

# Portfolio Management for Institutional Investors

## CFA三级培训项目

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### Reading 33

#### Portfolio Management for Institutional Investors

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#### Case: William Azarov

- William Azarov is a portfolio manager for Westcome Investments, an asset management firm. Azarov is preparing for meetings with two of Westcome's clients and obtains the help of Jason Boulder, a junior analyst. The first meeting is with Maglav Inc., a rapidly growing US-based technology firm with a young workforce and high employee turnover. Azarov directs Boulder to review the details of Maglav's defined benefit (DB) pension plan. The plan is overfunded and has assets under management of \$25 million. Boulder makes the following two observations:

**Observation 1** Maglav's shareholders benefit from the plan's overfunded status.

**Observation 2** The funded ratio of Maglav's plan will decrease if employee turnover decreases.



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➤ Maglav outsources the management of the pension plan entirely to Westcome Investments. The fee structure requires Maglav to compensate Westcome with a high base fee regardless of performance. Boulder tells Azarov that outsourcing offers small institutional investors, such as Maglav's pension plan, the following three benefits:

**Benefit 1:** Regulatory requirements are reduced.

**Benefit 2:** Conflicts of interest are eliminated from principal–agent issues.

**Benefit 3:** Investors have access to a wider range of investment strategies through scale benefits.

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➤ In the meeting with Maglav, Azarov describes the investment approach used by Westcome in managing the pension plan. The approach is characterized by a high allocation to alternative investments, significant active management, and a reliance on outsourcing assets to other external asset managers. Azarov also explains that Maglav's operating results have a low correlation with pension asset returns and that the investment strategy is affected by the fact that the pension fund assets are a small portion of Maglav's market capitalization. Azarov states that the plan is subject to the Employee Retirement Income Security Act of 1974 (ERISA) and follows generally accepted accounting principles, including Accounting Standards Codification (ASC) 715, Compensation—Retirement Benefits.

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➤ Azarov's second meeting is with John Spintop, chief investment officer of the Wolf University Endowment Fund (the Fund). Spintop hired Westcome to assist in developing a new investment policy to present to the Fund's board of directors. The Fund, which has assets under management of \$200 million, has an overall objective of maintaining long-term purchasing power while providing needed financial support to Wolf University. During the meeting, Spintop states that the Fund has an annual spending policy of paying out 4% of the Fund's three-year rolling asset value to Wolf University, and the Fund's risk tolerance should consider the following three liability characteristics:

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**Characteristic 1** The Fund has easy access to debt markets.

**Characteristic 2** The Fund supports 10% of Wolf University's annual budget.

**Characteristic 3** The Fund receives significant annual inflows from gifts and donations.

- The Fund has a small investment staff with limited experience in managing alternative assets and currently uses the Norway model for its investment approach. Azarov suggests a change in investment approach by making an allocation to externally managed alternative assets—namely, hedge funds and private equity. Ten-year nominal expected return assumptions for various asset classes, as well as three proposed allocations that include some allocation to alternative assets, are presented in Exhibit 1.

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Exhibit 1 10-Year Nominal Expected Return Assumptions and Proposed Allocations				
Asset Class	Expected Return	Allocation 1	Allocation 2	Allocation 3
US Treasuries	4.1%	45%	10%	13%
US Equities	6.3%	40%	15%	32%
Non-US Equities	7.5%	10%	15%	40%
Hedge Funds	5.0%	0%	30%	5%
Private Equity	9.1%	5%	30%	10%

- Expected inflation for the next 10 years is 2.5% annually.

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- Which of Boulder's observations regarding Maglav's pension plan is correct?
  - Only Observation 1
  - Only Observation 2
  - Both Observation 1 and Observation 2

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➤ **Answer: C.**

Both observations are correct. For a corporate defined benefit plan, Maglav's shareholders are stakeholders. These stakeholders are interested in the sustainability of the pension plan, and the overfunded status is an asset on the balance sheet, potentially increasing the value of Maglav's stock. The overfunded status also allows management to potentially lower employer contributions to the plan and increase net income. It also lowers financial risk, which may reduce volatility in the stock price. In addition, decreasing employee turnover will increase plan liabilities and worsen the funded ratio. With high turnover, fewer workers will be vested and entitled to defined benefit payments. Conversely, if employee turnover decreases, expected vesting will increase, leading to higher plan liabilities and a lower funded ratio.

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- Which of the benefits of outsourcing the management of the pension plan suggested by Boulder is correct?
- Benefit 1
  - Benefit 2
  - Benefit 3

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➤ **Answer: C.**

Scale (asset size) is a defining characteristic for institutional investors since it affects key aspects of the investment process. Maglav's pension plan is small, with \$25 million in assets under management. Smaller institutions may be unable to access certain investments that have a high minimum investment, such as private equity and real estate assets. These smaller institutions may also have difficulty in hiring skilled investment professionals. As a result, small institutional investors, such as Maglav's pension plan, are more likely to outsource all or most of the investment operations to external asset managers or investment consultants.

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- Westcome's investment approach for Maglav's pension plan can be best characterized as the:
  - A. Norway model.
  - B. Canadian model.
  - C. endowment model.

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### ➤ Answer: C.

The endowment model operates in an asset-only context and is characterized by a high allocation to alternative investments, including private investments and hedge funds; significant active management; and outsourcing to external managers. These characteristics describe the investment approach used by Westcome. The skill in sourcing alternative investments is critically important given the large variation in performance among asset managers, especially for alternative investments.

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- The risk tolerance of Maglav's pension plan can be best characterized as being:
  - A. below average.
  - B. average.
  - C. above average.

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➤ **Answer: C.**

The risk tolerance for Maglav's defined benefit plan is high and thus above average. Several factors influence the plan sponsor's ability to assume risk. For Maglav, the overfunded status of the pension fund allows the plan to withstand more volatility, and its small size relative to the company size implies greater risk tolerance. The low correlation of Maglav's operating results with pension asset returns also results in greater risk tolerance. Finally, the workforce characteristics imply greater risk tolerance. The younger workforce increases the duration of the plan liabilities and enables the sponsor to take on more liquidity risk. The high turnover of the workforce means fewer employees may be vested, reducing the number of employees entitled to receive defined benefit payments. All these factors contribute to an above average risk tolerance for Maglav's defined benefit plan.

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- Based on Azarov's statement concerning ERISA and ASC 715, which of the following statements is correct?
- Maglav is not allowed to terminate the plan.
  - Maglav can exclude the plan's service costs from net income.
  - Maglav's plan must appear as an asset on Maglav's balance sheet.

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➤ **Answer: C.**

ASC 715, Compensation—Retirement Benefits requires that an overfunded (underfunded) plan appear as an asset (liability) on the balance sheet of the corporate sponsor. Maglav's plan is overfunded, so it appears as an asset on Maglav's balance sheet.

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- The risk tolerance of the Wolf University Endowment Fund can be best characterized as:
  - A. below average.
  - B. average.
  - C. above average.

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### ➤ Answer: C.

The risk tolerance of the Wolf University Endowment Fund is above average since endowments that support a small percentage of the university's operating budget (10% in this case) should be able to tolerate more market, credit, and liquidity risk. In addition, the Fund's ability to access debt markets, especially during periods of market stress, increases the level of risk the endowment can accept in its investments. Finally, because of the significant inflows from gifts and donations, the effective spending rate will be lower than the annual spending policy of paying out 4% of the Fund's three-year rolling asset value. Thus, the Fund can rely less on investment returns to generate the income stream needed to support the university and can accept higher-risk investments.

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- Which proposed allocation in Exhibit 1 would be most appropriate for the Fund given its characteristics?
  - A. Allocation 1
  - B. Allocation 2
  - C. Allocation 3

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## ➤ Answer: C.

Allocation 3 is the most appropriate allocation for the Fund. The annual expected returns for the three allocations are as follows:

$$\text{Allocation 1 exp. return} = (0.45 \times 4.1\%) + (0.40 \times 6.3\%) + (0.10 \times 7.5\%) + (0.05 \times 9.1\%) = 5.57\%.$$

$$\text{Allocation 2 exp. return} = (0.10 \times 4.1\%) + (0.15 \times 6.3\%) + (0.15 \times 7.5\%) + (0.30 \times 5.0\%) + (0.30 \times 9.1\%) = 6.71\%.$$

$$\text{Allocation 3 exp. return} = (0.13 \times 4.1\%) + (0.32 \times 6.3\%) + (0.40 \times 7.5\%) + (0.05 \times 5.0\%) + (0.10 \times 9.1\%) = 6.71\%.$$

The real return for Allocation 1 is 3.07% (= 5.57% – 2.50%), and the real return for Allocation 2 and Allocation 3 is 4.21% (= 6.71% – 2.50%).

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Therefore, Allocation 1 is not appropriate because the expected real rate of return is less than the annual spending rate of 4%. With expected spending at 4%, the purchasing power of the Fund would be expected to decline over time with Allocation 1.

Allocations 2 and 3 both offer an expected real rate of return greater than the annual spending rate of 4%. Thus, the purchasing power of the Fund would be expected to grow over time with either allocation. However, Allocation 3 is more appropriate than Allocation 2 because of its lower allocation to alternative assets (hedge funds and private equity). The total 60% allocation to alternative assets in Allocation 2 is well above the 15% allocation in Allocation 3 and is likely too high considering the Fund's small investment staff and its limited experience with managing alternative investments. Also, given the Fund's relatively small size of assets under management (\$200 million), access to top hedge funds and private equity managers is likely to be limited.

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