STATEMENT OF INVESTMENT BELIEFS AND PRINCIPLES

Investment Advisory Board, Petroleum Fund of Timor-Leste

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SUMMARY

The IAB has adopted a mission statement, investment objectives, beliefs and principles which will guide the Board in all its recommendations to fulfil its duties in accordance with the Petroleum Fund Law. This mission statement relates to the principles and beliefs that the Investment Advisory Board holds and it informs how advice will be given in relation to the maintenance of the objectives of the Timor-Leste Petroleum Fund

MISSION STATEMENT

The mission of the Investment Advisory Board is to provide advice to the Minister of Finance so that the investment of the Petroleum Fund assets will benefit current and future generations of Timor-Leste's citizens by maximizing the long-term value of the savings from Timor-Leste's non-renewable resources through the prudent investment of those savings.

INVESTMENT OBJECTIVES

The investment objective is to manage the Petroleum Fund assets so that with a reasonable probability over the long term the Fund will be able to provide transfers to government at a sustainable level (the Estimated Sustainable Income) while maintaining the real long-term value of the assets.

INVESTMENT BELIEFS

Obtaining financial returns involves taking risk. In general, higher risks are rewarded with higher expected returns, but returns may take time to emerge from the underlying risks.

Financial markets are generally efficient, with prices trending towards fundamental value over the long term, though possibly deviating from fundamental value in the short term.

Known factors, called rewarded risk factors, provide systemic returns which can be captured over time through a structured investment approach.

Diversification is the primary means of capturing systemic returns. Concentrated risk-taking is not rewarded over time, whereas the systematic investment in multiple asset classes with less than perfectly correlated risks/returns is, noting that the diversifying properties of assets may change.

A long-term investment horizon allows systemic returns to be captured because the volatility of returns decreases over time and the probability of receiving positive returns increases.

Non-systemic returns, which are those not explained by rewarded risk factors, can from time to time give rise to other investment opportunities. Opportunities may exist that could add value on the margin to a portfolio that is efficiently exposed to long term premia from rewarded risk factors. Such opportunities are less reliable than factor returns and are of secondary importance. An ability to identify such opportunities and to control the principal agent relationship in delegated investment management are required conditions to add value in this manner.

Disciplined skills, systems and procedures can be applied to optimize returns after costs. Financial and operational risks cannot be avoided, but can be identified and managed. Discipline during adverse investment cycles is rewarded, whereas opportunistic strategies generally are not. Costs are important with foregone returns arising from costs compounding over time.

Transparency builds confidence and enables a long-term disciplined approach to be implemented, because investment decisions with wide public acceptance can be maintained through difficult times, and a high level of public trust enables discipline to prevail over expediency.

INVESTMENT PRINCIPLES

Determining the strategic asset allocation is the first order decision, because it is the most important contributor to portfolio performance, and involves articulating the expected return for a specific level of risk.

Risks must be managed with an appropriate risk profile, avoiding concentrations, and based on careful selecting and monitoring of managers and risks.

Unnecessary complexity should be avoided to achieve efficient returns from the risk taken, and implies a general approach of passively managing a limited number of asset classes.

The investment objective should be achieved through investments in listed bonds and equities in the immediate future.

Passive management should be the main investment style because the evidence points to this being a prudent and effective means of managing this type of portfolio.

External managers should be hired to achieve the optimal risk/return exposure in order to avoid internal capacity constraints, to gain access to selected markets, and as a source of knowledge.

There should be a structured review process for the strategic asset allocation, without giving up discipline and a systematic rebalancing of the portfolio to manage market risk.

Capacity is paramount to develop the investment strategy across all key stakeholders. This involves understanding international markets, the features of asset classes, and the nature of risks — all of which are a necessary precursor to further diversification.

Evaluation based on carefully collected fund returns and appropriate benchmarks is important to foster institutional learning. Databases should be maintained to record the history of the Fund.

CONTEXT

1 PURPOSE

The Investment Advisory Board (IAB) is responsible for developing performance benchmarks to measure the returns from, and appropriate risks of, the investments of the Petroleum Fund in Timor-Leste and for advising the Minister of Finance on investment instructions that the Minister shall provide to the Investment Managers of the Fund. Moreover, the IAB is responsible for advising the Minister on the need for changes in the overall investment strategy or management of the Petroleum Fund, including the making of recommendations as to such changes.

This document is intended to provide a transparent description of the framework that the IAB will follow in recommending changes in the overall investment strategy, the types of investments the Fund will invest in, the investment philosophy and the types of risks that it will recommend that the Fund will adopt.

2 LEGISLATION AND ORGANISATIONAL FRAMEWORK

The Petroleum Fund of Timor-Leste was formed by the enactment of the Petroleum Fund Law Number 9/2005 promulgated in August 2005 (the Law).

The Law specifies that the Fund "shall be managed prudently in accordance with the principle of good governance for the benefit of current and future generations." *(Article 11.4 of the Law)*

The Government of Timor-Leste, represented by the *Minister of Finance* (the Minister), is responsible for the overall management of the Petroleum Fund. The Ministry makes strategic decisions.

The *Investment Advisory Board* is responsible for developing appropriate benchmarks and investment instructions for the Minister of Finance, assessing the performance of external investment managers, and advising the Minister on the need for changes in the overall investment strategy or management of the Fund. The Board, aside from two ex officio positions, is appointed by the Minister of Finance.

The *Banking and Payments Authority* (BPA) is responsible for the operational management of the Fund, i.e. the implementation of the investment strategy and policies, under a management agreement with the Minister.

3 REVIEW

This document is a public document of the Investment Advisory Board and is intended to provide a transparent description of the framework within which the Board's investment advice will be developed. It is recognised that the theory and practice of investment management will change over time, as will the capabilities of the Ministry, Board and BPA, arid that accordingly this document will be subject to regular review and amendment as the detail of the Fund's strategy is implemented.

MISSION STATEMENT

The mission statement reflects the purpose of the Investment Advisory Board and provides a framework within which the IAB's investment strategy will be formulated.

The mission of the Investment Advisory Board is to provide advice to the Minister of Finance so that the investment of the Petroleum Fund assets will benefit current and future generations of Timor-Leste's citizens by maximizing the long-term value of the savings from Timor-Leste's non-renewable resources through the prudent investment of those savings.

INVESTMENT OBJECTIVES

The IAB believes the Fund should have investment objectives which maximise the benefits arising from its long-term investment time horizon having regard to the purpose for which the Fund has been established, the legislative provisions and the Fund's mission.

The Fund's transfer rules clearly link the Estimated Sustainable Income (ESI) determination to expected long term real returns on Fund assets. The IAB has therefore established the following long term investment objective to guide the IAB's role in maintaining the real value of Timor-Leste's petroleum wealth for future generations.

The investment objective is to manage the Petroleum Fund assets so that with a reasonable probability over the long term the Fund will be able to provide transfers to government at a sustainable level (the Estimated Sustainable Income) while maintaining the real long-term value of the assets.

INVESTMENT BELIEFS

The IAB has established a set of investment beliefs upon which the formulation and implementation of the Fund's investment strategy is based.

- ## OBTAINING FINANCIAL RETURNS INVOLVES TAKING RISK.

Investors are entitled to their share of the capital market rate of return on their assets over time. This is accomplished by exposing capital to various available investment opportunities in an expert fashion. Where capital is systematically allocated to assets other than those which deliver a risk-free rate of return, investors expect a higher return as a reward for the additional risk they are taking. That is, risk and expected return are related.

Standard financial theory states that the higher the risk of an investment portfolio (measured as the volatility or standard deviation of annual returns), the higher the expected return.

Systemic (market wide) risk and non systemic (individual security) risk can be taken. Non systemic risks that involve single outcomes that vary from the market as a whole can be diversified away.

Systemic risks are generally rewarded over time whereas concentrated, non-systemic risks are typically unrewarded.

The capital market rate of return is available to every investor at a reasonable price and the rate of return generated over the long term has proved to be attractive. The expected return achieved from choosing to invest in an asset class or take an exposure to a risk factor can however take long periods to emerge.

- ## FINANCIAL MARKETS ARE GENERALLY EFFICIENT.

Prices for financial assets will trend towards the inherent value or "fundamental value" of a security over the long term. Deviations away from fundamental value can occur at the individual security level and at the broad market level.

In the short term, prices normally find equilibrium quickly and it is difficult to consistently predict and profit from any perceived inefficiencies in market prices.

Prices can however deviate significantly away from fundamental value over short or even medium term periods, but such deviations are often due to behavioural influences.

- ## KNOWN FACTORS, CALLED REWARDED RISK FACTORS, PROVIDE SYSTEMIC RETURNS.

There are a number of identifiable factors of market risk that provide returns beyond those attributable to the performance of generic market indexes.

For example, an equity portfolio can take advantage of factors such as the size of the company, or its book value compared to its market value. A bond portfolio can take advantage of factors such as credit or duration.

Accordingly the allocation of investment funds to broad market exposures as well as factor exposure is rewarded over time.

Risk premia associated with broad market and factor exposures ebb and flow over time depending on prevailing economic and market conditions. Exposure to particular assets and factors will therefore generate varying levels of returns (a function of their respective risk premia) over short and medium time periods.

A systematic exposure to the broad market factors generates overall market and factor return (less fees) with a reasonable degree of confidence.

- DIVERSIFICATION IS THE PRIMARY MEANS OF CAPTURING SYSTEMIC RETURNS.

Diversification is the process of exposing an investment portfolio to a number of different asset classes, risk factors, and individual financial assets, rather than being concentrated in any one of these.

Diversification is the antidote to many avoidable risks. The key to the diversification process is that different asset classes and other portfolio risk factors will usually not move in unison. Combining assets with returns that are less than perfectly correlated reduces risk and volatility.

For example, in a period when equity markets are performing poorly, bond markets may be performing well. Having an exposure to both equities and bonds reduces the risk compared to being only exposed to a single asset class.

Investment portfolios that are comprehensively diversified across and within asset classes and factors are generally rewarded over time.

The diversifying properties of assets, such as correlation and volatility, change over time and, in certain market environments, can temporarily disappear.

- A LONG-TERM INVESTMENT HORIZON ALLOWS SYSTEMIC RETURNS TO BE CAPTURED.

The relationship between risk and return becomes more stable over time as the average return over the period approaches the long-term mean.

Investors who remain invested in risky assets over the long term, including during adverse investment periods, are able to collect the related market risk premia.

Long term investors who are prepared to remain invested in an asset class are less likely to realise a permanent capital loss. Long-term investors can therefore benefit from an ability to ride through adverse investment cycles if discipline is maintained. In the shorter term, the potential difference in returns can be dramatic (both positive and negative).

- NON-SYSTEMIC RETURNS, WHICH ARE THOSE NOT EXPLAINED BY REWARDED RISK FACTORS, CAN FROM TIME TO TIME GIVE RISE TO OTHER INVESTMENT OPPORTUNITIES.

In general, efforts to short-cut expected long-term returns based on a constant exposure to rewarded risk factors are speculative, and may introduce unnecessary and unrewarded risks into the portfolio.

There is the possibility of returns from participating in the market clearing process through active management. Although the average manager cannot add value (overall active returns in the market being by definition a zero-sum game) individual managers can potentially outperform due to superior forecasting skill, superior access to information or superior access to deal flow.

Superior skill is a necessary but not sufficient condition for active outperformance. Skilful managers must also overcome the costs of implementing their active decisions in order to outperform.

It is not clear that active gains in general are passed on to the investor when delegated to management through external managers.

Investors can add value by planning for returns from systemic exposure to be obtained at a lower cost while ensuring that active returns, potentially obtained at a higher cost, are indeed generated from non-explained premia.

Additional return for the investor relies on a capacity to pick the best managers, understand their business and investment approach. The investor must also have the skills to monitor the managers' performance, and manage the principal agent relationship through contracts.

- DISCIPLINED SKILLS, SYSTEMS AND PROCEDURES CAN BE APPLIED TO OPTIMIZE RETURNS AFTER COSTS.

Investors face a wide variety of financial and operational risks.

Financial risks are those that contribute to the performance of an investment being different than expected, including the possibility of losing all or part of the original investment.

Operational risk is the risk of financial loss due to mismanagement, error, fraud or unauthorised use of techniques and/or financial products. High quality risk management systems supported by procedures implemented using accepted best practice standards minimise operational risk.

Costs erode returns and have a compounding effect over time. Unlike financial risks arising from volatility in the financial markets, investment cost is a predictable factor that investors can control. All other things being equal, lower investment costs are better than higher investment costs. Keeping management fees and transaction costs low contributes to the achievement of competitive returns.

- TRANSPARENCY BUILDS CONFIDENCE AND ENABLES A LONG-TERM DISCIPLINED APPROACH TO BE IMPLEMENTED.

Internal transparency means that key strategic decisions are identified, addressed explicitly and made visible to all levels of an investor's management structure. Clear and effective communications ensure all parties are working to achieve the investor's financial goals while managing the risks associated with managing it in a coordinated manner.

A transparent relationship between the stakeholders in an investment process and the stewards of the investment assets (i.e. those who set the investment policies and put them into practice) means that the stakeholders better understand the beliefs and principles adopted in the stewardship process. This enables a disciplined approach to be maintained over time, and in particular minimises the risk of emotional and potentially costly decisions being made during periods of market instability.

INVESTMENT PRINCIPLES

While the set of investment beliefs outlines the [AB's fundamental beliefs regarding the financial market, the investment process and risk and return factors, this section outlines the main investment principles which will drive the advice and recommendations provided to the Minister of Finance in the short and medium term.

The investment principles will evolve with the level of institutional capacity and the size of the Petroleum Fund and will be subject to more frequent changes over time than the underlying beliefs.

• DETERMINING THE STRATEGIC ASSET ALLOCATION IS THE FIRST ORDER DECISION

The process of diversifying financial assets across different asset classes and risk factors is often referred to as the process of 'strategic asset allocation', and is arguably the most important contributor to portfolio performance over the long run. The IAB specifically advocates Strategic Asset Allocation rather than deviating from the strategic weights over time by exercising Tactical Asset Allocation (or trying to forecast news and events, and time the direction of the market). The dominant contributor to portfolio performance is the relative exposure of capital to the various asset classes, sub-asset classes and rewarded risk factors.

The Petroleum Fund portfolio should therefore be constructed according to a long term, strategic asset allocation benchmark that aims for an expected return for a specific level of risk. This helps remove the temptation to 'switch' investment asset classes to potentially achieve a higher return or protect the capital. Such approaches are generally unrewarded, because future prices for financial assets are difficult to predict and the negative impact of costs when switching financial assets or asset classes is considerable.

• RISKS MUST BE MANAGED

In advising on risk exposure the IAB will adopt the following principles for risk management:

- The IAB will recommend that the stakeholders adopt a risk profile that is commensurate with the return objective and time horizon of the Fund. That risk profile should be determined after careful analysis of the prospective risk and return characteristics of each asset class in which the Fund might invest;
- Concentration of risk should be avoided by ensuring there is adequate diversification between and within asset classes;
- Selection and monitoring of managers should be carefully assessed to ensure there is sufficient confidence that each manager warrants the allocation of capital to them;
- The composition of the portfolios of managers should be monitored to ensure that there are no unintended bias away from the investment strategy; and
- External managers should be evaluated relative to strategic factor exposures.

Additionally the IAB will encourage the development of high quality risk management systems and procedures by all institutions associated with the management of the Fund.

• UNNECESSARY COMPLEXITY SHOULD BE AVOIDED

The level of complexity of the investment strategy must take into account the skills and capacity among key stakeholders. The optimal relationship between risk and return should be achieved in the most efficient manner while avoiding unnecessary complexity in order to provide transparency, accountability and minimization of the operational and reputational risks.

The IAB believes a carefully designed strategic portfolio for the Fund with the right structured exposures to the main asset classes and rewarded risk factors will achieve the same targets as a more complex strategic portfolio over time.

- ## THE INVESTMENT OBJECTIVE SHOULD BE ACHIEVED THROUGH INVESTMENTS IN LISTED BONDS AND EQUITIES

The IAB believes that appropriate exposure to return and risk can be achieved by investing in listed equities and publicly traded bonds. Although a variety of asset classes, including real estate, private equity, and infrastructure projects may provide additional diversification, these asset classes also add complexity and operational challenges which may exceed the benefit of those investments in the short and medium term.

- ## PASSIVE MANAGEMENT SHOULD BE THE MAIN INVESTMENT STYLE

The IAB believes that the systematic investment of the Petroleum Fund in a diversified portfolio of assets exposed to a number of different asset classes and rewarded risk factors will provide the great majority of returns over the longer term. On this basis the IAB believes that a passive management approach based on suitably defined benchmark indices should be the main method of targeting most of the Petroleum Fund's longer term return objectives.

Management resources should be allocated to opportunistic (active management) exposure only when they can add expected value in excess of fully implemented market exposure to factors, and after costs.

- ## EXTERNAL MANAGERS SHOULD BE HIRED TO ACHIEVE THE OPTIMAL RISK/RETURN EXPOSURE

The IAB believes that external management adds value to the Fund's management on several levels:

a) Avoiding internal capacity constraints in designing the investment strategy
b) Ensuring optimal asset allocation and gaining access to markets which one otherwise would not be able to get exposure to
c) Providing knowledge transfer and capacity building within the Operational Manager

When diversifying the investments, the IAB believes external managers should be hired to allow the Fund to be invested in various asset classes and sub asset classes in a prudent and responsible manner. As skills and capacity develop, internal management could be considered for various instruments and securities.

- ## THERE SHOULD BE A STRUCTURED REVIEW PROCESS FOR THE STRATEGIC ASSET ALLOCATION, WITHOUT GIVING UP DISCIPLINE

From time to time, investment portfolios move away from their strategic asset allocation benchmarks. This occurs because asset classes and sub-asset classes behave in different ways at different times. Their returns differ periodically (as intended), therefore there will be a need to monitor and rebalance the portfolio back in line with its strategic asset allocation from time to time. There are many approaches to portfolio rebalancing. In general, automatic rebalancing regimes are preferable to avoid arbitrary tactical positions and a tendency to reduce market risk after market declines.

The Strategic Asset Allocation should be subject to periodic review in light of the changing requirements of the fund and developments in market research.

- ## CAPACITY IS PARAMOUNT TO DEVELOP THE INVESTMENT STRATEGY

Developing the Fund's investment strategy requires increasing capacity among key stakeholders. Exposing the Fund to unnecessary risks is not appropriate before the Fund is able to manage these risks and the key stakeholders understand international financial market volatility in the short and medium term. Hence, developing the investment strategy must go along with increased institutional capacity as well as a broad consensus among key stakeholders.

The translation of investment strategy into a portfolio of market investments requires a degree of skill and experience. For this reason the internal investment process should be clearly documented with an emphasis on an institutional rather than an individual footprint. The development of institutional skills and experience takes time, and the process of evaluating and understanding investment performance contributes to the acquisition of skills and experiences.

The IAB believes there is a need for increased capacity in the MoF, BPA and other stakeholders before the Fund commences investing in asset classes other than equities and bonds.

- ## EVALUATION BASED ON CAREFULLY COLLECTED FUND RETURNS AND APPROPRIATE BENCHMARKS IS IMPORTANT TO FOSTER INSTITUTIONAL LEARNING.

The systematic collection of performance and benchmark data should provide the basis for reviewing the Fund's performance against its benchmarks as well as providing the basis for analysing and predicting performance under a range of hypothetical scenarios.

The Petroleum Fund should establish a database for all realized returns broken down to its integral parts to facilitate future evaluation of its history. There should be specific guidelines for how such a database is maintained.

Investment portfolios should be constructed and maintained with costs and taxes in various jurisdictions in mind. Costs and taxes may be implicit or explicit in an investment portfolio.