

## Governance and Risk Management Structures for Fund Management

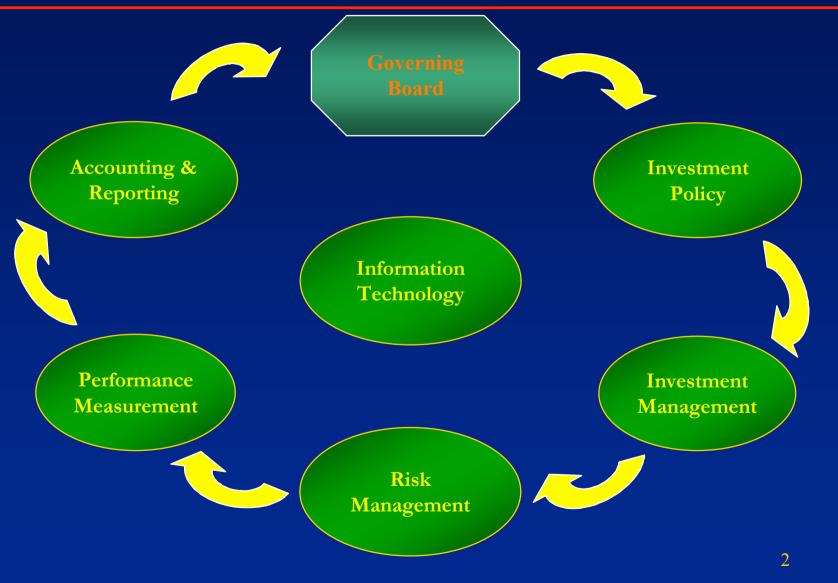
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#### **Investment Framework**



Per TREASURY THE WORLD BANK

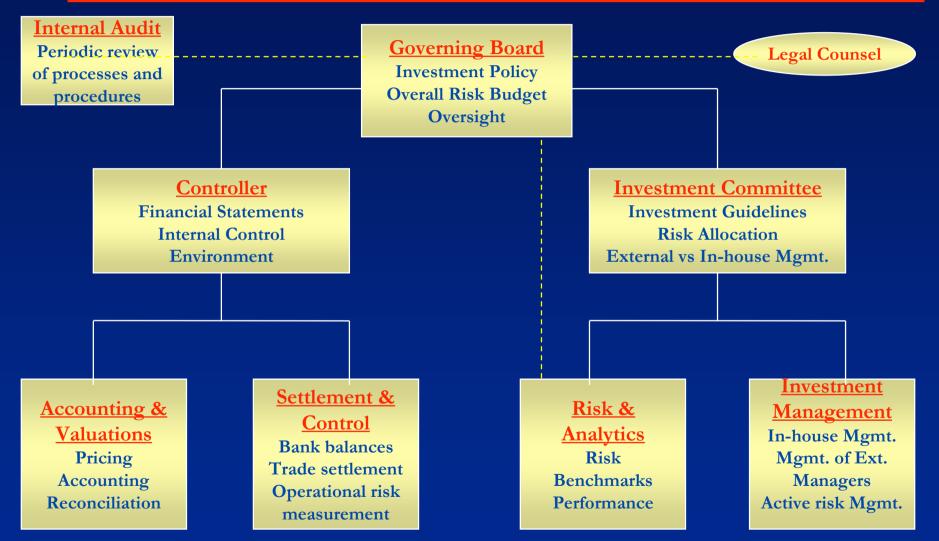
#### **Guiding Principles**



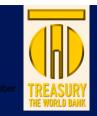
- > Every Fund has a unique risk profile based on:
  - the liability characteristics of the Fund; and
  - b the size of the Fund relative to its liabilities;
- Good governance = Clear separation of roles and accountabilities;
- Board should "own" the Fund's risk profile (both SAA & Risk Budget);
- Policy decisions need to be clearly articulated and documented;
- Risk usage and return should be monitored and reported regularly;
- Structural changes may require a review of Investment Policy (e.g. availability of new asset classes, demographic profile of beneficiaries, cash-flow needs, capacity of domestic markets, ability to hedge currency risk).

#### **Organizational Structure**





## **Investment Policy: Roles**



GOVERNING BOARD	Approves Investment Policy: Fund Objectives, Investment Horizon, Risk Tolerance & Metrics, Eligible Asset Classes, SAA
INVESTMENT COMMITTEE	Sets Investment Guidelines & Policy Benchmark, Risk Budget For TAA or Active Risk
Staff	Implements Investment Policy and Allocate Risk to portfolio managers And to TAA within overall Budget

#### **Strategic Asset Allocation Process**



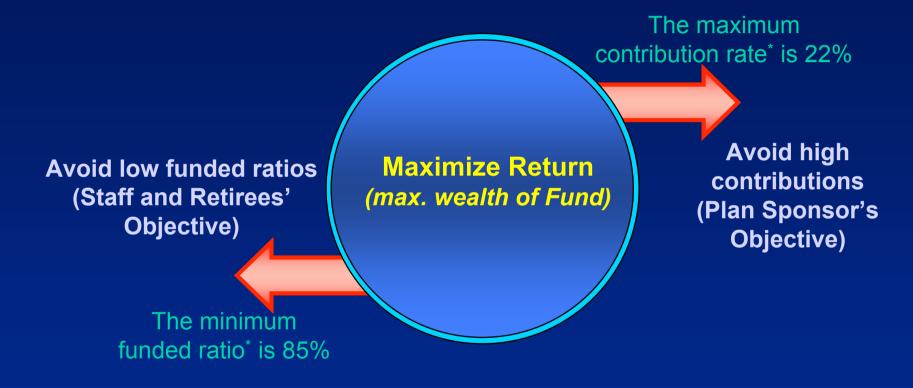
# 1. Fund Objectives and Investment Horizon 5. Implementing the SAA

Setting the policy benchmark

#### 4. SAA Model

Optimization/simulati on methods to determine the best long-term allocation 3. Capital Markets Assumptions and Eligible Asset Classes

#### **Translating Risk Tolerance into Metrics**



\* There is a 5% probability that these levels are exceeded in the next year.

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## **Optimal Portfolios for Different Investors**

Efficient frontier: set of portfolios which have the highest possible expected total return for a given risk level.



Risk (e.g. duration or volatility)

## In-house Management versus External Managers





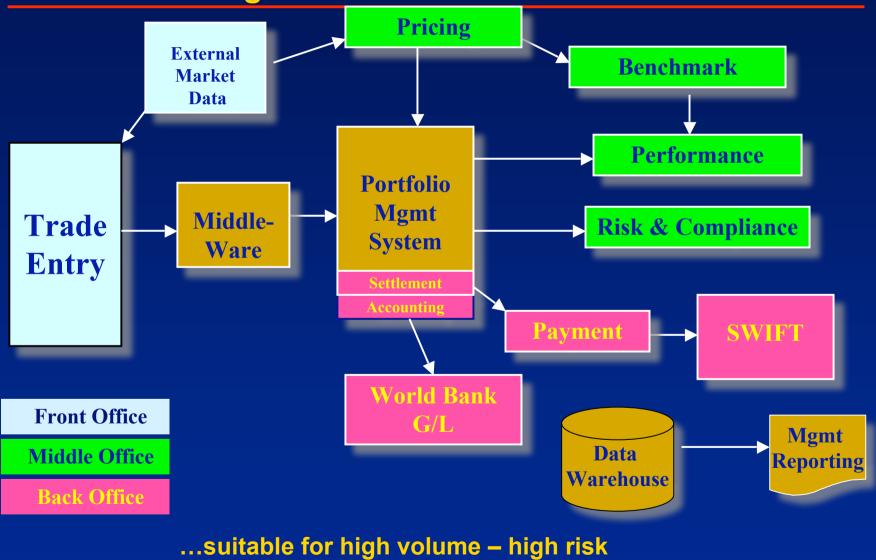


#### **External Managers – Staff Accountabilities**



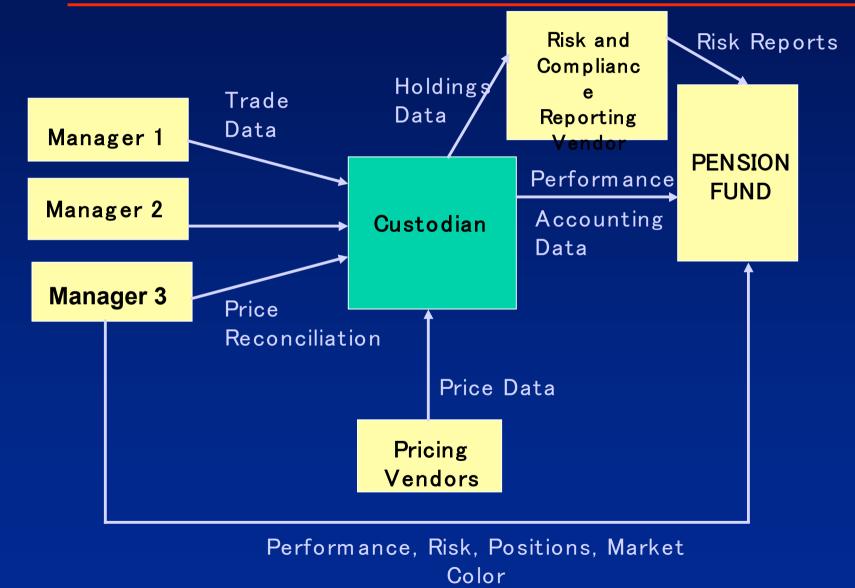
#### IT Systems and Data Flows – In-house Management







#### IT Systems and Data Flows – External Managers

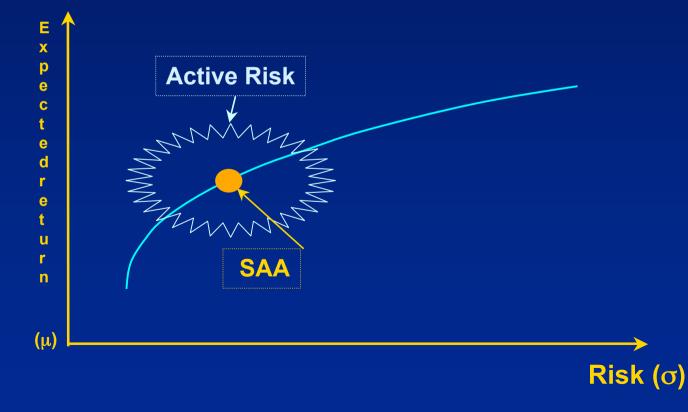


#### **Types of Risk**



#### Risk can be deployed in one of two ways:

- Strategic asset allocation
- Active risk taking



#### **Three Stages of Risk Management**



I. Risk Measurement II. Risk **Attribution** Where does our risk come from? Risk Management Which decisions contributed to risk?

What is our risk? How do we measure our risk?

#### III. Risk Allocation

How do we utilize and manage risk going forward?

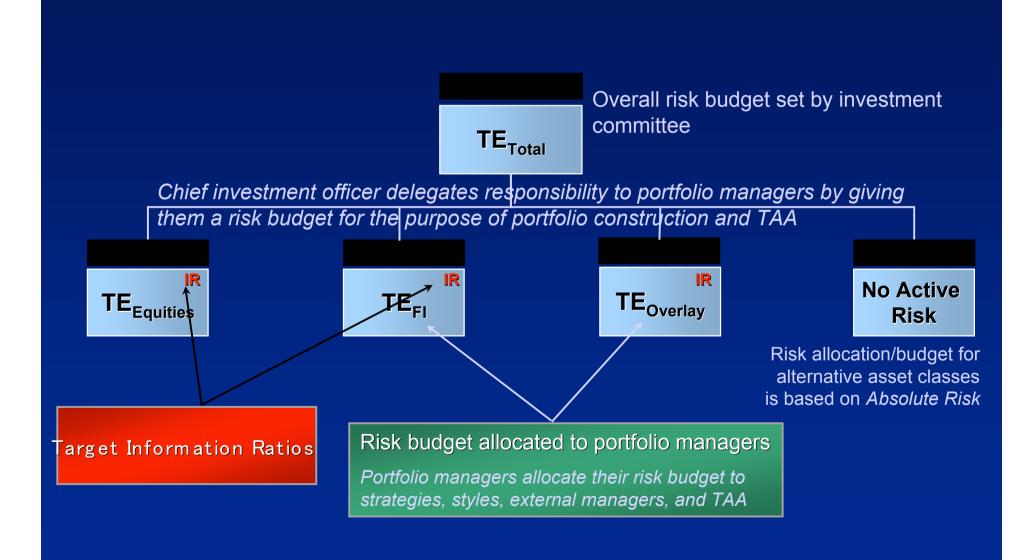
How do we want to allocate risk?

#### **Different Accountabilities for Different Risks**

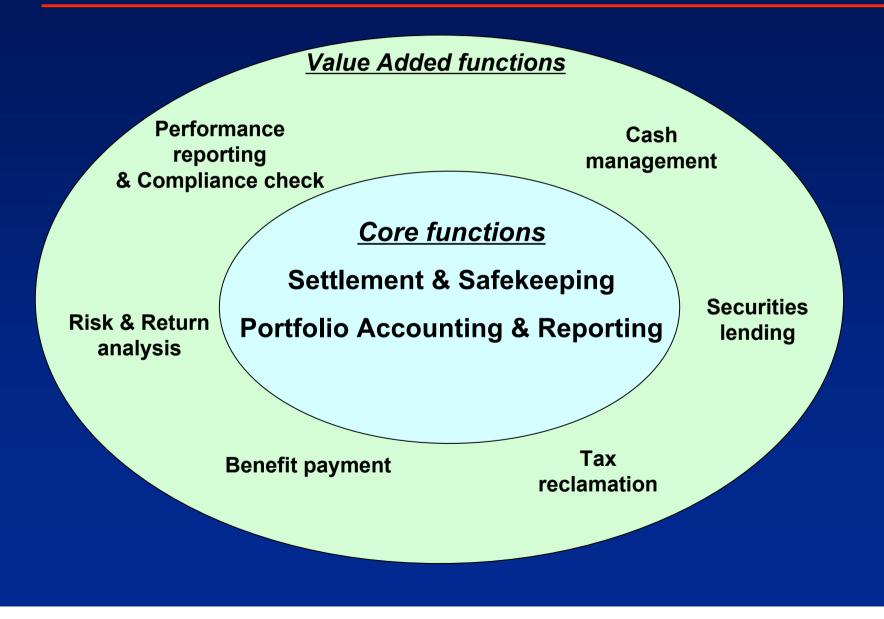




## Risk Budgeting - Who Owns What?



#### **Role of a Custodian**





#### **Custodian: Core Functions**

#### Settlement and Safekeeping

- Trade settlement
- Asset delivery
- Safekeeping of assets

#### Portfolio Accounting and Reporting

- Portfolio accounting and consolidated reporting
- Dividend & Interest income collection
- Asset valuation / Security pricing
- Corporate action processing
- Administrative support

#### **Reporting Content and Frequency**



**Governing Board: Quarterly** v Size/Composition v Performance v Risk

Investment Committee: Monthly v Size/Composition v Risk v Performance

#### **Department Manager: Daily**

v Size/Composition v Risk v Performance v Limit violations

**Portfolio Managers: Daily sub-portfolio level** v Cash position v Holdings v Risk v Performance v Limit violations

## **Investment Framework**

