

Investment Committee Agenda

William Green Building

Thursday, July 28, 2011

Level 2, Room 3

9:30 a.m. – 11:30 p.m.

Call to Order

Bob Smith, Committee Chair

Roll Call

Linda Byron, Scribe

Approve Minutes of the June 15, 2011 Meeting

Bob Smith, Committee Chair

Review and Approve Agenda*

Bob Smith, Committee Chair

Discussion Items

1. Monthly and Fiscal Year-to-Date Portfolio Value Comparisons
 - June 2011/May 2011
 - June 2011/June 2010Bruce Dunn, Chief Investment Officer
2. Month-End Portfolio Asset Allocation Values
 - June 2011/May 2011Lee Damsel, Director of Investments
3. Month-to-Date Portfolio Value and Performance Update
 - As of July 27, 2011Bruce Dunn, Chief Investment Officer
4. CIO Report – June 2011
Bruce Dunn, Chief Investment Officer
5. BWC Investment Policy Statement
Revisions Summary Report – Fiscal Year 2011
Bruce Dunn, Chief Investment Officer

6. R.V. Kuhns Presentation
Fixed Income Portfolio Sensitivity Analysis
State Insurance Fund
 - Bob Smith, Committee Chair
 - Guy Cooper, RVK Senior Consultant, BWC Lead Consultant
 - Robert Palmeri, RVK Senior Consultant, BWC- Co- Consultant

7. R.V. Kuhns Presentation on Real Estate as an Asset Class, Fourth Discussion
Understanding Private Real Estate Funds
 - Bob Smith, Committee Chair
 - Guy Cooper, RVK Senior Consultant, BWC Lead Consultant
 - Robert Palmeri, RVK Senior Consultant, BWC Co- Consultant
 - Dan Krivinskas, RVK Consultant, Director of Real Estate Consulting

8. CIO Discussion on Real Estate Asset Class Strategy
State Insurance Fund
 - Investment Policy Recommendation and Revisions, Fourth Review
 - Bob Smith, Committee Chair
 - Bruce Dunn, Chief Investment Officer
 - Guy Cooper, RVK Senior Consultant, BWC Lead Consultant
 - Robert Palmeri, RVK Senior Consultant, BWC Co- Consultant

9. Committee Calendar
 - Bob Smith, Committee Chair
 - Bruce Dunn, Chief Investment Officer

Adjourn

Bob Smith, Committee Chair

Next Meeting: Thursday, August 25, 2011

* Not all agenda items may have materials

** Agenda subject to change

**Ohio Bureau of Workers' Compensation
Invested Assets Market Value Comparison
TOTAL FUNDS**

<u>Asset Sector</u>	<u>Market Value June 30, 2011</u>	<u>% Assets</u>	<u>Market Value May 31, 2011</u>	<u>% Assets</u>	<u>Increase(Decrease) Prior Month-End</u>	<u>% Change</u>	<u>Market Value June 30, 2010</u>	<u>% Assets</u>	<u>Increase(Decrease) Prior Fiscal Year-End</u>	<u>% Change</u>
Bonds	14,093,010,921	66.7%	14,188,522,769	66.0%	(95,511,848)	-0.7%	13,537,054,766	71.2%	555,956,155	4.1%
Equity	6,767,280,514	32.1%	6,897,564,032	32.1%	(130,283,518)	-1.9%	5,154,562,423	27.1%	1,612,718,091	31.3%
Net Cash - OIM	53,962,591	0.3%	65,184,873	0.3%	(11,222,282)	-17.2%	64,622,125	0.3%	(10,659,534)	-16.5%
Net Cash - Operating	151,015,236	0.7%	294,058,232	1.4%	(143,042,996)	-48.6%	218,991,596	1.2%	(67,976,360)	-31.0%
Net Cash - SIEGF	51,673,079	0.2%	53,290,165	0.2%	(1,617,086)	-3.0%	47,335,733	0.2%	4,337,346	9.2%
Total Net Cash	256,650,906	1.2%	412,533,270	1.9%	(155,882,364)	-37.8%	330,949,454	1.7%	(74,298,548)	-22.5%
Total Invested Assets	21,116,942,341	100%	21,498,620,071	100%	(381,677,730)	-1.8%	\$19,022,566,643	100%	\$2,094,375,698	11.0%

OIM: Outside Investment Managers

SIEGF: Self-Insured Employers' Guaranty Fund

Market Value of Bonds and Stocks includes accrued investment income.

Net Cash includes the impact of net trade receivables/payables, accrued money market earnings, and accrued investment manager fees.

June 2011/May 2011 Comparisons

- Net investment income in June 2011 was \$(227) million representing a monthly net portfolio return of **-1.1%** (unaudited).
- Bond market value decrease of \$(95.5) mm comprised of \$83.2 mm in interest income and \$(193.2) mm in OIM realized/unrealized losses (\$8.6 mm net realized gain), offset by \$14.5 mm in OIM net bond purchases, representing a monthly net return of **-0.8%** (unaudited).
- Equity market value decrease of \$(130.3) mm comprised of \$8.4 mm of dividend income, \$(124.6) mm in net realized/unrealized losses (\$18.2 mm net realized gain), \$3.8 mm in OIM net equity sales and \$10.3 mm in operations redemptions, representing a monthly net return of **-1.7%** (unaudited).
- Net cash balances decreased \$(155.9) mm in June 2011 largely due to decreased operating cash balances of \$(143.0) mm and decreased OIM cash balances of \$(11.2) mm. JPMorgan US Govt. money market fund had 30-day average yield of 0.01% for June 2011 (0.01% for May11) and 7-day average yield of 0.01% on 6/30/11 (0.01% on 5/31/11).

June 2011/June 2010 FY Results

- Net investment income for FY2011 was \$2,364 million largely comprised of \$772* mm of interest/dividend income and \$1,600 mm of net realized/unrealized gains (\$254 mm net realized gain), offset by \$8 mm in fees, representing a FY2011 net portfolio return of **+12.4%** (unaudited).
- Bond market value increase of \$556 mm for FY2011 comprised of \$686 mm in interest income and \$51 mm of net realized/unrealized gains (\$182 mm net realized gain), offset by \$109 mm in OIM/TM net bond sales and by \$72 mm in operations redemptions, representing a FY2011 net return of **+5.3%** (unaudited).
- Equity market value increase of \$1,613 mm for FY2011 comprised of \$85* mm in dividend income, \$1,549 mm in net realized/unrealized gains (\$72 mm net realized gain) and \$114 mm in OIM/TM net equity purchases, offset by \$135 mm in operations/miscellaneous asset redemptions, representing a FY2011 net return of **+32.0%** (unaudited).

* Not included in interest/dividend income is \$64 mm in annual dividends earned by the non-U.S. equity commingled fund in FY2011. These dividends increase the asset value of this fund and as such are reflected in the change in market value.

Ohio Bureau of Workers' Compensation Investment Asset Allocation - Combining Schedule

As of June 30, 2011

(in thousands)

	SIF	% Trust	DWRF	% Trust	BLF	% Trust	PWRF	% Trust	MIF	% Trust	SIEGF	% Trust	ACF	% Trust	Totals	% of Total
Bonds	\$ 12,888,771	66.6%	\$ 932,149	67.6%	\$ 226,590	78.2%	\$ 25,942	99.4%	\$ 19,559	98.7%	\$ -	0.0%	\$ -	0.0%	\$ 14,093,011	66.7%
Long Credit	5,621,557	29.1%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	5,621,557	26.6%
Long Government	1,396,513	7.2%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	1,396,513	6.6%
TIPS	3,276,379	16.9%	485,230	35.2%	115,587	39.9%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	3,877,196	18.4%
Aggregate	2,594,322	13.4%	446,919	32.4%	111,003	38.3%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	3,152,244	14.9%
Intermediate Gov/Credit	-	0.0%	-	0.0%	-	0.0%	25,942	99.4%	19,559	98.7%	-	0.0%	-	0.0%	45,501	0.2%
Stocks	\$ 6,261,824	32.4%	\$ 443,335	32.1%	\$ 62,121	21.4%	\$ -	0.0%	\$ -	0.0%	\$ -	0.0%	\$ -	0.0%	\$ 6,767,280	32.1%
Russell 3000	4,300,825	22.2%	293,362	21.2%	39,415	13.6%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	4,633,602	22.0%
MSCI ACWI ex-U.S.	1,955,673	10.2%	149,973	10.9%	22,706	7.8%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	2,128,352	10.1%
Dividends Receivable	5,291	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	5,291	0.0%
Miscellaneous	35	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	35	0.0%
Net Cash & Cash Equivalents	\$ 198,201	1.0%	\$ 4,616	0.3%	\$ 1,032	0.4%	\$ 169	0.6%	\$ 267	1.3%	\$ 51,673	100.0%	\$ 693	100.0%	\$ 256,651	1.2%
Total Cash & Investments	\$ 19,348,796	100.0%	\$ 1,380,100	100.0%	\$ 289,743	100.0%	\$ 26,111	100.0%	\$ 19,826	100.0%	\$ 51,673	100.0%	\$ 693	100.0%	\$ 21,116,942	100.0%

Market value of bonds includes accrued investment income.

Net cash and cash equivalents includes the impact of net trade receivables/payables, accrued money market earnings, and accrued investment manager fees.

<u>Policy Fund Asset Allocation</u>	<u>SIF</u>	<u>DWRF</u>	<u>BLF</u>	<u>PWRF</u>	<u>MIF</u>	<u>SIEGF</u>	<u>ACF</u>
Bonds	69%	69%	79%	99%	99%	-	
Stocks	30%	30%	20%	-	-	-	NA
Cash	1%	1%	1%	1%	1%	100%	
Total	100%	100%	100%	100%	100%	100%	

State Insurance Fund (SIF)

Equity index returns decreased for the Russell 3000 (-1.80%) as well as the MSCI ACWI ex-U.S. (-1.45%) in the month of June. The SIF equity asset allocation actually slightly increased to 32.4% for the month from 32.3% from the prior month-end as seasonal SIF operating cash decreases muted the poor equity performance for the month. Also, bond indices returns decreased for the Barclays Capital Government Long Term Index (-1.89%), Barclays Capital Long Credit Index (-1.83%) and the Barclays U.S. Aggregate Bond Index (-0.29%). The Barclays U.S. TIPS Index (+0.81%) was the sole positive index return for the month of June. The SIF overall bond asset allocation actually increased to 66.6% at end of June from 65.9% at prior month-end as seasonal operating cash decreases muted the negative bond returns allocation and boosted the sole positive monthly TIPS returns allocation for the month of June.

Cash allocations decreased from 1.8% at end of May to 1.0% at end of June largely due to seasonal decreased SIF operating cash of \$147.3 million and slightly decreased SIF investment manager cash balances of \$11.2 million.

Disabled Workers' Relief (DWRF) and Coal Workers' Pneumoconiosis Funds (BLF)

The decrease in the Russell 3000 (-1.80%) and the MSCI ACWI ex-U.S. (-1.45%) equity index return reduced the overall equity allocations for DWRF and BLF from 33.2% and 21.8%, respectively at month-end May, to 32.1% and 21.4%, respectively for month-end June. Bond index returns were mixed with an increase to the U.S. TIPS Index (+0.81%) and a decrease for the U.S. Aggregate Bond Index (-0.29%) for the month of June. The DWRF and the BLF overall bond asset allocations actually increased from 66.8% and 77.8%, respectively at month-end May, to 67.6% and 78.2%, respectively for month-end June, as positive TIPS index returns overshadowed the slightly negative U.S. Aggregate Bond index returns for the month of June. Cash allocations increased for DWRF to 0.3% for month-end June from 0.0% at prior month-end and remained constant for BLF at 0.4% for month-end June from prior month-end.

Public Work-Relief Employees' Fund (PWRF) and Marine Industry Fund (MIF)

The Barclays Capital Government/Credit Intermediate bond index return slightly decreased (-0.16%) in the month of June. The month-end June bond asset allocation for PWRF actually increased to 99.4% from 99.2% at prior month-end as decreased operating cash muted the slightly negative bond performance. MIF bond asset allocation slightly decreased to 98.7% at month-end June from 98.8% at prior month-end.

SIF: State Insurance Fund

DWRF: Disabled Workers' Relief Fund
BLF: Coal Workers' Pneumoconiosis Fund

PWRF: Public Workers' Relief Fund
MIF: Marine Industry Fund

SIEGF: Self-Insured Employers Guaranty Fund
ACF: Administrative Cost Fund

Ohio Bureau of Workers' Compensation Investment Asset Allocation - Combining Schedule

As of May 31, 2011

(in thousands)

	SIF	% Trust	DWRF	% Trust	BLF	% Trust	PWRF	% Trust	MIF	% Trust	SIEGF	% Trust	ACF	% Trust	Totals	% of Total
Bonds	\$ 12,987,390	65.9%	\$ 929,564	66.8%	\$ 225,988	77.8%	\$ 25,988	99.2%	\$ 19,593	98.8%	\$ -	0.0%	\$ -	0.0%	\$ 14,188,523	66.0%
Long Credit	5,713,613	29.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	5,713,613	26.6%
Long Government	1,422,032	7.2%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	1,422,032	6.6%
TIPS	3,251,726	16.5%	481,316	34.6%	114,655	39.5%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	3,847,697	17.9%
Aggregate	2,600,019	13.2%	448,248	32.2%	111,333	38.3%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	3,159,600	14.7%
Intermediate Gov/Credit	-	0.0%	-	0.0%	-	0.0%	25,988	99.2%	19,593	98.8%	-	0.0%	-	0.0%	45,581	0.2%
Stocks	\$ 6,372,739	32.3%	\$ 461,653	33.2%	\$ 63,172	21.8%	\$ -	0.0%	\$ -	0.0%	\$ -	0.0%	\$ -	0.0%	\$ 6,897,564	32.1%
Russell 3000	4,379,896	22.2%	309,463	22.2%	40,130	13.9%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	4,729,489	22.1%
MSCI ACWI ex-U.S.	1,984,508	10.1%	152,190	11.0%	23,042	7.9%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	2,159,740	10.0%
Dividends Receivable	8,300	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	8,300	0.0%
Miscellaneous	35	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	35	0.0%
Net Cash & Cash Equivalents	350,102	1.8%	424	0.0%	1,162	0.4%	199	0.8%	235	1.2%	53,290	100.0%	7,121	100.0%	412,533	1.9%
Total Cash & Investments	\$ 19,710,231	100.0%	\$ 1,391,641	100.0%	\$ 290,322	100.0%	\$ 26,187	100.0%	\$ 19,828	100.0%	\$ 53,290	100.0%	\$ 7,121	100.0%	\$ 21,498,620	100.0%

Market value of bonds includes accrued investment income.

Net cash and cash equivalents includes the impact of net trade receivables/payables, accrued money market earnings, and accrued investment manager fees.

<u>Policy Fund Asset Allocation</u>	<u>SIF</u>	<u>DWRF</u>	<u>BLF</u>	<u>PWRF</u>	<u>MIF</u>	<u>SIEGF</u>	<u>ACF</u>
Bonds	69%	69%	79%	99%	99%	-	
Stocks	30%	30%	20%	-	-	-	NA
Cash	1%	1%	1%	1%	1%	100%	
Total	100%	100%	100%	100%	100%	100%	

State Insurance Fund (SIF)

Equity index returns significantly decreased for the MSCI ACWI ex-U.S. (-2.88%) and the Russell 3000 (-1.14%) in the month of May. As a result, the SIF equity asset allocation decreased to 32.3% for the month from 33.2% from the prior month-end. Conversely, bond indices returns increased for the Barclays Capital Government Long Term Index (+3.35%), Barclays Capital Long Credit Index (+2.69%), Barclays U.S. Aggregate Bond Index (+1.31%) as well as for the Barclays U.S. TIPS Index (+0.31%) for the month of May. The SIF overall bond asset allocation accordingly increased to 65.9% at end of May from 65.5% at prior month-end as the strong bond returns outpaced negative May equity performance returns.

Cash allocations increased from 1.3% at end of April to 1.8% at end of May largely due to increased SIF operating cash of \$89.3 million slightly offset by decreased SIF investment manager cash balances of \$3.0 million.

Disabled Workers' Relief (DWRF) and Coal Workers' Pneumoconiosis Funds (BLF)

The significant decrease in the MSCI ACWI ex-U.S. equity index return (-2.88%) as well as for the Russell 3000 equity index return (-1.14%) decreased the equity allocations for DWRF and BLF from 33.7% and 22.2%, respectively at month-end April, to 33.2% and 21.8%, respectively for month-end May. All bond index returns increased for both the U.S. Aggregate Bond Index (+1.31%) as well as for the U.S. TIPS Index (+0.31%). The DWRF and the BLF bond asset allocations accordingly increased from 66.3% and 77.4%, respectively at month-end April, to 66.8% and 77.8%, respectively for month-end May. Cash allocations remained constant for both DWRF and BLF at 0.0% and 0.4%, respectively for month-end May, from prior month-end.

Public Work-Relief Employees' Fund (PWRF) and Marine Industry Fund (MIF)

The Barclays Capital Government/Credit Intermediate bond index return increased (+1.14%) in the month of May. The May month-end bond asset allocation for PWRF actually decreased to 99.2% from 99.4% from prior month-end as increased operating cash muted positive bond performance. MIF bond asset allocation remained constant at 98.8% at month-end May from prior month-end.

SIF: State Insurance Fund

DWRF: Disabled Workers' Relief Fund
BLF: Coal Workers' Pneumoconiosis Fund

PWRF: Public Workers' Relief Fund
MIF: Marine Industry Fund

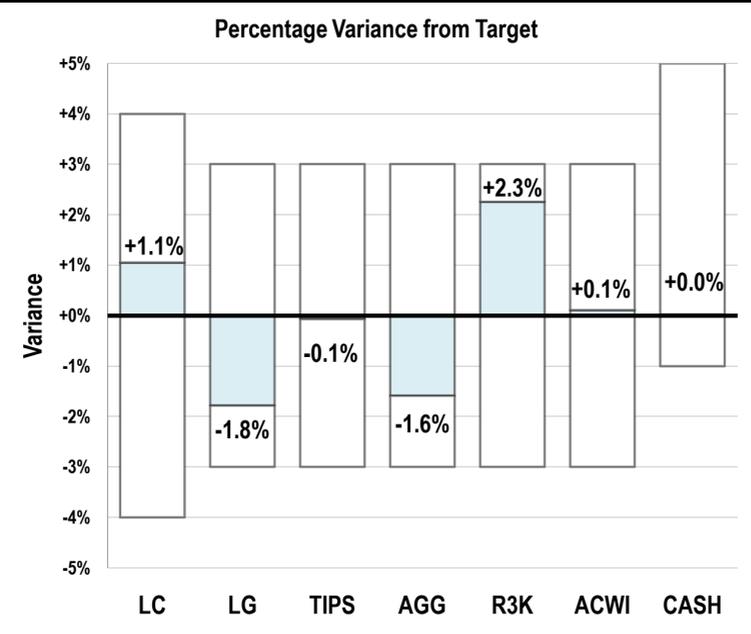
SIEGF: Self-Insured Employers Guaranty Fund
ACF: Administrative Cost Fund

Ohio Bureau of Workers' Compensation Investment Asset Allocation by Fund - Target Variance

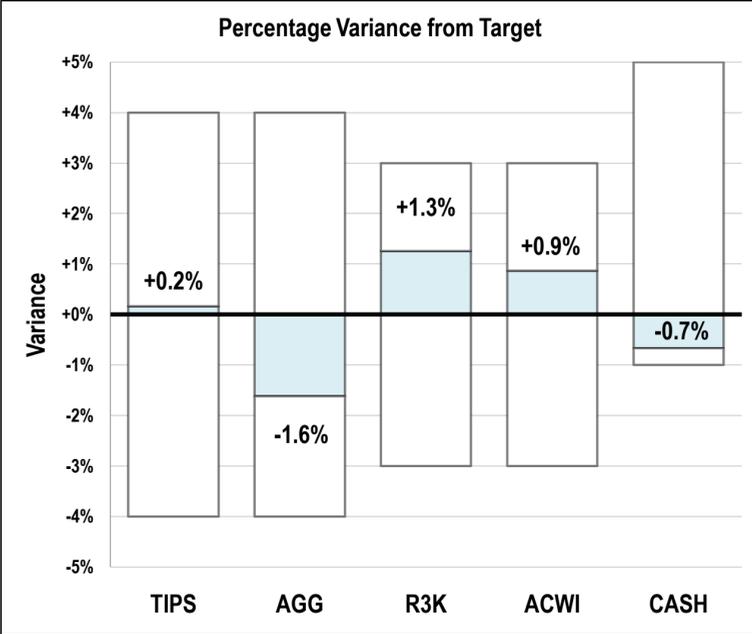
As of June 30, 2011

(in thousands)

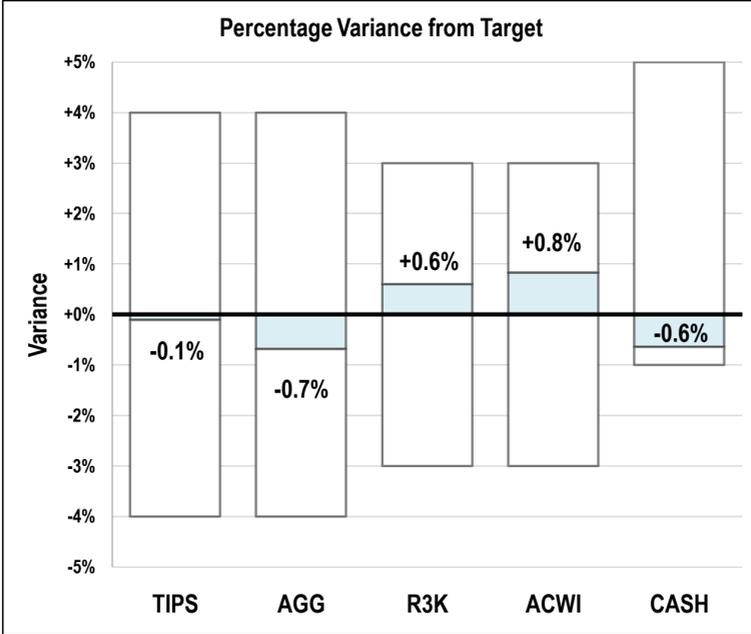
State Insurance Fund				
Asset Class	Market Value	Actual	Target	Range
Long Credit	\$ 5,621,557	29.1%	28%	24%—32%
Long Government	\$ 1,396,513	7.2%	9%	6%—12%
TIPS	\$ 3,276,379	16.9%	17%	14%—20%
Aggregate	\$ 2,594,322	13.4%	15%	12%—18%
Russell 3000	\$ 4,306,116	22.3%	20%	17%—23%
MSCI ACWI ex-U.S.	\$ 1,955,673	10.1%	10%	7%—13%
Miscellaneous	\$ 35	0.0%	0%	0%—0%
Net Cash & Cash Equivalents	\$ 198,201	1.0%	1%	0%—6%



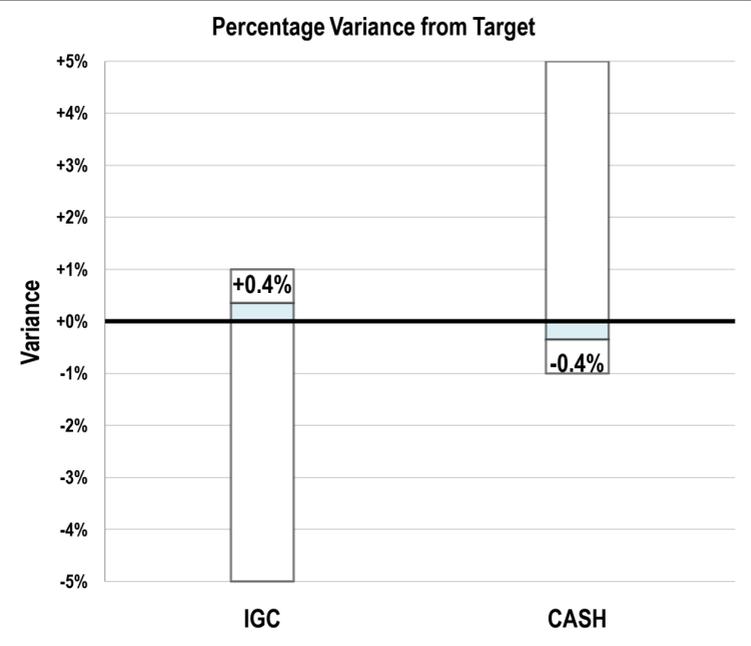
Disabled Workers' Relief Fund				
Asset Class	Market Value	Actual	Target	Range
TIPS	\$ 485,230	35.2%	35%	31%—39%
Aggregate	\$ 446,919	32.4%	34%	30%—38%
Russell 3000	\$ 293,362	21.3%	20%	17%—23%
MSCI ACWI ex-U.S.	\$ 149,973	10.9%	10%	7%—13%
Net Cash & Cash Equivalents	\$ 4,616	0.3%	1%	0%—6%



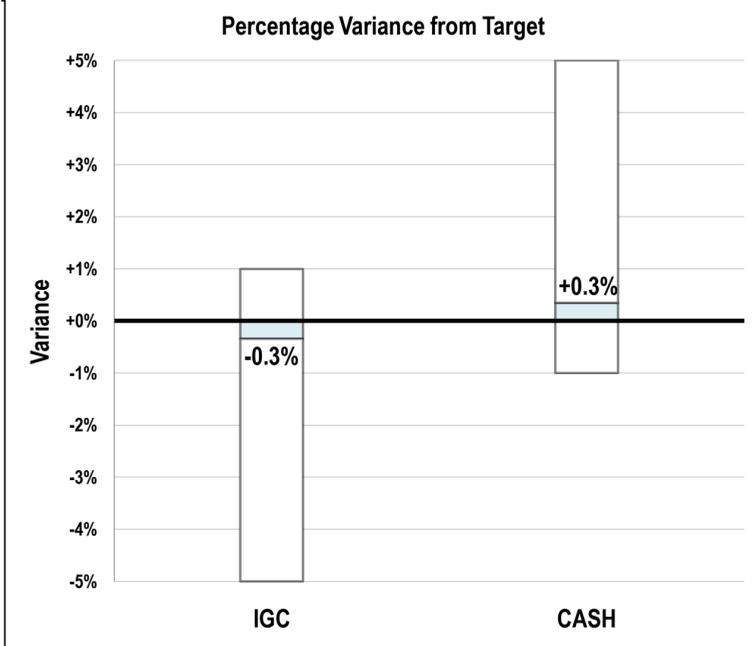
Coal Workers' Pneumoconiosis Fund				
Asset Class	Market Value	Actual	Target	Range
TIPS	\$ 115,587	39.9%	40%	36%—44%
Aggregate	\$ 111,003	38.3%	39%	35%—43%
Russell 3000	\$ 39,415	13.6%	13%	10%—16%
MSCI ACWI ex-U.S.	\$ 22,706	7.8%	7%	4%—10%
Net Cash & Cash Equivalents	\$ 1,032	0.4%	1%	0%—6%



Public Work-Relief Employees' Fund				
Asset Class	Market Value	Actual	Target	Range
Intermediate Gov/Credit	\$ 25,942	99.4%	99%	94%—100%
Net Cash & Cash Equivalents	\$ 169	0.6%	1%	0%—6%



Marine Industry Fund				
Asset Class	Market Value	Actual	Target	Range
Intermediate Gov/Credit	\$ 19,559	98.7%	99%	94%—100%
Net Cash & Cash Equivalents	\$ 267	1.3%	1%	0%—6%



Self Insured Employers Guarantee Fund				
Asset Class	Market Value	Actual	Target	Range
Net Cash & Cash Equivalents	\$ 51,673	100%	100%	N/A

All SIEGF assets invested in Cash & Cash Equivalents per the Asset Allocation Target

INVESTMENT DIVISION

TO: Stephen Buehrer, Administrator/CEO
BWC Investment Committee
BWC Board of Directors

FROM: Bruce Dunn, CFA, Chief Investment Officer

DATE: July 18, 2011

SUBJECT: CIO Report June 2011

Fiscal Year 2011 Goals

The Investment Division has three major goals for fiscal year 2011. These goals and brief comments on action plans for each goal follow:

1. Provide support and execute new BWC Investment Policy resulting from investment consultant Asset-Liability studies and from Board actions impacting/revising the BWC Investment Policy.
2. Explore for investment consideration and subsequently initiate implementation processes pertaining to appropriate identified subject matters.
3. Continued establishment and execution of appropriate internal investment controls and compliance procedures.

Strategic Goal One – PORTFOLIO TRANSITION

The Investment Division executed a comprehensive portfolio transition strategy in multiple stages throughout fiscal year 2010 for the State Insurance Fund that was completed at the end of May, 2010. This completed transition activity evolved from an asset-liability study of former BWC investment consultant Mercer in which a new asset allocation strategy was approved by the BWC Investment Committee and Board of Directors at their respective March, 2009 meetings. Such new approved investment strategy target asset allocations for the State Insurance Fund (SIF) were subsequently reflected in a new Investment Policy Statement approved by the BWC Investment Committee and Board of Directors at their respective April, 2009 meetings.

Mercer also completed and presented for consideration a strategic asset allocation analysis on the Disabled Workers Fund and the Coal Workers Fund at the December, 2009 and January, 2010 Investment Committee meetings. The Investment Committee and Board of Directors approved the new targeted asset allocation recommendations of Mercer and the CIO for each of these specialty funds at these respective meetings. The BWC Investment Policy Statement reflecting the new portfolio asset allocation targets for these two specialty funds were reviewed and revised by the Board of Directors at these respective meetings.

A transition manager was selected by the Investment Division in the fourth quarter of FY2010 to implement and execute the necessary asset class mandate shifts approved by the Board for both of these specialty funds. All necessary legal contracting with both the transition manager and each of the target commingled fund investment managers approved by the Board was completed in July, 2010. The final transition strategy was also approved by the BWC CIO in July, 2010. The transition of these specialty fund assets was then implemented and completed in August, 2010.

The Investment Division is committed to support and implement any revisions to the BWC Investment Policy Statement that may include additional identified asset classes or investment management style changes that are considered under Strategic Goal Two which follows. As always, the CIO will report on Investment Policy compliance to the Investment Committee and Board via this monthly CIO report with any exceptions noted and addressed.

Strategic Goal Two – NEW INVESTMENT CONSIDERATIONS

Over the latter half of fiscal year 2010, the Investment Division began to explore with former investment consultant Mercer the potential employment of active management of each bond and stock asset class targeted as mandates of the State Insurance Fund. Mercer provided two education sessions on active versus passive investment management with the Investment Committee in March and April, 2010. The CIO provided specific recommendations at the May, 2010 Investment Committee meeting regarding current State Insurance Fund fixed income and equity classes to be considered for active management.

The consideration of Minority-or-Women-Owned (MWBE) investment managers to manage a portion of BWC assets was addressed by the Investment Committee in FY2011. Mercer provided two education sessions on MWBE manager utilization by institutional investors in Investment Committee meetings in June and July, 2010. A proposal for consideration on MWBE asset management next steps for the Bureau was made by Mercer and the CIO at the August, 2010 Investment Committee meeting. A proposed investment policy presented by the CIO and Mercer addressing MWBE investment managers that amends Section VIII of the Investment Policy Statement was approved by the Investment Committee and adopted by the Board at their respective September, 2010 meetings. A Manager-of-Manager (MoM) structure for the selection of MWBE managers was approved by the Board. A RFP process was initiated with the issuance of a RFP on March 17, 2011 for the search and selection of one or more MoM firms who will in turn be charged with the selection of specific MWBE firms managing SIF assets in specified approved asset classes with the goal of achieving above benchmark returns. An initial MWBE funding level targeted at 1% of SIF investment assets was approved by the Board. Any

engagement of asset management of targeted BWC funds by MWBE managers would likely result in active management of such funds. There were eight bids received for this RFP on April 21, 2011. The RFP Evaluation Committee, which includes representation from new BWC investment consultant R.V. Kuhns, has evaluated the bid proposals of potential MoM firms and is proceeding with additional due diligence with the goal of selecting and recommending to the Investment Committee and Board for approval one or more MoM firms during the third quarter of 2011.

Mercer also provided to the Investment Committee at its August, 2010 meeting an updated investment policy decisions chart related to potential investment strategy revisions for consideration by the Investment Committee. Some of these topics are outlined above. At the request of the Chair and Vice Chair of the Investment Committee, the CIO presented his investment strategy recommendations for the State Insurance Fund in a report dated September 14, 2010. These recommendations included seven strategy priorities and estimated implementation timelines to completion. The CIO recommendations of new investment strategies included active investment management for portions of four SIF asset class mandates (Long Credit fixed income, U.S. Aggregate core fixed income, U.S. equities and Non-U.S. equities) as well as strategies for MWBE asset management, cash management, and real estate investing. The CIO presented at the November, 2010 Investment Committee meeting an estimated timetable for the various necessary steps to be addressed with the Investment Committee for the implementation of each of these seven potential new strategies. These steps include appropriate education, leading to IPS revisions then leading to RFP issuance approval in turn leading to RFP finalists recommendations for each recommended new strategy.

Mercer presented very useful and specific information applicable to active management of long duration credit fixed income assets at the Investment Committee meetings of November and December, 2010. The CIO subsequently presented recommendations regarding active management of the long duration credit fixed income asset class for the SIF portfolio for discussion and consideration at the February and March, 2011 meetings of the Investment Committee. The Investment Committee and Board at their respective March, 2011 meetings approved the recommendation of the CIO to allow a targeted 20% of total SIF portfolio assets to be allocated to active management of long duration credit fixed income assets, with the remaining of SIF assets targeted towards this asset class mandate to remain passively indexed managed. The Board also approved at its March, 2011 meeting the specific CIO recommended changes to the Investment Policy Statement pertaining to active manager diversification, mandate objectives, mandate performance and risk expectations, and asset allocation targets. The Board approved at its April, 2011 meeting the issuance of the RFP associated with this active investment management mandate. This RFP was subsequently finalized with some assistance from new investment consultant R.V. Kuhns and was issued May 26, 2011. A total of 20 bids to this RFP were received at the bid opening on July 14, 2011. The RFP Evaluation Committee is starting to evaluate these many bid proposals.

With regards to the introduction of real estate as a new asset class for consideration, a first presentation was made by Mercer to the Investment Committee at its August, 2010 meeting. A second presentation on peer investor investments in real estate assets was made by Mercer at the September, 2010 Investment Committee meeting. The CIO presented recommendations regarding a real estate asset class strategy for SIF and related investment policy revisions for first review and consideration at the April, 2011 Investment Committee meeting. The CIO is recommending a 6% allocation to U.S. concentrated private real estate funds for the SIF portfolio, divided between a targeted 4.5% allocation to private open-end core funds and a targeted 1.5% allocation to private closed-end value-added funds. In order to fund this new Real Estate asset class, the CIO recommends that the current target asset allocation towards Indexed Long Duration U.S. Government Bonds and Indexed TIPS each be reduced by 3%. The two most senior consultants representing the Real Estate Consulting group of new consultant R.V. Kuhns were also introduced at this April, 2011 meeting and presented an overview of their group as well as a presentation on real estate as an asset class at this meeting. A second review on real estate with more focus on private value-added real estate funds led by R.V. Kuhns occurred at the May, 2011 Investment Committee meeting. A third review on real estate occurred at the June, 2011 Investment Committee meeting. Additional information on real estate as an asset class will be presented at additional Investment Committee meetings in early FY2011 with the objective of the CIO to receive approval from the Board for real estate as an acceptable asset class for the SIF portfolio.

Strategic Goal Three – INTERNAL INVESTMENT PROCEDURES

The Investment Division will continue to maintain as well as establish and improve internal investment policies and procedures that are written and documented. Among the operational procedures addressed as well as revised/updated in fiscal year 2011 were all vendor invoice payments, proxy voting review, corporate actions, class action lawsuits and income, RFP/RFQ/RFI processes, monthly IPS compliance and new account setups. In addition, several administrative procedures are in the draft process such as electronic storage of investment documents/records and document file retention schedules, Investment Division internal budgeting and Investment Division travel. Internal processes are also being developed for the monitoring of active style investment managers in advance of the future selection and engagement of any such active managers resulting from any new active management investment strategy approved by the Board.

Communication with and support of the BWC Internal Audit Division in reviewing existing/new investment-related policies and procedures and providing suggested improvements is a valuable resource for the Investment Division. The BWC Internal Audit Division will be engaged as appropriate in auditing identified Investment Division internal policies and processes.

The BWC Internal Audit Division conducted an audit on the Investment Division RFP process during the first half of fiscal year 2011 and validated its process. This was communicated to the BWC Audit Committee at its March, 2011 meeting. It is noted that the Investment Division RFP process was also audited by the BWC Internal Audit Division in fiscal year 2008.

Mellon Capital Management

(Passive All Cap U.S. Equity)

The BWC investment staff met with the two relationship managers of Mellon Capital Management (MCM) and the MCM Managing Director, Equity Portfolio Management (Karen Wong) on May 3, 2011 at the Investment Division offices. The group heard via conference call from a MCM global investment strategist (Jonathan Xiong).

There were a number of executive management changes at MCM announced in March, 2011. Charles Jacklin stepped down as CEO and was appointed Chairman. This change was at Mr. Jacklin's request as he wanted to once again work more directly on client relationships and develop more consultative relationships. Gabriela Parcella, formerly Chief Operating Officer, became the new CEO of MCM. Two other important management changes of note were the appointments of Lex Huberts as President, and Jeff Zhang as Executive V.P. and Chief Investment Officer, Active Strategies. Mr. Huberts joined MCM from Mellon Standish, an affiliated BNY Mellon company. Michael Ho, formerly Chief Investment Officer of MCM, is leaving the organization. Karen Wong, who oversees the passive index management of the BWC Russell 3000 benchmark index portfolio, now reports directly to Mr. Huberts rather than Mr. Ho as a result of the management changes. These senior level management changes have had minimal impact on Ms. Wong and the management of the BWC portfolio by MCM.

MCM total assets under management were \$229.3 billion on 3/31/11, consisting of \$159 billion in equity indexing, \$19 billion in fixed income indexing, \$15 billion in active managed equity, \$7 billion in active managed fixed income and \$30 billion in asset allocation, including global tactical absolute return assets under management.

The Russell 3000 equity indexed separate account managed by MCM for the SIF portfolio had a market value of \$1.33 billion as of 3/31/11. MCM reported that this Russell 3000 indexed portfolio had a return of 6.37% for 1Q2011 compared to the Russell 3000 benchmark index return of 6.38%. This very slight underperformance of the managed portfolio to the index is all attributable to cash drag whereby any cash held during a period of strong performance such as occurred in 1Q2011 will reduce total performance. A discussion ensued with Ms. Wong on her current use of futures contracts for other similar managed Russell 3000 indexed accounts whereby clients allow for their employment for cash equitizing. Ms. Wong indicated MCM utilizes both S&P 500 and Russell 2000 futures contracts and they typically represent a combined range of 0.3% to 0.7% of total portfolio market value for those portfolios, allowing for their utilization to minimize cash balances and reduce associated tracking error. Most MCM equity indexed clients allow MCM to utilize future contracts for such purposes. The use of future contracts allows for a reduced level of physical securities trading each month for rebalancing purposes for accounts permitting futures contracts for the initial reinvestment of dividend payments received as compared to an account such as BWC not allowing futures contracts for the reinvestment of dividend payments received.

The BWC portfolio managed by MCM owned 2,447 of the 2,938 issues comprising the Russell 3000 index on 3/31/11. Virtually all issues of the Russell 3000 index not owned in the BWC portfolio were in the lowest 5% market cap segment of the index whereby a strategic sampling

technique is employed by MCM for this lowest market cap segment of the index in order to control transaction costs. The MCM portfolio management team is preparing strategy for the annual Russell equity index reconstitution occurring in June. Ms. Wong indicated issues turnover is estimated at 4% of total portfolio value for June 2011 versus a higher 6.4% last year that was driven by adding Berkshire Hathaway to the index. The most prominent addition to the Russell 3000 index in June 2011 is expected to be General Motors.

The MCM global investment strategist indicated that MCM expects U.S. GDP growth and inflation to be approximately 3.3% and 2.3%, respectively, for the next twelve months. The Quantitative Easing II program of the Federal Reserve ending on 6/30/11 has successfully lifted real growth and inflation expectations, with less than a 5% probability that U.S. inflation will be lower than 1% over the next twelve months. Banks have loosened up in providing more credit to commercial and corporate borrowers and demand for credit has increased. MCM continues to see higher inflation and economic growth in the BRIC nations (Brazil, Russia, India, China) is forecasted at 6.7% with their inflation being 6.8% over the next twelve months. For the developed nations, MCM expects corporate earnings to grow between 10% and 20% per year in 2011 and 2012. MCM also believes profit margins of the S&P 500 stocks have peaked, partly from international expansion and the weakness of the U.S. dollar boosting reported profits. Financial markets are pricing in a ½ of 1% Fed funds rate increase by 1Q2012, in the opinion of MCM, but MCM believes the Fed Funds rate could increase by 0.75% to 1.0% over this period as payroll numbers growth begins to accelerate. China is raising banking reserve requirements and is transitioning from an export economy to a consumer economy which has broad implications. If China allows for more free floating of its undervalued currency, expect more Chinese investment in overseas markets.

As for investment strategy, MCM favors global equities relative to fixed income, especially sovereign credits such as the U.S. and other developed nations. MCM believes the high yield bond sector remains attractive and that investment grade corporate bonds should continue to benefit from the positive economic environment and should perform well versus Treasuries. Convertible bonds should benefit from both rising equities and improving credit conditions. MCM dislikes long duration bonds, especially Treasuries, due to the likely rising interest rate environment both in the U.S. and globally. U.S. TIPS are currently believed to be fairly valued at the present time by MCM. MCM remains favorable towards investments in commodities, especially precious metals and soft commodities such as cotton and grains.

Northern Trust

(Passive All Cap U.S. Equity)

The BWC investment staff met on May 5, 2011 at the Investment Division offices with the senior domestic equity portfolio manager involved with the management of the Russell 3000 passive indexed SIF separate account as well as two members of the Northern Trust relationship management team.

Total investment assets under management by Northern Trust on behalf of clients were \$662 billion as of 3/31/11, including passively managed indexed portfolios totaling \$289 billion or

43.6% of total AUM. U.S. equity indexed assets under management were \$134 billion as of 3/31/11. The indexed management business is the fastest growing investment asset class at Northern Trust. Northern Trust exceeded its goal of attracting new client assets under management by over 15% over the past year with much growth coming from international equity mandates. Northern Trust is given more focus to index products offered that are based on a fundamentally weighted index rather than typically market cap weighted indexes. As an example is a separate account where each of the 500 S&P 500 index names are equally weighted rather than market cap weighted like the actual S&P 500 index. Northern Trust is researching equally weighted benchmarks.

For the Russell 3000 index reconstitution occurring in June 2011, Russell is becoming more sensitive to portfolio turnover rates on index changes, especially for the Russell 1000 index (large/mid cap stocks) and the Russell 2000 index (small cap stocks) that together comprise the Russell 3000 benchmark index of BWC. The portfolio manager indicated that GM and HCA (Hospital Corp. of America) will be large additions to the Russell 3000 index.

The SIF separate account Russell 3000 passive indexed portfolio managed by Northern Trust closed the first quarter with a market value of \$2.985 billion. Its 1Q2011 total return was 6.35% compared to the 6.38% benchmark index returns. Cash drag accounted for 2 of the 3 basis points of underperformance during this period of high positive returns. Similar to the meeting held with the other SIF Russell 3000 index manager, there were discussions on the Russell 3000 optimized futures strategy employed for all clients able to allow Northern Trust to hold futures contracts for narrower tracking error. Northern Trust uses a combination of three futures contracts (S&P 500 for large cap stocks; S&P 400 for mid-cap stocks; Russell 2000 for small cap stocks). These baskets of futures contracts are rebalanced monthly and their estimated tracking error is 0.30%. Futures contracts are utilized by Northern Trust to equitize dividend accruals and corporate actions as the Russell indexes reinvest dividends the day they go ex-dividend.

A brief discussion of the economic and financial market outlook followed. There have been signs of slowing of momentum in U.S. economic growth and higher oil prices are a risk to both near-term and long-term global economic growth. The European Central Bank has recently joined many emerging market economies in raising interest rates in response to rising inflation concerns, but Northern Trust does not see the Fed raising short-term interest rates until 1Q2012 at the earliest. Cash flow yields generated by U.S. businesses after normal operating expenses remain at historically attractive levels compared to yields on investment grade fixed income investments such that Northern Trust favors U.S. equities over fixed income, given respective market valuations and its expectation of continued supportive monetary policy.

BlackRock

(Passive Long Government Fixed Income; Passive Long Credit Fixed Income; Passive TIPS Fixed Income; Passive Non-U.S. Equities)

The BWC investment staff met with a BlackRock managing director of client servicing (Carter Lyons), a BlackRock fixed income strategist (Chris Woida) and a BlackRock international equities strategist (Marco Merz) on May 10, 2011 at the Investment Division offices.

Assets under management (AUM) by BlackRock totaled \$3.65 trillion as of 3/31/11, with a good balance between \$1.75 trillion of equity managed assets and \$1.16 trillion of fixed income managed assets. The integration of the Barclays Global Investors (BGI) acquisition by BlackRock consummated on 12/01/09 is largely completed at the client interfacing front end. There are certain systems and technology build-outs still being integrated at the back end. BlackRock now has 10,000 employees worldwide or about 1,000 more than the combined 9,000 employees when the BGI merger was announced. The former CEO of BGI, Blake Grossman, officially departed BlackRock at the end of March 2011. With his departure, the entire senior executive management team of BlackRock is now comprised of BlackRock executives employed by BlackRock prior to the BGI merger.

Recent growth in client assets under management has come more from non-U.S. markets, especially Asia and Latin America. Home country investment bias by U.S. clients of BlackRock is being reduced at an accelerating trend. There is also a noticeable trend by U.S. institutional clients towards small cap international equities. Other investment trends exhibited by BlackRock clients include more movement of portfolio assets towards both passively managed indexed products as well as towards more attractive investments such as hedge funds, real estate, private equity and infrastructure products. Corporate pension funds in particular are increasing fixed income allocation towards higher yielding investment-grade Long Credit bonds and reducing accordingly allocations towards core fixed income portfolios benchmarked to the intermediate duration Barclays U.S. Aggregate index.

As of 3/31/11, BlackRock managed BWC assets totaling \$7.25 billion in market value consisting of \$5.13 billion of separate account managed indexed fixed income and \$2.12 billion of commingled account managed indexed non-U.S. equities for SIF (\$1.95 billion), DWRF (\$149 million) and BLF (\$23 million). The 3/31/11 market values of passive indexed fixed income portfolios managed by BlackRock are SIF Long Government (\$1.35 billion), SIF Long Credit (\$1.54 billion) and SIF TIPS (\$2.24 billion).

BlackRock reported that the SIF separate account Long Government portfolio returned a negative 0.85% for 1Q2011 versus a negative 0.86% benchmark return and that the SIF separate account Long Credit portfolio returned 0.59% versus the 0.64% benchmark returns for 1Q2011. The slight outperformance of the SIF Long Government portfolio over this period was attributable to the portfolio sampling of U.S. Agency securities which represents less than 10% of the benchmark index which is dominated by U.S. Treasuries. BlackRock indicated the SIF Long Credit portfolio underperformance of 5 basis points compared to the benchmark index in 1Q2011 was largely attributable to the performance of taxable municipal bonds held whereby the sampling of taxable municipal bonds owned in the SIF portfolio underperformed the composite taxable municipal bond sector of the benchmark index which comprised 11.9% of the benchmark index. The SIF Long Credit portfolio owned 920 issues or approximately two-thirds of the 1,348 issues in the benchmark index on 3/31/11.

BlackRock reported that the SIF separate account TIPS portfolio returned 2.07% for 1Q2011 compared to the benchmark index return of 2.08%. Although nominal U.S. Treasuries sold off in the quarter, TIPS had an impressive positive performance over the period due to higher

inflation expectations, especially represented in the short end of the yield curve, in part due to core monthly CPI postings increasing more than expected.

BlackRock reported the ACWI ex-U.S. indexed non-lendable “B” fund had a gross return of 3.39% for 1Q2011 versus the benchmark index return of 3.41%. This commingled “B” fund is owned by each of SIF, DWRF and BLF. All of this slight underperformance was caused by the large Brazilian Petrobras new issue that resulted in a 3 basis point tracking error with 2 basis points being a local tax imposed by Brazil. The commingled fund now owns essentially each of 1,876 issues in the benchmark index, including a very small amount of American Depositary Receipts (ADRs) and Global Depositary Receipts (GDRs). These ADRs and GDRs represent foreign stocks traded on the U.S. stock exchanges that serve as substitutes for restricted local stock issues subject to fees and foreign investor waiting periods before becoming eligible for foreign investor purchase in local markets such as Taiwan, Korea and India. The commingled fund does hold on average 0.10-0.15% of the portfolio market value in futures contracts to efficiently manage cash and reduce trading costs.

The MSCI ACWI ex-U.S. benchmark index rebalances quarterly with the biggest rebalancing occurring in May where for 2011, portfolio turnover is expected to be 3-3 ½%. There has been an increasingly active market for new initial public offerings in the emerging market portion of the benchmark index. Although the U.S. dollar has weakened versus the basket of local foreign currencies represented in the benchmark during 2010 and 1Q2011, BlackRock expects the U.S. dollar will on average continue to weaken versus local currencies, especially emerging market currencies, and therefore add to benchmark performance in 2011.

State Street Global Advisors

(Passive Long Credit Fixed Income; Passive U.S. Aggregate Fixed Income; Passive U.S. TIPS Fixed Income; Passive Intermediate Duration Government/Credit Fixed Income; Passive All Cap U.S. Equity)

The BWC investment staff met on May 11, 2011 at the Investment Division offices with the primary relationship manager of State Street Global Advisors (SSGA), a fixed income portfolio manager (Mike Brunell), its co-head of passive equity strategies (Mike Feehily), and its primary U.S. TIPS portfolio manager (Marc Touchette). In addition, the group heard via conference call from a fixed income portfolio manager for mortgage-backed securities (Karen Tsang) and one of its global market strategists (Dan Pierce).

SSGA had total assets under management (AUM) of \$2.06 trillion as of 3/31/11. Passively managed assets totaled \$1.498 trillion, including \$260 billion of exchange traded funds, with actively managed assets of \$119 billion and cash managed of \$446 million. Passive managed equity assets were \$889 billion and passive fixed income assets were \$371 billion on 3/31/11.

SSGA passively managed \$8.9 billion of BWC indexed invested assets as of 3/31/11 consisting of three fixed income separate accounts of the State Insurance Fund totaling \$7.39 billion and four distinct commingled funds (3 fixed income, 1 equity) in which four of the five BWC specialty trust funds have an aggregate \$1.51 billion invested.

SSGA reported that the largest separate account managed for BWC, the SIF Long Credit portfolio (\$3.92 billion on 3/31/11), had a gross return of 0.59% for 1Q2011 compared to the benchmark return of 0.64%. Securities sampling compared to the benchmark index composition accounted for 4 of the 5 basis points of underperformance over 1Q2011. SSGA reported that the separate account SIF U.S. Aggregate fixed income portfolio (\$2.54 billion on 3/31/11) had a gross return of 0.41% for 1Q2011 versus 0.42% for the benchmark index. Residential mortgage-linked securities (MBS) and U.S. Treasury securities each represented 33% of the total market value of the SIF U.S. Aggregate portfolio as well as the benchmark index on 3/31/11, with commercial property MBS representing an additional 4% of the portfolio. The portfolio manager has reduced ownership of TBA (to be announced) MBS pools to between 5-10% of the overall MBS portfolio which is very satisfactory to the CIO. TBA pools are effective for portfolio rebalancing purposes due to their high liquidity. The SIF U.S. Aggregate portfolio owned 1,955 of the 7,989 total issues in the benchmark index on 3/31/11.

SSGA reported that the SIF separate account TIPS portfolio had a gross return of 2.08% for 1Q2011 which matched the quarterly benchmark return. This strong relative performance was attributable to higher than expected core monthly CPI index postings which resulted in higher interest rate accruals. SSGA believes interest rates will move higher but expects TIPS to outperform U.S. Treasuries due to risk of federal government policy and the large budget deficit.

The U.S. equity commingled fund portfolio of DWRF and BLF managed by SSGA to the All Cap Russell 3000 benchmark index returned 6.40% for 1Q2011 compared to the benchmark index return of 6.38%. A discussion regarding the utilization of futures contracts by this commingled fund occurred with SSGA at the request of the CIO. SSGA will hold on average 1-2% of the commingled fund assets in futures contracts to reduce tracking error through equitizing cash balances as well as dividend receivables and tender offer receivables that are immediately reflected in the Russell 3000 index. Tracking error on this 1-2% of the portfolio on average represented by future contracts is 25-30 basis points annualized. Futures contracts purchased (S&P 500; S&P 400; Russell 2000) have 1/8 to 1/10 the trading costs of physical stocks and their positions owned are determined using optimization tools of SSGA.

The SSGA managed U.S. Aggregate fixed income commingled fund had a gross return of 0.41% for 1Q2011 for DWRF and BLF versus the 0.42% benchmark index return. The SSGA managed U.S. TIPS commingled fund returned 2.06% for DWRF and BLF versus the 2.08% benchmark index return in 1Q2011. The two smaller specialty funds (Public Work-Relief Employers' Fund and Marine Industry Fund) investment in the commingled Intermediate Duration Government/Credit fixed income fund managed by SSGA had a gross return of 0.32% for 1Q2011 versus the 0.34% benchmark index return for 1Q2011.

The SSGA global market strategist then provided comments on the economic and market outlook of the firm. Global economic growth is expected to be between 4-5% for each of 2011 and 2012, led by emerging market nations at over 6% annual growth. Emerging market nations are hiking interest rates to control inflation. U.S. corporate balance sheets are flush with liquidity which is being deployed towards mergers/acquisitions, increased dividends and share buybacks, capital equipment expenditures and modest payroll increases. Final austerity measures in Europe could lead to disappointing economic growth.

With respect to the financial markets, SSGA favors investment grade bonds offering sufficient yield spreads above U.S. Treasuries, as such bonds remain well bid as investors seek yield and view corporation balance sheets more favorably. SSGA favors equities slightly over corporate bonds due to relative valuation. Fund flows to equities have recently exceeded those to bonds for the first time since 2007 and earnings prospects appear good for industrial, material and energy firms and funding costs are low for financials. SSGA favors among equities both large cap stocks and stocks paying attractive and sustainable dividends.

Compliance

The investment portfolios were in compliance with the BWC Investment Policy at the end of June, 2011.

DATE: July 28, 2011

TO: BWC Investment Committee
BWC Board of Directors

FROM: Bruce Dunn, CFA, Chief Investment Officer

SUBJECT: **BWC Investment Policy Statement
Revisions Summary
Fiscal Year 2011**

The Investment Policy Statement (formally named “Statement of Investment Policy and Guidelines”) or IPS of the Ohio Bureau of Workers’ Compensation is a document that describes investment objectives, fiduciary standards, roles and responsibilities, asset allocation, asset target mixes and ranges, performance objectives, and investment management styles (passive/active) specific to the BWC investment portfolio and its six separate trust funds.

The following is a summary of the revisions made to the IPS in FY2011 as approved by the BWC Investment Committee and the BWC Board of Directors. Two previous BWC IPS Revisions Summary reports covering Fiscal Years 2008, 2009 and 2010 similar in format to this report were presented by the CIO to the BWC Investment Committee at its August, 2008 and December, 2010 meetings. The IPS Revision Date shown in chronological order in the table to follow reflects the date approved by the Board of Directors. The details of all such IPS revisions and the respective wording changes to the IPS are reflected in materials and reports previously submitted to the BWC Investment Committee and Board of Directors by the BWC Chief Investment Officer and Mercer, serving as BWC investment consultant during the period of such revisions, for the purpose of obtaining approvals of all these revisions.

IPS Revision Date	Revisions Summary
March 26, 2010	In effect beginning of FY2011
September 24, 2010	<p>Changes to Section VIII on Fair Consideration/Public Interest Policy that specifically defines the criteria in Section VIII.A for qualified Minority-Owned and/or Women-Owned (MWBE) Investment Managers. Revised Section VIII.A specifically indicates that qualified MWBE investment managers are to be chosen through a Manager-of-Manager (MoM) program process whereby the Board will delegate authority to any Board approved MoM to identify, select and monitor appropriate MWBE investment managers. New Section VIII.A.iii lists the asset classes that may be eligible for MoM programs and new Section VIII.A.iv specifies a 1% target MWBE asset allocation for the State Insurance Fund</p>
March 25, 2011	<p>Changes to Section VI.A pertaining to revised investment category asset classes target allocations and permissible asset ownership variance ranges and performance benchmarks for the State Insurance Fund to reflect the addition of Active Long Duration Fixed Income Credit Bonds as a new asset class. Revised Section VI.A reflects an initial 20% portfolio target allocation for Active Long Duration Credit Bonds and a reduction to 8% from 28% of portfolio target allocation for Indexed (Passive) Long Duration Credit Bonds with respective permissible ownership ranges that are +/- 3% above/below such revised target allocations.</p> <p>Changes to Section IV.C.i that adds an investment manager diversification guideline pertinent to any specific identified active fixed income mandate whereby no single investment organization can manage more than 50% of any specific mandate on a prospective basis at the time it is hired under contract.</p> <p>Revisions to Section IV.C.ii that states the general objectives and specific expectations for the management of both passive and active managed fixed income investment mandates.</p>

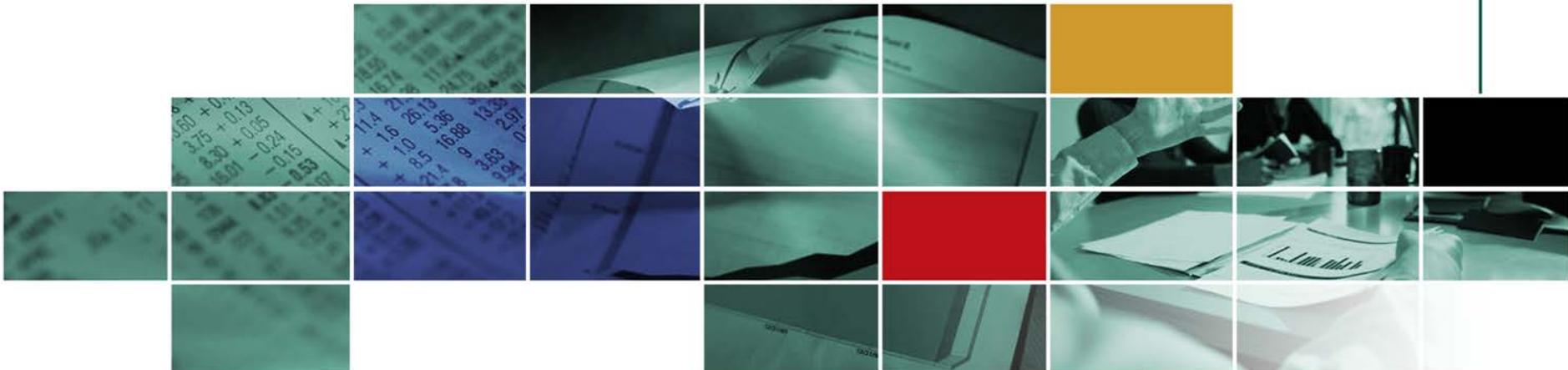
RVKuhns

▶▶▶ & ASSOCIATES, INC.

State Insurance Fund Fixed Income Sensitivity Analysis

Ohio Bureau of Workers' Compensation

July 28, 2011





State Insurance Fund – Policy Targets & Source Data

(all data as of June 30, 2011)

	Policy Target	Current Market Value
Long Government	9.0%	\$1,396,370,802
Long Credit	28.0%	\$5,658,054,116
TIPS	17.0%	\$3,281,634,418
Aggregate Fixed Income	15.0%	\$2,598,074,654
Cash	1.0%	\$142,003,043
TOTAL SIF Fixed Income	70.0%	\$13,076,137,033

	Yield	Effective Duration
Long Government	4.2%	13.0
Long Credit	5.7%	11.1
TIPS	2.5%	7.6
Aggregate Fixed Income	2.8%	5.2
Cash	0.2%	0.0

State Insurance Fund Sensitivity Analysis – Price Change Only

Interest Rate Scenario	0 bps	+50 bps	+100 bps	+150 bps	+200 bps
Long Government	\$1,396,370,802 0.0%	\$1,310,319,451 -6.2%	\$1,232,995,418 -11.7%	\$1,164,398,703 -16.6%	\$1,104,529,304 -20.9%
Long Credit	\$5,658,054,116 0.0%	\$5,359,936,903 -5.3%	\$5,093,629,270 -10.0%	\$4,859,131,217 -14.1%	\$4,656,442,744 -17.7%
TIPS	\$3,281,634,418 0.0%	\$3,161,116,394 -3.7%	\$3,048,966,538 -7.1%	\$2,945,184,849 -10.3%	\$2,849,771,329 -13.2%
Aggregate Fixed Income	\$2,598,074,654 0.0%	\$2,530,719,569 -2.6%	\$2,463,234,579 -5.2%	\$2,395,619,687 -7.8%	\$2,327,874,890 -10.4%
Cash	\$142,003,043 0.0%	\$142,003,043 0.0%	\$142,003,043 0.0%	\$142,003,043 0.0%	\$142,003,043 0.0%
TOTAL SIF Percentage Price Change	0.0%	-4.4%	-8.4%	-12.0%	-15.3%
ENDING SIF Fixed Income Market Value	\$13,076,137,033	\$12,504,095,360	\$11,980,828,848	\$11,506,337,498	\$11,080,621,310
CHANGE in SIF Fixed Income Market Value	\$0	-\$572,041,673	-\$1,095,308,185	-\$1,569,799,535	-\$1,995,515,723

- ▶ If interest rates increase by +50 basis points (1/2 of 1%), the aggregate State Insurance Fund Fixed Income portfolio will suffer price declines of -4.4% - amounting to a market value decline of \$572.0 million dollars.
- ▶ If interest rates increase by +200 basis points (2%), the aggregate State Insurance Fund Fixed Income portfolio will suffer price declines of -15.3% - amounting to a market value decline of \$2.0 billion dollars.

NOTE: all scenarios presented assume a parallel shift in the yield curve.

State Insurance Fund Sensitivity Analysis – Price Change and Income

Interest Rate Scenario	0 bps	+50 bps	+100 bps	+150 bps	+200 bps
Long Government	\$1,454,739,102 4.2%	\$1,368,687,751 -2.0%	\$1,291,363,718 -7.5%	\$1,222,767,002 -12.4%	\$1,162,897,604 -16.7%
Long Credit	\$5,982,260,617 5.7%	\$5,684,143,404 0.0%	\$5,417,835,770 -4.2%	\$5,183,337,718 -8.4%	\$4,980,649,245 -12.0%
TIPS	\$3,364,987,932 2.5%	\$3,244,469,908 -1.1%	\$3,132,320,052 -4.6%	\$3,028,538,364 -7.7%	\$2,933,124,843 -10.6%
Aggregate Fixed Income	\$2,671,600,167 2.8%	\$2,604,245,081 0.2%	\$2,536,760,092 -2.4%	\$2,469,145,199 -5.0%	\$2,401,400,403 -7.6%
Cash	\$142,287,049 0.2%	\$142,287,049 0.2%	\$142,287,049 0.2%	\$142,287,049 0.2%	\$142,287,049 0.2%
TOTAL SIF Fixed Income Return	4.1%	-0.2%	-4.2%	-7.9%	-11.1%
ENDING SIF Fixed Income Market Value	\$13,615,874,866	\$13,043,833,193	\$12,520,566,681	\$12,046,075,332	\$11,620,359,144
CHANGE in SIF Fixed Income Market Value	\$539,737,833	-\$32,303,840	-\$555,570,352	-\$1,030,061,701	-\$1,455,777,889

- ▶ If interest rates remain unchanged, the aggregate SIF Fixed Income portfolio will earn a return of +4.1%, resulting in an increase in market value of \$539.7 million dollars.
- ▶ If interest rates increase by +50 basis points, the aggregate SIF Fixed Income portfolio will decline in value by -0.2%, resulting in a decrease in market value of \$32.3 million dollars.
- ▶ If interest rates increase by +200 basis points, the aggregate SIF Fixed Income portfolio will decline in value by -11.1%, resulting in a decrease in market value of \$1.5 billion dollars.

NOTE: all scenarios presented assume a 12-month time frame and a parallel shift in the yield curve.

State Insurance Fund Sensitivity Analysis – Long Government Bonds - Price Change Only

Interest Rate Scenario	0 bps	+50 bps	+100 bps	+150 bps	+200 bps
Long Government	\$1,396,370,802	\$1,310,319,451	\$1,232,995,418	\$1,164,398,703	\$1,104,529,304
% gain/(loss) Long Gov't	0.0%	-6.2%	-11.7%	-16.6%	-20.9%
CHANGE in Long Gov't Portfolio	\$0	-\$86,051,351	-\$163,375,384	-\$231,972,099	-\$291,841,498

- ▶ Long Governments have the highest effective duration (13.0 years), or sensitivity to changes in interest rates, within the State Insurance Fund Fixed Income portfolio.
- ▶ Long Governments will have the largest negative percentage impact on the State Insurance Fund Fixed Income portfolio should interest rates rise.

NOTE: all scenarios presented assume a parallel shift in the yield curve.

State Insurance Fund Sensitivity Analysis – Long Government Bonds – Price Change and Income

Interest Rate Scenario	0 bps	+50 bps	+100 bps	+150 bps	+200 bps
Long Government	\$1,454,739,102	\$1,368,687,751	\$1,291,363,718	\$1,222,767,002	\$1,162,897,604
% gain/(loss) Long Gov't	4.2%	-2.0%	-7.5%	-12.4%	-16.7%
CHANGE in Long Gov't Portfolio	\$58,368,300	-\$27,683,051	-\$105,007,084	-\$173,603,800	-\$233,473,198

- ▶ If interest rates should rise, the price declines of the Long Government portfolio will be partially offset by the income received.
- ▶ If interest rates should rise 50 basis points or more, the Long Government portfolio will lose value even when considering the offset provided by the income received.
- ▶ If interest rates should rise, the Long Government portfolio may lose from \$27.7 million dollars (50 basis points rise) to over \$230.0 million dollars (200 basis points rise).

NOTE: all scenarios presented assume a 12-month time frame and a parallel shift in the yield curve.

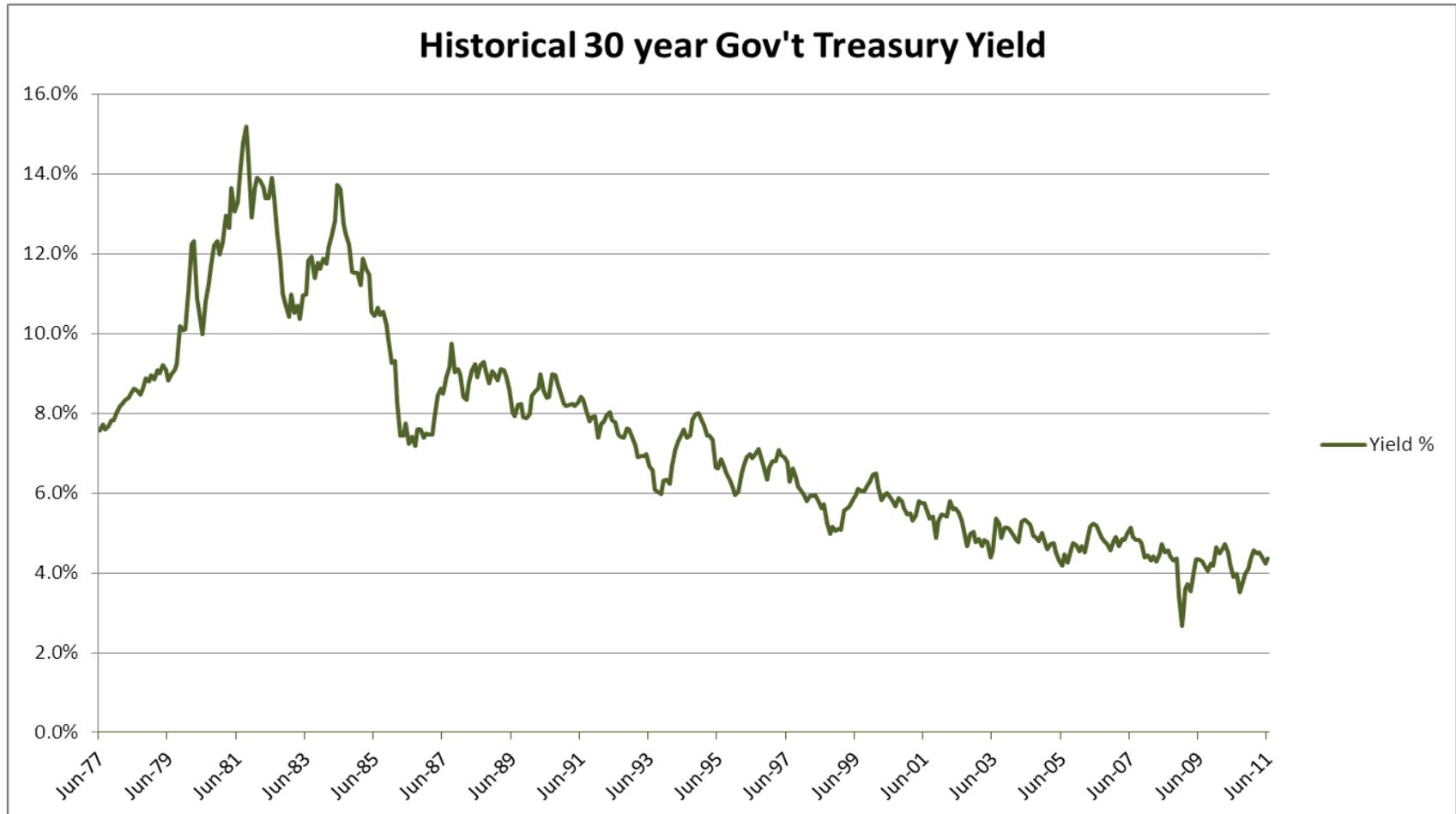


As the graphs on the next two page show:

- ▶ Long-Term Interest Rates on Government Bonds have declined for the last 30 years from highs of around 15% to the present level of around 4%.
- ▶ US Corporations are issuing bonds at record levels to take advantage of current low levels of interest rates and presumably in fear that rates can only go up from here.



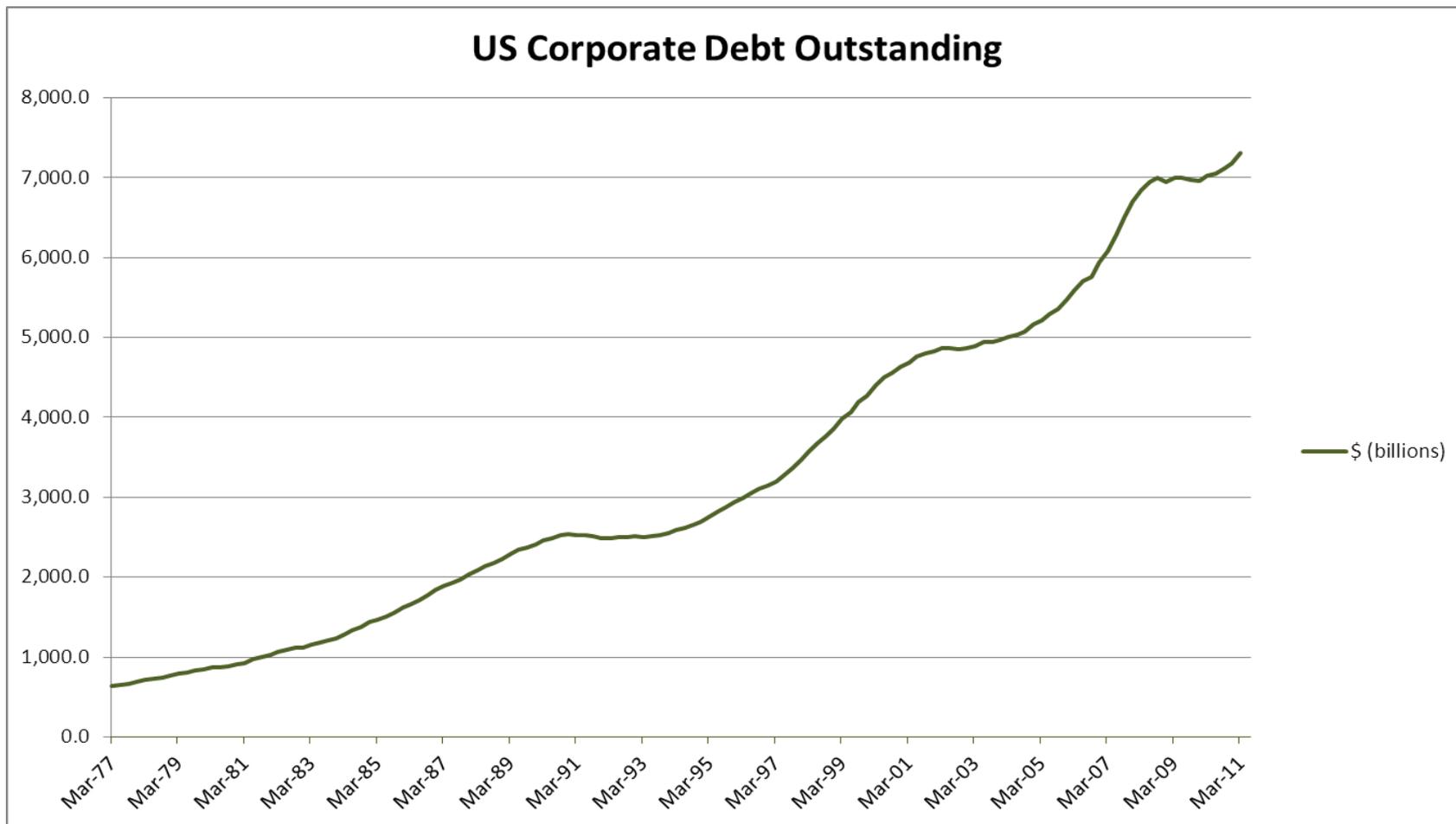
Interest Rates - 30 year Gov't Treasury Yield



SOURCE: Bloomberg. Calculated monthly.



Credit Market Debt Outstanding (Quarterly figures are seasonally adjusted annual rates) (03/31/77 – 03/31/2011)



SOURCE: <http://www.federalreserve.gov/econresdata/releases/statisticsdata.htm>.

MEMORANDUM

To: Members of the Board - Ohio Board of Workers' Compensation
From: R.V. Kuhns & Associates, Inc., Guy Cooper
Subject: Real Estate
Date: July 28th, 2011

You want to do what?

We are proposing to invest about 6% of our investment portfolio in commercial real estate using high quality institutional real estate investment managers.

Why would you want to do that?

Because we believe that we can earn 7% or better over a period of years on the money we invest in real estate. This is better than what we will likely earn on bonds over the foreseeable future. Bonds (especially longer term bonds) may actually lose money if interest rates rise. And we are proposing to fund the real estate investments with money we take out of long term bonds.

But didn't real estate just crash in the recession of 2007 – 2010?

Well, certainly, the price of people's homes 'crashed' during that period. And although they have recovered some, they haven't recovered all the way.

But we aren't talking about investing in people's houses. We are talking about commercial real estate. These are major buildings primarily on the east and west coasts of the U.S. The prices of these properties also declined significantly during the recent recession – in fact, everything we could have invested in (excepting U.S. Government Bonds) declined significantly during the recent recession. But things have, we believe, stabilized since then and institutional real estate managers can buy commercial properties now at good prices.

And one more thing, we are not buying real estate primarily because we think the price of the buildings we buy will go up. We are buying these buildings because they are full of tenants who pay rent every month. This rent is income to us. It amounts to about 5% as a percentage of the money we invest, and, in today's market, that's a pretty good rate of interest. If the price of the buildings goes up, that's just additional return added to our income.

That sounds pretty good. But I can't help but notice: on the way home today, I passed the old vacant Wal-Mart building, the former headquarters of the First National Bank that has been empty since Chase bought them five years ago, and the lot on the corner that was going to be a car dealership but was never finished and occupied. How do you know you won't end up owning properties like that?

We will be hiring the best and most experienced real estate management firms in the country. Their job is to seek out properties that meet certain quality criteria and to avoid problem properties period. They do this by buying a diversity of properties – diverse by type, location, and type of tenants. Generally they will only buy and own properties in the growing areas of the country.

OK. One more thing: what will happen to these real estate investments if inflation picks up?

I'm glad you asked. If inflation picks up, our stocks will probably go **up**. Our bonds, however, which are 70% of our portfolio, will almost certainly go **down**. This is because rising inflation almost always results in rising interest rates. In answer to your question, rising inflation is usually good for commercial real estate because the prices of good quality, well-located buildings tend to go up as it becomes more costly to replace them and because landlords can raise rents easier when inflation is strong. So, commercial real estate is a good investment choice if you are expecting inflation to rear its ugly head.



State of Ohio Bureau of Workers' Compensation

Real Estate Discussion

July 28, 2011

RVKuhns

▶▶▶ & ASSOCIATES, INC.



Real Estate Ownership

- ▶ **There are several parties involved in the ownership of real estate.**
- ▶ **The properties are actually owned by a Real Estate Fund.**
- ▶ **The Bureau does not own the properties. The Bureau owns units of the Real Estate Fund that owns the properties.**
- ▶ **The Bureau is not the sole or even the majority owner of the Real Estate Fund that owns the properties. There will be other owners of the Real Estate Fund that owns the properties - typically other large institutional investors like the Bureau. The Bureau could be invited to sit on a Fund's Advisory Council along with other investors in the fund. This would give them the right to interact with other investors and make recommendations to the Fund Sponsor.**



Real Estate Ownership -2

- ▶ **The Real Estate Fund that owns the properties is managed by a firm that has a group of people that are experienced in evaluating, buying, selling, and managing large properties and large portfolios of properties.**
- ▶ **The other owners of the Real Estate Fund that owns the properties - the Bureau's partners in this real estate investment endeavor - have done their own extensive professional evaluation of the capabilities of the firm and persons who manage the Real Estate Fund that owns the properties.**
- ▶ **The Bureau will own units of several Real Estate Funds. Each fund will own a diversified portfolio of properties. Typically, a property is owned by only one Real Estate Fund. Co-ownership is a rarity.**

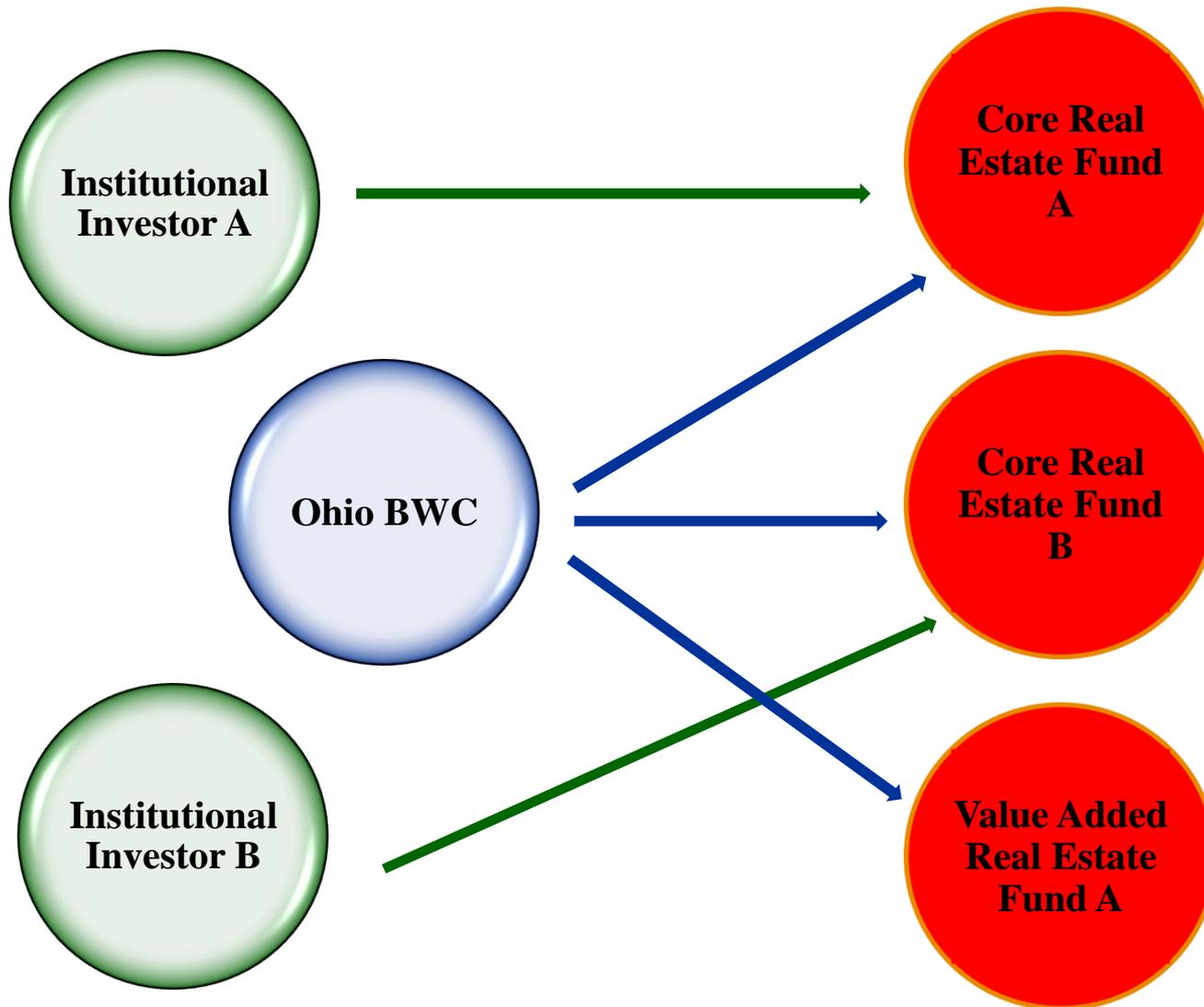


What is a Diversified Portfolio?

- ▶ A "diversified portfolio of properties" in any single Real Estate Fund will usually number 40 or more properties.
- ▶ A "diversified portfolio of properties" in any single Real Estate Fund will usually include properties in the four principal commercial real estate classifications: office buildings, industrial (mainly warehouses), retail, and apartment complexes. Each fund may also have some small amount invested in secondary categories, the most commonly seen being hotels and self storage units.
- ▶ A "diversified portfolio of properties" in any single Real Estate Fund will include investments in properties located across the United States with concentrations in the growth centers on the east and west coasts.



Real Estate



Methods of Investing in Real Estate

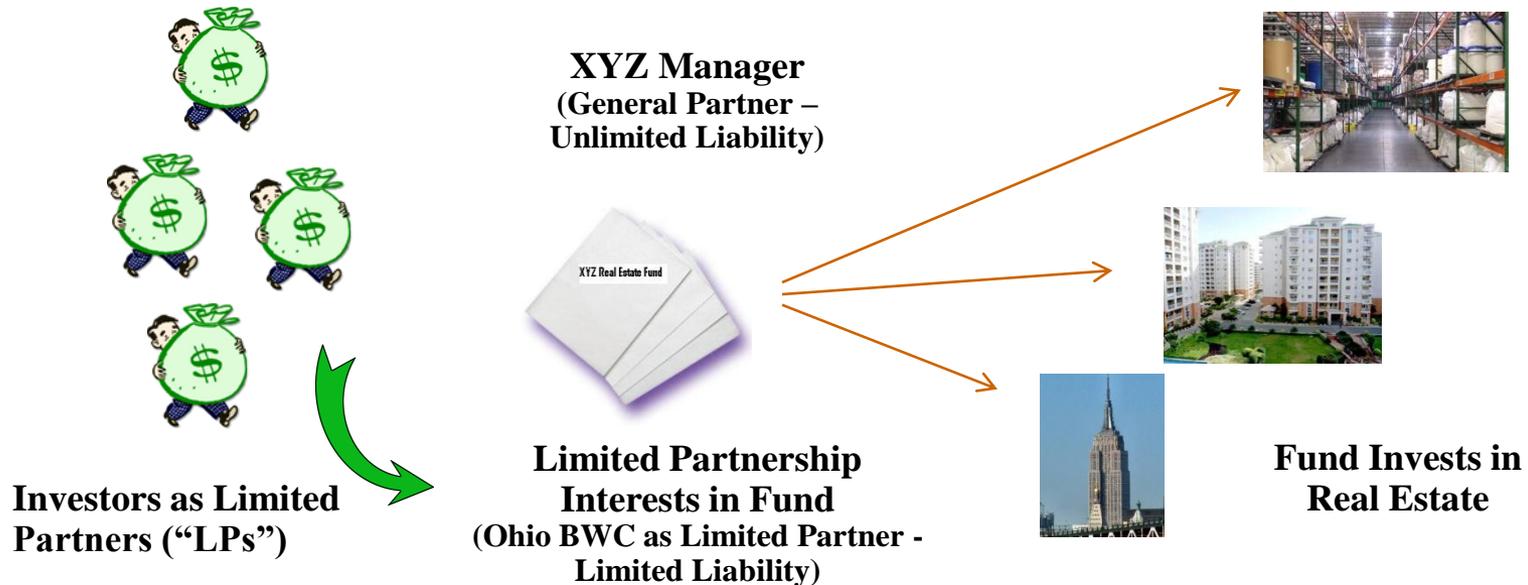
Direct Ownership of Real Estate Assets

- ▶ Purchase of land, building, or leasehold interest; title held by investor/owner



Indirect Ownership of Real Estate Funds (Preferred Method)

- ▶ **Passive investment** in a limited liability pooled fund that is professionally managed by a Fund Sponsor (XYZ Manager) – BWC owns shares of the Fund, not the underlying real estate



Where Is Core and Value-Added Real Estate?

Representative Examples of Targeted Markets for Core and Value-Added Real Estate Funds



Sample Core Real Estate Assets

REPRESENTATIVE FUND ASSETS



**Wilshire
Beverly Center**
Beverly Hills, CA



**Rosedale
Shopping Center**
Minneapolis, MN



**1601 K
Street**
Washington, DC



**Rowes
Wharf**
Boston, MA



**500 Park
Avenue**
New York, NY



**Dadeland
Mall**
Miami, FL



**Safeguard
Self Storage**
Pompano Beach, FL



**AMLI
Downtown Austin**
Austin, TX



**AMLI at
Empire Lakes**
Rancho Cucamonga, CA



**10015 Waples
Court**
San Diego, CA



**Fashion Valley
Mall**
San Diego, CA



**One Maritime
Plaza**
San Francisco, CA



Pooled Fund Fees

Pooled Funds Can Have Both Asset Management Fees and Incentive Fees

- ▶ Core Funds
 - ▶ Primarily charge asset management fees calculated on net asset values (averaging 95-115 basis points per annum), although a few funds also charge incentive fees
- ▶ Value-Added Funds
 - ▶ Primarily have asset management fees calculated on capital commitments (averaging 100-125 basis points per annum during the commitment period)
 - ▶ Most value-added funds have an incentive compensation component tied to achieving a certain internal rate of return hurdle (typically 9%+), which is significantly higher than the expected total return for core real estate
 - ▶ Value-added fund managers have a strong alignment of interests with investors to create value, given the incentive to achieve internal rate of return hurdles – incentive fees make up a much larger proportion of a manager's overall compensation
- ▶ Fee Concessions
 - ▶ Fee concessions are available for large commitments to both core and value-added funds, **although fee concessions are typically much more significant for value-added funds, benefiting larger potential LPs such as Ohio BWC**



The Role of RVKuhns & Associates

- ▶ **RVKuhns & Associates does not select, own or manage commercial real estate properties.**
- ▶ **RVKuhns & Associates assists the staff and Board in selecting and monitoring the professional real estate managers who will select and manage the real estate properties.**
- ▶ **RVKuhns & Associates does not benefit financially if you do or do not invest in real estate.**



Ten things that have a small to infinitesimal probability of happening to the careful real estate investor

- ▶ **1. The building owner won't have the money to repave the parking lot, and the Bureau will be assessed periodically for more money to repave parking lots and pay for other improvements.**
- ▶ **The Real Estate Fund that owns the property will have a plan and a recurring annual budget to provide for needed improvements to all the properties owned by the fund. This is funded from the income earned by the Real Estate Fund. (The income earned by the Real Estate Fund is derived mostly from the rents paid by all the tenants in all the buildings owned by the fund.) A principal function of the firm that manages the Real Estate Fund on your behalf is to provide for the normal improvements that are required to keep your properties current. The terms of the investment agreement never require subsequent assessments for improvements.**



Ten things that have a small to infinitesimal probability of happening to the careful real estate investor

- ▶ **2. One of the buildings the Bureau owns will lose all, most, or many of its tenants - will become a 'see - through'. A noticeable percentage of tenants will fail to pay the monthly rents they own.**
- ▶ **Institutional quality Real Estate Funds do not own buildings that have a serious risk of losing a significant portion of their rent rolls. Properties are typically managed with staggered lease terms, such that not all leases expire or come up for renewal in the same year. Alternatively, buildings reliant on one or two major tenants typically have long-term leases in place and/or have some other mitigating factor that provides reasonable assurance that a tenant will not vacate the property (e.g., a highly-rated credit tenant that uses the building as its headquarters, for example).**



Ten things that have a small to infinitesimal probability of happening to the careful real estate investor

- ▶ 3. The Fund will own a highly prized piece of land but the building intended for the lot will never be built.
- ▶ **This will never happen. Institutional quality Real Estate Funds do not invest in undeveloped parcels of land. Core real estate funds typically contractually forbid ownership of raw land or engagement in ground-up development activities.**



Ten things that have a small to infinitesimal probability of happening to the careful real estate investor

- ▶ 4. The Bureau will own a building that no one else wants to own.
- ▶ There is generally a high degree of competition for the ownership of the types of properties that find their way into institutional quality core and value-added real estate funds. Core funds invest in “trophy” assets, not buildings which require significant amounts of rehabilitation or leasing, while value-added funds own formerly core assets, which require some re-leasing or minor to moderate design enhancements to restore them to core quality.



Ten things that have a small to infinitesimal probability of happening to the careful real estate investor

- ▶ **5. The Bureau will face legal liability for events that happen on or at properties they own - fires, accidents, explosions, casualty losses.**
- ▶ **The Bureau will be a Limited Partner (along with all their co-institutional investors) in all the structures through which they will invest in real property. This provides a shield from these types of liabilities. The Real Estate Fund itself and the investment manager of the Real Estate Fund bear these liabilities, most of which they cover with insurance.**



Ten things that have a small to infinitesimal probability of happening to the careful real estate investor

- ▶ 6. We won't make a decent return on an investment in these properties unless the selling prices of all the buildings we own go up substantially.
- ▶ Our expectation is that the Real Estate portfolio will earn a rate of return in excess of 5% even if none of the properties increase in value over the life of the investment. This results from the rents that are collected on the properties that are passed through to the Bureau. If the portfolio of properties actually increases in value (which is our expectation), the Bureau's real estate portfolio will earn correspondingly more than 5%.



Ten things that have a small to infinitesimal probability of happening to the careful real estate investor

- ▶ 7. There will be a problem related to borrowed money.
- ▶ The use of borrowed money in Real Estate Funds varies. In a Core Real Estate Fund, properties are bought and owned typically with 20% borrowed money, on average. This means that for every million dollars invested in properties by the Real Estate Fund, \$200,000 will have been borrowed, usually from a bank or insurance company, and \$800,000 will have been provided by the Fund's investors, usually institutional investors like the Bureau. The Bureau does not borrow the money, the Real Estate Fund does. Value-added funds typically use more borrowed money than core funds. But in no case will the Bureau borrow money, be liable for any indebtedness, or be named in a foreclosure action.



Ten things that have a small to infinitesimal probability of happening to the careful real estate investor

- ▶ **8. The Bureau will be inundated with requests for financial assistance by real estate operators in Ohio or across the United States.**
- ▶ **The Bureau will not be getting in the business of buying and managing real estate properties directly and in their own name.**



Ten things that have a small to infinitesimal probability of happening to the careful real estate investor

- ▶ **9. The Real Estate portfolio will sometimes deliver embarrassing investment performance.**
- ▶ **Real Estate should be considered a long-term investment. The Bureau's Real Estate portfolio may suffer losses from time to time, but normally and over time we expect the Real Estate portfolio (6% of your total assets) to perform better than your Bond portfolio (63% of your total assets) and not as well as your Stock portfolio (30% of your total assets).**
- ▶ **Our expected returns over the next ten years are as follows: stocks 8.32%, bonds 5.11%, and real estate 7.75%.**
- ▶ **In 2008 real estate declined by 9% while stocks declined by almost 40%. In 2009 real estate declined by about 16% while stocks increased in value by about 30%.**



Ten things that have a small to infinitesimal probability of happening to the careful real estate investor

- ▶ **10. Real Estate was one of the worst performing asset classes in the financial crisis of 2008 - 2009. It still hasn't recovered, isn't likely to recover anytime soon, and isn't anything smart investors want to own.**
- ▶ **See next page – Current Real Estate Market Dynamics**



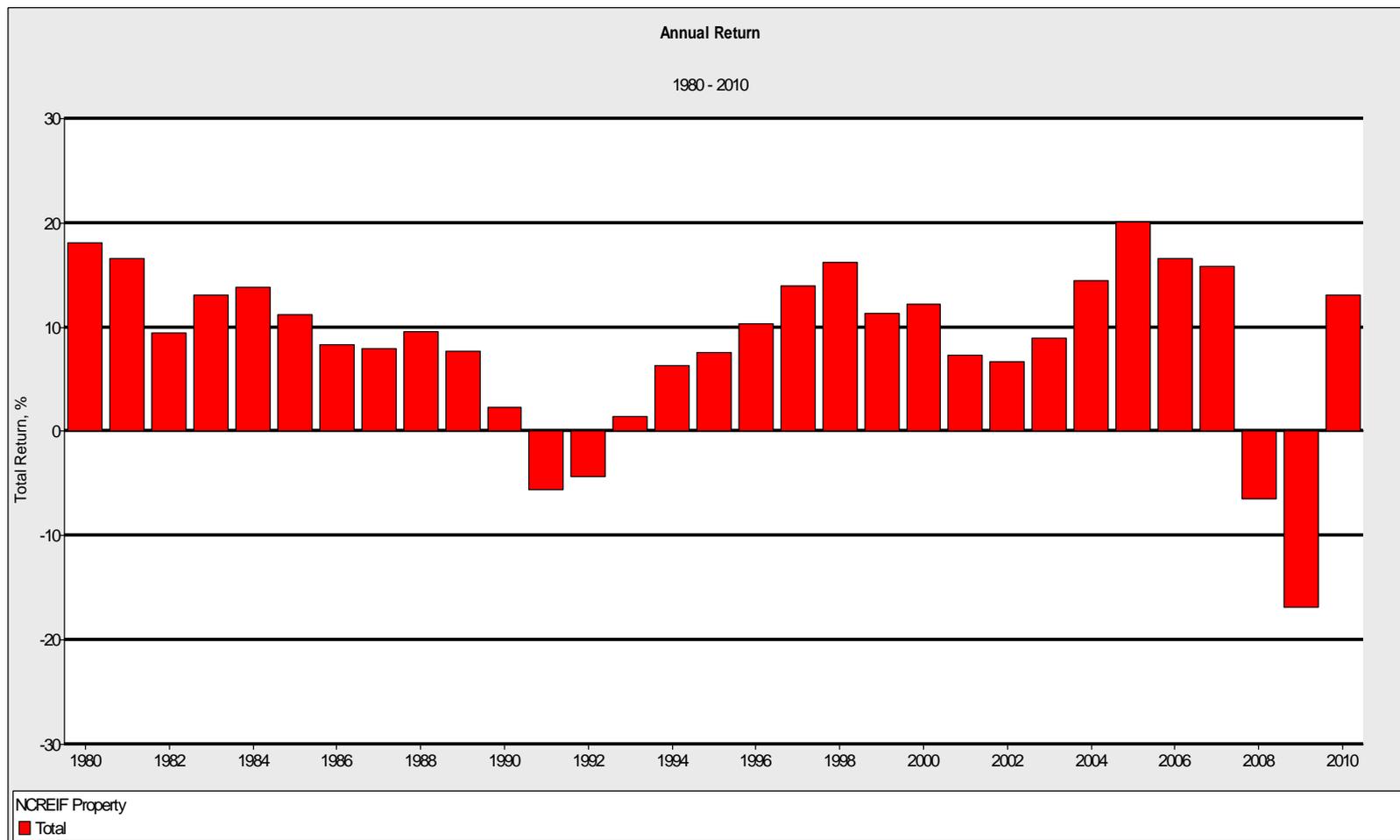
Real Estate Market Summary

Current Real Estate Market Dynamics

- ▶ Modest Rebound in Domestic Real Estate Valuations
 - ▶ Valuations have fallen significantly from their debt-fueled cyclical peak but have rebounded modestly in recent quarters, though fundamentals and recent transaction pricing have not fully stabilized
- ▶ Aggressive Competition for Core Real Estate, Much Less for Non-Core Real Estate
 - ▶ Transaction and lending markets are currently bifurcated, with aggressive competition arising for core properties while non-core assets continue to face pricing and financing headwinds
- ▶ Concern About Weak Jobs Recovery Impacting Real Estate
 - ▶ Tepid demand for many types of real estate (e.g., office, industrial) due to fewer individuals occupying space, which continues to pressure rents and occupancy across most real estate sectors
- ▶ Renewed Focus on Income as Primary Driver of Total Real Estate Returns
 - ▶ Recovery expected to be slow and bumpy, with a renewed focus on income as the primary driver of return
 - ▶ With a new appreciation for risk, investors are increasing allocations to core real estate, and many funds have gone from having redemption queues to entry queues
 - ▶ Yield-driven investors are showing renewed interest in real estate, given current spreads to Treasury yields and renewed concerns about longer-term inflation



Real Estate Returns



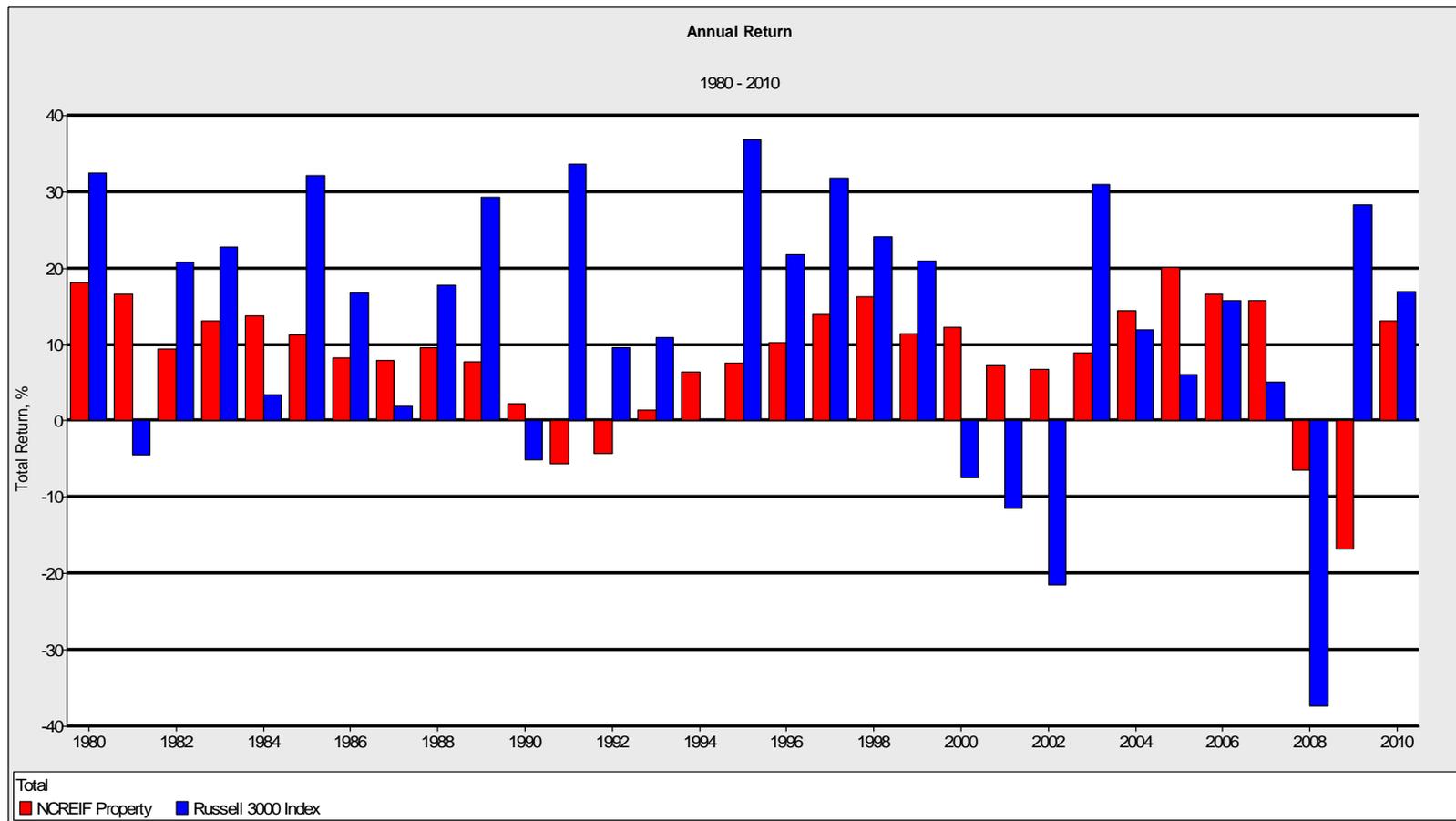
NCREIF Property Index: quarterly time series composite total rate of return measure of investment performance of a very large pool of individual commercial real estate properties acquired in the private market for investment purposes only. All properties are held in a fiduciary environment. Index totals (in millions): \$255,871.5 and 6,267 properties as of Q1 2011.

Created with mpi Stylus (Data: Morningstar)

Source: MPI



Real Estate Returns vs. Russell 3000 Index

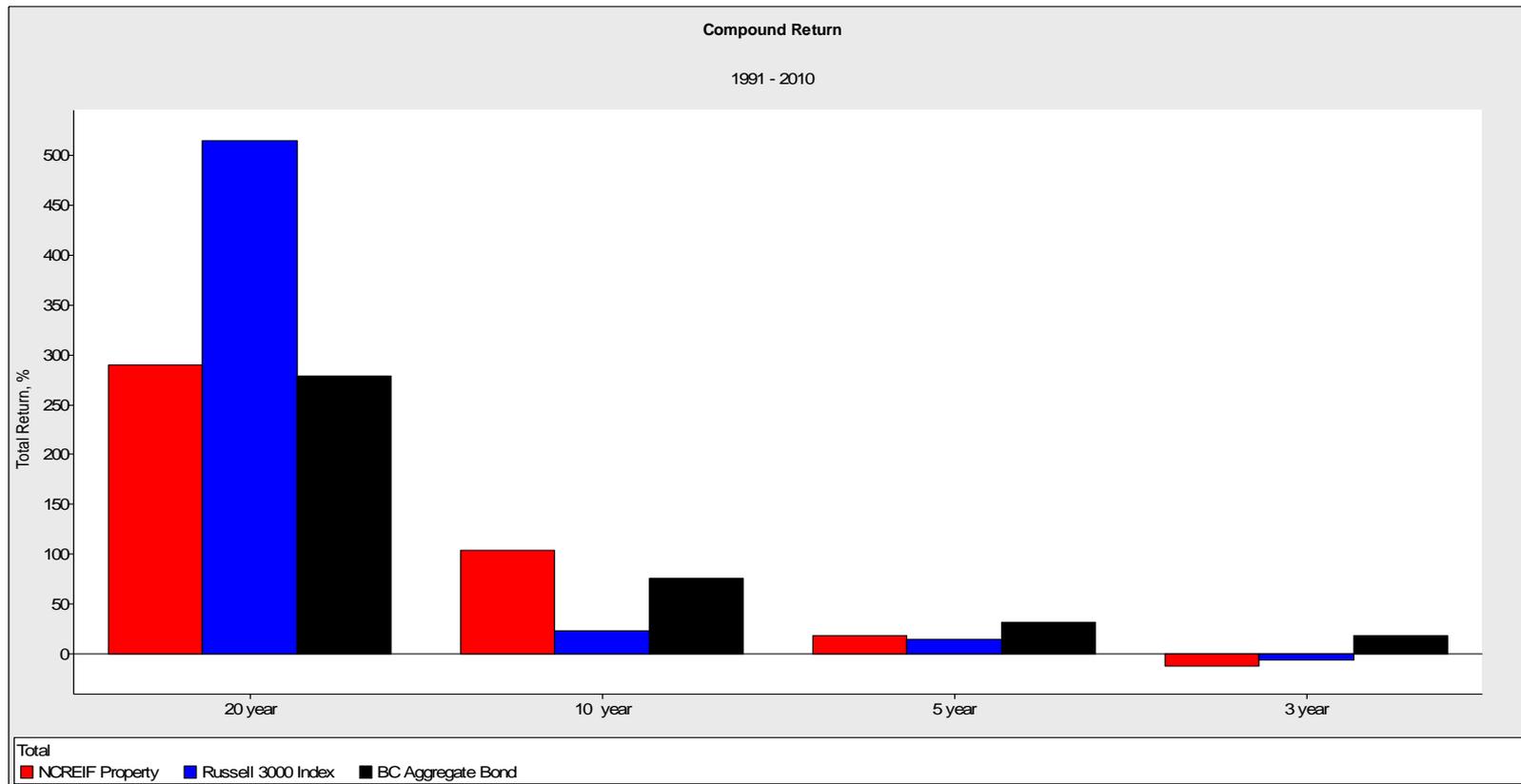


Created with mpi Stylus (Data: Morningstar)

Index	30 yr. Annualized Return
NCREIF Property Index	8.01%
Russell 3000 Index	10.59%

Source: MPI

20, 10, 5 and 3-yr. Compound Returns



Created with mpi Stylus (Data: Morningstar)

Index	20 yr. Annualized Return	10 yr. Annualized Return	5 yr. Annualized Return	3 yr. Annualized Return
NCREIF Property Index	7.04%	7.38%	3.51%	-4.18%
Russell 3000 Index	9.51%	2.16%	2.74%	-2.01%
BarCap Aggregate Bond Index	8.29%	6.64%	5.70%	5.64%

Source: MPI



Summary - Reasons for Investing in Real Estate

Real Estate is an asset class than can go down in value in short periods of time and is less liquid than stocks and bonds, but, offsetting this, are these advantages of real estate:

- ▶ **Attractive Return Expectations:** Our return expectations over the next ten years are as follows: stocks 8.32%, bonds 5.11%, and real estate 7.75%
- ▶ **Low Correlation:** Real estate-oriented investments have generated attractive long-term returns with low correlations to traditional asset classes
- ▶ **Inflationary Hedge:** Rental growth and appraised values are tied to inflation, as the replacement cost of real estate acts as a natural hedge
- ▶ **Liability Matching:** Longer-term nature of real estate hedges against longer-term liabilities

MEMORANDUM

RVKuhns

▶▶▶ & ASSOCIATES, INC.

To: Members of the Board - Ohio Board of Workers' Compensation
From: R.V. Kuhns & Associates, Inc., Guy Cooper
Subject: JP Morgan Strategic Property Fund
Date: July 28th, 2011

The JP Morgan Strategic Property Fund is a large core real estate fund used by many U.S. pension funds. On March 31, 2011 the fund had 265 investors and assets of over \$13 billion dollars.

The attached pages illustrate the size, scale, quality, and diversity of properties that are held by an often used core real estate fund. Properties encompass the four major real estate sectors - Office, Industrial, Multi-Family Residential, and Retail - and are located in cities with strong growth demographics. On March 31, there was a \$2 billion dollar contribution queue, or waiting list, to get into the fund.

**J.P. Morgan Asset Management
Global Real Assets**

JPMCB Strategic Property Fund

First Quarter 2011

Anne S. Pfeiffer, Managing Director

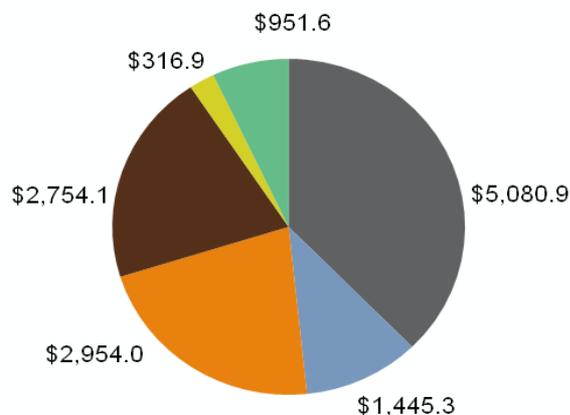
(212) 648-2176, anne.pfeiffer@jpmorgan.com

Strategic Property Fund: A large, well-diversified investment portfolio

As of March 31, 2011 (in millions – NAV \$13,502.7)

Property type diversification

■ Office ■ Industrial ■ Residential ■ Retail ■ Other investments ■ Cash



	% of NAV	Target range(%)	NPI(%)
Office	37.6	35 to 40	34.4
Industrial	10.7	14 to 18	13.7
Residential	21.9	18 to 23	25.6
Retail	20.4	20 to 25	23.5
Direct RE	90.6		97.2
Cash	7.1		0.0
Other	2.3		2.8
Total Fund	100.0		100.0

The above is shown for illustrative purposes only, and is subject to change without notice.

Fund facts

Asset Management

- Cash position
 - End of 1Q11 7.1%
- Contribution queue \$2.2bn
- Redemption queue \$0mm
- Current leverage 28.1%

A pure core strategy

Asset Management

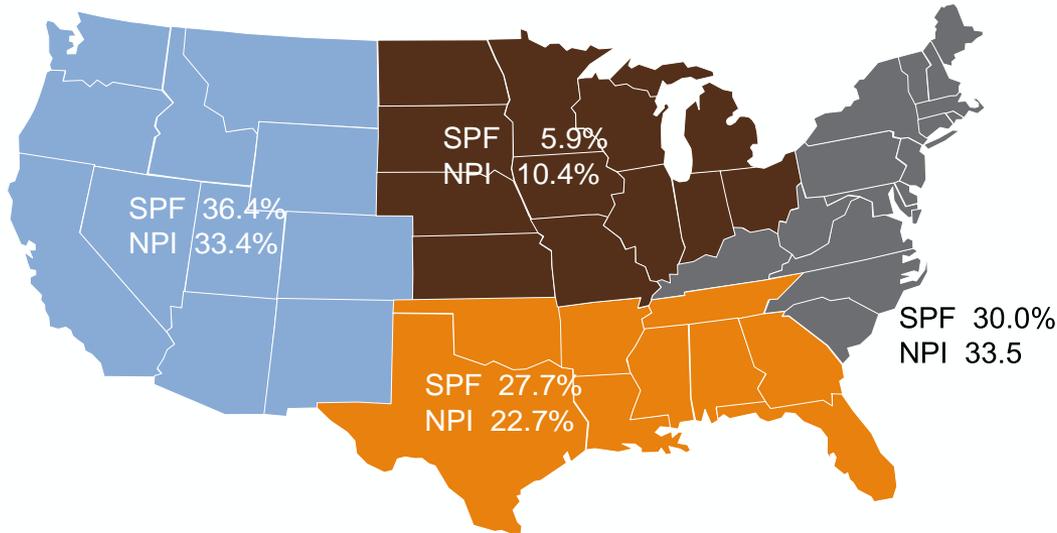
- Broadly diversified, well leased properties
- No exaggerated sector bets
- No hotels, assisted living, self-storage or forward commitments

Investor profile

- Total number of investors: 265
- Average investor size \$51mm

Strategic Property Fund: Diversification by location

As of March 31, 2011 (in millions – NAV \$13,502.7)



MSA	% of NAV
Los Angeles, CA	12.3
Dallas, TX	8.5
New York, NY	7.9
Boston, MA	7.7
Washington, D.C.	6.2
Atlanta, GA	5.2
Miami, FL	5.1
Chicago, IL	4.9
San Jose, CA	4.1
Houston, TX	3.9

The above is shown for illustrative purposes only, and is subject to change without notice. Diversification does not guarantee investment returns and does not eliminate the risk of loss

Strategic Property Fund: Investment strategy

Investment characteristics

- Focus on attractive stabilized investments with high quality physical improvements
- Excellent location factors, with dominant competitive market positions
- Stronger growth demographics
- Minimal new development (pure core)
- High quality income stream



Century Plaza Towers and 2000 AOS, Los Angeles, CA

Risk and return expectations

- Total return target NPI + 100bps; income driven
- Holding period 5-10 years
- Portfolio leverage 25% to 30% total portfolio
- Operating cash target 1% to 3% of total net asset value



Advanta, Bellevue, WA

The manager seeks to achieve the stated objectives. There can be no guarantee those objectives will be met

JPMCB Strategic Property Fund¹ is core real estate



Office – Crescent Office Building, Dallas, TX



Retail - University Town Center, San Diego, CA



Multi-Family - Pine Creek Ranch Apartments, Houston, TX



Industrial - Big 5 Distribution Center, Riverside, CA

¹Commingled Pension Trust Fund Strategic Property of JPMorgan Chase Bank, N.A. ("Strategic Property Fund" or "SPF")

JPMCB Strategic Property Fund¹ is core real estate



Alliance Texas Portfolio, Fort Worth, TX



The Domain, Houston, TX



The Water Garden, Santa Monica, CA



Valley Fair Mall, San Jose, CA

¹Commingled Pension Trust Fund Strategic Property of JPMorgan Chase Bank, N.A. ("Strategic Property Fund" or "SPF")

These examples represent some of the investments of the Fund. However, you should not assume that these types of investments will be available to or, if available, will be selected for investment by the Fund in the future.

Strategic Property Fund: First Quarter 2011 acquisitions



Liberty Towers in Jersey City, NJ
Residential



Horizon at Playa Vista in Los Angeles, CA
Office

With over \$1.15 Billion invested
in the last two quarters

- Horizon at Playa Vista, Los Angeles, CA for \$294mm
- Liberty Towers, Jersey City, NJ for \$140mm
- Landmark, Boston, MA for \$531mm



Landmark Center in Boston, MA
Office & Retail

These examples of specific investments are included solely to illustrate the investment process and strategies which have been utilized by the Fund. Please note that these investments are not necessarily representative of future investments that the Fund will make. There can be no guarantee of future success.

J.P. Morgan Asset Management representative client list

- Arkansas Teachers
- Boy Scouts of America
- Cargill Incorporated
- Chicago Teachers
- City of Tulsa Employees Retirement System
- Consolidated Edison Company of New York
- Dominion Resources
- General Motors Company
- Los Angeles City Employees Retirement System
- Los Angeles Water & Power
- Lockheed Martin
- Louisiana Teachers Retirement System
- Michelin North America
- MidAmerican Energy Company
- Montana Board of Investments
- Municipal Fire & Police of Iowa
- North Dakota State Investment Board
- Northrop Grumman Corporation
- Ohio Public Employees Retirement system
- Oklahoma Firefighters
- Oklahoma Municipal Retirement Fund
- Oklahoma Police Pension & Retirement
- Pinnacle West Capital Corporation
- Sanofi-Aventis
- State Board of Administration of Florida
- State of Wisconsin Investment Board
- United Postal Service
- United Nations Pension Fund
- Virginia Retirement System
- Texas Teachers
- The World Bank

Strategic Property Fund office investments

As of March 31, 2011

Office Properties	# of Buildings	Acquisition Year	Location
Landmark Center	1	2011	Boston, MA
Horizon at Playa Vista	2	2011	Playa Vista, CA
Advanta office Commons	3	2010	Bellevue, WA
Alliance Texas	4	2010	Forth Worth, TX
CM Doral – City Hall	0	2010	Doral, FL
Sunnyvale City Center	3	2007	Sunnyvale, CA
Brewery Blocks	3	2007	Portland, OR
700-900 Concar	3	2007	San Mateo, CA
San Rafael Corporate Center	4	2007	San Rafael, CA
Southeast Financial Center	1	2007	Miami, FL
Parkshore Plaza	4	2007	Folsom, CA
888 Walnut Street	1	2007	Pasadena, CA
Park Place at Bay Meadows	3	2007	San Mateo, CA
101 Constitution	1	2007	Washington, D.C.
1501 K Street	1	2006	Washington, D.C.
Carothers Office	4	2006	Nashville, TN
Fairway Office Center	3	2006	Palm Beach, FL
Financial Center 3801	1	2006	Palm Beach, FL
Legacy Town Centre III	1	2006	Plano, TX
171 17 th Street	1	2005	Atlanta, GA
Minuteman Park	6	2005	Andover, MA
Three Houston Center	1	2005	Houston, TX
Crescent Big Tex	9	2004	Various, TX
Crescent Little Tex	2	2004	Dallas, TX
Legacy Office Portfolio	3	2004	Dallas, TX

These examples represent some of the investments of the Fund. However, you should not assume that these types of investments will be available to or, if available, will be selected for investment by the Fund in the future

Strategic Property Fund office investments (contd.)

As of March 31, 2011

Office Properties	# of Buildings	Acquisition Year	Location	
2000 Avenue of the Stars	1	2004	Los Angeles, CA	
Lincoln Place	2	2003	Dallas, TX	
225 West Wacker Drive	1	2003	Chicago, IL	
1285 Avenue of the Americas	1	2001	New York, NY	
Water Garden II	2	2001	Santa Monica, CA	
Corporate Centre Office Park	6	1998/99	Franklin, TN	
Irvine Oaks	16	1999	Irvine Spectrum, CA	
Century Plaza Towers	2	1997	Los Angeles, CA	
Sanctuary Park	9	1997	Atlanta, GA	
Water Garden	2	1995	Santa Monica, CA	
Doral Center Office Park	4	1995	Doral, FL	
7950 Professional Center	1	1995	Doral, FL	
8333 Downtown Doral	1	1995	Doral, FL	
Total	113			Net Asset Value (\$000s) 5,080,897

These examples represent some of the investments of the Fund. However, you should not assume that these types of investments will be available to or, if available, will be selected for investment by the Fund in the future

Strategic Property Fund multifamily investments

As of March 31, 2011

Apartment Properties	# of Units	Acquisition Year	Location
Liberty Towers	648	2011	Jersey City, NJ
Cordoba Phase II	230	2011	Doral, FL
Aqua	474	2010	Chicago, IL
Domain at City Centre	370	2010	Houston, TX
Elizabeth Square	267	2010	Charlotte, NC
Mission Bay Block 3W	147	2010	San Francisco, CA
Park Lane Seaport	465	2010	Boston, MA
712 Tucker	179	2010	Raleigh, NC
Equinox Apartments	204	2010	Seattle, WA
Nalle Woods	238	2010	Austin, TX
Strata Apartments	192	2010	San Francisco, CA
Cordoba	224	2009	Doral, FL
Lindbergh Vista	314	2009	Atlanta, GA
Triangle Block F	79	2009	Austin, TX
Lincoln Lakeside	331	2009	Irving, TX
Robertson Hill	290	2008	Austin, TX
1330 Boylston Street	200	2008	Boston, MA
Brownstones at Englewood South	350	2008	Englewood, NJ
Windsor at Tryon Village	393	2008	Raleigh, NC
Arcadia Cove	432	2007	Phoenix, AZ
Glenmuir	321	2007	Naperville, IL
Lakes at Myrtle Park	360	2007	Bluffton, SC
Palazzo Park la Brea Portfolio	1382	2007	Los Angeles, CA
Trillium at Rio Salado	466	2007	Phoenix, AZ
Brewery Blocks Portfolio	242	2007	Portland, OR
Pine Creek Ranch Apartments	240	2007	Houston, TX
Trilogy	405	2006	Boston, MA
Doral West Apartments	388	2006	Doral, FL

These examples represent some of the investments of the Fund. However, you should not assume that these types of investments will be available to or, if available, will be selected for investment by the Fund in the future

Strategic Property Fund multifamily investments (contd.)

As of March 31, 2011

Apartment Properties	# of Units	Acquisition Year	Location	
Triangle Residences	335	2006	Austin, TX	
Somerset at Deerfield	498	2006	Mason, OH	
Alexan Farms	270	2006	Durham, NC	
Vista Sands Apartments	280	2006	Charleston, SC	
Tuscan Villas	288	2006	Irving, TX	
BRE Multifamily Joint Venture	3160	2006	Denver, CO & Phoenix, AZ	
Fountain Glen Portfolio	2044	2006	Various, CA	
Lincoln at La Villita	409	2006	Irving, TX	
Triangle Residences Funding	115	2006	Austin, TX	
Riverwalk at Millenium	375	2006	Conshohocken, PA	
Mission at La Villita	360	2005	Irving, TX	
Riverview Landing	310	2005	West Norriton, PA	
Esplanade Apartments	375	2005	Houston, TX	
Andante	576	2005	Phoenix, AZ	
Avenel at Montgomery Square	256	2005	North Wales, PA	
Cape May at Temecula	300	2004	Temecula, CA	
One City Place	311	2004	White Plains, NY	
Promenade Rio Vista	970	2003/2004	San Diego, CA	
Gaslight Commons	200	2003	South Orange, NJ	
Park at Research Forest	396	2003	Houston, TX	
Capitol at Chelsea Apartments	387	2002	New York, NY	
Polo Lakes Apartments	366	2002	Wellington, FL	
Springfield Station Apartments	631	1999	Springfield, VA	
University Center Apartments	630	1999	Ashburn, VA	
St. John's Wood Apartments	250	1998	Fairfax, VA	
Winners Circle	396	1997	Plantation, FL	
Total	24,319			Net Asset Value (\$000s) 2,953,961

These examples represent some of the investments of the Fund. However, you should not assume that these types of investments will be available to or, if available, will be selected for investment by the Fund in the future

Strategic Property Fund retail investments

As of March 31, 2011

Retail Properties	Acquisition Year	Location	
<i>Dominant Fortress Malls</i>			
Alliance Texas	2010	Forth Worth, TX	
Del Amo Fashion Center	2005	Torrance, CA	
Ontario Mills	2004	Ontario, CA	
Simon Properties JV	1999/2004	New England/Various	
Perimeter Mall	2002	Atlanta, GA	
Village at Merrick Park	2000	Coral Gables, FL	
Bridgewater Commons	1999	Bridgewater, NJ	
Park Meadows Mall	1999	Littleton, CO	
Towson Town Center	1999	Towson, MD	
University Towne Center	1999	La Jolla, CA	
Valley Fair Mall	1999	San Jose, CA	
Randhurst Shopping Center	1998	Mount Prospect, IL	
			Net Asset Value
			(\$000s)
Subtotal			1,752,252

These examples represent some of the investments of the Fund. However, you should not assume that these types of investments will be available to or, if available, will be selected for investment by the Fund in the future

Strategic Property Fund retail investments (contd.)

As of March 31, 2011

Retail Properties	Acquisition Year	Location	
<i>Other retail centers</i>			
Shadow Creek Ranch Town Center	2008	Pearland, TX	
Brewery Blocks	2007	Portland, OR	
Rookwood Portfolio	2007	Cincinnati, OH	
Harbour Pointe	2006	Richmond, VA	
Winter Park Village	2006	Winter Park Village, FL	
Deerfield Towne Center	2005	Cincinnati, OH	
Stony Point	2005	Richmond, VA	
Donahue Schriber (Neighborhood/Community)	2002	Various	
Edens & Avant (Neighborhood/Community)	2000	Various	
Other Retail	2006/2007	Various	
			Net Asset Value
			(\$000s)
Subtotal			1,001,879
Total Retail			2,754,132

These examples represent some of the investments of the Fund. However, you should not assume that these types of investments will be available to or, if available, will be selected for investment by the Fund in the future

Strategic Property Fund industrial investments

As of March 31, 2011

Industrial Properties	# of Buildings	Acquisition Year	Location	
Alliance Texas	42	2010	Forth Worth, TX	
Towne Lake Business Park	2	2008	Irving, TX	
Pompano Business Center	1	2007	Pompano Beach, FL	
DCT Industrial Portfolio	14	2007	Romeoville, IL / various	
Rialto Commerce Center	2	2007	Rialto, CA	
Andrew Corporation	1	2007	Joilet, IL	
Best Buy Distribution Center	1	2007	Woodridge, IL	
Metro Chicago Industrial Portfolio	9	2007	Chicago, IL	
Metro Chicago Industrial Portfolio II	4	2007	Chicago, IL	
Commerce Farms III	1	2006	Lebanon, TN	
Big 5 Distribution Center	1	2006	Riverside, CA	
Walnut Fork Distribution Center	1	2006	Atlanta, GA	
Kraft Industrial Portfolio	3	2006	Various	
Southpark Distribution Center	6	2003/2004	Nashville, TN	
Centre Pointe Distribution Park	2	2003	La Vergne, TN	
Duke Texas JV	37	2000	Dallas, TX	
Lakemont Industrial Portfolio	15	2000	Charlotte, NC	
Greater Los Angeles Ind. Portfolio	10	1994/95/99	Greater Los Angeles, CA	
South Bay Industrial Portfolio	8	1996	Los Angeles, CA	
Total	160			Net Asset Value (\$000s) 1,445,332

These examples represent some of the investments of the Fund. However, you should not assume that these types of investments will be available to or, if available, will be selected for investment by the Fund in the future

J.P. Morgan Asset Management – Global Real Assets

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This document is intended solely to report on various investment views held by J.P. Morgan Asset Management. Opinions, estimates, forecasts, and statements of financial market trends that are based on current market conditions constitute our judgment and are subject to change without notice. We believe the information provided here is reliable but should not be assumed to be accurate or complete. The views and strategies described may not be suitable for all investors. References to specific securities, asset classes and financial markets are for illustrative purposes only and are not intended to be, and should not be interpreted as, recommendations. Indices do not include fees or operating expenses and are not available for actual investment. The information contained herein employs proprietary projections of expected returns as well as estimates of their future volatility. The relative relationships and forecasts contained herein are based upon proprietary research and are developed through analysis of historical data and capital markets theory. These estimates have certain inherent limitations, and unlike an actual performance record, they do not reflect actual trading, liquidity constraints, fees or other costs. References to future net returns are not promises or even estimates of actual returns a client portfolio may achieve. The forecasts contained herein are for illustrative purposes only and are not to be relied upon as advice or interpreted as a recommendation.

Real estate investing may be subject to a higher degree of market risk because of concentration in a specific industry, sector or geographical sector. Real estate investing may be subject to risks including, but not limited to, declines in the value of real estate, risks related to general and economic conditions, changes in the value of the underlying property owned by the trust and defaults by borrower.

Leverage. Certain of the Fund's investments may be leveraged, which may adversely affect income earned by the Fund or may result in a loss of principal. The use of leverage creates an opportunity for increased net income, but at the same time involves a high degree of financial risk and may increase the exposure of the Fund or its investments to factors such as rising interest rates, downturns in the economy or deterioration in the condition of the investment collateral. The Fund may be unable to secure attractive financing as market fluctuations may significantly decrease the availability and increase the cost of leverage. Principal and interest payments on any leverage will be payable regardless of whether the Fund has sufficient cash available. Senior lenders would be entitled to a preferred cash flow prior to the Fund's entitlement to payment on its Investment.

The value of investments and the income from them may fluctuate and your investment is not guaranteed. Past performance is no guarantee of future results. Please note current performance may be higher or lower than the performance data shown. Please note that investments in foreign markets are subject to special currency, political, and economic risks. Exchange rates may cause the value of underlying overseas investments to go down or up. Investments in emerging markets may be more volatile than other markets and the risk to your capital is therefore greater. Also, the economic and political situations may be more volatile than in established economies and these may adversely influence the value of investments made.

The deduction of an advisory fee reduces an investor's return. Actual account performance will vary depending on individual portfolio security selection and the applicable fee schedule. Fees are available upon request.

The following is an example of the effect of compounded advisory fees over a period of time on the value of a client's portfolio: A portfolio with a beginning value of \$100mm, gaining an annual return of 10% per annum would grow to \$259mm after 10 years, assuming no fees have been paid out. Conversely, a portfolio with a beginning value of \$100mm, gaining an annual return of 10% per annum, but paying a fee of 1% per annum, would only grow to \$235mm after 10 years. The annualized returns over the 10 year time period are 10.00% (gross of fees) and 8.91% (net of fees). If the fee in the above example was 0.25% per annum, the portfolio would grow to \$253mm after 10 years and return 9.73% net of fees. The fees were calculated on a monthly basis, which shows the maximum effect of compounding.

All case studies are shown for illustrative purposes only and should not be relied upon as advice or interpreted as a recommendation. They are based on current market conditions that constitute our judgment and are subject to change. Results shown are not meant to be representative of actual investment results. Past performance is not necessarily indicative of the likely future performance of an investment.

Any securities mentioned throughout the presentation are shown for illustrative purposes only and should not be interpreted as recommendations to buy or sell. A full list of firm recommendations for the past year is available upon request.

The Fund is established and maintained by JPMorgan Chase Bank, N.A. under a Declaration of Trust. The Fund is a bank-sponsored collective investment fund established as a group trust within the meaning of Internal Revenue Service Revenue Ruling 81-100, as amended. The Fund is available exclusively to certain tax-qualified retirement and governmental plans that have appointed JPMorgan Chase Bank, N.A. as fiduciary for the plan.

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State of Ohio Bureau of Workers' Compensation

Real Estate Educational Presentation

June 15, 2011

Presented by:

Dan Krivinskas, Director of Real Estate Consulting
Scott Krouse, Consultant

RVKuhns

▶▶▶ & ASSOCIATES, INC.



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RVK Real Estate Consulting Group Overview



RVK Real Estate Consulting Group Overview

Strategic Investment Consulting Is Our Only Business

- ▶ The RVK Real Estate Consulting Group advises a wide array of governmental, corporate, and endowment & foundation clients on commingled fund, separate account, “club deal”, and direct real estate investments
- ▶ Over \$25 billion of retainer real estate client assets under advisement

RVK’s Strength in Building Out New Real Estate Portfolios

- ▶ RVK evaluates each client’s unique circumstances (e.g., liquidity position, funding ratios, etc.) when building out real estate portfolios

Unique Risk-Based Perspective Provides Value for the BWC

- ▶ Proprietary “RVK Corporate Governance Rating System”
 - ▶ Allows RVK to evaluate corporate governance protections and other important aspects of potential investments and to negotiate improvements for the benefit of the BWC
- ▶ Proprietary market updates and educational pieces for the BWC
 - ▶ Examples include RVK’s “Global Real Estate Outlook” and “Global Infrastructure Educational Presentation”



Unique Benefits of RVK Real Estate Consulting

Downside Scenario Focus

- ▶ We always ask two fundamental questions in order to achieve the best returns for our clients:
 - ▶ What can go wrong with a particular investment?
 - ▶ Does the manager have the proper incentives to be successful?
- ▶ We seek out managers who would rather miss out on a good deal than do a really bad one
- ▶ RVK staff takes a proactive approach in structuring investment opportunities to achieve the best outcomes for our clients

Fact-Driven Investment Analysis Focused on Global Investment Themes

- ▶ Evaluate open-ended as well as closed-ended “blind pool” funds and secondary investment opportunities in the market for our clients
- ▶ We endeavor to identify most relevant macro themes—while tuning out “noise”—and to identify investment managers best positioned to take advantage of them
- ▶ RVK real estate consultants spend a significant amount of time reading various publications and speaking with leasing agents, brokers, and other market participants in U.S., Europe, and Asia to get an information edge and find the best risk-adjusted opportunities



Unique Benefits of RVK Real Estate Consulting

Reliability and Integrity With Our Clients and Investment Managers

- ▶ RVK is a reliable partner for investment managers, as we strive to proactively seek out the best investment managers and often get referrals from the “best in the business” rather than wait for managers to come through our offices
- ▶ Our reputation for delivering on our promises is our competitive edge in the marketplace

RVK Provides the Full Range of Real Estate and Real Assets Consulting Services

- ▶ Plan Evaluation and Asset Allocation Guidelines
- ▶ Drafting of Investment Policy, Annual Investment Plan, and Guideline Statements
- ▶ Public and Private Real Estate and Real Assets Due Diligence Reviews
- ▶ Investment Manager Search and Selection
- ▶ Quarterly Performance Analysis and On-Going Investment Performance Oversight
- ▶ Client Education on Pertinent Real Estate and Real Assets Topics
- ▶ Special Project and Fraud Investigation Work



RVK Real Estate Consulting Group Capabilities

Experience Across Core, Value-Added, and Opportunistic Real Estate

- ▶ Evaluated and recommended client commitments totaling over \$15 billion in commingled fund, separate account, and direct real estate

Meet Approximately 200 Managers Per Year and Have Over 800 Opportunities in Our Databases

- ▶ RVK maintains an “open-door policy” in order to stay on top of investment opportunities and trends and to find best-in-class managers at competitive fees

Minority and Women-Owned Real Estate Manager and Green Investment Initiatives

- ▶ Successfully implemented programs with CalPERS, Fannie Mae, and other large institutions to invest in market-rate private real estate focusing on social investment and environmentally-friendly investments
- ▶ Created unique separate account structure to target minority and women-owned real estate enterprises for the Employees Retirement System of Texas

Structured Finance

- ▶ Significant experience evaluating investments throughout capital structure tiers and analyzing the quality of the underlying real estate collateral
- ▶ **Examples:** Whole loans, direct origination loans, mezzanine debt, and non-performing loans



RVK Corporate Governance Rating System

Proprietary RVK Corporate Governance Rating System

- ▶ RVK has implemented a proprietary comprehensive corporate governance rating system which allows us to systematically implement our unique investment philosophy and evaluation approach
- ▶ RVK Corporate Governance Rating System evaluates overlooked aspects affecting private real estate and real assets investments
- ▶ Both strategic reviews and corporate governance reviews necessary to avoid poor investments

Examples

Ownership of the Sponsor

- ▶ Intensive review of entities and individuals that have influence on investment strategy
- ▶ Who profits from asset management fees within sponsor? Incentive fees? Other fees?
- ▶ **Example:** An undisclosed investment in one sponsor by large residential lender influenced decision-making – RVK evaluated financial statements to identify issues

Co-Investment

- ▶ Determine amounts and who precisely is providing co-investment capital
- ▶ **Example:** Sponsor provides loans to employees to co-invest? Recourse or non-recourse?

Accounting

- ▶ Focus on mismatch of the financial statements and information reported to LPs
- ▶ **Example:** Unusual rotation of audit firms



RVK Real Estate Investment Philosophy

Real Estate Is an Illiquid Asset Class, Not a Short-Term Trading Vehicle

- ▶ Long-term outlook is important to achieving superior risk-adjusted returns
- ▶ Too few market participants are able to ignore short-term noise from long-term trends

Short-Term Pressure to Produce Caused Excesses in the Real Estate Markets

- ▶ Encouraged excessive risk-taking by real estate managers
- ▶ Incentivized managers to fully invest with excessive indebtedness at expense of prudent due diligence, resulting in higher asset prices and lower returns

Bottom-Up Fundamental Analysis Is Key to Long-Term Success

- ▶ Many market participants project recent market trends too far into the future
- ▶ RVK's focus is less on day-to-day (or quarter-to-quarter) price movements but rather on the long-term value of an investment's underlying cash flows
- ▶ Investment decisions should not be guided by capital flows into the asset class or the latest investment fad, as these factors can change swiftly

Avoiding Value Traps

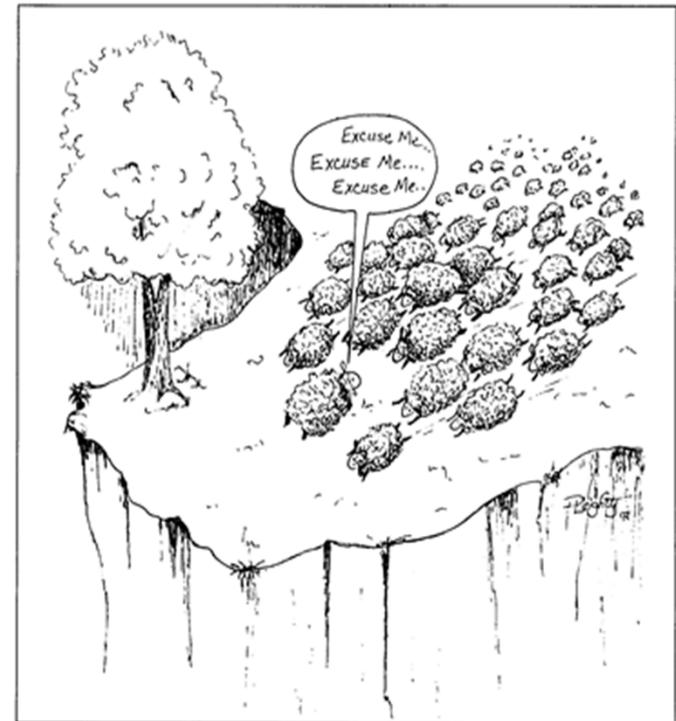
- ▶ Market trends should be used as “catalyst” events for investing after rigorous bottom-up research is completed (e.g., credit quality, significant demand growth, pre-negotiated exits)



RVK Real Estate Investment Philosophy

Superior Returns in Real Estate Are Achievable Only When Managers:

- ▶ Are highly selective, identifying contrarian market views, exhibiting patience and **avoiding crowds**
- ▶ Possess the right amount of experience, skill, and temperament to deal with complicated situations (e.g., bankruptcy, restructuring, multiparty negotiations, etc.) and to know when to walk away
- ▶ Have strong property-level skills and know when to seek outside expertise
- ▶ Are reasonable in their expectations for returns. Given today's market environment, 10-12% long-term returns from a balanced real estate portfolio are achievable. Anything significantly above that is **not** possible without taking on excess risk
- ▶ Are able to show restraint and are able to discontinue investments when the market shifts or if their investment theses prove to be incorrect





Real Estate as an Asset Class



What Is Real Estate?

Traditional Commercial Real Estate Sectors

- ▶ Office
- ▶ Retail
- ▶ Apartments/Residential
- ▶ Industrial
- ▶ Hotels/Hospitality

Non-traditional Commercial Real Estate Sectors

- ▶ Self Storage
- ▶ Senior Housing
- ▶ Student Housing
- ▶ Other “Hybrid” Types (e.g., Health Care, Infrastructure)

Mechanisms for Real Estate Investment

- ▶ Public Real Estate
 - ▶ Real estate securities traded on exchanges, including real estate investment trusts (REITs) and real estate operating companies (REOCs)
- ▶ Private Real Estate
 - ▶ Many ways to invest in private real estate, including direct investment, commingled funds, separate accounts, and hybrid “club deals”



What Is Real Estate?

Real Estate Produces Returns in Two Ways

- ▶ Income: Returns from the rental income of subject investments
- ▶ Appreciation: Returns from price appreciation of subject investments

Two Types of Real Estate Investments

- ▶ Equity Interests: Real estate investments that rise or fall depending on whether real estate values increase or decrease, typically in a “first loss” position
- ▶ Debt Interests: Real estate investments primarily in mortgages or portions of mortgages and other real estate debt that is not in a “first loss” position

Analogous to Investing in a House

- ▶ The owner is in the equity position, who gains (or loses) money from the rise (or fall) in the value of the house as well as any rental income gained from the property
 - ▶ The owner has to pay the bank interest and principal payments in order to keep the house
- ▶ The bank is in the debt position, which does not gain from rises in the value of the house, but has the right to foreclose on the house in case the owner does not pay interest and principal
 - ▶ The bank gets the interest payments from the owner and has the right to foreclose on the owner if the interest and principal is not paid as agreed



Why Invest In Real Estate?

Reasons for Investment in Real Estate

- ▶ **Low Correlation**: Real estate-oriented investments have generated attractive long-term returns with low correlations to traditional asset classes
 - ▶ However . . . private real estate correlation is understated due to the appraisal-based processes utilized, evidenced by public real estate (e.g., REITs) correlation to equities over the short-to-medium term
- ▶ **Inflationary Hedge**: Rental growth and appraised values are tied to inflation, as the replacement cost of real estate acts as a natural hedge
 - ▶ However . . . this inflationary hedge tends to work better in more vibrant real estate markets, while rental growth and appraised values often trail inflation in real estate down cycles
- ▶ **Liability Matching**: Longer-term nature of real estate hedges against longer-term liabilities
 - ▶ However . . . particularly during exuberant periods, many managers are incentivized to aggressively buy assets at hefty prices or to “flip” assets to generate fee revenue, misaligning the interests of investors with managers
- ▶ **Increased Transparency**: Greater numbers of opportunities in both public and private real estate that are much more transparent than in the past, and stronger corporate governance protections are available to investors
 - ▶ However . . . in the past, when capital flows have increased to certain funds and opportunities, managers became less sensitive to transparency and corporate governance issues, causing future problems



How Is Real Estate Defined?

Many Risks Associated With Real Estate

- ▶ There are many risks associated with real estate investment (e.g., liquidity, transparency, valuation), similar to any other kind of investment

Institutional Definitions of Real Estate “Risk”

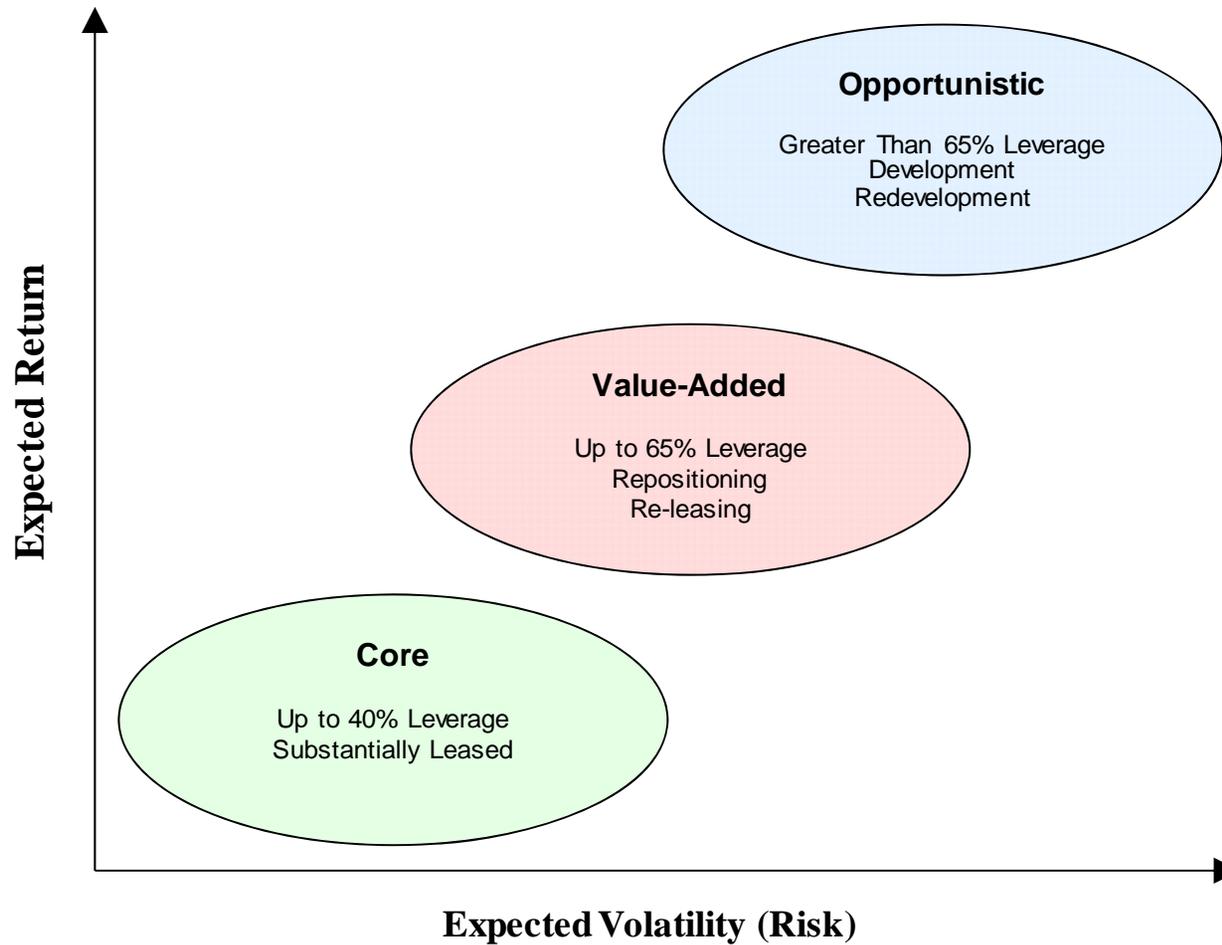
- ▶ While certainly understating the various risks associated with investment, institutions tend to break real estate investment into three “risk” categories
 - ▶ **Core**
 - ▶ Considered to have lower volatility and lower likely return potential, with high levels of income relative to appreciation in overall expected return
 - ▶ **Value-Added**
 - ▶ Considered to have moderate levels of volatility and likely return potential, comprised of both income and appreciation components in overall expected return
 - ▶ **Opportunistic**
 - ▶ Considered to have greatest levels of volatility and likely return potential, comprised primarily (although not exclusively) of appreciation in overall expected return

Many Other Designations Can Be Incorporated Into the Spectrum

- ▶ RVK has decided to break down our asset allocation assumptions into the “core” and “non-core” real estate categories to be more intellectually honest about the difficulties associated with labeling many non-core strategies (e.g., “core-plus” and “enhanced” definitions)



How Is Real Estate Defined?





How Is Real Estate Defined?

	Core	Value-added	Opportunistic
Income and Appreciation	Greater than 75% of return is income	Contains both income and appreciation components	Mostly appreciation
Leverage	Up to 40% Loan-to-Value (LTV)	Up to 65% LTV	Often greater than 65% LTV
Diversification	Fully diversified	Limited diversification	Diversification often not a high consideration in the investment process
Life Cycle	Existing, fully leased, and stabilized	Existing, but requires redevelopment, releasing, and/or repositioning	Development and/or existing properties that require extensive redevelopment, releasing
Holding Period	Buy and hold	3 to 7 years depending on the position of the current market cycle	Implement strategy and sell
Property Types	Primarily the 5 major property types (office, retail, residential, industrial, hotel)	5 major property types plus some selective additional property types (self-storage)	All property types including niche sectors (healthcare, senior housing, etc.)
Markets	Typically primary markets	Both primary and secondary markets	Primary/secondary markets and domestic/international
Property Class	Class A	Typically lower quality buildings, but can be converted to Class A	Typically lower quality buildings, but can be converted to Class A. Sometimes ground-up development
Fund Structure	Typically open-ended	Both open-ended and closed-ended	Typically closed-ended
Fee Structure	Based on assets under management plus some sort of incentive fee	Based on committed capital, plus incentive fee. May include other fees (acquisition, disposition)	Based on committed capital, plus incentive fee. May include other fees (acquisition, disposition)
Liquidity	Relatively high (subject to potential entry and redemption queues)	Moderate to low depending on structure	Low



How to Invest in Real Estate?

Private Real Estate Investments

- ▶ Direct Investments
 - ▶ Investment in traditional or non-traditional assets, such as an individual office building, a shopping center, an apartment building, a commercial warehouse, or a hotel
 - ▶ Less liquid than most other real estate investment options
 - ▶ Inherent lack of diversification
- ▶ Commingled Funds
 - ▶ Pooling of institutional capital into funds to invest in a series of real estate assets
 - ▶ Funds can be diversified or focus on a particular sector (e.g., office) or geography (e.g., Southeast United States)
 - ▶ Commingled funds vary in terms of commitments
 - ▶ Open-Ended Funds: Ability to request funding or redemption of capital (typically within 90-120 days), although this liquidity can be subject to entry or exit queues
 - ▶ Closed-Ended Funds: Requires to contractually commit capital for long periods (typically 7-10 years) without ability to redeem capital
- ▶ Joint Ventures/Separate Accounts
 - ▶ Hybrid of direct investment and commingled fund approaches
 - ▶ Typically for larger institutions with significant real estate portfolios (\$500MM+)



How to Invest in Real Estate?

Public Real Estate Investments

- ▶ Domestic Real Estate Investment Trusts (REITs)
 - ▶ Public securitized real estate companies with tax efficient structures, which invest in various forms of real estate (e.g., Vornado in office, Simon Property Group in shopping malls)
 - ▶ Most liquid real estate investment option, as they trade on listed exchanges
 - ▶ Unlike privately-held real estate, REITs are significantly correlated with U.S. equities

- ▶ Global Real Estate Securities (REITs and REOCs)
 - ▶ Favorable REIT legislation throughout the globe increases opportunities for public real estate investment, particularly in Asia and Europe
 - ▶ Some large global real estate companies (particularly developers) are not set up as REITs, but rather are set up as traditional corporations, where they are taxed at the corporate level but are not forced to distribute all of their income (REOCs)
 - ▶ Listed on exchanges in these countries and denominated in local currencies
 - ▶ Global publicly traded real estate securities are significantly correlated with local equity markets



Private Real Estate Considerations

Various Considerations Related to Private Real Estate

- ▶ Calculation Considerations
 - ▶ More difficult to measure direct real estate and private real estate fund returns due to appraisal-based processes, compared to “marked-to-market” REITs, equities, and fixed income investments
- ▶ Liquidity Considerations
 - ▶ Investment in direct real estate and private real estate funds cannot be entered into or liquidated as quickly as REITs, equities, and fixed income investments
 - ▶ In 2008 and 2009, many core open-ended funds had “redemption queues”
 - ▶ Now, many core open-ended funds have “entry queues”
- ▶ Valuation Considerations
 - ▶ Three main approaches to valuing real estate can lead to different outcomes
 - ▶ Replacement cost approach (i.e., how much would it cost to replicate a particular building?)
 - ▶ Comparative sales approach (i.e., how much did a similar building sell for recently?)
 - ▶ Discounted cash flow (income) approach (i.e., what value would one apply to the income generated from a particular building?)



Private Real Estate Considerations

Various Considerations Related to Private Real Estate (Continued)

- ▶ Fee Considerations
 - ▶ Private real estate investment options generally are more expensive than investment in public real estate
 - ▶ However . . . private real estate vehicles range from core to opportunistic, with a wide range of strategies and fees that can be well worth the cost



Real Estate Market Conditions



Real Estate Market Summary

Current Real Estate Market Dynamics

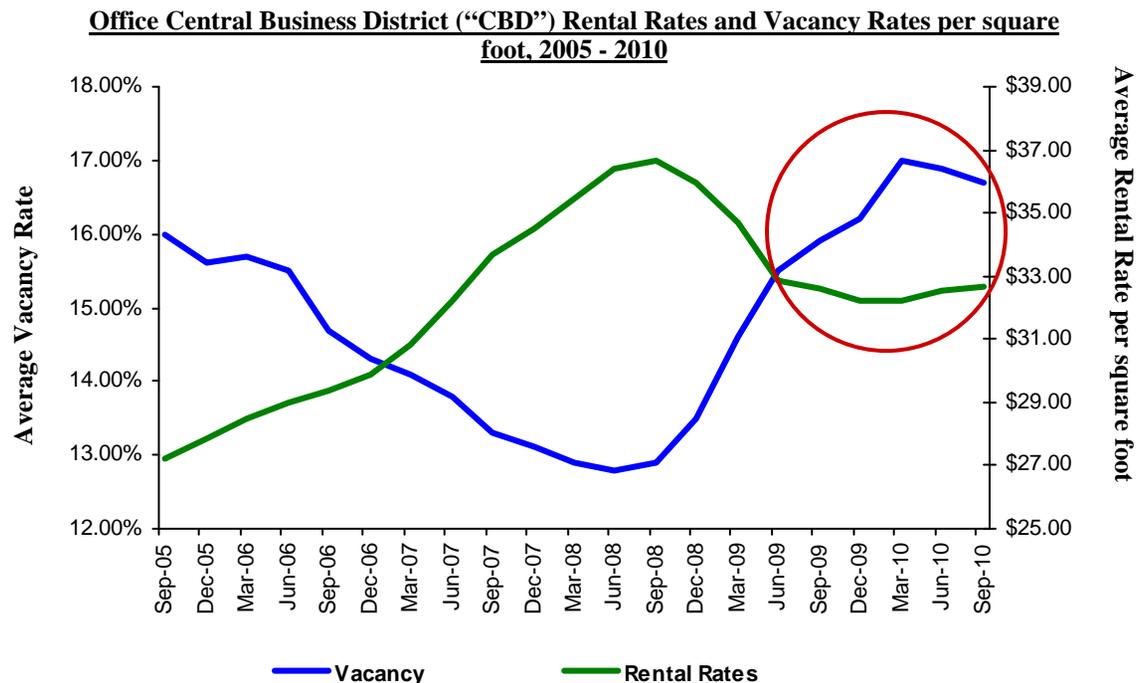
- ▶ Modest Rebound in Domestic Real Estate Valuations
 - ▶ Valuations have fallen significantly from their debt-fueled cyclical peak but have rebounded modestly in recent quarters, though fundamentals and recent transaction pricing have not fully stabilized
- ▶ Aggressive Competition for Core Real Estate, Much Less for Non-Core Real Estate
 - ▶ Transaction and lending markets are currently bifurcated, with aggressive competition arising for core properties while non-core assets continue to face pricing and financing headwinds
- ▶ Concern About Weak Jobs Recovery Impacting Real Estate
 - ▶ Tepid demand for many types of real estate (e.g., office, industrial) due to fewer individuals occupying space, which continues to pressure rents and occupancy across most real estate sectors
- ▶ Renewed Focus on Income as Primary Driver of Total Real Estate Returns
 - ▶ Recovery expected to be slow and bumpy, with a renewed focus on income as the primary driver of return
 - ▶ With a new appreciation for risk, investors are increasing allocations to core real estate, and many funds have gone from having redemption queues to entry queues
 - ▶ Yield-driven investors are showing renewed interest in real estate, given current spreads to Treasury yields and renewed concerns about longer-term inflation



Real Estate Fundamentals

Some Stabilization Seen in Core Real Estate Markets

- ▶ Real estate fundamentals remain challenged, but recent quarters have shown some stabilization in both vacancy rates and rental rates
- ▶ Unemployment remains elevated, and though a jobs recovery is expected to be slow and bumpy, recent months have shown some positive job creation, boding well for real estate fundamentals



Source: Cushman and Wakefield, as provided by Bloomberg. Data represents CBD office buildings for the Top 10 metropolitan statistical areas

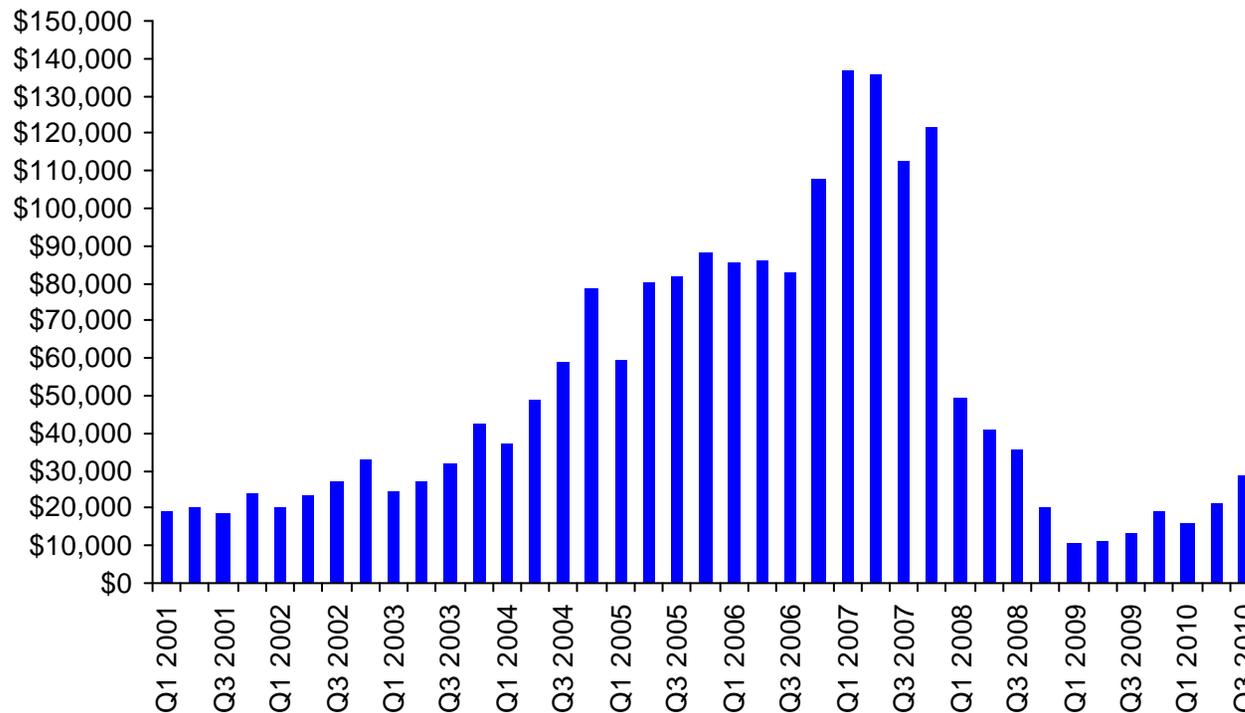


Real Estate Transaction Activity

Modest Uptick in Real Estate Transactions Over the Past Year

- ▶ Transaction activity remains well below the boom experienced during the 2006-2008 period, although though volumes have shown consistent improvement in recent quarters, which may indicate improved liquidity and demand conditions

Real Estate Transaction Volume (\$MM), 2001 - 2010



Source: Real Capital Analytics

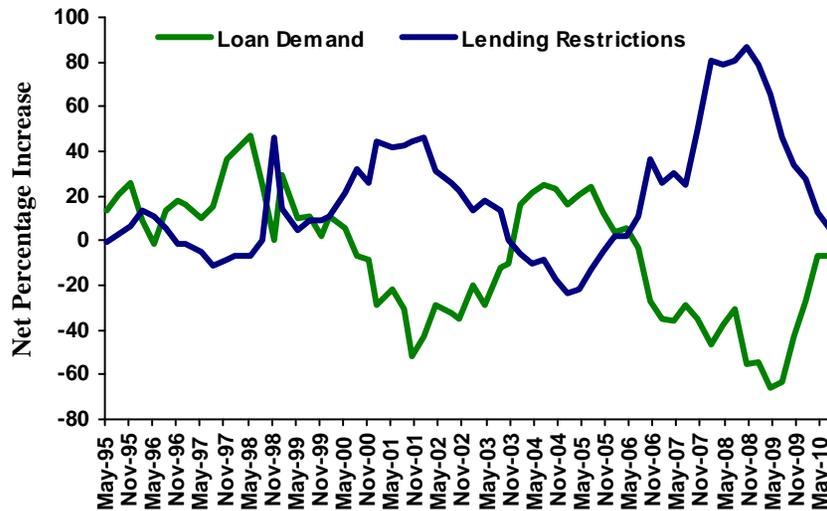


Debt Market Conditions

Real Estate Debt Markets Stabilizing

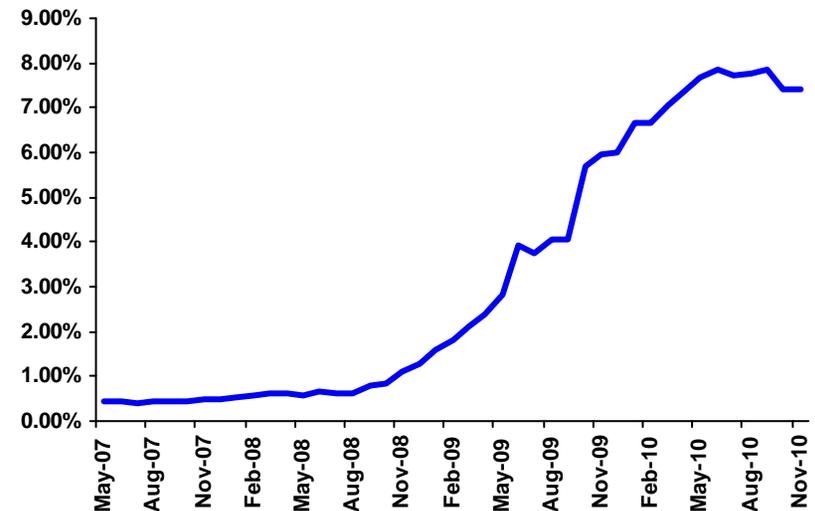
- ▶ Transaction activity is heavily dependent upon debt market conditions
- ▶ Recent quarters have shown some signs of stabilizing default rates in CMBS and lending availability, particularly for core properties, appears to be improving
- ▶ This, combined with historically low interest rates, has increased demand for commercial real estate loans

Federal Reserve Lending Survey for Commercial Real Estate



Source: Bloomberg

CMBS 30 Day Delinquency, 2007 - 2010

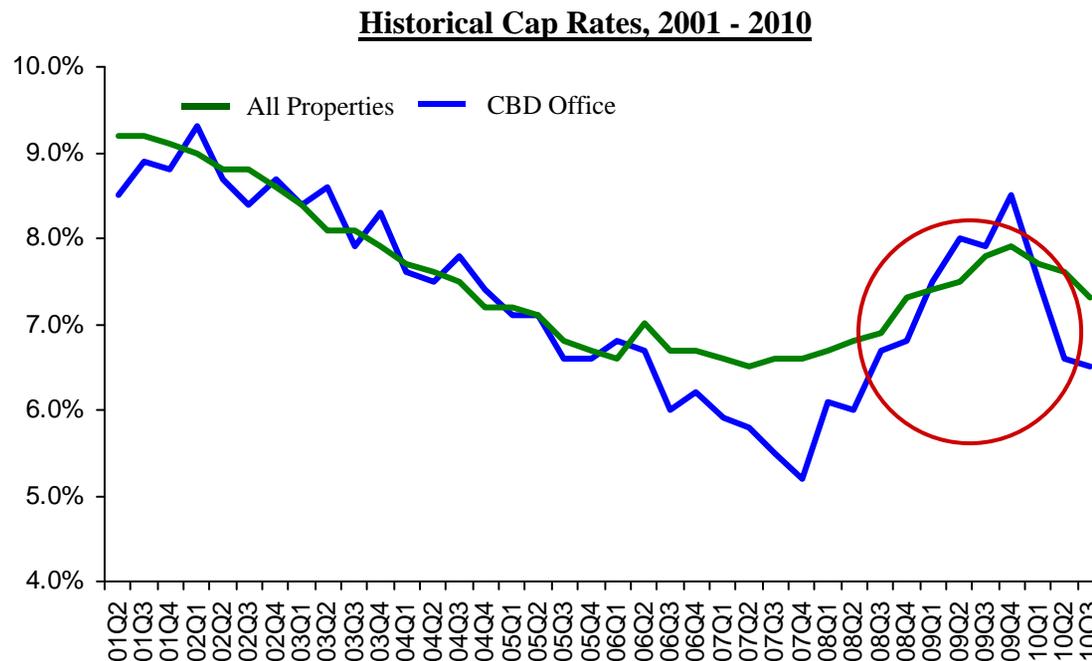




Real Estate Cap Rates

Core Cap Rates Stabilizing More Quickly Than Non-Core Cap Rates

- ▶ Capitalization rates (“cap rates”) are a widely-utilized gauge of private real estate values
- ▶ Cap rates can be thought of as the inverse of the price-earnings ratio for stocks and are calculated by taking the net operating income from a property, divided by its sales price
- ▶ Though cap rates expanded significantly through 2009, recent transaction activity indicates that cap rates are compressing and assets are beginning to trade at higher price points (i.e., lower cap rates)



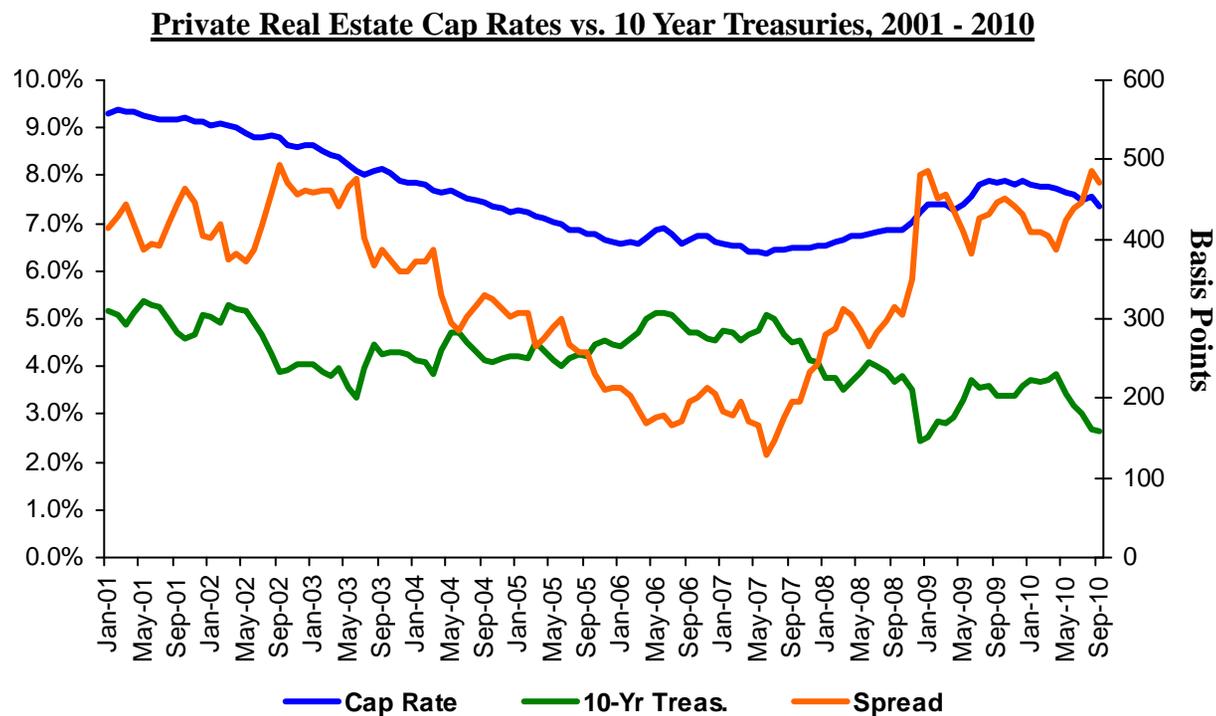
Source: Real Capital Analytics



Real Estate Cap Rates vs. Treasury Rates

Real Estate Cap Rates Offer a Significant Spread to Treasury Rates, Albeit With Risk of Loss

- ▶ Cap rates can also be thought of as the unlevered yield earned on a real estate asset
- ▶ Consequently, yield-hungry investors are likely to flock to assets that pay risk-adjusted yield spreads over Treasury rates
- ▶ Currently, yields earned in private real estate represent substantial spreads over Treasury rates, which bodes positive for overall demand for real estate assets



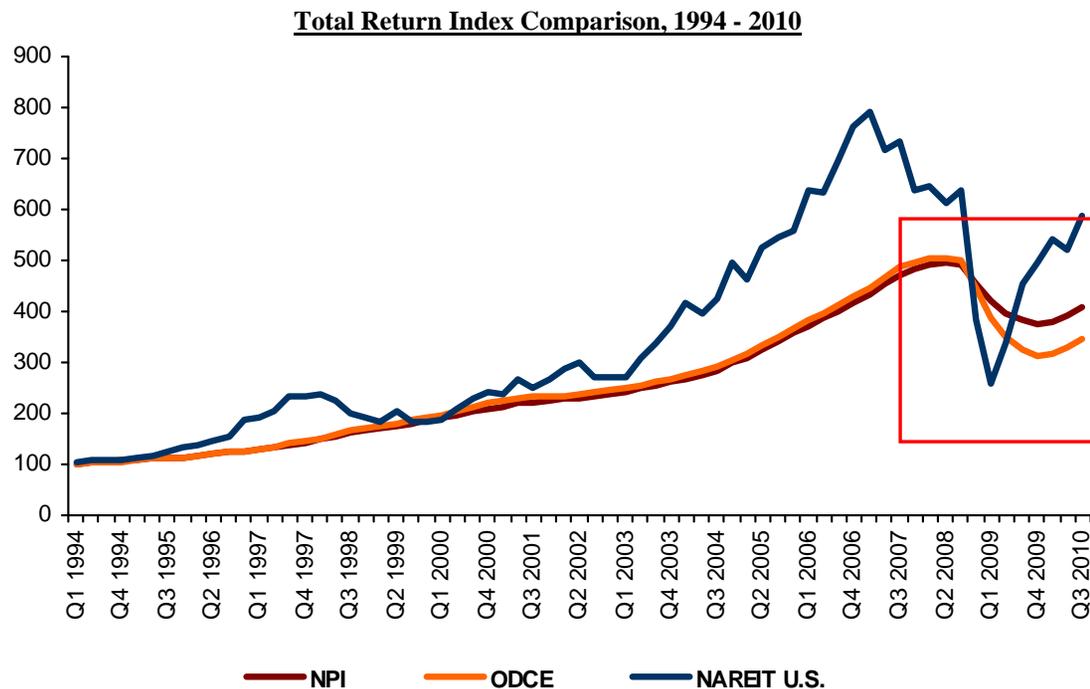
Source: Real Capital Analytics



Private vs. Public Real Estate Performance

Public Real Estate Is Considered to Lead Private Real Estate

- ▶ REIT indexes are often viewed as a leading indicator for private real estate returns, as they tend to adjust more quickly to changing market dynamics.
- ▶ Relative to REITs, private real estate indices remain suppressed despite recent strength
- ▶ In the chart below, “NAREIT U.S.” is an index of public REITs, while “NPI” and “ODCE” are private real estate indices:



Source: MIT Center for Real Estate, National Council of Real Estate Investment Fiduciaries



Real Estate Investment Rationale

RVK Real Estate Consulting Group 2011 Investment Thesis

- ▶ Opportunity to Benefit from Value Creation
 - ▶ The imbalance between core and non-core asset pricing is creating opportunities within private real estate to buy non-core assets less expensively and turn them into core assets
 - ▶ Bifurcation exists between “trophy” assets in first-tier markets with clean balance sheets (which is the focus of core real estate funds) and “the rest”
- ▶ Need to Remain Vigilant
 - ▶ However, even with government intervention, the economic recovery is slow, so investors in private real estate need to remain cautious
 - ▶ While there has been a resurgence in CMBS issuance (\$11.6 billion in 2010 and expected \$45-60 billion in 2011), this is still a small fraction compared to the peak issuance (\$229 billion in 2007)
- ▶ Debt and Equity Opportunities Available
 - ▶ Real estate debt maturities are expected to reach \$300 billion per year for each of 2011, 2012, and 2013
 - ▶ While some of this debt will be refinanced, a significant amount of new debt and equity capital will be necessary to deal with these maturities, providing opportunity for BWC
 - ▶ At the same time, improving fundamentals and stabilizing lender balance sheets will stimulate more real estate sales, providing BWC investment opportunities on the real estate equity side



Value-Added Real Estate as an Asset Class



What Is Value-Added Real Estate?

Value-Added Real Estate Definitions

- ▶ Contains Both Income and Appreciation Components
 - ▶ Most value-added real estate funds include in-place income as well as greater appreciation potential than core real estate
- ▶ Existing Assets That Were Once Core
 - ▶ Most value-added real estate assets were once considered “core” real estate, but they typically have one or more components that make them “value-added”
 - ▶ Typical examples for being considered “value-added” include:
 - ▶ Over-indebted asset (repositioning)
 - ▶ Higher than core-level of vacancy (releasing)
 - ▶ “Dated” building that needs remodeling/upgrades (redevelopment)
- ▶ Value-Added Managers Buy Assets to Make Them Core
 - ▶ Once a manager has implemented and has completed its value-creation strategy, it typically sells the asset to a core real estate buyer for a gain
 - ▶ Lower purchase prices in value-added real estate than in core real estate coupled with income generated during the holding period mitigates risks associated with value-added real estate
 - ▶ Value-added real estate has the look and location of core real estate, allowing good value-added managers to generate profits



What Is Value-Added Real Estate?

Representative Examples of Value-Added Real Estate Assets

▶ Office





What Is Value-Added Real Estate?

Representative Examples of Value-Added Real Estate Assets

▶ Retail





What Is Value-Added Real Estate?

Representative Examples of Value-Added Real Estate Assets

- ▶ Apartments





What Is Value-Added Real Estate?

Representative Examples of Value-Added Real Estate Assets

▶ Industrial





Where Is Value-Added Real Estate?

Value-Added Real Estate Locations

- ▶ Smile!



- ▶ Most value-added real estate funds acquire assets located primarily on the East Coast, West Coast, and Southern United States, forming a “smile” around the country
- ▶ Occasionally, value-added real estate funds target high-quality “middle of the country” locations such as Denver and Chicago (the “eyes”)
- ▶ These locations are where core real estate buyers focus their acquisition activities; therefore, value-added real estate managers also focus their attention on these markets



Where Is Value-Added Real Estate?

Representative Examples of Targeted Markets for Value-Added Real Estate Funds





Why Invest In Value-Added Real Estate?

Committed Capital vs. Invested Capital

- ▶ A Decision to Commit to Value-Added Real Estate Does Not Mean Immediate Investment
 - ▶ Most value-added real estate funds are closed-ended vehicles
 - ▶ An investor contractually commits to a closed-ended fund for a period of time, typically 7 to 10 years
 - ▶ Selected value-added managers usually have 2 to 4 years to invest capital, referred to as the “commitment period”
 - ▶ After the end of the “commitment period,” the value-added fund can no longer make new investments
 - ▶ Given the structure of value-added real estate funds as well as the variability in draw-downs and return of capital commitments, it could take **5 years or more** for BWC’s target allocation to value-added real estate to be fully achieved
- ▶ Distribution of Income and Capital Gains
 - ▶ For most value-added funds, income is distributed throughout the life of the fund
 - ▶ Capital gains typically occur towards the middle and end of the fund’s life
 - ▶ Value-added funds have a higher return potential due to the combination of income and capital gains
 - ▶ A comparative chart on the next slide of how capital flows between core and value-added funds illustrates this more clearly

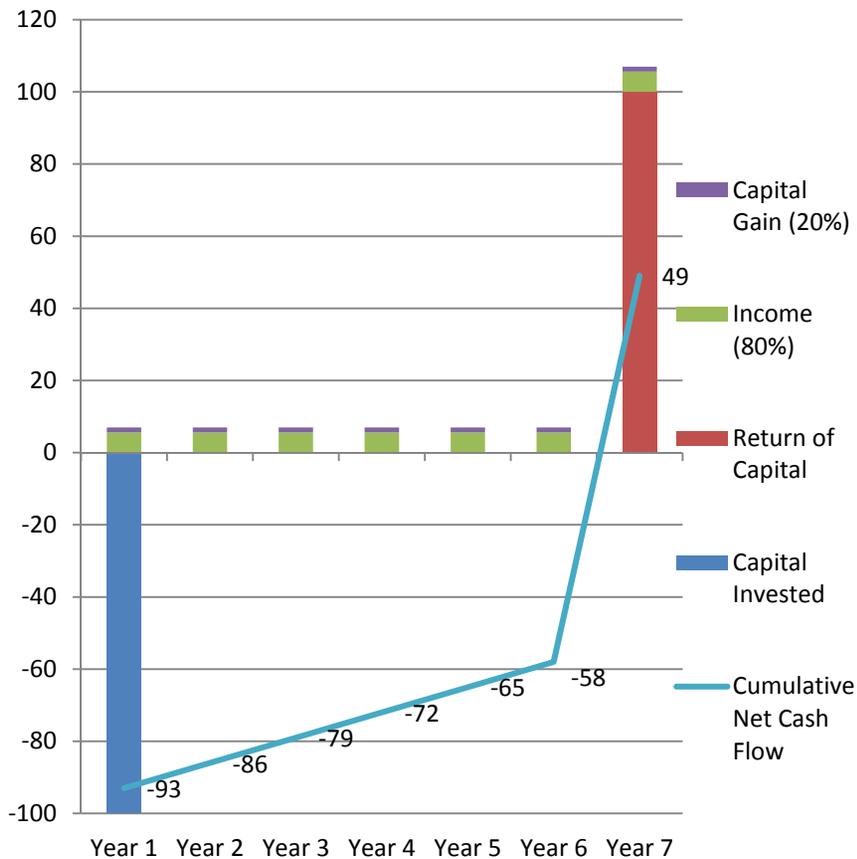


Why Invest In Value-Added Real Estate?

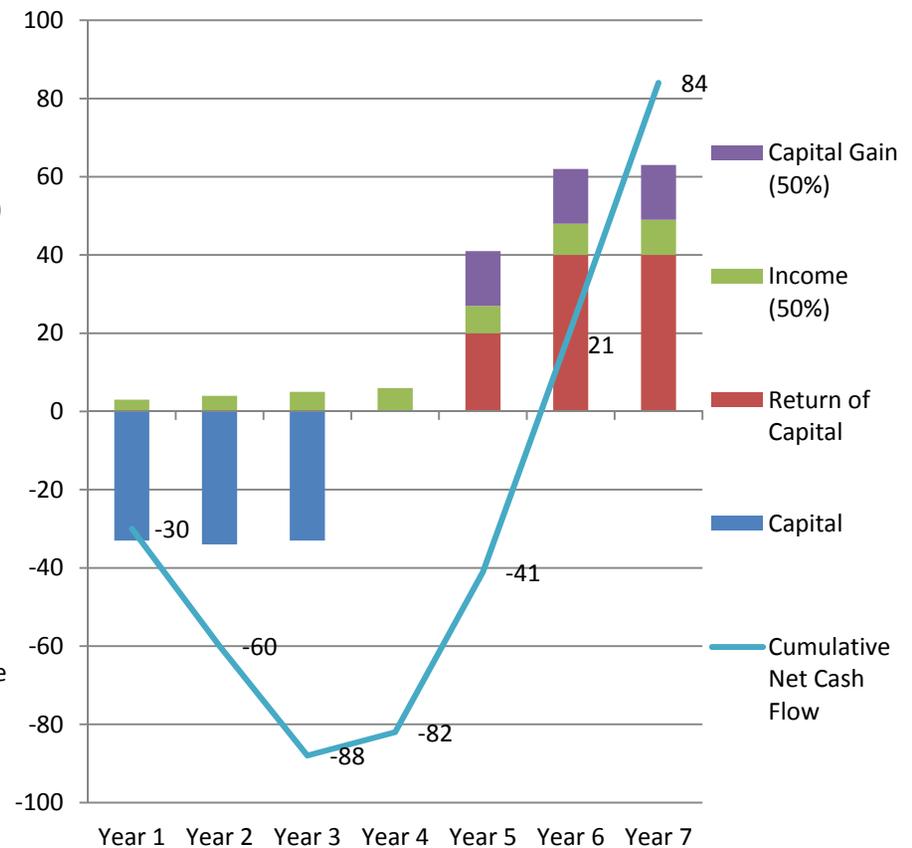
How Do Value-Added Real Estate Funds Work Compared to Core Real Estate Funds?

- ▶ Graphical Comparison of How Cash Flows in Sample Core and Value-Added Funds

Sample Core Fund (\$100M Commitment)



Sample Value-Added Fund (\$100M Commitment)





Why Invest In Value-Added Real Estate?

Non-Core Pricing Much More Favorable to Buyers than Core Pricing in 2011

- ▶ Opportunity to Benefit from Value Creation
 - ▶ The imbalance between core and non-core asset pricing is creating opportunities within private real estate to buy non-core assets less expensively and turn them into core assets
 - ▶ Bifurcation exists between “trophy” assets in first-tier markets with clean balance sheets (which is the focus of core real estate funds) and “the rest”
 - ▶ Value-added funds are set up to take advantage of this opportunity

RVK’s Due Diligence Process

- ▶ RVK Meets With Over 200 Managers Per Year and Has Over 800 Real Estate Opportunities In Our Databases
 - ▶ Helps us to stay on top of latest trends and to find best-in-class managers at competitive fees
 - ▶ Less than 5% of screened opportunities are recommended for investment
 - ▶ RVK ensures that fund opportunities are viable before recommending investment

Diversification Within Value-Added Real Estate

- ▶ Portfolio of 7-10 Value-Added Funds to Gain Best Diversification
 - ▶ A diversified portfolio of value-added opportunities provides the best opportunity to take advantage of the benefits of value-added real estate
 - ▶ Ohio BWC would build out the value-added real estate portfolio over a period of time, and RVK would monitor the portfolio on behalf of Ohio BWC



Real Estate Pooled Fund Structures



Methods of Investing in Real Estate

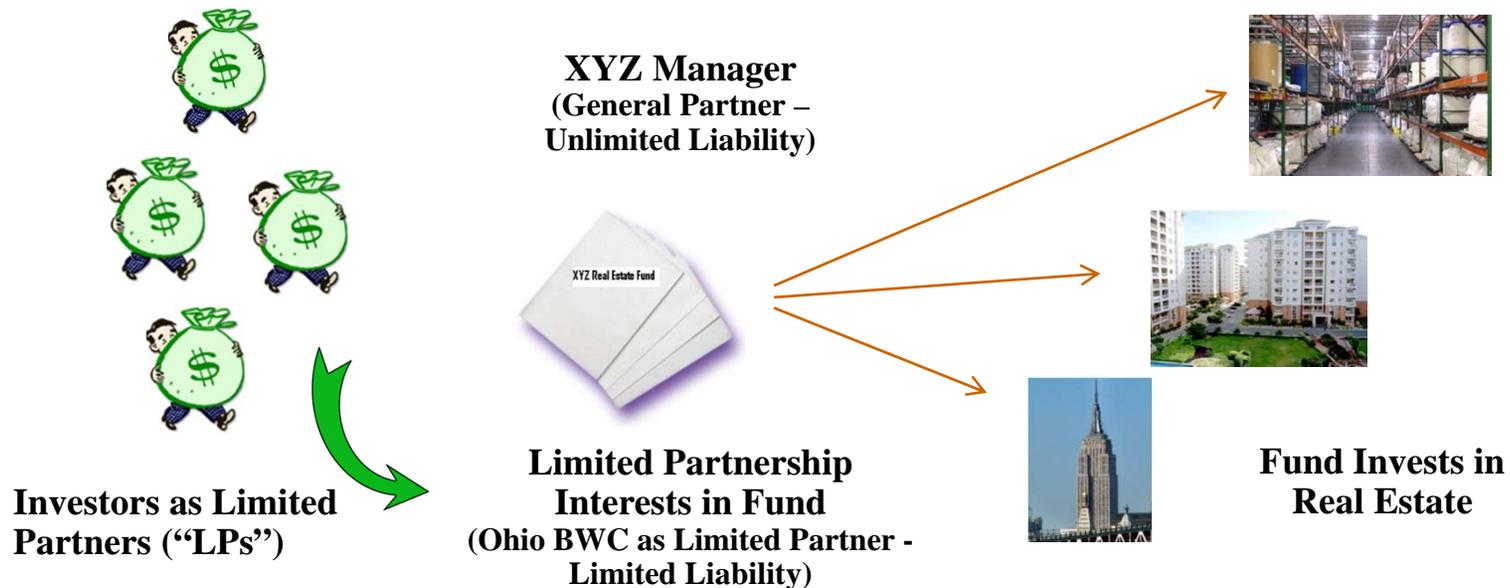
Direct Ownership of Real Estate Assets

- ▶ Purchase of land, building, or leasehold interest; title held by investor/owner



Indirect Ownership of Real Estate Funds (Preferred Method)

- ▶ Passive investment in a limited liability pooled fund that is professionally managed by a Fund Sponsor (XYZ Manager) – BWC owns shares of the Fund, not the underlying real estate





Real Estate Fund Contractual Limitations

Real Estate Investment Funds Are Governed by Limited Partnership Agreements

	Core Open-Ended Funds	Value-Added Closed-Ended Funds
Limitation of Liability	Always limited liability for LPs	Always limited liability for LPs
Life of Fund	Contract typically specifies a perpetual life	Contract always specifies a termination date for a fund, subject to certain extension rights for orderly liquidation of assets
Debt Limitations	Typically no more than 25-35% indebtedness, calculated on a loan-to-value basis (i.e., based upon quarterly net asset values)	Typically no more than 50% indebtedness, calculated on either a loan-to-value or loan-to-cost basis
Size Limitations	Often no single asset greater than 15% of a fund	Often no single asset greater than 20% of a fund
Commitment Period	Immediate, subject to entry queues	Typically up to three years to fully invest capital
Ability to Withdraw Capital	At periodic redemption “windows” usually quarterly, subject to withdrawal queues	At the liquidation of the fund
Key Person Clauses	Very rare	Almost always; if triggered, the investment period typically ends and committed capital returned to investors
Types of Properties Owned	Typically allows investment in most major property types (e.g., office, industrial, multifamily, retail), governed by investment diversification guidelines	Typically higher levels of restrictions than core open-ended funds; often restricted to certain geographies or property types
Removal of General Partner	Typically allowed with only a very high threshold of approval by LPs (80%+)	Typically allowed with a lower threshold for approval by LPs (66%+)
Advisory Committee Representation	Typically provided only to largest fund investors	Typically provided to largest fund investors as well as many smaller investors



Pooled Fund Characteristics

Pooled Funds Can Have Either Perpetual or Limited Lives

- ▶ Core Funds: Primarily perpetual life vehicles, where assets are rarely sold and income is harvested from a substantially permanent portfolio of real estate assets
- ▶ Value-Added Funds: Primarily limited life vehicles (typically lasting 7-10 years) where income, return of capital, and realized gains from real estate flow back to investors

Professional Manager Acts as a Pooled Fund's General Partner

- ▶ In exchange for a management fee, the manager of a pooled fund creates a general partner, which assumes unlimited liability with respect to the activities of the fund
- ▶ The manager brings specialized expertise and assumes day-to-day management of the portfolio

Investors Entrust Fiduciary Decision-Making to the Manager While Retaining Oversight

- ▶ While LPs do not take on day-to-day management in exchange for limited liability, they have oversight authority over managers
- ▶ Examples of oversight authority include (i) advisory committee participation rights, (ii) key person clauses, and (iii) general partner (GP) removal rights



Pooled Fund Characteristics

Pooled Funds Can Have Both Asset Management Fees and Incentive Fees

- ▶ Core Funds
 - ▶ Primarily charge asset management fees calculated on net asset values (averaging 95-115 basis points per annum), although a few funds also charge incentive fees
- ▶ Value-Added Funds
 - ▶ Some have asset management fees calculated on capital commitments, while others are calculated on drawn capital (averaging 100-125 basis points per annum during the commitment period)
 - ▶ Most have an incentive compensation component tied to achieving certain internal rate of return hurdles (typically 9%+), which is significantly higher than the expected total return for core real estate
 - ▶ Value-added fund managers have a strong alignment of interests with investors to create value, given the incentive to achieve internal rate of return hurdles – incentive fees make up a much larger proportion of a manager's overall compensation
- ▶ Fee Concessions
 - ▶ Fee concessions are available for large commitments to both core and value-added funds, **although fee concessions are typically much more significant for value-added funds, benefiting larger potential LPs such as Ohio BWC**



Advantages of Pooled Fund Structure

Limited Liability

- ▶ Limited partnership structure insulates Ohio BWC from liability, with losses limited to the amount of equity investment
- ▶ Ohio BWC would own shares of the real estate fund that, in turn, owns multiple real estate assets. The owner of record of the building is the Fund's limited partnership, not Ohio BWC. This insulates Ohio BWC from any direct liability if a "slip and fall" took place in a building

Passive Investment With Corporate Governance Protections

- ▶ No need for Ohio BWC to manage specific assets or properties, while Ohio BWC retains corporate governance rights over the Fund Sponsor
- ▶ Leasing, maintenance, operations, and eventual sale are all handled by the Fund Sponsor (however, LPs typically have right to vote on key Fund issues such as amendment of the partnership agreement, extension of the Fund's life, removal of the General Partner, etc.)

Pooling of Resources

- ▶ Pooling of resources with similar institutional investors (governmental funds and other institutional investors)
- ▶ Similarly-situated investors with similar goals to Ohio BWC (i.e., real estate diversification and limited liability)



Advantages of Pooled Fund Structure

Diversification Benefits

- ▶ Pooled fund limited partnership structure allows for diversification of risk across many different real estate assets in different property types and geographies
- ▶ Allows institutions like Ohio BWC to invest in larger properties
- ▶ Economies of scale in various risk mitigation activities (e.g., asset management, financing, etc.)
- ▶ **Ohio BWC would benefit from the expertise of the Fund Sponsor in developing the real estate portfolio (e.g., acquisitions and insurance expertise, etc.)**



RVK Real Estate Consulting Group Biographies



RVK Real Estate Consulting Group Biographies

Dainius (“Dan”) A. Krivinskas, JD – Consultant, Director of Real Estate Consulting, Principal

Dan is a Consultant and Director of Real Estate Consulting with R.V. Kuhns & Associates, Inc. and is located in our Chicago office. He has twelve years of experience with governmental organizations and in real estate, private equity, and merger & acquisitions transactions. Dan started his career with the United Nations Development Programme and the Government of Lithuania, focusing on transition economics. Dan’s consulting experience has focused on reviewing and negotiating complex real estate and infrastructure transactions, first as an associate with Jones Day and then as general counsel and consultant with Courtland Partners, Ltd., a specialty real estate consulting firm. Dan has extensive relationships with corporations, endowments, and public pension programs. Dan’s experience includes developing investment policy statements, structuring pooled fund and joint venture investments, conducting manager searches, and reviewing client portfolios.

A licensed attorney, Dan earned his A.B., summa cum laude, in Economics and Public Policy from Duke University and a J.D. from the University of Michigan. Dan is a shareholder of the firm.

Roman Nemtsov – Consultant

Roman joined R.V. Kuhns & Associates, Inc. in 2008 as an Associate Consultant and is located in our Chicago office. He has six years of experience in private and public equity real estate. Roman’s consulting experience has focused on assisting in review and negotiation of private equity real estate and infrastructure transactions as a senior analyst with Courtland Partners, Ltd., a specialty real estate consulting firm. Roman’s experience includes developing investment policy statements, conducting manager searches, and reviewing client portfolios. As a member of Courtland’s performance measurement team, Roman monitored performance of public and Taft-Hartley pension funds. Roman’s previous experience includes financial analysis and internal auditing positions with MeadWestvaco Corp., a Fortune 500 company.

Roman earned a B.S., cum laude, in Business Administration from Wright State University, with a concentration in Finance.



RVK Real Estate Consulting Group Biographies

Scott Krouse– Consultant

Scott Krouse is a Consultant with R.V. Kuhns & Associates, Inc. and is located in our Cleveland office. He joined the company in May 2011. Prior to joining the firm, Scott served as the Vice President of Investor Relations for RBC Capital Markets, a division of Royal Bank of Canada and one of the country's leading equity capital providers for affordable housing and tax credit-subsidized multifamily properties throughout the United States.

Previously, Scott was a consultant with Courtland Partners, where he was responsible for performing due diligence, strategic planning, and performance analytics on real estate investments for government employee, corporate, and union pension funds. Scott began his career with National City Bank in Cleveland where he served as an internal auditor and financial analyst for seven years.

Mr. Krouse earned his Bachelor of Science degree in Finance at Penn State University and an M.B.A. from the Weatherhead School of Management, Case Western Reserve University and holds Series 7, 24, 27, 63 and 79 securities licenses.

Brent Burnett – Associate Consultant

Brent joined R.V. Kuhns & Associates in 2009. Prior to joining RVK, Brent was an Associate in the Development and Investment group of Trammell Crow Company, where he assisted in the financial modeling, market analysis and structuring of real estate acquisition and development opportunities in the Western US. Prior to Trammell Crow, Brent worked as an Investment Associate for FLAG Capital Management, where he evaluated and monitored new and existing investments in real estate, natural resource, and private equity fund managers. Brent started his career with The Monitor Group, where he worked as a Consultant and Module Leader on corporate strategy engagements for clients in the technology, pharmaceutical, and medical device sectors.

Brent graduated with a B.S. in Accounting and a B.A. in Economics from Brigham Young University in 2005.



RVK Real Estate Consulting Group Biographies

Jennifer E. Nichols, CFA – Manager Research Consultant

Jennifer joined R.V. Kuhns & Associates, Inc. in 2002 as a member of the Analyst Group. In 2003, she moved full time to the Investment Manager Research Department where she is responsible for meeting with the investment management community, working with clients on manager research projects, as well as being involved in manager research among various asset classes. She focuses on both international equity as well as core real estate. Jennifer graduated Cum Laude with a B.A. in Business Administration with an emphasis in Finance from the University of San Diego. She is a CFA charterholder and a member of the CFA Society of Portland.

Mark Bartmann – Real Estate Investment Associate

Mark joined RVK in 2009 and is located in our Chicago office. His current responsibilities include performing due diligence analysis on private equity real estate managers, underwriting real estate investments and creating performance measurement reports for clients. Prior to joining RVK, Mark worked as a Project Manager & Financial Analyst for Ridge Property Trust. Within that role he developed financial analysis models, performed due diligence on various real estate investments, and assisted in property management activities.

Mark graduated from the University of Wisconsin-Madison with a bachelor of Business Administration in 2007, majoring in Real Estate and Finance.

Jennifer Sandberg - Senior Investment Analyst

Jennifer joined RVK in 2006 following graduation from Haworth College of Business, Western Michigan University. In addition to earning a Bachelor of Business Administration with a major in Finance and a minor in General Business from WMU, she has previous customer service experience in the banking industry.

MEMORANDUM

RVKuhns

▶▶▶ & ASSOCIATES, INC.

To: BWC Board of Directors
From: R.V. Kuhns & Associates, Inc.
Subject: Less Liquid Asset Class Rebalancing Policy Recommendation
Date: May 26, 2011

The Board has asked what the implications are for the Bureau's rebalancing policy of the proposed targets and allowable ranges for real estate investments. Are the ranges wide enough and will rebalancing be possible?

We would suggest that you not widen the proposed allowable ranges for the real estate asset class but that you add the following section to the Statement of Investment Policy. This, we think, will head off any confusion over how to rebalance whatever the effect of future market movements may be on your asset concentrations. And, we believe, this should stand the test of time that no arithmetic rule would.

Section IV.B.5. (changing the current B.5. to B.6.)

Rebalancing less liquid asset classes, such as real estate, should not be undertaken as automatically as transactions designed to rebalance the more liquid asset classes with ready public markets. Many factors need to be considered when contemplating transactions intended to restore desired asset class targets in less liquid assets, including:

- a. the availability of product to purchase***
- b. existing queues for entering or exiting desirable investments***
- c. the availability of investable cash***
- d. natural wind downs of less liquid commitments in the near future***

No simple rule will describe every situation but, as a guide, the Senior Officer Review Team should strive to maintain invested levels in less liquid assets as close as practicable to the target levels prescribed in Section VI, given the market conditions that prevail. Less liquid assets should rarely be sold for the primary purpose of portfolio rebalancing. Most of the time, market conditions and cash flow will allow achieving targeted allocation levels with the passage of time.

For purposes of determining quarterly asset allocation percentages for rebalancing, allocations to less liquid assets that are committed but not yet invested need to be accounted for, as do known or expected returns of capital invested. In addition, market values for less liquid assets may often lag market values for liquid assets by as much as three months, and this must be tolerated.

DATE: May 17, 2011

TO: BWC Investment Committee
BWC Board of Directors

FROM: Bruce Dunn, CFA, Chief Investment Officer

SUBJECT: **Chief Investment Officer Investment Policy Recommendation
Real Estate Asset Class Strategy
State Insurance Fund**

[Author's Note: This recommendation memorandum is a resubmission of the April 18, 2011 dated memorandum presented at the April 28, 2011 Investment Committee and is updated with additions that are both italicized and yellow-shaded as reflected.]

BACKGROUND

Over the course of calendar year 2010, much time was devoted in BWC Investment Committee meetings to introducing and discussing new investment-related topics for consideration. These topics have included active versus passive investment management, emerging and minority-or-women-owned investment managers (MWBE) and institutional commercial real estate investments. The BWC investment consulting team of Mercer led these Committee meeting discussions. In the opinion of the CIO, Mercer provided very useful background and market information on these topics as well as their perspectives based on experiences.

During calendar year 2010 beginning in May and continuing in September, the CIO has provided recommendations for discussion to the Investment Committee regarding certain specific existing asset class mandates of the State Insurance Fund (SIF) portfolio that would be suitable for active investment management as well as recommendations to consider several new strategies (MWBE manager-of-managers; real estate; cash overlay) that have the objectives of both enhancing portfolio returns on a risk-adjusted basis and achieving more diversification of asset classes and investment managers.

With regards to real estate as an asset class, the Investment Committee received helpful information from Mercer and had discussions on commercial real estate led by Mercer at both its August and September, 2010 meetings. These discussions included the various types of investment choices public funds have in gaining exposure to commercial real estate which includes private real estate funds (both open-end and closed-end), publicly-traded real estate securities such as real estate investment trusts (REITs) and direct ownership of real estate properties.

In the second phase interview sessions that were conducted by the Investment Consultant RFP Evaluation Committee with each of the four chosen finalist candidate investment consulting firms on February 24-25, 2011, each firm without exception indicated that real estate as an asset class would be appropriate and attractive for BWC to add to its investment portfolio. The reasons for the appeal of real estate assets to be included in the SIF portfolio will be mentioned in this memorandum of recommendation.

REAL ESTATE STRATEGY RECOMMENDATION AND RATIONALE

Real Estate is a very appealing asset class for the SIF portfolio, in the opinion of the CIO. Real Estate as an asset class will provide further asset class diversification to the SIF portfolio with a relatively low correlation to the returns of the other bond and stock asset classes of SIF. In fact, the asset class returns correlation matrix updated by BWC investment consulting firm R.V. Kuhns (RVK) at the end of 2010 indicates a positive returns correlation between private Core Real Estate and both Broad U.S. Equity and Broad International Equity asset classes of a modest 0.31 and 0.36, respectively, and an actual slight negative returns correlation of -0.04 and -0.01 for intermediate duration Fixed Income and long duration Fixed Income assets, respectively. This means that privately-owned real estate returns are based on a different economic and market cycle compared to publicly traded stocks and bonds and tend to lag economic activity both on the downside and upside due to existing property rental leasing contracts. In contrast, publicly traded REIT equities have a high positive 0.70 and 0.80 returns correlation with Broad U.S. Equity assets and Broad International Equity assets, respectively, and a positive 0.21 returns correlation with long duration Fixed Income assets. The addition of a modest allocation to private real estate asset classes will therefore result in a somewhat smoothing out of quarter-to-quarter overall SIF portfolio returns. *As a matter of information, public REIT equity securities represented 2.68% of the aggregate market value of the two SIF U.S. equity separate account portfolios as of month-end April, 2011 that are passively managed to the Russell 3000 index. These REIT equity positions owned represented 134 different issuers and had a total market value of approximately \$119 million.*

Another appeal of private commercial real estate assets for the SIF portfolio is in serving as an inflation hedge and having a positive correlation with inflation rates. Commercial real estate properties that most private institutional real estate funds concentrate on owning and managing such as office buildings, retail centers, apartments and industrial buildings, have tenant leases where rental rates can be adjusted higher with inflation and demand. Property owners structure leases so that contracts expire on a rolling basis with lease payments typically adjusted upward with inflation, creating more property income and consequent property value for property owners. Real estate is a physical asset that can retain and increase in value with inflation as opposed to most monetary assets that lose value as inflation rises. Commercial real estate assets are not immune to a recessionary environment, but well leased and managed higher quality properties continue to provide good cash flow in economic downturns from tenant lease contract obligations that are generally 3 to 10 years or more in duration from inception. An increase in leasing vacancies will typically lag in timing in a declining economy, which again supports the assertion that commercial real estate values generally lag economic activity in both directions.

The CIO recommends that a well-managed private core real estate fund strategy should be the primary initial real estate strategy focus for SIF. The CIO also recommends that an investment allocation towards value-added private real estate funds with higher return objectives than core real estate funds be made but emphasized less during the first 12-18 months of selecting an appropriate group of professionally managed private real estate funds. As a result, the CIO recommends a **6%** initial total asset allocation target to private real estate funds for the SIF portfolio divided between **4.5%** targeted towards U.S. concentrated **private core real estate funds** and **1.5%** targeted towards U.S. concentrated **private value-added real estate funds**. In the opinion of the CIO, this 3/1 weighting favoring more conservative core real estate funds represents a good balance between moderate risk, lower expected return core real estate funds and medium to higher risk value-added real estate funds offering higher expected returns through higher potential capital gains per dollar invested.

Private core real estate funds are large commingled funds (typically ranging from \$500 million to several over \$10 billion) organized as trusts, limited liability corporations or limited partnerships that are managed by experienced real estate management firms with proven track records. These core real estate funds are typically open-ended in structure (permitting investors to move in and out periodically) with investors typically being institutions, many of which are public funds. These core real estate funds typically do not have a limited term of existence. Core real estate fund portfolios consist largely of existing (fully developed) high quality, well-leased commercial real estate diversified by property type and geographic location. Core real estate fund portfolios are considered to have a moderate risk level in that these funds do not involve themselves in real estate development or construction risk and typically own stabilized, income-producing properties located within metropolitan areas of the U.S. with strong site attributes and features that appeal to tenants over long periods of time. Most core private real estate funds own properties with intentionally low leverage in that the debt balances on properties in the portfolios typically range from 0-35% of the appraised value of the property. If the interest rate cost of debt is sufficiently low, the projected return on a property can be higher to its equity owner than if there is no leverage so that astute core real estate funds will carefully add a controlled amount of leverage to a property if property loan market conditions are favorable.

An attractive characteristic of private core real estate funds for the SIF portfolio is the higher income yield offered compared to investment-grade bonds. The estimated ten-year annual return of core real estate funds provided by RVK in their recent annually updated asset class return projections is 7% net of fund management fees which were represented by Mercer to be around 90-120 basis points per annum on capital invested. Approximately 75-85% of the total return of core real estate funds on average is derived from income provided to investors from tenant lease rentals, with the remaining 15-25% of total return being from property value appreciation upon sale. As a result, investors in many well-managed core real estate funds can expect to receive initial income on capital invested after fees in excess of 6% currently which compares favorably to bond yields. Such income can also increase with inflation and favorable market conditions as leases roll over at higher rent levels.

There are approximately 20 private open-end core real estate funds currently active in the marketplace. Their asset sizes range from \$500 million to more than \$10 billion. It has been represented by both Mercer and RVK that most of these funds are receptive to receiving additional capital contributions for property investments. It is the expectation of the CIO that

the targeted 4.5% SIF investment allocation (approximately \$850 million based on current invested assets) recommended for core real estate funds would be achieved over a one-to-two year period from the time of issuance of a RFP through the selection of a group of well-managed open-end funds evolving from a RFP search process. The RVK real estate consulting group based in Chicago would assist the BWC investment staff in selecting the core real estate funds recommended for investment to be approved by the BWC Investment Committee and Board of Directors.

The CIO is also recommending a 1.5% SIF asset allocation (approximately \$285 million based on current invested assets) in private value-added commingled real estate funds oriented towards institutional investors including public funds. Value-added real estate funds offer higher expected returns than core real estate funds in that a higher portion of their returns are attained through market value appreciation of properties purchased at lower prices per square foot of space than those properties suitable for core real estate funds. These value-added fund properties typically have higher leasing vacancies compared to core fund real estate properties and are in need of more intense property management than core fund properties and require renovation and other capital improvements. With proper management and leasing strategies, these properties can achieve appreciable capital gains at disposition over a shorter holding period compared to core real estate fund properties but give off lower cash flow income to investors during their holding period. These value-added real estate funds are typically closed-end with a defined capital raising period, then a typical investment and holding period of properties of 3-5 years and then a capital distribution period as property disposals occur. In contrast to open-end core real estate funds, closed-end value-added funds typically have a finite term of existence between 7-10 years. The value-added real estate fund management firm may have higher debt leverage on properties of up to 65% of appraised value in order to purchase more properties and achieve more property diversification with the capital raised by the closed-end fund as well as to achieve higher expected returns for the fund. Expected annual returns after management fees of value-added funds are suggested to be 9% over the long-term by RVK based on historical experience, even though RVK has a projected annual rate of return of 9.75% currently for value-added funds due to attractive low commercial property value acquisition opportunities available for value-added funds in the current market environment. The investment risk levels necessary to achieve such projected value-added fund returns are higher than for core funds.

Investments made towards closed-end value-added real estate funds are opportunistic as to timing and similar to private equity partnerships with a defined capital raising period that eventually closes for new investors, unlike open-end core real estate funds. As a result, the CIO anticipates a heavy dependence and reliance on the RVK real estate consulting group to seek out in the market appropriate value-added real estate funds in the market for capital for investment consideration by the BWC investment staff and ultimate approval by the BWC Investment Committee and Board. It is expected to take a longer period of **four**-to-five years for BWC to become fully invested in a diversified group of value-added real estate funds that can complement its portfolio of core real estate funds in terms of exposure by property type and geography. Closed-end value-added real estate funds are also less liquid than open-end core real estate funds in terms of ability to sell investor units owned in the secondary market. RVK has indicated that value-added funds range in size of capital committed from less than \$50 million on the low end to \$500 million on the high end with a typical size being in the \$100-350 million range.

The transparency of portfolio information available to investors for both types of real estate funds recommended for investment by the CIO has improved significantly in recent years. Most real estate funds now obtain independent outside appraisals of each portfolio property on at least an annual basis and provide an internal appraisal quarterly which enables more timely and accurate unit net asset fund values for investors to review and report on their financial statements. Leasing revenue income and tenant lists for each portfolio property as well as property expenses are also generally made available to fund investors by the fund manager.

INVESTMENT POLICY RECOMMENDATION

The CIO recommends that a targeted 6% of total SIF investment assets by market value be allocated to U.S. concentrated private real estate investment funds, divided between a targeted 4.5% of total SIF investment assets directed towards U.S. concentrated private core real estate funds and a targeted 1.5% of total SIF investment assets directed towards U.S. concentrated private value-added real estate funds.

In order to fund this new Real Estate asset class for the SIF investment portfolio, the CIO recommends that the current target asset allocations directed towards Indexed Long Duration U.S. Government Bonds and Indexed Treasury Inflation Protected Securities (TIPS) each be reduced by 3%. This will result in (i) the new SIF target asset allocation for Indexed Long Duration U.S. Government Bonds to be 6% compared to its current 9% target and (ii) the new SIF target asset allocation for Indexed TIPS to be 14% compared to its current 17% target. The permissible ownership ranges for these targeted asset classes affected would be adjusted accordingly as presented in the redlined SIF IPS asset allocation table reflected herein.

It is recommended by the CIO that the SIF real estate asset class funding strategy concentrate on funding the first 3% of new invested real estate assets from the Indexed Long Duration Government Bonds asset class and on funding the remaining 3% of new invested real estate assets from the Indexed TIPS asset class. It would be expected that the 4.5% recommended asset allocation targeted towards core real estate funds could be largely achieved within a two-year period from time of RFP issuance which is currently projected to be later in 2011. The remaining 1.5% asset allocation targeted towards value-added real estate funds will likely take upwards of **four** years or more to achieve given the staged capital contribution takedowns typical of closed-end funds.

In the updated year-end 2010 RVK estimated annual future rate of return projections for various asset classes, Long Duration U.S. Government Bonds and TIPS have a projected annual 4.50% and 4.25% return, respectively. This compares to the previously mentioned RVK projected future long-term returns after management fees of 7.00% for private core real estate funds and 9.00% for private non-core real estate value-added funds. Given the recommended 3/1 or 75%/25% weighting allocation towards core versus value-added real estate, the blended long-term RVK return assumption for targeted SIF real estate investments would be 7.50% compared to the blended 4.38% long-term return from the recommended reduction in U.S. Government bonds. On a theoretical basis, the recommended 6% asset

allocation shift of the SIF portfolio (representing approximately \$1.15 billion based on current portfolio value) over the long-term would be projected to add an incremental 3.1% return on this targeted 6% of assets which represents approximately \$35 million in average annual incremental investment income for SIF after becoming fully invested.

Attached at the end of this memorandum of recommendation are specific proposed revisions to the BWC Statement of Investment Policy and Guidelines (IPS) relevant to accomplishing the addition of Real Estate as a new SIF asset class. These modifications are reflected in red. In addition to the recommendations introduced earlier in this memorandum, additional modifications recommended for the IPS include the investment goal of Real Estate as an asset class, diversification guidelines by each real estate fund investment and the introduction of the recommended benchmark index. *Furthermore, discussions at the April 28, 2011 Investment Committee meeting regarding potential rebalancing issues towards less liquid asset classes such as private real estate funds prompted a recommendation which follows on expanding the BWC investment policy for portfolio rebalancing. This recommended revised language was prepared by BWC investment consultant R.V. Kuhns with editing from BWC staff.*

*Proposed revisions of Section **IV.B** of the IPS pertaining to portfolio rebalancing addresses a recommended rebalancing process for addressing less liquid asset classes such as private real estate funds. This recommended added language to the portfolio rebalancing policy was prepared by BWC investment consultant R.V. Kuhns with minor editing from BWC staff. In addition, the former BWC Administrator agreed in April, 2010, upon the recommendation the BWC CIO, to add the BWC Director of Investments to the Senior Officer Review Team for preparer of review and considering for approval any portfolio rebalancing recommendation presented by the CIO. This addition to the Senior Review Team is reflected in the BWC internal portfolio rebalancing policy but had not been reflected in the IPS.*

Proposed revisions of **Section IV.C.i** of the IPS pertaining to diversification guidelines provides proposed maximum investments at cost of \$250 million in any one core real estate fund and \$50 million in any one value-added real estate fund. Given a 4.5% SIF target allocation recommended for core real estate funds in the aggregate representing approximately \$850 million based on current SIF portfolio market value, the CIO anticipates an estimated 5-7 different core real estate funds selected for initial investment over a projected 1-½ to 2 year period from time of RFP responses received and an estimated 7-10 different value-added real estate funds to fulfill a 1.5% targeted mandate (representing approximately \$285 million) over an estimated 4-5 year funding period from the present time.

Proposed new **Section IV.C.v** of the IPS describes the investment goal of Real Estate as a new investment class in general and distinguishes investment goals between private core real estate funds and private value-added real estate funds. The respective rate of return expectations of these two real estate fund strategies recommended differ and reflect the respective risk-reward dynamic of these strategies. Whereas core real estate funds are typically sufficiently diversified both geographically and by the four major commercial property types (office, retail, industrial, apartments), many value-added funds specialize in one or two property types as well as in a geographic region where the managers of the fund have special market knowledge and skills and can successfully source property acquisition opportunities through local and regional relationship networks. As a result, imposing broad diversification requirements for value-added funds may be counterproductive and restrict investing in attractive closed-end fund opportunities.

Proposed revisions of **Section VI.A** of the IPS pertaining to the SIF asset allocation table reflects the addition of the recommended respective allocation of 4.5% for core real estate funds and 1.5% for value-added real estate funds as well as the two-phased 3.0% targeted allocation reduction of each of Indexed Long Duration U.S. Government Bonds (first priority) and U.S. TIPS (second priority) to fund the total initial 6% allocation towards Real Estate Assets. This revised asset allocation table also introduces the new Real Estate asset class proposed benchmark index. This benchmark index is the NCREIF Fund Index – Open End Diversified Core Equity index or NCREIF–ODCE index for short. The NCREIF–ODCE is the standard benchmark index used in the private open-end core fund real estate industry and is an index of investment returns reporting the performance results of currently 26 open-end commingled real estate funds pursuing a core investment strategy, some funds of which have performance history dating back to the 1970's. Virtually all performance results of active institutional quality U.S. private real estate core funds outstanding in the market are including in this benchmark index. R.V. Kuhns endorses the choice of the NCREIF–ODCE index as the benchmark measurement for both core real estate and value-added real estate private commingled funds that will be included in the recommended real estate investment portfolio for SIF. This benchmark index return is sponsored by the National Council of Real Estate Investment Fiduciaries (NCREIF) which is a not-for-profit trade association based in Chicago that serves its membership of institutional real estate professionals who have a significant involvement in institutional real estate investments.

More information about NCREIF and the eligibility criteria for a private core open-end real estate commingled fund to be included in the proposed NCREIF–ODCE benchmark index follows in Appendix A and Appendix B of this memorandum. The information provided in these two appendices was obtained from the NCREIF website. It is expected by the CIO that any private core real estate fund chosen for investment by BWC will meet the criteria for eligibility for inclusion in the NCREIF–ODCE index as provided in Appendix B.

The proposed revised Appendix A of the IPS adds as listed benchmark **VIII** the definition of the NCREIF–ODCE index recommended to serve as the benchmark index for both private open-end core real estate commingled funds and private value-added real estate commingled funds.

Exhibit A

About NCREIF

NCREIF was established to serve the institutional real estate investment community as a non-partisan collector, processor, validator and disseminator of real estate performance information.

NCREIF's Mission Statement

NCREIF is a not-for-profit trade association that serves its membership, and the academic and Investment community's need for improved commercial real estate data, performance investment measurement, investment analysis, information standards, education, and peer group interaction by:

- Collecting, processing and reporting data in a secure environment;
- Producing performance measurement indices;
- Encouraging academic and member use of NCREIF data for objective research;
- Providing forums with strong educational content to address industry issues;
- Publishing informed industry related articles and reports; and
- Contributing to the development of Real Estate Information Standards.

What is NCREIF?

The National Council of Real Estate Investment Fiduciaries (NCREIF) is an association of institutional real estate professionals who share a common interest in their industry.

They are investment managers, plan sponsors, academicians, consultants, appraisers, CPA's and other service providers who have a significant involvement in institutional real estate investments.

They come together to address vital industry issues and to promote research.

The membership is comprised of:

- **Data Contributing Members:**
 - Investment managers and plan sponsors who own or manage real estate in a fiduciary setting.
- **Affiliated Data Contributing Members:**
 - Investment managers or other corporations who own or manage real estate in a fiduciary setting but who do not currently qualify as Data Contributing Members.
- **Academic Members:**
 - Full-time professors of real estate.

NCREIF produces several quarterly indices that show real estate performance returns using data submitted to us by our Data Contributing Members.

Source: NCREIF website www.ncreif.org

Exhibit B

About the NCREIF ODCE Fund Index Data

The universe of funds comprising the NCREIF-ODCE employ, or did employ in the case of liquidated funds, a generally acknowledged investment style or strategy known in the business as "core" investing. Every fund included in the Index as well as any existing funds or those in the planning stages that aspire to be included in the Index must meet the following inclusion criteria.

A fund must market itself as an open-end commingled fund pursuing a diversified core investment strategy, primarily investing in private equity real estate with the following guidelines.

Net Assets Criteria

- Real Estate - at least 80% of the market value of net assets must be invested in real estate with no more than 20% invested in cash or equivalents.

Real Estate Net Assets Criteria

- Investment - at least 80% of the market value of real estate net assets must be invested in private equity real estate properties [no more than 20% of such assets may be invested in, but not limited to, property debt, public company, equity/debt or private company (operating business) equity/debt].
- Domain - at least 95% of market value of real estate net assets must be invested in US markets.
- Property Types - at least 80% of market value of real estate net assets must be invested in office, industrial, apartment and retail property types.
- Life Cycle - at least 80% of market value of real estate net assets must be invested in operating properties [no more than 20% of such assets may be invested in, but not limited to, (pre)development/redevelopment or initial leasing/lease-up cycles].
- Diversification - no more than 70% (\pm for market forces) of market value of real estate net assets may be invested in one property type or one region as defined by the NPI.

Total Assets Criteria

- Leverage - no more than 40% leverage. Leverage is defined as the ratio of total debt, grossed-up for ownership share of off-balance sheet debt, to the fund's total assets, also which are grossed-up for such off-balance sheet debt.

The fund must comply with the NCREIF Real Estate Information Standards, including annual audits, quarterly valuations and time-weighted returns. Further, the fund must submit information in accordance with the NCREIF Fund Data Collection and Reporting Manual. Timely, accurate and industry compliant data is required.

Source: NCREIF website www.ncreif.org

The Ohio Bureau of Workers' Compensation



Statement of Investment Policy and Guidelines

Adopted by the BWC Board of Directors: March 25, 2011

Amends Adoption of: September 24, 2010

The Ohio Bureau of Workers' Compensation Statement of Investment Policy and Guidelines

E. Investment Consultants' Responsibilities

The Investment Consultant shall:

- i. Provide independent and unbiased information to the Board, the Administrator and the CIO.
- ii. Assist in the development and amendment of this Investment Policy.
- iii. Assist in the establishment of strategic asset allocation targets.
- iv. Assist in the development of performance measurement standards.
- v. Report the quarterly investment performance results and quarterly risk characteristics of the Funds to the Board.
- vi. Monitor and evaluate Investment Manager performance on an ongoing basis.
- vii. Conduct due diligence on the Funds' current and prospective Investment Managers.
- viii. Confirm a procedural due diligence search process to include criteria and procedures to be utilized for the selection of all Investment Managers.
- ix. Provide the CIO with the firm's most recent Form ADV on an annual basis.
- x. Provide any other advice or services that the Board or the Administrator and Chief Investment Officer determine from time to time is necessary, useful or appropriate to fulfill the objectives of this Investment Policy in accordance with the Investment Consulting Agreement.

IV. INVESTMENT POLICY GUIDELINES

A. Asset Allocation Guidelines

The Funds are part of the Ohio Workers' Compensation System, an exclusive state insurance fund system that is held for the sole benefit of the injured workers and employers of Ohio.

Asset allocation refers to the strategic deployment of assets among the major classes of investments such as fixed income, U.S. equity, non-U.S. equity, alternative investments and cash equivalents. It is the primary determinant of success in meeting long term investment objectives. The asset allocation decision reflects the Funds' return requirements as well as the Funds' tolerance for return variability (risk) within the context of the expected liabilities of the Funds. The liability considerations shall include, but not be limited to, current and expected future values of the benefits, premiums and total assets. These factors are important for identifying the investment horizon of the Funds and their cash flow requirements. A formal asset/liability analysis for each Fund will be conducted every three – five years, or more frequently if conditions warrant.

The Board has a long-term asset allocation policy for each Fund that identifies the strategic target asset weights and ranges to each of the major asset classes. These policies are detailed in Section VI.

The Ohio Bureau of Workers' Compensation Statement of Investment Policy and Guidelines

B. Rebalancing Policy

Rebalancing is the periodic adjustment of an asset portfolio for the purposes of shifting the asset allocation back towards the desired target percentages. Rebalancing policies are put in place to provide a reliable discipline to keep a portfolio in balance as market fluctuations change the percentages that are committed to various assets classes. Over, time the asset mix of any portfolio will tend to drift away from its strategic target asset allocation, acquiring risk and return characteristics that are unintended.

The Board has a policy of rebalancing when actual asset allocations fall outside of the desired ranges as detailed in Section VI. For purposes of rebalancing, the percentages that each asset class constitutes of the total market value of the fund of which it is a part will be computed at the end of every calendar quarter. If the actual percentage of an assets class falls outside of the allowable ranges as outlined in Section VI by any amount, a rebalancing event will be triggered.

The following sequence of actions will be applied for any rebalancing activity:

1. When a rebalancing event is triggered, the Chief Investment Officer will notify the Administrator that a rebalancing event is imminent.
2. The Investment Division will then contact the appropriate outside investment managers and the BWC investment consultant to discuss market conditions and potential rebalancing actions.
3. The Investment Division will calculate a specific rebalancing dollar reallocation that will factor in appropriate future trust fund cash flows and the desired asset allocations after rebalancing. In general, the Board's policy, when rebalancing becomes necessary, is to restore an asset allocation for the out-of-balance asset class that is halfway between the outer bound that was violated and the original targeted asset percentage. Thus, as an example, if equities have a target allocation of 20%, and an allowable lower limit of 17%, but fall to 16% at a quarter's end as a result of market action, the proposed rebalancing plan would seek to restore equities to 18½% of the total fund (halfway between 17% and 20%).
4. The Chief Investment Officer will present a rebalancing recommendation to the Senior Officer Review Team, which consists of the BWC Administrator, the Chief Operating Officer, ~~and~~ the Chief Fiscal & Planning Officer and the Director of Investments, for approval before any such asset rebalancing can be implemented and executed.

5. Rebalancing less liquid asset classes, such as real estate, should not be undertaken as automatically as transactions designed to rebalance the more liquid asset classes with ready public markets. Many factors need to be considered when contemplating transactions intended to restore desired asset class targets in less liquid assets, including:

a. the availability of product to purchase

b. existing queues for entering or exiting desirable investments

c. the availability of investable cash

d. natural wind downs of less liquid commitments in the near future

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No simple rule will describe every situation but, as a guide, the Senior Officer Review Team should strive to maintain invested levels in less liquid assets as close as practicable to the target levels prescribed in Section VI, given the market conditions that prevail. Less liquid assets should rarely be sold for the primary purpose of portfolio rebalancing. Most of the time, market conditions and cash flow will allow achieving targeted allocation levels with the passage of time.

For purposes of determining quarterly asset allocation percentages for rebalancing, allocations to less liquid assets that are committed but not yet invested need to be accounted for, as do known or expected returns of capital invested. In addition, market values for less liquid assets may often lag market values for liquid assets by as much as three months, and this must be tolerated.

6. Finally, the Chief Investment Officer will provide a written summary of the fully executed rebalancing activity for any respective trust fund portfolio to the BWC Investment Committee at its next scheduled meeting.

In order to minimize turnover, Fund cash flows, such as premiums received or benefits paid, will be used to the fullest extent to achieve rebalancing objectives.

During periods of extreme market conditions and consequent illiquid markets whereby the ability to execute identified Fund assets rebalancing adjustments is made difficult and costly in the judgment of the Administrator and Chief Investment Officer, such rebalancing actions may be suspended. The suspension of such rebalancing actions and the reason for such decision will be reported promptly to the Board by the Administrator and Chief Investment Officer. Any required rebalancing action for a Fund will be implemented when the impacted financial markets become sufficiently liquid so as to execute such rebalancing action with reasonable cost in the judgment of the Administrator and Chief Investment Officer.

C. General Guidelines

The following represent the general guidelines that will apply to the management of Fund assets. In addition, each Investment Manager will have specific guidelines that are part of their Investment Management Agreement that will document the Funds' performance expectations and the Investment Manager's role in the overall portfolio. The Funds use these guidelines to establish, guide and control the strategy for each Investment Manager.

- i. The following guidelines serve to diversify the organizational risk of Investment Management firms or General Partners providing services to the Funds and to minimize the dependence by the Funds on any one investment firm. The diversification guidelines are as follows:
 - No one investment organization or General Partner, utilizing active management investment strategies, should manage more than 15% of the Funds' assets at the time it is hired.

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- On a prospective basis, an investment organization which utilizes passive management investment strategies, may manage up to 50% of the Funds' assets at the time it is hired. This guideline has been established to allow the BWC to take advantage of the benefits of low fees resulting from the economies of scale that exist with passive management. The Board, Staff and the Consultant will closely monitor this organizational risk to ensure the security of Fund assets. The maximum allocation under this guideline will only be utilized in circumstances where the fee benefit is believed to outweigh the organizational risk to the Funds.
- The Funds' assets managed by any one firm, utilizing either active or passive management investment strategies, or General Partner should not exceed 5% of the total assets managed by the firm or General Partner for all clients in that asset class at the time it is hired. For purposes of this constraint, "asset class" shall be broadly defined to include all styles, sub-sectors, or specialty portfolios managed by a firm within a particular asset class such as bonds or stocks; but shall exclude the real estate asset class which will be governed by its own specific diversification guidelines that follow.
- The amount of the Fund's assets invested at cost in any one Core real estate fund cannot exceed \$250 million. The amount of the Fund's assets invested at cost in any one Value-Added real estate fund cannot exceed \$50 million. On a prospective basis, the amount of the Fund's assets invested in any real estate fund (either Core or Value-Added) cannot exceed more than one-third of the total assets of such real estate fund.

ii. Fixed Income Investments

The investment goal of the fixed income investments is to offer the Funds a broad exposure to the return opportunities and investment characteristics associated with the U.S. domestic fixed income market. Each Fund's fixed income portfolio shall be invested in a manner that takes into consideration the duration and yield curve characteristics of its liabilities in order to preserve the reserve, provide for stable premiums and grow net assets.

Passive fixed income investment mandates shall be managed to match the risk and return profile of an assigned fixed income benchmark resulting in performance with a reasonably low tracking error. Active managed fixed income investment mandates shall be managed to provide an enhanced return-to-risk profile and excess investment return performance relative to an assigned fixed income benchmark.

Active managed Long Duration Credit fixed income portfolios are to have the following complementary objectives:

- Controlling/reducing risk and notable market value deterioration, independent of general interest rate increases, by eliminating/avoiding exposure to prominent declining credits
- Emphasizing the careful selection of well-researched credit holdings sufficiently diversified by both issuers and industry/sector groups
- Achieving acceptable risk-adjusted portfolio returns by outperforming the benchmark index by 0.25% (25 basis points) per annum net-of-fees over the trailing three-year period within acceptable returns tracking error and dispersion objectives

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- Outperforming the peer group manager total return median over the trailing three-year period net-of-fees

iii. U.S. Equity

The investment goal of the domestic equity investments is to offer the Funds a broad exposure to the return opportunities and investment characteristics associated with the U.S. domestic equity market. Passive U.S. equity investment mandates shall be managed to match the risk and return profile of an assigned U.S. equity benchmark resulting in performance with a reasonably low tracking error.

iv. Non-U.S. Equity

The investment goal of the non-U.S. equity investments is to offer the Funds a broad exposure to the return opportunities, diversification effects and investment characteristics associated with the non-U.S. equity market. Passive international equity investment mandates shall be managed to match the risk and return profile of an assigned international equity benchmark resulting in performance with a reasonably low tracking error.

v. Real Estate

The investment goal of the real estate investments is to offer the State Insurance Fund a broad exposure to the return opportunities, portfolio diversification effects, inflation protection features and investment characteristics associated with the institutional quality U.S. commercial real estate market. Eligible real estate investments will consist of U.S. concentrated private open-end Core real estate funds and U.S. concentrated private Value-Added real estate funds.

Core real estate funds are to have the following complementary objectives:

- Emphasizing the careful acquisition of high quality, well-leased commercial real estate properties sufficiently diversified by number, property type and geographical location and the subsequent effective professional management of such properties until such time as determination is made by the fund manager to dispose of such properties at acceptable market value.
- Achieving acceptable risk-adjusted portfolio returns by meeting or exceeding the benchmark index returns per annum gross of management fees over the trailing three-year period within acceptable returns tracking error.

Value –Added real estate funds are to have the following complementary objectives:

- Emphasizing the careful acquisition of commercial real estate properties sufficiently diversified by number at sufficiently low and attractive prices that have the potential for increases in tenant occupancy rates and leasing income attained from capital improvements and effective property management to provide the fund targeted expected rates of return for investors over the projected holding period.

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- Achieving acceptable risk-adjusted portfolio returns by exceeding the benchmark index return gross of management fees by at least 200 basis points per annum over the trailing three-year period within acceptable tracking error.

v.vi. **Cash Equivalents**

Cash equivalents may be held to meet each Fund's short term cash flow needs.

vi.vii. **Securities Lending**

Securities lending shall be engaged by the Funds or their Investment Managers as determined and approved by the Board.

vii.viii. **Derivatives**

A derivative is broadly defined as a contract whose value is based on the performance of an underlying financial asset, index or other investment. The most common forms of derivatives are futures, options, swaps and forwards.

The use of derivatives by the Funds or their Investment Managers is prohibited unless specifically approved by the Board. Specific approvals include:

1. Permission is granted to passive indexed investment managers to use futures on financial contracts in the management of commingled investment funds. The Board anticipates that this use of financial futures may be initiated by investment managers for specific risk-control purposes such as the facilitation of the investment of a large inflow of new money into the commingled fund.

The Board also recognizes that the language of the policies of some commingled funds permits other financial derivatives such as options and swaps. The Board has a very low tolerance for the use of other financial derivatives in commingled funds. On the infrequent occasions when financial derivatives such as options and swaps are used in commingled funds, the Board requires the investment staff of the BWC to report the use of the derivatives to the Board at the next scheduled meeting after the derivatives position has been initiated so that the Board may judge the appropriateness of the risks of the derivatives position. The Board will carefully evaluate whether remaining invested in that commingled fund is appropriate.

2. Permission is granted to investment transition managers to use futures on financial contracts, forward currency contracts, and Exchange Traded Funds in the management of portfolio transitions and in the management of portfolio rebalancing activity. The use of these instruments by investment transition managers for these purposes will typically begin and end in short periods of time.
3. Other derivatives that are generally approved for use include: collateralized mortgage obligations (CMOs), asset backed securities (ABS), and TBA mortgaged-backed securities in accordance with the restrictions stated in the definitions outlined below. Other broad classes of derivatives may be added in the future as deemed necessary and desirable by the Board.

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CMOs are mortgage-backed bonds that separate mortgage pools into different maturity classes. Issued by the Federal Home Loan Mortgage Corporation (Freddie Mac) and private issuers, CMOs are usually backed by government-guaranteed or other top-grade mortgages. Interest-only (IOs) and principal-only (POs) instruments are prohibited.

ABS are bonds or notes backed by loan paper on accounts receivable originated by banks, credit card companies or other providers of credit and often “enhanced” by a bank letter of credit or by insurance coverage provided by an institution other than the issuer.

TBA (“to be announced”) pools are mortgage-backed securities in which the specific underlying mortgage pools are not identified at the time of commitment to purchase, but which share defined characteristics such as coupon and term to stated maturity. TBA pools are sometimes either sold before settlement or extended in settlement from original settlement date to a future settlement date that is typically in the next month. To qualify for investment by the Funds, TBA pools must be issued by Freddie Mac, Federal National Mortgage Association (Fannie Mae), or Government National Mortgage Association (Ginnie Mae).

~~viii~~.ix. Commission Recapture / Directed Brokerage

The Funds shall not engage in commission recapture or directed brokerage programs.

~~ix~~.x. General Prohibitions

The following activities or investments are expressly prohibited within the Funds:

- a. Short selling with the exception of selling futures contracts for risk-control purposes.
- b. The use of all forms of leverage or the purchase of securities with borrowed money is prohibited, except that the Board recognizes that financial futures are generally purchased on margin and this is permitted.
- c. Coins, artwork, horses, jewelry, gems, stamps, antiques, artifacts, collectibles, and memorabilia.
- d. Direct or indirect investments in vehicles that target specified assets, which includes unregulated investments that are not commonly part of an institutional portfolio, that lack liquidity and that lack readily determinable valuation.

V. PERFORMANCE OBJECTIVES

A. Total Fund

The primary performance objective for each Fund is to achieve an aggregate rate of return that equals or exceeds the return of each Fund’s Performance Benchmark on a consistent basis. Each Fund’s Performance Benchmark combines designated market and/or custom indexes for Investment Category asset classes, weighted by asset-allocation target percentages. The Performance Benchmarks for each Fund are named in Section VI. The investment category Performance Benchmarks are described in Appendix A.

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B. Asset Class Composites

Each asset class shall be measured relative to its designated market and/or custom index. It is expected that any active management of individual asset classes will provide an investment return in excess of the index, net of expenses, on a consistent basis.

VI. TARGET ASSET MIXES AND RANGES

A. State Insurance Fund (SIF)

The State Insurance Fund liabilities consist of the following primary components:

- Indemnity cost: the compensation paid to injured workers for lost wages
- Medical cost: the cost of providing medical coverage to injured workers

These liabilities are long-term in nature, with an approximate duration of 10 years. Premiums are set each year at a level that is expected to cover the cost of future claims. Future claims are estimated based on actuarial methods that measure the expected indemnity and medical costs. These costs are discounted at a rate that is consistent with the guidelines as established by the Government Accounting Standards Board (GASB).

The Board has adopted a long-term asset allocation policy that identifies the strategic target weights to each of the major asset classes with a specific performance benchmark for each asset class. The asset allocation is deemed reasonable by the Board given the risk and return objectives of the Fund within the context of the Fund's expected liabilities and the current funding ratio. Performance benchmarks have been selected to provide broadly diversified market coverage within each asset class segment.

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The table ~~below~~ following highlights the general asset classes approved for investment and the strategic target weights. The allowable range for all target weights is reflected in the following table.

<u>State Insurance Fund</u>			
<u>Investment Category</u>	<u>Target Allocation</u>	<u>Permissible Range</u>	<u>Performance Benchmark</u>
Active Long Duration Fixed Income – Credit Bonds	20%	17% - 23%	Barclays Capital U.S. Long Credit Index
Indexed Long Duration Fixed Income – Credit Bonds	8%	5% - 11%	Barclays Capital U.S. Long Credit Index
Indexed Long Duration Fixed Income – U.S. Government Bonds	9% ↓ *6%*	6% - 12% ↓ *3% - 9%*	Barclays Capital U.S. Long Government Index
Indexed Barclays Capital Aggregate Fixed Income	15%	12% - 18%	Barclays Capital U.S. Aggregate Index
Indexed Treasury Inflation Protected Securities	17% ↓ **14%**	14% - 20% ↓ **11%-17%**	Barclays Capital U.S. Treasury: U.S. TIPS Index
Cash and Cash Equivalents	1%	0 - 6%	3-Month U.S. Treasury Bills
Total Fixed Income	70% → 64%		
Indexed U.S. Equity	20%	17% - 23%	Russell 3000 Stock Index
Index Non-U.S. Equity	10%	7% - 13%	MSCI All World ex-U.S. Index
Total Public Equity	30%		
<u>Core Real Estate Funds</u>	<u>4.5%</u>	<u>3 - 6%</u>	<u>NCREIF – ODCE Index</u>
<u>Value-Added Real Estate Funds</u>	<u>1.5%</u>	<u>0.75% - 2.25%</u>	<u>NCREIF – ODCE Index</u>
<u>Total Real Estate</u>	<u>6%</u>		
Total State Insurance Fund	100%	Fund Performance Benchmark	
		A weighted index consisting of:	
		28% BC U.S. Long Credit Index	
		9 6% BC U.S. Long Govt. Index	
		15% BC U.S. Aggregate Index	
		7 14% BC U.S. TIPS Index	
		1% 3-Month U.S. Treasury Bills	
		20% Russell 3000 Stock Index	
		10% MSCI All World ex-U.S. Index	
		<u>6% NCREIF – ODCE Index</u>	

*Allocation Target and Range after initial 3% allocation completed for Real Estate

**Allocation Target and Range after full 6% allocation completed for Real Estate

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APPENDIX A – Investment Category Performance Benchmarks

I. Barclays Capital U.S. Aggregate Index

The Barclays Capital U.S. Aggregate Index consists of taxable fixed income securities that are SEC-registered and U.S. dollar denominated. The index covers the broad U.S. investment grade fixed coupon rate bond market with index components for government and corporate securities, residential mortgage-backed securities, commercial mortgage-backed securities and asset-backed securities. Government and corporate securities include non-U.S. issuers, although non-U.S. issuers represent only a small portion of the index. Each security in the index must have at least one year to final maturity regardless of call features. Each security must be rated investment-grade (Baa3/BBB- or higher) in quality by at least two of the following ratings agencies: Moody's, S&P, Fitch. If only one of the three ratings agencies rates a security, the rating must be investment grade. The index typically has a weighted average duration between three and five years which is considered to be intermediate-term in duration.

II. Barclays Capital U.S. Long Government/Credit Index

The Barclays Capital U.S. Long Government/Credit Index consists of taxable fixed income securities that are publicly issued and U.S. dollar denominated. The index includes fixed coupon rate U.S. treasury securities, U.S. federal agency securities, U.S. municipal securities, non-U.S. government securities and both U.S. and non-U.S. corporate securities. Non-U.S. issuers represent only a small portion of the index. Each security in the index must have a final maturity of at least ten years. The index is a component of the broad Barclays Capital U.S. Aggregate Index. Each security must be rated investment-grade (Baa3/BBB- or higher) in quality by at least two of the following ratings agencies: Moody's, S&P, Fitch. If only one of the three ratings agencies rates a security, the rating must be investment grade. The index typically has a weighted average duration between ten and twelve years which is considered to be long-term in duration.

III. Barclays Capital U.S. Intermediate Government/Credit Index

The Barclays Capital U.S. Intermediate Government/Credit Index consists of taxable fixed income securities that are publicly issued and U.S. dollar denominated. The index includes fixed coupon rate U.S. treasury securities, U.S. federal agency securities, U.S. municipal securities, non-U.S. government securities and both U.S. and non-U.S. corporate securities. Non-U.S. issuers represent only a small portion of the index. Each security in the index must have a final maturity of at least one year and less than ten years. The index is a component of the broad Barclays Capital U.S. Aggregate Index. Each security must be rated investment-grade (Baa3/BBB- or higher) in quality by at least two of the following ratings agencies: Moody's, S&P, Fitch. If only one of the three ratings agencies rates a security, the rating must be investment grade. The index typically has a weighted average duration between three and five years which is considered to be intermediate-term in duration.

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IV. Barclays Capital U.S. Treasury: U.S. TIPS Index

The Barclays Capital U.S. Treasury: U.S. TIPS Index consists of all publicly issued U.S. dollar denominated Inflation-Protection securities (TIPS) issued by the U.S. Treasury that have at least one year to final maturity. The principal value of a TIPS increases with inflation and decreases with deflation, as measured by changes in the urban, non-seasonally adjusted consumer price index (CPI-U) calculated by the Bureau of Labor Statistics. The CPI-U index is a measure of the average change in prices paid by urban consumers for a fixed basket of goods and services. The principal value of a TIPS security is adjusted by a published index ratio reflecting the changes in the reference CPI-U index. TIPS securities have a stated fixed coupon rate of interest payable semi-annually that is applied to the inflation-adjusted principal value. Over the past several years, approximately one-third of the weighted market value of the index has been represented by issues in each of the maturity ranges of one-to-five years, five-to-ten years, and in excess of ten years. The index is considered to be intermediate-term in duration.

V. S&P 500 Index

The S&P 500 Index is a market capitalization weighted equity index maintained by Standard & Poors that seeks to be a benchmark of the U.S. large cap universe of stocks. S&P first identifies important industry categories and allocates a representative sample of stocks to each group. The companies chosen to be in the S&P 500 generally have the largest market values within their industry group. The industry categories are grouped into ten sectors: consumer discretionary, consumer staples, energy, financials, health care, industrials, information technology, materials, telecommunication services, and utilities. It is calculated on a total return basis with all dividends reinvested.

VI. Russell 3000 Index

The Russell 3000 Index is a market capitalization weighted equity index maintained by the Russell Investment Group that seeks to be a benchmark of the entire U.S. stock market. More specifically, this index encompasses the 3,000 largest U.S.-traded stocks, in which the underlying companies are all incorporated in the U.S., and represents 98% of the U.S. equity market. The Russell 3000 is comprised of stocks within the Russell 1000 and Russell 2000 Indices. Furthermore, the Russell 3000 Index is constructed to provide a comprehensive, unbiased, and stable barometer of the broad market and is completely reconstituted annually to ensure new and growing equities are reflected. It is calculated on a total return basis with all dividends reinvested.

VII. MSCI All Country World Index Ex U.S.

The MSCI All Country World Index Ex U.S. is a market-capitalization-weighted index maintained by Morgan Stanley Capital International (MSCI) and designed to provide a broad measure of stock performance throughout the world, with the exception of U.S.-based companies. The MSCI All Country World Index Ex U.S. includes both developed and emerging markets. The index attempts to replicate the industry composition of each local market and includes representative sampling of large, medium, and small capitalization companies. The index is calculated with net dividends reinvested in U.S. dollars.

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VIII. NCREIF - ODCE Index

The NCREIF - ODCE (Open End Diversified Core Equity) index is a market-capitalization-weighted index of investment returns before management fees of virtually all existing institutional quality private open-end commingled real estate funds emphasizing a diversified core investment strategy in the U.S. commercial real estate property market. The index is maintained by the not-for-profit National Council of Real Estate Investment Fiduciaries (NCREIF) institutional real estate trade association which calculates time-weighted rates of return of each core real estate fund comprising the index in order to calculate and publish the overall aggregate index return on a calendar quarterly basis.

12-month Investment Committee Calendar

Date	July	Notes
7/28/2011	<ol style="list-style-type: none"> 1. Investment Consultant real estate asset class, fourth review 2. Real Estate class IPS revision, fourth review 3. Annual Review Summary, FY 2011 IPS changes 	
Date	August	
8/25/2011	<ol style="list-style-type: none"> 1. MWBE MoM RFP Finalists(s) recommendation, possible vote 2. Investment Consultant real estate asset class, fifth review 3. Real Estate class IPS revision, fifth review, possible vote 4. Investment Consultant Performance Report 2Q11 5. BWC Investment Division Goals Fiscal Year 2012 6. Investment Consultant education session, U.S. Small/Mid Cap Equity active management, first review 	
Date	September	
9/29/2011	<ol style="list-style-type: none"> 1. Real Estate Core Fund Managers RFP issuance approval, possible vote 2. MWBE MoM RFP Finalist(s) recommendation, possible vote 3. Active investment manager governance process, first review 4. Brokerage Activity Fiscal Year 2011 summary report 5. Investment Consultant education session, U.S. Small/Mid Cap Equity active management, second review 	
Date	October	
10/27/2011	<ol style="list-style-type: none"> 1. Investment class performance/value annual report [ORC4121.12(F)(12)] 2. Annual Review Committee Charter (1st read) 3. Active investment manager governance process, second review 4. U.S. Small/Mid Cap Equity active management IPS revision, first review 5. Long Credit active manager RFP Finalist(s) recommendations, possible vote 6. Investment Consultant education session, Non-U.S. Equity active management, first review 	
Date	November	
11/17/2011	<ol style="list-style-type: none"> 1. Annual Review Committee Charter (2nd read), possible vote 2. U.S. Small/Mid Cap Equity active management IPS revision, second review, possible vote 3. Long Credit active manager RFP Finalist(s) recommendations, possible vote 4. Investment Consultant Performance Report 3Q11 5. Investment Consultant education session, Non-U.S. Equity active management, second review 	
Date	December	
12/14/2011	<ol style="list-style-type: none"> 1. Long Credit active manager RFP Finalist(s) recommendations, possible vote 2. U.S. Small/Mid Cap Equity active manager RFP issuance approval, vote 3. Non-U.S. Equity active management IPS revision, first review 	

12-month Investment Committee Calendar

Date	January	Notes
1/2012	<ol style="list-style-type: none"> 1. Non-U.S. Equity active management IPS revision, second review, possible vote 2. Core Real Estate RFP Finalists recommendations, possible vote 3. Investment Consultant education session, U.S. Aggregate Fixed Income active management, first review 	
Date	February	
2/2012	<ol style="list-style-type: none"> 1. Non- U.S. Equity active manager RFP issuance approval, vote 2. Core Real Estate RFP Finalists recommendations, possible vote 3. Investment Consultant Performance Report 4Q11 4. Investment Consultant education session, U.S. Aggregate Fixed Income active management, second review 	
Date	March	
3/2012	<ol style="list-style-type: none"> 1. Core Real Estate RFP Finalists recommendations, possible vote 2. U.S. Aggregate Fixed income active management IPS revision , first review 	
Date	April	
4/2012	<ol style="list-style-type: none"> 1. U.S. Aggregate Fixed income active management IPS revision , second review, possible vote 2. Cash Overlay Strategy education, first review 	
Date	May	
5/2012	<ol style="list-style-type: none"> 1. U.S. Aggregate Fixed Income active management RFP issuance approval, vote 2. Cash Overlay Strategy education, second review 3. Investment Consultant Performance Report 1Q12 	
Date	June	
6/2012		

Ohio BWC Investment Portfolio
U.S. Treasury Holdings
as of 6/30/2011
(\$ millions unaudited)

<u>Account</u>	<u>Base Cost</u>	<u>Base Net Income Receivable</u>	<u>Base Market Value</u>	<u>Base Unrealized Gain/Loss</u>
SIF TIPS BlackRock	\$ 2,190	16	2,295	105
SIF TIPS SSGA	905	7	958	53
SIF Long Govt. BlackRock	1,248	15	1,258	10
SIF U.S. Aggregate SSGA	<u>819</u>	<u>6</u>	<u>840</u>	<u>21</u>
SIF Total (Separate Accounts)	\$ 5,162	44	5,351	189
DWRF/BLF TIPS SSGA	\$ 592	0	601	9
* DWRF/BLF U.S. Aggregate SSGA	187	0	183	(4)
** PWRF/MIF Interm. Govt/Credit SSGA	<u>23</u>	<u>0</u>	<u>24</u>	<u>1</u>
Ancillaries Total (Commingled Accounts)	\$ 802	0	808	6
BWC Grand Total UST	\$ 5,964	44	6,159	195

* Estimated pro-rata amounts reflected as U.S. Treasuries represented **32.88%** of this commingled portfolio market value at 6/30/2011

** Estimated pro-rata amounts reflected as U.S. Treasuries represented **53.62%** of this commingled portfolio market value at 6/30/2011

Total U.S. Treasury assets at market value (including accrued interest income) of **\$6,203 million** represented **29.4%** of total BWC invested assets of \$21,117 million as of 6/30/2011

SSGA: State Street Global Advisors

SIF: State Insurance Fund

DWRF: Disabled Workers' Relief Fund

BLF: Coal Workers' Pneumoconiosis Fund

PWRF: Public Workers' Relief Fund

MIF: Marine Industry Fund

BWC Invested Assets
 Estimated and Unaudited
 As of July 27, 2011

July2011 MTD MV Increase Bonds..... + \$ 266 million (+ 1.9% return)
 July2011 MTD MV Decrease Equities..... - \$ 73 million (- 1.1% return)

July2011 MTD MV Increase Bonds+Equities.... + \$ 193 million
 (+0.9% July11 MTD portfolio return including Cash)

BWC Asset Allocation MV 7/27/2011

Bonds*.....	\$14,404 million	67.8%
Equities*.....	6,704 million	31.6%
Cash.....	<u>125 million</u>	<u>0.6%</u>
TOTAL.....	\$21,233 million	100.0%

* includes nominal cash held by outside managers

Portfolio Return Calendar 2008.....	-2.3%	(-\$444 million net inv. income)
Portfolio Return Fiscal Year 2009.....	-1.1%	(-\$195 million net inv. income)
Portfolio Return Calendar 2009.....	+8.6%	(+\$1,505 million net inv. income)
Portfolio Return Fiscal Year 2010.....	+12.0%	(+\$2,050 million net inv. income)
Portfolio Return Calendar 2010.....	+10.5%	(+\$1,989 million net inv. income)
Portfolio Return Fiscal Year 2011.....	+12.4%	(+\$2,364 million net inv. income)

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