



# Presentation to Civil Society

## Petroleum Fund Update

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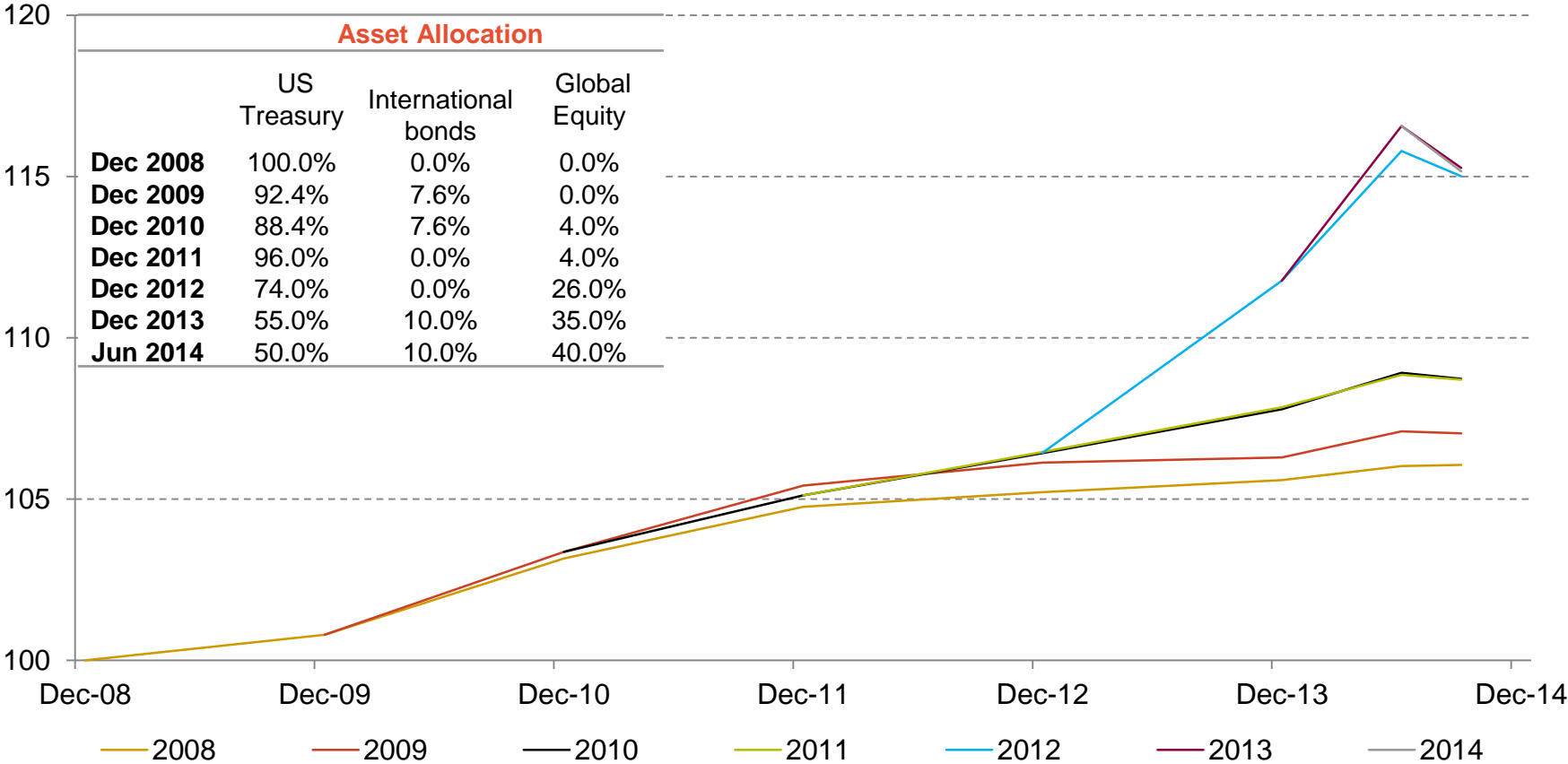
**7 November 2014**

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Investment Analyst

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# Performance evolution since Dec 2008



# Agenda

## Core Issues

Recap on Risk and Return

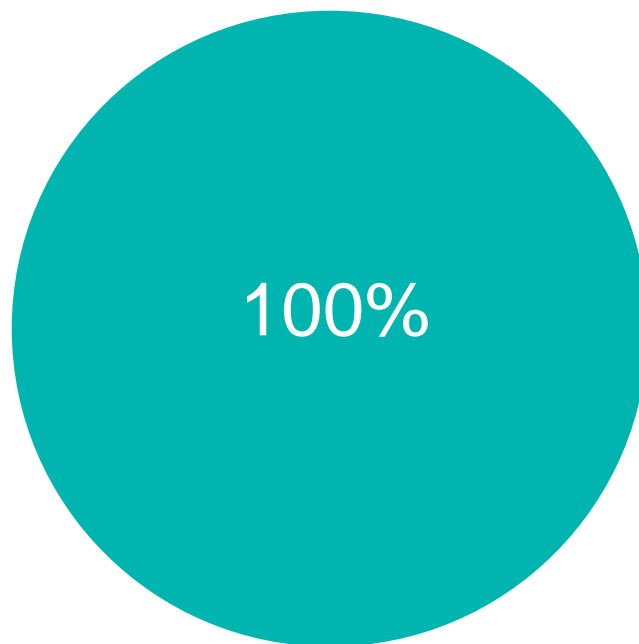
Evolution of the Fund

# The core issues.....



# Initial Asset Allocation

**US Treasuries**



# Introduction to bonds

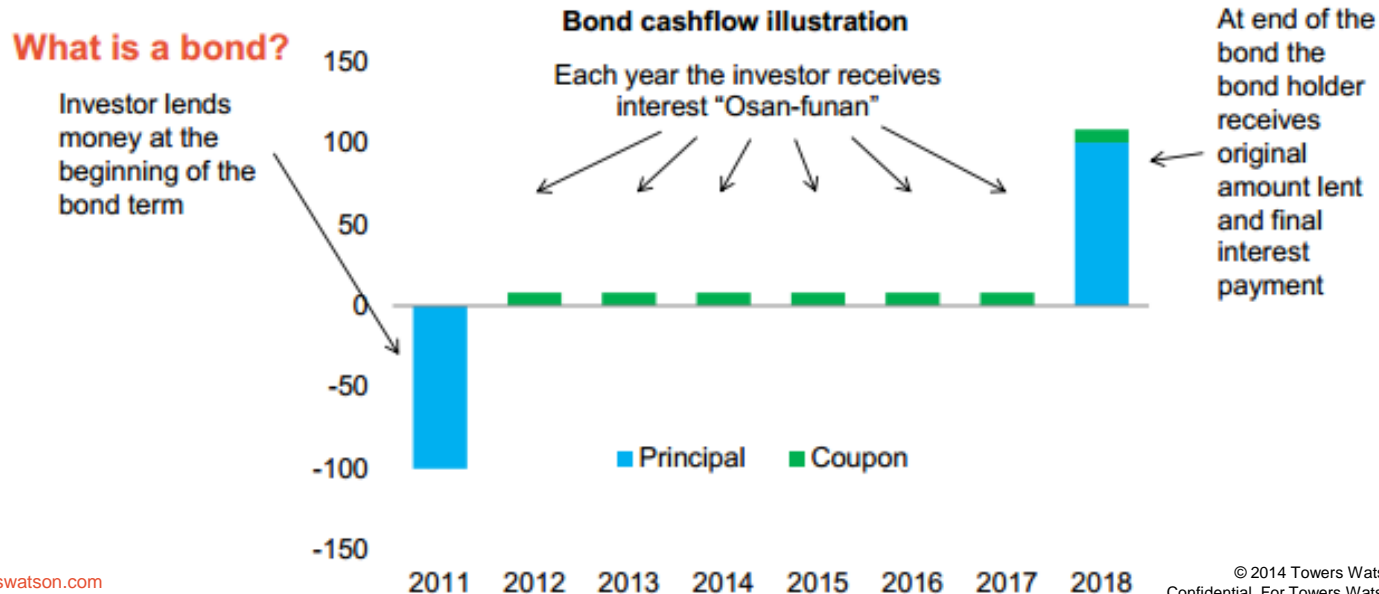
**A bond is a loan to a government or Company**

When a government (e.g. US) or business (e.g. Coca-Cola) needs to raise money to finance some kind of expenditure they may decide to borrow from a bank or look to issue a bond.

A bond is essentially a **loan** with certain terms and conditions attached to it whereby the borrower promises to pay back the loan to the lender at some agreed point in time.

The lender, which tends to be an investor (i.e. the Petroleum Fund), in return, receives:

- Periodic payment called a **Coupon** (or interest payments), and
- **Principal** (capital repayment)



# Background and Context

## Why?

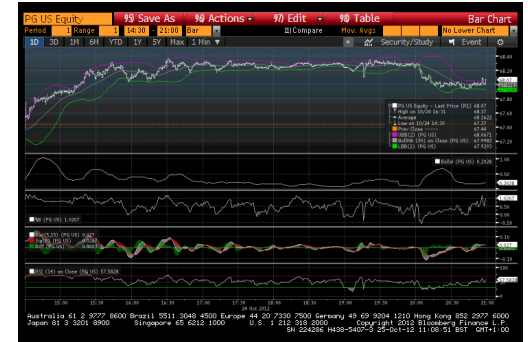
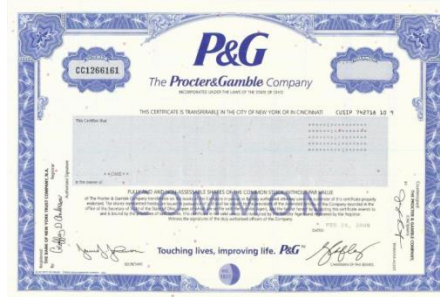
- Bond portfolio history & context of PF
- Key restrictions under the old Petroleum Fund Law:

% Allocation	Asset	Criteria
<ul style="list-style-type: none"><li>• At least 90% of assets</li></ul>	<ul style="list-style-type: none"><li>• Debt instruments or cash deposits</li></ul>	<ul style="list-style-type: none"><li>• Denominated in USD, mainly highly rated Government bonds</li><li>• Credit rating of at least Aa3 (Moody's) of AA – (Standard &amp; Poor's)</li></ul>
<ul style="list-style-type: none"><li>• No more than 10% of assets</li></ul>	<ul style="list-style-type: none"><li>• Other instruments issued abroad (e.g. equities, Government bonds)</li></ul>	<ul style="list-style-type: none"><li>• Liquid and transparent, and traded on markets with strong regulatory standards.</li></ul>

# When you buy a “share” what do you own?

An ownership share of a business that sells stuff...

... and a security that trades in the market



## Who owns equity?

- Everybody!
- Pension funds, Sovereign Wealth Funds, insurance companies, individuals
- Basically, anybody that wants exposure to a “growth asset”
- There are over 137 Sovereign Wealth Funds and they all own equity

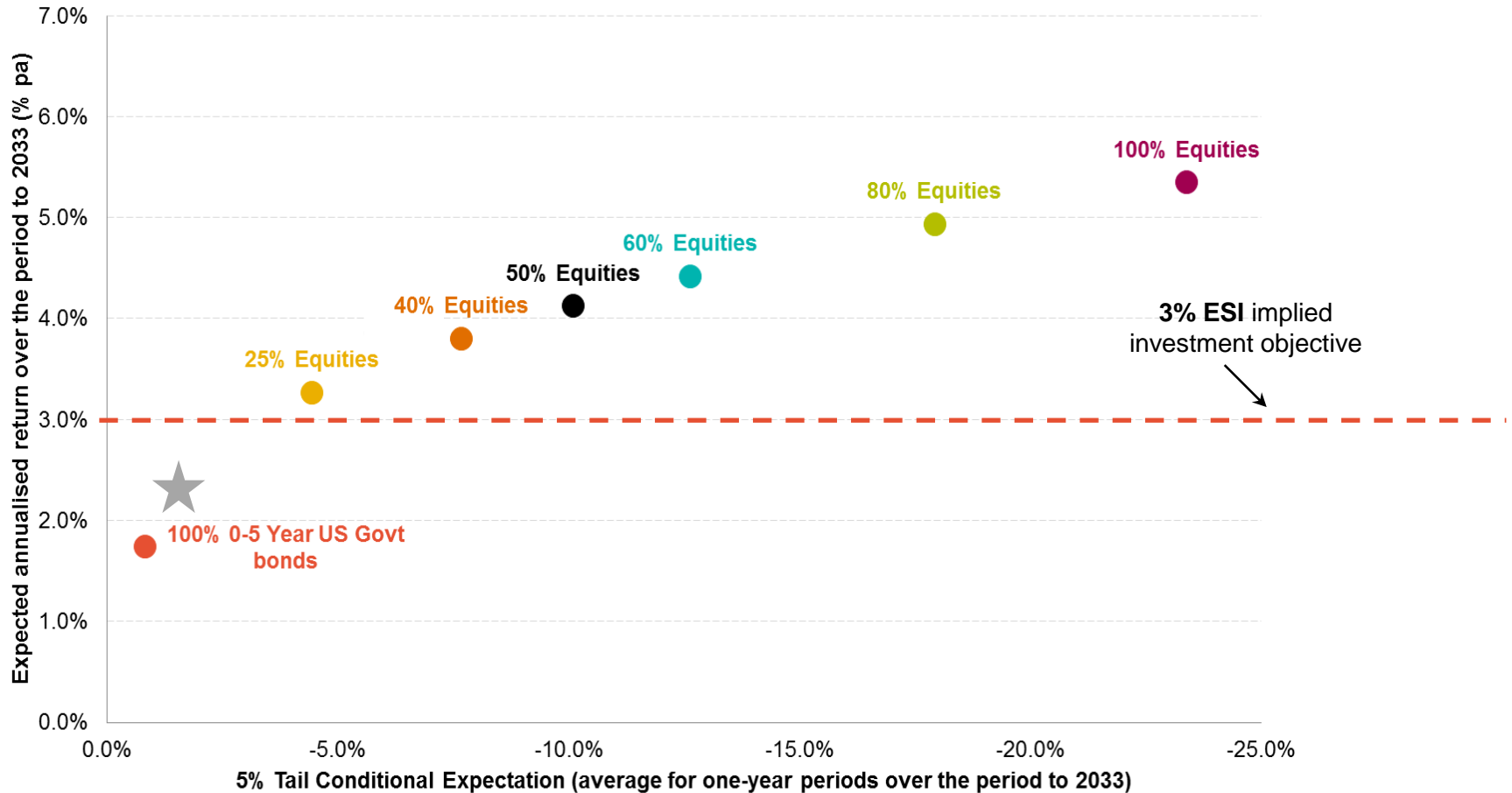
## What drives equity returns?

- Price changes – Gains or Losses
- Receipt of dividends



# Return

Forward-looking risk-return trade-off for different investment strategies  
(Normative assumptions, no alpha)



## Recap on Risk and Return

# Risk and Return

**Expected investment return**

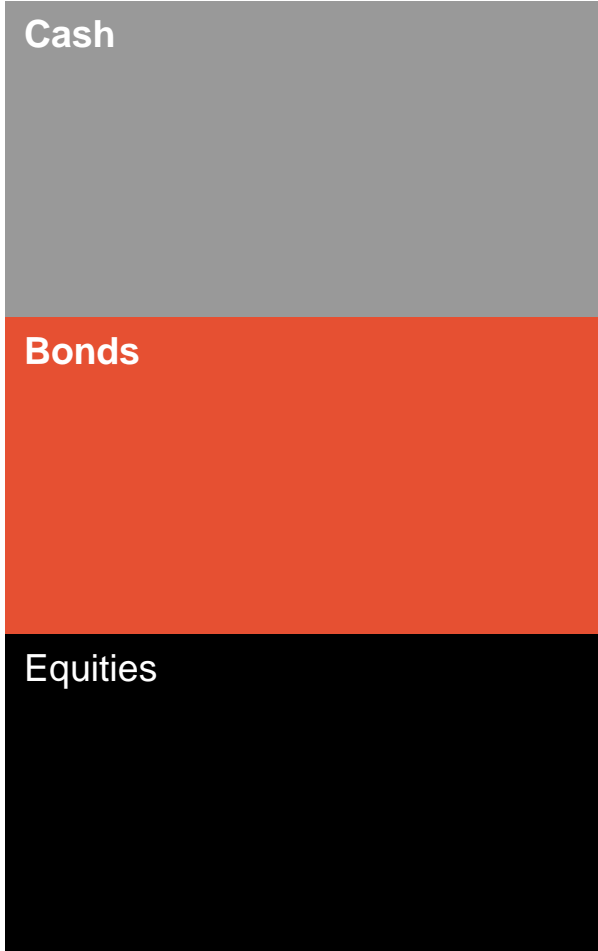
Higher returns come from taking more risk

Return is compensation for the risk that loans don't get repaid or companies don't make profits

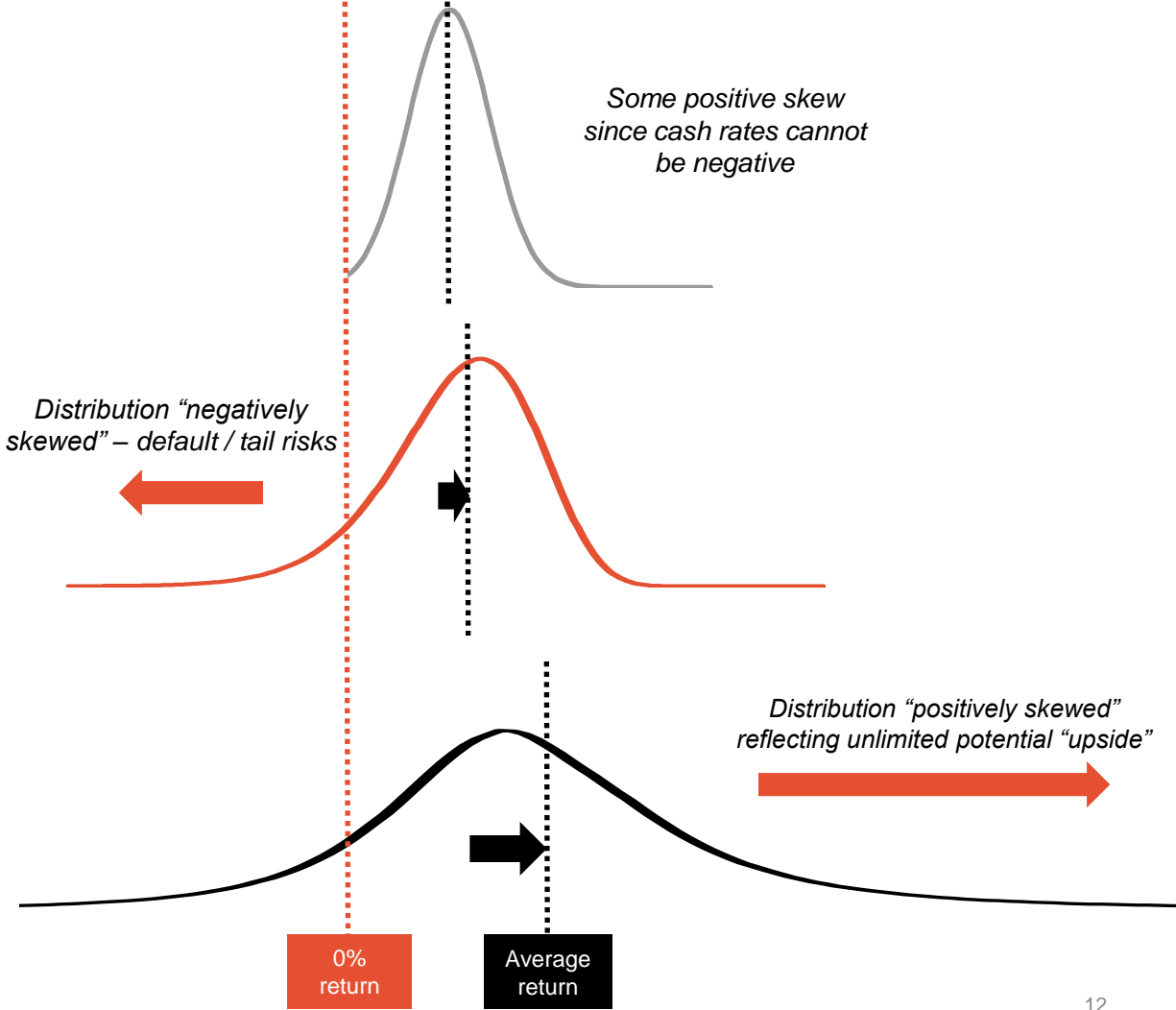
Your main risk is having less money than you invested

**Investment risk**

# Different Risk Profiles

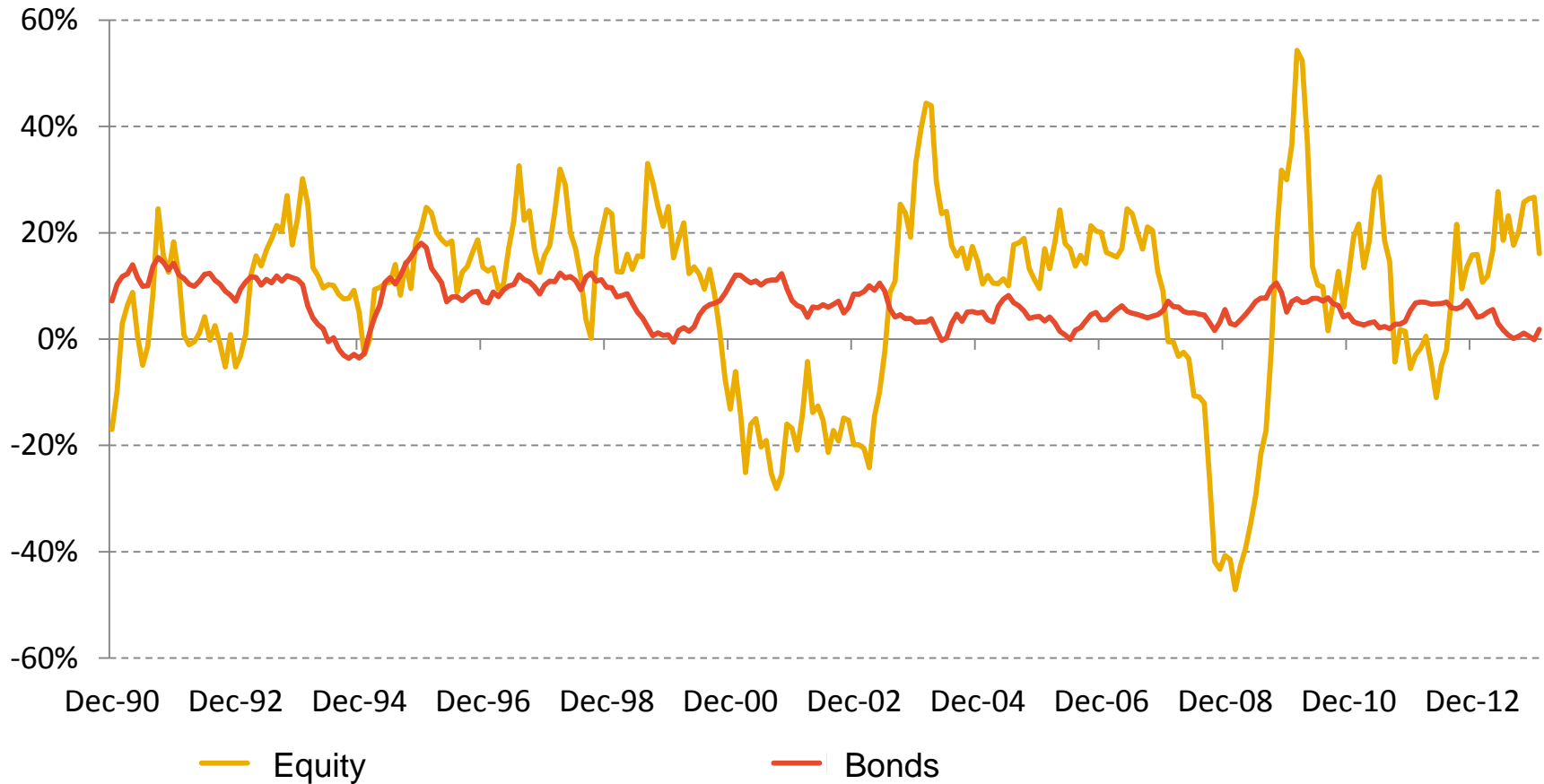


Example investment return distribution



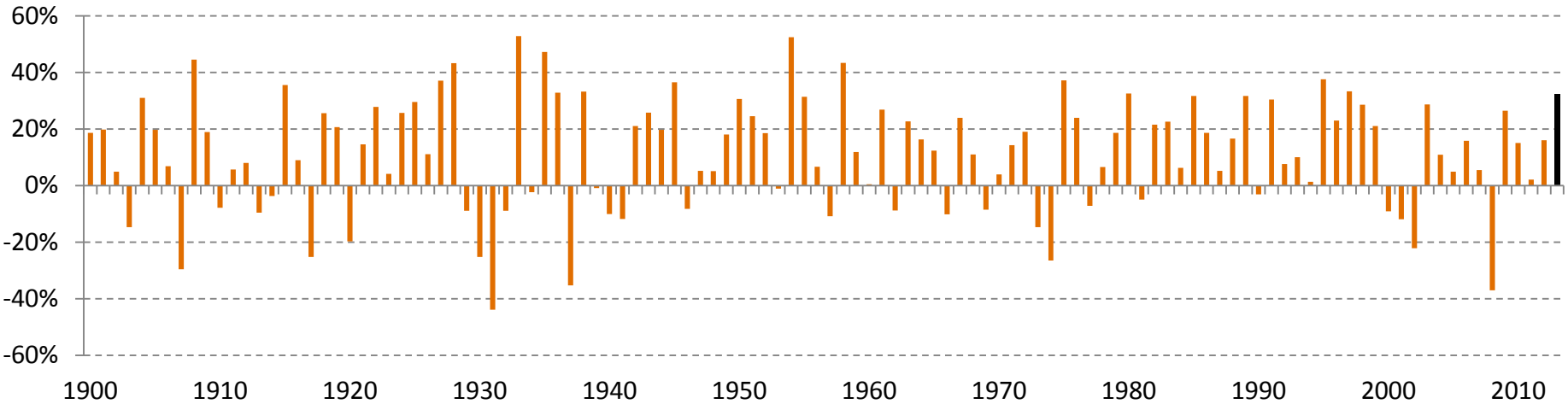
# Comparison of volatility – equity vs bonds

## Rolling 1 year return - Equity vs Bond



# Distribution of US equity returns

## US equity yearly total return

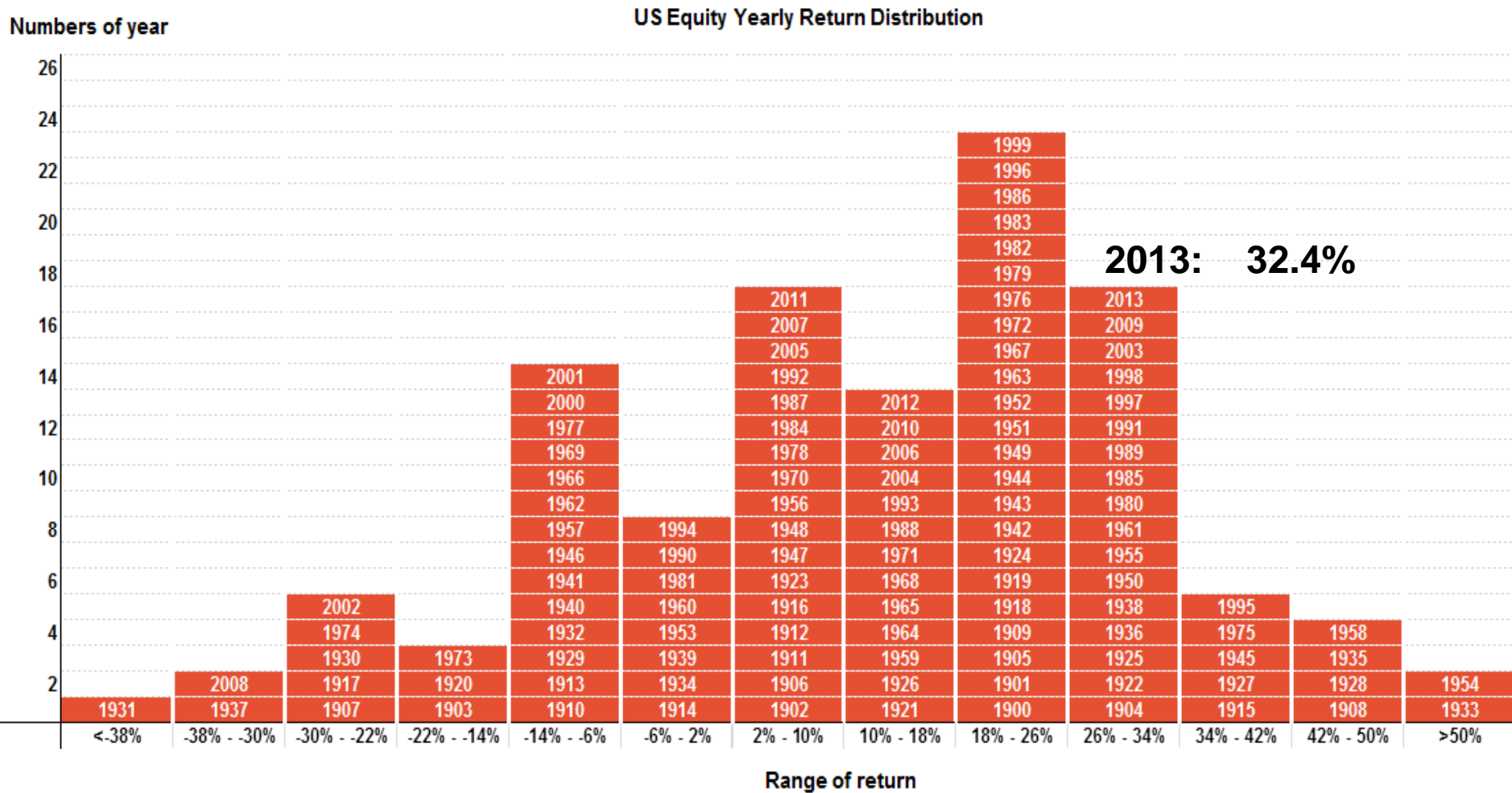


Maximum	52.9%
Minimum	-43.9%
Simple average	11.5%
Annualised average	9.6%
Median	14.4%
Standard deviation	19.9%

## S&P 500 yearly total return distribution (1900 -2013)

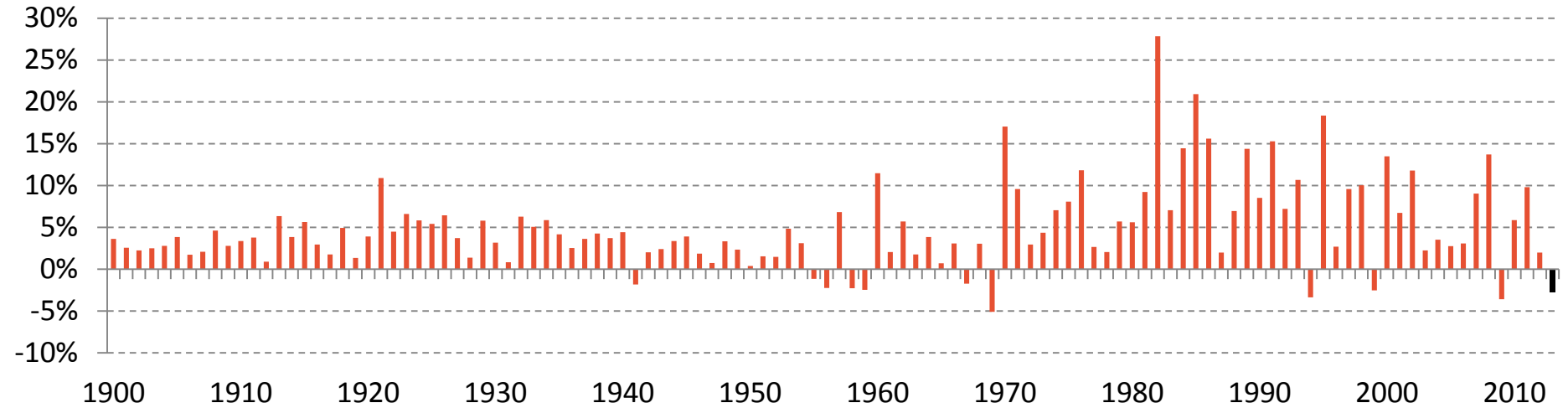


# Distribution of US equity returns

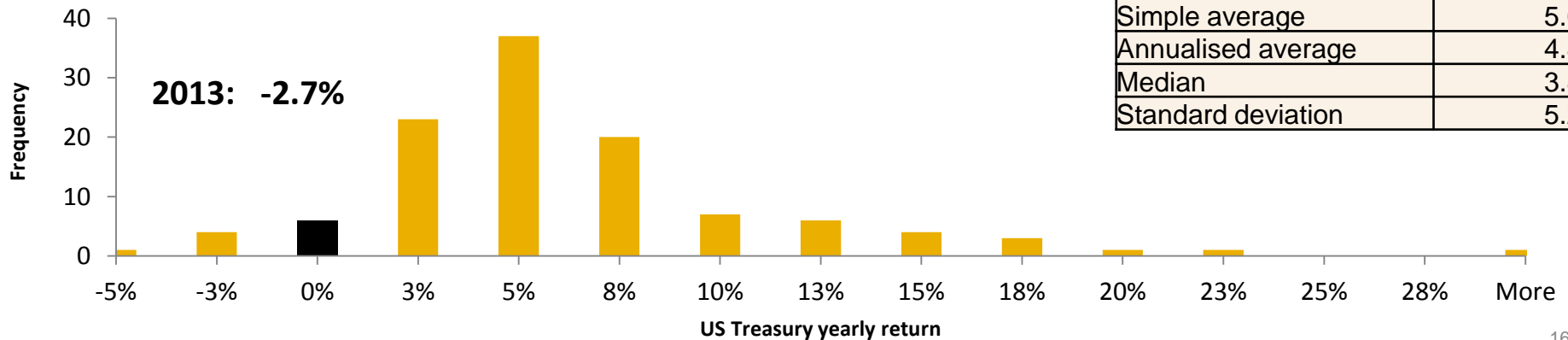


# Distribution of US bond returns

## US Treasury yearly total return



## US Treasury yearly total return distribution (1900 -2013)



Maximum	27.8%
Minimum	-5.1%
Simple average	5.0%
Annualised average	4.8%
Median	3.8%
Standard deviation	5.2%



# Range of possible outcomes

Investment Strategy	Range of returns in two out of every three years		Frequency of negative returns (years in every 100)	Poor outcome return (5 years in every 100)	
	% pa	USD millions*		% pa	USD millions*
<b>100% 0-5 year US Treasury bonds</b>	1.3% to 7.4%	212 to 1,206	8	Return of -0.6% or worse	Loss of -98 million or worse
<b>Feb 2011</b>	1.5% to 7.6%	245 to 1,240	7	Return of -0.4% or worse	Loss of 65 million or worse
<b>25% Equities</b>	0.8% to 11.0%	130 to 1,790	12	Return of -2.3% or worse	Loss of 375 million or worse
<b>40% Equities</b>	-0.5% to 13.4%	-82 to 2,185	18	Return of -4.8% or worse	Loss of 780 million or worse
<b>50% Equities</b>	-1.4% to 15.2%	-230 to 2,475	21	Return of -6.7% or worse	Loss of 1,090 million or worse
<b>60% Equities</b>	-2.5% to 17.0%	-410 to 2,770	23	Return of -8.7% or worse	Loss of 1,420 million or worse
<b>80% Equities</b>	-4.7% to 20.8%	-765 to 3,390	27	Return of -12.8% or worse	Loss of 2,085 million or worse
<b>100% Equities</b>	-6.9% to 24.6%	-1,125 to 4,010	29	Return of -16.9% or worse	Loss of 2,755 million or worse

\* Based on the Petroleum Fund balance as at June 2014, of USD 16.3 billion

# Evolution of the PF

# Evolution of the PF 2005 – Present

*Conservative management of the investment portfolio to preserve capital. Investments 100% in U.S. Government Securities.*

*First steps taken to broaden the investment universe.*

*Investment universe broadened further to include some equity exposure*

*PF law amendment enables the Fund to invest more of its assets into equity*

**Principal preservation**

**Minimal diversification**

**Slight increase of diversification**

**SAA roadmap: Move to greater diversification**

**Continuation of SAA roadmap**

**Inclusion of global treasury**

**2005**

**2009**

**2010**

**2011**

**2012**

**2013**

## **U.S. Govt. bonds only**

- A simple and prudent investment strategy was implemented. This strategy reflected the lack of resources, skill set and investment experience at the time of inception.
- Investment objective of preserving the capital of the Fund and to avoid exposure to risk and volatility in the first stage.

## **Govt. Bond Diversification**

- In June 2009 BIS was hired as an external manager with an allocation of 4-5% of Fund assets, growing to 20%.
- The Fund began to utilise the limited flexibility to invest in non-USD instruments by adding AUD, JPY, EUR & GBP Government bonds.
- Also invested into USD denominated AAA and AA international government bonds.

## **Global Equity**

- Further utilisation of allowed flexibility of the old PF Law with appointment of Schroder as global equity manager in October 2010.
- Allocation of 4-5% of Fund assets.

## **PF Law fully Exploited**

- Further diversification is constrained by old Petroleum Fund Law.
- Desire to increase exposure to equities and further diversification as soon as the PF Law is amended.

## **Increase Global Equity**

- Desire to further increase exposure to equities in 2012 as per agreed “phasing in” strategy.

## **Global Bonds adjusted**

- Bond portfolio adjusted with changes to existing investment mandates.
- BIS mandate restructured with focus on US Treasuries only – PF no longer invests in international bonds.
- Duration of bond portfolio increased via adjustment to BCTL benchmarks.

## **Increase Global Equity**

- Appointment of SSGA to manage a second global equity fund
- 20% global equity reached by June 2012
- Desire to increase exposure in global equity to 40% by June 2014.

## **Global Bonds**

- Desire to diversify bond portfolio into global sovereign bonds in the future

## **Increase Global Equity**

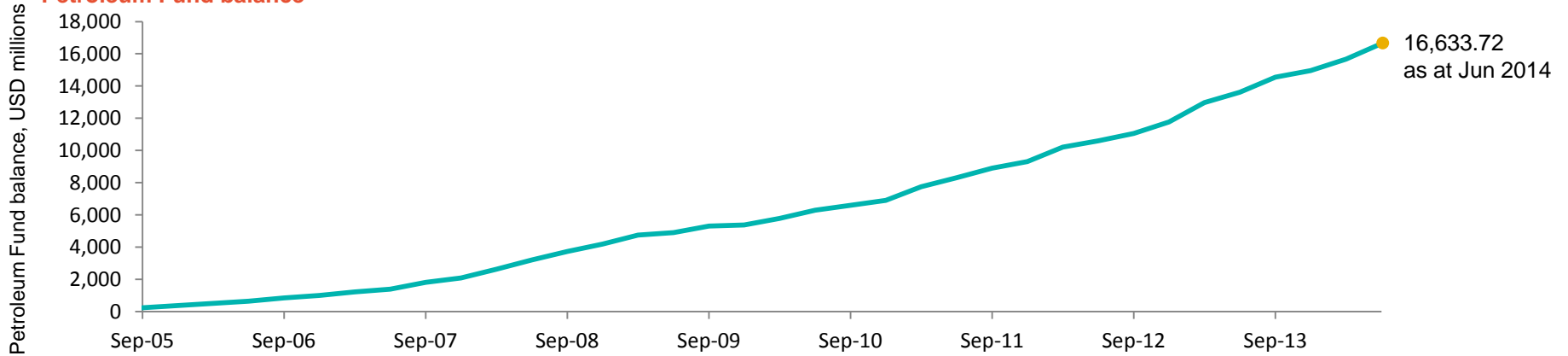
- Appointment of BlackRock to manage a third global equity mandate
- Will reach an exposure of 40% in global equity by June 2014

## **Global Bonds**

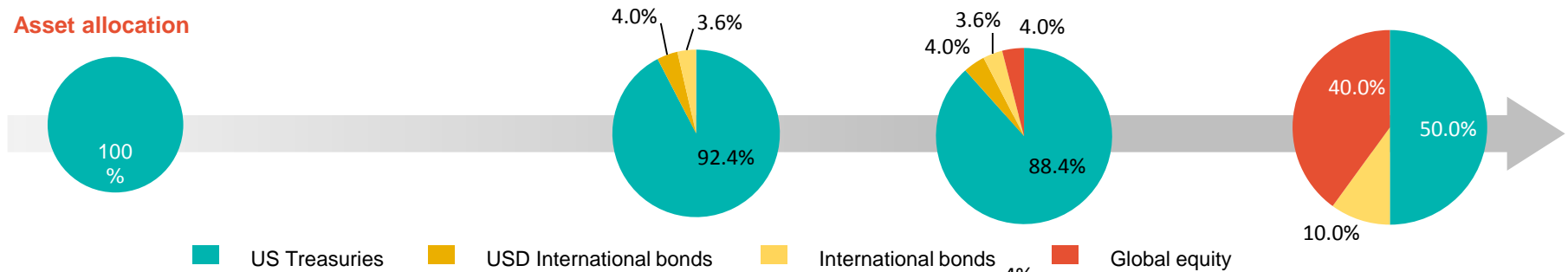
- Appointment of an interim manager to manage a global treasury ex US mandate

# Evolution of TLPF 2005 – Present

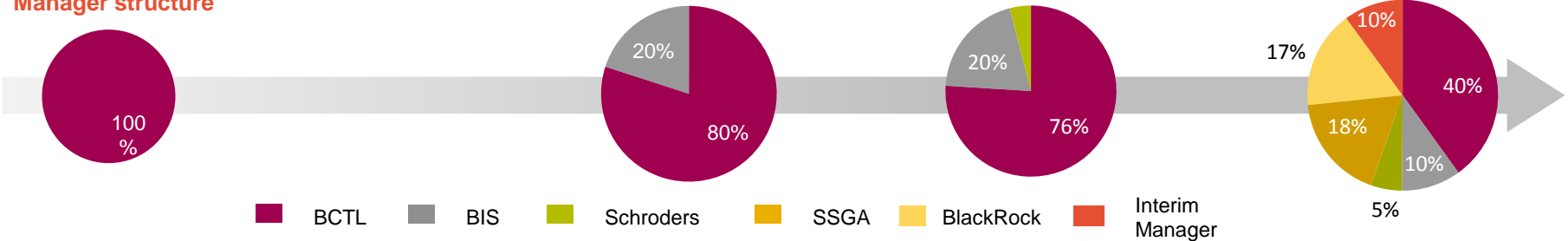
## Petroleum Fund balance



## Asset allocation



## Manager structure



Source: Petroleum Fund of Timor-Leste quarterly reports and Petroleum Fund Administration Unit, as of end June 2014

# Asset Allocation Progress

as of end June 2014

	Dec 2011	Dec 2012	Dec 2013	Current
<b>Bonds</b>	96	74	65	60
US Treasury	96	74	55	50
Global Sovereign			10	10
<b>Equity</b>	4	26	35	40
Global	4	26	35	40

## Future Considerations

### Equity

- Factor Investing
- US Small Cap
- Global Emerging Markets
- Asian Equity

### Bonds

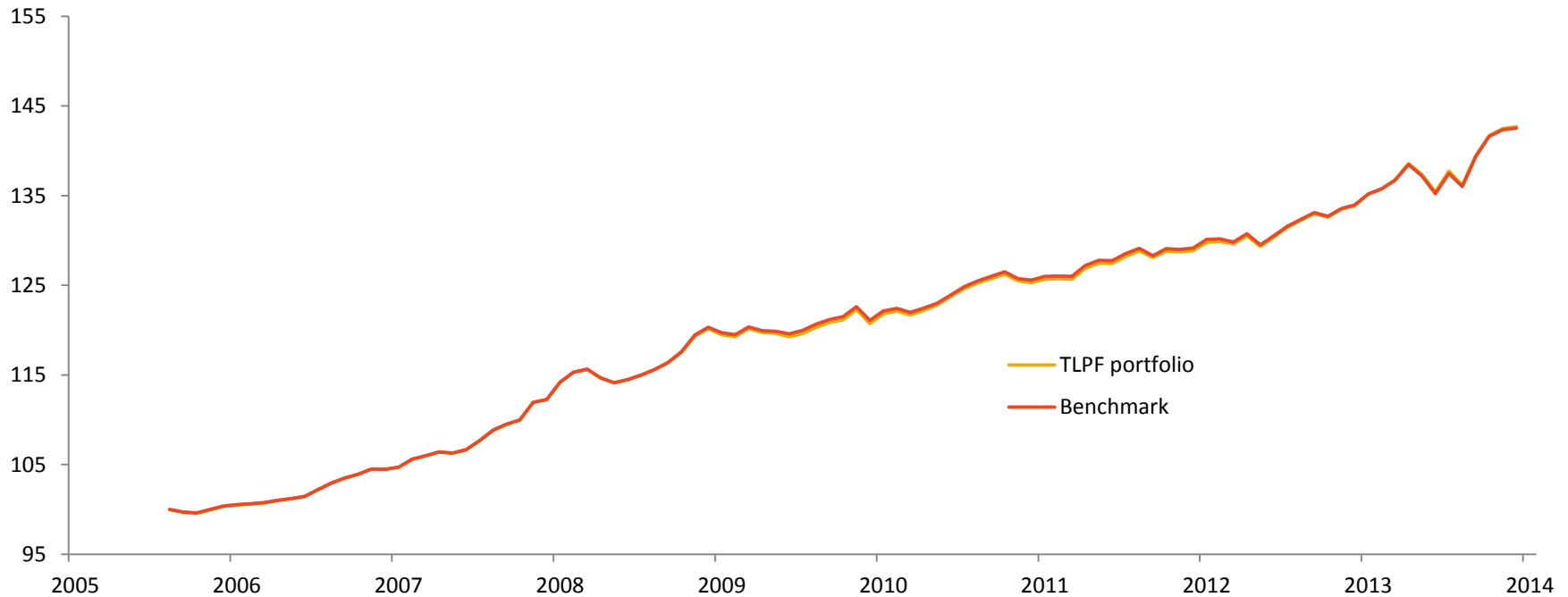
- LC Emerging Market Debt
- Investment Grade Credit

### Other Assets

- Hedge Funds
- Private Equity
- Real Estate
- Commodities

# Actual Returns vs. Benchmark Returns

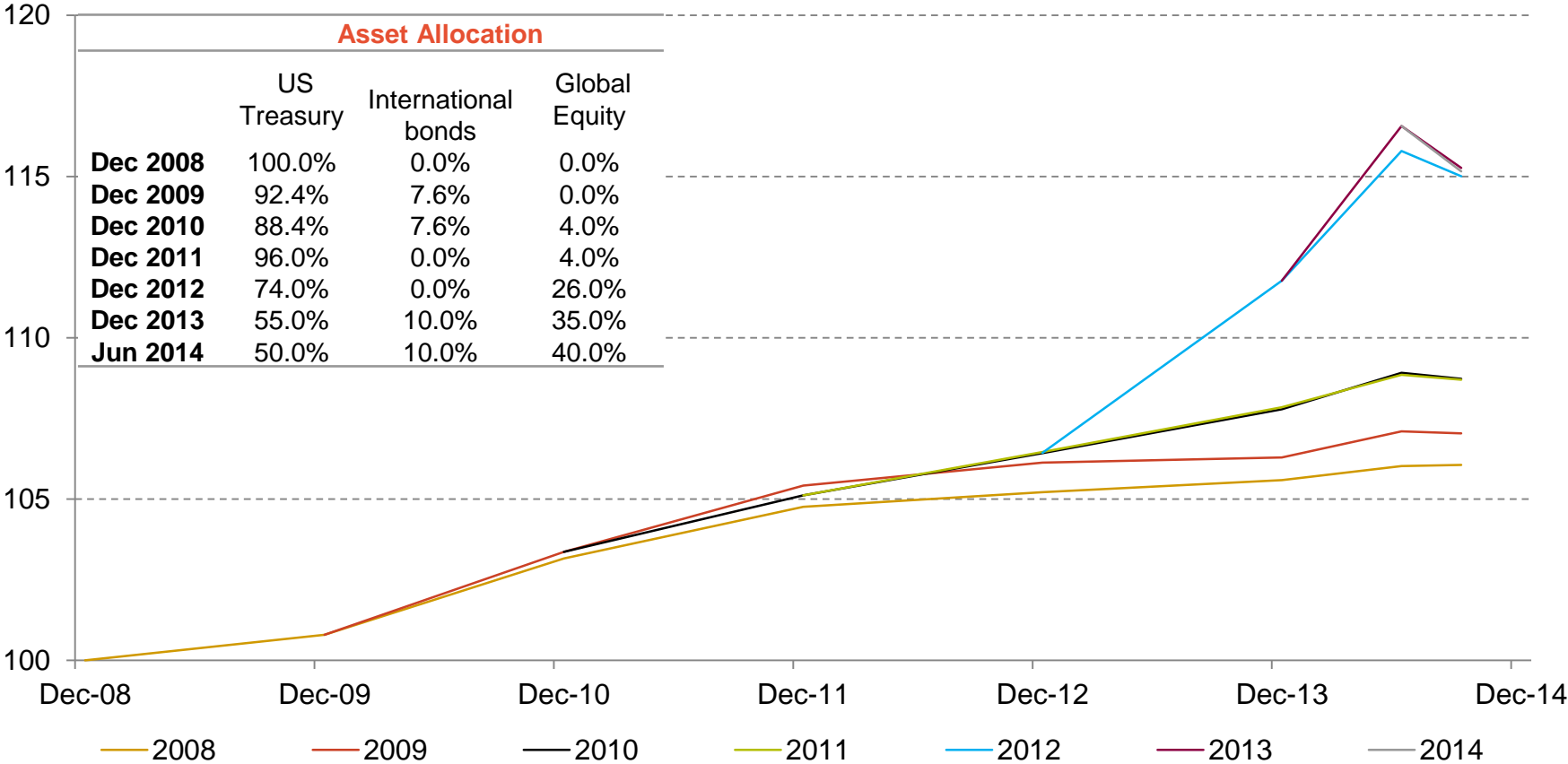
	<b>1 year</b>	<b>3-year annualised</b>	<b>5-year annualised</b>	<b>Since inception annualised</b>
TLPF portfolio actual return	6.59%	4.43%	3.50%	4.36%
Benchmark*	6.39%	4.31%	3.45%	4.34%



Source: PFAU, Towers Watson. Monthly Fund returns data provided by BCTL. BCTL uses the time weighted method to calculate Fund returns.

\* Please note that there were changes in the TLPF portfolio benchmark in 2009, 2010, 2011, 2012 and 2013 along with changes in existing investment mandates.

# Performance evolution since Dec 2008



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