Workers' Compensation Oversight Commission

Investment Committee

Agenda
July 20, 2006
William Green Building, Second Floor, Room 2
8:45 a.m.

Chairman's comments .....Mike Koetters

Old business

Approval of previous meeting minutes .....Mike Koetters

Wilshire May 2006 Monthly Performance Report .....Mark Brubaker

Actuarial RFP - Scope of Work.....Mike Koetters

Insurance coverage - fiduciary insurance, et.al .....James Barnes

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New business

BWC Budget Fiscal Year 2007 - P & L, B. S., and C.F. .....
.....Bill Mabe and Tracy Valentino

Investment Policy Recommendation / Wilshire, possible vote (changes to investment policy).....Mark Brubaker

Asset Allocation proposal, fixed income/equity
Fixed Income benchmark duration
State Insurance Fund (SIF) Dividend Policy analysis

CIO Montly Letter.....Bruce Dunn

Private Equity RFP update .....Bruce Dunn

Proposed Monthly Investment Committee Calendar.....Bruce Dunn

Written reports provided / no prepared presentation .....Bruce Dunn

JP Morgan May 2006 Monthly Performance Report
Investment Expenses - Manager & Operational Fees
Investment Division Departmental Budget
Transition Manager RFP update

Adjourn.....Mike Koetters

The next WCOC Investment Committee meeting is scheduled for:
8:45 a.m.
August 24, 2006
William Green Building, Second Floor, Room 2

Ohio Bureau of Workers' Compensation

Workers' Compensation Oversight Commission (WCOC)

Portfolio Immunization: Optimal Benchmark Analysis

July 7, 2006

Mark E. Brubaker, CFA
Managing Director

WILSHIRE CONSULTING

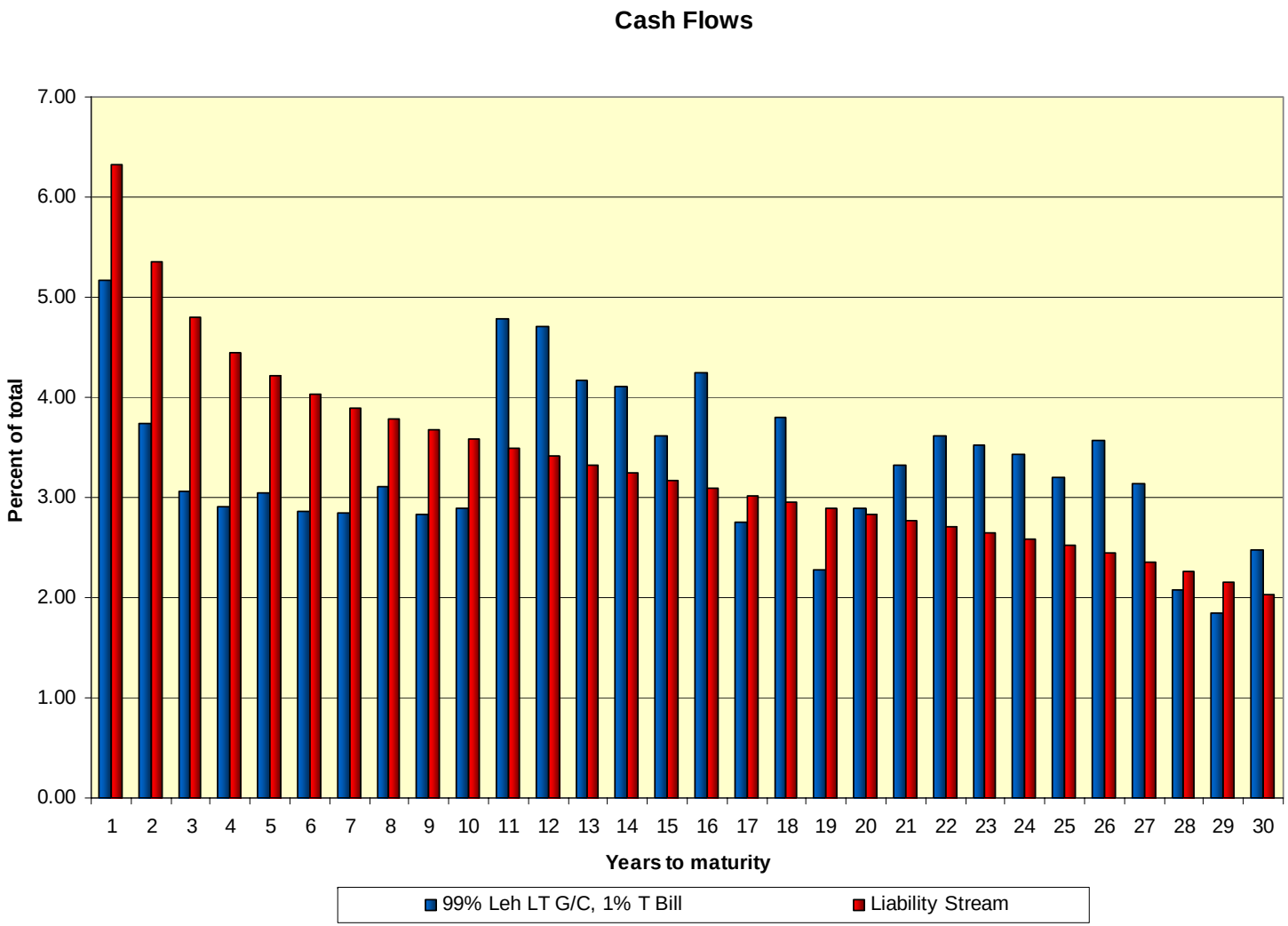
Immunization Solution

	Benchmark Composition (%)						
Lehman Long-Term Gov't/Corp	--	99	81	63	45	26	--
Lehman Int-Term Gov't/Corp	--	--	18	36	55	73	--
Lehman Aggregate	100	--	--	--	--	--	--
91 Day T-Bill	--	1	1	1	1	1	--
Portfolio Statistics	**Lehman Aggregate**	**Benchmark 1**	**Benchmark 2**	**Benchmark 3**	**Benchmark 4**	**Benchmark 5**	**Liability Stream**
Effective duration	4.59	10.38	9.14	7.88	6.56	5.30	10.38
Effective d2	2.87	8.70	7.44	6.17	4.83	3.56	8.67
Effective d3	3.57	6.43	5.81	5.18	4.51	3.88	6.06
Yield to Maturity	5.48	5.57	5.51	5.44	5.37	5.31	--
Cash flow yield	5.46	5.56	5.49	5.42	5.34	5.27	--
Current yield	5.19	5.90	5.67	5.45	5.22	5.02	--
Average coupon	5.24	6.79	6.38	5.99	5.60	5.24	--
Average price	100.04	100.00	110.27	107.55	104.83	102.38	--
Years to maturity	12.91	19.77	16.98	14.15	11.16	8.33	--
Est. Annual Income ($)	$ 900,446,055	$ 916,937,742	$ 905,393,561	$ 893,849,381	$ 880,656,032	$ 869,111,852	--
			Total Return with Yield Curve Shift (%)				
+100 basis points	0.86	-3.62	-2.98	-1.92	-0.82	0.24	--
+50 basis points	3.16	0.77	1.09	1.62	2.16	2.69	--
+ 25 basis points	4.31	3.12	3.25	3.48	3.73	3.96	--
-25 basis points	6.61	8.10	7.82	7.42	7.01	6.61	--
-50 basis points	7.75	10.74	10.23	9.50	8.72	7.99	--
-100 basis points	10.04	16.32	15.31	13.85	12.31	10.84	--

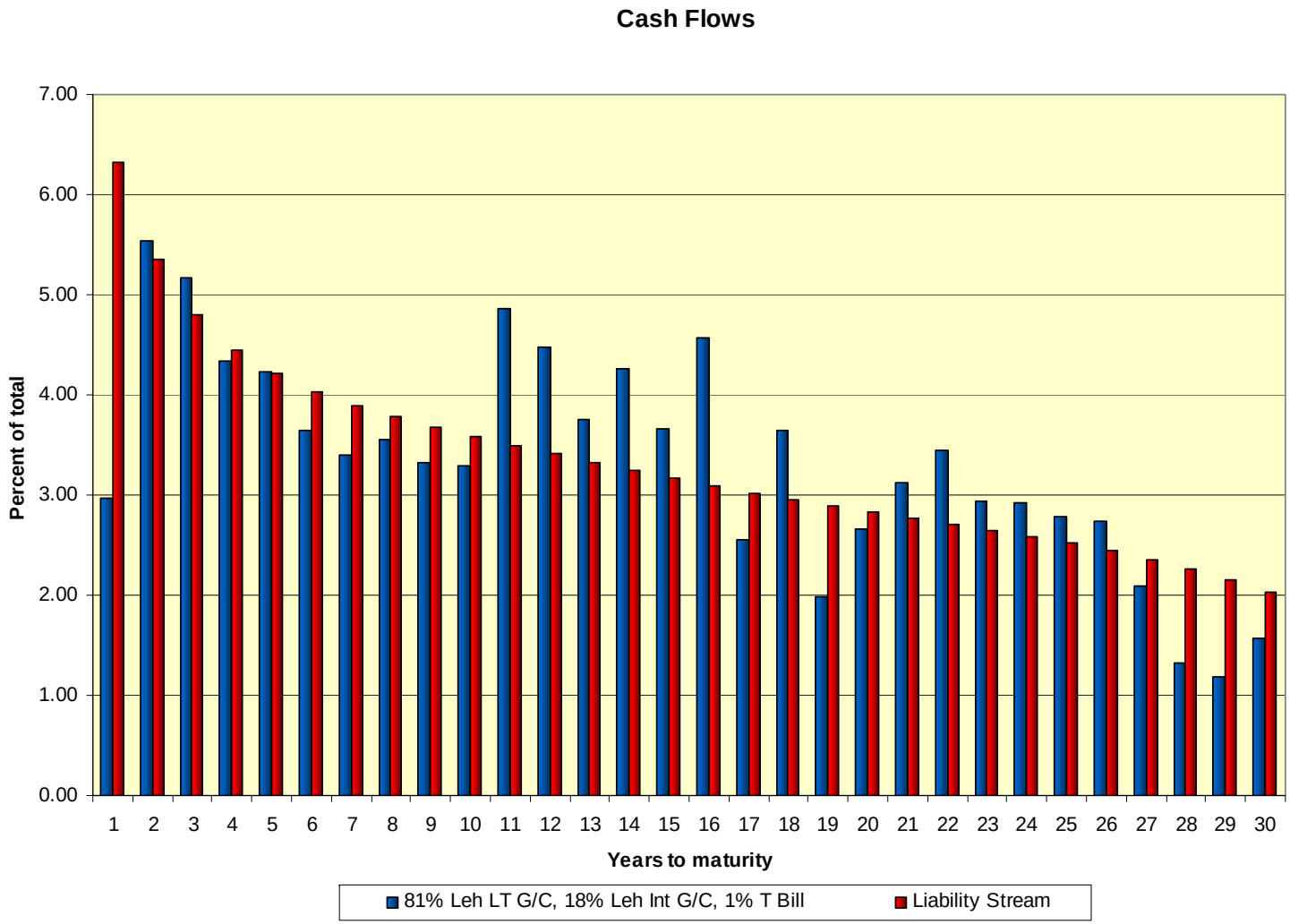
Optimized portfolio duration, D2, D3

Effective duration: measures risk to changes in level of the yield curve
Effective D2: measures risk to changes in slope of the yield curve
Effective D3: measures risk to changes in the curvature of the yield curve

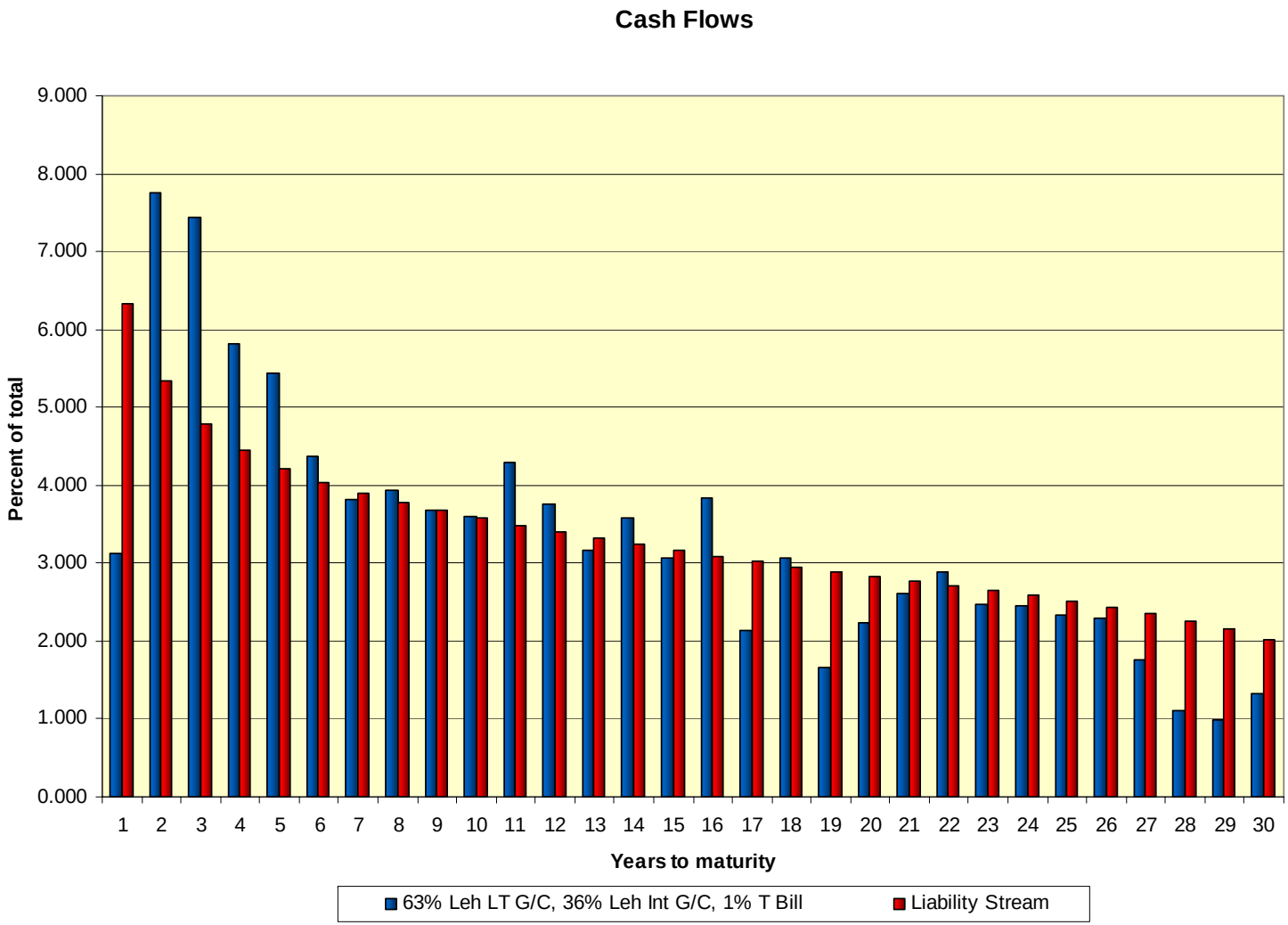
Cash Flow Distribution 1



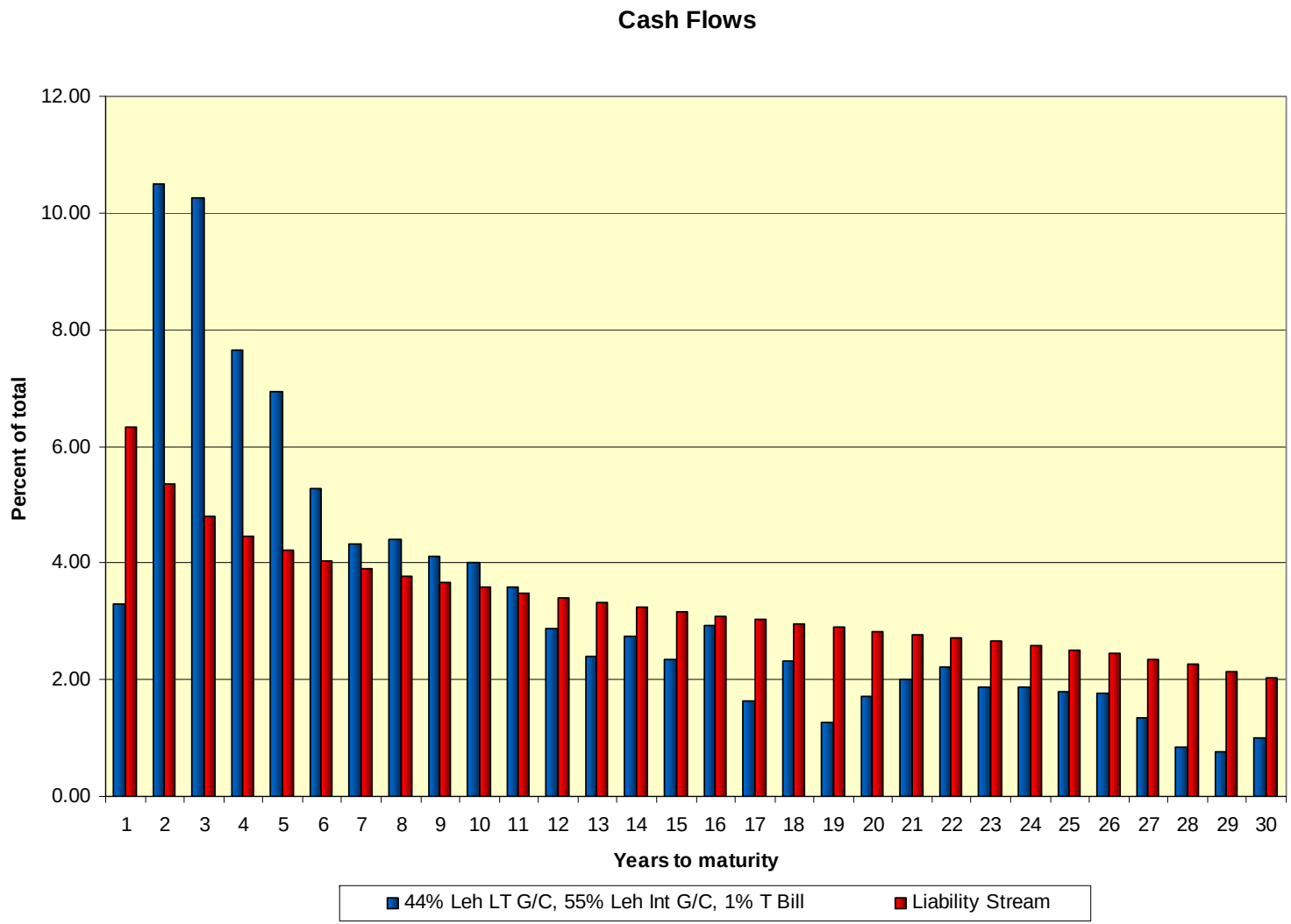
Cash Flow Distribution 2



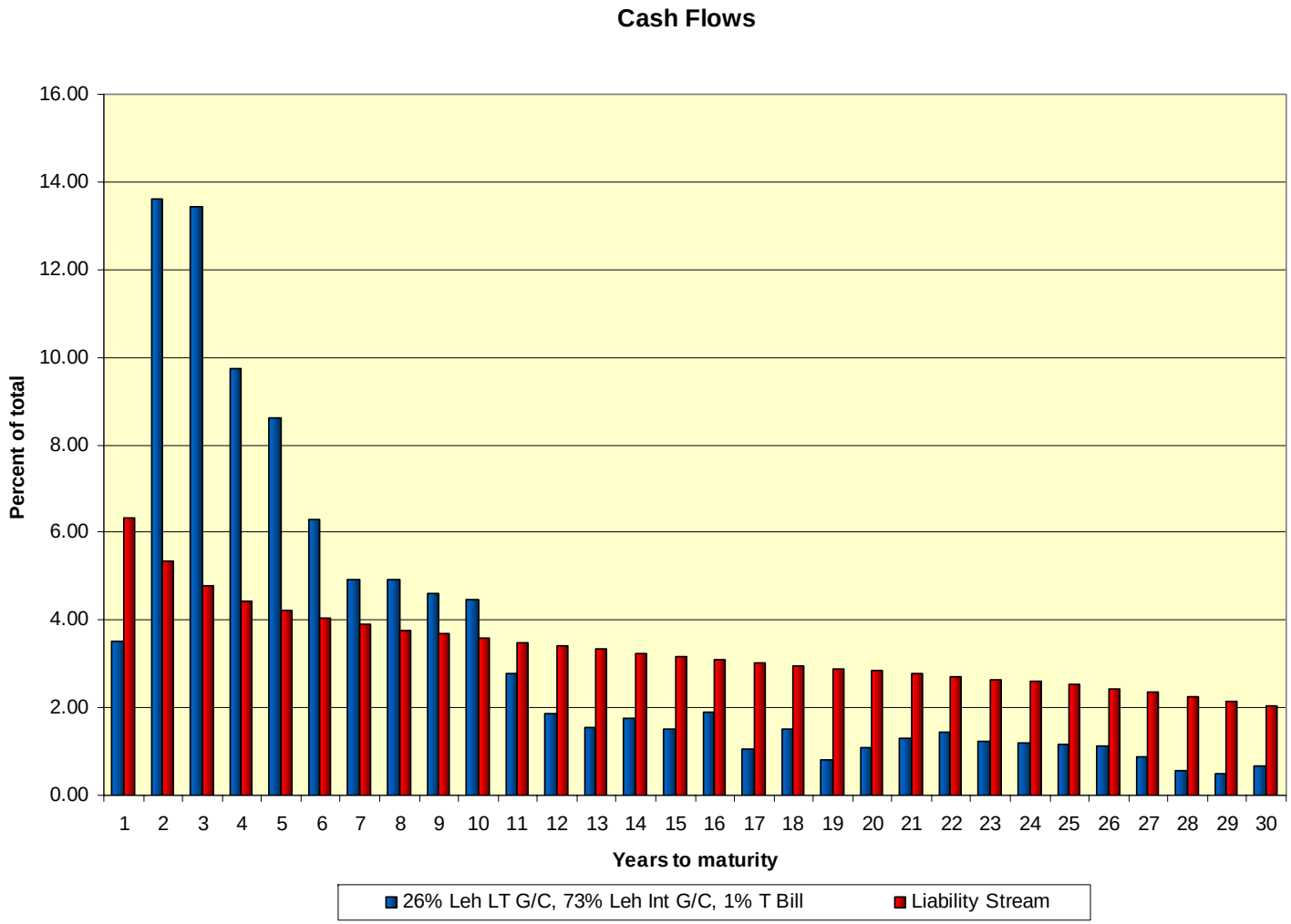
Cash Flow Distribution 3



Cash Flow Distribution 4



Cash Flow Distribution 5



Ohio Bureau of Workers' Compensation

Private Equity RFP Update

July 20, 2006

Private Equity RFP Update Timeline

RFP ACTION ITEM	TIMELINE
OVERSIGHT COMMISSION MEETING	***APRIL 27***
Send RFP Advertisement to Newspapers/Journal	April 27 - Complete
Issue RFP	May 16 - Complete
Open period for respondent's questions via email	MAY 16 – 19 - Complete
WCOC responds to questions via website	MAY 22 – 26 - Complete
OVERSIGHT COMMISSION MEETING	***MAY 25*** - Complete
DEADLINE FOR RFP PROPOSALS (2:00 PM)	**JUNE 15 - Complete**
BWC staff initial review of proposals	JUNE 16 – 26 - Complete
OVERSIGHT COMMISSION MEETING	***JUNE 16*** - Complete
Evaluation Committee review / finalists identified	JUNE 27-JULY 10 - Complete
Finalist Interviews	JULY 13 - Complete
Regrade finalists / Notify final candidate	JULY 17 - Complete
OVERSIGHT COMMISSION MEETING	***JULY 20***
On-Site visit of finalist	JULY 25
WCOC MEETING PACKET DEADLINE	AUGUST 16
OVERSIGHT COMMISSION MEETING – WCOC Approval of Finalist	***AUGUST 24***

Private Equity RFP Evaluation Committee

Composition:

Five member Evaluation Committee

BWC CIO

Three BWC Investment Staff Members

Wilshire Consultant

Advertising:	Dates
Wall Street Journal (The Mart)	May 16,17,18
Barron's	May 22 - 28
Private Equity Week (Thompson Financial)	May 22 - June 11
Pensions and Investments	May 15 - June 11

OBWC State Insurance Fund Dividend Policy Analysis

July 20, 2006

Mark E. Brubaker, CFA
Managing Director

WILSHIRE CONSULTING

Background

- **Ohio Revised Code § 4123.32**

  The administrator of workers' compensation, with the advice and consent of the Workers' Compensation Oversight Commission, shall adopt rules with respect to the collection, maintenance, and disbursements of the state insurance fund including all of the following:

  - (A) A rule providing that in the event there is developed as of any given rate revision date a surplus of earned premium over all losses which in the judgment of the administrator, is larger than is necessary adequately to safeguard the solvency of the fund, the administrator may return such excess surplus to the subscriber to the fund in either the form of cash refunds or a reduction of premiums, regardless of when the premium obligations have accrued

- **Wilshire's recommended asset allocation assumes that the OBWC will grow and maintain an adequate surplus**
  - An equity allocation requires that the Fund maintain a sufficient surplus to protect the Fund in times of poor equity returns
  - The Fund's current thin surplus (approx. $870 million) is primarily the result of dividends (or premium refunds) that totaled over $5 billion in the past six years
- **Wilshire evaluates the following potential dividend/surplus policies in the following slides:**
  - No dividends
  - Surplus must be at least 1.5x next year's premiums. Any excess surplus paid as dividend annually.
  - Surplus must be at least 1.0x next year's premiums. Any excess surplus paid as dividend annually.

Observations

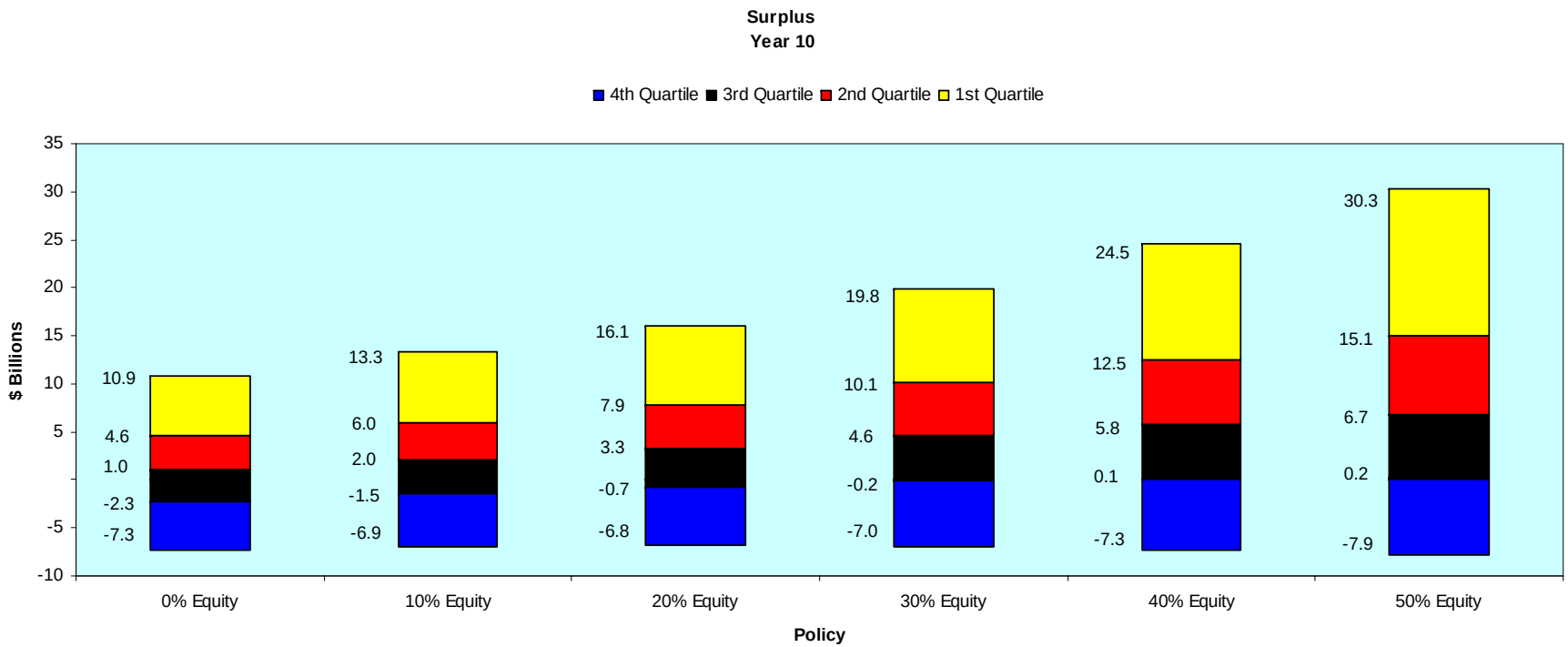
- **Based on the attached output, dividends are likely to be paid only in "top quartile" market environments over the next 10 years regardless of the asset mix**
- **Dividends are highly unlikely to be paid in year 1, regardless of the dividend policy or asset mix**
- **Issuing dividends under either surplus policy (1.5x or 1.0x next year's dividends) introduces only modest additional downside risk in the short and intermediate term**
- **The 1.5x surplus policy results in lower expected dividends than the 1.0x surplus policy in years 1-5, but higher potential dividends in years 6-10**

Dividend Policy Impact on Surplus

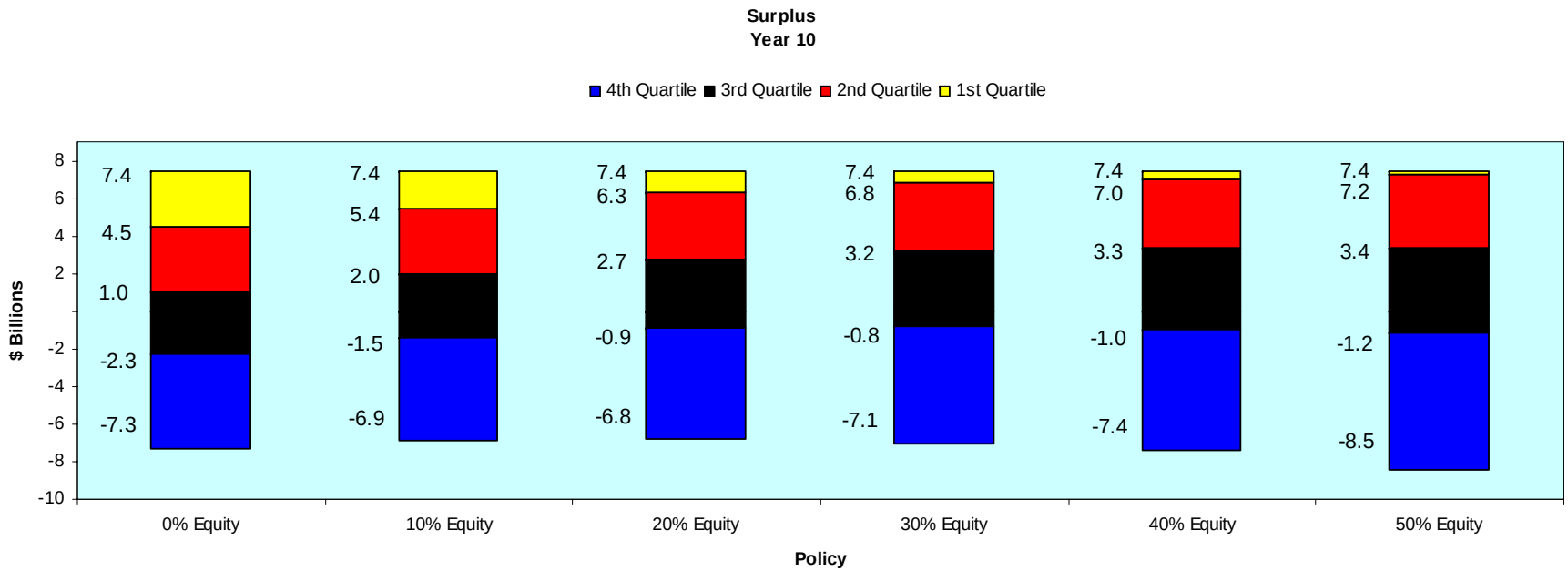
Surplus ($ bn) Under Various Dividend/Surplus Policies

		0% Equity			10% Equity			20% Equity		
	"Market Enviornment"	No Div	1.5 x	1.0 x	No Div	1.5 x	1.0 x	No Div	1.5 x	1.0 x
1 Year	Top 5%	2.0	2.0	2.0	2.4	2.4	2.4	2.7	2.7	2.7
	Top Quartile	1.3	1.3	1.3	1.5	1.5	1.5	1.7	1.7	1.7
	Median	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.0	1.0
	Bottom Quartile	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2
	Bottom 5%	-0.4	-0.4	-0.4	-0.5	-0.5	-0.5	-0.8	-0.8	-0.8
2 Years	Top 5%	2.6	2.6	2.6	3.1	3.1	2.9	3.8	3.9	2.9
	Top Quartile	1.5	1.6	1.6	1.9	1.9	1.9	2.3	2.3	2.3
	Median	0.9	0.9	0.9	1.0	1.1	1.1	1.2	1.2	1.2
	Bottom Quartile	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
	Bottom 5%	-0.9	-0.9	-0.9	-1.1	-1.1	-1.1	-1.4	-1.4	-1.4
3 Years	Top 5%	3.3	3.3	3.1	4.0	4.0	3.1	4.8	4.6	3.1
	Top Quartile	1.8	1.8	1.8	2.3	2.3	2.2	2.9	2.7	2.6
	Median	0.9	0.9	0.9	1.2	1.1	1.1	1.4	1.4	1.3
	Bottom Quartile	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
	Bottom 5%	-1.3	-1.3	-1.3	-1.6	-1.6	-1.6	-2.0	-2.0	-2.0
4 Years	Top 5%	3.9	3.9	3.3	4.8	4.8	3.3	5.9	4.9	3.3
	Top Quartile	2.1	2.1	2.1	2.7	2.7	2.6	3.4	3.3	2.9
	Median	1.0	1.0	1.0	1.3	1.3	1.3	1.6	1.6	1.4
	Bottom Quartile	-0.1	-0.1	-0.1	0.0	-0.1	-0.1	0.0	-0.1	-0.1
	Bottom 5%	-1.9	-1.9	-1.9	-1.9	-2.1	-2.1	-2.4	-2.6	-2.6
5 Years	Top 5%	4.7	4.6	3.5	5.6	5.3	3.5	7.0	5.3	3.5
	Top Quartile	2.4	2.4	2.3	3.2	3.1	2.7	4.1	3.7	3.1
	Median	1.1	1.1	1.1	1.4	1.5	1.4	1.9	1.8	1.5
	Bottom Quartile	-0.4	-0.4	-0.4	-0.2	-0.3	-0.3	-0.1	-0.2	-0.2
	Bottom 5%	-2.7	-2.7	-2.7	-2.5	-2.9	-2.9	-3.0	-3.3	-3.3
10 Years	Top 5%	10.9	7.4	5.0	13.3	7.4	5.0	16.1	7.4	5.0
	Top Quartile	4.6	4.5	3.7	6.0	5.4	4.3	7.9	6.3	4.6
	Median	1.0	1.0	0.7	2.0	2.0	1.4	3.3	2.7	1.8
	Bottom Quartile	-2.3	-2.3	-2.3	-1.5	-1.5	-1.7	-0.7	-0.9	-1.7
	Bottom 5%	-7.3	-7.3	-7.3	-6.9	-6.9	-6.9	-6.8	-6.8	-6.9

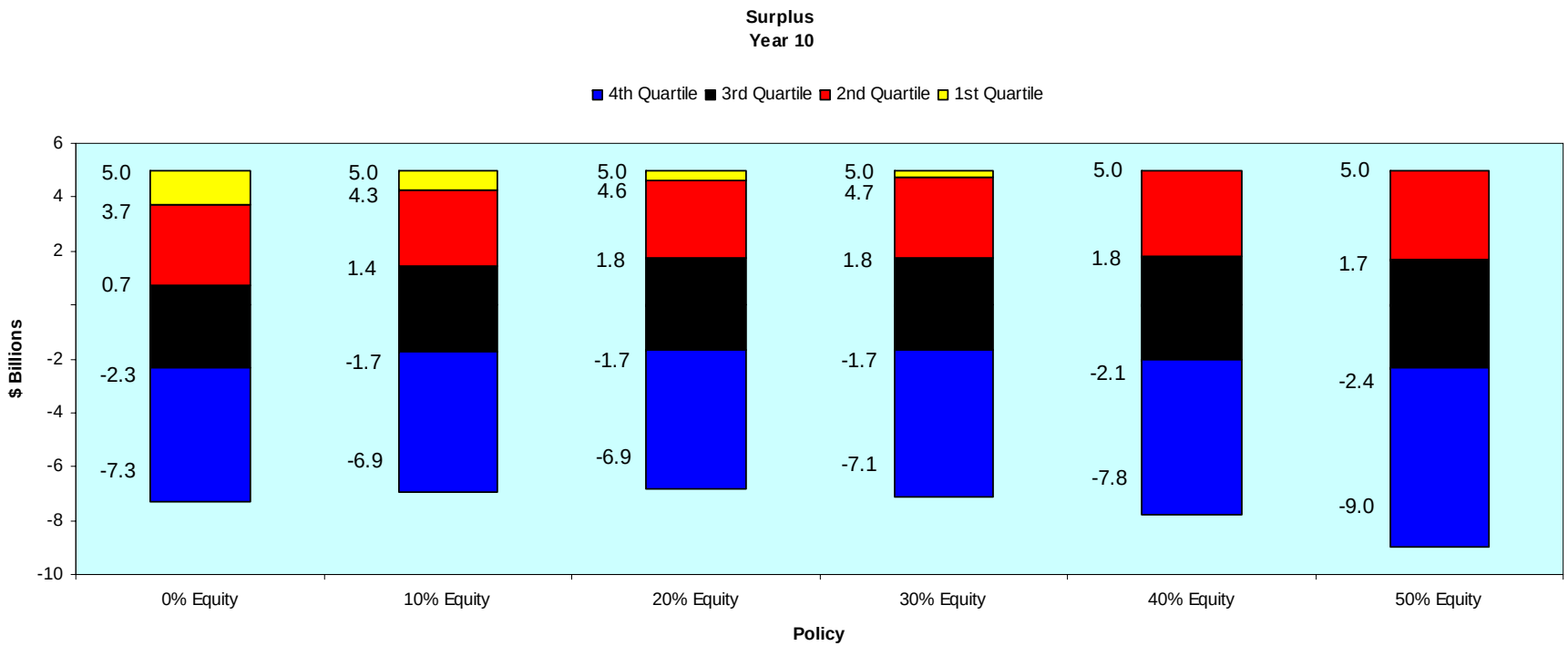
Surplus: Year 10 with No Dividends



Surplus: Year 10 with 1.5 x Surplus Policy

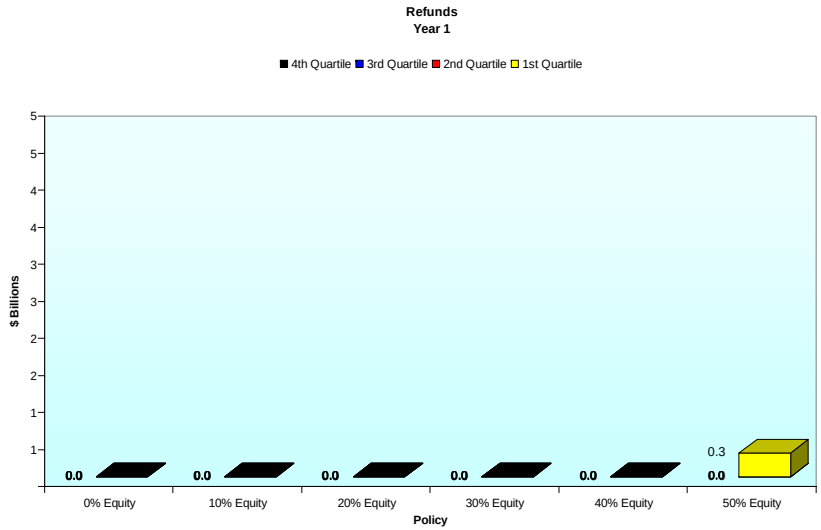


Surplus: Year 10 with 1.0 x Surplus Policy

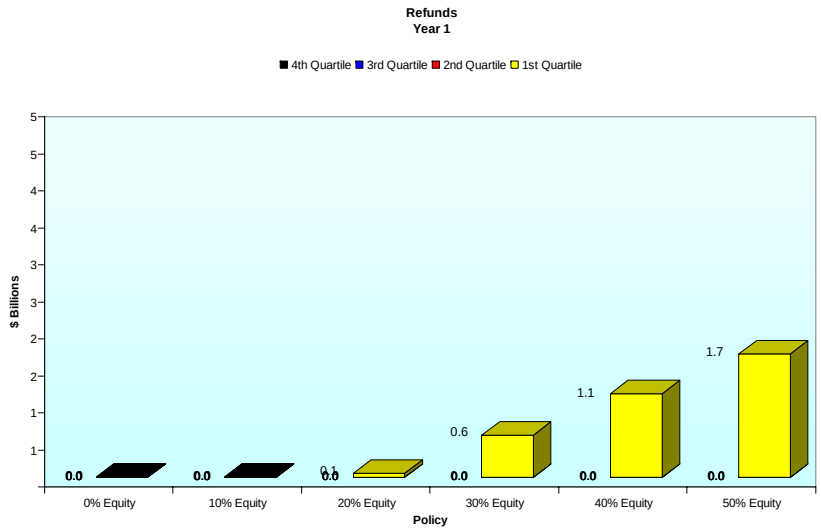


Dividends/Refunds: Year 1

<u>Dividend Policy</u>:
Surplus = 1.5 x Next Year's Premiums

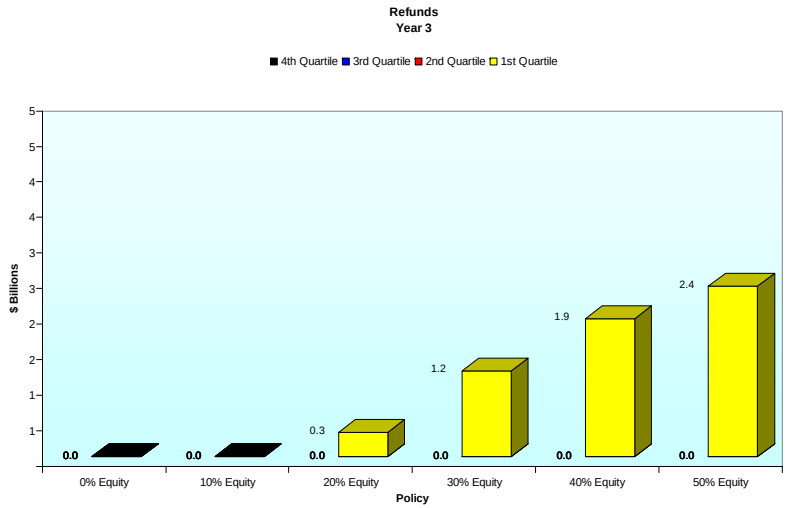


<u>Dividend Policy</u>:
Surplus = 1.0 x Next Year's Premiums

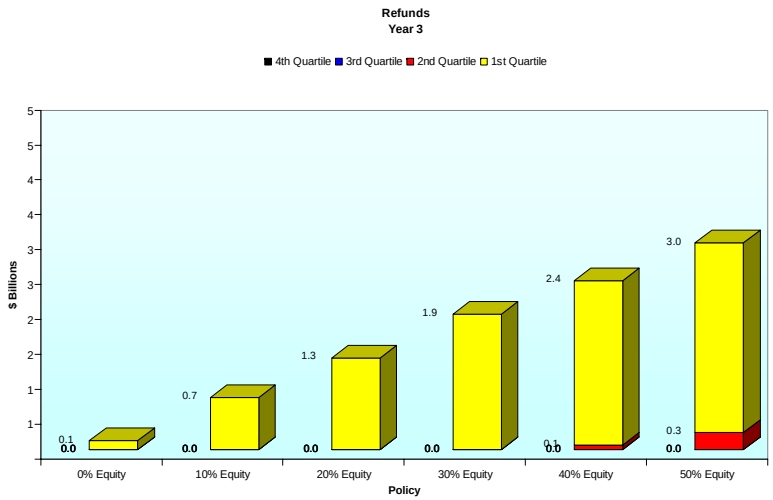


Dividends/Refunds: Year 3

Dividend Policy:
Surplus = 1.5 x Next Year's Premiums

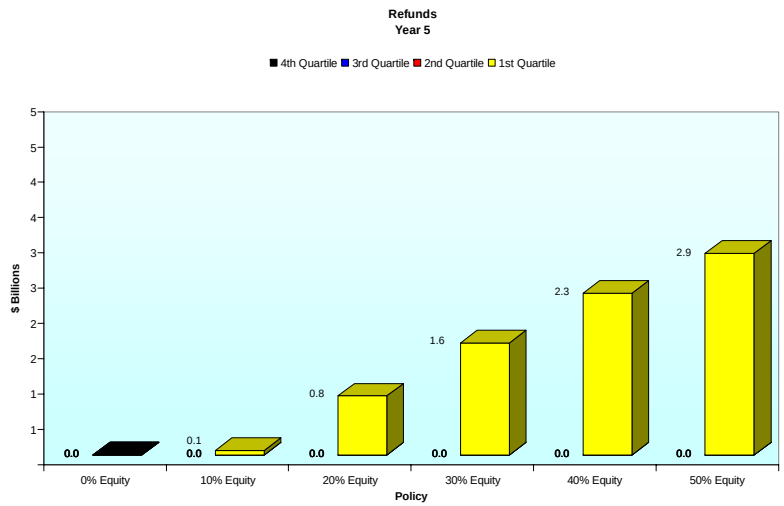


Dividend Policy:
Surplus = 1.0 x Next Year's Premiums

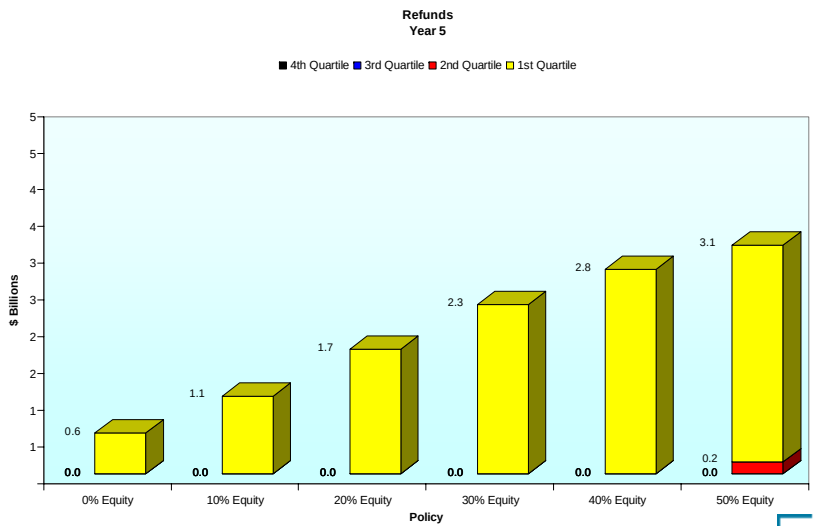


Dividends/Refunds: Year 5

Dividend Policy:
Surplus = 1.5 x Next Year's Premiums

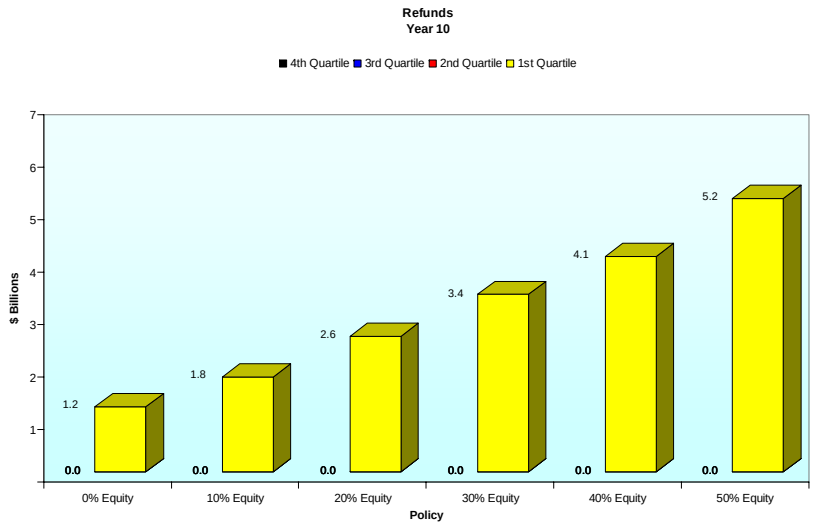


Dividend Policy:
Surplus = 1.0 x Next Year's Premiums

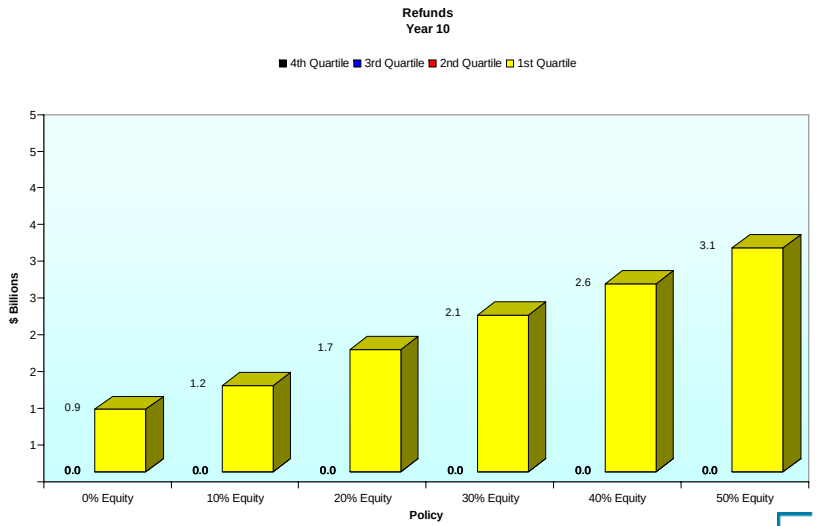


Dividends/Refunds: Year 10

Dividend Policy:
Surplus = 1.5 x Next Year's Premiums



Dividend Policy:
Surplus = 1.0 x Next Year's Premiums



OBWC State Insurance Fund Asset-Liability Valuation – Final Draft

WCOC Presentation

July 20, 2006

Mark E. Brubaker, CFA
Managing Director

Julia Bonafede, CFA
Senior Managing Director

WILSHIRE CONSULTING

Agenda

I. Recommended Asset Mix

Recommendation

- **The following factors lead Wilshire to recommend that the OBWC maintain a long-term orientation and adopt the asset mix below:**
  - The Obligations of the State Insurance Fund are long-term in nature, with a duration of approximately 10.4 years
  - The Fund has minimal short term cash needs as current premiums are approximately equal to current claims and are expected to ultimately exceed claims
  - There is no asset allocation that can eliminate risk due to the relatively weak capital structure of the Fund and the medical inflation risk embedded in the claims of the Fund
  - The OBWC is a monopoly and is not subject to competition, therefore, future premiums are relatively predictable
  - Premiums are currently based on discounted (at 5.25%) expected future claims, thereby setting a "hurdle rate" of return on investments for the Fund
  - OBWC views itself as an ongoing entity
- **Recommended Mix (as compared to an "immunized" mix):**

	Portfolio Weights		
	"Immunized"		*Recommended*
Asset Class	***0% Equity***		***20% Equity***
U.S. Equity (including Private Equity)	0		15
Non-U.S. Equity	0		5
Total Equity	***0***		***20***
Fixed Income - Core	0		0
Fixed Income - Long Duration/Dedicated	99		54
Fixed Income - High Yield	0		5
Fixed Income - Inflation Protected	0		20
Total Fixed Income	***99***		***79***
Cash Equivalents	1		1
Return	**5.23**		**6.07**
Risk	**6.93**		**6.13**

- **This mix provides a balance between the long-term growth of the surplus with the preservation of the surplus over intermediate time horizons**

II. Legislative Background and Purpose

Legislative Background: OBWC Purpose and WCOC Duties

- **The OBWC was established by the Ohio Constitution, Article II, Section 35:**
  - "For the purpose of providing compensation to workmen and their dependents, for death, injuries or occupational disease, occasioned in the course of such workmen's employment, laws may be passed establishing a state fund to be created by compulsory contribution thereto by employers, and administered by the state…"

- **Ohio Revised Code Section 4123.44**
  - "The voting members of the workers' compensation oversight commission, the administrator of workers' compensation, and the bureau of workers' compensation chief investment officer are the trustees of the state insurance fund. The administrator of workers' compensation, in accordance with (the Ohio Revised Code) and the investment objectives, policies and criteria established by the workers' compensation oversight commission pursuant to section 4121.12 of the Revised Code, and in consultation with the bureau of workers' compensation chief investment officer, may invest any of the surplus or reserve belonging to the state insurance fund."
  - "The administrator and other fiduciaries shall discharge their duties with respect to the funds with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims, and by diversifying the investments of the assets of the funds so as to minimize the risk of large losses, unless under the circumstances it is clearly prudent not to do so."

Legislative Background: Premiums and Surplus

- **Ohio Revised Code Section 4123.34:**
  - "The administrator of workers' compensation, in the exercise of the powers and discretion conferred upon him in section 4123.29 of the Revised Code, shall fix and maintain, with the advice and consent of the workers' compensation oversight commission…***the lowest possible rates of premium consistent with the maintenance of a solvent state insurance fund and the creation and maintenance of a reasonable surplus***…" (emphasis added)

Definitions

- **Solvent:**
  - Able to pay all reasonable debts (source: Webster's Dictionary)
- **Surplus:**
  - Surplus is an accounting concept
  - Generally defined as net assets (i.e. assets minus liabilities)
    - Under the Government Accounting Standards Board ("GASB") standards:
      - Assets are generally measured at current market value
      - Liabilities may be discounted (OBWC's current discount rate is 5.25%)
    - Under the statutory accounting standards that govern private workers' compensation funds, liabilities are usually not discounted, which makes industry-wide comparisons difficult
- **"Reasonable" Surplus:**
  - This concept is not defined in the Ohio Revised Code
  - Generally, a reasonable surplus should, at a minimum, be adequate to ensure a high probability of paying all benefit claims when due

What is Ohio Bureau of Workers' Compensation?

Insurance Company

- OBWC's primary role is to pay compensation and medical expenses for injured workers, but…
  - It is not subject to statutory accounting standards and capital requirements
  - It is not subject to regulation by the state insurance department
  - It incurs longer-tailed liabilities than typical workers' compensation insurance company
  - It is run solely for the benefit of Ohio employers and employees – there is no profit motive

Other?

- 10.4 year duration of claims stream comparable to the benefit stream of pension funds, which typically have a duration of 11-13 years
- Medical claims and indemnity claims each account for roughly 50% of the discounted loss reserves

III. Asset-Liability Valuation Background

What is Asset Allocation?

- Wilshire believes that the core business of a workers' compensation insurance fund is to provide the benefits promised to injured workers.
- Asset Allocation is the process of selecting a policy portfolio - allocating a portfolio's assets among asset classes that have the potential to serve the financial objectives of the fund.
- Asset allocation is one tool to manage the risk to the fund's core business. Other risk controls include rate making, expense control, underwriting guidelines, operational profitability and surplus adequacy.
- The goal of asset allocation is to maximize the safety of promised benefits at a minimum cost (premiums).

A Multitude of Risks

- Workers' compensation funds face a multitude of risks. Prioritizing those risks is crucial in determining a proper methodology for selection of the policy portfolio.

Example 1 - Risk of an Asset Loss

- It is undesirable to lose money.

Example 2 - Risk of Mismatch Between Assets and "Accounting" Liabilities

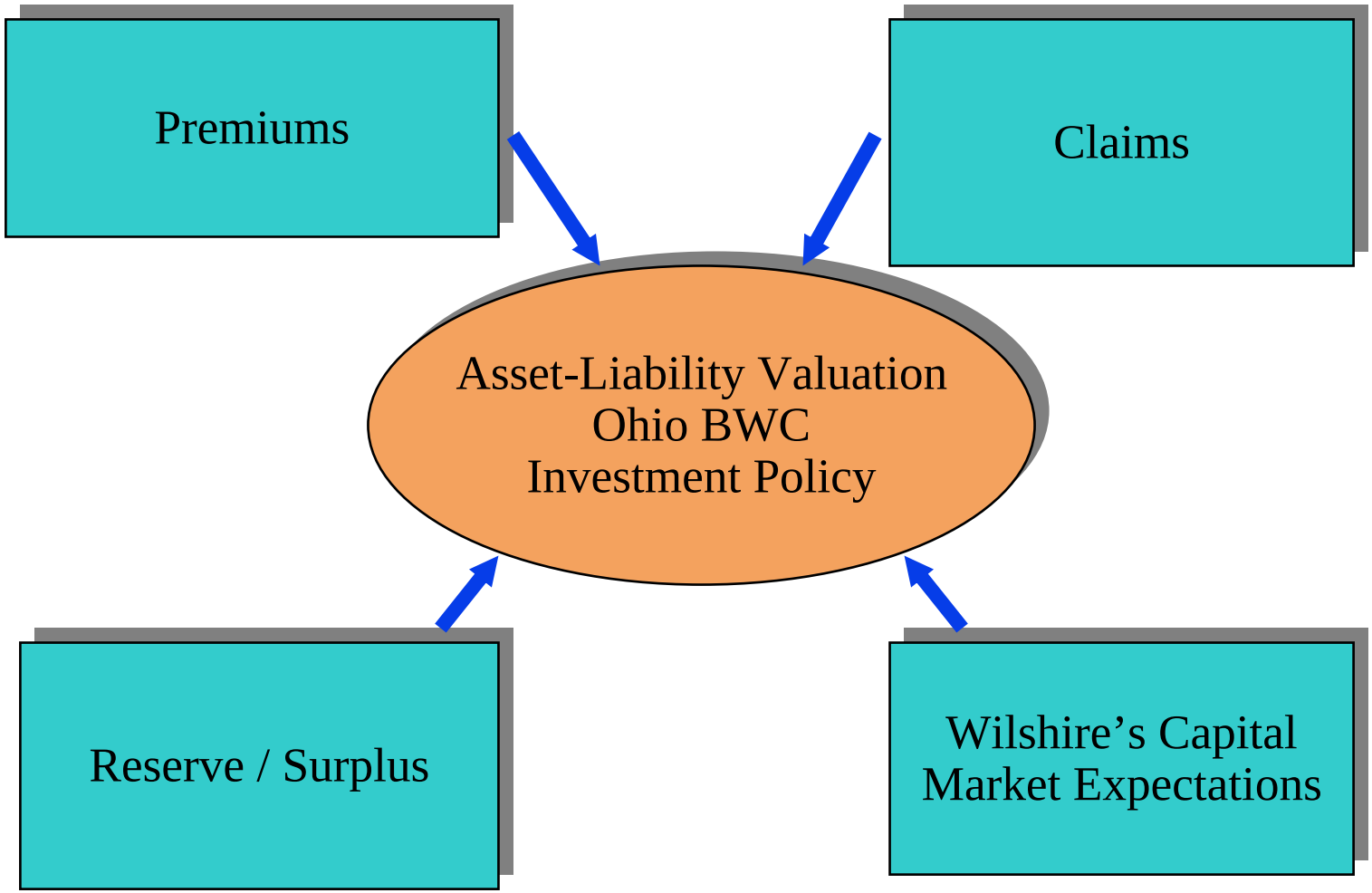
- It is undesirable to have a negative surplus as defined by GASB accounting standards.

Example 3 - Insufficient Asset Risk

- It is undesirable to have insufficient assets to pay benefits promised to injured workers.
- Wilshire believes this is the primary risk.
- This risk is directly related to the Fund's core business.
- One tool to manage the risk of the investment portfolio is Asset Liability Valuation. Additional tools include rate making, expense control, underwriting guidelines, operational profitability and maintenance of an adequate surplus. This report primarily focuses on Asset Liability Valuation and the maintenance of an adequate surplus.

Asset-Liability Valuation Methodology

- **Wilshire's Asset-Liability Model integrates key economic and accounting data**



Current BWC Accounting Status

- **As of March 2006, the BWC reported a surplus of $870 million**

Assets ($ mm)	
Total Cash and Investments	16,458.00
Accrued Premiums	1,981.00
Other Accounts Receivable	349.00
Investment Receivables	2.00
Other Assets	128.00
Total Assets	18,918.00

Liabilities ($ mm)	
Reserve	17,308.00
Accounts Payable	39.00
Investment Payables	-
Other Liabilities	701.00
Total Liabilities	18,048.00

Net Assets ($ mm)	870.00

- **Slide 21 provides a simulation of potential future surplus and/or deficit under different asset allocation scenarios.**

Source: BWC Financial and Operational Report – March 2006

IV. Capital Markets Expectations and Efficient Frontier

A Long Term Capital Market Perspective

	1802-2005	1926-2005	*High Inflation* 1970-1979	*Bull Market* 1980-1999	*Wilshire* Forecast
Total Returns					
Stocks	8.2%	10.4%	5.9%	17.8%	8.3%
Bonds	4.9	5.7	7.2	10.0	5.0
T-Bills	4.3	3.8	6.4	7.2	3.0
Inflation	1.4	3.0	7.4	4.0	2.3
Real Returns					
Stocks	6.8	7.4	-1.5	13.8	6.0
Bonds	3.5	2.7	-0.2	6.0	2.8
T-Bills	2.9	0.8	-1.0	3.2	0.8
Risk (Std. Dev.)					
Stocks		19.3	16.0	15.0	17.0
Bonds		5.2	6.4	6.6	5.0
T-Bills		1.0	0.6	1.0	1.0
Stocks minus Bonds	3.3	4.7	-1.3	7.8	3.3

Wilshire's 10-Year Capital Market Assumptions

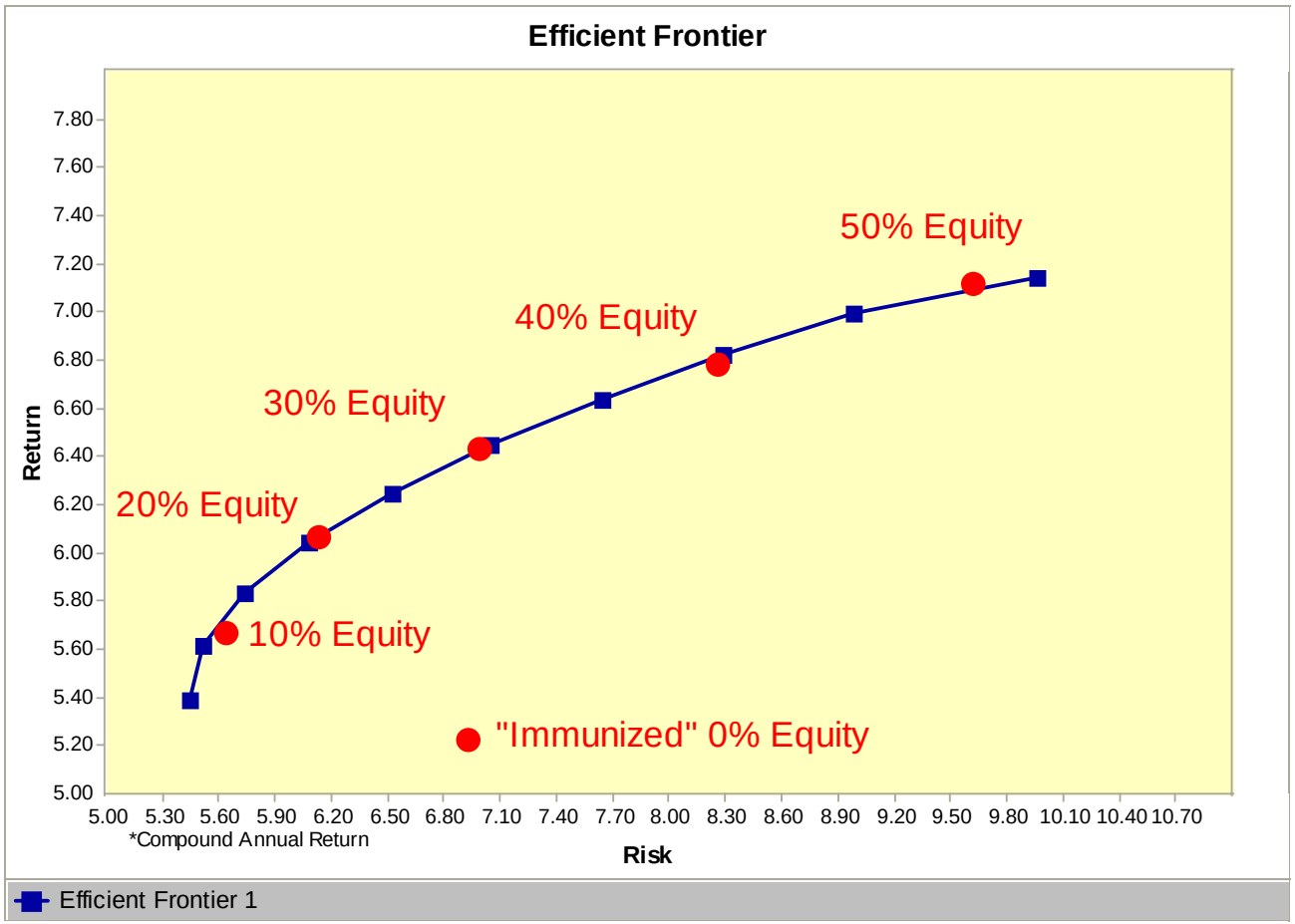
Asset Class	U.S. Equity	Non-U.S. Equity	Fixed Income - Core	Fixed Income - Long Duration/Dedicated	Fixed Income - High Yield	Fixed Income - Inflation Protected	Cash Equivalents
Return	8.25	8.25	5.00	5.25	6.50	4.75	3.00
Risk	17.00	19.00	5.00	7.00	10.00	6.00	1.00
Yield	1.80	2.50	5.00	5.25	6.50	2.50	3.00
Correlations							
U.S. Equity	1.00						
Non-U.S. Equity	0.78	1.00					
Fixed Income - Core	0.29	0.08	1.00				
Fixed Income - Long Duration/Dedicated	0.34	0.09	0.95	1.00			
Fixed Income - High Yield	0.48	0.29	0.39	0.40	1.00		
Fixed Income - Inflation Protected	0.00	0.10	-0.01	0.00	0.01	1.00	
Cash Equivalents	0.00	-0.10	0.10	0.10	0.00	0.25	1.00

- **The above figures represent Wilshire's 10-year forward-looking risk, return and correlation assumptions.**
  - Risk represents the expected standard deviation of each portfolio – in two out of three years, the asset class is expected to produce returns that are within +/- one standard deviation of the expected return.

Source: Wilshire Consulting: 2006 Asset Allocation Return and Risk Assumptions

Efficient Frontier

- **The efficient frontier is comprised of portfolios that generate the highest level of expected return for a given level of risk in *asset-only space* – SIF liabilities are not considered in this exhibit:**



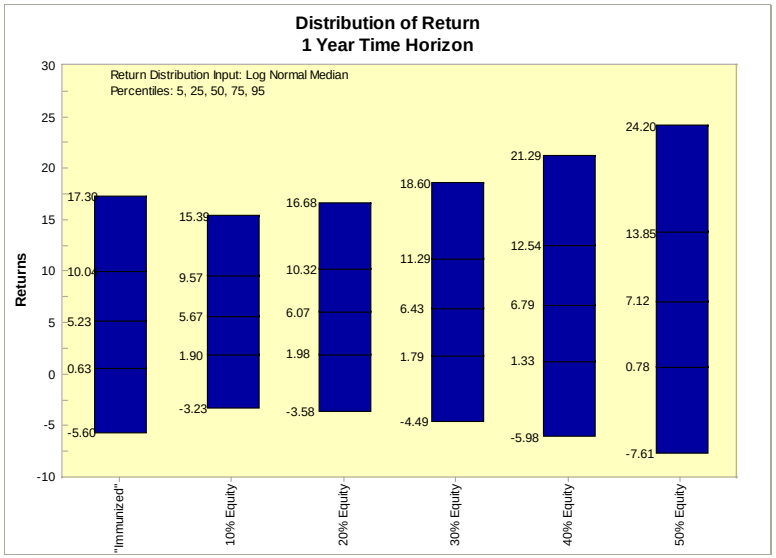
Efficient Portfolios

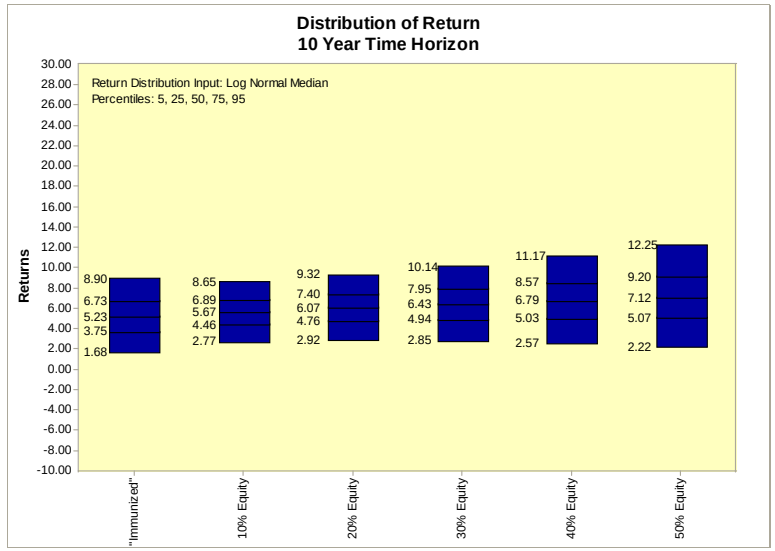
	Portfolio Weights					
	"Immunized"	Total Return				
Asset Class	0% Equity	10% Equity	20% Equity	30% Equity	40% Equity	50% Equity
U.S. Equity	0	8	15	22	30	38
Non-U.S. Equity	0	2	5	8	10	12
Total Equity	***0***	***10***	***20***	***30***	***40***	***50***
Fixed Income - Core	0	0	0	0	0	0
Fixed Income - Long Duration/Dedicated	99	65	54	44	39	34
Fixed Income - High Yield	0	4	5	5	5	5
Fixed Income - Inflation Protected	0	20	20	20	15	10
Total Fixed Income	***99***	***89***	***79***	***69***	***59***	***49***
Cash Equivalents	1	1	1	1	1	1
Return	**5.23**	**5.67**	**6.07**	**6.43**	**6.79**	**7.12**
Risk	**6.93**	**5.64**	**6.13**	**6.99**	**8.25**	**9.62**

- **Constraints:**
  - Total Equity < 50%; High Yield < 5%; Inflation Protected < 20%; Cash Equivalents < 1%
- **Long Duration Bonds and Inflation-Protected Securities are favored by the ALV model due to the long term and embedded medical and wage inflation components of the claim payment stream.**
- **Risk represents the expected standard deviation of each portfolio – in two out of three years, the asset mix is expected to produce returns that are within +/- one standard deviation of the expected return.**

1 and 10-Year Distribution of Expected Returns

- **Distributions of returns are quite wide for any one year period…**
- **…but they narrow considerably over a 10-year period**





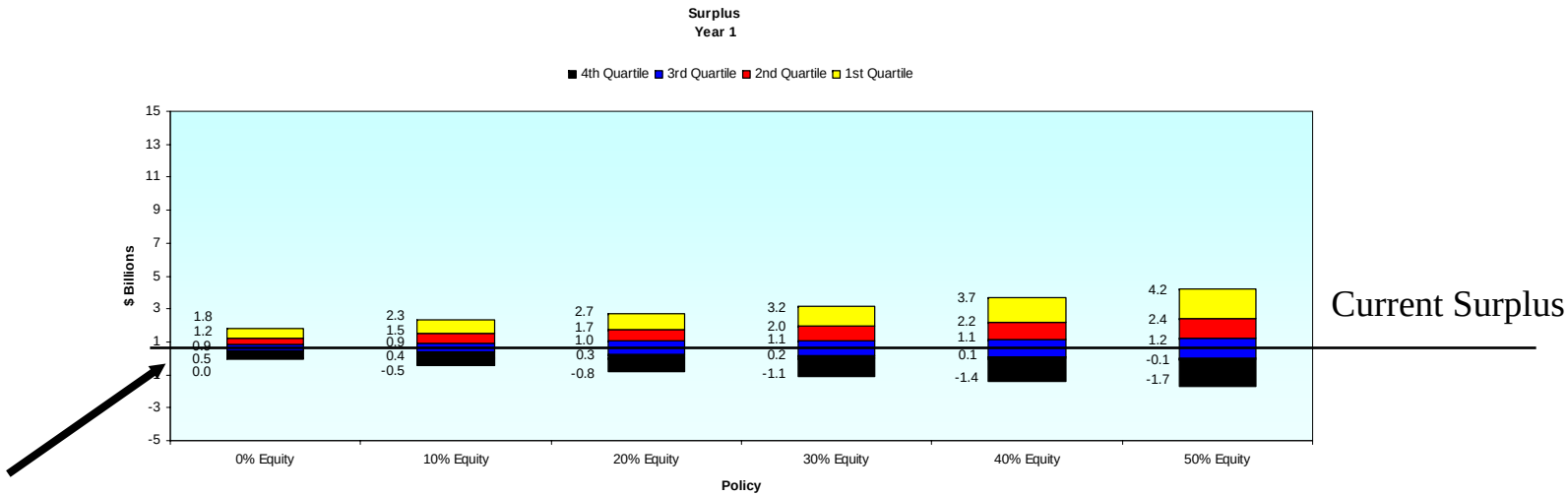
	"Market Enviornment"	0% Equity	10% Equity	20% Equity	30% Equity	40% Equity	50% Equity
1 Year	Top 5%	17.3	15.4	16.7	18.6	21.3	24.2
	Top Quartile	10.0	9.6	10.3	11.3	12.5	13.9
	Median	5.2	5.7	6.1	6.4	6.8	7.1
	Bottom Quartile	0.6	1.9	2.0	1.8	1.3	0.8
	Bottom 5%	-5.6	-3.2	-3.6	-4.5	-6.0	-7.6

	"Market Enviornment"	0% Equity	10% Equity	20% Equity	30% Equity	40% Equity	50% Equity
10 Years	Top 5%	8.9	8.7	9.3	10.1	11.2	12.3
	Top Quartile	6.7	6.9	7.4	8.0	8.6	9.2
	Median	5.2	5.7	6.1	6.4	6.8	7.1
	Bottom Quartile	3.8	4.5	4.8	4.9	5.0	5.1
	Bottom 5%	1.7	2.8	2.9	2.9	2.6	2.2

V. Asset-Liability Modeling

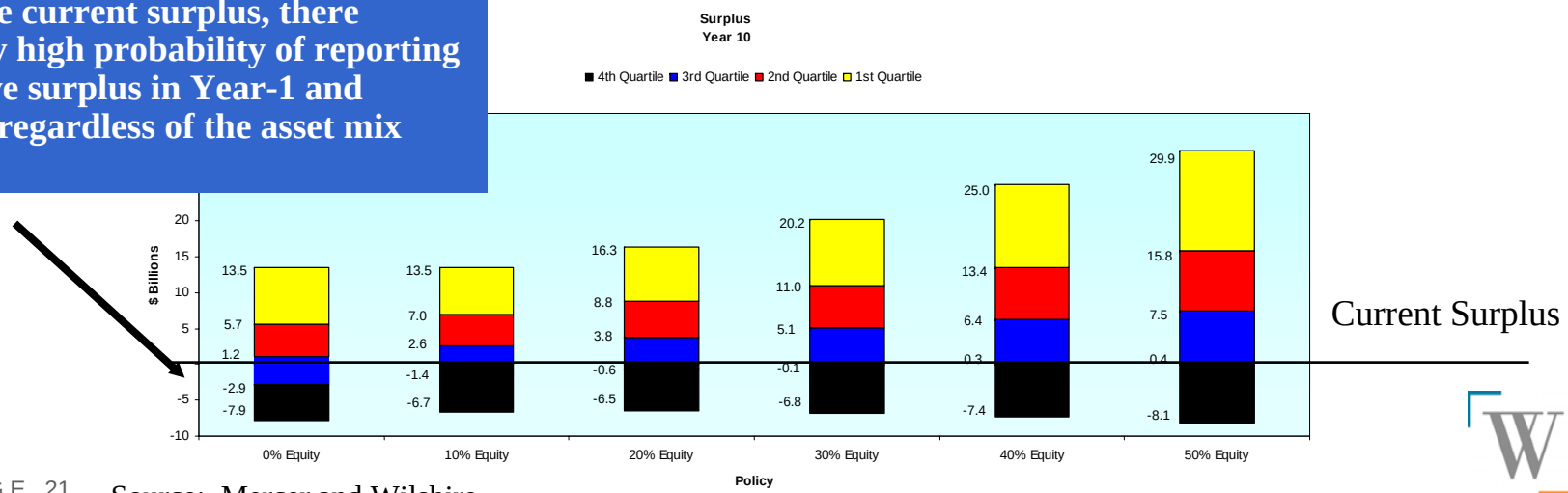
Stochastic Simulation of Surplus: Year 1 and Year 10

- **The floating bar charts incorporate a stochastic simulation of assets, premiums, claims and reserves under potential interest rate, inflation and capital market environments and illustrate the potential SIF surplus under various asset mixes over short and long-term time horizons:**



Current Surplus

Given the current surplus, there is a fairly high probability of reporting a negative surplus in Year-1 and Year-10 regardless of the asset mix selected



Current Surplus

Source: Mercer and Wilshire

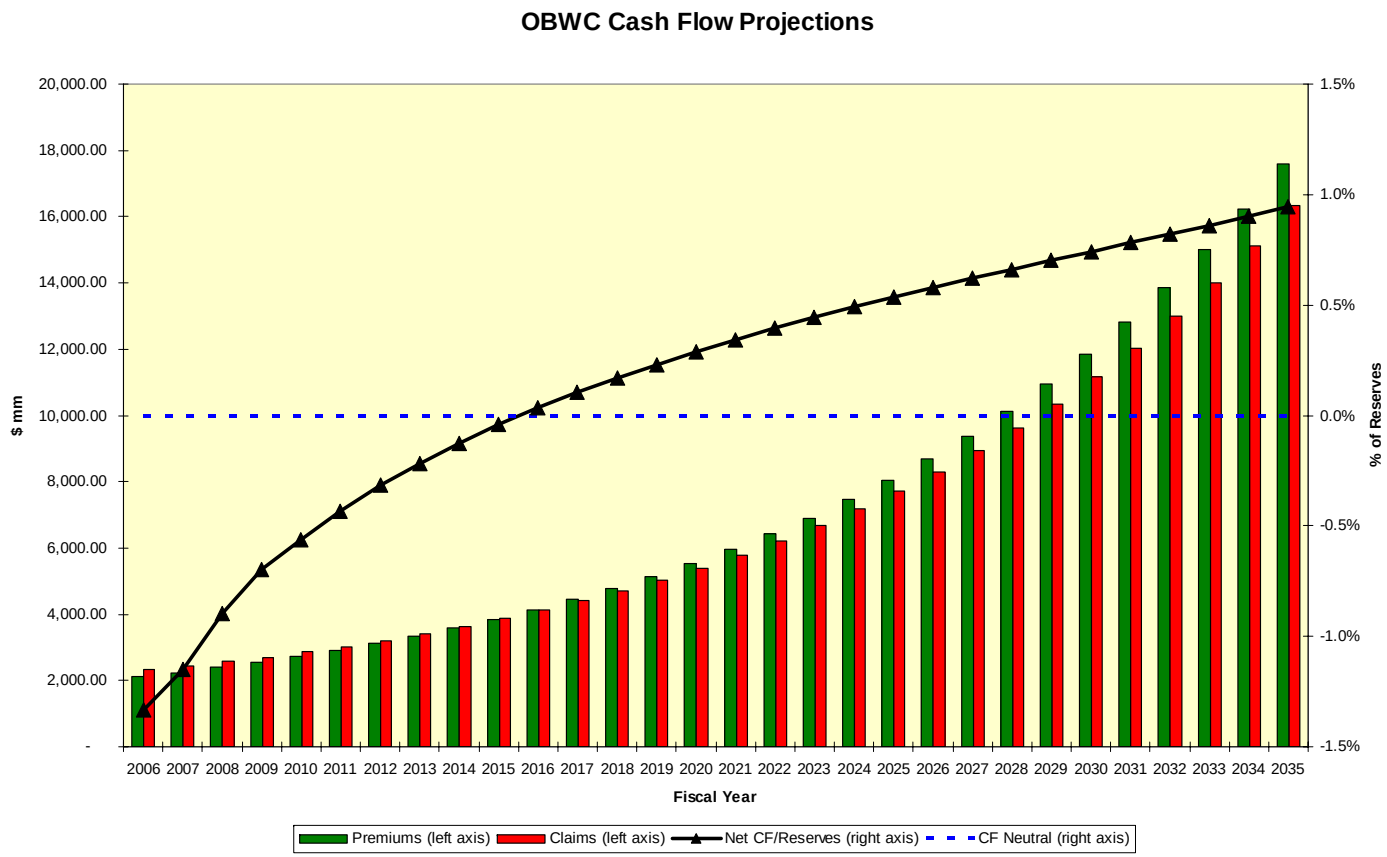
Potential Outcomes: Surplus

- **The data table below illustrates the impact on possible market environments on surplus over a 5-year time horizon:**

	"Market Enviornment'	0% Equity	10% Equity	20% Equity	30% Equity	40% Equity	50% Equity
1 Year	Top 5%	1.8	2.3	2.7	3.2	3.7	4.2
	Top Quartile	1.2	1.5	1.7	2.0	2.2	2.4
	Median	0.9	0.9	1.0	1.1	1.1	1.2
	Bottom Quartile	0.5	0.4	0.3	0.2	0.1	-0.1
	Bottom 5%	0.0	-0.5	-0.8	-1.1	-1.4	-1.7
2 Years	Top 5%	2.6	3.1	3.8	4.6	5.4	6.4
	Top Quartile	1.5	1.9	2.3	2.7	3.2	3.6
	Median	0.9	1.0	1.2	1.3	1.5	1.6
	Bottom Quartile	0.3	0.2	0.1	0.0	-0.2	-0.3
	Bottom 5%	-0.6	-1.1	-1.5	-1.9	-2.3	-2.7
3 Years	Top 5%	3.2	3.9	4.8	5.9	7.1	8.4
	Top Quartile	1.8	2.3	2.9	3.4	4.0	4.6
	Median	0.9	1.2	1.4	1.6	1.9	2.0
	Bottom Quartile	0.1	0.1	0.0	-0.1	-0.2	-0.3
	Bottom 5%	-1.1	-1.6	-2.0	-2.4	-2.9	-3.3
4 Years	Top 5%	4.0	4.6	5.9	7.3	8.9	10.6
	Top Quartile	2.2	2.7	3.4	4.1	4.9	5.7
	Median	1.0	1.3	1.6	2.0	2.3	2.6
	Bottom Quartile	-0.2	0.0	0.0	-0.1	-0.1	-0.3
	Bottom 5%	-1.8	-1.9	-2.4	-3.0	-3.7	-4.1
5 Years	Top 5%	5.0	5.6	7.0	8.6	10.6	12.8
	Top Quartile	2.5	3.2	4.1	5.0	5.9	6.8
	Median	1.0	1.4	1.9	2.3	2.7	3.1
	Bottom Quartile	-0.5	-0.2	-0.1	-0.2	-0.3	-0.4
	Bottom 5%	-2.5	-2.5	-3.0	-3.5	-4.2	-4.8

OBWC Cash Flow Projections

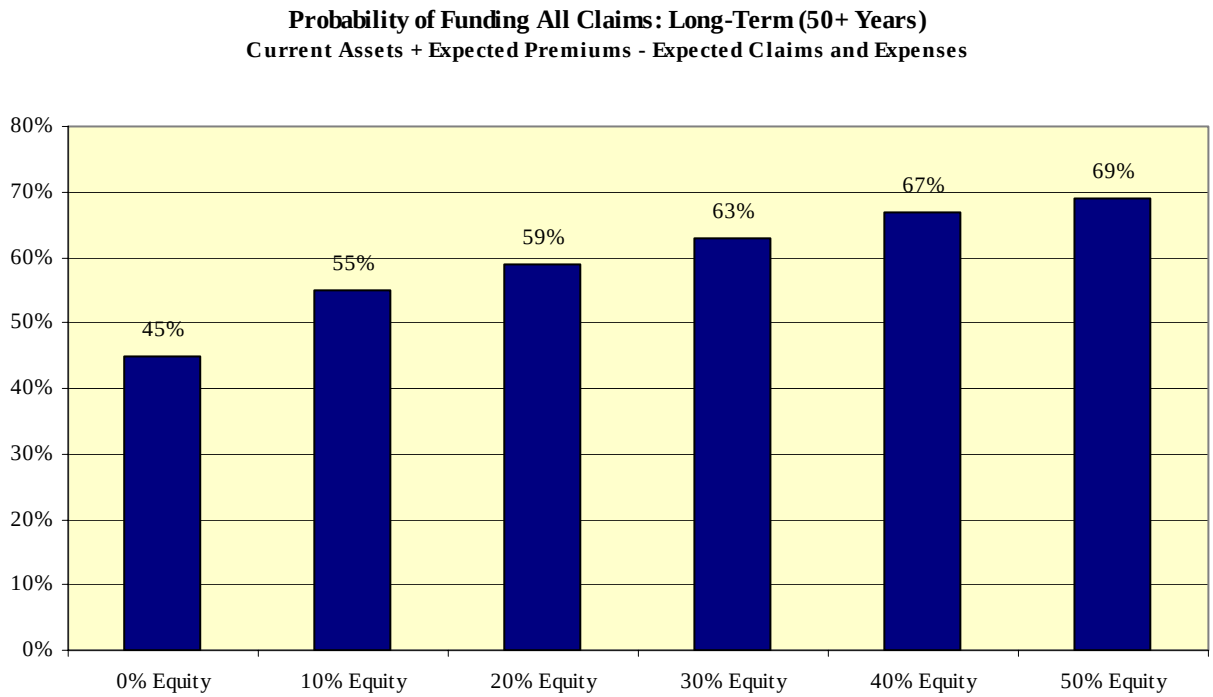
- **Modest negative cash flows (premiums less claims) are expected over the next 10 years, followed by positive cash flows**
- **This illustration excludes expected investment income**



Source: Mercer Oliver Wyman Projections

Probability of Success

- **The graph below illustrates the probability of OBWC funding all future expected claims and expenses given current assets, expected premiums and assessments and investment returns over a long-term (50+ years) horizon:**



Observations

- **The optimal asset mix is highly dependent on the Fund's ultimate objective and time horizon:**
  - If minimizing short term volatility of the accounting surplus is the sole objective, then the "Immunized" fixed income portfolio is optimal
  - If minimizing the long-term (10-year) downside risk of the accounting surplus is the objective, then a 20% equity allocation is optimal
  - If maximizing the safety of benefit claims is the objective (and the Fund can withstand downside risk to the accounting surplus), then an equity allocation greater than 20% may be justified
- **The immunized bond portfolio will not likely preserve the surplus in periods when medical and/or wage inflation exceed current expectations**
  - There is no financial instrument that can effectively hedge this inflation risk
- **Regardless of the asset mix selected, Wilshire recommends that OBWC build a larger surplus before considering future premium refunds to employers**
  - Given the current level of surplus, under any asset allocation policy mix, there exists the probability of a shortfall in the future
  - Because of the positive cash flow characteristics of the SIF, any shortfall would likely not be an issue until well into the future

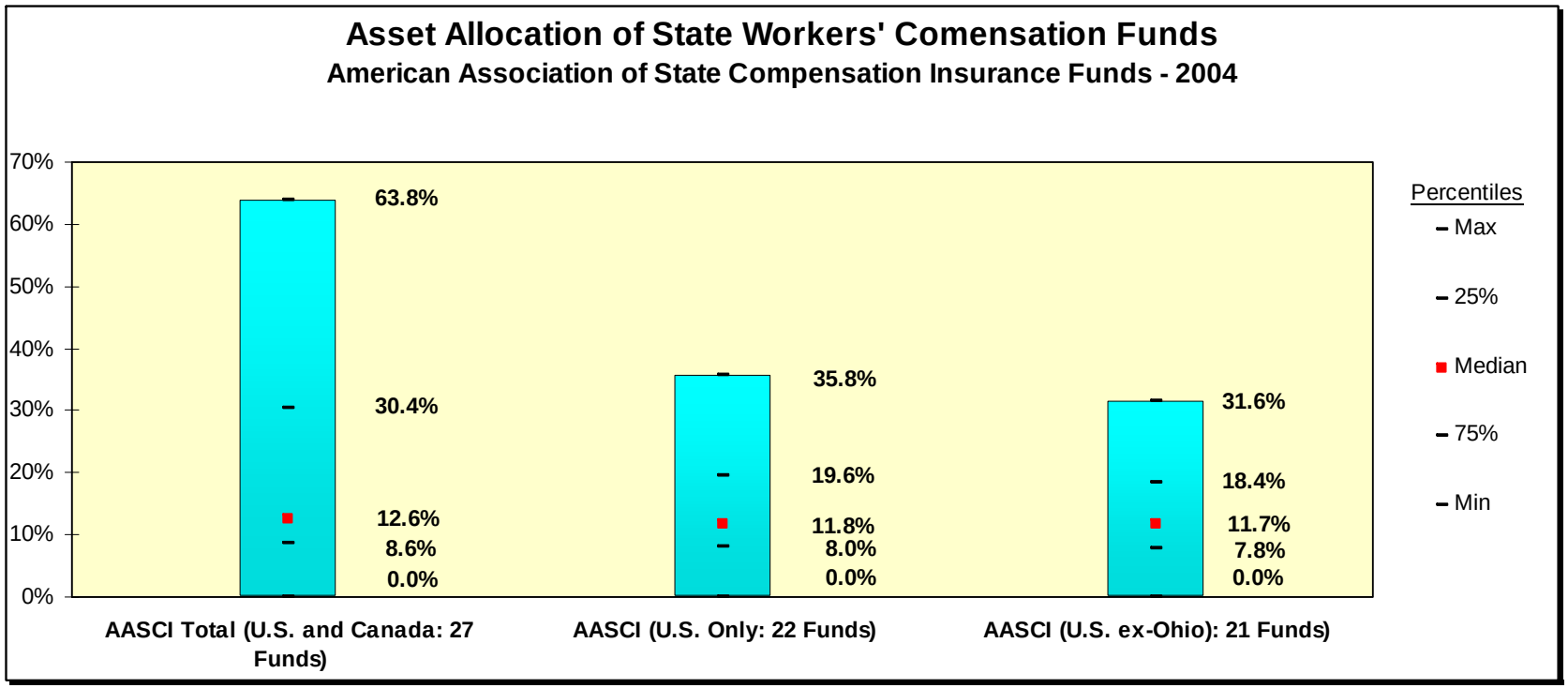
VI. Industry Peer Comparisons

Legislative Background: Industry Standards

- **Ohio Revised Code § 4121.125**
  - (A) The Workers' Compensation Oversight Commission may contract with one or more other actuarial firms and other professional persons as the Oversight Commission determines necessary, to assist the Oversight Commission in measuring the performance of Ohio Workers' Compensation System to other state and private workers' compensation systems. The Oversight Commission, actuarial firms or firms, and professional persons shall make such measurements and comparisons using accepted insurance industry standards, including, but not limited to, standards promulgated by the National Council on Compensation Insurance.

Industry Comparison

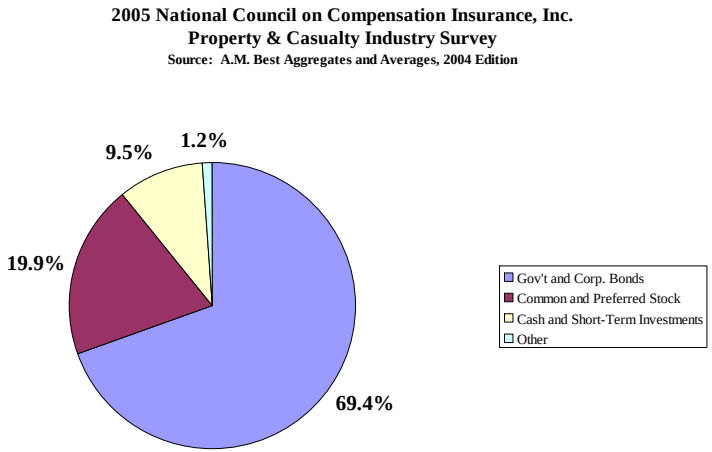
- **The American Association of State Workers' Compensation Funds 2005 Survey (based on year-end 2004 data) provides the range of equity allocations of 27 U.S. and Canadian State and Province-run funds:**



- **The median equity allocation of all funds was 12.6% at year end 2004**
- **The equal-weighted average equity allocation for this group was 22%.**

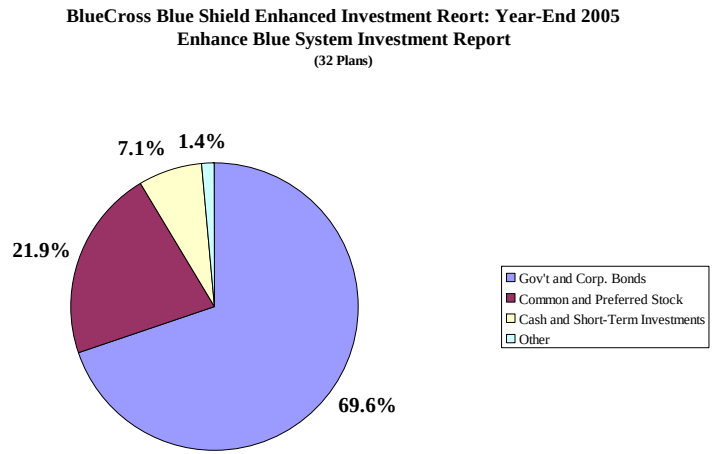
Industry Comparison

- **The chart below highlights the average asset allocation of Property & Casualty carriers as measured by the National Council on Compensation Insurance, Inc.:**



- **The average equity allocation was 19.9% as of December 31, 2003**

- **This chart displays the average asset allocation of 32 BlueCross BlueShield Plans' investment portfolios in the healthcare insurance industry (not a direct industry comparison):**



- **The average equity allocation was 21.9% as of December 31, 2005**

Peer Comparison: State Monopoly Funds

American Association of State Workers' Compensation Funds - 2004								
Fund	Assets	Reserves	Surplus		Discount Rate		Equity Allocation	
							% of Investments	% of Surplus
North Dakota	1,442,415	977,119	465,296		5.00%		24%	74%
Ohio	21,331,936	20,471,166	860,770		5.25%		36%	892%
Washington	9,334,583	8,546,394	788,189		4.60%		19%	225%
West Virginia	1,312,627	4,277,696	(2,965,069)		1.96%		5%	N.A.
Wyoming[1]	490,000	629,000	(139,000)		5.00%		No Data Provided	

Source: AASCIF 2005 Survey except Wyoming, which is based on Mercer estimates

- **This AASCIF survey from 2004 provides comparative data vs. other state monopoly workers' compensation funds.**
- **OBWC's equity as a percent of surplus was significantly higher than peers (ex. West Virginia) that reported.**
  - Two factors contributed to this status:
    - Premium refunds exceeding $5 billion over the past 7 years
    - Negative equity market returns during 2000-2002
- **Even at a 20% equity allocation, equities as a percent of surplus would be approximately 500%**

VII. Proposed Dividend / Adequate Surplus Policy

Ohio Revised Code: Dividends

- **Ohio Revised Code § 4123.32**

  The administrator of workers' compensation, with the advice and consent of the Workers' Compensation Oversight Commission, shall adopt rules with respect to the collection, maintenance, and disbursements of the state insurance fund including all of the following:

  - (A) A rule providing that in the event there is developed as of any given rate revision date a surplus of earned premium over all losses which in the judgment of the administrator, is larger than is necessary adequately to safeguard the solvency of the fund, the administrator may return such excess surplus to the subscriber to the fund in either the form of cash refunds or a reduction of premiums, regardless of when the premium obligations have accrued

- **Wilshire's recommended asset allocation assumes that the OBWC will grow and maintain an adequate surplus**

  - An equity allocation requires that the Fund maintain a sufficient surplus to protect the Fund in times of poor equity returns
  - The Fund's current thin surplus (approx. $870 million) is primarily the result of dividends (or premium refunds) that totaled over $5 billion in the past six years

VIII. Asset Class Structure and Implementation

Investment Structure

- **Wilshire recommends the following investment structure for implementing the asset allocation policy:**

	SIF Allocation		
Asset Class	***%***	***$ mm***	***Benchmark***
U.S. Equity	**15**	**2,265**	**Wilshire 5000**
Large Cap	*12*	*1,812*	*S&P 500*
Active (0%)	0	-	
Passive (100%)	12	1,812	
Small/Mid Cap	*3*	*453*	*Wilshire 4500 / Russell 2500*
Active (100%)	3	453	
Passive (0%)	0	-	
Non-U.S. Equity	**5**	**755**	**MSCI ACWI ex-U.S.**
Active (80%)	4	604	
Passsive (20%)	1	151	
Fixed Income - Long Duration	**54**	**8,153**	**Lehman Long Government/Credit**
Active (50%)	27	4,076	
Passive (50%)	27	4,076	
High Yield	**5**	**755**	**Merrill Lynch High Yield Master II**
Active (100%)	5	755	
Passive (0%)	0	-	
Inflation-Protected Securities	**20**	**3,020**	**Lehman U.S. TIPS**
Active (0%)	0	-	
Passive (100%)	20	3,020	
Cash Equivalents	**1**	**151**	**90-Day T-Bill**

Please refer to the following page for an analysis of the long-duration fixed income benchmark.

Illustrative Transition Timeline

Jun-06
Present asset allocation recommendation to WCOC
Present revised Investment Policy Statement to WCOC for approval
Issue RFPs for transition management and index managers

Jul-06
Issue RFPs for long-duration fixed income active managers

Aug-06
Evaluate RFP responses for transition management and index managers
Issue RFP for non-U.S. equity active managers

Sep-06
Evaluate RFP responses for transition management and index managers
Evaluate RFP responses for active long-duration fixed income managers
Issue RFP for small cap U.S. equity active managers

Oct-06
Present transition management and index manager recommendations to WCOC
Commence allocating assets to U.S. equity, non-U.S. equity, fixed income and TIPS index manager(s) (6 months)
Evaluate RFP responses for active long-duration fixed income managers
Evaluate RFP responses for non-U.S. equity active managers

The above calendar is for illustrative purposes only. Actual implementation may differ due to a variety of factors. Expected completion during Q2 2007.

Illustrative Transition Timeline

Nov-06
Present long-duration fixed income active manager recommendations to WCOC
Commence implementing active long-duration fixed income allocation (4 months)
Evaluate RFP responses for non-U.S. equity active managers
Evaluate small cap U.S. equity active managers
Issue RFP for high yield active managers

Dec-06
Present non-U.S. equity active manager recommendations to WCOC
Commence implementing non-U.S. equity active manager allocation (4 months)
Evaluate small cap U.S. equity active managers
Evaluate high yield active managers

Jan-07
Present small cap U.S. equity active manager recommendations to WCOC
Commence implementing small cap U.S. equity allocation (3 months)
Evaluate high yield active managers

Feb-07
Present high yield active manager recommendations to WCOC
Commence implementing high yield allocation (3 months)

The above calendar is for illustrative purposes only. Actual implementation may differ due to a variety of factors. Expected completion during Q2 2007.

Julia K. Bonafede, CFA
Senior Managing Director and Principal

Julia joined Wilshire in 1991 initially as a member of the Consulting Division. She moved to the Analytics Division in 1993 and, in 1996, started Wilshire's European Analytics business in London. Beginning in 1999, Julia headed the Analytics Division's U.S.-based client service group, a staff of 30, located in Wilshire's New York and Santa Monica offices. Currently Julia directs Wilshire's Consulting Division.

Julia has a B.A. in Marketing from the University of Colorado and an M.B.A. in Finance and Entrepreneurship from the Marshall School of Business at the University of Southern California. She is a member of the Association for Investment Management and Research and is a founding member of the United Kingdom Society of Investment Professionals. Her publications include, "The Wilshire 5000 Total Market Index: The Logistics Behind Managing Broad-Based Indexes", *Journal of Indexes*, 3rd Quarter 2003; and "A Multi-Period Linking Algorithm that Has Stood the Test of Time", *The Journal of Performance Measurement*, Volume 7: Number 1.

Mark E. Brubaker, CFA
Managing Director

Mark joined the Pittsburgh, PA office of Wilshire Associates as a Senior Consultant in 1997. Mark works with a broad range of fund sponsors including public and corporate pensions, endowments and foundations and insurance companies. In addition to his client responsibilities, he serves on Wilshire's investment committee and chairs Wilshire's small cap value and growth manager research committees. He is a frequent speaker on investment-related topics including asset/liability management, alternative investments and emerging markets.

Mark earned a B.A. from Yale University and an MBA from Carnegie Mellon University with a concentration in finance. Before joining Wilshire, Mark worked at Westinghouse Electric Corporation, where he was responsible for over $9 billion in defined benefit, defined contribution and foundation assets and at PNC Bank where he managed pension client relationships for the Investment Management and Trust Division.

He holds the Chartered Financial Analyst designation and is a member of the CFA Institute and Pittsburgh Society of Financial Analysts.

Appendix – Wilshire's 2006 Asset Class Assumptions

OHIO BUREAU OF WORKERS' COMPENSATION TOTAL FUND

May, 2006

Executive Summary

Domestic Fixed Income Overview:

On balance, the economic reports released in May pointed to the beginning of a slowdown in the pace of economic growth. While payrolls posted an unimpressive gain of 138,000 in April, claims climbed into the 320,000 range, suggesting labor market conditions are moderating somewhat. Higher gas prices translated into deterioration in both the May Conference Board Consumer Confidence and the April University of Michigan Consumer Sentiment gauges, leaving the latter at its lowest level since the post-Katrina drop last October.

Housing data was mostly mixed throughout the month. Although both existing home sales and housing starts declined, with the latter falling for the third straight month, new homes sales rose again by 4.9%. On an underlying trend basis, the purchase component of the index of new mortgage applications edged up from its low in recent weeks, presenting the possibility that the index has bottomed-out.

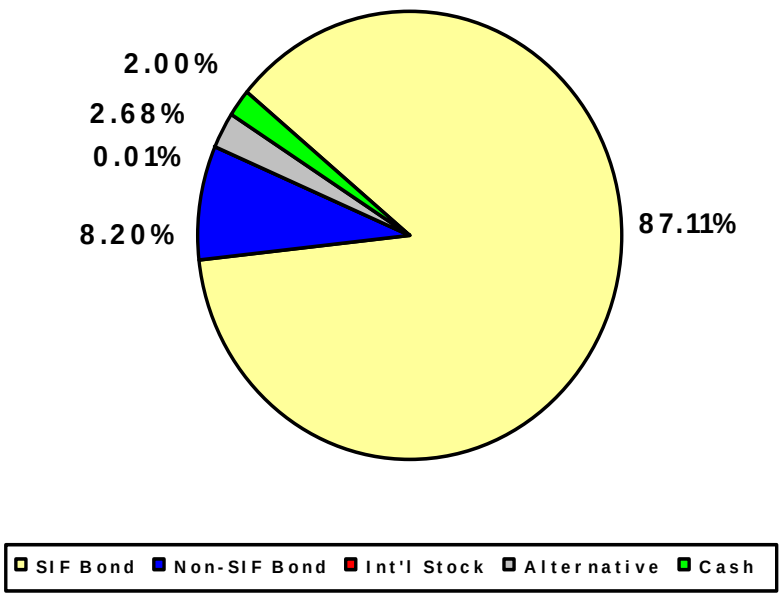
The recent run-up in energy prices seeped into core inflation figures last month. The April core CPI increased for a second consecutive month by 0.3%, raising its year-on-year increase to 2.3% from 2.1%. The core PCE deflator posted a 0.2% rise, pushing its year-on-year gain to 2.1%, outside the Fed's comfort zone.

The U.S. Treasury yield curve flattened during the month, as the spread between two- and five-year Treasury notes ended at 0 basis points (bps), down from 6 bps at the end of April.

Ohio Bureau of Workers' Compensation
TOTAL FUND
Portfolio Market Value & Asset Allocation
May, 2006

Portfolio Balances

Portfolio	Market Value	Percent of Total Assets
SIF Bond Total	14,268,135,282	87.11%
Non-SIF Bond Total	$1,343,321,228	8.20%
International Stock Total*	$1,749,065	0.01%
Alternative Asset Total	$439,333,264	2.68%
Cash Reserve Total	$328,163,208	2.00%
GRAND TOTAL	**$16,380,702,048**	



*International Equity Holdings are comprised of dividend and tax reclaim receivables from previous international equity investments and international currencies resulting from such payments

JPMorgan

Ohio Bureau of Workers' Compensation
TOTAL FUND
Performance Measures
For the Month Ending May, 2006

	BWC Investment Returns Monthly (Net of Fees)	New Benchmark Returns Monthly	New Benchmark Variance	BWC Investment Returns 3 Month Trailing (Net of Fees)	New Benchmark Returns 3 Month Trailing	New Benchmark Variance
BWC Total Fund Investments	-0.02%	-0.11%	0.09%	-0.63%	-1.27%	0.64%
Non-SIF Bonds	-0.13%	-0.11%	-0.02%	-0.38%	-1.27%	0.89%
SIF Bonds	-0.12%	-0.11%	-0.01%	-0.57%	-1.27%	0.70%
International Stocks	-6.11%	N/A	N/A	1.14%	N/A	N/A
Alternative	4.25%	N/A	N/A	3.85%	N/A	N/A
Cash	-0.12%	0.40%	-0.52%	0.68%	1.16%	-0.48%
Tranche #3 - TM	-1.85%	-0.11%	-1.74%	-3.01%	-1.27%	-1.74%
Tranche #4 - Ssga MSCI EAFE - TM	2.11%	N/A	N/A	0.33%	N/A	N/A

NEW BENCHMARK INFORMATION:

- Lehman Brothers Aggregate Index
- M.L. 3 Month US T-Bill

Summary of Investment Manager Fee Impact:

- Investment Manager fees did not effect Total Performance for the period

Ohio Bureau of Workers' Compensation
TOTAL FUND
Performance Measures
For the Month Ending May, 2006

	BWC Investment Returns Monthly (Gross of Fees)	New Benchmark Returns Monthly	New Benchmark Variance	BWC Investment Returns 3 Month Trailing (Gross of Fees)	New Benchmark Returns 3 Month Trailing	New Benchmark Variance
BWC Total Fund Investments	-0.02%	-0.11%	0.09%	-0.60%	-1.27%	0.67%
Non-SIF Bonds	-0.13%	-0.11%	-0.02%	-0.38%	-1.27%	0.89%
SIF Bonds	-0.12%	-0.11%	-0.01%	-0.57%	-1.27%	0.70%
International Stocks	-6.11%	N/A	N/A	1.14%	N/A	N/A
Alternative	4.25%	N/A	N/A	3.86%	N/A	N/A
Cash	-0.07%	0.40%	-0.47%	0.73%	1.16%	-0.43%
Tranche #3 - TM	-1.85%	-0.11%	-1.74%	-3.01%	-1.27%	-1.74%
Tranche #4 - Ssga MSCI EAFE - TM	2.11%	N/A	N/A	0.33%	N/A	N/A

NEW BENCHMARK INFORMATION:

•Lehman Brothers Aggregate Index

•M.L. 3 Month T-Bill

Summary of Monthly Performance Attribution:

•BWC's Total Fund outperformed its' New Benchmark by 0.09% for the period.

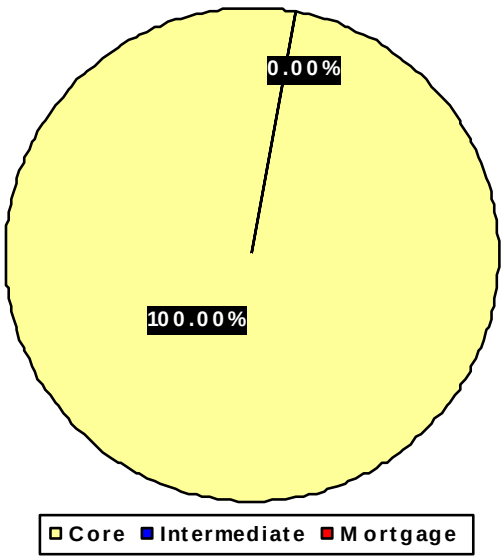
•Performance Relative to Benchmark Performance:

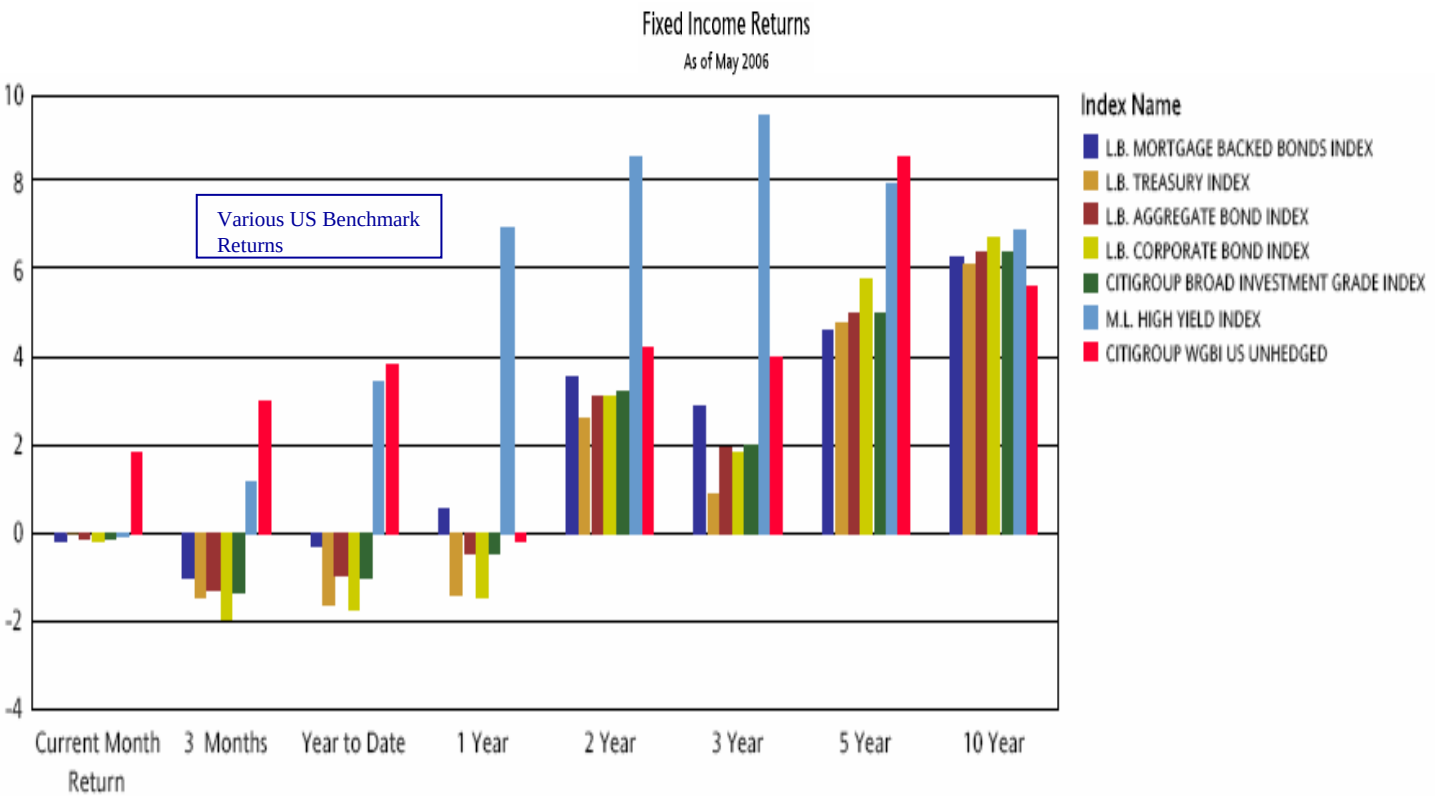
(-) BWC's Non-SIF Bond Portfolio underperformed its' Benchmark for the current period.

(-) BWC's SIF Bond Portfolio underperformed its' Benchmark for the current period.

(-) BWC's Cash Portfolio underperformed its' Benchmark for the current period.

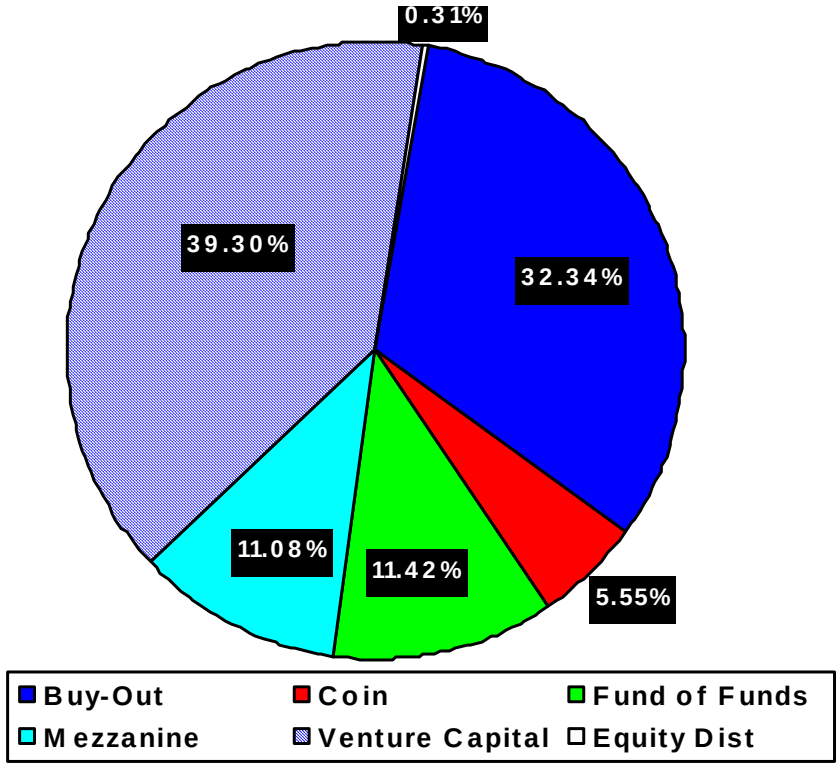
Ohio Bureau of Workers' Compensation
TOTAL FUND
Fixed Income Allocation & Returns
May, 2006





JPMorgan

Ohio Bureau of Workers' Compensation
TOTAL FUND
Alternative Asset Allocation
May, 2006



Ohio Bureau of Workers' Compensation
Total Fund
Fees Paid in the month of
May, 2006

Manager	Type	Fees Paid	Period Paid for
Allegiant	Equity	$47,883.58	3rd Qt 2005
Legg Mason Canada	Int'l Stock	$86,235.48	4th Qt 2005
Taplin, Canida & Habacht	Bond	$22,638.87	1st Qt 2006
Total Fees Paid		**$156,757.93**	

OHIO BUREAU OF WORKERS' COMPENSATION
State Insurance Fund
May, 2006
Executive Summary

Domestic Fixed Income Overview:

On balance, the economic reports released in May pointed to the beginning of a slowdown in the pace of economic growth. While payrolls posted an unimpressive gain of 138,000 in April, claims climbed into the 320,000 range, suggesting labor market conditions are moderating somewhat. Higher gas prices translated into deterioration in both the May Conference Board Consumer Confidence and the April University of Michigan Consumer Sentiment gauges, leaving the latter at its lowest level since the post-Katrina drop last October.

Housing data was mostly mixed throughout the month. Although both existing home sales and housing starts declined, with the latter falling for the third straight month, new homes sales rose again by 4.9%. On an underlying trend basis, the purchase component of the index of new mortgage applications edged up from its low in recent weeks, presenting the possibility that the index has bottomed-out.

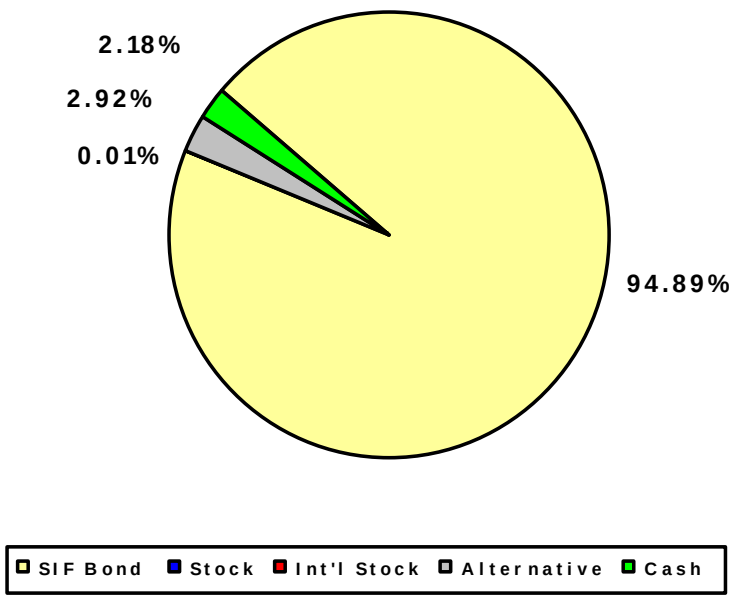
The recent run-up in energy prices seeped into core inflation figures last month. The April core CPI increased for a second consecutive month by 0.3%, raising its year-on-year increase to 2.3% from 2.1%. The core PCE deflator posted a 0.2% rise, pushing its year-on-year gain to 2.1%, outside the Fed's comfort zone.

The U.S. Treasury yield curve flattened during the month, as the spread between two- and five-year Treasury notes ended at 0 basis points (bps), down from 6 bps at the end of April.

Ohio Bureau of Workers' Compensation
State Insurance Fund
Portfolio Market Value & Asset Allocation
May, 2006

Portfolio Balances

Portfolio	Market Value	Percent of Total Assets
SIF Bond Total	$14,268,135,283	94.89%
International Stock Total*	$1,749,065	0.01%
Alternative Asset Total	$439,333,264	2.92%
Cash Reserve Total	$328,163,208	2.18%
GRAND TOTAL	**$15,037,380,820**	



*International Equity Holdings are comprised of dividend and tax reclaim receivables from previous international equity investments and international currencies resulting from such payments

Ohio Bureau of Workers' Compensation
State Insurance Fund
Performance Measures
For the Month Ending May, 2006

	BWC Investment Returns Monthly (Net of Fees)	New Benchmark Returns Monthly	New Benchmark Variance	BWC Investment Returns 3 Month Trailing (Net of Fees)	New Benchmark Returns 3 Month Trailing	New Benchmark Variance
BWC Total SIF Investments	-0.01%	-0.11%	0.10%	-0.65%	-1.27%	0.62%
SIF Bonds	-0.12%	-0.11%	-0.01%	-0.57%	-1.27%	0.70%
International Stocks	-6.11%	N/A	N/A	1.14%	N/A	N/A
Alternative	4.25%	N/A	N/A	3.85%	N/A	N/A
Cash	-0.12%	0.40%	-0.52%	0.68%	1.16%	-0.48%
Tranche #3 - TM	-1.85%	-0.11%	-1.74%	-3.01%	-1.27%	-1.74%
Tranche #4 - Ssga MSCI EAFE - TM	2.11%	N/A	N/A	0.33%	N/A	N/A

NEW BENCHMARK INFORMATION:

- Lehman Brothers Aggregate Index
- M.L. 3 Month T-Bill

Summary of Investment Manager Fee Impact:

- Investment Manager fees did not dampen Total Performance for the period

Ohio Bureau of Workers' Compensation
State Insurance Fund
Performance Measures
For the Month Ending May, 2006

	BWC Investment Returns Monthly (Gross of Fees)	New Benchmark Returns Monthly	New Benchmark Variance	BWC Investment Returns 3 Month Trailing (Gross of Fees)	New Benchmark Returns 3 Month Trailing	New Benchmark Variance
BWC Total SIF Investments	-0.01%	-0.11%	0.10%	-0.62%	-1.27%	0.65%
SIF Bonds	-0.12%	-0.11%	-0.01%	-0.57%	-1.27%	0.70%
International Stocks	-6.11%	N/A	N/A	1.14%	N/A	N/A
Alternative	4.25%	N/A	N/A	3.86%	N/A	N/A
Cash	-0.07%	0.40%	-0.47%	0.73%	1.16%	-0.43%
Tranche #3 - TM	-1.85%	-0.11%	-1.74%	-3.01%	-1.27%	-1.74%
Tranche #4 - Ssga MSCI EAFE - TM	2.11%	N/A	N/A	0.33%	N/A	N/A

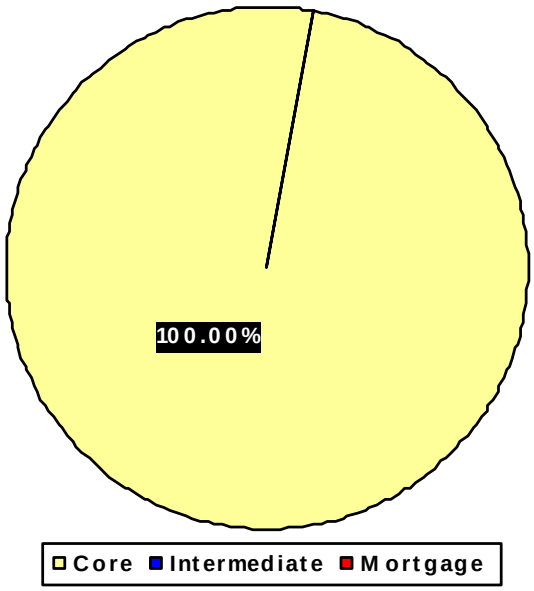
NEW BENCHMARK INFORMATION:

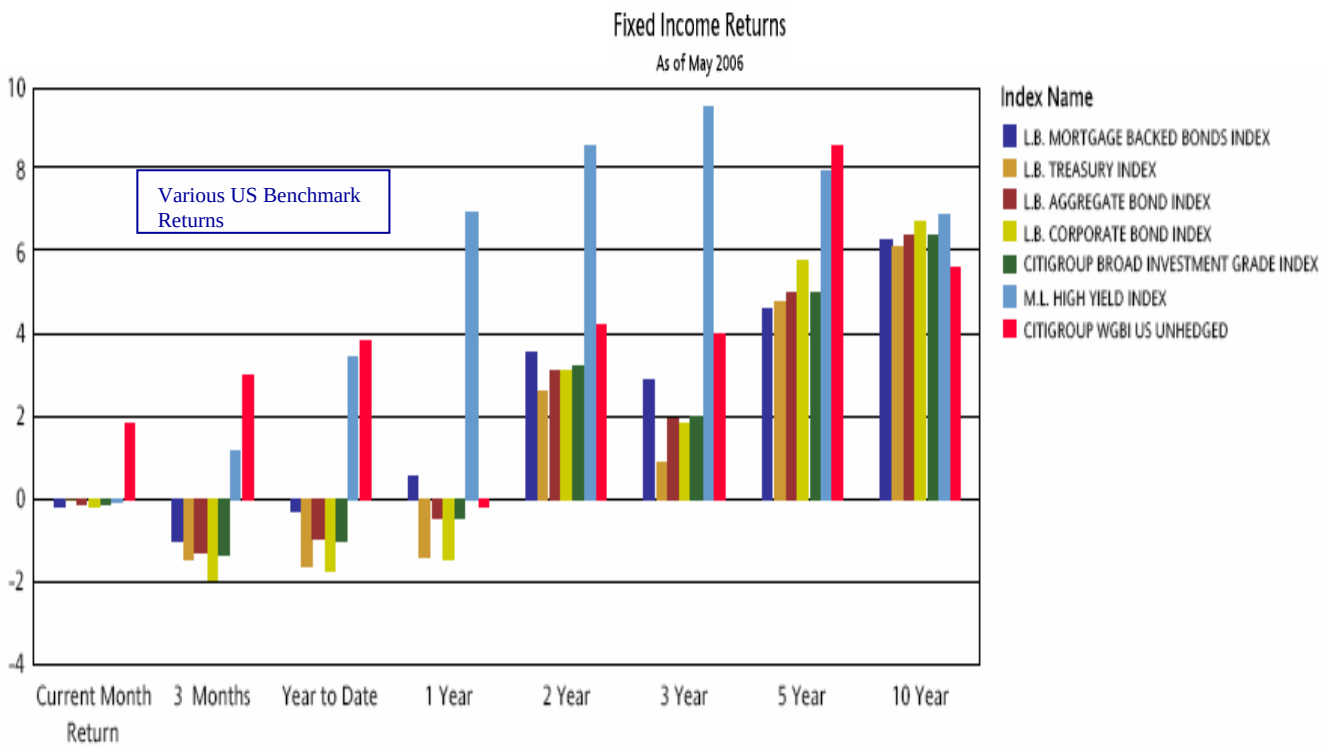
- Lehman Brothers Aggregate Index
- M.L. 3 Month T-Bill

Summary of Monthly Performance Attribution:

- **BWC's Total SIF outperformed its' New Benchmark by 0.10% for the period.**
- **Performance Relative to Benchmark Performance:**
  - (-) BWC's SIF Bond Portfolio underperformed its' Benchmark for the current period.
  - (-) BWC's Cash Portfolio underperformed its' Benchmark for the current period.

Ohio Bureau of Workers' Compensation
State Insurance Fund
Fixed Income Allocation & Returns
May, 2006

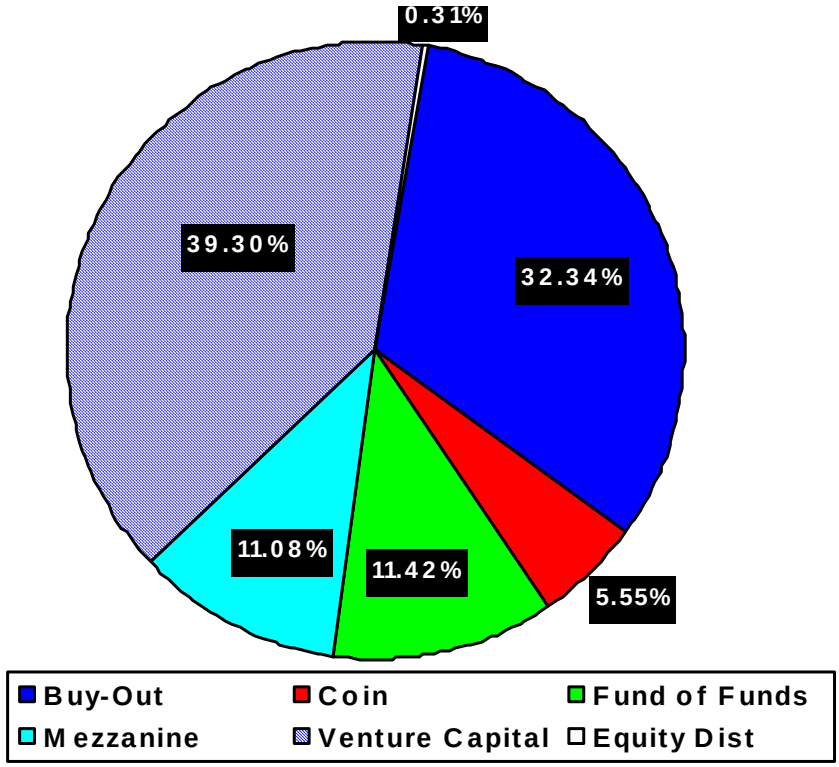




*Style classification does not consider fixed income assets contained in various Transition Management Accounts

JPMorgan

Ohio Bureau of Workers' Compensation
State Insurance Fund
Alternative Asset Allocation
May, 2006



Ohio Bureau of Workers' Compensation
State Insurance Fund
Fees Paid in the month of
May, 2006

Manager	Type	Fees Paid	Period Paid for
Allegiant	Equity	$47,883.58	3rd Qt 2005
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Taplin, Canida & Habacht	Bond	$22,638.87	1st Qt 2006
Total Fees Paid		**$156,757.93**	

IC
Projected Financial Statement FY07

Please place the attached document behind tab IC FY07 Projections

Thank you

Workers' Compensation Oversight Commission

Ohio Bureau of Workers' Compensation

Transition Manager RFP

July 20, 2006

Transition Manager RFP
Revised Timeline

RFP ACTION ITEM	**TIMELINE**
OVERSIGHT COMMISSION MEETING	***June 16***
Send RFP Advertisement to Newspapers/Journal	June 16 - Complete
Issue RFP	June 23 – Revised June 30 – Complete
Open period for respondent's questions via email	June 30 – July 6 - Complete
WCOC responds to questions via website	July 7 – July 14 - Complete
OVERSIGHT COMMISSION MEETING	***July 20***
DEADLINE FOR RFP PROPOSALS (2:00 PM)	**July 25 – Revised July 20**
BWC/Consultant Evaluation Committee initial review of proposals/Finalists identified	July 25 – Aug 7
Finalist Interviews (3 – 4 Candidates)	August 8
Regrade finalists / Notify final candidate	August 10
On-Site visit of finalist	August 11 or August 14
WCOC MEETING PACKET DEADLINE	August 16
OVERSIGHT COMMISSION MEETING – WCOC Approval of Finalist	***August 24***

Transition Manager RFP Evaluation Committee

Composition:

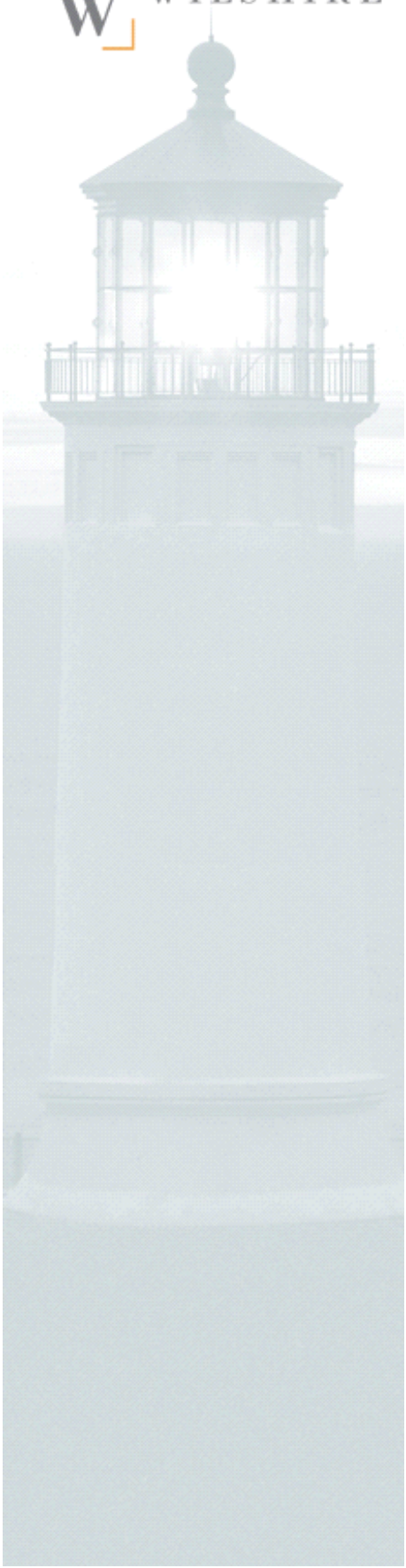
Five member Evaluation Committee

BWC CIO

Three BWC Investment Staff Members

Wilshire Consultant

Advertising:	Dates
Wall Street Journal	
June 27, 2006 Page D4	
June 28, 2006 Page D7	
June 29, 2006 Page D6	
Barron's	June 26 – July 2
Pensions and Investments	June 26 – July 24



Wilshire Consulting

2006 Asset Allocation Return and Risk Assumptions

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January 25, 2006

WILSHIRE CONSULTING

Table of Contents

Introduction

This report is Wilshire Associates' annual study on asset allocation for institutional portfolios. The return and risk recommendations contained within the report should be used for asset-liability and asset allocation studies conducted in 2006. All return assumptions are median geometric returns based on a log-normal distribution.

The asset allocation process is comprised of four steps. The initial step requires forecasting return, risk, and correlation for all asset classes. The second step is client specific and involves a review of a fund's unique financial commitments. Next, using inputs from the first two steps, an efficient frontier of diversified portfolios is constructed. The portfolios residing on this frontier are specific to each client's liabilities, or spending objectives, and represent varying tradeoffs between expected risk and funding cost or expected risk and real return. The final step is to select an asset mix from the efficient frontier that matches the institutions' attitude toward risk. The research presented here aids in completing the first step of the asset allocation process. Wilshire Consulting works with funds individually to complete the remaining steps and to select the optimal portfolio which best reflects the risk tolerance and environment for that institution.

Expected Future Returns

At the beginning of each year, Wilshire reviews its long-term return and risk assumptions for the major asset classes. We define 'long-term' as forecasts that cover at least the next ten years. This extended time horizon is consistent with the benefit/spending obligations of institutional investors, which generally average at least ten years. Wilshire's forecasting methodology has a strong degree of accuracy, which will be illustrated in exhibits throughout the paper, over intervals of ten or more years and is superior to short-term estimates that are notoriously error prone.

Because of their long-term horizon, Wilshire's assumptions typically change very little from year to year. One would only expect significant changes following a period of volatile directional swings in asset markets or valuations. It is routine practice for us to alter our return assumptions up or down to better fit changing market levels. This year is no exception. Wilshire's real return forecasts for several of the major asset classes have increased by 50 basis points. These increases have been fueled in part by a 25 basis point reduction in our inflation forecast – from 2.50% to 2.25% - and by increases in the asset classes' nominal return forecasts. For example, our return forecast for U.S. stocks and bonds have both increased by 25 basis points from 8.0% and 4.75% a year ago to 8.25% and 5.00% this year, bringing their forecasted real rates of return from 5.50% and 2.25% to 6.00% and 2.75%, respectively[1]. Wilshire's high yield bond forecast has been increased by 25 basis points - from 6.25% to 6.50% - as a result of a general increase in bond yields and a widening of credit spreads. Additionally, as was detailed in a recent research report on Wilshire's private market model, our private markets portfolio return has also been increased from 11% to 11.75%. Conversely, we trimmed our return forecast for REITs by 75 basis points, from 7.00% to 6.25%, due to the continuing decline in yields.

[1] *For simplicity, real returns have been shown here as the difference between nominal returns and inflation. The simplification ignores the cross-compounding effect of inflation and real returns. For example, the 'true' embedded real rate of return in Wilshire's stock forecast is 5.87% (= 1.0825/1.0225 – 1).*

Building on research Wilshire conducted in 2005, we have made two important modifications to the list of asset classes included in this year's report. First, our research report on the institutional use of hedge funds[2] has led us to discontinue providing "asset class" assumptions for hedge fund strategies. It is Wilshire Consulting's belief that, as with other potential sources of alpha, decisions regarding the use of hedge funds in the pursuit of active returns are separate from the asset allocation process. While we will no longer publish formal "asset class" forecasts for hedge funds, Wilshire will continue to work with our clients individually to assist in the development of assumptions for funds interested in incorporating hedge fund vehicles as a separate asset class. Next, as a result of our recent research on commodity futures investing[3], this year's report is Wilshire's first to include asset class assumptions for commodities.

The importance of long-term return forecasts is growing. Actuarial interest rate assumptions, which are essentially portfolio return forecasts, are increasingly scrutinized because of their potential impact on plan contributions in the current environment. Wilshire has been forecasting asset class returns using forward looking assumptions since 1981 with a strong record of success over 10-year periods. We believe the methods used in this report are both intuitive and robust.

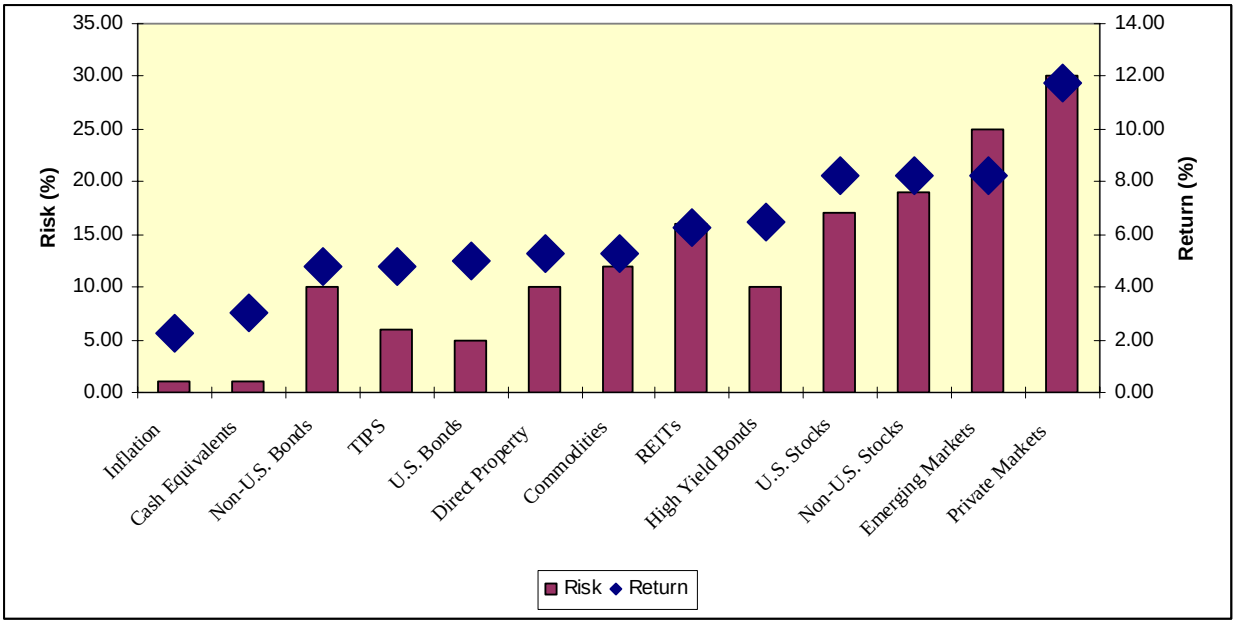
Exhibit 1 presents Wilshire's 2006 return forecasts and contrasts them with our 2005 assumptions; while Exhibit 2 displays our 2006 projections in graphical form.

Exhibit 1
Wilshire's Expected Return Assumptions

	Total Return			Risk
	2005	**2006**	Change	
Investment Categories:				
U.S. Stocks	8.00 %	**8.25 %**	0.25 %	17.00 %
U.S. Bonds	4.75	**5.00**	0.25	5.00
Cash Equivalents	3.00	**3.00**	0.00	1.00
Non-U.S. Stocks	8.00	**8.25**	0.25	19.00
Non-U.S. Bonds	4.50	**4.75**	0.25	10.00
Emerging Markets	8.00	**8.25**	0.25	25.00
High Yield Bonds	6.25	**6.50**	0.25	10.00
TIPS	4.25	**4.75**	0.50	6.00
Real Estate Securities (REITs)	7.00	**6.25**	-0.75	16.00
Direct Property	6.00	**5.25**	-0.75	10.00
Private Markets	11.00	**11.75**	0.75	30.00
Commodities	n.a.	**5.25**	n.a.	12.00
Hedge Funds: Portable Alpha *	5.00	**n.a.**	n.a.	n.a.
Inflation:	2.50	**2.25**	-0.25	1.00
Total Returns minus Inflation:				
U.S. Stocks	5.50	**6.00**	0.50	
U.S. Bonds	2.25	**2.75**	0.50	
Cash Equivalents	0.50	**0.75**	0.25	
Stocks minus Bonds:	3.25	**3.25**	0.00	
Bonds minus Cash:	1.75	**2.00**	0.25	

[2] *"Institutional Use of Hedge Funds: Penetrating the Darkness on the Hedge of Town?" July 26, 2005.*
[3] *"Commodity Futures Investing: Is All That Glitters Gold?" March 9, 2005.*

Exhibit 2
Wilshire's Expected Return and Risk Assumptions



These return forecasts are more fully explained in subsequent sections dedicated to each asset class.

Historical Returns

A key check on the reasonableness of Wilshire's assumptions is their relationship to historical returns. Exhibit 3 contrasts Wilshire return assumptions with historical returns over various periods of time and market scenarios.

Exhibit 3
Historical Returns vs. Wilshire Forward-Looking Assumptions

	Historical Returns				
	1802-2005 *	1926-2005	High Inflation 1970-1979	Bull Market 1980-1999	Wilshire Forecast
Total Returns:					
Stocks	8.2 %	10.4 %	5.9 %	17.8 %	8.3 %
Bonds	4.9	5.7	7.2	10.0	5.0
T-bills	4.3	3.8	6.4	7.2	3.0
Inflation:	1.4	3.0	7.4	4.0	2.3
Total Returns minus Inflation:					
U.S. Stocks	6.8	7.3	-1.5	13.8	6.0
U.S. Bonds	3.5	2.6	-0.2	6.0	2.8
T-bills	2.8	0.8	-1.0	3.1	0.8
Stocks minus Bonds:	3.3	4.7	-1.3	7.8	3.3

** Jeremy Siegel return history from 1802-2001 ("Stocks for the Long Run" McGraw-Hill 2002) updated to 2005 using S&P 500 Index and Lehman Aggregate Bond Index*

There are several relationships worth noting. Wilshire's stock and bond return forecasts, 8.3% and 5.0%, respectively, are close to the actual returns achieved over the 204-year period ending 2005. However, despite having increased by 50 basis points since last year's report, the real return forecast for stocks falls below its historical averages while the return spread between stocks and bonds is forecasted to be 3.3%, equal to the 204-year return history.

The remainder of the report explains the methodologies behind Wilshire's return forecasts.

Inflation

Wilshire's long-term inflation forecast is 2.25%, 25 basis points lower than one year ago.

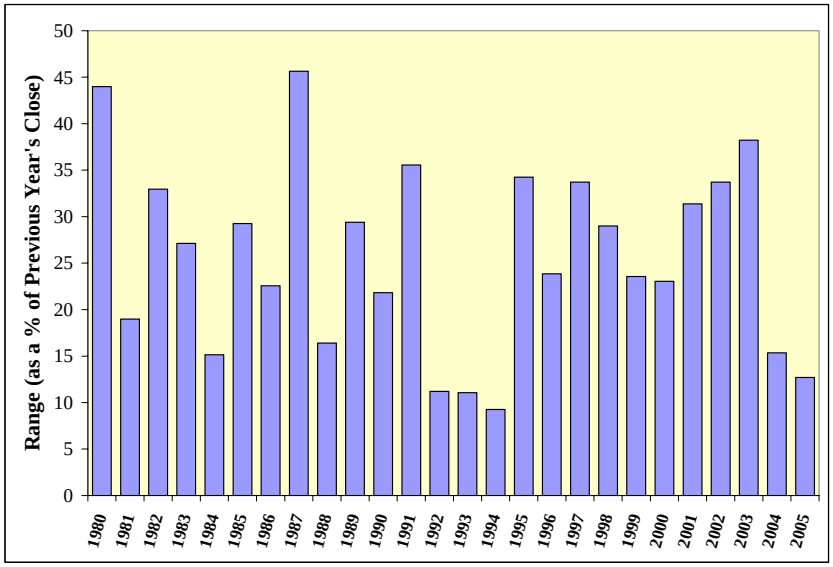
A market-based inflation forecast can be derived by subtracting a TIPS yield-to-maturity from a traditional Treasury bond yield-to-maturity with the same maturity. For example, on December 30th, 2005, the 10-year Treasury had a yield of 4.36% while the yield on the 10-year TIPS was 2.07%. The 2.29% difference in yields is the bond market's estimate for inflation over the next ten years, which is also referred to as the 10-year breakeven inflation rate. Wilshire's practice is to select a return forecast rounded to the nearest 0.25%. Consequently, we round the 2.29% breakeven inflation rate to our 2.25% inflation rate forecast.

Equity

U.S. Stocks

Wilshire's long-term expected return for U.S. stocks is 8.25%, up from 8.00% one year ago. As mentioned earlier, absent any volatile market events or shifts in pricing multiples, one would expect only minor changes in long-term return forecasts from year to year. Continuing on the pricing stability experienced in 2004, the year 2005 proved to be one of the most tranquil equity markets in recent memory. As illustrated in Exhibit 4, the Dow Jones Wilshire 5000 Index℠ traded within a 12.7% price range in 2005, its narrowest trading range since 1994 (9.2%). The market's relative tranquility over the past two years has been in stark contrast to volatility levels seen over the prior three years, which all exceed 31%. Price-to-earnings valuation ratios declined further as prices increased at a slower pace than earnings. The price of the S&P 500 Index rose 3% versus a more accelerated growth in earnings of 13%. Price to trailing-earnings multiples for the S&P 500 have compressed from 29.6 in December of 2001 to 16.3 at the end of 2005.

Exhibit 4
Dow Jones Wilshire 5000 Trading Ranges



It is Wilshire's practice to employ a dividend-discount model ("DDM") to forecast long-term U.S. stock returns[4].

Wilshire's current expected return for stocks incorporates the following assumptions:

- A year-end 2005 S&P 500 Index price of 1,248, up from 1,212 a year earlier;
- A base earnings level of $77 per share, up from $68 per share a year earlier;
- Earnings-per-share growth of 8.5% over the next five years, dropping incrementally to 4.8% from years six through 15;
- A 29% dividend payout ratio over the next five years, increasing incrementally from years six through 15 to 45% - its historical average over the past 25 years;
- Long-term earnings and dividend growth of 4.8% after 15 years, equal to a 2.25% inflation rate and a 2.50% real growth rate.

When establishing long-term return projections, it is helpful to identify the model's sensitivity to each of the assumptions which are used as inputs. This echelon of understanding is vital in forecasting returns that can be used with high levels of confidence. Exhibit 5 demonstrates the model's sensitivity to changes in 5-year earnings growth estimates and dividend payout ratios.

Exhibit 5
DDM Forecast Sensitivity to Inputs

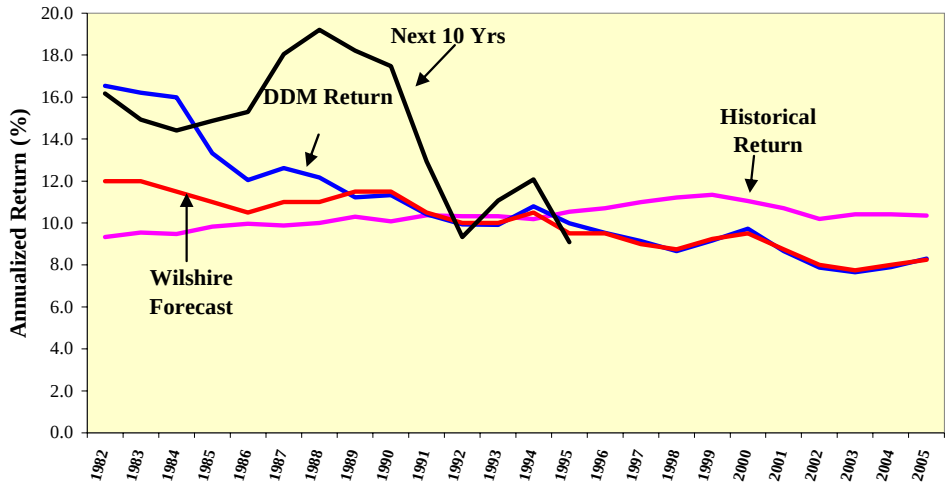
		Dividend Payout Ratio (Long Term)					
	(%)	25	30	35	40	45	50
5-Year EPS Growth	7.0	6.66	6.97	7.26	7.54	7.81	8.06
	7.5	6.75	7.06	7.37	7.65	7.93	8.19
	8.0	6.83	7.16	7.47	7.77	8.05	8.32
	8.5	6.92	7.26	7.58	7.89	8.18	8.46
	9.0	7.01	7.36	7.70	8.01	8.31	8.60
	9.5	7.11	7.47	7.81	8.14	8.45	8.74
	10.0	7.20	7.58	7.93	8.27	8.58	8.89
	10.5	7.30	7.69	8.06	8.40	8.73	9.04
	11.0	7.41	7.81	8.18	8.54	8.87	9.19
	11.5	7.52	7.93	8.31	8.68	9.02	9.35
	12.0	7.63	8.05	8.45	8.82	9.17	9.51

Wilshire's assumption of 8.5% earnings growth over the next five years falls between the I/B/E/S 'top-down' median strategist estimate of 8.0% and the implied 'bottom-up' growth rate of 12% from the I/B/E/S security level median EPS forecasts. Our expectation for earnings growth is closer to the 'top-down' median estimate, as past experience suggests that the 'bottom-up' estimates tend to be overly optimistic and prone to 'over shoot' error. We expect dividend payout ratios to move towards their historical average of 45% over the next 15 years.

[4] *"Wilshire's Expected U.S. Stock Return: An Explanation," November 13, 2002.*

Exhibit 6 details the history of Wilshire's stock return forecasts together with the dividend-discount model return forecasts, historical returns, and the rolling returns for the 10-year period following each estimate. Beginning in the mid-1980s, Wilshire chose to base its stock return forecast on its DDM whereas previously our forecast averaged the model return with historical stock returns. With the exception of periods beginning in the late 1980s and early 1990s, Wilshire's DDM forecast has been a very good predictor of the S&P 500's return over the following ten-year period. Actual 10-year returns that began in those years included the technology bubble of the late 1990s, something we would not expect our methodology to predict. Equity returns have subsequently deflated and Wilshire's forecasts from 1992 through 1995 (the last estimates with ten years of subsequent actual returns) are once again consistent with actual S&P 500 returns for the subsequent ten years.

Exhibit 6
Wilshire Stock Return Forecast vs.
DDM Return, Historical Return, & Actual 10-Year Return Following Forecast



Year	S&P 500 1926 to	DDM at 12/31	Wilshire's Forecast	S&P 500 Next 10 Yrs
1982	9.33 %	16.53 %	12.00 %	16.17 %
1983	9.54	16.20	12.00	14.93
1984	9.48	15.98	11.50	14.40
1985	9.83	13.33	11.00	14.86
1986	9.96	12.05	10.50	15.29
1987	9.89	12.62	11.00	18.05
1988	9.99	12.17	11.00	19.20
1989	10.30	11.23	11.50	18.21
1990	10.08	11.33	11.50	17.46
1991	10.37	10.42	10.50	12.94
1992	10.32	9.93	10.00	9.34
1993	10.32	9.91	10.00	11.06
1994	10.18	10.80	10.50	12.07
1995	10.53	9.99	9.50	9.08
1996	10.70	9.53	9.50	
1997	10.99	9.14	9.00	
1998	11.21	8.66	8.75	
1999	11.34	9.17	9.25	
2000	11.04	9.72	9.50	
2001	10.70	8.66	8.75	
2002	10.20	7.88	8.00	
2003	10.42	7.65	7.75	
2004	10.42	7.90	8.00	
2005	10.35	8.31	8.25	

Non-U.S. Stocks

Wilshire uses the same 8.25% expected return for non-U.S. stocks of developed markets as it does for U.S. stocks. While this view has gained wider acceptance in recent years, some institutional investors and their money managers assume that the non-U.S. developed stock market will average somewhat higher returns than U.S. stocks. As demonstrated in Exhibit 7, the historical record does not support a non-U.S. return premium.

Exhibit 7
Historical Returns (through 2005)

	U.S. Dollar		Local Currency	
	Return	**Risk**	**Return**	**Risk**
S&P 500 Index	11.1 %	15.4 %	11.1 %	15.4 %
MSCI EAFE Index	10.5	16.6	8.8	14.3
Europe	10.7	16.6	10.3	15.2
Pacific	10.8	20.7	8.2	17.1

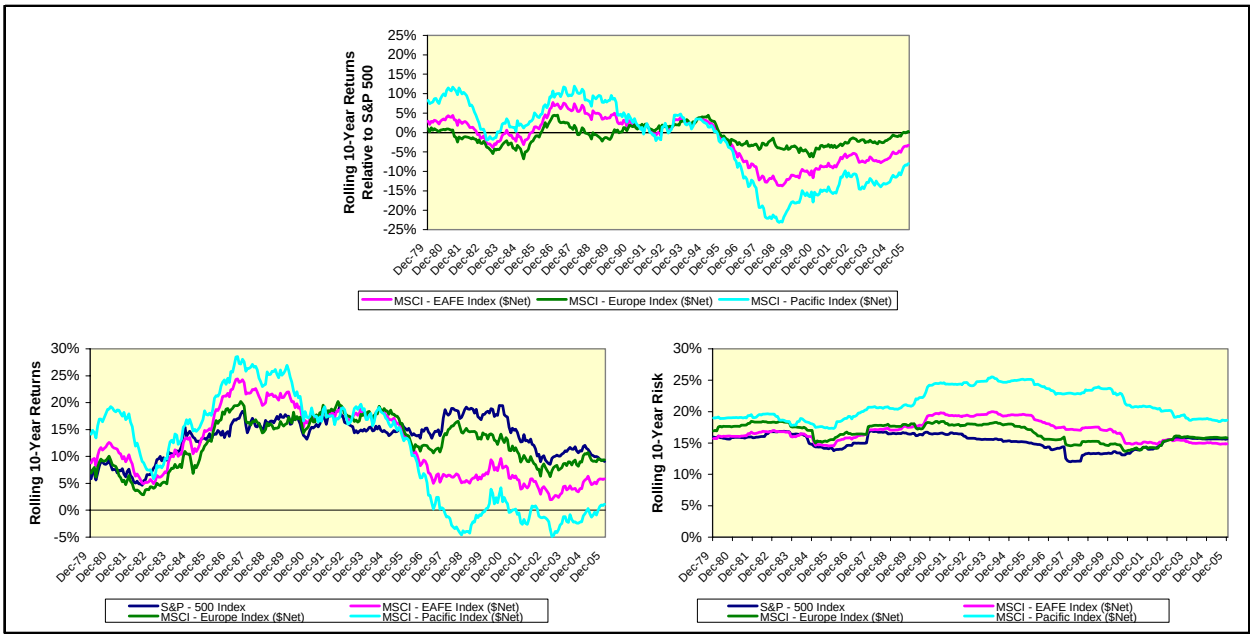
Reliable returns for non-U.S. stocks are available beginning 1970. Since that time U.S. stocks, as represented by the S&P 500 Index, have returned 11.1% per year, versus 10.5% for non-U.S. stocks as measured by Morgan Stanley Capital International's ("MSCI") EAFE Index in U.S. dollars.

When the two chief components of the EAFE Index are examined, we see support for the same conclusion. Since December 31, 1969, European stocks have returned 10.7% per year, or 40 basis points below U.S. stocks. Given this long-term performance record, similar risk levels, and common financial attitudes toward risk-taking, it would seem reasonable to forecast similar long-term returns for the U.S. and Europe. In fact, evidence might suggest slightly lower expected returns on European stocks due to higher costs (transaction costs, taxes and dividend withholding) of investing in the European stock markets.

The Pacific component of EAFE tells a similar story. Actual Asian returns have been comparable to the U.S., averaging 10.8% over the past 36 years. Japan, the largest country within the Pacific, returned 11.3% during the same period.

Exhibit 8 shows a long stretch of time (roughly 1985 to 1995) over which the MSCI EAFE Index outperformed the S&P 500 Index due to the then robust Japanese market. However, we believe the subsequent nearly 10-year out-performance of U.S. stocks versus non-U.S. stocks supports our assumption that the economic theories of Purchasing Power Parity ("PPP") and Interest Rate Parity ("IRP") prevail over long time periods and justify the selection of a single return assumption for both asset classes.

Exhibit 8
Rolling 10-Year Return & Risk Comparisons



With the deficiency of concrete evidence that supports a non-U.S. equity return premium, Wilshire forecasts an 8.25% return for non-U.S. stocks of developed nations, the same as for U.S. stocks.

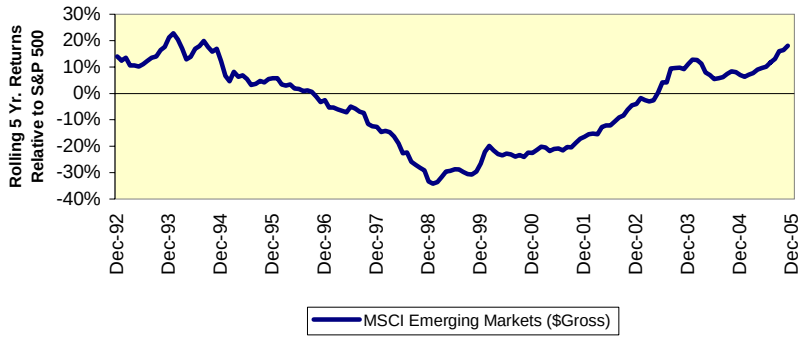
Emerging Markets

Money managers have long supported the view that emerging markets should produce returns above the developed EAFE markets. However, poor returns in the late 1990s combined with emerging markets' high volatility have caused some money managers to re-evaluate their position. In fact, it is important to understand that the historical record on emerging market performance is short and shows mixed results. This gives us less confidence in predicting a return premium to emerging markets above our return forecast for the developed stock markets. For example, prior to 2004, the historical return of the MSCI Emerging Markets Index was 12.4%, almost directly in line with the return on the S&P 500. Exhibit 9 illustrates this point.

The last three years, however, have seen emerging markets outperform developed equity markets by a wide margin, as measured from the start of the MSCI Emerging Markets Index. This has caused the relative returns for emerging markets to again be superior to those of the developed markets in a similar fashion to that seen in the early 1990's. As shown in Exhibit 9, this appears to be a cyclical phenomenon and as such, is not a sufficient reason to justify a long-term return premium.

Exhibit 9
Emerging Market Returns (1988 through 2005)

	U.S. Dollar	
	Return	Risk
S&P 500 Index	12.0 %	14.0 %
MSCI Emerging Markets	14.2	23.0



Since our 1999 report[5], Wilshire has recommended an emerging market expected return equal to the return for developed markets, rather than assuming a small return premium to emerging markets. This change in approach is now consistent with Wilshire's treatment of the U.S. stock market where large stocks are not separated from small stocks and value stocks are not separated from growth stocks in the asset allocation process. Wilshire believes that emerging markets have become sufficiently integrated into the fabric of institutional money management that market capitalization weighting will give most investors a near optimal return/risk tradeoff. Effectively, the MSCI All Country World Index (ACWI) ex US Index becomes the non-U.S. proxy of the Dow Jones Wilshire 5000 Index[sm].

Wilshire's asset allocation work – unless otherwise directed by client circumstances – will implicitly assume an emerging markets component within the non-U.S. equity asset class. The emerging markets component will be market-weighted, which, as of 2005 end of year market values, represents 13% of total non-U.S. equity. Return, risk, and correlation assumptions for non-U.S. equity will incorporate emerging markets and Wilshire's preferred benchmark will be the MSCI ACWI ex US, which includes all non-U.S. developed markets and emerging markets in market-weighted proportions.

Some clients, including most non-U.S. fund sponsors, will prefer to treat emerging markets as a separate asset class and Wilshire will continue to provide risk forecasts for emerging markets. Our research shows that efficient portfolios include a small allocation to emerging markets, consistent with a market-weighting, even with a level of return equal to the developed equity markets. In this framework, emerging stock markets become a risk management or diversification vehicle rather than an asset class that is expected to generate higher long-term returns.

[5] *"1999 Asset Allocation Report," February 1999.*

Fixed Income

U.S. Bonds

Bond market yields provide the most reliable forecast of long-term future bond returns. On December 31, 2005, the yield-to-maturity on the Lehman Aggregate Bond Index was 5.08%, 70 basis points higher than its 4.38% yield-to-maturity one year earlier. Wilshire's practice is to use the current yield-to-maturity as the predictor of future bond returns.

The flattening of the U.S. yield curve has received a great deal of attention this year.[6] However, the curve's current shape, which is notably different from its more "normal" upward sloping shape, does not materially impact Wilshire's return assumptions for bonds. Instead, as will be explained in the discussion of our Treasury and TIPS forecasts, subtle rounding adjustments have been made in consideration of the yield curve's current flatness. Exhibit 10 illustrates the dramatic change in treasury yield spreads during 2005 along with their historical 10- and 20-year averages.

Exhibit 10
Historical Treasury Yield Spreads

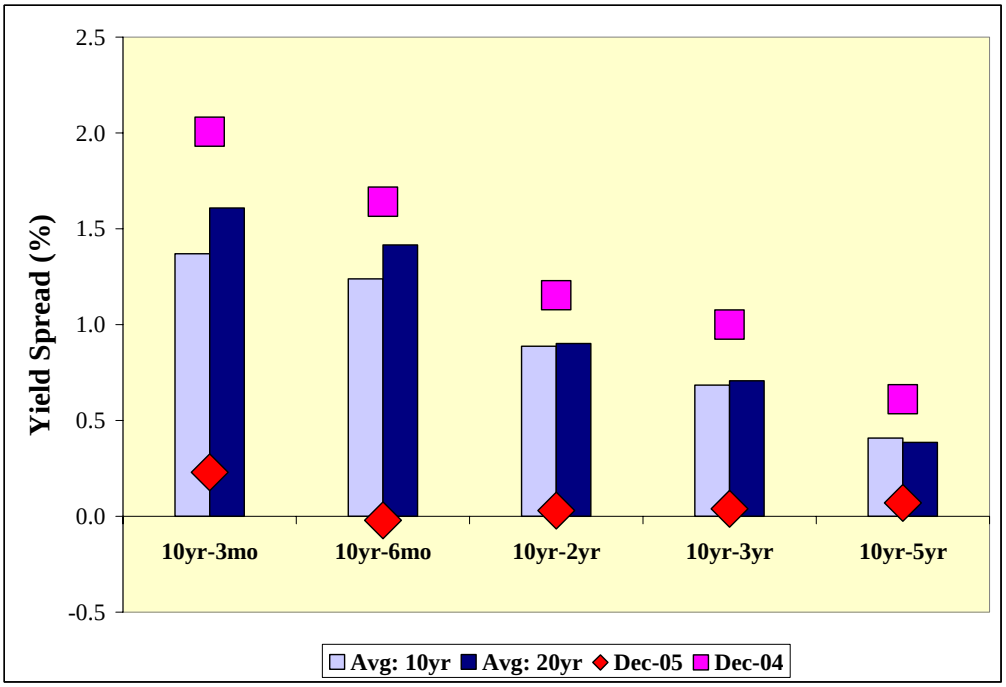
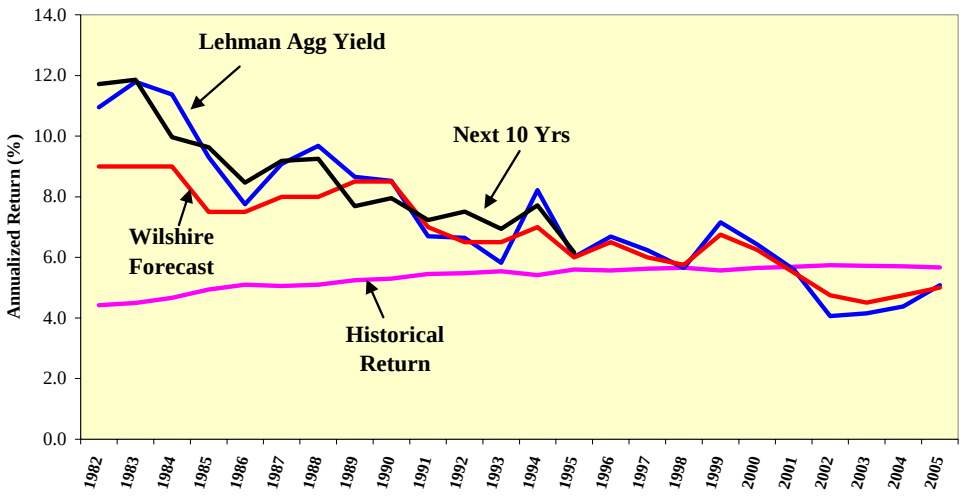


Exhibit 11 compares Wilshire's past bond return assumptions with historical returns, yields, and the rolling returns for the ten year period following each estimate.

[6] "Is the Fed's 'Conundrum' Resolving?" Wilshire Consulting, March 28th, 2005
"Is the Yield Curve a Crystal Ball?" Wilshire Consulting, June 17th, 2005

Exhibit 11
Wilshire Bond Return Forecast vs.
Current Yield, Historical Return, & Actual 10-Year Return Following Forecast



Year End	Lehman Agg 1926 to	Lehman Agg Yield at 12/31	Wilshire Forecast	Lehman Agg Next 10 Yrs
1982	4.43 %	10.95 %	9.00 %	11.72 %
1983	4.49	11.79	9.00	11.86
1984	4.67	11.37	9.00	9.96
1985	4.93	9.31	7.50	9.63
1986	5.10	7.75	7.50	8.47
1987	5.06	9.08	8.00	9.18
1988	5.10	9.68	8.00	9.26
1989	5.24	8.66	8.50	7.69
1990	5.30	8.52	8.50	7.96
1991	5.45	6.70	7.00	7.23
1992	5.48	6.64	6.50	7.51
1993	5.54	5.82	6.50	6.95
1994	5.42	8.21	7.00	7.72
1995	5.59	6.01	6.00	6.16
1996	5.56	6.69	6.50	
1997	5.62	6.24	6.00	
1998	5.66	5.65	5.75	
1999	5.57	7.16	6.75	
2000	5.65	6.43	6.25	
2001	5.69	5.60	5.50	
2002	5.74	4.06	4.75	
2003	5.72	4.15	4.50	
2004	5.71	4.38	4.75	
2005	5.66	5.08	5.00	

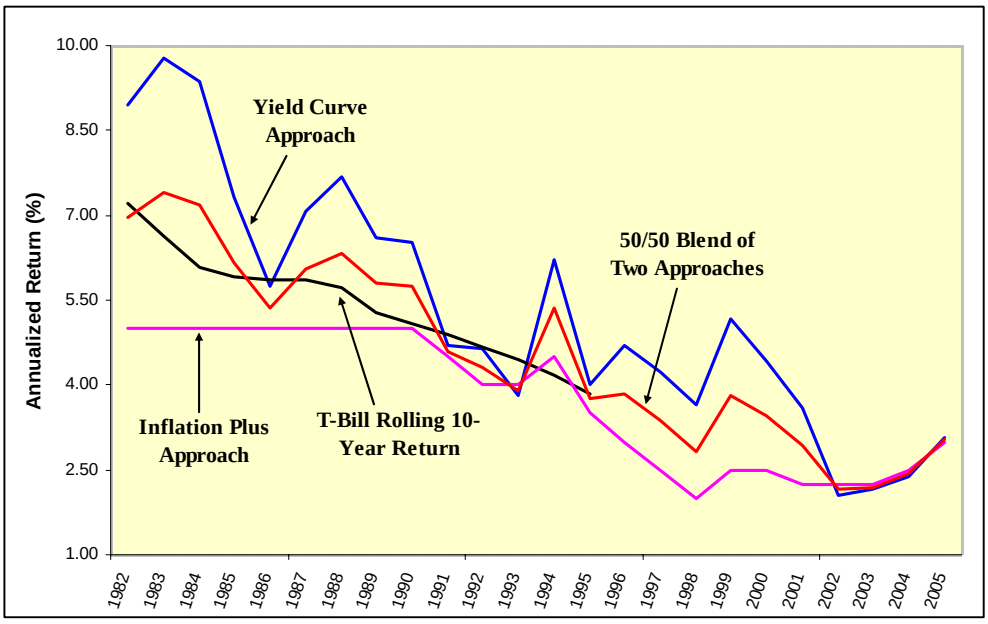
Cash Equivalents

Wilshire blends two methodologies in forecasting returns for cash equivalents: the "yield curve approach" and the "inflation-plus approach."

The yield curve approach starts with the yield-to-maturity on bonds and subtracts the average yield premium between short and long bond yields. Since 1979, the yield curve premium has averaged 2%. Subtracting 2% from our 5.00% bond return forecast gives a 3.00% cash return forecast. The inflation-plus approach adds a short-term real return component to our inflation rate forecast. Since 1946, real returns for Treasury bills have averaged 0.75% that, when added to our 2.25% inflation rate assumption, equals a 3.00% cash return forecast. Since both approaches confirm the same return forecast, Wilshire has selected a 3.00% cash return forecast.

Exhibit 12 compares Wilshire's yield curve approach, inflation-plus approach, and a 50/50 blend of the two approaches, with the Treasury bill return for the ten year period following each estimate.

Exhibit 12
Wilshire's Cash Equivalents Forecast vs. Actual 10-Year Return



Non-U.S. Bonds

Investment theory suggests that non-U.S. bond yields will be equivalent to U.S. bond yields when currency adjustments are taken into account. This would imply using the same 5.00% U.S. bond return forecast for non-U.S. bonds.

However, since our 1996 report[7], Wilshire has deducted 25 basis points from the non-U.S. bond return. The result is a 4.75% expected return for non-U.S. bonds. Experience shows that custodial costs, taxes, transaction fees, and a higher credit quality versus the U.S. bond market (because of the large proportion of government debt in non-U.S. bond indexes) reduce non-U.S. bond returns. Exhibit 13 compares historical U.S. bond return and risk values, as defined by the Lehman Aggregate, with non-U.S. unhedged and hedged values, as defined by the Citigroup Non-U.S. Government Bond indices.

Exhibit 13
U.S. vs. Non-U.S. Bond Returns (1985 through 2005)

	U.S. Dollar		Local Currency	
	Return	**Risk**	**Return**	**Risk**
U.S. Bonds (Lehman Agg.)	8.5 %	4.9 %	8.5 %	4.9 %
Citigroup Non-U.S. Govt.	10.1	11.9	7.9	4.1

Unhedged non-U.S. bonds offered better returns over the 21-year period thanks to a net fall in the dollar for the entire time period. Hedged non-U.S. bond returns take out expected and unexpected currency movements and show returns 80 basis points below U.S. bonds at less risk. A long-term forecast for non-U.S. bonds should not include a currency return, positive or negative, and should rely upon historical hedged returns. Risk forecasts, however, should come from the experience of the unhedged indexes unless a hedged strategy is employed.

In summary, Wilshire is using a 4.75% expected return for unhedged non-U.S. bonds and a 4.65% expected return for hedged non-U.S. bonds, with a ten basis point deduction in return for hedged non-U.S. bonds the result of expected additional hedging costs.

Treasury Bonds and Treasury Inflation Protected Securities (TIPS)

Wilshire's return assumption for Treasuries is derived from the yield-to-maturity of the Lehman Treasury Index. Our return forecast for Treasuries is 4.50%, which is based on the index's December 31, 2005 yield-to-maturity of 4.44%. As was mentioned earlier, the current flatness of the yield curve has a subtle impact on our expectation for Long-Term Treasury Bonds. Rather than round the yield-to-maturity of the Lehman Long-Term Treasury Index down eight basis points, from 4.58% to 4.50%, we round our forecast up to 4.75% to reflect the added return premium that is expected from a yield curve with a shape more consistent with historical observations. We anticipate that the move back to a normal shape will occur with a slight increase in long-term interest rates.

Wilshire recommends using an expected return for Treasury Inflation Protection Securities (TIPS) equal to the expected return for similar maturity, nominal Treasury bonds. Our return forecast for TIPS is 4.75%, 25 basis points higher than our forecast for Treasuries and equal to our long-term Treasury assumption. This forecast reflects a TIPS portfolio that mirrors the Lehman U.S. TIPS Index, which has a longer average maturity than the Lehman Treasury Index.

[7] *"1996 Asset Allocation Report: Rethinking Alternative Investments," February 1996.*

For the reasons discussed above with respect to our long-term Treasury assumption, we add a 25 basis point premium to our 4.50% Treasury forecast, resulting in an expected TIPS return of 4.75%.

High Yield Bonds

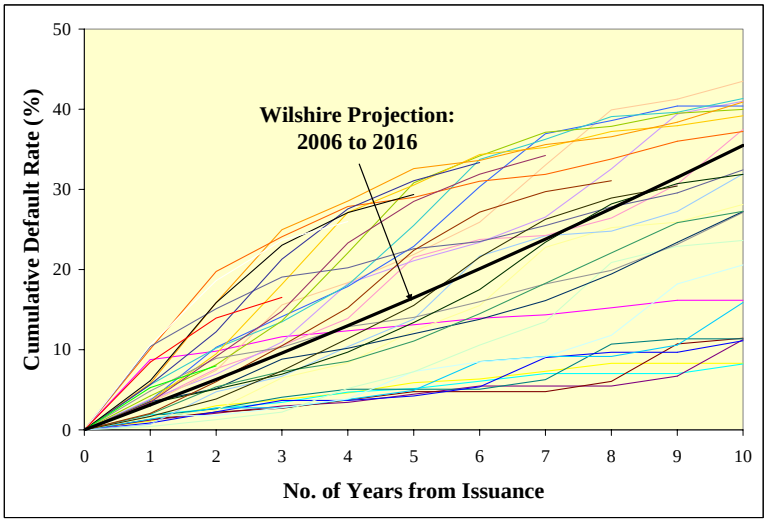
Wilshire's return forecast for high yield bonds is 6.50%. This return forecast is based upon our high yield bond model that accounts for the dynamic nature of credit yield spreads, defaults and recoveries.

Wilshire's 6.50% high yield expected return incorporates the following assumptions:

- An actual yield spread of 3.75%, up from 3.00% one year prior;
- An initial default rate of 3.0%, increasing incrementally over the next ten years to its historical average of 4.0% in years 10 and beyond, resulting in a 10-year cumulative default rate of 35.5%;
- A constant 40% recovery rate, equal to the historical average recovery rate;
- A 10-year cumulative loss rate – defaults minus recoveries – equal to 21.3% versus 18.3% last year.

Wilshire's high yield bond model incorporates the ability to input variable default rates. In Exhibit 14 we graph Wilshire's expected future default rates against all historical cumulative default rates from 1970 through 2004. Each line represents the historical cumulative default rates for high yield bonds issued in a single vintage year. The dark solid line is Wilshire's forward-looking default rate that is used in our expected return model for high yield bonds. Wilshire's default forecast line represents default expectations for a market portfolio holding bonds issued across various years. While it differs in nature from the vintage year default lines, which represent cumulative default rates specific to each single year of issue, the chart is useful in comparing our projection to historical default rate paths.

Exhibit 14
Historical Cumulative Default Paths - 1970 to 2004



Wilshire's report on high yield bonds[8], published one year ago, explains in greater detail the rationale behind our long-term return forecast.

Private Market Investments

Wilshire's recommended assumptions for individual private market asset classes are contained in Appendix B together with comparisons to some of the major public asset classes.

Wilshire's private markets return forecasts are shown in the first row of Appendix B. Our expected returns are based on drawing parallels to the public markets where appropriate as detailed in the second part of our recent three part series.[9] In addition, we have studied actual returns earned by large institutional private markets portfolios covering time periods of 15 years using Wilshire's own databases and *Venture Economics*, a firm specializing in measuring private equity returns, as a check on our estimates.

Wilshire's risk forecasts are reported in row two in Appendix B. These are expected standard deviations of annual returns. Risk forecasts for private market asset classes are especially challenging because short-term returns cannot be calculated due to infrequent partnership valuations. Risk estimates based upon accounting data consistently understate risk. Wilshire's approach has been to estimate risk by drawing parallels to the public markets and adjusting for any added risk contributed by financial leverage, the absence of liquidity, or greater business risk. The remaining rows in Appendix B contain correlation forecasts. Again, these estimates come from parallels to the public markets and are useful in assessing the diversification benefits of private markets. Generally, private equity is most useful as a type of super-charged equity return rather than a diversification tool as private equity returns rely on the receptiveness of the capital markets to generate returns.

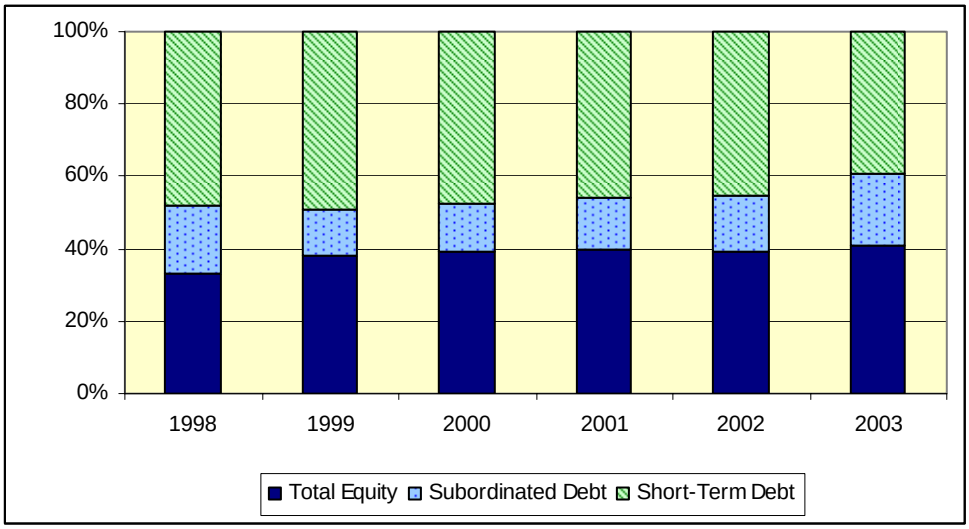
Buyouts

For 2006, our expected return for U.S. buyouts is 10.25%. The assumption is that buyouts will exhibit similar business risks as publicly traded companies but will have greater financial risk. Therefore, it is appropriate to model buyout returns using public market proxies for equity returns and financing costs. All expected returns in Appendix B are intended to be net returns. For example, the 10.25% expected return for buyouts should be viewed as net of all fees, including carried interest. Wilshire's methodology is discussed in more detail in the second part of our recent three part series on private equity.

Wilshire's risk forecast, expressed as a standard deviation of annualized return, is 30% for buyouts. This forecast is considerably higher than the 17% risk for public stocks and is attributable to greater financial risk due to a more leveraged capital structure in buyout companies. We measured risk by simulating historical buyout returns using Wilshire's Buyout Index, which adjusts public stock returns for the capital structure found in buyouts. Our leverage assumption assumes a capital structure with 40% short-term debt, 20% high yield debt, and 40% equity for buyouts which is consistent with historical measurements as shown in Exhibit 15.

[8] *"High Yield Market Update," January 14, 2005.*
[9] Private Equity Investing Part 2 - Generating Asset Class Assumptions. Wilshire Consulting, January 2006

Exhibit 15
Historic Buyout Capital Structure (1998 through 2003)



Venture Capital

Wilshire's return assumption for venture capital has increased to 12.00%, which increases in line with our view on the public markets. The valuation of venture capital investments can vary by manager. This mix of current and stale valuations becomes an issue when aggregating venture performance for use in asset allocation. Therefore the presence of stale valuations suggests that to the extent venture capital performance is related to public market performance it will have some sensitivity to both recent and past returns. By including lagged data from the public markets, a more correct beta can be derived versus one naively found with a regression on contemporaneous data.

Our analysis indicates that venture capital exhibits a beta of 1.7 to the public market. Using the familiar CAPM formula $E(r) = \beta(R_m - R_f) + R_f$, we can derive an expected return for venture capital. This return estimate makes intuitive sense as investors should demand a return premium for making venture investments considering the uncertainty inherent in investing in new ventures.[10]

$E(r) = 1.7(8.25 - 3.00) + 3.00 = 11.93\%$ - which we round to 12.00%.

The first three quarters of 2005 saw total venture capital investments of $21.7 billion versus $21.6 billion for the same time period in 2004.[11] This stable level of interest in the asset class indicates that investors believe in the necessity of including venture capital when making strategic allocations.

[10] Private Equity Investing Part 2 - Generating Asset Class Assumptions. Wilshire Consulting, January, 2006
[11] MoneyTree Survey 2005

To gauge the risk characteristics of venture capital investments, we examined a number of public market proxies: the Goldman Sachs Technology Composite Index, the Wilshire Internet Index, and the performance of aggressive growth mutual funds investing primarily in post-venture technology and biotech companies. Historical return standard deviations for the Goldman Sachs Index and the mutual funds were approximately 35%. The Wilshire Internet Index had a higher 45% standard deviation. We increased the 35% measure for public post-venture companies by a factor of 1.3 to estimate a 45% risk for private, earlier stage, venture capital. This would give venture capital the same risk level as pure Internet stocks.

Non-U.S. Buyouts

Return and risk forecasts for non-U.S. buyouts follow the same methodology used for U.S. buyouts with two changes: non-U.S. equity is used as a public market proxy instead of U.S. equity and Wilshire's non-U.S. bond assumption is used as the corporate debt proxy. The result is a 10.00% expected return and 35% risk. A higher risk for non-U.S. buyouts might be anticipated because of the addition of currency risk. However, we adjusted for our expectation that non-U.S. buyouts would have a different country profile than the MSCI EAFE Index, with non-U.S. buyouts over-weighting less risky Europe and investing little in higher risk Japan. This resulted in only a slightly higher level of non-U.S. buyout risk, 35% versus 30% for U.S. buyouts.

Distressed Debt

The Citigroup Global Markets Bankrupt/Defaulted Debt Index was selected as a public market proxy for distressed debt investments. The index contains virtually all issues in default. The 20% risk forecast and correlations reported in Appendix B for distressed debt are based upon historical measurements for the Citigroup Index. The 8.75% expected return for distressed debt comes from our view that successful distressed investors take equity-like control positions in distressed companies with significant upside potential but less risk than other buyouts because companies have already encountered financial distress.

Our analysis suggests that one of the benefits of including distressed debt in a private markets portfolio is its low correlation with public asset classes, particularly stocks, when compared with other private market asset classes.

Mezzanine Debt

Wilshire views mezzanine debt like a convertible bond. However, unlike publicly traded convertibles with characteristics combining stocks and bonds, mezzanine debt possesses characteristics combining buyouts and high yield bonds. Consequently, we expect their return and risk measures to lie somewhere between buyouts and high yield bonds. Therefore, the 8.75% return and 20% risk forecast for mezzanine debt in Appendix B is based upon a blend of our buyout and high yield assumptions.

Opportunistic Real Estate

Like buyouts, opportunistic real estate funds make levered investments in properties and real estate related companies such as hotels, property companies, casinos, and real estate service companies. Like many of the private market sectors, opportunistic real estate has seen high levels of capital coming from pension funds, foundations, and endowments looking for enhanced returns relative to the public markets. It is estimated that approximately $17.5 billion in capital is available for investment in addition to a number of new funds in the process of raising $18 billion.[12]

Debt usage often approaches 70% of asset values, leaving equity values subject to much higher volatility when compared to traditional real estate or REITs. Wilshire's modeling of opportunistic real estate relies upon REIT returns but adjusted for the amount and type of debt used in opportunistic strategies. Wilshire's forecast return is 8.25%, and forecast risk is 25%. The reduction of 25 basis points is primarily a consequence of our reduced outlook for REIT returns going forward.

Private Markets Portfolio

The return and risk forecast for a diversified private markets portfolio is provided in Appendix B. The makeup of the private portfolio is:

Buyouts	60%
Venture Capital	30%
Non-U.S. Buyouts	10%
	100%

The weightings were chosen because they are typical private market allocations of large institutional investors. When the components are geometrically calculated with a lognormal assumption, the forecast return for a diversified private markets portfolio is 11.80%, which we round in Appendix A to 11.75% given our convention to round to the nearest quarter percent. This level of return is 3.50% above the 8.25% expected return for U.S. stocks. The forecast risk for the diversified private markets portfolio is 30%, almost twice the forecast risk of U.S. stocks.

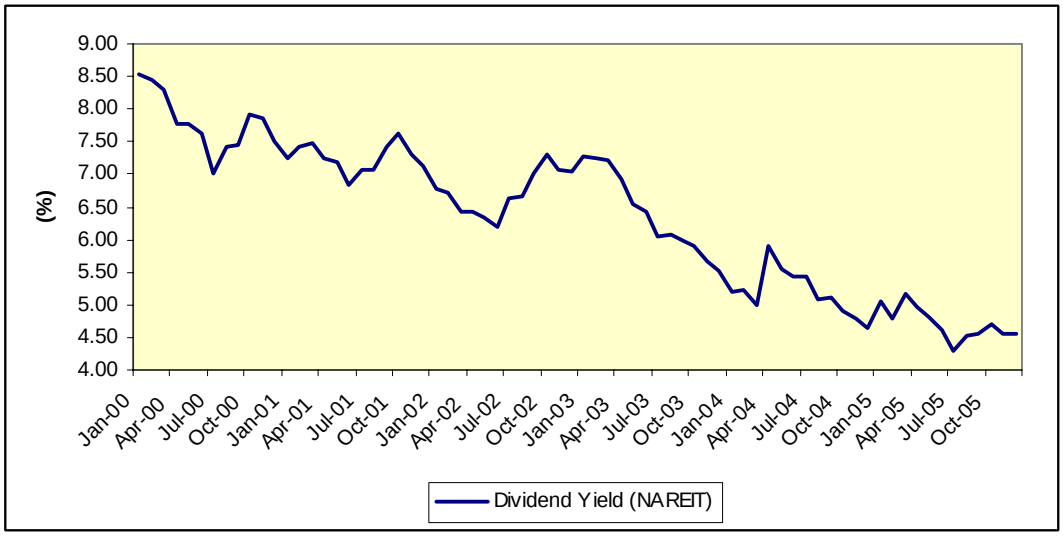
Investors in private markets and real estate have traditionally tried to estimate risk and return expectations from cost- and appraisal-based indexes. Time has shown that this practice understates risk and overstates return. Wilshire substitutes sound investment analysis by directly linking private investments to the public markets.

[12] Ernst & Young. "Market Outlook: Trends in the Real Estate Private Equity Industry." Fall 2005

Real Estate (REITs and Direct Property)

For 2005, Wilshire is forecasting an expected return of 6.25% for REIT portfolios, reduced from 7.00%. This assumption is derived from combining the current REIT dividend yield of 4.57% with an expected dividend growth rate of 1.69%. Examining REIT dividend growth over the past 32 years, Wilshire found that REITs were able to pass through about three-quarters of inflation through rent and dividend increases. The 1.69% expected dividend growth equals three-quarters of Wilshire's 2.25% inflation forecast. The REIT sector followed up the 34% gain in 2004 with a further 13.8% gain in 2005. Exhibit 16 shows that the dividend yield declined throughout the year and is a key reason the expected return assumption for REITs has been reduced 75 basis points from 2005's return forecast of 7.00%.

Exhibit 16
REIT Dividend Yield



Source: NAREIT.

Wilshire continues to recommend REITs as the best 'core' investment for clients making a significant strategic allocation to real estate.

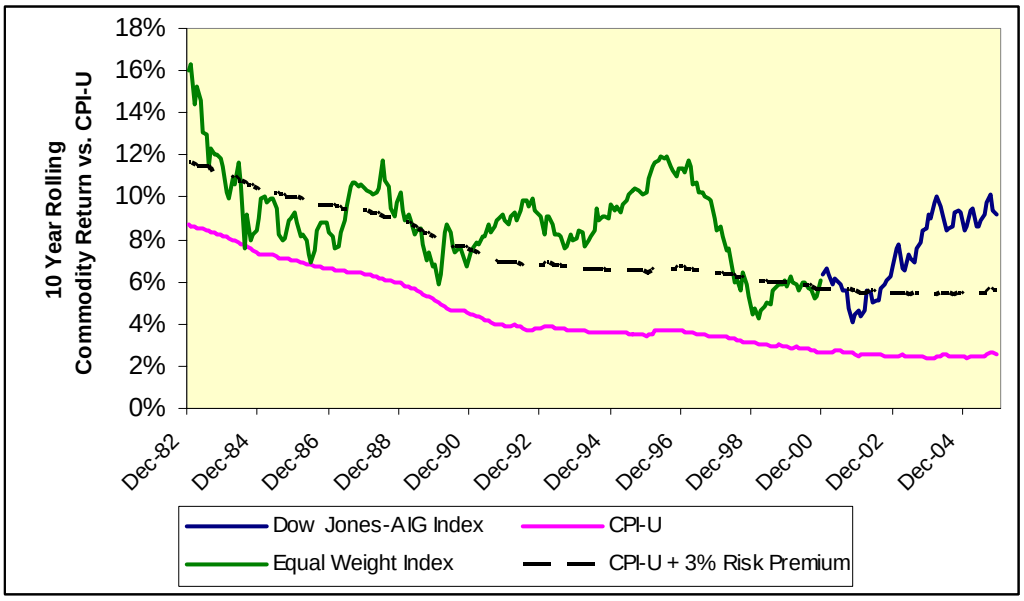
Investors in large separate account direct property portfolios should expect a 5.25% return. Our assumption is that direct property holdings will have a 1% lower return due to less utilization of leverage – REITs have an average 40% debt-to-asset ratio – and less risk than REITs, 10% versus 16%, respectively.

Commodities

The recent performance of commodities has thrust the asset class into the spotlight as investors continue to search for enhanced returns and portfolio diversification. Institutional investors can gain exposure to commodities through the futures market. Investable commodity indices, constructed from a combination of commodity futures contracts, can provide investors broad

access to the return and diversification attributes of underlying commodities. The returns for commodity futures differ from other asset classes because commodity futures do not represent compensation for the risk associated with future cash flow uncertainty. Instead, investors in commodity futures are compensated for bearing the risk of short-term commodity price fluctuations. In other words, a majority of a commodity future investor's exposure is to short-term economic conditions, while forecasting plays a much smaller role than in the stock or bond markets. Wilshire's recent paper "Commodity Futures Investing: Is All That Glitters Gold?" provides a more in depth examination of the history of commodities and their use in an institutional portfolio. Exhibit 17 lays out a return history for a commodity index over time. From this historical record, we estimate that the future expected return for commodities will be inflation plus a 3% risk premium, or 5.25%.

Exhibit 17
Historical Commodity Returns



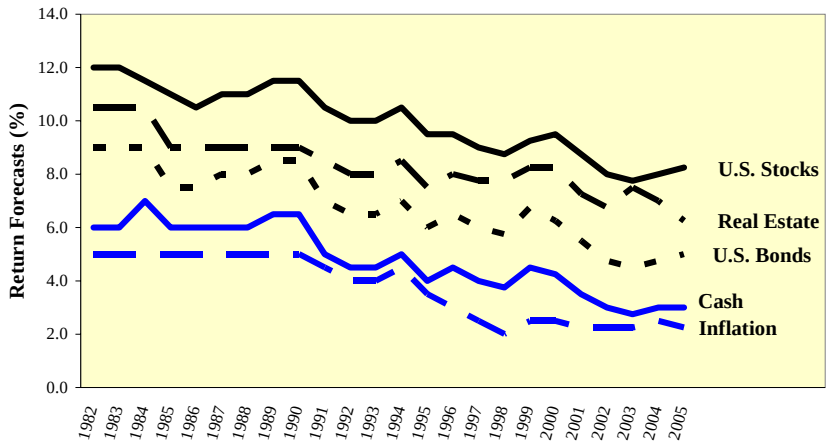
The forecasted risk for commodity futures is 12% based on the historical record of the Dow Jones-AIG Commodity Index. It is important to note that other indexes differ in composition from the Dow Jones-AIG index and therefore may be substantially more or less risky. For a more complete discussion of some of the popular commodity indexes, please see Wilshire's "Commodities Index Report" from 2005.

The low measured correlation of commodity returns with more traditional assets, such as stocks and bonds, stems from their price sensitivity to current economic supply and demand forces. In contrast, stock and bond valuations are more heavily driven by forward-looking expectations. Historically, these factors have caused traditional assets and commodities to have lower correlations. A complete list of correlations for commodities versus other asset classes can be found in Appendix A.

Wilshire Forecasts Over Time

Exhibit 18 shows how Wilshire's return forecasts have changed over the past 24 years. Notice the relative relationship between asset classes and how, when the assumptions change, they generally move together.

Exhibit 18
Wilshire's Past Forecasts for Asset Class Returns



Year Beginning	U.S. Stocks	U.S. Bonds	Cash Equivalents	Real Estate	Inflation
1982	12.0 %	9.0 %	6.0 %	10.5 %	5.0 %
1983	12.0	9.0	6.0	10.5	5.0
1984	11.5	9.0	7.0	10.5	5.0
1985	11.0	7.5	6.0	9.0	5.0
1986	10.5	7.5	6.0	9.0	5.0
1987	11.0	8.0	6.0	9.0	5.0
1988	11.0	8.0	6.0	9.0	5.0
1989	11.5	8.5	6.5	9.0	5.0
1990	11.5	8.5	6.5	9.0	5.0
1991	10.5	7.0	5.0	8.5	4.5
1992	10.0	6.5	4.5	8.0	4.0
1993	10.0	6.5	4.5	8.0	4.0
1994	10.5	7.0	5.0	8.5	4.5
1995	9.5	6.0	4.0	7.5	3.5
1996	9.5	6.5	4.5	8.0	3.0
1997	9.0	6.0	4.0	7.8	2.5
1998	8.8	5.8	3.8	7.8	2.0
1999	9.3	6.8	4.5	8.3	2.5
2000	9.5	6.3	4.3	8.3	2.5
2001	8.8	5.5	3.5	7.3	2.3
2002	8.0	4.8	3.0	6.8	2.3
2003	7.8	4.5	2.8	7.5	2.3
2004	8.0	4.8	3.0	7.0	2.5
2005	8.3	5.0	3.0	6.3	2.3

Risk and Correlation

Wilshire's approach to forecasting long-term risk and correlation is largely based on observed historical asset class behavior. Generally, past relationships serve as very good predictors of future risk and correlation. In practice, Wilshire applies sound financial theory and judgment to the interpretation and analysis of historical results. The role of judgment ('art') versus measured statistics ('science') is more extreme for investment categories with less historical data or that have experienced material structural changes. For example, while we've recently increased our correlation assumptions for TIPS against several other asset classes, Wilshire's assumptions are significantly lower than historical correlations, as the history of TIPS is short (less than nine years) and since there has been no material or sustained occurrence of unanticipated inflation during which TIPS should exhibit its lowest correlation with nominal bonds.

Wilshire places much more confidence in the predictive accuracy of past relationships for asset classes with longer and more robust historical data. In this report we rely upon historical measurements of risk and correlation through 2005 to estimate future risk and correlation. To maximize the quality of our estimates, we observe this historical behavior over various time horizons (i.e. five years, ten years, full history, etc.). Wilshire does not use a preset or static rolling time period to derive these forecasts; as such an approach could result in forward numbers reacting too quickly to what may prove to be short-term relationships or event driven anomalies between markets.

A full listing of Wilshire risk and diversification assumptions for all the asset classes is found in Appendix A.

We would like to thank Peter Matheos from Wilshire Analytics for his assistance in parameterizing the correlation matrices.

Appendix A: Wilshire 2006 Correlation Matrix

	U.S. Stock	Leh Aggr	Citi LPF	LT Treas	Cash	Non-U.S. Stock	Non-U.S. Bond	Emerg Mkt	TIPS	High Yield	REITs	Direct Prop	Prvt Mkts	Cmdty	Hdgd Int'l Stock	Hdgd Int'l Bond	EAFE Stock	U.S. CPI
Expected Return (%	8.25	5.00	5.25	4.75	3.00	8.25	4.75	8.25	4.75	6.50	6.25	5.25	11.75	5.25	8.15	4.65	8.25	2.25
Expected Risk (%)	17.00	5.00	7.00	13.00	1.00	19.00	10.00	25.00	6.00	10.00	16.00	10.00	30.00	12.00	18.00	4.00	19.00	1.00
Cash Yield (%)	1.80	5.00	5.25	4.75	3.00	2.50	4.75	2.50	2.50	6.50	4.50	4.50	0.00	3.00	2.50	4.65	2.40	
Correlations:																		
U.S. Stock	1.00																	
Lehman Aggregate	0.29	1.00																
Citigroup LPF	0.34	0.95	1.00															
LT Treasury	0.19	0.85	0.87	1.00														
Cash Equivalents	0.00	0.10	0.10	0.10	1.00													
Non-U.S. Stock	0.78	0.08	0.09	0.07	-0.10	1.00												
Non-U.S. Bonds	-0.01	0.33	0.34	0.32	-0.10	0.28	1.00											
Emerging Markets	0.61	0.00	0.01	-0.09	-0.05	0.64	-0.04	1.00										
TIPS	0.00	-0.01	0.00	0.00	0.25	0.10	0.01	0.00	1.00									
High Yield Debt	0.48	0.39	0.40	0.21	0.00	0.29	0.01	0.35	0.01	1.00								
REITs	0.30	0.15	0.15	0.10	0.00	0.20	0.05	0.24	0.20	0.30	1.00							
Property (Direct)	0.30	0.15	0.15	0.10	0.00	0.19	0.05	0.25	0.20	0.30	0.90	1.00						
Private Markets	0.73	0.30	0.30	0.16	0.00	0.61	0.12	0.12	0.10	0.31	0.35	0.30	1.00					
Commodities	0.00	0.00	0.00	0.00	-0.05	0.20	0.15	0.24	0.20	0.08	0.25	0.20	0.00	1.00				
Hdgd Non-U.S. Stock	0.74	0.04	0.05	0.03	-0.01	0.77	-0.07	0.46	0.11	0.40	0.19	0.19	0.56	0.15	1.00			
Hdgd Non-U.S. Bond	0.16	0.60	0.59	0.58	0.10	0.21	0.50	-0.01	0.22	0.38	0.00	0.00	0.31	0.00	0.25	1.00		
EAFE Stock	0.74	0.11	0.09	0.13	-0.09	0.92	0.32	0.58	0.18	0.28	0.20	0.20	0.51	0.20	0.79	0.26	1.00	
Inflation (CPI)	-0.10	-0.12	-0.12	-0.12	0.10	-0.15	-0.05	-0.13	0.00	-0.08	-0.10	-0.10	-0.10	0.20	-0.05	-0.08	-0.15	1.00

Appendix B: Wilshire 2006 Private Markets Correlation Matrix

	Buyouts	Venture Capital	Distressed Debt	Mezz Debt	Opport RE	Non-U.S. Pvt Equity	Pvt Mkts Portfolio	U.S. Stocks	Non-U.S. Stocks	Fixed Income	Real Estate	High Yield Bonds	Cash
Expected Return (%)	10.25	12.00	8.75	8.75	8.25	10.00	11.75	8.25	8.25	5.00	6.25	6.50	3.00
Expected Risk (%)	30.00	45.00	20.00	20.00	25.00	35.00	30.00	17.00	19.00	5.00	16.00	10.00	1.00
Correlations:													
Buyouts	1.00							0.70	0.55	0.40	0.35	0.30	0.00
Venture Capital	0.65	1.00						0.60	0.50	0.10	0.30	0.25	0.00
Distressed Debt	0.10	0.05	1.00					0.30	0.25	0.05	0.10	0.55	0.00
Mezzanine Debt	0.50	0.25	0.60	1.00				0.70	0.55	0.20	0.50	0.75	0.10
Opportunistic RE	0.35	0.30	0.10	0.25	1.00			0.35	0.25	0.35	0.70	0.40	0.05
Non-U.S. Pvt Equity	0.78	0.50	0.15	0.30	0.25	1.00		0.60	0.70	0.25	0.20	0.25	0.00
Pvt Mkts Portfolio								0.73	0.61	0.30	0.35	0.31	0.00

Appendix C: Historical 1-Year Rolling Returns: 1926 to 2005

Year	S&P 500 Index	Bond Index	T-bills	CPI
1926	11.6	7.4	3.3	-1.5
1927	37.5	7.4	3.1	-2.1
1928	43.6	2.8	3.5	-1.0
1929	-8.4	3.3	4.7	0.2
1930	-24.9	8.0	2.4	-6.0
1931	-43.4	-1.9	1.1	-9.5
1932	-8.2	10.8	1.0	-10.3
1933	54.0	10.4	0.3	0.5
1934	-1.4	13.8	0.2	2.0
1935	47.7	9.6	0.1	3.0
1936	33.9	6.7	0.2	1.2
1937	-35.0	2.8	0.3	3.1
1938	31.1	6.1	0.0	-2.8
1939	-0.4	4.0	0.0	-0.5
1940	-9.8	3.4	0.0	1.0
1941	-11.6	2.7	0.0	9.7
1942	20.4	2.6	0.3	9.3
1943	25.9	2.8	0.4	3.2
1944	19.7	4.7	0.3	2.1
1945	36.4	4.1	0.3	2.3
1946	-8.1	1.7	0.4	18.2
1947	5.7	-2.3	0.5	9.0
1948	5.5	4.1	0.8	2.7
1949	18.8	3.3	1.1	-1.8
1950	31.7	2.1	1.2	5.8
1951	24.0	-2.7	1.5	5.9
1952	18.4	3.5	1.7	0.9
1953	-1.0	3.4	1.8	0.6
1954	52.6	5.4	0.9	-0.5
1955	31.6	0.5	1.6	0.4
1956	6.6	-6.8	2.5	2.9
1957	-10.8	8.7	3.2	3.0
1958	43.4	-2.2	1.5	1.8
1959	12.0	-1.0	3.0	1.5
1960	0.5	9.1	2.7	1.5
1961	26.9	4.8	2.1	0.7
1962	-8.7	8.0	2.7	1.2
1963	22.8	2.2	3.1	1.7
1964	16.5	4.8	3.5	1.2
1965	12.5	-0.5	3.9	1.9
1966	-10.1	0.2	4.8	3.4
1967	24.0	-5.0	4.2	3.0
1968	11.1	2.6	5.2	4.7
1969	-8.5	-8.1	6.6	6.1
1970	4.0	18.4	6.5	5.5
1971	14.3	11.0	4.4	3.4
1972	19.0	7.3	3.8	3.5
1973	-14.8	2.3	6.9	8.7
1974	-26.4	0.2	8.2	12.4
1975	37.2	12.3	5.8	7.0
1976	24.1	15.6	5.0	4.9
1977	-7.3	3.0	5.4	6.7
1978	6.4	1.4	7.5	9.0
1979	18.5	1.9	10.3	13.3
1980	32.2	2.7	11.8	12.5
1981	-4.9	6.3	14.5	8.9
1982	21.1	32.6	11.1	3.8
1983	22.4	8.4	8.8	3.8
1984	6.1	15.2	9.9	4.0
1985	32.1	22.1	7.7	3.8
1986	18.6	15.3	6.1	1.1
1987	5.2	2.8	5.4	4.4
1988	16.8	7.9	6.7	4.4
1989	31.5	14.5	9.0	4.6
1990	-3.2	9.0	8.3	6.1
1991	30.6	16.0	6.4	3.1
1992	7.7	7.4	3.9	2.9
1993	10.0	9.8	3.2	2.8
1994	1.3	-2.9	4.2	2.7
1995	37.5	18.5	6.1	2.5
1996	23.1	3.6	5.4	3.3
1997	33.3	9.7	5.5	1.7
1998	28.8	8.7	5.4	1.6
1999	21.0	-0.8	4.6	2.7
2000	-9.1	11.6	6.2	3.4
2001	-11.9	8.4	4.4	1.6
2002	-22.1	10.3	1.8	2.4
2003	28.7	4.1	1.2	1.9
2004	10.9	4.3	1.3	3.3
2005	4.9	2.4	3.1	3.4
Winning Percentage:	**63%**	**24%**	**14%**	

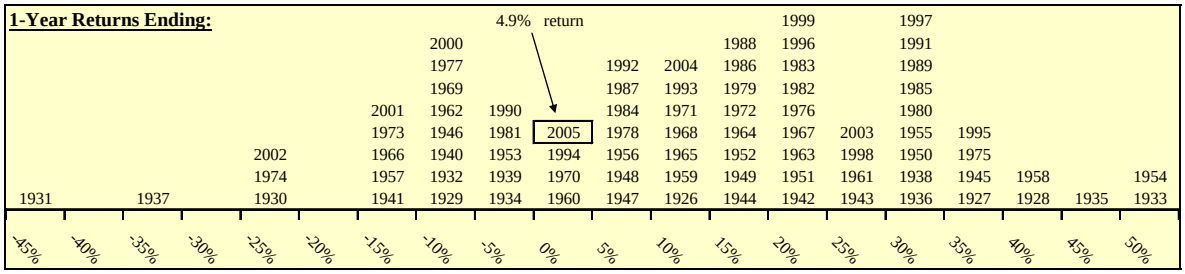
Appendix C: Historical 5-Year Rolling Returns: 1926 to 2005

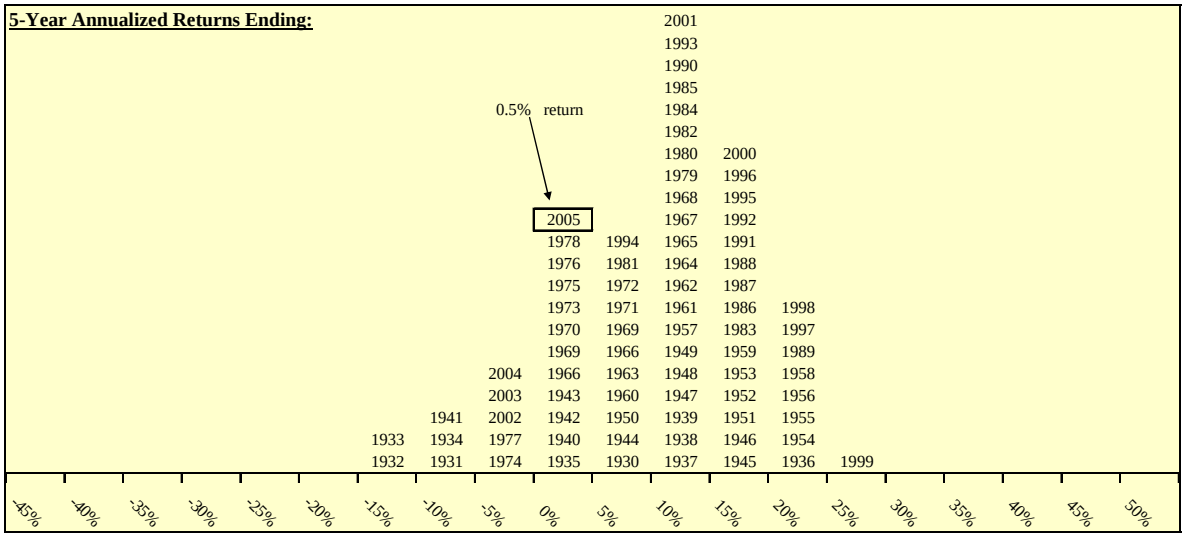
Year	S&P 500 Index	Bond Index	T-bills	CPI
1926-30	8.7	5.8	3.4	-2.1
1927-31	-5.1	3.9	3.0	-3.7
1928-32	-12.5	4.5	2.5	-5.4
1929-33	-11.2	6.0	1.9	-5.1
1930-34	-9.9	8.1	1.0	-4.8
1931-35	3.1	8.4	0.5	-3.0
1932-36	22.5	10.3	0.3	-0.8
1933-37	14.3	8.6	0.2	2.0
1934-38	10.7	7.8	0.1	1.3
1935-39	10.9	5.8	0.1	0.8
1936-40	0.5	4.6	0.1	0.4
1937-41	-7.5	3.8	0.1	2.0
1938-42	4.6	3.8	0.1	3.2
1939-43	3.8	3.1	0.1	4.5
1940-44	7.7	3.3	0.2	5.0
1941-45	17.0	3.4	0.3	5.3
1942-46	17.9	3.2	0.3	6.8
1943-47	14.8	2.2	0.4	6.8
1944-48	10.9	2.4	0.5	6.7
1945-49	10.7	2.2	0.6	5.8
1946-50	9.9	1.8	0.8	6.6
1947-51	16.7	0.9	1.0	4.3
1948-52	19.4	2.0	1.3	2.7
1949-53	17.9	1.9	1.5	2.2
1950-54	23.9	2.3	1.4	2.5
1951-55	23.9	2.0	1.5	1.4
1952-56	20.2	1.1	1.7	0.8
1953-57	13.6	2.1	2.0	1.3
1954-58	22.3	1.0	1.9	1.5
1955-59	15.0	-0.3	2.3	1.9
1956-60	8.9	1.4	2.6	2.1
1957-61	12.8	3.8	2.5	1.7
1958-62	13.3	3.6	2.4	1.3
1959-63	9.8	4.5	2.7	1.3
1960-64	10.7	5.7	2.8	1.2
1961-65	13.2	3.8	3.1	1.3
1962-66	5.7	2.9	3.6	1.9
1963-67	12.4	0.3	3.9	2.2
1964-68	10.2	0.4	4.3	2.8
1965-69	5.0	-2.2	4.9	3.8
1966-70	3.4	1.2	5.4	4.5
1967-71	8.4	3.3	5.4	4.5
1968-72	7.5	5.8	5.3	4.6
1969-73	2.0	5.8	5.6	5.4
1970-74	-2.4	7.6	6.0	6.6
1971-75	3.2	6.5	5.8	6.9
1972-76	4.9	7.4	5.9	7.2
1973-77	-0.2	6.5	6.3	7.9
1974-78	4.3	6.3	6.4	8.0
1975-79	14.8	6.7	6.8	8.1
1976-80	13.9	4.8	8.0	9.2
1977-81	8.0	3.1	9.9	10.1
1978-82	13.9	8.4	11.0	9.5
1979-83	17.2	9.8	11.3	8.4
1980-84	14.6	12.6	11.2	6.5
1981-85	14.6	16.5	10.4	4.8
1982-86	19.7	18.4	8.7	3.3
1983-87	16.4	12.5	7.6	3.4
1984-88	15.4	12.4	7.1	3.5
1985-89	20.4	12.3	7.0	3.7
1986-90	13.2	9.8	7.1	4.1
1987-91	15.4	9.9	7.1	4.5
1988-92	15.9	10.9	6.8	4.2
1989-93	14.5	11.3	6.1	3.9
1990-94	8.7	7.7	5.2	3.5
1991-95	16.6	9.5	4.8	2.8
1992-96	15.2	7.0	4.6	2.8
1993-97	20.2	7.5	4.9	2.6
1994-98	24.1	7.3	5.3	2.4
1995-99	28.6	7.7	5.4	2.4
1996-00	18.3	6.5	5.4	2.5
1997-01	10.7	7.4	5.2	2.2
1998-02	-0.6	7.5	4.5	2.3
1999-03	-0.6	6.6	3.6	2.4
2000-04	-2.3	7.7	3.0	2.5
2001-05	0.5	5.9	2.4	2.5
Winning Percentage:	**74%**	**22%**	**4%**	

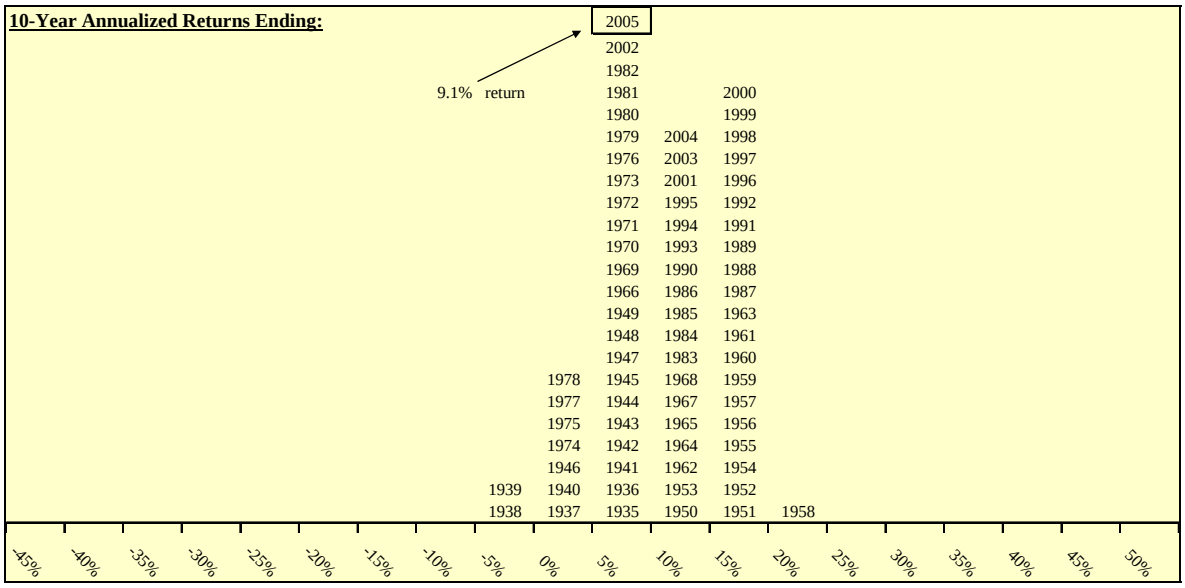
Appendix C: Historical 10-Year Rolling Returns: 1926 to 2005

Year	S&P 500 Index	Bond Index	T-bills	CPI
1926-35	5.9	7.1	2.0	-2.6
1927-36	7.8	7.0	1.7	-2.3
1928-37	0.0	6.5	1.4	-1.8
1929-38	-0.9	6.9	1.0	-2.0
1930-39	-0.1	6.9	0.6	-2.0
1931-40	1.8	6.5	0.3	-1.3
1932-41	6.4	7.0	0.2	0.6
1933-42	9.4	6.2	0.1	2.6
1934-43	7.2	5.4	0.1	2.9
1935-44	9.3	4.5	0.2	2.9
1936-45	8.4	4.0	0.2	2.8
1937-46	4.4	3.5	0.2	4.4
1938-47	9.6	3.0	0.2	5.0
1939-48	7.3	2.8	0.3	5.6
1940-49	9.2	2.7	0.4	5.4
1941-50	13.4	2.6	0.5	5.9
1942-51	17.3	2.0	0.7	5.5
1943-52	17.1	2.1	0.8	4.7
1944-53	14.3	2.2	1.0	4.4
1945-54	17.1	2.2	1.0	4.2
1946-55	16.7	1.9	1.1	4.0
1947-56	18.4	1.0	1.3	2.5
1948-57	16.4	2.1	1.6	2.0
1949-58	20.1	1.4	1.7	1.9
1950-59	19.4	1.0	1.9	2.2
1951-60	16.2	1.7	2.0	1.8
1952-61	16.4	2.4	2.1	1.3
1953-62	13.4	2.9	2.2	1.3
1954-63	15.9	2.7	2.3	1.4
1955-64	12.8	2.7	2.6	1.6
1956-65	11.1	2.6	2.8	1.7
1957-66	9.2	3.3	3.0	1.8
1958-67	12.9	1.9	3.1	1.8
1959-68	10.0	2.4	3.5	2.1
1960-69	7.8	1.7	3.9	2.5
1961-70	8.2	2.5	4.3	2.9
1962-71	7.1	3.1	4.5	3.2
1963-72	9.9	3.0	4.6	3.4
1964-73	6.0	3.0	5.0	4.1
1965-74	1.2	2.6	5.4	5.2
1966-75	3.3	3.8	5.6	5.7
1967-76	6.7	5.3	5.7	5.9
1968-77	3.6	6.2	5.8	6.2
1969-78	3.2	6.1	6.0	6.7
1970-79	5.9	7.2	6.4	7.4
1971-80	8.4	5.6	6.9	8.1
1972-81	6.4	5.2	7.9	8.6
1973-82	6.6	7.4	8.6	8.7
1974-83	10.6	8.1	8.8	8.2
1975-84	14.7	9.6	9.0	7.3
1976-85	14.2	10.5	9.2	7.0
1977-86	13.7	10.5	9.3	6.6
1978-87	15.2	10.4	9.3	6.4
1979-88	16.3	11.1	9.2	5.9
1980-89	17.5	12.4	9.1	5.1
1981-90	13.9	13.1	8.7	4.5
1982-91	17.5	14.1	7.9	3.9
1983-92	16.2	11.7	7.2	3.8
1984-93	14.9	11.9	6.6	3.7
1985-94	14.4	10.0	6.1	3.6
1986-95	14.9	9.6	5.9	3.5
1987-96	15.3	8.5	5.8	3.7
1988-97	18.0	9.2	5.9	3.4
1989-98	19.2	9.3	5.7	3.1
1990-99	18.2	7.7	5.3	2.9
1991-00	17.5	8.0	5.1	2.7
1992-01	12.9	7.2	4.9	2.5
1993-02	9.3	7.5	4.7	2.5
1994-03	11.1	6.9	4.5	2.4
1995-04	12.1	7.7	4.2	2.4
1996-05	9.1	6.2	3.9	2.5
Winning Percentage:	**82%**	**13%**	**6%**	

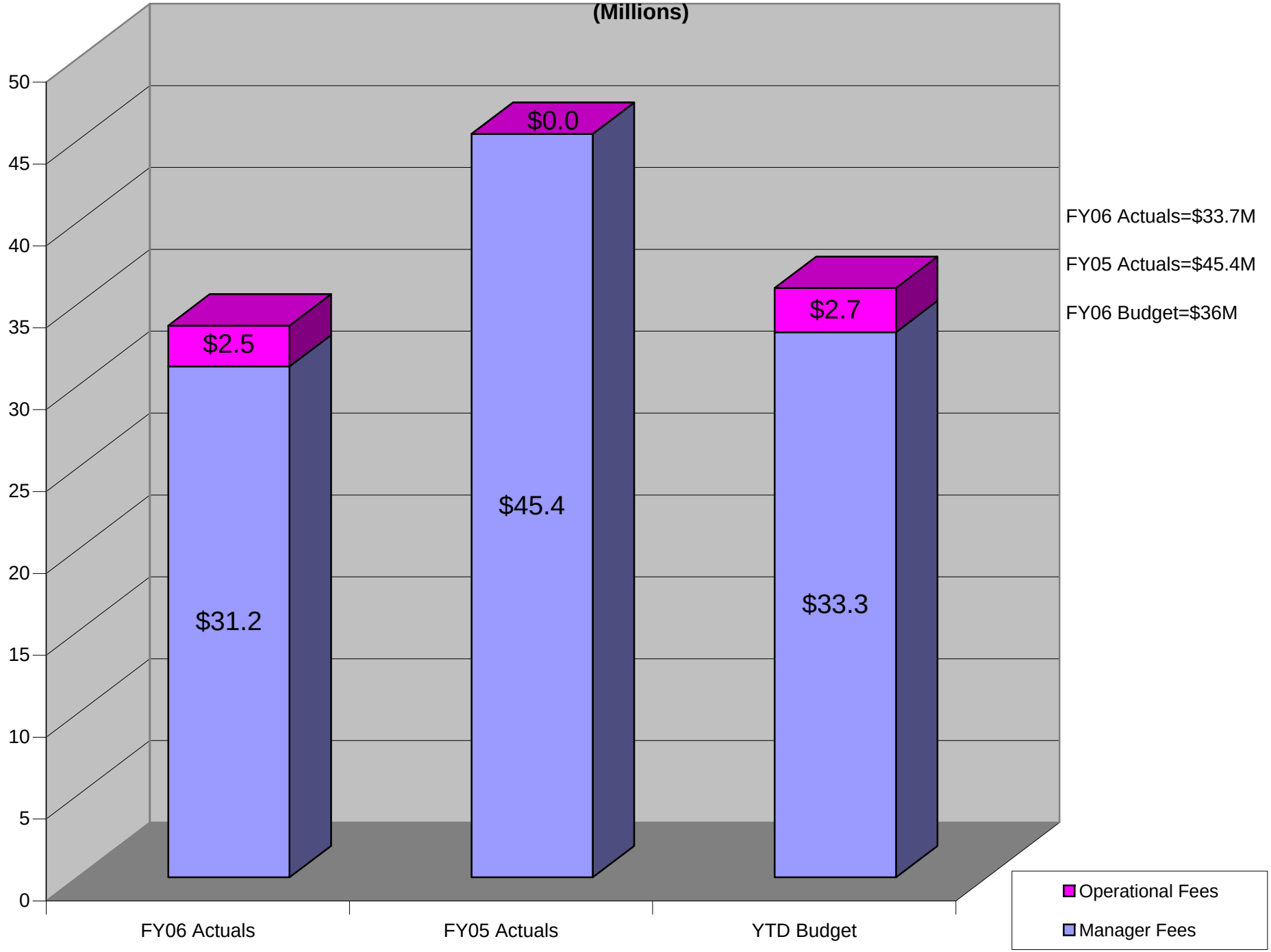
Appendix D: Histogram of 1-, 5-, and 10-Year S&P 500 Index Returns



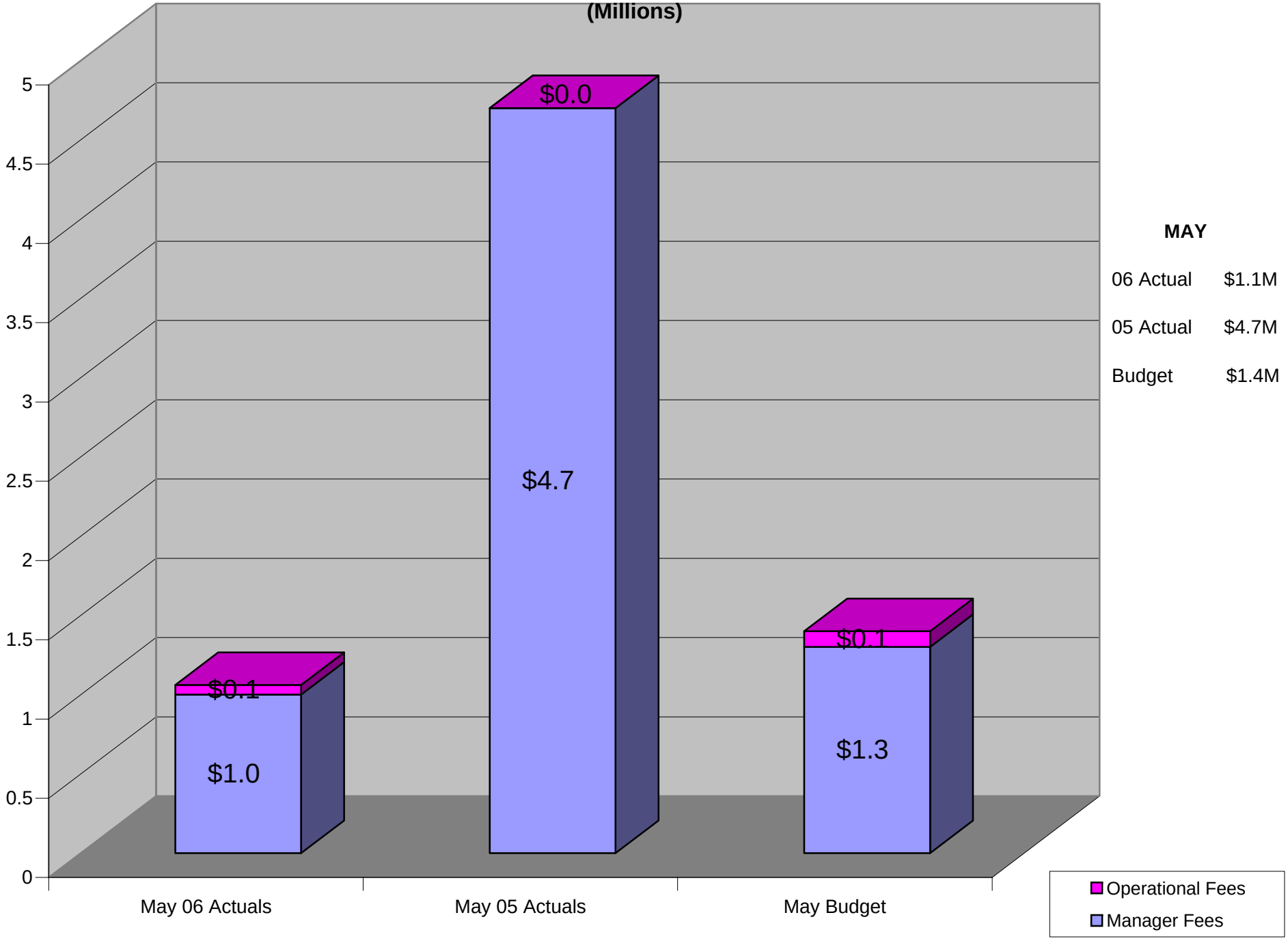




Investment Division
Investment Expenses - Manager & Operational Fees
FY06 YTD May 31, 2006
(Millions)



Investment Division
Investment Expenses - Manager & Operational Fees
May, 2006
(Millions)



MAY

06 Actual	$1.1M
05 Actual	$4.7M
Budget	$1.4M

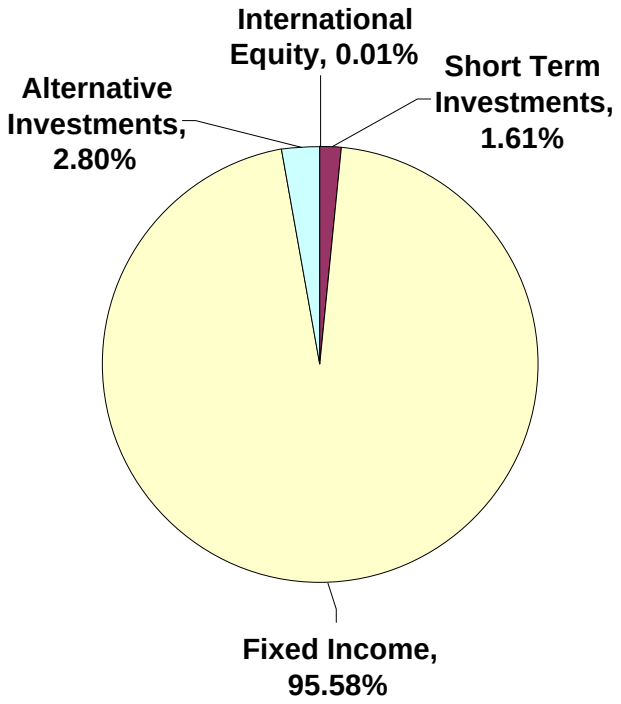
Ohio Bureau of Workers' Compensation

May 2006 Monthly Performance Flash Report

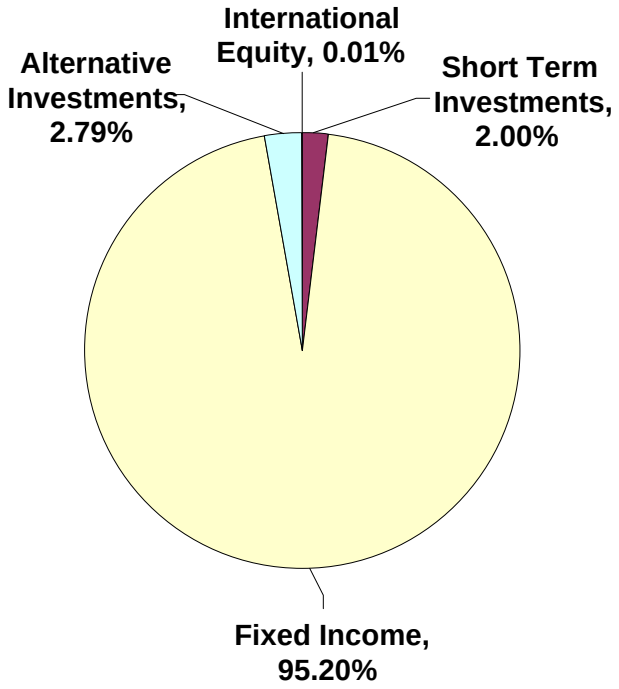
WILSHIRE CONSULTING

Asset Allocation – State Insurance Fund

As of April 30, 2006



As of May 31, 2006



Ohio Bureau of Workers' Compensation
Monthly Performance and Market Value Summary
Periods Ended 5/31/06

Manager	Returns						Market Value	
	Month	Prior Month	QTD	3 Months	YTD	1 Year	$(000)	Percent
Ohio BWC Total Fund	-0.12	-0.14	-0.26	-0.35	1.13		16,401,056	100.00
State Insurance Fund	-0.12	-0.14	-0.26	-0.35	1.26		15,057,734	100.00
SIF Custom Policy	-0.11	-0.18	-0.29	-1.27	0.47			
SSgA Passive Agg Bond SI CTF	-0.12	-0.14	-0.26	-0.26			14,212,459	86.66
Lehman Aggregate	-0.11	-0.18	-0.29	-1.27				
Ancillary Composite	-0.13	-0.13	-0.26	-0.26			1,343,321	8.19
Lehman Aggregate	-0.11	-0.18	-0.29	-1.27				
Black Lung 2000	-0.12	-0.14	-0.26	-0.26			221,546	1.35
Diabled Workers Retirement	-0.15	-0.14	-0.29	-0.29			1,054,926	6.43
Marine 2005	-0.11	-0.14	-0.25	-0.25			14,487	0.09
Public Workers Relief Fund	-0.09	-0.14	-0.23	-0.23			20,150	0.12
Self Insured Bond Fund 200	0.25	0.40	0.65	0.65			32,212	0.20
Cash Composite	-0.07	0.42	0.35	0.73			328,163	2.00
91-Day Treasury Bill	0.39	0.37	0.76	1.15				
Indices								
91 Day T-Bill Index	0.39	0.37	0.76	1.15	1.81	3.82		
Lehman Aggregate	-0.11	-0.18	-0.29	-1.27	-0.93	-0.47		
Standard & Poor's 500	-2.87	1.34	-1.57	-0.35	2.57	8.63		
DJ Wilshire 5000	-3.21	1.11	-2.13	-0.33	3.19	10.62		
MSCI EAFE Index (N)	-3.88	4.78	0.71	4.02	10.17	28.24		

Returns are preliminary and subject to change. Alternative investment returns are calculated quarterly and provided in a separate report.

Ohio Bureau of Workers' Compensation
Monthly Performance and Market Value Summary
Periods Ended 5/31/06

Manager	Returns						Market Value	
	Month	Prior Month	QTD	3 Months	YTD	1 Year	$(000)	Percent
Cash Account	-0.07	0.42	0.35	0.35			328,163	2.00
Alternative Investments Composite	N/A	N/A	N/A	15.99	15.99		458,321	2.79
Restricted Stock - Liquidation	-15.21	-2.91	-17.68				1,366	0.01
Tranche #3	-1.45						57,417	0.35
Indices								
91 Day T-Bill Index	0.39	0.37	0.76	1.15	1.81	3.82		
Lehman Aggregate	-0.11	-0.18	-0.29	-1.27	-0.93	-0.47		
Standard & Poor's 500	-2.87	1.34	-1.57	-0.35	2.57	8.63		
DJ Wilshire 5000	-3.21	1.11	-2.13	-0.33	3.19	10.62		
MSCI EAFE Index (N)	-3.88	4.78	0.71	4.02	10.17	28.24		

Returns are preliminary and subject to change. Alternative investment returns are calculated quarterly and provided in a separate report.

Custom Policy Benchmark Transition – State Insurance Fund

SIF Policy Benchmark Transition			
Start	**End**	**Percent**	**Description**
11/30/2005	1/31/2006	100%	Pre-Transition Policy
1/31/2006	2/28/2006	50%	Pre-Transition Policy
		50%	Lehman Aggregate
2/28/2006	Present	100%	Lehman Aggregate

Pre-Transition Policy Benchmark	
S&P 500 Index	29%
MSCI EAFE Index	11%
Lehman Aggregate	57%
91 - Day T-Bill	3%

Tranche Key

Tranche	Tranche 1	Tranche 2	Tranche 3
Asset Type	**Domestic Equity**	**Domestic Equity**	**International Equity**
Manager	*Apex Capital Management, Inc.* *Bahl & Gaynor Investment Counsel* *Delancey Capital Group* *Gratry & Company* *Gries Financial LLC* *Charter Financial Group* *CIC Asset Management* *Dana Investment Advisors, Inc.* *Edgar Lomax Company* *JPMorgan Investment Management, Inc.* *Eubel Brady & Suttman Asset Management* *Cordillera Asset Management* *Fortaleza Asset Management, Inc.* *Great Northern Asset Management, Inc.* *GW Capital, Inc.* *Ariel Capital Management* *Buckhead Capital* *Daruma Asset Management, Inc.* *Ironwood Capital Management, LLC*	*ING Investment Management - Aeltus* *Lakepoint Investment Partners* *Lazard Asset Management* *Lynmark Capital Group, Inc* *New Amsterdam Partners, LLC.* *Rutland Dickson Asset Management* *Swarthmore Group* *Nottinghill Investment Advisers, Ltd.* *Paradigm Asset Management* *Putnam Advisory Company, Inc* *Sturdivant & Company, Inc.* *Union Heritage Capital Management* *Victory Capital Management Inc.* *Putnam Advisory Company, Inc* *James Investment Research, Inc.* *Quantum Legacy Capital Management, LLC* *Renaissance Investment Management* *Riverbridge Partners LLC* *UBS Global Asset Management, Inc* *Veredus Asset Management* *Loomis Sayles & Co., L.P.* *Opus Capital Management, Inc.* *Penn Capital Management Co., Inc.* *R. Meeder & Associates* *Tamro Capital Partners LLC* *Piedmont Investment Advisors, LLC (fixed income)*	*ING Investment Management* *Capital Gaurdian* *Clay Findlay* *Invesco Global* *Perigee (aka Legg Mason)* *Simms Capital Asset Management* *Lombard Odier* *Montgomery Int'l* *Oeschle* *Putnam Institutional* *Societe General Investment Management*

Tranche	Tranche 4	Tranche 5	Tranche 6
Asset Type	**Domestic & International Equity**	**Fixed Income**	**Ancillary**
Manager	*State Street Global EAFE Index CTF* *SSgA S&P 500 Index CTF*	*Blackrock* *Pugh Capital Management* *Smith Graham Management* *Advent Capital Management* *Alliance Capital* *Blaylock Abacus Financial Group, Inc.* *John Hancock Advisers, LLC.* *LM Capital Group, LLC* *Morgan Stanley Investments LP* *Prima Capital Advisors* *Reams Capital Management, LLC* *Wasmer, Schroeder and Company, LLC* *Western Asset Management* *Banc One Managed 1030* *Fairport Asset Management, LLC* *Holland Capital Management* *Hughes Capital Management* *Taplin, Canida & Habacht*	*Self Insured Bond Fund 200* *Public Workers Relief Fund* *Marine Account 2005* *Disabled Workers Retirement* *Black Lung 2000*

Accounts outside of transition:
BWC - Index Fund 1010
SSgA Passive Bond Market