Timor-Leste Petroleum Fund

SAA Roadmap

March 2011
Strategy

- We see the strategy framework as having three key dimensions, as set out in the table below.

<table>
<thead>
<tr>
<th>Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sustainability – returns and spending</td>
</tr>
<tr>
<td>2. Purchasing Power – preserving buying power</td>
</tr>
<tr>
<td>3. Diversification – spreading risk</td>
</tr>
</tbody>
</table>
Forward-looking risk / return trade-off (Normative assumptions, no alpha)

This slide shows the mix of bonds and equities we expect to deliver different levels of real return over the medium term.
SAA Roadmap – Approach

- We have been driven by six main criteria

1. Ability

2. Complexity

3. Investment Beliefs

4. Governance

5. Implementability, and

6. Monitoring
SAA Roadmap – Approach

- We have considered
  - The split between bonds and equity – the single most important decision the Fund can make.
  - The extent to which systematic “beta” exposures can be introduced
  - A broad range of allocations, including to “alternative” assets
  - The issue of currency and the “numeraire” for the Fund
  - The arguments for and against passive and active management
  - Ongoing measurement and monitoring needs
## Strategic Asset Allocation Roadmap

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
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<th>T6</th>
<th>T7</th>
<th>T8</th>
<th>T9</th>
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</table>
Roadmapping

**Bonds**  
*US Treasuries, Sovereign Bonds, Global Aggregate*

**Equities**  
*Developed Market Equities, US Small Cap, Emerging Market Equities*

**Other**  
*Fund of Hedge Funds, Private Equity FoFs, Non-Energy Commodities*

Gradually increase weight to Global equities

<table>
<thead>
<tr>
<th>Current</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>T5</th>
<th>T6</th>
<th>T7</th>
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<td>8.9</td>
<td>9.1</td>
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</table>

**Introduce Global sovereigns**

**Introduce US small caps**

**Introduce Emerging market equities**

**Introduce FoHFs**

**Introduce PE FoFs**

**Introduce NEC**

**Commodities**

<table>
<thead>
<tr>
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**Complexity**

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SAA Roadmap

Ability, Complexity and Governance
A complex process

The figure below highlights the various asset class dimensions and investment considerations that must be taken into account when developing an appropriate SAA and in constructing portfolios.

<table>
<thead>
<tr>
<th>Asset class</th>
<th>Geography</th>
<th>Sub classes</th>
<th>Investment style</th>
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Linking Ability, Complexity and Governance

Complexity

Governance | Ability
---|---
Time | Expertise | Org. Effectiveness | Capacity | Resources | Capability

Petroleum Fund Law

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Ability Roadmap

**Today**

**Tomorrow**

**Constraints**
- Skills
- Knowledge
- Staff
- Infrastructure
- Stakeholders
- Experience

**Future**
- Differentiate regimes
- Distinguishing points in the valuation cycle
- Rotating beta factors
- DSAA
- Manager configuration
Nurturing Ability

Descriptive Words:
- Operate
- Implement
- Monitor
- Control
- Decide

Contribution Words:
- Skill/Craft
- Experience

Learning Method Words:
- By doing

Descriptors:
- Quantum
- Number
- Access

Contribution:
- Knowing
- Thinking
- Comprehension
- Appreciation

Learning Method:
- Knowledge
- Formal education

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Complexity score

US Treasuries | 7.0
Sovereign Bonds | 10.0
Developed Market Equities | 11.0
Commodities | 11.3
Global Bonds (Aggregate) | 15.0
Emerging Market Equities | 17.5
Private Equity FoF | 18.8
Real Estate | 22.5
Infrastructure | 24.0
Hedge FoF | 24.0
## Complexity scoring methodology

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Cascading structure for TLPF

Any organization has to develop through several phases

<table>
<thead>
<tr>
<th>Characteristics of this phase</th>
<th>A to B: Initial Phase</th>
<th>B to C: Development Phase</th>
<th>C to D: Maturity Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization has to work from scratch, governance budget develops but with significant gaps</td>
<td>Organization improves its governance budget and begins to close some of the more immediate gaps</td>
<td>Organization seeks to close remaining gaps and may even aspire to move toward a higher level.</td>
<td></td>
</tr>
</tbody>
</table>

TLPF’s development

<table>
<thead>
<tr>
<th>Characteristics of this phase</th>
<th>A to B: Initial Phase</th>
<th>B to C: Development Phase</th>
<th>C to D: Maturity Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservative investment strategy and constraint guidelines, but reasonable governance support via external advisors</td>
<td>PF Law amendments will facilitate wider investment options but significant ability constraints remain.</td>
<td>The Fund will likely reach a point where it must address certain key governance issues and further amend the PF Law to progress further</td>
<td></td>
</tr>
</tbody>
</table>

Governance budget trajectory
Cascading structure for TLPF (cont’d)

- **Current**: Government Bonds and small allocation to enhanced passive equity
- **Phase 1**: Focus on increasing equity weight and addition of Barclays Global Treasury portfolio
- **Phase 2**: Introduce broader range of equity and equity diversifying alternatives e.g. Hedge Funds and beta factors
- **Phase 3**: Expand to include selective illiquidity premiums e.g. Private Equity

Governance budget trajectory

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Monitoring framework - navigation map

**Dimensions**

1. Petroleum Fund Law
   - 1.1 Overall management of the Fund
   - 1.2 Investment and protection
   - 1.3 Fund appropriation

2. The IAB’s investment beliefs and principles
   - 2.1 Determining SAA is the 1st order decision
   - 2.2 Risk management
   - 2.3 Avoidance of unnecessary complexity
   - 2.4 Passive management is main investment style
   - 2.5 Capacity is paramount to develop investment strategy for further diversification

3. Strategic Asset Allocation
   - 3.1 Actual exposure vs. SAA
   - 3.2 Asset allocation assumptions
   - 3.3 Effective mechanism for managing overall risk exposure

4. Portfolio Construction
   - 4.1 Approved asset classes
   - 4.2 Benchmarks
   - 4.3 Managerial approach
   - 4.4 Portfolio exposures

5. Manager Selection
   - 5.1 Evaluation of manager structure
   - 5.2 Oversight of the BPA for manager search and selection
   - 5.3 Comparative performance of existing investment managers against peers
   - 5.4 Quantitative and qualitative indicators for monitoring managers

**Components**

**Measurement and Tool**

1. Compliance with framework set out in the law: Compliance report
2. Consistency between beliefs and actual portfolio: Beliefs framework report
3. Consistency between SAA and actual portfolio: SAA report
4. Actual portfolio’s risk is within the tolerance limit: DART reports
5. Manager monitoring report on performance evaluation and expected future: SWISS, balanced scorecard
Managing portfolio risk

**Assessment**

- Portfolio Risk > Tolerance thresholds
- Portfolio Risk = Tolerance thresholds
- Portfolio Risk < Tolerance thresholds

**Analysis**

- Identify sources of the increased risk
- Analyse opportunities in the approved range of asset classes

**Actions**

- Diversify away from sources of risk
- Adjust strategy to enhance returns while maintain risk within tolerable levels

Review investment strategy

Portfolio Risk = Tolerance thresholds

Portfolio Risk < Tolerance thresholds

Portfolio Risk > Tolerance thresholds
Roadmapping

**Bonds**
US Treasuries, Sovereign Bonds, Global Aggregate

**Equities**
Developed Market Equities, US Small Cap, Emerging Market Equities

**Other**
Fund of Hedge Funds, Private Equity FoFs, Non-Energy Commodities

**Gradually increase weight to Global equities**

**Current**
- Bonds: 7.2
- Equities: 7.8
- Other: 8.2

**T1**
- Bonds: 8.6
- Equities: 8.8
- Other: 8.2

**T2**
- Introduce Global sovereigns
- Introduce US small caps
- Introduce Emerging market equities

**T3**
- Introduce FoHF
- Introduce PE FoF
- Introduce NEC

**T4**

**T5**

**T6**

**T7**

**T8**

**T9**

**Commodities**
- Private Equity
- Hedge Funds
- GEMs
- US Small Caps
- Sovereigns

**Complexity**

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SAA Roadmap

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