

Document: EB 2012/107/R.32/Add.3  
Agenda: 14(c)  
Date: 11 December 2012  
Distribution: Public  
Original: English

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Enabling poor rural people  
to overcome poverty

## **Internal Control Framework for IFAD Investments**

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Executive Board — 107<sup>th</sup> Session  
Rome, 12-13 December 2012

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**For: Information**

## Contents

<b>Abbreviations and acronyms</b>	<b>i</b>
<b>Preamble</b>	<b>ii</b>
<b>I. Overview of internal control best practices</b>	<b>1</b>
<b>II. Organizational structure, roles and responsibilities</b>	<b>1</b>
A. Players and their roles	1
B. IFAD roles and responsibilities in the financial framework	2
C. Investment policies and procedures	5
<b>III. Risk assessment, control and monitoring activities</b>	<b>7</b>
A. IFAD’s investment portfolio structure	7
B. Identification of risks	8
C. Risk measurement and management	9
D. Control activities and monitoring	15
<b>Annexes</b>	
I. Rules of procedure and terms of reference of the Investment and Finance Advisory Committee (FISCO)	17
II. Rules of procedure and terms of reference of the Investment, Finance and ALM Advisory Committee (FALCO)	19
III. Glossary of risk measures and related terms	21

## Abbreviations and acronyms

ALM	Asset Liability Management
CFO	Chief Financial Officer
CFS	Controller’s and Financial Services Division
CM	Cash Management
FISCO	Investment and Finance Advisory Committee
FALCO	Investment, Finance and Asset Liability Management Advisory Committee
FRA	Financial Planning and Risk Analysis Division
IM	Investment Management
IPS	Investment Policy Statement
TRE	Treasury Services Division

## **Preamble**

1. IFAD's Investment Policy Statement (IPS), approved by the Executive Board at its 104<sup>th</sup> session in December 2011, provides an overall framework for the management of IFAD investments. The annual review of the IPS is presented for the approval by the Executive Board at the 107<sup>th</sup> session in December 2012.
2. This Internal Control Framework for IFAD's Investments was first presented to the 104<sup>th</sup> Executive Board based on its request for further information on the internal control structures in place at IFAD for investments. The 125<sup>th</sup> Audit Committee also requested in November 2012 that this document accompanies the annual update of the IPS when it is presented for the Executive Board's approval.

# Internal Control Framework for IFAD Investments

## I. Overview of internal control best practices

1. Many more businesses are now systematically documenting, testing, evaluating and improving their internal control processes. One of the most complete and extensive models is the widely used Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Under the COSO framework, internal control is broadly defined as a process effected by an entity's board of directors, management and other personnel, designed to provide reasonable assurance, though not to guarantee, that business activities are efficient and effective, financial reporting is reliable, and applicable regulations and the entity's internal policies are complied with. This is achieved by ensuring the accuracy and reliability of data in compliance with policies and procedures. Internal controls therefore form an integral part of any organization's financial and business policies and procedures.
2. An effective internal control framework has five essential components:
  - (a) **Control environment:** Organizational values and culture; policies; organizational structure. The control environment is the foundation for all other components of internal control;
  - (b) **Risk assessment:** Identification and measurement of threats, and responses to them;
  - (c) **Information and communication:** Reliability, timeliness, clarity, usefulness;
  - (d) **Control activities:** The policies and procedures that help ensure that management directives are carried out; and
  - (e) **Monitoring:** Processes used to assess the quality of internal control performance over time.
3. This paper presents the proposed internal control framework strictly on IFAD's investment-related activities. Section II focuses on aspects of the control environment, specifically organizational structure, and roles and responsibilities of the various key players. Section III examines the other four components of the framework. Document EB 2012/107/R.xxx contains a legal opinion concerning the authority of the Executive Board with respect to the adequacy of the Internal Control Framework for IFAD's investments.

## II. Organizational structure, roles and responsibilities

### A. Players and their roles

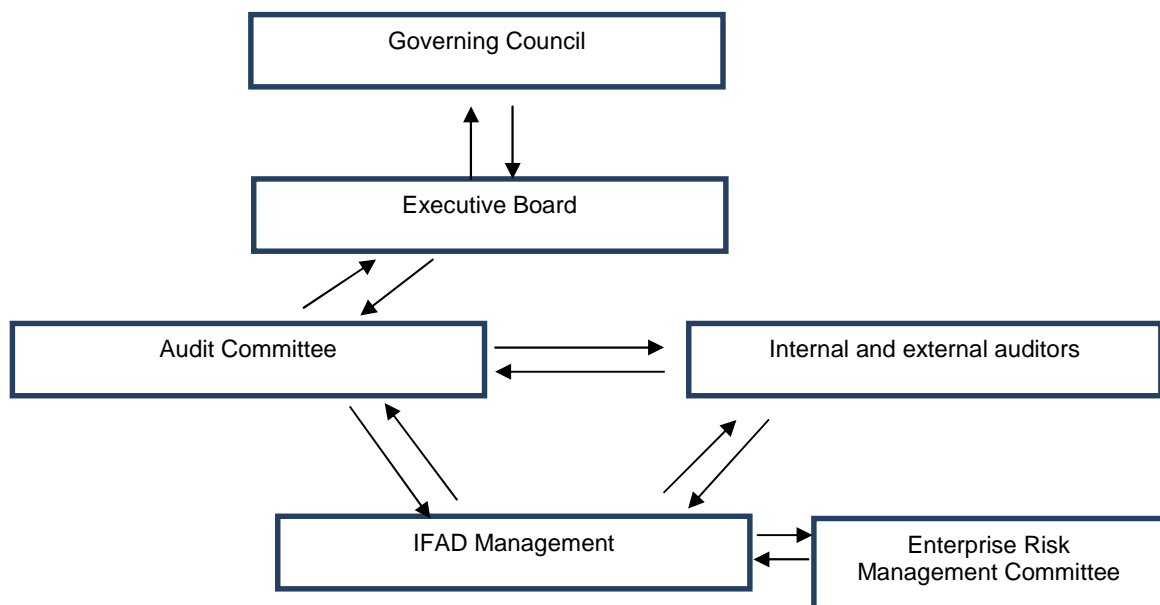
4. According to the COSO framework, everyone in an organization has responsibility for internal control to some extent. Virtually all employees produce information used in the internal control system or take other actions needed to effect control. Also, each major entity in corporate governance has a particular role to play. This translates, in the case of IFAD, to:
  - (a) The **Governing Council**, which is the supreme plenary organ of the Fund. It is composed of representatives of the Member States. All powers of the Fund are vested in the Governing Council. Subject to the limitations stated in the Fund's charter, it may delegate powers to the Executive Board.
  - (b) The **Executive Board** and the **Audit Committee**, which is appointed by the Board, supervise internal control and risk management. Assisted by the Audit Committee, the Board approves the operating principles of internal control

including the main features of the risk management process, a summary of risks, control objectives and common control points for financial reporting.

- (c) The **internal and external auditors** of the organization also measure the effectiveness of internal control. They assess whether the controls are properly designed and implemented and are working effectively, and make recommendations on how to improve internal control.
  - (d) **Management** is responsible for implementing the internal control and risk management process together with the group management team, subsidiary management teams and finance managers.
  - (e) **The Enterprise Risk Management Committee** is responsible for supporting and overseeing the risk management activities of the Fund. It is a critical element for the management of operational risk as it affects the investment activities of the Fund.
5. IFAD's Management and staff are committed to IFAD's Code of Conduct, which was established to regulate their conduct and align it with the interests of IFAD.
  6. The upper-level organizational structure and reporting lines are presented in chart 1.

Chart 1

**Upper-level organizational structure**

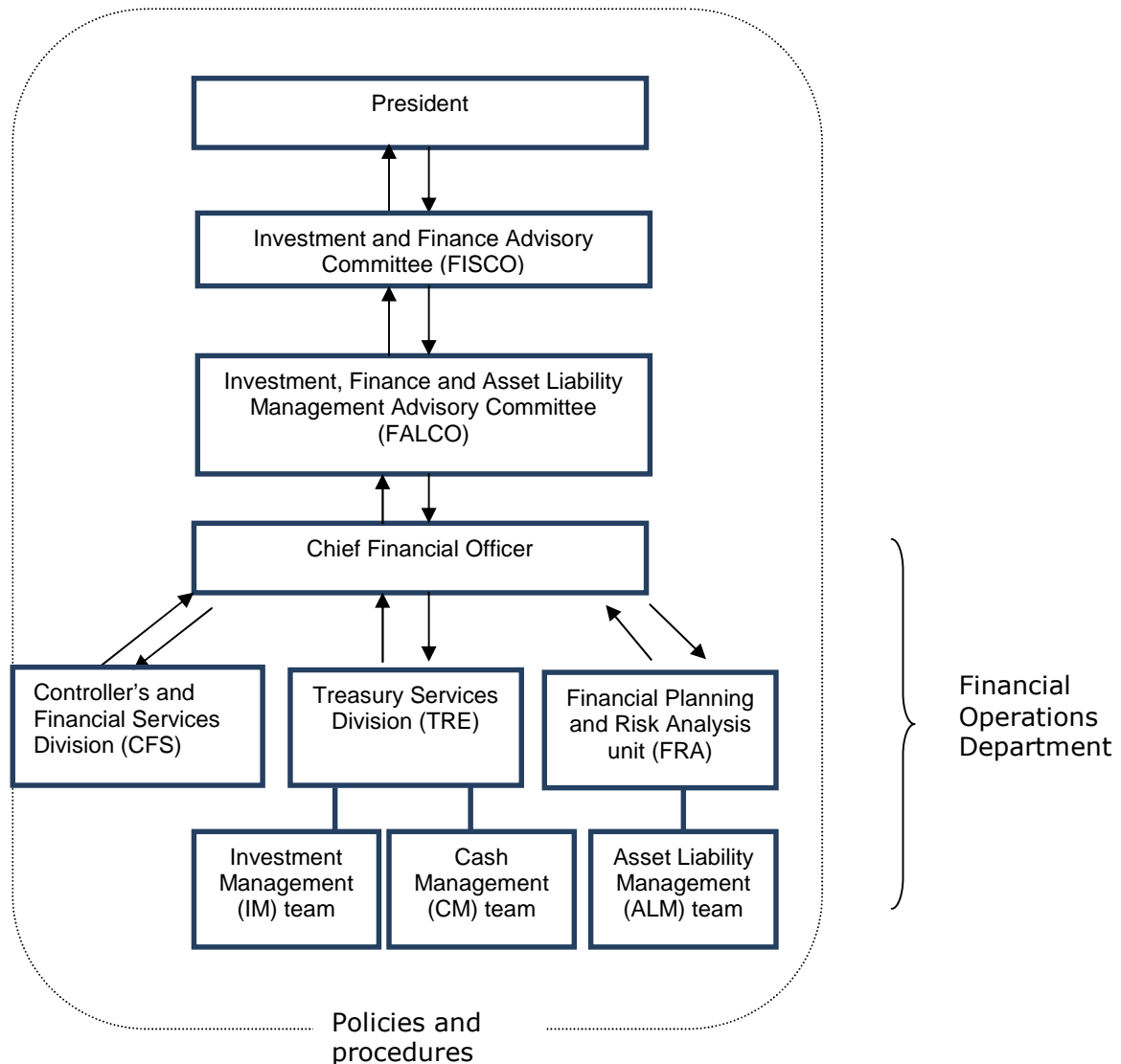


7. Part B of this section examines in detail IFAD's internal organizational structure and specific roles and responsibilities while also presenting the components driving the investment framework.

## **B. IFAD roles and responsibilities in the financial framework**

8. The internal organizational structure of IFAD in terms of investments is presented in chart 2.

Chart 2  
Internal organizational structure



9. **President.** The President has oversight and decision-making responsibility for the investment of the assets based on the approved Investment Policy Statement (IPS). He or she may delegate specific investment authorities.
10. **Investment committees.** On 15 January 2007, the President issued a President's Bulletin announcing the establishment of the following two new committees to replace and supersede the Investment Advisory Committee:
  - (a) The Investment and Finance Advisory Committee (FISCO) – the high-level committee. The rules of procedure and terms of reference of the FISCO are presented in annex I; and
  - (b) The Investment, Finance and Asset Liability Management (ALM) Advisory Committee (FALCO) – the operational committee. The rules of procedure and terms of reference of the FALCO are presented in annex II.
11. **Chief Financial Officer.** As Head of the Financial Operations Department, the CFO is responsible for IFAD's financial resource management. Through the Treasury Services Division (TRE), the Controller's and Financial Services Division (CFS), and the Financial Planning and Risk Analysis unit (FRA), the CFO:

- (a) Manages and reports on IFAD's financial resources in a framework of cost efficiency, risk containment, transparency and accountability;
  - (b) Invests and manages financial assets not immediately needed in line with operational requirements;
  - (c) Safeguards and maximizes the resources available for operations through prudent financial management and investment of financial resources, and through appropriate accounting, reporting and projection on IFAD's use of these resources;
  - (d) Works with internal and external partners in sharing knowledge, harmonizing financial management systems and procedures, and/or enabling their collaboration.
12. **Controller's and Financial Services Division.** The main specialized services provided by CFS are the following:
- (a) Maintaining adequate internal control systems to ensure that all IFAD's financial transactions are properly, completely and accurately recorded and reported, and are consistent with IFAD's authorities, policies and procedures;
  - (b) Performing accurate and timely internal and external financial reporting work which reflects and captures all the Fund's transactions, and reports financial results and the financial position;
  - (c) Originating governing body and other official documents on financial matters, e.g. financial statements, reports on resources available for commitment;
  - (d) Strengthening financial management and fiduciary responsibilities for internal and external stakeholders, including control over loans, grants and supplementary funds administration, funds flows and reporting;
  - (e) Ensuring financial and budgetary management of extra budgetary funds and hosted entities; and
  - (f) Liaising with the external auditors and the Audit Committee.
13. **Treasury Services Division.** The specialized services provided by TRE include:
- (a) Formulating and implementing financial policies and procedures, including the investment policy;
  - (b) Managing cash flow processes of disbursements and receipts through operational bank accounts;
  - (c) Managing cash flow operations and short-term liquidity;
  - (d) Managing investments internally/externally for IFAD and non-IFAD funds;
  - (e) Leading harmonization of TRE operations across the United Nations system;
  - (f) Developing partnerships with other international financial institutions on financial matters; and
  - (g) Developing and managing business relationships with financial service providers.
14. Through FALCO and FISCO, TRE supports the President and the CFO in making corporate decisions which impact IFAD's investments and financial operations.
15. TRE relies on two operating units to deliver these services:
- (a) The **Cash Management team**, which manages IFAD's operational cash and liquidity requirements for all funding sources. Responsibilities include:
    - (i) Ensure prompt availability of cash for IFAD operations through prudent liquidity management;

- (ii) Manage cash flow operations on IFAD's operational portfolio and relationship with IFAD's paying banks;
  - (iii) Process all IFAD payments and receipts of funds in IFAD's accounts;
  - (iv) Recording and reconciling all cash-related transactions in IFAD's chart of accounts;
  - (v) Settlement of investments of IFAD's internally managed portfolios;
  - (vi) Managing IFAD's electronic funds transfer system (Society for Worldwide Interbank Financial Telecommunication [SWIFT]).
- (b) The **Investment Management team**, which monitors and manages IFAD's investments in both its internally and its externally managed portfolio. Responsibilities include:
- (i) Periodically reviewing IFAD's investment policy and investment guidelines to ensure alignment and compliance with IFAD's investment goals and adequacy in the light of changing financial conditions;
  - (ii) Directly managing the internal held-to-maturity portfolio and other internally managed non-IFAD funds;
  - (iii) Managing the relationships with the custodian and the external portfolio managers.
16. The **Financial Planning and Risk Analysis Unit (FRA)** includes the Asset Liability Management (ALM) team, which reports directly to the CFO. The ALM team was established in 2004 to consolidate risk management functions that were fragmented across various divisions. The objective was to create a separate team to focus on the management of assets, liabilities and their related risks in order to safeguard the financial stability of IFAD. The team was designed with a specific emphasis on a risk management approach through an ALM framework. Responsibilities include:
- (i) Carrying out risk budgeting and monitoring, reporting as well as analyses on investment performance;
  - (ii) Performing compliance monitoring on investments, supported by IFAD's custodian bank;
  - (iii) Analysing and recommending the minimum liquidity requirement;
  - (iv) Making long-term financial/resource projections. In this regard, the team has been responsible for managing and enhancing IFAD's financial model.

### C. Investment policies and procedures

17. The overall framework for IFAD's investment processes and controls is set by the following policies and procedures:
- (a) Financial Regulations;
  - (b) IFAD's IPS;
  - (c) Investment guidelines;
  - (d) Internal Control Framework for IFAD Investments;
  - (e) Investment management and custodian agreements;
  - (f) Treasury Manual;



- (g) Rules of procedure and terms of reference of IFAD's Investment Committees (FISCO and FALCO).
18. **Financial Regulations:** the Financial Regulations govern the financial administration of the Fund and are interpreted in accordance with the Agreement Establishing IFAD.
19. **Enterprise Risk Management (ERM) policy:** the Enterprise Risk Management policy establishes a formal, systematic and integrated approach to identifying, managing and monitoring risks in IFAD and defines key roles and responsibilities for all stakeholders in ERM activities. Some of the activities performed under ERM which are relevant to the Fund's investments include the implementation of:
- (a) **Financial disclosure policy:** The policy requires staff with key roles in finance, investments, procurement and external resource management to provide, every year, a signed, confidential statement reporting their significant outside activities and interests. The implementation of this policy, which is part of the deliverables of IFAD's 8<sup>th</sup> Replenishment, and aims to enhance transparency in IFAD's financial operations was launched in October 2012.
- (b) **Management assertion and external audit attestation of internal controls over financial reporting:** In 2011, IFAD issued the first Management assertion on the effectiveness of internal controls over financial reporting for financial year 2011, while the independent attestation from external auditors is envisaged for the financial year 2012.
20. **IFAD's Investment Policy Statement.** The IPS provides the overarching principles regulating IFAD's key investment responsibilities, investment universe and acceptable risk levels.
21. More specifically, the purpose of the IPS is to:
- (a) Define the governance of IFAD's investments;
- (b) Set out IFAD's investment objectives for risk and return, including eligible asset classes;
- (c) Define key components of investment guidelines;
- (d) Establish formalized criteria to measure, monitor and evaluate performance and risk.
22. **Investment guidelines.** For each asset class, IFAD's investment guidelines define the principles by which a fund is managed and monitored. The guidelines determine, among others, the mandate's benchmark, the eligible universe and currencies, the mandate's credit floor, the maximum and minimum portfolio duration, and prohibited jurisdictions. The ALM team monitors the compliance with investment guidelines through daily compliance checks assisted by IFAD's custodian bank.
23. **Investment management and custodian agreements.** The agreements with external parties ensure that the relationship falls within a verified and constantly updated legal framework.
24. **Treasury Manual.** This manual provides a detailed and authoritative description of the specialized services provided by TRE, and defines how the Division's workload is divided among its various functions.
25. The manual is divided into two main sections: the executive manual, which provides a broad overview of the organization and its major processes; and the operational manuals (cash management and investment management), which can be considered a working document that provides the user with specific details,

descriptions and examples of processes and procedures. Table 1 gives an overview of the Treasury Manual.

Table 1  
**Overview of the Treasury Manual**

	<i>Executive manual</i>	<i>Operational manuals</i>
What is it?	An overview document that provides a concise description of TRE's functions and procedures in a summary format.	A detailed description of the functions, tasks and processes that make up the responsibilities of TRE staff.
How is it used?	Contains embedded navigation links that take the user directly to relevant sections within the operating manual for additional information.	Contains specific listings of duties, activities, detailed process flows, and other "how-to" material. Can be used as a step-by-step instruction guide for most procedures.
Who are the prospective users?	Intended for use as a quick reference for those interested in how TRE operates and what its major functional responsibilities are.	Intended for use as a detailed reference for those tasked with carrying out TRE's day-to-day functions.

26. To maintain flexibility, accessibility and adaptability, the Treasury Manual is published on IFAD's local area network in portable document format (PDF). The electronic file is controlled by the TRE front office. In view of the constant process of revision and the restricted nature of parts of the Treasury Manual, no hard copies are distributed.
27. **Confidentiality.** Due to the confidential nature of the information presented, parts of the Treasury Manual are restricted and can be viewed by authorized users only. It is largely a restricted document, and authorized users may not divulge its contents to third parties. The public sections of the manual are available to be viewed by all staff on the TRE intranet site.

### **III. Risk assessment, control and monitoring activities**

#### **A. IFAD's investment portfolio structure**

28. IFAD's investment portfolio is allocated to several asset classes within the fixed-income universe. Currently, cash and held-to-maturity investments are managed internally while marked-to-market investments are managed through eight mandates with external managers.
29. As at 30 September 2012, the portion of internally managed funds equaled approximately 24 per cent of the overall investment portfolio, currently allocated as follows:
  - (a) **Cash:** Cash is allocated within several banks with a minimum short-term rating of P-1 by Moody's, A-1 by Standard & Poor's or F-1 by Fitch.
  - (b) **Held-to-maturity portfolio:** Funds are invested in the four SDR currencies in eligible short-term investments and fixed-income bonds, including government related securities, supnationals and corporate bonds. The credit floor is AA- (except for government 100% owned securities requiring AA and corporate bonds requiring AAA); the duration is approximately 2.5 years (maximum maturity is 5 years); and the benchmark is a customized index calculated internally. An approved revision in fourth quarter 2012 to this portfolio's investment guidelines and strategy included the creation of a liquidity buffer to more efficiently meet net disbursement requirements.
30. As at 30 September 2012, the portion of externally managed funds equaled approximately 76 per cent of the overall investment portfolio. The externally managed portion of the investment portfolio is currently allocated across the following four asset classes:

- (c) **Global government bonds:** Funds are invested in a multi-currency mandate of government bonds from major countries. The credit floor is AA-; the duration is approximately 2 years; and the benchmark is the Global Treasuries IFAD Customized 1-3 years index by Barclays; and
- (d) **Diversified fixed-income:** Funds are invested in a global diversified fixed-income mandate with a blend of fixed-income bonds, including government related securities, agency mortgage-backed securities, supnationals and corporate bonds. The credit floor is AA- for all securities except for corporate bonds which for diversification reason have a credit rating floor of A-; the duration is approximately 4.5 years; and the benchmark is the Global Aggregate IFAD Customized index by Barclays; and
- (e) **Inflation-indexed bonds:** Funds are invested in a multi-currency mandate of inflation-indexed bonds. The credit floor is AA-; the duration is approximately 5 years; and the benchmark is the World Global Inflation-Linked Customized 1-10 years bond index by Barclays.
- (f) **Emerging market bonds:** Funds are invested in investment grade government fixed income securities in convertible currencies. The credit floor is BBB- (i.e. investment grade), the duration is approximately 7 years; and the benchmark is the Emerging Market Debt Investment Grade IFAD Customized index by Barclays.

## B. Identification of risks

31. IFAD's investments are exposed to a variety of financial risks. Marked-to-market investments are affected by market risks (specifically interest rate, currency and liquidity risks), as well as credit, counterparty and operational risks. A detailed definition of these risks and a summary of the key measures used to measure such risks in IFAD's investment portfolio are given below.

### Market risks

32. **Interest rate risk** is defined as the risk that an investment's value will change as a result of a change in the absolute level of interest rates, in the spread between two rates, in the shape of the yield curve or in any other interest rate relationship. Interest rate risk is monitored on the overall portfolio and on the single managers, based on measures obtained with the enhanced risk management system (see section D, paragraph 49). The measures include standard deviation, ex ante tracking error (active risk), value at risk (VaR) and conditional value at risk (CVaR). The allowable limits for tracking error and the CVaR are stated in annex I of the IPS. In addition, stress test scenarios on the portfolio may be performed upon request or whenever considered necessary because of market conditions.
33. The data provided by the custodian may be complemented with internal analyses on single securities using tools provided by Bloomberg or other sources.
34. **Currency risk** arises from the change in price of one currency against another. IFAD faces currency risk on a balance sheet level, as the majority of IFAD's commitments, i.e. the undisbursed loans and grants, are denominated in special drawing rights (SDR). Therefore, to the extent possible, IFAD maintains a portion of its assets (the investment portfolio, the promissory notes and the contribution receivables) in the currencies and ratios of the SDR. Similarly, the General Reserve and commitments for grants denominated in United States dollars are matched by assets denominated in United States dollars. This is the so-called "SDR currency alignment procedure".
35. **Liquidity risk** is defined as the risk stemming from the lack of marketability of an investment that cannot be sold quickly enough to generate liquidity to meet contractual obligations. At any point in time, IFAD must be able to meet its disbursement obligations for loans and grants.

36. The liquidity risk is addressed through the minimum liquidity requirement. This amount must be available at any point in time to ensure IFAD's ability to meet its disbursement obligations.

**Credit risk**

37. Credit risk is defined as the risk of loss of principal or loss of a financial reward stemming from a borrower's failure to repay a loan or otherwise meet a contractual obligation.
38. Credit risk is managed through the establishment of a minimum rating floor in the investment guidelines. The eligibility of individual securities and issuers is determined on the basis of ratings by major credit rating agencies. Credit analyses by security and issuer are performed by TRE for all internally managed investments and, on a selective basis, for externally managed assets, and for commercial and central banks, by using financial information systems, credit analysis providers and other sources. All other credit analysis is made and reported as an integral part of the risk management process.

**Counterparty risk**

39. Counterparty risk is defined as the risk to each party of a contract that the counterparty will not live up to its contractual obligations.

Counterparty risk is managed for all investments through the establishment of a minimum rating for eligible counterparties, including banks for operational cash and for short-term investments. Counterparty risk is also managed by capping exposure to each issuer/bank. Counterparty risk analyses are performed by TRE for the purpose of investment management, including on trading, derivatives and banks eligible for investments; in the case of commercial and central banks, TRE uses financial information systems, credit analysis providers and other sources.

**Operational risk**

40. Operational risk is defined by the Basel Committee on Banking Supervision as "the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events." Operational risk is the risk which is not inherent in financial, systematic or market-wide risk. This includes business continuity, legal risk and reputational risk. A typical example of operational risk is the lack of clear segregation between the front and back office, which in the case of the Barings Bank led the General Manager and Head Trader to incur massive losses through unauthorized and concealed trading activities. The true position was not noticed earlier because of a serious failure of controls and managerial confusion within Barings.
41. The operational risk is addressed by defining a sound framework of responsibility and accountability within IFAD's financial structure, by establishing back-up procedures and by performing legal reviews of all official policies.
42. The operational risks have been mapped and analysed during 2012 and an Operational Risk Management Report for Treasury investment and cash management operations is being finalized by the end of 2012.

**C. Risk measurement and management**

**Risk budgeting and risk tolerance**

43. The aforementioned risks are addressed through a risk-budgeting framework based on predetermined risk metrics as defined in the IPS (annex I), investment guidelines, other policies and internal procedures.
44. Specifically, risk budgeting is the procedure of allocating risk within funds. It entails setting predetermined risk limits for the investment portfolio – on an aggregate level and at the level of individual managers – monitoring these measures and adjusting the portfolio whenever they exceed the tolerance level. In more detail, risk budgeting is the process of:

- (a) Measuring and decomposing the aggregate risk of a portfolio into its constituents on a quantitative basis;
  - (b) Setting risk limits (risk budgets) for the overall investment portfolio and/or each asset class ex ante through the definition of ranges of selected risk metrics in line with the investor's risk appetite and tolerance level;
  - (c) Allocating risks across the assets in compliance with risk budgets;
  - (d) Monitoring the use or abuse of risk budgets on an ongoing basis;
  - (e) Analysing the results (ex post);
  - (f) Changing investments when necessary to align the portfolio with the desired risk level.
45. Annex I of IFAD's IPS sets the limits for predefined risk measures on IFAD's overall investment portfolio and single mandates. Further limitations are set in IFAD's investment guidelines, minimum liquidity requirement and investment policies, and in its internal procedures. Table 2 details the risk measures selected for the risk-budgeting framework and their tolerance level as defined in these IFAD policies and guidelines. The table, together with chart 3, also presents the internal procedures established under the new, strengthened risk management framework to monitor and manage the risks within the new risk-budgeting framework.

#### **Background of IPS risk-budgeting levels**

46. The risk measures and their tolerance level presented in Annex I of IFAD's IPS have been established as result of several analyses conducted with the help of two external risk management providers, as well as through the implementation in 2012 of the BarraOne risk management tool which allows IFAD to perform what-if analysis on the portfolio and managers' risk levels. Specifically:
- The established levels of one-year **CVaR for each asset class** have been set based on the CVaR of several benchmarks representing IFAD's desired investment universe for the specific asset class. The final risk-budgeting levels have been derived by adding a security buffer to account for market volatility.
  - The established levels of one-year **CVaR for the overall portfolio** have been set based on the CVaR of IFAD's current asset classes and based on stress testing under extreme market conditions.
  - The established levels of ex ante **tracking errors for each asset class** (nb. not applicable to held-to-maturity investments) have been set based on IFAD's investment guidelines for existing mandates and on accepted industry-wide tracking error levels as discussed with IFAD's external portfolio managers.

Table 2  
**IFAD's Investment risks, established limits and control framework**

<i>Risk type</i>	<i>Risk measure and source</i>	<i>Established limit</i>	<i>Monitoring frequency/Tool</i>	<i>Reporting frequency</i>	<i>Alert level/Action taken</i>
Interest rate risk	Manager's duration (determined in IFAD's investment guidelines)	Duration must be no lower than zero (i.e. divesting into cash, lower limit) and no higher than two years above the benchmark duration (upper limit)	Daily through compliance system	At least monthly in the risk report to the Treasurer and the CFO  Quarterly in the Report on IFAD's investment portfolio to the Executive Board	Should the duration upper or lower limit be breached, the issue will be reported by the ALM team (FRA) to the IM team, the Treasurer and the CFO. The IM team will immediately liaise with the investment manager to: <ul style="list-style-type: none"> <li>• Verify the reason for the duration position/strategy.</li> <li>• Agree on a reasonable time frame for the manager to restore duration within allowable limits.</li> <li>• Upon execution of required trades, request written confirmation by the manager of the new duration level.</li> </ul> The ALM team will then verify the duration level and report to the Treasurer and the CFO.
	1-year forward - looking ex ante tracking error (determined in IFAD's IPS)	<ul style="list-style-type: none"> <li>• Global government bonds: maximum 1.5%</li> <li>• Diversified fixed-income bonds: maximum 3.0%</li> <li>• Inflation-indexed bonds: maximum 2.5%</li> <li>• Emerging markets government bonds: maximum 4.0%</li> </ul>	Weekly through risk management system	At least monthly in the risk report to the Treasurer and the CFO. More frequently if alert level for measure is reached  Quarterly in the Report on IFAD's investment portfolio to the Executive Board	Should the tracking error on any manager exceed its threshold by more than 5%, or should the change from prior month exceed 5%, the issue will be reported by the ALM team to the IM team the Treasurer and the CFO. The IM team will immediately liaise with the investment manager to: <ul style="list-style-type: none"> <li>• Verify the reasons underlying the discrepancy in tracking error.</li> <li>• If deemed necessary for risk mitigation, agree on a reasonable time frame for the manager to restore tracking error within allowable limits.</li> <li>• Upon execution of required trades, request written confirmation by the manager of the new tracking error<sup>a</sup></li> </ul> The ALM team will verify the tracking error level and report to the Treasurer and the CFO.

<sup>a</sup> It should be noted that a high tracking error does not necessarily indicate a higher risk, but only a higher degree of difference when compared with the benchmark. For example, should a benchmark contain subprime mortgage-backed securities, a portfolio indexed against this benchmark and not containing such securities may show a high tracking error but a lower risk level in absolute terms.

<i>Risk type</i>	<i>Risk measure and source</i>	<i>Established limit</i>	<i>Monitoring frequency/Tool</i>	<i>Reporting frequency</i>	<i>Alert level/Action taken</i>
Interest rate risk (continued)	1-year conditional value at risk at 95% confidence level (determined in IFAD's IPS)	<ul style="list-style-type: none"> <li>Overall portfolio: maximum 6%</li> <li>Global government bonds: maximum 4%</li> <li>Diversified fixed-income bonds: maximum 15%</li> <li>Inflation-indexed bonds: maximum 9%</li> <li>Emerging markets government bonds: maximum 27%</li> </ul>	Monthly through risk management system	<p>At least monthly in the risk report to the Treasurer and the CFO.. More frequently if alert level for measure is reached.</p> <p>Quarterly in the Report on IFAD's investment portfolio to the Executive Board</p>	<p>Should the CVaR on the overall portfolio or on any single manager exceed its threshold by more than 5%, or should the change from prior month exceed 5%, the issue will be reported by the ALM team to the IM team, the Treasurer and the CFO. The following actions will be taken:</p> <ul style="list-style-type: none"> <li>The ALM team will perform a break-down analysis to identify the sources of increased CVaR.</li> <li>Depending on the result of the break-down analysis, the ALM team will recommend to the CFO and to the Treasurer corrective measures on the overall portfolio or for a single manager. These measures may include, but are not limited to, increasing the cash exposure, decreasing duration and divesting from a certain sector.</li> <li>The measures will be discussed within TRE and ALM and an action plan will be presented to the CFO and to the Treasurer.</li> <li>Upon approval, the recommendations will be implemented with the concerned counterparty.</li> </ul>
Currency risk	Percentage deviation from SDR currency ratios	Not more than 2.5% deviation from SDR basket for maximum of three months	Monthly through internal analysis	<p>At least monthly in the risk report to the Treasurer and the CFO. More frequently if alert level for measure is reached</p> <p>Quarterly in the Report on IFAD's investment portfolio to the Executive Board</p>	<p>Should the percentage deviation in any single currency exceed 2.5%, the following actions will be taken:</p> <ul style="list-style-type: none"> <li>The ALM team will recommend a realignment strategy by one of the following tools: foreign exchange transactions on internally managed cash or change in currency composition of one or more of the externally managed mandates.</li> <li>An execution time frame for the realignment will be communicated by the ALM team to the Treasurer and the CFO and to the concerned teams (the IM and/or the CM teams)</li> </ul>

<i>Risk type</i>	<i>Risk measure and source</i>	<i>Established limit</i>	<i>Monitoring frequency/Tool</i>	<i>Reporting frequency</i>	<i>Alert level/Action taken</i>
					<ul style="list-style-type: none"> <li>The concerned party will be instructed to execute the trades.</li> <li>Upon execution, a new analysis will be performed to verify the realignment of the assets.</li> </ul>
Liquidity risk	Percentage of gross disbursement (determined in IFAD's minimum liquidity requirement)	Minimum liquidity requirement (composed of investment portfolio's highly liquid assets) set at 60% of the total of annual gross disbursements (cash outflows) and potential additional requirements due to liquidity shocks <sup>c</sup>	Quarterly through internal analysis	Quarterly in the Report on IFAD's investment portfolio to the Executive Board	Should the highly liquid assets in IFAD's investment portfolio decrease to reach the level of 70% of gross disbursements, the issue will be reported by the ALM team to the CFO and the Treasurer and immediately communicated to the Programme Operations Department in order to revise the plan for future disbursements.
Credit risk	Credit rating (determined in IFAD's investment guidelines)	Minimum credit floor in investment guidelines for externally managed portfolios: AA- for government bonds and BBB- for emerging market government bonds A- for corporate bonds. Maximum exposure of 20% in corporate bonds for the diversified fixed-income mandates	Daily through compliance monitoring system	At least monthly in the risk report to the Treasurer and the CFO  On a quarterly basis a credit rating analysis by asset class will be presented in the Report on IFAD's investment portfolio to the Executive Board	Should a security be downgraded below IFAD's minimum credit floor, the issue will be reported by the ALM team to the IM team, the Treasurer and the CFO. As per the investment guidelines, the manager will dispose of the concerned security within 30 days of the date of the downgrading by the credit rating agency.  Credit risk analyses are performed by TRE for internally managed investments, and, on a selective basis, for externally managed assets. Credit risk analyses for commercial and central banks are performed by using financial information systems, credit analysis providers and other sources.
Counterparty risk	Credit rating for counterparties (determined in IFAD's investment guidelines)	Minimum credit rating for eligible counterparties: Banks for cash and short-term investments: short-term rating of A-1 Standard & Poor's, P-1 Moody's or F-1 Fitch	Monthly through internal analyses	Ad hoc basis	Should counterparty be downgraded below IFAD's minimum credit floor, the issue will be reported by the ALM team to the Treasurer, the CFO and the IM and CM teams. Immediate action will, as appropriate, be taken with the investment manager.  TRE performs analysis of counterparties for all investment activities, including trading, derivatives and banks eligible for investments. Monitoring is also performed on commercial and central banks' credit ratings and financial soundness.

<sup>c</sup> Liquidity policy, document EB 2006/89/R.40.

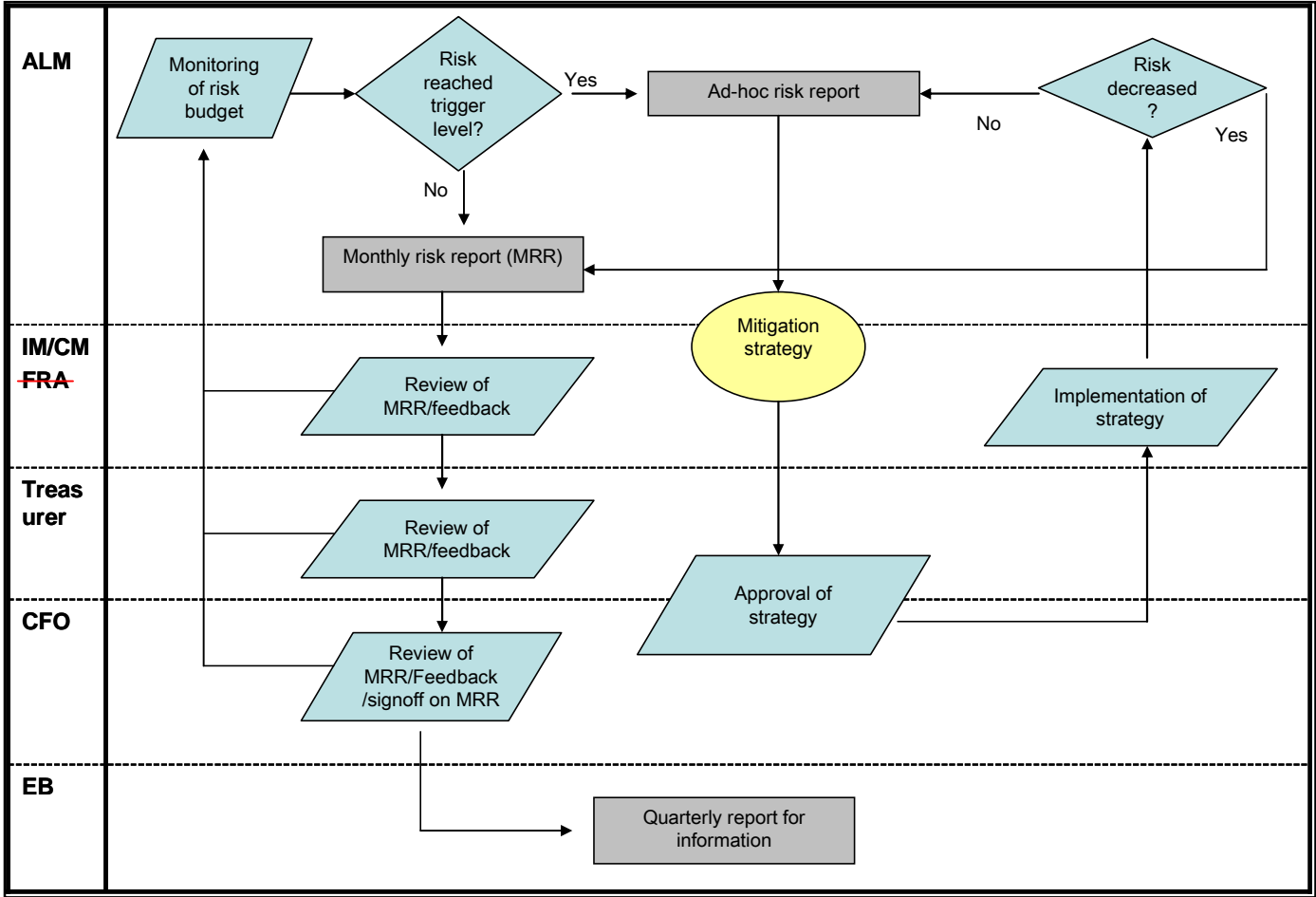


<i>Risk type</i>	<i>Risk measure and source</i>	<i>Established limit</i>	<i>Monitoring frequency/Tool</i>	<i>Reporting frequency</i>	<i>Alert level/Action taken</i>
Operational risk	<p>Segregation of duties within TRE, back-up procedures, legal control (determined in the Treasury Manual and Operational Risk Management Report for Treasury Cash and Investment Management)</p> <p>Segregation of duties of TRE and ALM reported in this Internal Control Framework document and various Investment Guidelines</p>	Not applicable	Continuous	Annually, through the revision of the Treasury Manual and the Operational Risk report (from 2012).	<p>Segregation of duties for core financial procedures is implemented within the FOD department between CFS and TRE, whereby the former has the authority to instruct movements of IFAD funds to external parties, and the latter to execute such instructions through operational bank accounts. In addition, CFS and TRE independently post relating accounting entries in IFAD General Ledger which are reconciled as part of the monthly closing of books. Another segregation of duties is within TRE, between IM which executes trades and CM which performs trade settlement.</p> <p>Furthermore, with regards to the investment portfolio, the first level of sign-off is performed between the external portfolio managers and IFAD's Global Custodian, thereby ensuring accountability and segregation of duties.</p> <p>Procedures are reported periodically in the Treasury Manual. Whenever a new procedure is set up, back-up functions are established and documented to ensure business continuity.</p>

## D. Control activities and monitoring

47. The risks in IFAD's investments are currently monitored with a variety of tools:
- **Enhanced risk management system.** In order to be equipped for an effective risk-budgeting framework, IFAD strengthened its analytical resources. A new enhanced risk management system, BarraOne, was implemented in June of 2012. This system strengthened IFAD's ability to monitor the risks in the investment portfolio, and enable TRE and ALM to perform ex ante analyses as well as stress tests on assets, on the single mandates and on individual managers.
  - **Compliance monitoring system.** This Web-based application supplied by the global custodian enables the ALM team to verify on a daily basis the compliance of external portfolio managers with the respective investment guidelines. Eighty per cent of the guidelines are currently coded in the system, and the application flags breaches or alert levels on a daily basis. Guidelines that cannot be coded in the system are monitored through internal analyses and manual procedures.  
  
Compliance checks on the internally managed portfolios are, for reasons of segregation of duty, performed by the global custodian who alerts the ALM team as soon as a breach occurs and produces a monthly report.
  - In addition to the above, the IM team performs qualitative analyses on selected issuers and counterparties.
48. The risks in IFAD's investment portfolio are monitored by the ALM team. A comprehensive monthly risk report is produced by the team for the Treasurer and CFO. If deemed relevant, it is also shared with FALCO and FISCO.
49. Whenever a risk measure reaches the "alert level", as defined in table 2, ALM will inform the IM team, the Treasurer and the CFO. Appropriate risk-mitigating strategies will be recommended and actions will be taken, as described in table 2. Upon completion of the actions, the ALM team will verify the risk level and report the new level to the concerned parties. The process is visualized in chart 3.
50. In addition to the risk measures established in annex I of IFAD's IPS for risk-budgeting purposes, a comprehensive set of risk measures is analysed through the risk management system at least monthly. Whenever one of the risk measures either on the overall portfolio or on a single manager is deemed to be excessive or shows a significant change from the previous month, the ALM team will bring the issue to the attention of the CFO, the Treasurer and the IM team.
51. The additional measures (whose definitions are given in annex III) include:
- (a) Annualized standard deviation or returns by manager, by asset class benchmark, and for the overall portfolio and the overall benchmark;
  - (b) Conditional value at risk (CVaR) with a 1-year forward-looking horizon and a 95 per cent confidence level, by manager, by asset class benchmark, and for the overall portfolio and the overall benchmark;
  - (c) Historical overall monthly CVaR for the historical period of the past two years;
  - (d) Overall risk decomposition, by risk type; and
  - (e) Risk-adjusted return indicators (Sharpe ratio, tracking error, information ratio, beta, alpha).
52. Additionally, specifically in the area of investments, CFS executes full data control and reconciliation of financial records against the custodian and/or third parties.

Chart 3  
Flow of control framework for investment risks



## **Rules of procedure and terms of reference of the Investment and Finance Advisory Committee (FISCO) (High-level committee)**

### **1. Purpose**

- 1.1 To assist and advise the President in determining the overall investment strategy and Investment Policy Statement (IPS) and deciding on other strategic financial matters.
- 1.2 To review, monitor, discuss and make recommendations to the President on strategic financial matters, based on information and recommendations provided to it by the FISCO members and/or by the Investment, Finance and Asset Liability Management Advisory Committee (FALCO).
- 1.3 The scope of FISCO's review and recommendations, for final decision as required, by the President, includes:
  - 1.3.1. Financing and resource requirements, including budget status
  - 1.3.2. Financing mechanisms
  - 1.3.3. All financial flows and projections
  - 1.3.4. Investment Policy and minimum liquidity requirement
  - 1.3.5. Investment risk management
  - 1.3.6. Direct charges against investment income
  - 1.3.7. Appointment of investment managers and Global Custodian
  - 1.3.8. Financial market developments
  - 1.3.9. Any other financial matters deemed strategically important

### **2. Membership**

- 2.1. The membership of the Committee shall be determined by the President and shall include:
  - The President (Chairperson)
  - Vice-President, Office of the President and the Vice-President
  - Associate Vice-President, Programmes, Programme Management Department
  - Chief Financial Officer and Head, Financial Operations Department
  - Chief Development Strategist, Strategy and Knowledge Management Department
  - Head of Corporate Services Department
  - Director and Treasurer, Treasury Services Division (Secretary)
  - Director, Office of the President and the Vice-President
  - Director and Controller, Controller's and Financial Services Division
  - General Counsel, Office of the General Counsel
  - Director, Office of Audit and Oversight (Observer)
  - Any other member as the Chairperson may decide from time to time

### **3. Meetings**

- 3.1 Members and the observers will attend all meetings. In the event that they are unable to attend, they will designate qualified representatives by communicating these to the Secretary in writing.
- 3.2 Other IFAD staff directly concerned with the matters to be discussed may be asked to attend by the Secretary in consultation with the Chairperson.
- 3.3 A quorum shall consist of the President as Chairperson or, in the event of the President's inability to attend, his/her representative (under a specific delegation of authority from the President); the Director and Treasurer, TRE, as Secretary or his/her representative and the Chief Financial Officer or his/her representative.
- 3.4 Meetings will be held every two months and more often if the business of the Fund so requires.

### **4. Agenda, documentation and minutes**

- 4.1 The Director and Treasurer of IFAD will act as the Secretary of the Committee.
- 4.2 The Secretary will be responsible for the following:
  - 4.2.1. Scheduling meetings
  - 4.2.2. Drafting the agenda in consultation with the Chairperson of FALCO
  - 4.2.3. Coordinating and distributing documentation to the Committee at least four working days prior to the meeting date. In addition to the specific documentation for each meeting, the committee will receive information, as deemed necessary by the Chairperson or FISCO members, on the strategic financial matters indicated in 1.3;
  - 4.2.4. Preparing the minutes of the meeting for the Chairperson's approval and an updated tracker of actions required by the Committee. The minutes shall include:
    - 4.2.4.1. Decisions taken by the President
    - 4.2.4.2. Advice, recommendations, substantive observations by the Committee members
    - 4.2.4.3. Actions to be undertaken by responsible officers.
  - 4.2.5. Distributing signed minutes to all members, observers and other participants,

# **Rules of procedure and terms of reference of the Investment, Finance and ALM Advisory Committee (FALCO) (Operational committee)**

## **1. Purpose**

- 1.1 To assist and advise the Chief Financial Officer (CFO) in making decisions on financial or investment management matters that are under his/her authority or under specific delegation of authority from the President of IFAD.
- 1.2 To decide on investment policy and risk matters which fall within the framework of the approved Investment Policy Statement (IPS);
- 1.3 To review, monitor, discuss and make recommendations to the Investment and Finance Advisory Committee (FISCO) for final decision by the President on the following strategic financial matters based on information and recommendations provided to it by the FALCO members:
  - 1.3.1. Financing and resource requirements, including budget status
  - 1.3.2. Financing mechanisms
  - 1.3.3. All financial flows and projections
  - 1.3.4. Investment policy and minimum liquidity requirements
  - 1.3.5. Investment risk management
  - 1.3.6. Financial market developments
  - 1.3.7. Any other financial matters deemed strategically or operationally important.
- 1.4. To review, monitor, discuss and decide on operational matters within provisions of approved financial policies and strategies for final decision by the CFO, and inform FISCO on decisions taken. The CFO shall exercise best judgment on any matters to be escalated to FISCO. The scope of CFO's decision includes:
  - 1.4.1. Investment guidelines and subsequent changes
  - 1.4.2. Re-allocations within the approved overall Direct charges against investment income
  - 1.4.3. Eligibility criteria for the selection of commercial banks and changes thereto
  - 1.4.4. individual investment portfolio risk budget parameters within the overall portfolio parameters as approved by the Executive Board
  - 1.4.5. Selection of financial information and advisory services providers
  - 1.4.6. Any other financial and operational matters deemed appropriate.

## **2. Membership**

2.1 The membership of the Committee shall be determined by the President and include:

- Chief Financial Officer (CFO), and Head, Financial Operations Department (Chairperson)
- Director and Treasurer, Treasury Service Division (Secretary)
- Director and Controller, Controller's and Financial Services Division

- Director or representative, as designated by Associate Vice President Programmes, Programme Management Department
- Manager, Financial Planning and Risk Analysis Unit
- Manager, Accounting and Financial Reporting, Controller's and Financial Services Division
- Manager, Loans and Grants, Controller's and Financial Services Division
- Assistant Treasurer, Treasury Services Division
- Investment Management Senior Officer, Treasury Services Division
- Cash Management Senior Officer, Treasury Services Division
- Senior Officer Asset Liability Management, Financial Planning and Risk Analysis Unit
- Budget Officer, Financial Planning and Risk Analysis Unit
- Legal Counsel, Office of the General Counsel
- Treasurers of FAO and WFP as observers
- Any other member as the Chairperson may decide from time to time

### **3. Meetings**

- 3.1 Members of the Committee will attend all meetings. In the event that they are unable to attend, they will designate qualified representatives by communicating these to the Secretary in writing.
- 3.2 A quorum shall consist of the CFO, the Secretary and five members including at least one each from Treasury Services Division, Controller's and Financial Services Division and Financial Planning and Risk Analysis Unit, or their representatives.
- 3.3 Meetings will be held every two months (to be aligned with the FISCO meetings) and more often if the business of the Fund so requires.

### **4. Agenda, documentation and minutes**

- 4.1 The Director and Treasurer of IFAD will act as Secretary of the Committee.
- 4.2 The Secretary will be responsible for the following:
  - 4.2.1. Scheduling meetings
  - 4.2.2. Establishing the agenda
  - 4.2.3. Coordinating and distributing documentation to the Committee at least two working days prior to the meeting date. In addition to specific documentation for each meeting, the Committee will receive regular information, as deemed necessary by the Chairperson or Members, on the strategic financial and operational matters indicated in 1.2
  - 4.2.4. Preparing the minutes of the meeting for the Chairperson's approval and an updated tracker of actions required by the Committee. The minutes shall include:
    - 4.2.4.1. Decisions taken by the Chief Financial Officer
    - 4.2.4.2. Advice, recommendations, substantive observations by Committee members
    - 4.2.4.3. Actions to be undertaken by responsible officers
  - 4.2.5. Distributing signed minutes to all members and other participants.

## Glossary of risk measures and related terms

**Active risk:** The risk a portfolio or fund acquires when it is actively managed, especially when its managers attempt to outperform some benchmark. More specifically, the more a fund or portfolio differs from the benchmark upon which it is based, the more likely it is to underperform or outperform that same benchmark. This extra risk is active risk. For example, a one-year forward-looking active risk of 0.2 per cent means that, over the coming year, the portfolio excess return over the benchmark is expected to be in the range of +/- 0.2 per cent of its mean value.

The active risk can be predictive (or ex ante), based on expected return, or ex post, derived from the actual returns of the portfolio.

**Alpha:** Alpha is a risk-adjusted measure of the so-called "excess return" on an investment. It is a common measure of assessing an active manager's performance as it is the return in excess of a benchmark index or "risk-free" investment.

**Benchmark:** A benchmark is a standard against which the performance of a security or manager can be measured. The benchmark should have certain characteristics of investability, transparency and replicability so as to best represent the performance of a certain investment universe. In financial markets, the most popular indices are used as benchmarks. For example, the Standard & Poor's 500 is a widely used benchmark for United States "large-cap" equities markets.

**Beta:** Beta is a measure of the volatility, or systematic risk, of a security or a portfolio in comparison with the financial market as a whole.

**Conditional VaR:** CVaR is a measure of the average expected loss of a portfolio assuming that the value at risk has been reached. Since assumption is made that the portfolio loss has exceeded the VaR, the CVaR gives an indication about the magnitude of the losses in "the tails" of the distribution, i.e. in extreme loss cases. The higher the CVaR, the more a portfolio is expected to lose in extreme scenarios and, hence, the riskier it is.

**Confidence level:** This is the range (with a specified value of uncertainty, usually expressed in percentage terms) within which the true value of a measured quantity exists. It is also the level of certainty to which an estimate can be trusted.

**Duration:** This is a measure of the sensitivity of a bond's price to changes in the level of market yields. For bonds, prices and yields have an inverse relationship. If the yields increase, the bonds' prices decrease. A bond with longer duration is more sensitive to changes in market yields meaning that, all else equal, its price will decline more for a given increase in yields than the price of a bond with shorter duration.

**Fat tails:** A fat-tailed probability distribution is one in which extreme events are more probable.

**Historical simulation:** Historical simulation is a procedure for predicting the values of a portfolio deriving such values from historical portfolio data.

**Information ratio:** This is a measure of risk-adjusted performance. The information ratio measures the relation between the portfolio's average excess return (in excess of the benchmark return) and its tracking error. A higher information ratio indicates a better reward for the portfolio's tracking error, thereby indicating also more successful investment management skills.

**Risk-adjusted return:** This is a measure of how much an investment returned in relation to the amount of risk it took on. It is often used to compare a high-risk, potentially high-return investment with a low-risk, lower-return investment. A simple risk-adjusted return measure is dividing the portfolio's annual return by its annual standard deviation. This ratio gives an indication of the amount of return generated by each risk unit. The higher the ratio, the better the risk-adjusted return.



**Risk-free rate:** This is the theoretical rate of return of an investment with no risk of financial loss. The risk-free rate represents the interest that an investor would expect from an absolutely risk-free investment over a given period of time. Risk-free assets usually refer to short-dated government bonds. For United States dollar investments, usually United States Treasury bills are used, while a common choice for euro investments are German Government bills or the Euro Interbank Offered Rate (Euribor).

**Sharpe ratio:** This is a measure of risk-adjusted performance. It measures the relation between the portfolio's average excess return (in excess of risk-free return) and its standard deviation. The higher the Sharpe ratio is, the better the reward for market risk.

**Standard deviation:** This is a measure of the volatility of a certain value around its average. The higher the standard deviation, the more the value is dispersed around its average. In the case of portfolio returns, the higher the standard deviation of returns, the more returns are expected to vary around the average expected return. Therefore, a portfolio with a high standard deviation is considered more risky than one with a lower one, all else being equal.

**Value at risk:** This is the maximum potential loss an investment can incur over a defined time horizon within a specified confidence level. If an investment portfolio of US\$100 million has a three-month VaR of 1.5 per cent with a confidence level of 95 per cent, the maximum amount that could be lost over the next three-month period is US\$1.5 million; and this estimate can be trusted with 95 per cent certainty, meaning that it is expected that the estimate is correct 19 times out of 20 (95 per cent of the times).

**Volatility:** This is a measure of the fluctuation in the market price of the underlying security. Mathematically, volatility is the annualized standard deviation of returns.