Portfolio Management

- **Portfolio Management – An Overview**
- Portfolio Risk and Return – Part I
- Portfolio Risk and Return – Part II
- Basics of Portfolio Planning and Construction
- Risk Management – An Introduction
- Technical Analysis
- Fintech in Investment Management

LOS Describe the portfolio approach to investing

Why should investors take a portfolio approach to investment?

Diversification
reduces **risk**

LOS Describe the portfolio approach to investing

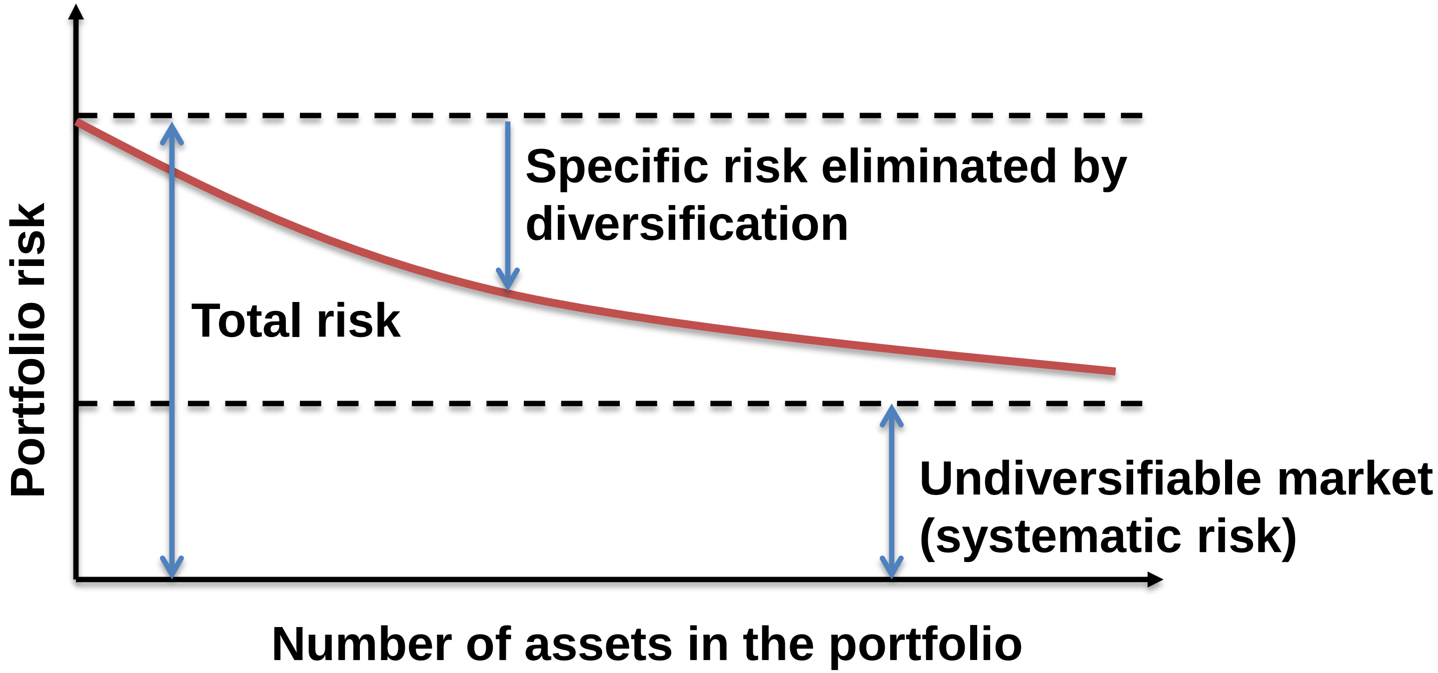
We can subdivide risks into two main categories:

- **Specific risks** are risks that affect a particular company or line of business, e.g., the risk of employee strikes, go-slows, or a glut in the supply of a good/service.

- **Systematic risks** are those which affect the market as a whole, e.g., interest rate risk, inflation risk, or the threat of war
  - An investor who holds a well diversified portfolio only has to worry about systematic risk.
  - Diversified portfolios have **lower volatility** (as measured by standard deviation) than any one individual position within the portfolio.

LOS Describe the portfolio approach to investing

Illustration: Specific vs. Systematic risk



LOS Describe types of investors and distinctive characteristics and needs of each

We have two main categories of investors:

- **Individual investors** may be investing for short-term or long-term goals.
  - ➢ A short-term goal could be education for loved ones.
  - ➢ A long-term goal could be retirement income.

- **Institutional investors** include:
  - ➢ **Banks**
    - ✓ Banks pool deposits to issue loans, e.g., JP Morgan Chase.
  - ➢ **Insurance companies**,
    - ✓ Accept various risks in return for premiums, e.g., AIG.

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LOS Describe types of investors and distinctive characteristics and needs of each

- **Investment companies**
  - ✓ Manage pooled funds, e.g., Mirae Asset India Equity Fund
- **Sovereign wealth funds**
  - ✓ Government-owned investment funds
  - ✓ Some operate with the objective of investing the revenues from the natural resources of the country, e.g., oil
  - ✓ Example: Government Pension Fund Global—Norway

LOS Describe defined contribution and defined benefit pension plans

Employees of both private and public companies often save and invest for retirement via defined contribution (DC) pension plans or defined benefit plans.

Defined Contribution Pension Plan

- It’s an investment vehicle in which the amounts invested, or the **contributions that the employer and the employee make to the plan are defined** or specified but the **benefits are not**.

- **Objective:** to accumulate wealth by investing a portion of wages while working in order to provide income during retirement.

- Since the benefits of a DC plan are not defined, the employee assumes the investment risk.

LOS Describe defined contribution and defined benefit pension plans

Example: An excerpt from Nike Pension Fund The Netherlands

How do you build up a pension?	
	You accrue pension in 3 ways: A. State Pension: you receive this pension from the government. Visit the Social Insurance Bank, on *SVB.nl* (Dutch only) for more information. B. Pension from Nike Pension Fund. You accrue this pension via your employer. This is what the Pension 1-2-3 is about. C. Pension arranged by yourself. This may be based on an annuity or on bank savings.
	Each year, contributions are made into your personal retirement savings account. Those contributions will be invested. With the capital gained, you subsequently buy an old-age and partner pension in form of an annuity at an insurance company. This concept is also known as a defined contribution scheme.
	The amount of your contribution is determined by means of a % of your fixed salary. However, not your total fixed salary, as we take into account that you will receive a state pension. The part for which no contribution is required, is called the state offset. The offset amounts to Euro 13,344.- (2018). Hence, the percentage is being applied to your fixed salary minus the offset, to the so called pension base.
	You and your employer are paying contributions to your pension plan every month. At Nike you pay 4% of the pension base yourself. Your employer deducts your contribution from your salary. The contribution you pay in detail is shown on your payslip.

LOS Describe defined contribution and defined benefit pension plans

Defined Benefit Pension Plan

- In a DB pension plan, the employer has an obligation to provide certain benefits to employees when they retire.
- The future benefit is specified or defined.
- Management has to take into consideration the timing of its future liabilities or cash flows by assessing the age of its plan members.
- Payout is usually based on a member’s average salary and number of years worked.

LOS Describe the steps in the portfolio management process

Planning

- Understanding the client’s needs
- Preparation of an investment policy statement

Execution

- Asset allocation
- Security analysis
- Portfolio construction

Feedback

- Portfolio balancing and monitoring
- Performance measurement and reporting

LOS Describe the steps in the portfolio management process

Planning

- **Understanding the client's needs**
- Preparation of an investment policy statement

✓ Involves establishing the client's objectives and constraints

✓ Answers the question: "What does the client want?"

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✓ An IPS is a written document describing all the investment objectives and constraints that apply to a client's portfolio.

✓ Basically client's needs put in writing

✓ May specify return goal, e.g., 10%

✓ Must be updated regularly

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- **Asset allocation**
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✓ The analyst identifies assets in which to invest
✓ May include stocks, bonds, real estate, cash, etc.
✓ Asset weightings are established

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- **Security analysis**
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✓ The analyst extensively analyzes individual assets within a class.
✓ Each asset is assessed for risk and cash flows.
✓ By valuing each asset, preferred investments can be identified.

Feedback

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✓ Using the IPS, the desired asset allocation, and security analysis, a diversified portfolio can be constructed.

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- Performance measurement and reporting

✓ After the portfolio has been constructed, it needs to be reviewed and monitored at an appropriate interval.

✓ Rebalancing entails buy/sell decisions to restore the targeted asset allocations after market movement

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- Portfolio balancing and monitoring
- **Performance measurement and reporting**

✓ The portfolio performance must be evaluated to establish whether the client's objectives have been met

✓ Performance may be screened against the benchmark specified in the IPS

✓ Whether steps 1 and 2 need to be revisited depends on the result

LOS Describe mutual funds and compare them with other pooled investment products

- **Mutual funds** are simply a means of combining or pooling the funds of a large group of investors.
  - The buy and sell decisions for the resulting pool are then made by a **fund manager**, who is compensated for the service provided.
  - Mutual funds seek **relative returns** – try to outperform a benchmark
  - Like commercial banks and life insurance companies, mutual funds are a form of financial intermediary.

Why are they so popular?

- Diversification
- Full-time Professional Management
- Modest Capital Investment

LOS **Describe mutual funds and compare them with other pooled investment products**

Closed-end vs. Open-end mutual funds: what's the difference?

Open-end mutual fund	Closed-end mutual fund
An investment company that stands ready to buy and sell shares in itself to investors, **at any time**.	An investment company with a fixed number of shares that are bought and sold by investors, **only in the open market**.
Shares are worth their NAV, because the fund stands ready to redeem their shares at any time.	Share value may differ from their NAV.
Generally provide less income	Generally provide more income

*****Net asset value (NAV)** is the value of the assets held by a mutual fund, divided by the number of shares.***

LOS **Describe mutual funds and compare them with other pooled investment products**

<u>Types of mutual funds:</u>

- **Money market mutual funds (MMMFs)** are mutual funds specializing in money market instruments.
  - MMMFs maintain a $1.00 net asset value to make them resemble bank accounts.
- **Bond mutual funds** invest in individual bonds and occasionally preference shares.
- **Stock Mutual Funds** invest in stocks
  - Can be **actively** or **passively managed.**
  - A passive fund is designed to track a particular index through a buy-and-hold strategy whereas an actively managed fund is comprised of equity securities selected by the portfolio manager seeking outperformance.
- **Hybrid/balanced funds** invest in both equities and bonds.

LOS **Describe mutual funds and compare them with other pooled investment products**

<u>Other Pooled Investments:</u>

I. Exchange Traded Funds

- An exchange traded fund, or ETF,
  - i. Is basically an index fund.
  - ii. Trades like a closed-end fund (without the discount phenomenon).
- An area where ETFs seem to have an edge over the more traditional index funds is the more specialized indexes.
- A well-known ETF is the “Standard and Poor’s Depositary Receipt” or SPDR.
  - ➢ Mimics the S&P 500 index.
  - ➢ Commonly called “spider.“
  - ➢ Has a management fee of 0.09%.
- Another well-known ETF mimics the Dow Jones—it is called "Diamond."

LOS **Describe mutual funds and compare them with other pooled investment products**

A list of the biggest ETFs as of 2018:

Ticker	Exchange-Traded Fund	Holding Cost[1]	Liquidity Score[2]	Assets ($bil)
SPY	SPDR S&P 500	$154	A+	254.0
IVV	iShares Core S&P 500	63	A+	146.7
VTI	**Vanguard Total Stock Market***	**35**	**A+**	**94.6**
VOO	Vanguard S&P 500	65	A+	88.2
EFA	iShares MSCI EAFE	493	A+	78.3
VEA	**Vanguard FTSE Developed Markets***	**-9**	**A**	**72.1**
VWO	Vanguard FTSE Emerging Markets	156	A	65.9
QQQ	Invesco QQQ	324	A+	62.1
IEFA	iShares Core MSCI EAFE	64	A+	58.8
AGG	iShares Core US Aggregate Bond	78	A+	55.3

LOS Describe mutual funds and compare them with other pooled investment products

II. Hedge funds

- Unlike mutual funds, which are "long-only" (make only buy-sell decisions), a **hedge fund** engages in more aggressive strategies and positions.
- Hedge funds:
  - ➢ Seek Positive **Absolute Returns**
  - ➢ Engage in aggressive strategies
    - ✓ Short selling (to profits if a security's price declines)
    - ✓ Trading derivatives (such as options, forwards, futures, etc.)
    - ✓ Using OPM (Other People’s Money)

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