Table A1. Supplementary sensitivity test results for average CEC

		Avera	ge CEC		Difference in Average CEC with the Base Scenario				
	S	В	H_1	H_2	S	В	H_1	H_2	
Baseline Scenario	\$59,976	\$59,496	\$60,266	\$62,059	_	_	_	_	
Yearly Compensation									
Income $e = \$55,000$ Yearly Compensation	\$47,052	\$46,650	\$47,338	\$48,725	-21.55%	-21.59%	-21.45%	-21.49%	
Income $e = \$85,000$	\$72,714	\$72,200	\$72,978	\$75,275	21.24%	21.35%	21.09%	21.30%	
CRRA Utility									
Parameter $\rho = 3$ CRRA Utility	\$60,621	\$59,901	\$61,093	\$62,642	1.07%	0.68%	1.37%	0.94%	
Parameter $\rho = 5$	\$59,427	\$59,093	\$59,212	\$61,404	-0.92%	-0.68%	-1.75%	-1.06%	
Expected Risk Premium									
$\mu - r = 4\%$ Expected Risk Premium	\$58,185	\$57,909	\$58,169	\$60,452	-2.99%	-2.67%	-3.48%	-2.59%	
$\mu - r = 6\%$	\$61,746	\$61,040	\$62,228	\$63,190	2.95%	2.59%	3.26%	1.82%	

Table A1 shows the supplementary sensitivity test results on average CEC and the related percentage difference compared with the base scenario for Self-Management with Dynamic Investment (S), Self-Management with Benchmark Investment (B), Hire-Management with Flexible Allocation (H_1), and Hire-Management with Alpha Focus (H_2), respectively. In this table, we present sensitivity results for yearly compensation income, CRRA utility parameter, and expected risk premium.

Appendix 5.

Supplementary Tables

Table A2. Key sensitivity test results for extra management fee

				Relative Difference ^a n Extra Management				
	Extra N	Managemei	nt Fee	Fee Adju	ıstment wi	th the Base Scenario		
	H ₁ vs B	H ₂ vs B	S vs B	H ₁ vs B	H ₂ vs B	S vs B		
Baseline Scenario	0.42%	1.35%	0.24%	_	_	_		
(i) Allocation Constraints								
in H cases								
$\underline{\pi}^{H} = 0 \& \overline{\pi}^{H} = 1$	0.21%	_	_	-0.20%	_	_		
(ii) Allocation Constraints								
in H cases								
$\underline{\pi}^{H} = -0.16 \& \overline{\pi}^{H} = 1.16$	_	1.72%	_	_	0.37%	_		
(iii) Allocation Constraints								
in H cases								
$\underline{\pi}^{H} = -0.32 \& \overline{\pi}^{H} = 1.32$	0.54%	2.00%	_	0.12%	0.65%	_		
Investment Benchmark	0.520/	1 440/	0.350/	0.100/	0.000/	0.110/		
– Vanguard Alpha Value	0.52%	1.44%	0.35%	0.10%	0.09%	0.11%		
Bottom 10% $\alpha = -5.424\%$		-6.38%			-7.63%			
Alpha Value	_	-0.36%	_	_	-1.05%	_		
Top 10% $\alpha = 3.684\%$	_	3.37%	_	_	1.99%	_		
Replacement Ratio								
L = 0.6	0.38%	1.23%	_	-0.04%	-0.12%	_		
Replacement Ratio								
L = 0.8	0.41%	1.40%	_	-0.01%	0.05%	_		
Weight in Terminal Target								
$v_T = 0.5$	0.42%	1.35%	_	0.00%	0.00%	_		
Weight in Terminal Target								
$v_T = 5$	0.38%	1.30%	_	-0.08%	-0.25%	_		

Table note

a Note that for a given baseline extra management fee rate F_0 and a given updated extra management fee rate F'_0 , we compute the relative difference as $(1 + F'_0)/(1 + F_0) - 1$.

Table A2 shows the key sensitivity test results on extra management fee and the related percentage difference compared with the base scenario for Self-Management with Dynamic Investment (S), Self-Management with Benchmark Investment (B), Hire-Management with Flexible Allocation (H_1), and Hire-Management with Alpha Focus (H_2), respectively. In this table, we present sensitivity results for allocation constraints in hire-management cases, investment benchmark, alpha value, replacement ratio, and weight in the terminal target.

Table A3. Supplementary sensitivity test results for extra management fee

	Extra N	Manageme	nt Fee	Relative Difference in Extra Management Fee Adjustment with the Base Scenario				
	H ₁ vs B	H_2 vs B	S vs B	H_1 vs B	H_2 vs B	S vs B		
Baseline Scenario	0.42%	1.35%	0.24%	_	_	_		
Yearly Compensation								
Income <i>e</i> = \$55,000 Yearly Compensation	0.47%	1.36%	0.25%	0.05%	0.01%	0.01%		
Income $e = \$85,000$	0.35%	1.34%	0.21%	-0.06%	-0.01%	-0.03%		
CRRA utility								
Parameter $\rho = 3$ CRRA utility	0.63%	1.42%	0.37%	0.21%	0.07%	0.13%		
Parameter $\rho = 5$	0.07%	1.27%	0.17%	-0.34%	-0.08%	-0.08%		
Expected Risk Premium								
$\mu - r = 4\%$ Expected Risk Premium	0.14%	1.19%	0.13%	-0.28%	-0.16%	-0.11%		
$\mu - r = 6\%$	0.68%	1.31%	0.38%	0.27%	-0.04%	0.14%		

Table A3 shows the supplementary sensitivity test results on extra management fee and the related percentage difference compared with the base scenario for Self-Management with Dynamic Investment (S), Self-Management with Benchmark Investment (B), Hire-Management with Flexible Allocation (H_1), and Hire-Management with Alpha Focus (H_2), respectively. In this table, we present sensitivity results for yearly compensation income, CRRA utility parameter, and expected risk premium.

Table A4. Key sensitivity test results for 99% VaR

		99%		nce in 99% ' Base Scen				
	S	В	H_1	H_2	S	В	H_1	H_2
Baseline Scenario	\$520,943	\$536,955	\$416,651	\$490,237	_	_	_	_
(i) Allocation Constraints in hire-management cases								
$\underline{\pi}^{H} = 0 \& \overline{\pi}^{H} = 1$ (ii) Allocation Constraints	-	_	\$435,847	_	-	_	4.61%	_
in hire-management cases $\underline{\pi}^{H} = -0.16 \& \overline{\pi}^{H} = 1.16$ (iii) Allocation Constraints	_	_	_	\$468,904	_	_	_	-4.35%
in hire-management cases								
$\underline{\pi}^{H} = -0.32 \& \overline{\pi}^{H} = 1.32$	_	_	\$416,156	\$483,945	_	_	-0.12%	-1.28%
Investment Benchmark – Vanguard	_	\$552,918	\$421,056	\$490,208	_	2.97%	1.06%	-0.01%
Alpha Value Bottom 10% α = –5.424% Alpha Value	_	_	_	\$260,464	_	-	_	-46.87%
Top 10% $\alpha = 3.684\%$	_	_	_	\$615,040	_	_	_	25.46%
Replacement Ratio $L = 0.6$ Replacement Ratio	_	_	\$494,791	\$550,007	_	_	18.75%	12.19%
L = 0.8	_	_	\$391,494	\$469,065	_	_	-6.04%	-4.32%
Weight in Terminal Target $v_T = 0.5$ Weight in Terminal Target	_	_	\$415,052	\$487,219	_	_	-0.38%	-0.62%
$v_T = 5$	_	_	\$435,397	\$493,883	_	_	4.50%	0.74%

Table A4 shows the key sensitivity test results on 99% VaR and the related percentage difference compared with the base scenario for Self-Management with Dynamic Investment (S), Self-Management with Benchmark Investment (B), Hire-Management with Flexible Allocation (H_1), and Hire-Management with Alpha Focus (H_2), respectively. In this table, we present sensitivity results for allocation constraints in hire-management cases, investment benchmark, alpha value, replacement ratio, and weight in the terminal target.

Table A5. Supplementary sensitivity test results for 99% VaR

		99%	VaR		Difference in 99% VaR with the Base Scenario			
	S	В	H_1	H_2	S	В	H_1	H_2
Baseline Scenario	\$520,943	\$536,955	\$416,651	\$490,237	_	_	_	_
Yearly Compensation								
Income $e = $55,000$	\$423,570	\$439,071	\$340,932	\$397,786	-18.69%	-18.23%	-18.17%	-18.86%
Yearly Compensation								
Income $e = \$85,000$	\$606,809	\$616,402	\$477,770	\$564,666	16.48%	14.80%	14.67%	15.18%
CRRA Utility								
Parameter $\rho = 3$	\$449,651	\$520,177	\$364,367	\$451,733	-13.69%	-3.12%	-12.55%	-7.85%
CRRA Utility								
Parameter $\rho = 5$	\$574,686	\$550,962	\$501,697	\$533,503	10.32%	2.61%	20.41%	8.83%
Expected Risk Premium								
$\mu - r = 4\%$	\$523,617	\$501,184	\$381,770	\$398,807	0.51%	-6.66%	-8.37%	-18.65%
Expected Risk Premium								
$\mu - r = 6\%$	\$530,136	\$570,782	\$460,221	\$634,915	1.76%	6.30%	10.46%	29.51%

Table A5 shows the supplementary sensitivity test results on 99% VaR and the related percentage difference compared with the base scenario for Self-Management with Dynamic Investment (S), Self-Management with Benchmark Investment (B), Hire-Management with Flexible Allocation (H_1), and Hire-Management with Alpha Focus (H_2), respectively. In this table, we present sensitivity results for yearly compensation income, CRRA utility parameter, and expected risk premium.

Table A6. Key sensitivity test results for 99% CVaR

		99%	CVaR			ice in 99% (e Base Scen		
	S	В	H_1	H_2	S	В	H_1	H_2
Baseline Scenario	\$467,147	\$480,465	\$339,266	\$408,569	_	_	_	_
(i) Allocation Constraints								
in hire-management cases								
$\underline{\pi}^{H} = 0 \& \overline{\pi}^{H} = 1$	_	_	\$366,460	_	_	_	8.02%	_
(ii) Allocation Constraints								
in hire-management cases								
$\underline{\pi}^{H} = -0.16 \& \overline{\pi}^{H} = 1.16$	_	_	_	\$383,123	_	_	_	-6.23%
(iii) Allocation Constraints								
in hire-management cases								
$\underline{\pi}^{H} = -0.32 \& \overline{\pi}^{H} = 1.32$	_	_	\$323,661	\$369,355			-4.60%	-9.60%
Investment Benchmark – Vanguard	_	\$500,539	\$344,053	\$411,076	_	4.18%	1.41%	0.61%
Alpha Value		\$300,333	7577,055	3411,070		7.10 /0	1.71/0	0.0170
Bottom 10% $\alpha = -5.424\%$	_	_	_	\$217,698	_	_	_	-46.72%
Alpha Value				7 ,				
Top 10% $\alpha = 3.684\%$	_	_	_	\$510,731	_	_	_	25.00%
Replacement Ratio								
L = 0.6	_	_	\$390,773	\$453,423	_	_	15.18%	10.98%
Replacement Ratio								
L = 0.8	_	_	\$316,874	\$393,992			-6.60%	-3.57%
Weight in Terminal Target			¢220.000	¢400.000			0.200/	0.010/
$v_T = 0.5$ Weight in Terminal Target	_	_	\$338,060	\$408,626	_	_	-0.36%	0.01%
$v_T = 5$	_	_	\$352,488	\$415,966	_	_	3.90%	1.81%

Table A6 shows the key sensitivity test results on 99% CVaR and the related percentage difference compared with the base scenario for Self-Management with Dynamic Investment (S), Self-Management with Benchmark Investment (B), Hire-Management with Flexible Allocation (H_1), and Hire-Management with Alpha Focus (H_2), respectively. In this table, we present sensitivity results for allocation constraints in hire-management cases, investment benchmark, alpha value, replacement ratio, and weight in the terminal target.

Table A7. Supplementary sensitivity test results for 99% CVaR

		99%	CVaR		Difference in 99% CVaR with the Base Scenario			
	S	В	H_1	H_2	S	В	H_1	H_2
Baseline Scenario	\$467,147	\$480,465	\$339,266	\$408,569	_	_	_	_
Yearly Compensation								
Income $e = $55,000$	\$380,464	\$398,376	\$279,686	\$337,149	-18.56%	-17.09%	-17.56%	-17.48%
Yearly Compensation								
Income $e = $85,000$	\$537,570	\$544,841	\$382,875	\$468,907	15.08%	13.40%	12.85%	14.77%
CRRA Utility								
Parameter $\rho = 3$ CRRA Utility	\$394,238	\$466,745	\$297,433	\$378,965	-15.61%	-2.86%	-12.33%	-7.25%
Parameter $\rho = 5$	\$521,994	\$494,121	\$392,882	\$445,099	11.74%	2.84%	15.80%	8.94%
Expected Risk Premium								
$\mu - r = 4\%$	\$474,564	\$448,321	\$309,144	\$331,826	1.59%	-6.69%	-8.88%	-18.78%
Expected Risk Premium	,		,	,				
$\mu - r = 6\%$	\$467,866	\$513,263	\$375,464	\$519,970	0.15%	6.83%	10.67%	27.27%

Table A7 shows the supplementary sensitivity test results on 99% CVaR and the related percentage difference compared with the base scenario for Self-Management with Dynamic Investment (S), Self-Management with Benchmark Investment (B), Hire-Management with Flexible Allocation (H₁), and Hire-Management with Alpha Focus (H₂), respectively. In this table, we present sensitivity results for yearly compensation income, CRRA utility parameter, and expected risk premium.