CFAspace

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Academy of Professional Finance 专业金融学院

CFA Level II

The Portfolio Management Process and The Investment Policy Statement

Lecturer: Nan Chen

Framework

Reading	Changes
Reading: Portfolio Concepts	No
Reading: Residual Risk and Return: The Information Ratio	Added
Reading: The Fundamental Law of Active Management	Altered
Reading: The Portfolio Management Process and the IPS	No

- 1. The Importance of the Portfolio Perspective
- 2. Three Steps of Portfolio Management Process
  - A. Planning
    - 2.1 Analyzing Objectives and Constraints
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- 3. Ethical Conduct as a Requirement for Managing Investment Portfolios

Item Set Example

Joshua White Scenario

(This case was adapted from the CFA mock exams)

Joshua White, age 30, is the founder and 100% owner of start-up firm Eastwood Network (EN), based in Germany. He is selling EN to global media and consumer goods giant Collection Media Group (CMG) for cash and stock. German tax rules allows White to sell the firm without any tax obligation for capital gains.

Executive Wealth Management Associates (EWMA), a a national investment and financial planning firm, is advising White in his wealth planning and in the negotiations with CMG. Although EN's internationally held stock is publicly traded large-cap equity, White is restricted from selling his stock for at least five years and will remain as director of the German division.

As the the transaction is being finalized, White meets with Deb Butler, a portfolio manager at EWMA, to discuss his investment needs. He shares the following information with her:

"My income as director at EN will be more than enough to cover all of my living expenses and save at least €100,000 annually, so I do not plan to withdraw funds from my portfolio. I would have preferred selling EN for cash, but by accepting the restricted stock, the total sales proceeds were almost twice as much as in a cash sale. This is the first time I've ever had any amount of wealth, and I want to be sure that it lasts a long time. The portfolio will fund our retirement. I want my portfolio to show steady growth, averaging 7% to 9% annually, with moderate volatility. A list of my assets is shown in Exhibit 1:

White Family Assets:	
Assets	Value
Personal home	1,450,000 EURO
CMG restricted stock from EN sale	14,000,000 EURO
Cash from EN sale	6,250,000 EURO

Item Set Example

Butler arranges a future meeting with White to present specific recommendations and drafts an investment policy statement (IPS) with the following elements:

1)A 7% to 9% return objective
2)a 9% standard deviation risk objective
3)An appropriate time horizon that recognizes his objectives and constraints
4)No anticipated liquidity needs

EWMA uses proprietary diversified funds of funds (FOF) for each asset class. The funds can only be liquidated monthly. Individual stock are typically only held pursuant to a client's direction. She narrows her choices of funds to the three funds, which are presented in Exhibit 2 along with EWMA's capital market assumptions:

Capital Market Assumptions

	Expected Return	Standard Deviation	Beta	Sharpe Ratio	Correlation with CMG
CMG stock	12%	20%	1.2	0.50	1.00
Large-Cap Equity Index Fund	12%	15%	1.0	0.67	0.90
EWMA Aggressive FOF	15%	13%	0.9	1.00	0.75
EWMA Alternative FOF	12%	15%	0.1	0.67	0.00
EWMA Short Assets FOF	9%	12%	–0.4	0.58	–0.75
Risk-free rate	2%				

Finally White asks Butler, "I would also be very interested in learning your opinion of CMG as an investment, since it is such a large part of my portfolio. " Butler responds, " According to our capital market assumptions and the CAPM, I find that CMG stock undervalued."

Item Set Example

1. The most appropriate time horizon that Butler should include in the IPS is:
A. Five years
B. A multi-stage period
C. A single 35- year period.

2. Based on the IPS and Exhibit 2, which of the following elements of White's investment policy is least likely to be satisfied?
A. Risk tolerance
B. Liquidity needs
C. Return objectives

3. Based on the data in Exhibit 2, which of the following would Butler least likely include in her initial asset allocation recommendation?
A. EWMA Aggressive FOF.
B. EWMA Alternative FOF.
C. Large-Cap Equity Index Fund.

4. Based on the Sharpe ratio, which single EWMA FOF should be added to the CMG stock holding in order to achieve the greatest mean-variance improvement for the resulting two-asset portfolio?
A. Aggressive
B. Alternative
C. Short Assets

5. If White invests his available cash of 6,250,000 EURO in the EWMA Short Assets FOF, the standard deviation of the two asset portfolio is closest to:
A. 11.3%
B. 14.3%
C. 17.5%

6. According to the CAPM, is Butler's assessment of CMG's valuation most likely correct?
A. Yes.
B. No, because CMG is overvalued.
C. No, because CMG is fairly valued.

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1. The Importance of the Portfolio Perspective

- *The **portfolio perspective*** is a key underlying principle of the entire CFA curriculum.

- ***Diversification*** is expected of portfolio managers as a method of reducing risk.

- Investors, analysts, and portfolio managers should analyze the risk-return trade off
  - ✓ of the ***portfolio as a whole***,
  - ✓ NOT of the individual investments in the portfolio.

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2.1 Analyzing Objectives and Constraints

- ***Investment Objectives***: what the investor want to accomplish with the portfolio.

  - *Risk objectives*
  - Return objectives

Risk Objectives

➢ **Risk Objectives:**		
*Willingness to take risk	how much risk the investor is willing to take	***Risk Tolerance***
*Ability to take risk	how much risk the practical situation will allow the investor to take	
Factors that affect ability:		
Required spending needs-	How much volatility in portfolio value can the investor tolerate before it jeopardizes meeting spending needs?	
Long-term wealth target-	How much volatility in portfolio value can the investor tolerate before it jeopardizes meeting long-term wealth goals?	
Financial strength-	Can the investor increase savings/ decrease expenditures if the portfolio is insufficient to meet spending needs?	
Liabilities-	Does the investor need to make future payments or have certain set spending requirements in retirement?	

➢ **Appropriately connecting willingness to ability**	
If willingness exceeds ability,	ability should define the maximum risk tolerance.
If ability exceeds willingness,	the investor should be counseled that the assumption of more risk may be appropriate, with the ultimate decision up to the investor.

➢ **Risk Measurements**	
In absolute terms:	Variance, standard deviation
In relative terms:	Tracking risk

➢ **Statement of Risk Objectives**	
In broad terms:	"I have a moderate level of risk tolerance."
In specific terms:	"The level of portfolio volatility should not exceed 25% in any given year."

2.1 Analyzing Objectives and Constraints

- ***Investment Objectives***: what the investor want to accomplish with the portfolio.

  - Risk objectives
  - *Return objectives*

Return Objectives

➤ **Return Objectives:**	
* desired vs. required Return	<u>*desired return*</u>: how much the investor wishes to received from the portfolio.
	<u>*required return*</u>: some level of return that must be achieved by the portfolio, at least on an average basis to meet the target financial obligations.
* pretax vs. after tax returns	
* real vs. nominal returns	

➤ *The **return objective** should be considered from a total return perspective:*

the spending needs can be met through both investment <u>income</u> and <u>capital appreciation</u>.

➤ ***Investment Objectives of Individual and Institutional Investors:***

Investor	*Return Requirement*	*Risk Tolerance*
Individual investor	Depends on life-cycle stage and financial position	Depends on life-cycle stage and financial position
Defined benefit pension plan	Sufficient to fund pension liability while accounting for inflation	Depends on plan features, age of workforce, and funding status of plan
Defined contribution pension plan	Depends on life-cycle stage of beneficiaries	Depends on risk tolerance of beneficiaries
Endowments and foundations	Sufficient to cover spending needs, expenses, and inflation	Generally average or above average
Life insurance companies	Function of policyholder reserve rates	Below average because of significant regulatory constraints
Non-life insurance companies	Function of policy pricing and financial strength	Below average because of significant regulatory constraints
Banks	Function of cost of funds	Depends on business model and financial strength

2.1 Analyzing Objectives and Constraints

- ***Investment Constraints***: factors restricting or limiting the universe of available investment choices.

  - *Liquidity Constraints*
  - Time Horizon Constraints
  - Tax Constraints
  - Legal and Regulatory Factors
  - Unique Circumstances

Liquidity Constraints

➢ **Liquidity Constraints:** cash outflows that will be needed at some specified time and are in excess of available income.

* One-time liquidity need:	a down payment for a home
* Need on a regular basis:	monthly spending needs during retirement
* Cash reserve:	It is ordinarily prudent to set aside some amount (ex: 3-month living expenses) to meet unexpected cash needs.

➢ **The reason why liquidity constraints are important to consider:**

✓ Certain assets may generate only a portion of their fair value if they must be sold quickly.

✓ Attention must be paid to an asset's ability to be turned into cash without significant impact on portfolio value or asset allocation.

➢ **Linkages between liquidity and risk objectives:**

✓ Higher liquidity requirements usually indicate a lower tolerance for risk taking;

✓ Sensitivity to liquidity is a factor potentially affecting the willingness to take risk.

2.1 Analyzing Objectives and Constraints

- ***Investment Constraints***: factors restricting or limiting the universe of available investment choices.

Liquidity Constraints

Time Horizon Constraints

Tax Constraints

Legal and Regulatory Factors

Unique Circumstances

Time Horizon Constraints

➢ **Time Horizon:** the time period(s) over which a portfolio is expected to generate returns to meet specific future needs.

* long time horizon:	A couple in their 30s save for retirement.
* short time horizon:	A couple save to purchase a home in 2 years.
* combination of short and long time horizons:	A couple save both to fund their children's educations in 5 years and for retirement in 30 years.

➢ **The reason why time horizon is important:**

✓ The *longer* the investment time horizon, the more risk an investor can take on.

✓ The uncertainty about returns and the inability to make up for poor results over a *short* time horizon leads many short-term investors to select relatively low-risk securities.

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Tax Constraints

➢ **Tax Constraints:** depend on how, when, and if portfolio returns of various types are taxed.

Institutional vs. Individual	Some institutional investors (pension funds, endowments) have tax exempt status.
	Individual investors are taxed on the income and realized gains generated by their personal portfolios.

** Various Occasions:*

✓ Capital gains may be taxed at a lower rate than investment income.

✓ Returns on certain types of retirement accounts are tax deferred until withdrawals are made.

✓ Estate taxes can affect portfolio decisions.

2.1 Analyzing Objectives and Constraints

- ***Investment Constraints***: factors restricting or limiting the universe of available investment choices.

  - Liquidity Constraints
  - Time Horizon Constraints
  - Tax Constraints
  - *Legal and Regulatory Factors*
  - Unique Circumstances

Legal and Regulatory Factors

➢ **Legal and regulatory factors:**	
* Institutional Investors (*mainly*):	✓ Which investment classes are not allowed is specified;
	✓ Any limitations placed on allocations to particular investment classes are dictated.
* Individual Investors (*trust portfolios*):	Trust portfolio for individual investors may be subject to substantial legal and regulatory oversight, which must be considered when establishing the IPS.

2.1 Analyzing Objectives and Constraints

- ***Investment Constraints***: factors restricting or limiting the universe of available investment choices.

Liquidity Constraints

Time Horizon Constraints

Tax Constraints

Legal and Regulatory Factors

Unique Circumstances

Unique Circumstances

➢ **Unique Circumstances:** special concerns of the investor

* *University endowments and philanthropic organizations* might not allow investments in tobacco, alcohol, or defense product companies.

* Individuals might wish to have their portfolios fund specific activities: cancer research, support for the arts.

--These special investor circumstances restricting investment activities must be considered in the formulation of the IPS.

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2.2 Developing an IPS

➢ The Role of the IPS in the Portfolio Management Process:

- ✓ *Be readily implemented by current or future investment advisers (easily transportable).*
- ✓ *Promote long-term discipline for portfolio decisions.*
- ✓ *Help protect against short-term shifts in strategy when either market environment or portfolio performance cause panic or overconfidence.*

➢ Typical Elements of an IPS:

- ✓ A description about the client's background and situation.
- ✓ The purpose of the IPS with respect to policies, objectives, goals, restrictions, and portfolio limitations.
- ✓ Identification of duties and responsibilities of parties involved.
- ✓ The formal statement of objectives and constraints.
- ✓ A calendar schedule for both portfolio performance and IPS review.
- ✓ Asset allocation ranges and statements regarding flexibility and rigidity when formulating or modifying the strategic asset allocation.
- ✓ Guidelines for portfolio adjustments and rebalancing.

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2.3 Determining the Appropriate Investment Strategy

- ✓ Passive Investment Strategies
- ✓ Active Investment Strategies
- ✓ Semi-active / Risk-controlled active / Enhanced index Strategies

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2.4 Selecting an Appropriate Asset Allocation

- The IPS and capital market expectations are combined to *formulate strategic asset allocation*:

✓

Asset Class	Expected Returns	Target Weight	Policy Range
Equity	E(R1)	50%	40%-60%
Fixed Income	E(R2)	30%	20%-40%
Real Estate	E(R3)	10%	5%-15%
Commodities	E(R4)	10%	5-%15%
	Portfolio Expected Return *=0.5 * E(R1) + 0.3* E(R2) + 0.1 * E(R3) + 0.1* E(R4)*		

✓ If the portfolio's risk-return profile diverge significantly from the investor's objectives, the *strategic asset allocation* may need to be reviewed.

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3. Ethical Conduct as a Requirement for Managing Investment Portfolios

- *The portfolio manager is* ***<u>in a position of trust</u>*** *and so must meet the highest standards of ethical conduct in order to truly serve clients.*

- *The CFA Institute Code and Standards of Practice embody the appropriate standard of conduct.*

Item Set Example

Joshua White Scenario

(This case was adapted from the CFA mock exams)

Joshua White, age 30, is the founder and 100% owner of start-up firm Eastwood Network (EN), based in Germany. He is selling EN to global media and consumer goods giant Collection Media Group (CMG) for cash and stock. German tax rules allows White to sell the firm without any tax obligation for capital gains.

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Item Set Example

1. The most appropriate time horizon that Butler should include in the IPS is:
A. Five years
B. A multi-stage period
C. A single 35- year period.

Answer:B

2. Based on the IPS and Exhibit 2, which of the following elements of White's investment policy is least likely to be satisfied?
A. Risk tolerance
B. Liquidity needs
C. Return objectives

Answer:A

3. Based on the data in Exhibit 2, which of the following would Butler least likely include in her initial asset allocation recommendation?
A. EWMA Aggressive FOF.
B. EWMA Alternative FOF.
C. Large-Cap Equity Index Fund.

Answer:C

4. Based on the Sharpe ratio, which single EWMA FOF should be added to the CMG stock holding in order to achieve the greatest mean-variance improvement for the resulting two-asset portfolio?
A. Aggressive
B. Alternative
C. Short Assets

Answer:C

5. If White invests his available cash of 6,250,000 EURO in the EWMA Short Assets FOF, the standard deviation of the two asset portfolio is closest to:
A. 11.3%
B. 14.3%
C. 17.5%

Answer:A

6. According to the CAPM, is Butler's assessment of CMG's valuation most likely correct?
A. Yes.
B. No, because CMG is overvalued.
C. No, because CMG is fairly valued.

*Answer:**B***

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Thank You!