Verus

PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS

PERIOD ENDING: AUGUST 31, 2023

Participant Plan Performance Review for

West Virginia Investment Management Board

	6/30/2023		8/31/2023		Performance %							
	Asset ($000)	%	Asset ($000)	%	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	10 Year	20 Year
WVIMB Fund Assets	**24,219,305**	**100.0**	**24,449,239**	**100.0**								
Pension Assets	**19,790,811**	**81.7**	**19,845,674**	**81.2**								
Public Employees' Retirement System	8,398,434	34.7	8,408,051	34.4	(1.2)	4.1	0.8	7.7	8.4	7.8	8.5	8.0
Teachers' Retirement System	9,319,703	38.5	9,359,491	38.3	(1.2)	4.1	0.7	7.7	8.3	7.8	8.5	7.8
EMS Retirement System	125,180	0.5	126,371	0.5	(1.2)	4.1	0.7	7.6	8.3	7.8	8.5	
Public Safety Retirement System	778,439	3.2	775,510	3.2	(1.2)	4.1	0.8	7.7	8.4	7.8	8.5	8.0
Judges' Retirement System	278,545	1.2	279,812	1.1	(1.2)	4.1	0.8	7.7	8.3	7.8	8.6	8.0
State Police Retirement System	320,094	1.3	323,020	1.3	(1.2)	4.1	0.8	7.6	8.3	7.8	8.5	8.0
Deputy Sheriffs' Retirement System	316,039	1.3	317,812	1.3	(1.2)	4.1	0.7	7.7	8.3	7.8	8.5	8.0
Municipal Police & Firefighter Retirement System	34,945	0.1	35,724	0.2	(1.2)	4.1	0.7	7.5	8.2	7.8	8.4	
Natural Resources Police Office Retirement System	27,643	0.1	27,906	0.1	(1.2)	4.1	0.7	7.6				
Municipal Model A	189,153	0.8	189,248	0.8	(1.2)	4.1	0.8	7.7	8.8	8.2	8.7	
Municipal Model B	2,636	0.0	2,729	0.0	(1.6)	4.2	0.7	8.8	3.7			
Insurance Assets	**3,216,097**	**13.3**	**3,219,920**	**13.2**								
Workers' Compensation Old Fund	851,245	3.4	840,306	3.4	(0.8)	2.7	0.7	4.5	2.2	4.0	4.5	
Workers' Comp. Self-Insured Guaranty Risk Pool	37,044	0.2	37,274	0.1	(0.8)	2.7	0.7	4.8	2.8	4.2	4.7	
Workers' Comp. Self-Insured Security Risk Pool	48,517	0.2	48,409	0.2	(0.8)	2.7	0.7	4.8	2.8	4.2		
Workers' Comp. Uninsured Employers' Fund	16,767	0.1	16,967	0.1	(0.8)	2.7	0.7	4.8	2.8	4.1	4.5	
Pneumoconiosis	200,150	0.8	199,078	0.8	(0.8)	2.7	0.7	4.8	2.8	4.2	4.7	5.1
Board of Risk & Insurance Management	183,857	0.8	185,127	0.8	(0.8)	2.7	0.7	4.7	2.8	4.2	4.7	
Public Employees' Insurance Agency	135,642	0.6	136,511	0.6	(0.8)	2.3	0.6	4.1	2.2	3.9	4.5	
WV Retiree Health Benefit Trust Fund	1,742,875	7.2	1,756,248	7.2	(1.2)	4.1	0.8	7.7	8.3	7.8	8.5	
Endowment Assets	**1,212,397**	**5.0**	**1,383,645**	**5.6**								
Berkeley County Development Authority	8,558	0.0	8,624	0.0	(1.2)	4.1	0.8	7.7	8.3	7.8		
Wildlife Fund	72,283	0.3	71,190	0.3	(1.2)	4.1	0.8	7.6	8.3	7.8	8.5	8.0
WV State Parks and Recreation Endowment Fund	35,050	0.1	36,586	0.1	(1.2)	4.1	0.8	8.1				
Revenue Shortfall Reserve Fund	334,187	1.4	500,697	2.0	(0.5)	1.1	0.4	0.8	(1.5)	1.4	1.9	
Revenue Shortfall Reserve Fund - Part B	514,884	2.2	516,923	2.1	(0.8)	1.7	0.4	2.6	0.1	3.1	4.0	
WV DEP Trust	11,478	0.0	11,587	0.1	(1.3)	4.5	0.9	10.3	6.5	6.2	7.2	
WV DEP Agency	235,957	1.0	238,038	1.0	(1.1)	3.6	0.9	6.8	3.7	4.8		

			Performance %							
	Asset ($000)	%	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	10 Year	20 Year
Investment Pools Composite	24,456,860	100.00								
Portable Alpha Composite	5,147,180	21.05	(1.65)	8.24	1.21	13.47	10.26			
+/- S&P 500 Index			*(0.06)*	*(0.04)*	*(0.36)*	*(2.47)*	*(0.26)*			
Large Cap Domestic Equity Composite	308,821	1.26	(1.59)	8.23	1.54	15.64	10.41	10.96	12.75	9.99
+/- S&P 500 Index			*0.00*	*(0.05)*	*(0.03)*	*(0.30)*	*(0.11)*	*(0.16)*	*(0.06)*	*0.06*
Non-Large Cap Domestic Equity Composite	1,055,086	4.31	(2.58)	7.44	0.98	13.32	12.24	6.41	9.64	9.98
+/- Russell 2500 Index			*1.35*	*(2.00)*	*0.13*	*6.68*	*2.72*	*0.98*	*0.51*	*0.61*
International Equity Composite	4,224,653	17.27	(3.28)	6.76	1.52	14.99	5.86	4.42	5.76	7.69
+/- MSCI AC World ex US IMI Index (a)			*0.98*	*2.57*	*1.72*	*2.78*	*1.25*	*0.64*	*0.76*	*0.80*
Fixed Income Composite	4,271,063	17.46	(0.63)	0.26	(0.06)	1.40	(2.42)	1.67	2.47	3.86
+/- Bloomberg Universal (b)			*(0.03)*	*0.92*	*0.44*	*1.79*	*1.54*	*0.93*	*0.70*	*0.50*
Core Fixed Income Composite	1,907,011	7.80	(0.51)	(0.96)	(0.66)	(0.29)	(3.33)	1.34	2.08	
+/- Bloomberg US Aggregate			*0.13*	*0.10*	*0.05*	*0.90*	*1.08*	*0.85*	*0.60*	
Total Return Fixed Income Composite *(c)*	2,364,052	9.66	(0.72)	1.23	0.41	2.57	(1.88)	1.88	2.66	4.27
+/- Bloomberg Universal			*(0.12)*	*1.89*	*0.91*	*2.96*	*2.08*	*1.14*	*0.89*	*0.86*
TIPS Composite	397,239	1.62	(0.46)	(0.47)	(0.03)	(3.02)	(1.24)	2.49	2.18	
+/- Bloomberg US TIPS 1-10 Yr (d)			*(0.02)*	*0.00*	*(0.04)*	*0.04*	*0.04*	*0.08*	*0.04*	
Cash Composite	263,156	1.08	0.44	1.30	0.86	4.26	1.56	1.58	1.04	1.44
+/- FTSE 3 Month US T-Bill (e)			*(0.03)*	*(0.05)*	*(0.06)*	*(0.18)*	*(0.07)*	*(0.11)*	*(0.03)*	*(0.03)*
Private Equity Composite	2,802,643	11.46	0.01	1.74	0.03	5.28	22.01	20.64	18.52	
+/- Russell 3000 + 3% (f, g)			*1.69*	*(7.52)*	*(2.05)*	*(12.48)*	*9.20*	*7.39*	*3.24*	
Real Estate Composite	2,439,650	9.98	(0.34)	(0.40)	(0.14)	(5.54)	6.77	5.65	7.90	
+/- NCREIF + 1% (f)			*0.24*	*1.27*	*1.02*	*(1.57)*	*(1.15)*	*(1.52)*	*(1.09)*	
Hedge Fund Composite	2,511,326	10.27	0.23	2.98	1.45	5.09	7.52	5.68	4.96	
+/- HFRI FOF + 1% (h)			*0.30*	*0.65*	*0.35*	*0.83*	*2.68*	*1.26*	*0.91*	
Private Credit & Income Composite	1,036,043	4.24	(0.39)	2.58	0.06	3.32	7.73	6.42		
+/- SOFR + 4% (f, i)			*(1.17)*	*0.27*	*(1.50)*	*(4.68)*	*0.89*	*0.74*		

	Equity		Fixed Income		Private Equity		Real Estate		Private Credit & Income		Hedge Funds		Cash	
	Actual %	Strategy %	Actual %	Strategy %	Actual %	Strategy %	Actual %	Strategy %	Actual %	Strategy %	Actual %	Strategy %	Actual %	Strategy %
Pension Assets														
Public Employees' Retirement System	46.7	45.0	15.0	15.0	12.6	12.0	10.9	12.0	4.6	6.0	10.2	10.0	0.0	0.0
Teachers' Retirement System	46.7	45.0	15.0	15.0	12.6	12.0	10.9	12.0	4.6	6.0	10.2	10.0	0.0	0.0
EMS Retirement System	46.7	45.0	15.2	15.0	12.4	12.0	10.8	12.0	4.6	6.0	10.1	10.0	0.2	0.0
Public Safety Retirement System	46.6	45.0	14.8	15.0	12.6	12.0	11.0	12.0	4.7	6.0	10.2	10.0	0.1	0.0
Judges' Retirement System	46.8	45.0	15.1	15.0	12.5	12.0	10.9	12.0	4.6	6.0	10.1	10.0	0.0	0.0
State Police Retirement System	46.3	45.0	15.3	15.0	12.5	12.0	10.9	12.0	4.6	6.0	10.1	10.0	0.3	0.0
Deputy Sheriffs' Retirement System	46.6	45.0	15.2	15.0	12.5	12.0	10.9	12.0	4.6	6.0	10.1	10.0	0.1	0.0
Municipal Police & Firefighter Retirement System	46.3	45.0	15.1	15.0	12.3	12.0	10.7	12.0	4.5	6.0	10.0	10.0	1.1	0.0
Natural Resources Police Office Retirement System	46.3	45.0	15.2	15.0	12.5	12.0	10.9	12.0	4.6	6.0	10.1	10.0	0.4	0.0
Municipal Model A	46.4	45.0	14.9	15.0	12.6	12.0	10.9	12.0	4.6	6.0	10.2	10.0	0.4	0.0
Municipal Model B	56.2	55.0	43.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0
Insurance Assets														
Workers' Compensation Old Fund	26.3	25.0	44.9	45.0	4.2	4.0	3.7	4.0	1.6	2.0	15.3	15.0	4.0	5.0
Workers' Comp. Self-Insured Guaranty Risk Pool	26.2	25.0	44.6	45.0	4.2	4.0	3.6	4.0	1.5	2.0	15.1	15.0	4.8	5.0
Workers' Comp. Self-Insured Security Risk Pool	26.3	25.0	44.7	45.0	4.2	4.0	3.6	4.0	1.5	2.0	15.2	15.0	4.5	5.0
Workers' Comp. Uninsured Employers' Fund	25.9	25.0	44.4	45.0	4.1	4.0	3.6	4.0	1.5	2.0	15.1	15.0	5.4	5.0
Pneumoconiosis	26.3	25.0	44.8	45.0	4.2	4.0	3.6	4.0	1.5	2.0	15.2	15.0	4.4	5.0
Board of Risk & Insurance Management	26.0	25.0	44.6	45.0	4.2	4.0	3.6	4.0	1.5	2.0	15.1	15.0	5.0	5.0
Public Employees' Insurance Agency	20.8	20.0	54.3	55.0	2.1	2.0	1.8	2.0	0.8	1.0	20.2	20.0	0.0	0.0
WV Retiree Health Benefit Trust Fund	46.7	45.0	15.3	15.0	12.5	12.0	10.8	12.0	4.6	6.0	10.1	10.0	0.0	0.0
Endowment Assets														
Berkeley County Development Authority	46.6	45.0	15.3	15.0	12.5	12.0	10.9	12.0	4.6	6.0	10.1	10.0	0.0	0.0
Wildlife Fund	46.2	45.0	15.4	15.0	12.6	12.0	10.9	12.0	4.6	6.0	10.2	10.0	0.1	0.0
WV State Parks and Recreation Endowment Fund	45.9	45.0	15.1	15.0	12.3	12.0	10.7	12.0	4.5	6.0	9.9	10.0	1.6	0.0
Revenue Shortfall Reserve Fund	7.0	10.0	53.2	80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.8	10.0
Revenue Shortfall Reserve Fund - Part B	18.2	17.5	72.0	72.5	2.1	2.0	1.8	2.0	0.8	1.0	5.1	5.0	0.0	0.0
WV DEP Trust	51.8	50.0	15.1	15.0	10.3	10.0	9.0	10.0	3.8	5.0	10.0	10.0	0.0	0.0
WV DEP Agency	35.9	35.0	39.3	40.0	2.1	2.0	1.8	2.0	0.8	1.0	20.1	20.0	0.0	0.0

(a) Prior to January 2014, the index was the MSCI ACW ex USA (Standard).

(b) Prior to April 2008, the index was Bloomberg US Aggregate.

(c) From October 2015 to March 2017, performance returns from the Opportunistic Income Pool were included in the Total Return Fixed Income Composite.

(d) Prior to June 2023, the index was Bloomberg US TIPS.

(e) Prior to January 2014, the index was FTSE 3 Month US T-Bill plus 15 basis points.

(f) Private Equity, Real Estate, and Private Credit & Income consist primarily of private market investments. The time lag in determining the fair value of these investments makes the comparison to their public market benchmarks less meaningful over shorter time periods.

(g) Prior to January 2014, the index was S&P 500 plus 500 basis points.

(h) Prior to January 2014, the index was Libor plus 400 basis points.

(i) From April 2017 to May 2023, the index was CS Leveraged Loan plus 200 basis points. Prior to April 2017, the index was CS Leveraged Loan plus 250 basis points.

Note: Participant returns are net of fees. Portfolio returns are net of management fees. Returns shorter than one year are unannualized.

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