repayment of principal on the borrowing's maturity date.

7. The schematic balance sheet is shown in appendix I.

## II. Liquidity risk

- 8. IFAD manages liquidity risk by holding sufficient liquid assets to meet cash outflow requirements and ensure compliance with the MLR and other financial ratios, without having to resort to requests for additional funding from Member States.
- 9. As at 31 December 2023, the MLR ratio was 138 per cent (minimum of 100 per cent). All other liquidity ratios were within their respective limits. Liquidity ratios of credit rating agencies are also monitored as a complementary tool for liquidity management. S&P liquidity ratio stood at 1.65 for 12 months and 3.16 for six months,<sup>2</sup> which is considered strong by S&P.
- 10. Issuance of private placements has reached 15 per cent of total debt, of which 64 per cent has a floating interest rate (reaching 79 per cent after interest rate swaps). This result is broadly aligned to the terms of ordinary loans. More specifically, the breakdown by currency shows that the tenor of euro and United States dollar debt instruments was 7.6 years and 10.9 years respectively. This was on average 0.9 years and 2.7 years longer than that for outstanding ordinary term loans for same currencies. This gap widened slightly after December 2022, as additional long-dated private placements were issued in 2023.
- 11. Private placements will mature in 2029, 2035, 2037 and 2038. The average concentration of debt repayment in each of those years is 7 per cent of the total future debt principal and interest repayments, with the highest concentration in 2029 (8.5 per cent).
- 12. While the weighted-average spread differential between ordinary term loans and debt is positive for both the United States dollar (69 basis points [bps]) and the euro (49 bps), the amount of outstanding ordinary loans is lower than outstanding borrowing. The difference is liquidity managed by Treasury in accordance with the Investment Policy Statement until it is disbursed to ordinary loans.<sup>3</sup>
- 13. Supporting analysis, charts and tables are presented in appendix II.

#### III. Interest rate risk

- 14. IFAD's interest rate risk management objective is to reduce the risk of loss resulting from a mismatch of duration<sup>4</sup> between assets (investment portfolio<sup>5</sup> and loan portfolio) and liabilities (borrowing).
- 15. The current approach to interest rate risk management is based on the following principles:
  - (i) Regular grants and grants for countries in debt distress are financed by contributions.
  - (ii) Fixed-rate loan assets (highly/super highly concessional, blend, hardened and intermediate term loans) are financed by equity and by fixed-rate liabilities at concessional terms such as CPLs.
  - (iii) Ordinary term loans are funded by debt, excluding CPLs.
- 16. Like the June 2023 report, IFAD's debt-funded balance sheet maintains a negative duration gap of 0.9 years. This indicates that while in a rising interest rate

 $<sup>^2</sup>$  Ratios calculated by Treasury based on the methodology used by S&P. Official ratios are published by S&P in periodic rating reports.

<sup>&</sup>lt;sup>3</sup> The overall return on debt-funded liquidity and on outstanding ordinary loans compared to the cost of funding could be negative in the future and could generate negative carry.

<sup>&</sup>lt;sup>4</sup> 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 and the duration of liabilities, weighted by the economic value of liabilities over the economic value of assets.

<sup>&</sup>lt;sup>5</sup> The portfolio's conditional value at risk was 173 bps, within the risk tolerance level of 300 bps defined in the Investment Policy Statement. The portfolio duration was 0.33 years (EB 2023/139/R.26).

- environment the value of both IFAD's assets and liabilities decreases, this impact would be greater for liabilities. This is mainly due to the two fixed-rate sovereign loans from Canada totalling US\$168 million (economic value).<sup>6</sup>
- 17. In contrast, IFAD's equity-funded balance sheet exhibits a positive duration gap of 8.2 years, which is 0.2 years higher than was reported in June 2023. This indicates that rising interest rates would decrease the value of both assets and liabilities, but the decline in asset value would be more significant. This is due to long-dated, fixed-rate loans (mainly highly concessional and blend terms loans accounting for 98 per cent of the total asset duration). The duration gap for the equity-funded balance sheet is in essence the effective duration of IFAD's equity.
- 18. The potential impact of interest rate changes on IFAD equity was simulated through sensitivity analysis, which includes parallel shifts and changes in slopes (i.e. steepening and flattening scenarios) of the yield curves. A 1 per cent parallel increase in interest rates would reduce IFAD's economic value of equity (EVE) by US\$467 million, while a 1 per cent parallel decrease would increase the EVE by US\$534 million. This asymmetrical response of the equity to a symmetrical shock to the interest rates is mainly due to the long-dated highly concessional loan portfolio.<sup>7</sup>
- 19. With regard to repricing gap analysis, the IFAD balance sheet shows a positive gap for the first year of US\$760 million, 33 per cent lower than the same reading from the previous report (June 2023). A reduced gap means that IFAD's net interest income (NII) is less rate-sensitive to changes in interest rates.
- 20. Specifically, a 1 per cent rate rise or drop would likely cause IFAD's NII to increase or decrease by US\$6 million, which makes IFAD's 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.
- 21. The debt-funded part of the balance sheet, on the other hand, shows a lower interest rate sensitivity between assets and liabilities, with a cumulative positive gap for the first year of US\$46 million. A 1 per cent increase or decrease in rates would impact NII by US\$1 million income or loss.
- 22. Additional scenario analysis, charts and tables are presented in appendix III.

# **IV.** Currency risk

- 23. Currency risk arises from potential 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.
- 24. While the undisbursed loan balances are denominated mainly in the euro and United States dollar, most outstanding loan assets are denominated in SDRs, and most liabilities (excluding equity) are denominated in the United States dollar and euro. Excluding SDR, the largest positive gap is in the United States dollar (US\$1.13 billion), with other currency groups showing smaller positive gaps (US\$143 million for the euro, US\$24 million for the pound sterling, US\$32 million for yen and US\$28 million for renminbi).
- 25. The current currency alignment approach is based on a 24-month forward looking cash flow analysis to ensure that IFAD has enough of each currency to fund the projected outflows denominated in each respective currency. In the case of a deficit for any currency above 10 per cent of total projected outflows, Treasury executes a currency forward to hedge the exposure exceeding the limit. No

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<sup>&</sup>lt;sup>6</sup> Both loans were not swapped to floating interest rate.

<sup>&</sup>lt;sup>7</sup> Technically, the longer the tenor (as is the case with the long-dated highly concessional loans), the greater the asymmetry response of the discount factors to symmetrical shocks to interest rates, due to the non-linear compounding relationship between them.

- currency gap exceeding the 10 per cent threshold was observed for the reporting period.
- 26. Supporting analysis, charts and tables are presented in appendix IV.

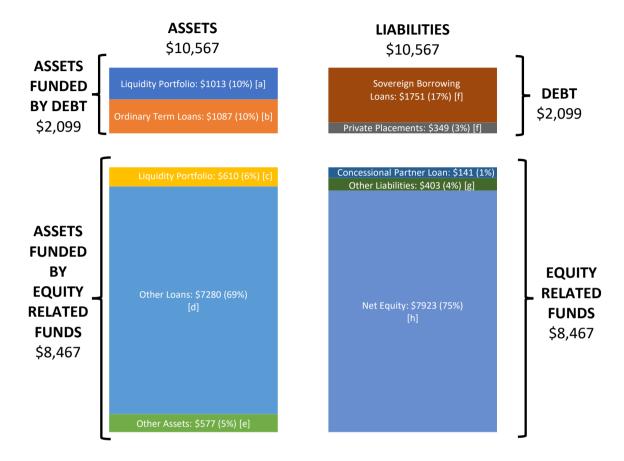
### V. Conclusions

- 27. Based on the composition of the balance sheet as of December 2023, exposure to asset and liability management risks are relatively low and manageable.
- 28. 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 is the main source of interest rate and currency risks.
- 29. Management will monitor the evolution of IFAD's balance sheet and report on any exposure semi-annually.

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## **IFAD's Schematic Balance Sheet and Key Assumptions**

**Figure 1:** Schematic balance sheet. As of 31 December 2023, in million USD (share of total in parenthesis)



#### **Notes:**

- [a] Computed as residual from Total Debt (SBLs+PPs) outstanding balance minus Ordinary Term Loans outstanding balance
- [b] Outstanding balance
- [c] Computed as residual of the Total Liquidity Portfolio Liquidity Portfolio funded by debt
- [d] Includes loan impairments, accrued interest and other charges receivables
- [e] Includes other receivables, fixed assets, and contributions
- [f] Outstanding balance
- [g] Includes payables and liabilities, undisbursed grants, deferred revenues, lease liabilities, other financial liabilities, interest from debt and hedge adjustments
- [h] Computed as Total Assets Total Liabilities

#### **Source: IFAD Treasury**

Please note that figures reported in the tables and charts included in the following appendices are cash flow-based and can deviate from the fair value accounting representation of the above balance sheet.

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Figure 2: Evolution of IFAD's balance sheet

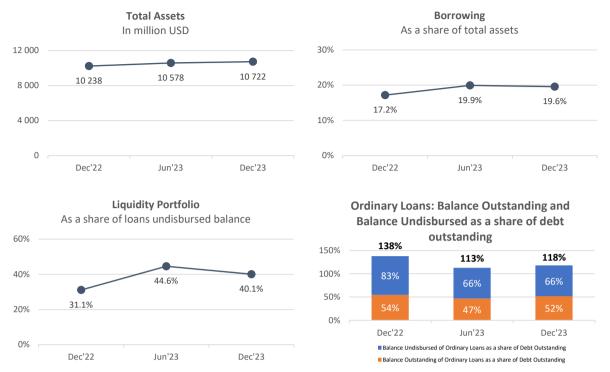


Figure 3: Key assumptions

- 1. Cut-off date: 31 December 2023.
- 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.
- 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).8

<sup>8</sup> 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).

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- 8. No amortization of equity was assumed.
- 9. To generate interest on ordinary loans with floating interest rates, the zerofloor 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 envelopes.
- 12. The Grant Element (GE) of CPLs is included in the balance outstanding.

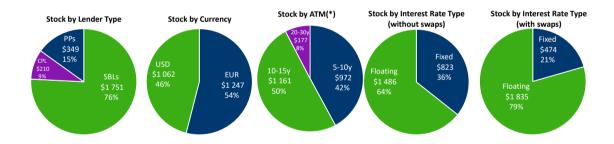
# Liquidity Risk Analysis

Figure 1: Key liquidity metrics

Metric	As of 30/06/23	As of 31/12/23	Limit
IFAD Liquidity (USD million)	1 902	1 605	-
IFAD stressed liquidity (USD million)	1 687	1 408	-
Liquidity haircut (percent)	11.3	12.3	-
Liquidity haircut (USD million)	215	197	
MLR (USD million)	1 006	1 021	-
MLR ratio (percent)	167	138	>100
Liquidity ratio (percent)	17.9	16	>5
Debt-service coverage ratio (percent)	10.1	21	<50
IFAD/TRE-calculated S&P liquidity ratio (12 months)	1.85	1.65	>1

Source: IFAD Treasury

**Figure 2:** Terms of IFAD's outstanding debt. As of 31December 2023. Figures in million USD, expect otherwise noted



(\*) Tenor buckets are computed as average time to maturity.

Figure 3: Maturity profile of debt stock and repayment concentration

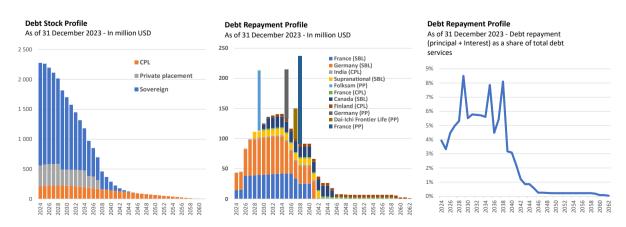


Figure 4: Ordinary Loans and Debt: terms and spreads

	Remaining	Tenor (ye	ars) <sup>(1)</sup>	IR Spre	IR Spread (bps) <sup>(1)(2)</sup>		
Currency	Loans	Debt	Gap	Loans	Debt	Gap	
	(a)	(b)	(a-b)	(c)	(d)	(c-d)	
EUR	6.7	7.6	-0.9	89	40	49	
USD	8.2	10.9	-2.7	142	74	69	
XDR	4.1	0.0	4.1	93	0	93	

<sup>(1)</sup> Weighted by USD-equivalent outstanding amount.

**Note:** Floating rate and Fixed rate swapped into floaters instruments only. Excludes CPL debts and concessional fixed-rate loans from Canada. Includes suspended loans.

**Source:** IFAD Treasury

Figure 5: Ordinary term loans and debt: volumes and outstanding balances

	Num	ber#	Balance Outs	ce Outstanding (Mill. USD)				
Currency	Loan	Debt	Loans (a)	Debt (b)	Gap (a-b)			
EUR	32	5	385	872	-487			
USD	33	6	353	959	-605			
XDR	54	0	349	0	349			
Total	-	-	1 087	1 830	-744			

Note: Excludes CPL debts and concessional fixed-rate loans from Canada. Includes suspended loans

**<sup>(2)</sup>** 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)

Figure 6: Gap by maturity bucket

		On Balar	nce She	et items only	<b>/</b> *		All Ba	All Balance Si	All Balance Sheet items
Bucket	Assets	Liabilities	GAP •	Weighted A	verage Life	Assots	Assets Liabilities	Assets Liabilities GAP	Assets Liabilities CAR Weighted A
	Assets	Liabilities	GAP	Assets	Liabilities	Assets	Assets Liabilities	ASSELS LIADINILIES GAP	Assets Liabilities GAP Assets
0 to 15D	451	8	444	0.00	0.00	451	451 23	451 23 428	451 23 428 0.00
16 to 30D	86	1	85	0.00	0.00	90	90 37	90 37 53	90 37 53 0.00
31 to 60D	249	1	247	0.00	0.00	253	253 48	253 48 205	253 48 205 0.00
61 to 90D	135	17	118	0.00	0.00	141	141 81	141 81 60	141 81 60 0.00
91 to 180D	325	46	278	0.01	0.01	342	342 222	342 222 120	342 222 120 0.01
181 to 360D	406	60	346	0.03	0.01	453	453 425	453 425 28	453 425 28 0.02
1 to 2y	825	114	711	0.10	0.05	896	896 819	896 819 77	896 819 77 0.08
2 to 3y	862	126	736	0.18	0.10	956	956 725	956 725 231	956 725 231 0.14
3 to 5y	1 289	328	961	0.44	0.42	1 590	1 590 1 065	1 590 1 065 526	1 590 1 065 526 0.38
5 to 10y	2 541	953	1 588	1.63	2.31	3 707	3 707 1 365	3 707 1 365 2 342	3 707 1 365 2 342 1.69
More than 10y	4 695	1 486	3 209	6.02	7.19	7 845	7 845 1 491	7 845 1 491 6 354	7 845 1 491 6 354 7.13
Total	11 865	3 141	8 723			16 724	16 724 6 299	16 724 6 299 10 426	16 724 6 299 10 426

(\*) Excludes swaps, loan disbursements (and its reflows), debt drawdown (and its debt service payments).

**Note:** 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.

Source: IFAD Treasury

Figure 7: S&P Liquidity Ratio



Note: Dec-23's S&P Liquidity ratio calculated by TRE as per the December 2023 Base Case scenario

Source: S&P and IFAD Treasury

# **Interest Rate Risk Analysis**

**Figure 1:** Duration gap for debt-funded balance sheet. As of 31 December 2023, in million USD

				31/12/	2023		30/06/2023
Item Type	Item Sub Type	IR Type	Economic Value <sup>(1)</sup>	Weighted Duration (years) <sup>(2)</sup>	Yield Based DV01 <sup>(3)</sup>	Duration Attribution	Weighted Duration (years) <sup>(2)</sup>
Assets							
Investments	Cash, bonds, and swaps	Both	1 008	0.4	0.0	51%	0.3
Loan reflows	Ordinary	Floating	1 138	0.3	0.0	49%	0.3
Sub total			2 146	0.4	0.0	100%	0.3
Liabilities							
Debt	Private placement	Fixed	367	9.3	0.3	127%	9.7
Debt	Sovereign	Fixed	168	13.3	0.2	83%	13.8
Debt	Sovereign	Floating	1 550	0.3	0.0	17%	0.3
Debt	Swaps	Fixed	-367	9.3	-0.3	-127%	9.7
Debt	Swaps	Floating	364	0.0	0.0	0%	0.0
Sub total			2 083	1.3	0.3	100%	1.3
Total			64	-0.9	-0.2		-0.9

<sup>(1)</sup> Present value of future cash flows except otherwise noted, discounted with swap curve prevailing at the cut-off date

**Note 2:** Duration Gap = Asset Duration - (Liabilities Duration x Market Value Liabilities / Market Value Assets)

<sup>(2)</sup> Macaulay durations for each individual item, then grouped and weighted by Economic Value

<sup>(3)</sup> 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.

Note 1: The Economic Value of Investments consists of cash, bonds, and swaps priced at market value.

**Figure 2:** Duration gap for equity-funded balance sheet. As of 31 December 2023, in million USD

				31/12,	/2023		30/06/2023
Item Type	Item Sub Type	IR Type	Economic Value <sup>(1)</sup>	Weighted Duration (years) <sup>(2)</sup>	Yield Based DV01 <sup>(3)</sup>	Duration Attribution	Weighted Duration (years) <sup>(2)</sup>
Assets							
Contributions	Pledges and IOC/PN		446	0.5	0.0	0%	0.9
Drawdown of debt	CPL	Fixed	6	1.0	0.0	0%	1.0
Investments	Cash, bonds, and swaps	Both	594	0.4	0.0	0%	0.3
Loan reflows	Blend	Fixed	616	8.0	0.5	8%	8.2
Loan reflows	Hardened terms	Fixed	28	3.6	0.0	0%	3.8
Loan reflows	Highly concessional	Fixed	5 134	10.7	5.3	90%	10.8
Loan reflows	Intermediate terms	Fixed	137	3.7	0.0	1%	3.9
Loan reflows	Super highly concessional	Fixed	4	25.0	0.0	0%	25.0
Other assets	Other receivables		166	0.0	0.0	0%	0.0
Sub total			7 131	8.5	5.9	100%	8.3
Liabilities							
Debt	CPL	Fixed	134	18.1	0.2	98%	18.7
Debt (future drawdowns)	CPL	Fixed	5	12.4	0.0	2%	13.0
Other liabilities	Other liabilities		257	0.0	0.0	0%	0.0
Sub total			396	6.3	0.2	100%	6.3
Total			6 734	8.2	5.7		8.0

<sup>(1)</sup> Present value of future cash flows except otherwise noted, discounted with swap curve prevailing at the cut-off date

Note 1: The Economic Value of Investments consists of cash, bonds, and swaps priced at market value.

Note 2: Duration Gap = Asset Duration - (Liabilities Duration x Market Value Liabilities / Market Value Assets)

Note 3: Includes deferred revenues, payables and other liabilities

<sup>(2)</sup> Macaulay durations for each individual item, then grouped and weighted by Economic Value

<sup>(3)</sup> 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.

**Figure 3:** Duration gap for IFAD's balance sheet. As of 31 December 2023, in million USD

				31/12/	2023		30/06/2023	
Item Type	Item Sub Type	IR Type	Economic Value <sup>(1)</sup>	Weighted Duration (years) <sup>(2)</sup>	Yield Based DV01 <sup>(3)</sup>	Duration Attribution	Weighted Duration (years) <sup>(2)</sup>	
Assets								
Contributions	Pledges and IOC/PN		446	0.5	0.0	0%	0.9	
Drawdown of debt	CPL	Fixed	6	1.0	0.0	0%	1.0	
Investments	Cash, bonds, and swaps	Both	1 602	0.4	0.1	1%	0.3	
Loan reflows	Blend	Fixed	616	8.0	0.5	8%	8.2	
Loan reflows	Hardened terms	Fixed	28	3.6	0.0	0%	3.8	
Loan reflows	Highly concessional	Fixed	5 134	10.7	5.3	89%	10.8	
Loan reflows	Intermediate terms	Fixed	137	3.7	0.0	1%	3.9	
Loan reflows	Ordinary	Floating	1 138	0.3	0.0	1%	0.3	
Loan reflows	Super highly concessional	Fixed	4	25.0	0.0	0%	25.0	
Other assets	Other receivables		166	-	-	0%	-	
Sub total			9 277	6.6	6.0	100%	6.5	
Liabilities								
Debt	CPL	Fixed	134	18.1	0.2	47%	18.7	
Debt	Private placement	Fixed	367	9.3	0.3	66%	9.7	
Debt	Sovereign	Fixed	168	13.3	0.2	43%	13.8	
Debt	Sovereign	Floating	1 550	0.3	0.0	9%	0.3	
Debt	Swaps	Fixed	-367	9.3	-0.3	-66%	9.7	
Debt	Swaps	Floating	364	0.0	0.0	0%	0.0	
Debt (future drawdowns)	CPL	Fixed	5	12.4	0.0	1%	13.0	
Other liabilities	Other liabilities		257	-	-	0%		
Sub total			2 479	2.1	0.5	100%	2.1	
Total			6 798	6.1	5.5		5.9	

<sup>(1)</sup> Present value of future cash flows except otherwise noted, discounted with swap curve prevailing at the cut-off date

Note 1: The Economic Value of Investments consists of cash, bonds, and swaps priced at market value.

Note 2: Duration Gap = Asset Duration - (Liabilities Duration x Market Value Liabilities / Market Value Assets)

Note 3: Includes deferred revenues, payables and other liabilities

<sup>(2)</sup> Macaulay durations for each individual item, then grouped and weighted by Economic Value

<sup>(3)</sup> 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.

**Figure 4:** Repricing gap and Net interest income sensitivity of assets funded by equity. As of 31 December 2023, in million USD

						31/	12/2023						30/06/2023
Maturity			Repricing			Net	Interest	Income S	ensitivity	Analysis			Repricing
Bucket	Assets	Liabilities		Paralell	Paralell	Paralell	Paralell	Paralell	Paralell	Paralell	Ctoononina	Flattanina	
			Gap	+1bps	-100bps	-200bps	-300bps	+100bps	+200bps	+300bps	Steepening	Flattening	Ga <sub>l</sub>
O/N	167	-	167	0.02	(1.66)	(3.31)	(4.94)	1.68	3.37	5.07	(1.66)	1.68	317
1M	25	0.1	25	0.00	(0.24)	(0.48)	(0.72)	0.24	0.49	0.74	(0.20)	0.20	55
2M	80	-	80	0.01	(0.69)	(1.38)	(2.06)	0.70	1.40	2.11	(0.46)	0.47	23
3M	65	-	65	0.01	(0.51)	(1.03)	(1.53)	0.52	1.04	1.57	(0.26)	0.26	108
4M	76	0.1	76	0.01	(0.54)	(1.07)	(1.60)	0.54	1.09	1.63	(0.18)	0.18	59
5M	62	-	62	0.00	(0.39)	(0.77)	(1.16)	0.39	0.78	1.18	(0.06)	0.06	99
6M	80	-	80	0.00	(0.43)	(0.86)	(1.29)	0.43	0.87	1.31	-	-	67
7M	29	0.1	29	0.00	(0.13)	(0.26)	(0.39)	0.13	0.26	0.40	0.02	(0.02)	24
8M	21	-	21	0.00	(0.08)	(0.16)	(0.23)	0.08	0.16	0.24	0.03	(0.03)	54
9M	33	-	33	0.00	(0.10)	(0.19)	(0.29)	0.10	0.19	0.29	0.05	(0.05)	29
10M	35	0.1	35	0.00	(0.07)	(0.15)	(0.22)	0.07	0.15	0.22	0.05	(0.05)	42
11M	36	-	36	0.00	(0.05)	(0.09)	(0.14)	0.05	0.09	0.14	0.04	(0.04)	51
12M	4	-	4	0.00	(0.00)	(0.00)	(0.01)	0.00	0.00	0.01	0.00	(0.00)	5
Repricing Gap	715	0.5	714	0.05	(4.89)	(9.75)	(14.57)	4.93	9.89	14.89	(2.64)	2.66	935

Source: IFAD Treasury

**Figure 5:** Repricing gap and Net interest income sensitivity of assets funded by debt. As of 31 December 2023, in million USD

						31/12	2/2023						30/06/2023
Maturity						Net	Interest I	ncome Se	nsitivity	Analysis			
Bucket	Assets	Liabilities	Repricing Gap	Paralell +1bps	Paralell -100bps	Paralell -200bps	Paralell -300bps	Paralell +100bps	Paralell +200bps		Steepening	Flattening	Repricing Gap
O/N	284	-	284	0.03	(2.82)	(5.61)	(8.38)	2.85	5.72	8.61	(2.82)	2.85	463
1M	76	332	(256)	(0.02)	2.44	4.86	7.26	(2.46)	(4.95)	(7.45)	2.04	(2.05)	(215)
2M	202	-	202	0.02	(1.76)	(3.51)	(5.25)	1.78	3.57	5.37	(1.18)	1.18	119
3M	357	352	5	0.00	(0.04)	(0.08)	(0.12)	0.04	0.08	0.12	(0.02)	0.02	28
4M	236	-	236	0.02	(1.67)	(3.33)	(4.97)	1.68	3.37	5.07	(0.56)	0.56	186
5M	264	454	(190)	(0.01)	1.19	2.37	3.54	(1.19)	(2.39)	(3.60)	0.20	(0.20)	(148)
6M	362	674	(312)	(0.02)	1.69	3.36	5.04	(1.69)	(3.40)	(5.11)	-	-	(172)
7M	33	-	33	0.00	(0.15)	(0.30)	(0.45)	0.15	0.30	0.46	0.03	(0.03)	22
8M	5	-	5	0.00	(0.02)	(0.04)	(0.06)	0.02	0.04	0.06	0.01	(0.01)	53
9M	7	-	7	0.00	(0.02)	(0.04)	(0.06)	0.02	0.04	0.06	0.01	(0.01)	(0)
10M	17	-	17	0.00	(0.04)	(0.07)	(0.11)	0.04	0.07	0.11	0.02	(0.02)	26
11M	6	-	6	0.00	(0.01)	(0.02)	(0.02)	0.01	0.02	0.02	0.01	(0.01)	(37)
12M	8	-	8	0.00	(0.00)	(0.01)	(0.01)	0.00	0.01	0.01	0.00	(0.00)	(118)
Repricing Gap	1 859	1 813	46	0.01	(1.22)	(2.41)	(3.60)	1.23	2.48	3.74	(2.26)	2.28	206

**Figure 6:** Repricing gap of balance sheet items. As of 31 December 2023, in million USD

Figure 6.a

						31/	12/2023						30/06/2023
Maturity			Daniela.			Net	Interest	Income S	ensitivity	Analysis			Damei sin se
Bucket	Assets	Liabilities	Repricing Gap	Paralell +1bps	Paralell -100bps	Paralell -200bps	Paralell -300bps		Paralell +200bps	Paralell +300bps	Steepening	Flattening	Repricing Gap
O/N	451	-	451	0.0	(4.5)	(8.9)	(13.3)	4.5	9.1	13.7	(4.5)	4.5	780
1M	102	332	(231)	(0.0)	2.2	4.4	6.5	(2.2)	(4.5)	(6.7)	1.8	(1.8)	(160)
2M	282	-	282	0.0	(2.5)	(4.9)	(7.3)	2.5	5.0	7.5	(1.6)	1.6	142
3M	423	352	70	0.0	(0.6)	(1.1)	(1.7)	0.6	1.1	1.7	(0.3)	0.3	136
4M	313	0	312	0.0	(2.2)	(4.4)	(6.6)	2.2	4.5	6.7	(0.7)	0.7	245
5M	326	454	(128)	(0.0)	8.0	1.6	2.4	(0.8)	(1.6)	(2.4)	0.1	(0.1)	(49)
6M	442	674	(232)	(0.0)	1.3	2.5	3.7	(1.3)	(2.5)	(3.8)	-	-	(105)
7M	62	0	62	0.0	(0.3)	(0.6)	(8.0)	0.3	0.6	0.9	0.0	(0.0)	47
8M	26	-	26	0.0	(0.1)	(0.2)	(0.3)	0.1	0.2	0.3	0.0	(0.0)	108
9M	39	-	39	0.0	(0.1)	(0.2)	(0.3)	0.1	0.2	0.3	0.1	(0.1)	29
10M	53	0	53	0.0	(0.1)	(0.2)	(0.3)	0.1	0.2	0.3	0.1	(0.1)	68
11M	43	-	43	0.0	(0.1)	(0.1)	(0.2)	0.1	0.1	0.2	0.0	(0.0)	13
12M	12	-	12	0.0	(0.0)	(0.0)	(0.0)	0.0	0.0	0.0	0.0	(0.0)	(112)
Repricing Gap	2 573	1 813	760	0.1	(6.1)	(12.2)	(18.2)	6.2	12.4	18.6	(4.9)	4.9	1 141

Note: The drop in the total repricing gap (from USD 1 141 million to \$ 760 million) is mainly due to the drop in the O/N liquidity portfolio Source: IFAD Treasury

Figure 6.b

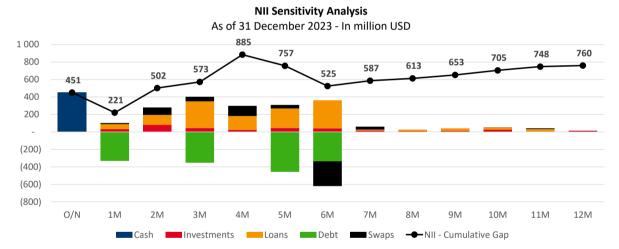


Figure 7: Sensitivity analysis of Economic Value of Equity. As of 31 December 2023, in million USD

							Sensitivity	y Analysis				
Item Type	Nominal Value <sup>(1)</sup>	Economic Value <sup>(2)</sup>	DV01 w. concess. Items	DV01 w.o. concess. Items	Paralell -100bps	Paralell -200bps	Paralell -300bps		Paralell +200bps	Paralell +300bps	Steepening <sup>(3)</sup>	Flattening <sup>(3)</sup>
Assets												
Contributions	360	446	(0)	(0)	2	5	7	(2)	(5)	(7)	(4)	5
Drawdown of debt	-	6	(0)	-	0	0	0	(0)	(0)	(0)	(0)	0
Investments (cash+bonds+swaps)	1 592	1 602	(0)	(0)	4	8	15	(4)	(8)	(12)	(9)	9
Loan reflows	8 604	7 057	(5)	(0)	586	1 235	1 857	(510)	(953)	(1 340)	(79)	75
Other assets	166	166	-	-	-	-	-	-	-	-	-	-
Sub total	10 722	9 277	(6)	(0)	592	1 248	1 880	(516)	(965)	(1 359)	(93)	89
Liabilities												
Debt	2 312	2 217	(1)	(0)	57	128	252	(48)	(89)	(124)	(12)	14
Debt (future drawdowns)	-	5	(0)	-	1	1	2	(1)	(1)	(1)	(0)	0
Other liabilities	257	257	-	-	-	-	-	-	-	-	-	-
Undisbursed Grants	49	-	(0)	(0)	1	2	2	(1)	(1)	(2)	(1)	1
Sub total	2 618	2 479	(1)	(0)	58	129	254	(49)	(90)	(126)	(12)	14
Total	8 104	6 798										
Change in EVE (in mill. USD)			(5)	0	534	1 119	1 626	(467)	(875)	(1 233)	(80)	75
Change in EVE (as % of Nominal)			(0)	0	7	14	20	(6)	(11)	(15)	(1)	1

<sup>(1)</sup> Includes balances outstanding for Investment, Loans, Debt and Other Assets and Liabilities, and contributions receivables (IOC/PN)

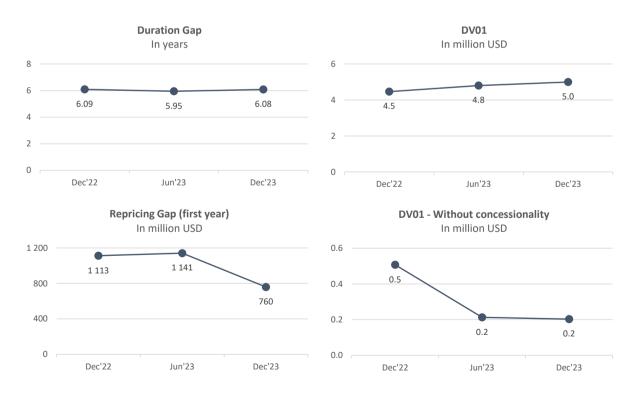
Note 2: DV01 and Sensitivy Analysis are computed as the difference between the market value using the shocked rates and the market value using the baseline rates. Therefore, a positive (negative) value indicates an increase (decrease) of the market value in the shocked scenario

Note 3: Duration of floating rate ordinary undisbursed loans reflows is zero since at the cut-off date the interest rate wasn't set yet

Note 4: Asset loans are inflows from repayments, interest payments and service charge. Liabilities loans are future disbursements (i.e. outflows).

Source: IFAD Treasury

Figure 8: Evolution of interest rate risk metrics



<sup>(2)</sup> Present value of future cash flows discounted at the forward curve prevailing at the cut-off date

<sup>(3)</sup> An increase (steepening) or decrease (flatteing) of the baseline forward curve slope by 2.5 times **Note 1:** Including disbursed items only.

# **Currency Risk Analysis**

**Figure 1:** Balance sheet net currency position. As of 31 December 2023, in million USD

Item Type	Item Sub Type	USD	EUR	CNY	JPY	GBP	SDR	Tota
Assets								
Contributions	IOC - PN	98	172	28	32	30	-	360
Investments	Cash	367	79	0	0	5	-	451
Investments	Investments	772	347	-	-	-	-	1 119
Outstanding loans	Blend	334	41	-	-	-	296	671
Outstanding loans	Hardened terms	-	-	-	-	-	30	30
Outstanding loans	Highly concessional	535	227	-	-	-	5 907	6 669
Outstanding loans	Intermediate terms	-	-	-	-	-	140	140
Outstanding loans	Ordinary	353	385	-	-	-	349	1 087
Outstanding loans	Super highly concessional	4	2	-	-	-	1	7
Other assets	Other receivables	185	(29)	(0)	-	(11)	20	166
Sub total	-	2 650	1 223	28	32	24	6 743	10 701
Liabilities								
Debt	CPL	33	177	-	-	-	-	210
Debt	Private placement	344	0	-	-	-	-	344
Debt	Sovereign	879	872	-	-	-	-	1 751
Other liabilities	Other liabilities	234	21	-	0	0	2	257
Loan	Undisbursed Grants	34	11	-	-	-	4	49
Sub total	-	1 525	1 080	-	0	0	6	2 611
Total	-	1 125	143	28	32	24	6 737	8 090

**Note 1:** Following the current procedure, CHF, NOK, SEK were grouped in the EUR column (representing €69m of the Euro Net Position), and other currencies not shown in the table were grouped into the USD column (representing \$20m of the USD Net Position)

**Note 2:** Includes FX Swaps **Source:** IFAD Treasury

**Figure 2:** Net currency position of assets funded by debt. As of 31 December 2023, in million USD

Item Type	Item Sub Type	USD	EUR	CNY	JPY	GBP	SDR	Total
Assets								
Investments	Cash	231	50	0	0	3	-	284
Investments	Investments	486	219	-	-	-	-	704
Outstanding loans	Ordinary	353	385	-	-	-	349	1 087
Sub total	-	1 070	653	0	0	3	349	2 075
Liabilities								
Debt	Private placement	344	0	-	-	-	-	344
Debt	Sovereign	879	872	-	-	-	-	1 751
Sub total	-	1 223	872	-	-	-	-	2 095
Total	-	(153)	(219)	0	0	3	349	(19)

**Note 1:** Following the current procedure, CHF, NOK, SEK were grouped in the EUR column (representing €1m of the Euro Net Position).

**Note 2:** Includes FX Swaps **Source:** IFAD Treasury

**Figure 3:** Net currency position of assets funded by equity. As of 31 December 2023, in million USD

Item Type	Item Sub Type	USD	EUR	CNY	JPY	GBP	SDR	Total
Assets								
Contributions	IOC - PN	98	172	28	32	30	-	360
Investments	Cash	136	29	0	0	2	-	167
Investments	Investments	286	129	-	-	-	-	415
Outstanding loans	Blend	334	41	-	-	-	296	671
Outstanding loans	Hardened terms	-	-	-	-	-	30	30
Outstanding loans	Highly concessional	535	227	-	-	-	5 907	6 669
Outstanding loans	Intermediate terms	-	-	-	-	-	140	140
Outstanding loans	Super highly concessional	4	2	-	-	-	1	7
Other assets	Other receivables	185	(29)	(0)	-	(11)	20	166
Sub total	-	1 580	570	28	32	21	6 394	8 625
Liabilities								
Debt	CPL	33	177	-	-	-	-	210
Debt	Private placement	-	-	-	-	-	-	-
Debt	Sovereign	-	-	-	-	-	-	-
Other liabilities	Other liabilities	234	21	-	0	0	2	257
Loan	Undisbursed Grants	34	11	-	-	-	4	49
Sub total	-	302	208	-	0	0	6	516
Total	-	1 278	362	28	32	21	6 388	8 109

**Note 1:** Following the current procedure, CHF, NOK, SEK were grouped in the EUR column (representing €69m of the Euro Net Position), and other currencies not shown in the table were grouped into the USD column (representing \$20m of the USD Net Position)

**Note 2:** Includes FX Swaps **Source:** IFAD Treasury

**Figure 4:** 24-month cashflow currency alignment. As of 31 December 2023, in million USD

0 0 75	78 363 297	Group 5	PY Group 0	Group 385	Total
0 75	363			385	468
0 75	363			385	468
75		0			700
	297		0	774	1 137
^		31	22	355	781
0	141	8	0	685	834
0	99	0	0	636	736
76	978	44	22	2 836	3 955
0	-563	0	0	-1 404	-1 967
0	-49	0	0	-319	-368
0	-155	0	0	-97	-252
0	-767	0	0	-1 821	-2 588
0	0	0	0	0	0
0	0	0	0	0	0
75	210	44	22	1 015	1 367
2.92%	8.13%	1.70%	0.85%	39.22%	52.82%
0	0	0	0	0	0
	0 0 76 0 0 0 0 0 75 2.92%	0 141 0 99 76 978  0 -563 0 -49 0 -155 0 -767  0 0 0 0 75 210 2.92% 8.13%	0       141       8         0       99       0         76       978       44         0       -563       0         0       -49       0         0       -155       0         0       -767       0         0       0       0         0       0       0         75       210       44         2.92%       8.13%       1.70%	0       141       8       0         0       99       0       0         76       978       44       22         0       -563       0       0         0       -49       0       0         0       -155       0       0         0       -767       0       0         0       0       0       0         0       0       0       0         75       210       44       22         2.92%       8.13%       1.70%       0.85%	0       141       8       0       685         0       99       0       0       636         76       978       44       22       2 836         0       -563       0       0       -1 404         0       -49       0       0       -319         0       -155       0       0       -97         0       -767       0       0       -1 821         0       0       0       0       0         0       0       0       0       0         0       0       0       0       0         75       210       44       22       1015         2.92%       8.13%       1.70%       0.85%       39.22%

Figure 5: Evolution of currency risk metrics. Shares of total net position

