УКРАЇНА
НАЦІОНАЛЬНИЙ УНІВЕРСИТЕТ БІОРЕСУРСІВ
І ПРИРОДОКОРИСТУВАННЯ УКРАЇНИ

КАФЕДРА ВИРОБНИЧОГО ТА ІНВЕСТИЦІЙНОГО МЕНЕДЖМЕНТУ

MANAGEMENT OF INNOVATIVE AND INVESTMENT ACTIVITY

Methodical instructions with a synopsis of lectures for independent work and distance learning in the course “Management of innovative and investment activity” (mandatory component of educational program 073 “Management”) for students of specialty 073 "Management" educational degree "Bachelor"

Методичні вказівки з конспектом лекцій до виконання самостійної роботи та дистанційного навчання студентів ОС "Бакалавр" галуз знань 07 – Управління та адміністрування спеціальність 073 «Менеджмент», з дисципліни «Управління інноваційно-інвестиційною діяльністю» (англійською мовою)

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INTRODUCTION

The purpose of the educational discipline "Management of innovations and investments activity" is the formation of students of higher education skills and program learning outcomes in the field of management of innovation and investment processes, the formation of innovative thinking and production in them practical skills of innovation and investment management at the enterprise.

The educational component "Management of innovation and investment activity" belongs to the compulsory disciplines in the speciality Management. As a result of studying the educational component, applicants for higher education will master the following competencies:

integral: the ability to solve complex specialized problems and practical problems characterized by complex and uncertain conditions in the field of innovation and investment management or in the learning process, which involves the use of theories and methods of social and behavioural sciences;

General competencies:

GC5. Knowledge and understanding of the subject area and understanding of professional activity;

GC12. Ability to generate new ideas (creativity);

special (professional, subject) competencies:

SC

SC 3. Ability to determine the prospects for the development of the organization;

SC 5. Ability to manage the organization and its departments through the implementation of management functions;

SC 6. Ability to act socially responsibly and consciously;

SC 7. Ability to choose and use modern management tools.

Program learning outcomes:

PO 5. Describe the content of the functional areas of the organization.

PO 17. Conduct research individually and/or in a group under the guidance of a leader.

PO 21. Demonstrate the ability to use information and communication technologies to search, process, analyze and use information from various sources.

PO 23. Demonstrate the ability to design and execute projects, identify funding sources, and organize project management.

PO 26. To carry out a study of the international business environment and to determine the peculiarities of the enterprise's entry into foreign markets.

PO 30. Ability to find and evaluate new market opportunities and formulate business ideas, develop business plans for creation and development of organizations.

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Module 1. Theoretical foundations of investment activity

Topic 1. Theoretical foundations of investment activity

Lecture plan

1. Main definitions of the course
2. The difference between savings and investing and speculation and investing
3. Types of investments
4. Questions for self-control

1. Main definitions of the course

Investment activity means the activities of an investor in the investment process, comprising the stages of investment preparation, [and] implementation and management of an investment project.

From this definition it is clear that it deals with investments.

Investing means putting your money or other resources toward something you expect to earn income, turn a profit or create some other positive benefit. When you invest, you buy assets that you expect to increase in value over time, which can grow your amount of money.

Investing involves putting your money into something that has the potential to return a profit to you over time – increasing the amount of money you have. It typically gives you a financial stake in the company or other asset in which you invest.

An investment is an asset or item acquired with the goal of generating income or appreciation. Appreciation refers to an increase in the value of an asset over time. When an individual purchases a good as an investment, the intent is not to consume the good but rather to use it in the future to create wealth.

An investment always concerns the outlay of some capital today—time, effort, money, or an asset—in hopes of a greater payoff in the future than what was originally put in.

For example, an investor may purchase a monetary asset now with the idea that the asset will provide income in the future or will later be sold at a higher price for a profit.

Key points:

An investment involves putting capital to use today in order to increase its value over time.

An investment requires putting capital to work, in the form of time, money, effort, etc., in hopes of a greater payoff in the future than what was originally put in.

An investment can refer to any medium or mechanism used for generating future income, including bonds, stocks, real estate property, or a business, among other examples.

Also we should define main financial terms that are necessary to be known due to study this course:

Bond. Bonds are similar to an IOU from a company or country. When you buy a bond, the issuer promises to pay you a fixed amount of interest over a specified period of time.

Capital gain or loss - the difference between the price for which you buy an investment and the price for which you sell it.

Certificate of deposit - a type of mid- to short-term savings account that holds a fixed amount of money for a fixed period of time – such as six months or a year. It typically pays a higher interest rate than a savings account.

Compound interest - Interest paid on top of interest you earn for your savings or investment. This has the effect of increasing your money's value on a curve.

Diversification - balancing risk by investing in a variety of securities such as stocks, bonds and commodities. The practice tends to minimize your risk.

Dividends - a portion of a company's profit paid to shareholders.

Money market fund - a type of mutual fund with typically low risks. Money market funds invest in high quality, short-term corporate or government debt and pay shareholders based on interest.

Mutual fund - mutual funds continuously pool money from many investors and invest it into a wide selection of stocks, bonds and other financial instruments.

Risk tolerance - the degree to which you are willing to lose some or all of your original investment for the chance of a higher return.

Portfolio - the combined holdings of all an individual's different investments.

Security - any investment instrument such as a stock or bond

Stocks - a financial instrument that signifies a fraction of ownership in a company and provides the owner with a proportional claim on a share of a company's assets and profits.

2. The difference between savings and investing and speculation and investing

Saving and investing are important parts of a sound financial plan. Whereas saving provides a safety net for unexpected expenses, investing is a strategy for building wealth. Once you have an emergency savings fund of three to six months' worth of living expenses, you can develop a strategy to grow your wealth through investing.

Everyone should have an emergency savings fund for protection during hard times. But what about investing? Where do you start? And how do you know how much money to contribute to saving versus investing?

Is One Better Than the Other?

Saving and investing are equally important to sound financial planning. Neither is considered "better" than the other except when applied toward a specific goal. And even then, it's more accurate to say one is more suitable to specific objectives.

For example, if your goal is financial security in retirement or creating a cushion for unexpected expenses or job loss, saving is more likely to help you achieve that goal.

If, on the other hand, you have built an adequate emergency fund and are motivated to grow your wealth, then investing is the more appropriate use of your money. However, stock market volatility will always pose a risk to this potential reward so you should be willing to accept the risk that you could lose your money.

Ultimately, you should have a financial plan that includes both savings vehicles, such as CDs, 401(k) plans or IRAs, high-yield savings accounts and fixed annuities, and a balanced, strategic investment portfolio.

Many experts advise building a solid savings for emergencies and retirement before investing in riskier stocks. The reason for this is simple: the fluctuation of the stock market could mean that investors lose money. If you have nothing in savings and the stock market does poorly, you have no financial resources should an emergency arise.

A chart comparing saving and investing

Pros and Cons of Saving Without Investing

A list of pros and cons of saving only makes sense in the context of saving money to the exclusion of investing. In fact, the benefits of saving money far outweigh the scant disadvantages. Not all savings methods are created equal. Different savings vehicles offer specific benefits such as tax-deferral, higher returns and greater flexibility and liquidity.

Pros

Low/no risk

Clearly defined interest rates

Accessible

Tax favoured (annuities, 401(k) plans, IRAs)

Cons

Low returns

Susceptible to inflation

Accessible

Types of Savings Vehicles

Savings accounts

Money market accounts

CDs (Certificate of deposit. A CD is a financial product that holds a single deposit of money for a fixed period of time. Most CDs pay interest monthly).

Qualified retirement plans

Health savings accounts (HSAs)

Flexible spending accounts

Fixed annuities.

Investing vs. Speculation

Speculation is a distinct activity from investing. Investing involves the purchase of assets with the intent of holding them for the long term, while speculation involves attempting to capitalize on market inefficiencies for short-term profit. Ownership is generally not a goal of speculators, while investors often look to build the number of assets in their portfolios over time.

Although speculators are often making informed decisions, speculation cannot usually be categorized as traditional investing. Speculation is generally considered a higher risk activity than traditional investing (although this can vary depending on the type of investment involved). Some experts compare speculation to gambling, but the veracity of this analogy may be a matter of personal opinion.

3. Types of investments

There are four common types of investments: stocks, bonds, commodities and real estate.

In addition, there are mutual funds and exchange traded funds (ETFs). These let you buy a mixture of different types of investments. If you have a retirement account, you are probably invested in a mutual fund.

Most Common Investment Types

Stocks Companies sell shares of stock to the public to raise money for their operations. Buying stock means you own a piece of the company. If the company is profitable, your stock will increase in value – and in some cases you may also be paid a dividend. If the company is unsuccessful, you can lose money as your stock drops in value. The point at which a company goes public is called the initial public offering period. Occasionally, a special purpose acquisition company may be used to take a private company public.

Bonds Companies and nations sell bonds to raise money. If you buy a bond, you're making a loan to the company or country you bought it from. You will receive an interest payment over a fixed period of time. Bonds tend to be less risky than stocks, but the return may be lower.

Commodities

Commodities include agricultural products, oil, gas and other energy products and metals – including precious metals such as gold and silver. Their value fluctuates based on market demand. For example, if there is a shortage of oil, the price of oil will increase and your investment will rise in value.

Real estate Buying your home or a piece of land can be an investment in real estate – if you expect the value to increase over time. Risk varies for real estate investments. Property values can be affected by crime rates in a neighborhood to something as large as the housing market collapse that led to the Great Recession. You can also buy shares in a real estate investment trust (REIT) – companies that use real estate to generate income for shareholders.

Mutual funds and EFTs Mutual funds and ETFs let you buy different combinations of common investments like stocks, bonds, commodities and real estate. Investing in these funds means that you are investing in hundreds of different assets. This can diversify your portfolio and mitigate risk of losing money on your investments.

More Advanced and Alternative Investments

There are several other alternative and advanced investments. These often involve high risk or may require a lot of money up front to invest.

Alternatives to the most common investment types include private equity funds, hedge funds and cryptocurrency, among others.

Advanced and Alternative Investment Types

Private equity. Private equity allows companies to raise cash without having to go public. Private equity funds and other investors put their money into private companies or buyout public companies.

Derivatives. Derivatives tend to be high risk and high reward investments. They are financial instruments that get their name from deriving their value from some other financial product – such as a market index, which includes the S&P 500, the Dow Jones, the Nasdaq and the Russell 2000.

Options. Options are a type of derivative. Options give the buyer the right to buy or sell a security for a fixed amount within a certain amount of time.

Hedge funds. Hedge funds require large minimum investments or a high net worth. You have to be wealthy to buy in. Hedge fund investors pool their money and often make high risk investments. Strategies include buying investments with borrowed money in hopes of turning a large profit.

Cryptocurrency. Cryptocurrencies are digital currencies that are not backed by any real assets. Bitcoin is probably the most famous cryptocurrency. They can be traded without brokers and tracked on digital ledgers. Most risks with this type of investment are related to the volatility of cryptocurrencies causing their value to swing wildly at times.

Unlike bank accounts, investments are not guaranteed or insured by the Federal Deposit Insurance Corp. (FDIC) or any other government agency. This is true even if you buy a mutual fund or other investment product through a bank. You assume the risk of losing money when you choose to invest.

Why Is Investing Important?

From a personal finance standpoint, investing is important because it can ensure your financial security in the present and in the future. Investing can let you grow your wealth faster than the rate of inflation.

You can also benefit from compound interest or growth of your investment's value. And investing may give you tax advantages.

Investing can also provide greater financial security in retirement or provide a path for you to retire earlier than you thought possible. And it can help you meet other financial goals – such as buying a home or sending your kids to college – along the way to retirement.

When is the Best Time to Start Investing?

The earlier you can start investing, the greater your potential profits will be. This is the result of putting more money into your investments over a longer period and the power of compound wealth over time.

The Advantage of Investing Early

Being able to invest requires you to get your financial house in order so you can free up money for investing. Creating an annual budget, managing your spending and limiting debt are essential first steps. These are all part of ensuring your financial wellness to take the next steps toward investing.

How to Start Investing

When you are ready to start investing, create a strategy. Determine the amount of money you can invest, the amount of risk you feel comfortable with and then set a timeline to reach your financial goals.

Roadmap on How to Start Investing

There are several types of investment options you can start with.

If you have limited money to open an account, you may want to consider a robo-advisor. These automated investing platforms let you customize your investments based on your risk tolerance and goals.

An online brokerage account can give you greater hands-on control over your research and investment choices.

Talking to a licensed financial advisor can let you start investing with a more hands-off approach with a trusted advisor who understands your goals and has the professional expertise to manage your investments.

What Are the Most Popular Investing Styles?

The most popular investing styles are active and passive.

Passive investing is less hands-on, meaning you don't have to closely monitor or manage your investments as frequently. It involves taking your time and letting the market run its course naturally.

Active investing is more hands-on, requiring you to be more active in managing your investments. You make decisions about your investments before changes in the market. This requires research and keeping a close eye on forces that may change the market.

Both styles have advantages and disadvantages. The best style is the one that fits your level of commitment to managing your investments, your risk tolerance and which you feel more comfortable with.

4. Questions for self-control

1. What is an investment activity?

2. What is an investing?

3. What is an investment?

4. What is the difference between savings and investments and specualtion and investments?

5. Which are main types of investment?

6. Pros and cons of investing?

7. When is better to start investing?

Topic 2. Investment and financial markets

Lecture plan

1. Legislative base of investment activity in Ukraine
2. Financial markets: essence, classification, structure
3. Primary and secondary markets
4. One more approach to the classification of financial market
5. Connection of financial and investment market
6. Investment climate
7. Questions for self-control

1. Legislative base of investment activity in Ukraine

In the beginning of study of investment activity, we should mention Ukrainian legislation of it. Main laws are following:

1. Law of Ukraine “On Investment Activities” (1991)

This Law defines the general legal, economic, and social conditions of investment activities on the territory of Ukraine.

It aims to ensure equal protection of rights, interests, and property of investment entities regardless of their ownership forms, as well as the effective investment in the Ukrainian economy, and the development of international economic cooperation and integration.

2. Law of Ukraine “On Innovation Activity” (2002)

This Law defines the legal, economic, and organizational framework for the state regulation of innovation activities in Ukraine establishes the forms of encouraging the innovation processes by the state and is aimed at supporting the development of the Ukrainian economy through innovation.

Under this Law, state support shall be provided to the economic entities of all forms of ownership that implement innovation projects in Ukraine and to enterprises of all forms of ownership that have the status of innovative ones.

3. Law of Ukraine "On State Support for Investment Projects with Significant Investments in Ukraine" (February 2021)

This Law defines the organizational, legal and financial foundations of state support for investment projects with the aim of creating favorable conditions for attracting significant investments (domestic and foreign) to Ukraine, creating new jobs, stimulating the economic development of regions and increasing the competitiveness of the Ukrainian economy.

4. Law of Ukraine "Foreign Investment Regime" (1999)

This Law stipulates the terms and conditions for foreign investment within Ukraine, based on the aims, principles, and provisions of the laws and regulations of Ukraine.

2. Financial markets: essence, classification, structure

Financial markets are markets where financial transactions are conducted. Financial transactions generally refer to creation or transfer of financial assets, also known as financial instruments or securities. Financial transactions channel funds from investors who have an excess of available funds to issuers or borrowers who must borrow funds to finance their spending.

Since the early 1970s, financial markets in various countries have experienced significant development. As a result, world financial markets are larger, are highly integrated, and have a wide range of financial instruments available for investing and financing.

Financial markets refer broadly to any marketplace where the trading of securities occurs, including the stock market, bond market, forex market, and derivatives market, among others. Financial markets are vital to the smooth operation of capitalist economies.

Financial markets play a vital role in facilitating the smooth operation of capitalist economies by allocating resources and creating liquidity for businesses and entrepreneurs. The markets make it easy for buyers and sellers to trade their financial holdings. Financial markets create securities products that provide a return for those who have excess

funds (Investors/lenders) and make these funds available to those who need additional money (borrowers).

The stock market is just one type of financial market. Financial markets are made by buying and selling numerous types of financial instruments including equities, bonds, currencies, and derivatives. Financial markets rely heavily on informational transparency to ensure that the markets set prices that are efficient and appropriate. The market prices of securities may not be indicative of their intrinsic value because of macroeconomic forces like taxes.

Some financial markets are small with little activity, and others, like the New York Stock Exchange (NYSE), trade trillions of dollars of securities daily. The equities (stock) market is a financial market that enables investors to buy and sell shares of publicly traded companies. The primary stock market is where new issues of stocks, called initial public offerings (IPOs), are sold. Any subsequent trading of stocks occurs in the secondary market, where investors buy and sell securities that they alreadyown.

Classification of financial markets

Financial markets can be categorized in different several ways, revealing features of various market segments. One popular way to classify financial markets is by the maturity of the financial assets traded. The money market is a financial market in which only short-term debt instruments (original maturity of less than one year) are traded. The capital market is a market in which longer-term debt (original maturity of one year or greater) and equity instruments are traded. In general, money-market securities are more widely traded and tend to be more liquid.

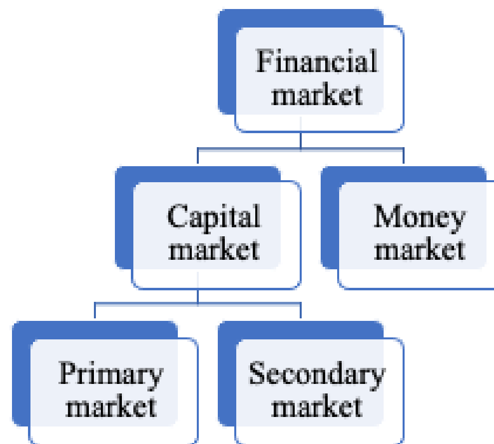
The equity capital market is a subset of the broader capital market, where financial institutions and companies interact to trade financial instruments and raise capital for companies. Equity capital markets are riskier than debt markets and, thus, also provide potentially higher returns.

Another way to classify financial markets is by whether the financial instruments are newly issued. A primary market is a financial market in which a borrower issues new

securities in exchange for cash from investors. Once securities are sold by the original purchasers, they may be traded in the secondary market. Secondary markets can be organized in two ways. One is as an organized exchange, which brings buyers and sellers of securities together (via their representatives) in one central location to conduct trades. The other is as an over-the-counter (OTC) market, in which over-the-counter dealers located at different sites but connected with each other through computer networks undertake transactions to buy and sell securities "over the counter." Many common stocks are traded over the counter, although shares of the largest corporations are traded at organized stock exchanges, such as the New York_Stock Exchange.

The primary market is the financial market where new securities are issued and become available for trading by individuals and institutions. The trading activities of the capital markets are separated into the primary market and secondary market.

We can present structure of financial market on the figure 1.



3. Primary and secondary markets

Important part of financial market are primary and secondary markets.

The primary market is where companies issue a new security, not previously traded on any exchange. A company offers securities to the general public to raise funds to finance its long-term goals. The primary market may also be called the New Issue Market (NIM). In the primary market, securities are directly issued by companies to investors.

Securities are issued either by an Initial Public Offer (IPO) or a Further Public Offer (FPO).

An IPO is the process through which a company offers equity to investors and becomes a publicly-traded company. Through an IPO, the company is able to raise funds and investors are able to invest in a company for the first time. Similarly, an FPO is a process by which already listed companies offer fresh equity in the company. Companies use FPOs to raise additional funds from the general public.

Below are some of the ways in which companies raise funds from the primary market:

1. Public Issue

This is the most common way to issue securities to the general public. Through an IPO, the company is able to raise funds. The securities are listed on a stock exchange for trading purposes.

2. Rights Issue

When a company wants to raise more capital from existing shareholders, it may offer the shareholders more shares at a price discounted from the prevailing market price. The number of shares offered is on a pro-rata basis. This process is known as a Rights Issue.

3. Preferential Allotment

When a listed company issues shares to a few individuals at a price that may or may not be related to the market price, it is termed a preferential allotment. The company decides the basis of allotment and it is not dependent on any mechanism such as pro-rata or anything else.

The secondary market is where existing shares, debentures, bonds, etc. are traded among investors. Securities that are offered first in the primary market are thereafter traded on the secondary market. The trade is carried out between a buyer and a seller, with the stock exchange facilitating the transaction. In this process, the issuing company is not involved in the sale of their securities.

The primary market is also known as the new issues market. The secondary market is what we commonly think of as the stock market or stock exchange.

Primary Market	Secondary Market
It is a way of issuing fresh shares in the market. It is also called New Issue Market. A major component of the primary market is the IPO.	It is a place where already issued or existing shares are traded. It is called After Issue Market.
The amount received from the issue of shares goes to the company for their business expansion purposes.	The amount invested by the buyer of shares goes to the seller, and hence the company doesn't receive anything.
Securities are issued by the companies to the investors.	Securities are exchanged between buyers and sellers, and stock exchanges facilitates the trade.
The securities are all issued at one price for all investors participating in the offering.	Securities are exchanged at the market price.
The primary market doesn't provide **liquidity** for the stock.	The secondary market provides liquidity to the stock.
Underwriters act as intermediaries.	Brokers act as intermediaries.
On the primary market, security can be sold just once.	On the secondary market, securities can be sold innumerable times.

4. One more approach to the classification of financial market

Financial markets comprise five key components: the debt market, the equity market, the foreign-exchange market, the mortgage market, and the derivative market. From the 1980s, each component market has been expanding in size, and an extensive array of new financial instruments have been initiated, especially in the mortgage market and the derivative market.

Debt instruments are traded in the debt market, also often referred to as the bond market. The debt market is important to economic activities because it provides an important channel for corporations and governments to finance their operations. Interactions between investors and borrowers in the bond market determine interest rates.

A bond is a massive loan usually issued by a corporation or government entity. Bonds provide fixed payments to the investor for a specific length of time, making them a low-risk investment.

Investors use the bond market to trade various forms of debt — specifically bond, credit or debt securities. It's also referred to as the debt or credit market. Unlike the stock market which has various exchanges, bond trading primarily happens privately between a broker and the creditor.

By buying a bond, you're lending money for a certain time and charging interest. Because bonds provide a steady payment over time, many investors use bonds to balance their portfolio for long-term needs, like retirement or their child's future college tuition.

Bonds are generally safer than stocks because you won't lose your investment unless the borrowing entity defaults. However, they typically yield a lower return than stocks. There's also the potential to lose out on growing your investment if the interest you are earning doesn't outpace inflation.

Equity instruments are traded in the equity market, also known as the stock market. The stock market is the most widely followed financial market in the United States. It is important because fluctuations in stock prices effect investors' wealth and hence their saving and consumption behaviour, as well as the amount of funds that can be raised by selling newly issued stocks to finance investment spending.

Stock refers to a share of ownership in a company or corporation. Stock investors receive a return on their investment when the company is doing well. However, they run the risk of seeing a loss if the company is performing poorly or if the stock market takes a dip.

The stock market is used to trade public stock. Stock trading is done through physical and virtual exchanges, such as the New York Stock Exchange (NYSE) and Nasdaq. External influences like economic conditions and political stability can affect the stock market as a whole. Many factors go into buying and selling individual stocks, but the primary focus tends to be the potential for company profits in the future.

A mortgage is a long-term loan secured by a pledge of real estate. Mortgage-backed securities (also called securitized mortgages) are securities issued to sell mortgages directly to investors. The securities are secured by a large number of mortgages packaged into a mortgage pool. The most common type of mortgage-backed security is a mortgage pass-through, a security that promises to distribute to investors the cash flows from mortgage payments made by borrowers in the underlying mortgage pool.

Financial derivatives are contracts that derive their values from the underlying financial assets. Derivative instruments include options contracts, futures contracts, forward contracts, swap agreements, and cap and floor agreements. These instruments allow market players to achieve financial goals and manage financial risks more efficiently. Since the introduction of financial derivatives in the 1970s, markets for them have been developing rapidly.

5. Connection of financial and investment market

Markets are financial marketplaces where investors buy and sell investment assets. There are numerous platforms to aid you in participating in investment markets. Before diving in headfirst, you should have a basic understanding of the most popular investment assets — stocks and bonds — both of which are available through a variety of markets.

Investment Market means entities and natural persons whose principal use of the research material is for the purpose of making investment decisions or making (or advising or influencing others with respect to making) decisions regarding the use of investment banking services.

Markets that also can be observed as investments:

Stock Markets

Perhaps the most ubiquitous of financial markets are stock markets. These are venues where companies list their shares and they are bought and sold by traders and investors. Stock markets, or equities markets, are used by companies to raise capital via an initial public offering (IPO), with shares subsequently traded among various buyers and sellers in what is known as a secondary market.

Stocks may be traded on listed exchanges, such as the New York Stock Exchange (NYSE) or Nasdaq, or else over-the-counter (OTC). Most trading in stocks is done via regulated exchanges, and these play an important role in the economy as both a gauge of the overall health of the economy as well as providing capital gains and dividend income to investors, including those with retirement accounts such as IRAs and 401(k) plans.

Typical participants in a stock market include (both retail and institutional) investors and traders, as well as market makers (MMs) and specialists who maintain liquidity and provide two-sided markets. Brokers are third parties that facilitate trades between buyers and sellers but who do not take an actual position in a stock.

Over-the-Counter Markets

An over-the-counter (OTC) market is a decentralized market—meaning it does not have physical locations, and trading is conducted electronically—in which market participants trade securities directly between two parties without a broker. While OTC markets may handle trading in certain stocks (e.g., smaller or riskier companies that do not meet the listing criteria of exchanges), most stock trading is done via exchanges. Certain derivatives markets, however, are exclusively OTC, and so they make up an important segment of the financial markets. Broadly speaking, OTC markets and the transactions that occur on them are far less regulated, less liquid, and more opaque.

Bond Markets

A bond is a security in which an investor loans money for a defined period at a pre-established interest rate. You may think of a bond as an agreement between the lender and borrower that contains the details of the loan and its payments. Bonds are issued by corporations as well as by municipalities, states, and sovereign governments to finance projects and operations. The bond market sells securities such as notes and bills issued by the United States Treasury, for example. The bond market also is called the debt, credit, or fixed-income market.

Money Markets

Typically, the money markets trade in products with highly liquid short-term maturities (of less than one year) and are characterized by a high degree of safety and a relatively low return in interest. At the wholesale level, the money markets involve large-volume trades between institutions and traders. At the retail level, they include money market mutual funds bought by individual investors and money market accounts opened by bank customers. Individuals may also invest in the money markets by buying short-term certificates of deposit (CDs), municipal notes, or U.S. Treasury bills, among other examples.

Derivatives Markets

A derivative is a contract between two or more parties whose value is based on an agreed-upon underlying financial asset (like a security) or set of assets (like an index). Derivatives are secondary securities whose value is solely derived from the value of the primary security that they are linked to. In and of itself a derivative is worthless. Rather than trading stocks directly, a derivatives market trades in futures and options contracts, and other advanced financial products, that derive their value from underlying instruments like bonds, commodities, currencies, interest rates, market indexes, and stocks.

Futures markets are where futures contracts are listed and traded. Unlike forwards, which trade OTC, futures markets utilize standardized contract specifications, are well-regulated, and utilize clearinghouses to settle and confirm trades. Options markets, such as the Chicago Board Options Exchange, similarly list and regulate options contracts. Both futures and options exchanges may list contracts on various asset classes, such as equities, fixed-income securities, commodities, and so on.

Forex Market

The forex (foreign exchange) market is the market in which participants can buy, sell, hedge, and speculate on the exchange rates between currency pairs. The forex market is the most liquid market in the world, as cash is the most liquid of assets. The currency market handles more than $6.6 trillion in daily transactions, which is more than the futures and equity markets combined.1

As with the OTC markets, the forex market is also decentralized and consists of a global network of computers and brokers from around the world. The forex market is made up of banks, commercial companies, central banks, investment management firms, hedge funds, and retail forex brokers and investors.

Commodities Markets

Commodities markets are venues where producers and consumers meet to exchange physical commodities such as agricultural products (e.g., corn, livestock, soybeans), energy products (oil, gas, carbon credits), precious metals (gold, silver, platinum), or "soft" commodities (such as cotton, coffee, and sugar). These are known as spot commodity markets, where physical goods are exchanged for money.

The bulk of trading in these commodities, however, takes place on derivatives markets that utilize spot commodities as the underlying assets. Forwards, futures, and options on commodities are exchanged both OTC and on listed exchanges around the world such as the Chicago Mercantile Exchange (CME)and the Intercontinental Exchange (ICE).

Cryptocurrency Markets

The past several years have seen the introduction and rise of cryptocurrencies such as Bitcoin and Ethereum, decentralized digital assets that are based on blockchain technology. Today, thousands of cryptocurrency tokens are available and trade globally across a patchwork of independent online crypto exchanges. These exchanges host digital wallets for traders to swap one cryptocurrency for another, or for fiat monies such as dollars or euros.

Because the majority of crypto exchanges are centralized platforms, users are susceptible to hacks or fraud. Decentralized exchanges are also available that operate without any central authority. These exchanges allow direct peer-to-peer (P2P) trading of digital currencies without the need for an actual exchange authority to facilitate the transactions. Futures and options trading are also available on major cryptocurrencies.

6. Investment climate

What Is Investment Climate?

Investment climate refers to the economic, financial, and socio-political conditions in a country or region that impact whether individuals, banks, and institutions are willing to lend and acquire a stake (i.e., invest) in the businesses operating there.

The investment climate is affected by several indirect factors, including poverty level, crime rate, infrastructure, workforce participation, national security considerations, political (in)stability, regime uncertainty, taxes, liquidity and stability of financial markets, rule of law, property rights, regulatory environment, government transparency, and government accountability.

An unfavorable investment climate is one of the many hindrances faced by underdeveloped nations. Regulatory reform is often a key component of removing the barriers to investment. A number of nonprofit organizations have been established for the purpose of improving the investment climate and spurring economic development in these countries.

Also, some investors are willing to take on the high level of risk and volatility associated with investing in an unfavorable climate because of the potential that the high risk will be rewarded with high returns.

One difficult aspect of understanding and judging the investment climate of a country or region is that governance is a broad concept that can be practiced effectively in different ways. There are also different kinds of governance, from political governance (the type of political system, constitutional set-up, relations between state and society), economic governance (state institutions that regulate the economy, competition, property and contract rights), and corporate governance (national and company laws and practices that determine corporate conduct, shareholder rights, disclosure and transparency, accounting standards).

For individuals, banks, and institutions to feel comfortable investing in a given investment climate, they need to have a reasonable expectation for conditions that will allow their investments to thrive and expand.

In places where the state does not provide certain essential public business infrastructure—such as sound regulation, market-supporting laws that are implemented fairly by honest and well-trained and impartial judges, and a transparent procurement system—the level of required trust in the investment climate cannot be established. In short, the private sector needs an effective, enabling state to function efficiently and fairly.

If the state cannot be trusted to provide that level of assurance, doing business at scale becomes problematic. Clear rules of the game are needed for how the state interacts with the private sector. There needs to be a level playing field and platforms for constructive dialogue between state agents and private businesses.

7. Questions for self-control

1. What is financial market?
2. What are main components of financial market?
3. Give the characteristic of capital market.
4. Give the characteristic of money market.
5. What is the difference between primary and secondary markets?
6. What is common between financial and investment market?

Topic 3. Investment resources

Lecture plan

1. The essence of financial resources
2. Types of funding
3. Best sources of start-up financing
4. Questions for self-control

1. The essence of financial resources

The resources from which the enterprises obtain the funds they need to finance their investments, capital and current activities. An enterprise obtains the funds it needs from 3 general resources; Financial Institutions, Capital Markets, Owners Equity (Capital Stock).

All types of monetary and other assets of a company used for investment activities. The main sources of investment resources include: profit, depreciation, IPO, long-term loans of banks, issuance of long-term bonds, leasing.

Types of financial resources

The financial resources of a company can come from different sources, as we will see below: the main one is derived from the basic activity of the company, which may be the commercialization of articles or a series of services that they provide to the market. In this sense, consumers, in exchange for a product or service, pay an amount of money determined by the business in question.

Loans from banks: to obtain more liquidity or to face new investments, companies resort to the credits of financial entities in exchange for an interest.

Investors: in some companies, the business shares are distributed among shareholders or partners. These are responsible for providing capital in order to later obtain a series of returns.

Government subsidies: governments quite often grant financial aid to companies for the hiring of personnel, renewal of equipment, etc.

Types of Funding: Assets

The definition of financial resources covers a variety of business funding. Liquid assets are a common financial resource. They include both cash and resources that can convert to cash easily.

Cash: Your cash on hand is such a valuable resource it gets its own financial statement, the cash-flow statement. This resource includes the cash you have on hand at the office and what's available in your bank account.

Checks: If you have checks from customers that you haven't cashed yet, they're another source of ready money.

Stocks and bonds: The market for these assets is well established, which makes it easy to put them up for sale and get cash.

Foreign currency: If you keep foreign currency on hand for overseas operations, it should be simple to convert that into local currency.

Operating income: This is the money generated by your business's operations. It's important not just as a financial resource but because generating money by selling goods or services is a measure of how well your company performs.

Illiquid assets can also serve as financial resources, but not as efficiently. You can turn company real estate into cash, for example, but it won't be as fast or efficient as selling stocks.

2. Types of funding

Many entrepreneurs don't have the financial resources to go it alone. The definition of financial resources extends to outside funding that can help you get your business off the ground and keep it going after the launch.

Equity financing: Raising funding from equity is a trade: you give up a share of ownership in your business in return for money. Taking a company public and selling stocks is one way to raise equity funding. Keeping it private and selling an ownership stake to venture capitalists is another.

Debt financing: Taking out loans is an everyday part of business finances. It has an advantage over equity in that you don't have to give up any control. The flip side is that you have to make regular payments on the loan, including interest.

Grants: Federal, state and local governments have various initiatives for supporting business. These include low-interest loans, but also grants for businesses that bring jobs into a community.

Your Cash Reserves

No type of business funding converts into cash as fast as cash. It's important for your business finances to have cash reserves, even if you have access to other resources. If you have short-term investments that you can convert to cash instantly, you can count them as part of your reserve.

There's no magic formula for the right size of your reserves, but having enough to run for three to six months is a standard recommendation. That amount will vary according to your needs. Going over past cash flow statements or projected expenses can tell you how much three to six months operating expenses is for your business.

Having a cash reserve that's too small to support you is a mistake. So is putting too much into your reserves. Money that just sits in a bank account is a valuable resource but spending more of it might help your business grow.

Now that you have understood all about the types of funding and how they help in the growth of the company, your company can get capital from nearly any place. By understanding the various types of funding, you can choose the type that best suits your needs, as well as your business needs and goals. Just ensure that you keep your options open and explore more than one option.

TYPES OF FUNDING

BOOTSTRAPPING

- Personal fundingMore control & focus on company operations
- Higher risk as using own personal money
- Possible lack of capital and cash flow

CROWDFUNDING

- Pool of funds among many parties
- Access to immediate funding for business
- Increase brand awareness via social sharing
- Less control if sharing equity
- High regulatory and additional expenses (legal, marketing, advertising)

VENTURE CAPITALIST & ANGEL INVESTORS

- Individual angel investors at early stage of company
- Institutional firms at later stage of company
- Secures funding for company without interest payments
- Less control of ownership and certain company decisions

ACCELERATOR & INCUBATOR

- Period of mentoring and small seed investment for Accelerators
- Longer period of development for Incubators
- Able to collaborate and seek advice and resources from mentors
- Not secure place to obtain company funding

SEED FUNDING

- Initial investment of funds for company equity
- Used to develop business idea and grow the company
- Successful seed funding leads to subsequent funding of Series A, B & C

CROWDFUNDING

Crowdfunding has it all in its name itself. As a matter of fact, it is one of the best ways for a new business to enter the market and see where it stands. In this method, the company can share the product in the market and add incentives to the purchases. The company would be able to raise a lot of capital to cover the complete production of the product, and learn about the demand in the market.

Unlike the other types of funding, crowdfunding can be equity-based or rewards-based as well. There are many crowdfunding sites like Indiegogo and Kickstarter which are reward-based that make the security concerns simple and offer startups a webpage.

This webpage is used for setting the goal of their fundraising, give purchasing incentives (like the person who purchases one would get one free), create a fan/donor base, and increase the brand awareness with social sharing. There have been successful companies that have raised funding this way.

Other than this, there are websites like Crowdfunder, Wefunder, and MicroVentures that are equity-based crowdfunding sites. These sites involve state and federal securities law, due to which there are greater compliance costs in these websites. Here are the pros and cons of crowdfunding as compared to the other types of funding.

Pros

There are many reasons why crowdfunding is considered by many and the reasons are:

Permits the company to prepare for shipping and production costs.

Enhances the attractiveness to future investors if the business is successful.

Doesn’t dilute the control or equity for the owners of the company, if the crowdfunding is reward-based.

Boosts the brand awareness via social sharing abilities.

Permits the startup to test their product in the market: gives customer data and market validation (R&D).

Access to “cheap” money as no equity is transferred (but this is only for the rewards-based crowdfunding).

Cons

Just like everything has its benefits, there are drawbacks as well for a crowdfunding option, which are:

The funds might not be enough for getting the product to the main market.

High regulatory and legal costs for the crowdfunding that is equity-based.

Develops the risks of resource waste and failure. These campaigns have a high cost due to legal, advertising and marketing expenses.

Requires operational competence to meet the demands of customers.

Due to some of the points mentioned above, many usually avoid this option and move on with venture capital and angel investments.

3. Best sources of start-up financing

Putting all your eggs in one basket is never a good business strategy. This is especially true when it comes to financing your new business. Not only will diversifying your sources of financing allow your start-up to better weather potential downturns, but it will also improve your chances of getting the appropriate financing to meet your specific needs.

Keep in mind that bankers don't see themselves as your sole source of funds. And showing that you've sought or used various financing alternatives demonstrates to lenders that you're a proactive entrepreneur.

Whether you opt for a bank loan, an angel investor, a government grant or a business incubator, each of these sources of financing has specific advantages and disadvantages as well as criteria they will use to evaluate your business.

Here's an overview of seven typical sources of financing for start-ups:

1. Personal investment

When starting a business, your first investor should be yourself—either with your own cash or with collateral on your assets. This proves to investors and bankers that you have a long-term commitment to your project and that you are ready to take risks.

2. Love money

This is money loaned by a spouse, parents, family or friends. Investors and bankers considers this as "patient capital", which is money that will be repaid later as your business profits increase.

When borrowing love money, you should be aware that:

Family and friends rarely have much capital

They may want to have equity in your business

A business relationship with family or friends should never be taken lightly

3. Venture capital

The first thing to keep in mind is that venture capital is not necessarily for all entrepreneurs. Right from the start, you should be aware that venture capitalists are looking for technology-driven businesses and companies with high-growth potential in sectors such as information technology, communications and biotechnology.

Venture capitalists take an equity position in the company to help it carry out a promising but higher risk project. This involves giving up some ownership or equity in your business to an external party. Venture capitalists also expect a healthy return on their investment, often generated when the business starts selling shares to the public. Be sure to look for investors who bring relevant experience and knowledge to your business.

BDC has a venture capital team that supports leading-edge companies strategically positioned in a promising market. Like most other venture capital companies, it gets involved in start-ups with high-growth potential, preferring to focus on major interventions when a company needs a large amount of financing to get established in its market.

4. Angels

Angels are generally wealthy individuals or retired company executives who invest directly in small firms owned by others. They are often leaders in their own field who not

only contribute their experience and network of contacts but also their technical and/or management knowledge. Angels tend to finance the early stages of the business with investments in the order of $25,000 to $100,000. Institutional venture capitalists prefer larger investments, in the order of $1,000,000.

In exchange for risking their money, they reserve the right to supervise the company's management practices. In concrete terms, this often involves a seat on the board of directors and an assurance of transparency.

Angels tend to keep a low profile. To meet them, you have to contact specialized associations or search websites on angels. The National Angel Capital Organization (NACO) is an umbrella organization that helps build capacity for Canadian angel investors. You can check out their member's directory for ideas about who to contact in your region.

5. Business incubators

Business incubators (or "accelerators") generally focus on the high-tech sector by providing support for new businesses in various stages of development. However, there are also local economic development incubators, which are focused on areas such as job creation, revitalization and hosting and sharing services.

Commonly, incubators will invite future businesses and other fledgling companies to share their premises, as well as their administrative, logistical and technical resources. For example, an incubator might share the use of its laboratories so that a new business can develop and test its products more cheaply before beginning production.

Generally, the incubation phase can last up to two years. Once the product is ready, the business usually leaves the incubator's premises to enter its industrial production phase and is on its own.

Businesses that receive this kind of support often operate within state-of-the-art sectors such as biotechnology, information technology, multimedia, or industrial technology.

MaRS – an innovation hub in Toronto – has a selective list of business incubators in Canada, plus links to other resources on its website.

6. Government grants and subsidies

Government agencies provide financing such as grants and subsidies that may be available to your business. The Canada Business Network websiteprovides a comprehensive listing of various government programs at the federal and provincial level.

Criteria

Getting grants can be tough. There may be strong competition and the criteria for awards are often stringent. Generally, most grants require you to match the funds you are being given and this amount varies greatly, depending on the granter. For example, a research grant may require you to find only 40% of the total cost.

Generally, you will need to provide:

A detailed project description

An explanation of the benefits of your project

A detailed work plan with full costs

Details of relevant experience and background on key managers

Completed application forms when appropriate

Most reviewers will assess your proposal based on the following criteria:

Significance

Approach

Innovation

Assessment of expertise

Need for the grant

Some of the problem areas where candidates fail to get grants include:

The research/work is not relevant

Ineligible geographic location

Applicants fail to communicate the relevance of their ideas

The proposal does not provide a strong rationale

The research plan is unfocused

There is an unrealistic amount of work

Funds are not matched

7. Bank loans

Bank loans are the most commonly used source of funding for small and medium-sized businesses. Consider the fact that all banks offer different advantages, whether it's personalized service or customized repayment. It's a good idea to shop around and find the bank that meets your specific needs.

In general, you should know bankers are looking for companies with a sound track record and that have excellent credit. A good idea is not enough; it has to be backed up with a solid business plan. Start-up loans will also typically require a personal guarantee from the entrepreneurs.

4. Questions for self-control

1. List types of investment resources.
2. What types of funding can you call?
3. What is the essence of crowdfunding? Its pros and cons.
4. List the best sources of start-up financing.
5. Characterize the essence of business angels and venture capital.

Topic 4. Real and financial investment

Lecture plan

1. Essence and differences of real and financial investments
2. Types of stocks
3. Basics of bonds
4. Questions for self-control

1. Essence and differences of real and financial investments

Assets are very important for businesses, as well as for individuals. The number and quality of assets that one owns go a long way in determining the creditworthiness and sustainability of any organization or individual. These very assets help us store, transfer, and generate wealth for the country, businesses, or individuals. In the financial world, assets are the term of the Balance-Sheets that give us the total worth of that business.

We generally divide assets into two categories – Real and Financial. Real assets are the assets that a business or investor owns, such as land, building, and more. On the other hand, a financial asset is liquid assets that one can easily or quickly convert into cash, such as stock, bonds, securities, etc. To get a better understanding of the two concepts, it is important to know about the meaning and differences between Real vs Financial assets.

Real vs Financial Assets – Meaning

As said above, financial assets are non-physical assets. One can quickly convert them into cash. A point to note is that such assets represent a claim on the underlying value of another asset. One unique feature of financial assets is they carry some monetary value (monetary assets). But, one can't realize that value unless it is exchanged for cash. So basically, these assets do not have any intrinsic value of their own.

Real assets are generally the physical assets that help a company to generate revenue. They carry an intrinsic value of their own, unlike financial assets, and thus, are important to a business. Their intrinsic value is because of their substance and properties. They are more popular with investors for several reasons – tax benefits, less correlation with equity, attractive return, and inflation protection.

Real vs Financial Assets – Differences

Here we can draw an analogy with the investments. Because the differences between both these types of assets are the same as what could be between the real and financial investments. Knowing this, hopefully, will make it easy for us to realize the differences between real and financial assets. Let us now elaborate on the differences between real and financial assets:

Valuation

All real assets carry an intrinsic value. While the value of the financial assets has a relation to the underlying asset. The underlying asset may be tangible or intangible.

Liquidity

As said above, the financial assets are liquid, and one can easily and quickly convert them into cash. Also, financial assets have a proper marketplace, facilitating quick conversion into cash.

Real assets, however, are not as liquid as financial assets. Since they are usually of high value, it takes time to find a buyer and convert them into cash. Moreover, they also lack any proper marketplace.

Tangible

Financial assets may not necessarily have a physical form. Real assets, in contrast, are present in physical form.

Growth

The growth in real assets could be very slow. Moreover, depreciation and other expenses may make real assets less attractive in the long term. In contrast, financial assets offer unlimited potential for growth. They have a low carrying cost as well. However, they are usually riskier than real assets.

Purpose

The primary objective of holding real assets is to generate revenue. Such assets basically help a business to produce goods and services. In contrast, financial assets help

investors to generate income. Or, we can say one buys financial assets for investment purposes.

Accounting

One can measure the financial assets at amortized cost and fair value depending on the nature of the assets. One shows real assets at their historical value less depreciation in the accounts. While financial assets are usually valued based on their prevailing market prices, if that exists. Otherwise, these are valued as per the likely converted value in the opinion of the management, considering the strength of the individual financial asset.

Inflation Hedging

Real assets offer more protection against inflation as the value of such assets and the income they help generate grow with inflation. On the other hand, financial assets may or may not protect against inflation risk.

Balance Sheet

Real assets are shown on the asset side of the balance sheet. Financial assets could come on either side, depending on their value.

Trade

Since financial assets are liquid, list on the exchange, and have a marketplace, they are very easy to trade. On the other hand, real assets lack a proper marketplace and are thus difficult to trade.

Examples

Some popular examples of financial assets are Stocks, bonds, cash reserves, bank deposits, trade receivables, and more. Buildings, land, machinery, inventory, real estate, and more are popular examples of real assets.

Classification

Financial assets have a further classification – equities and fixed income securities. There is no such classification for real assets.

More Reliable

At the time of financial crises, the real assets are more reliable. This is because they usually don't lose their value much in comparison to the financial assets. Financial assets, on the other hand, can get more volatile during financial distress.

Tax Benefits

Real assets offer tax benefits in the form of depreciation. There are no such tax benefits with the financial assets.

2. Types of stocks

Investors love to put stocks into various categories in order to make it easier to identify them. There are probably over one dozen stock classifications.

Here are the major types of stocks you should know.

Common stock

Preferred stock

Large-cap stocks

Mid-cap stocks

Small-cap stocks

Domestic stock

International stocks

Growth stocks

Value stocks

IPO stocks

Dividend stocks

Non-dividend stocks

Income stocks

Cyclical stocks stocks

Non-cyclical stocks

Safe stocks

ESG stocks

Blue chip stocks

Penny stocks

Common stock and preferred stock

Most stock that people invest in is common stock. Common stock represents partial ownership in a company, with shareholders getting the right to receive a proportional share of the value of any remaining assets if the company gets dissolved. Common stock gives shareholders theoretically unlimited upside potential, but they also risk losing everything if the company fails without having any assets left over.

Preferred stock works differently, as it gives shareholders a preference over common shareholders to get back a certain amount of money if the company dissolves. Preferred shareholders also have the right to receive dividend payments before common shareholders do. The net result is that preferred stock as an investment often more closely resembles fixed-income bond investments than regular common stock. Often, a company will offer only common stock. This makes sense, as that is what shareholders most often seek to buy.

Large-cap, mid-cap, and small-cap stocks

Stocks also get categorized by the total worth of all their shares, which is called market capitalization. Companies with the biggest market capitalizations are called large-cap stocks, with mid-cap and small-cap stocks representing successively smaller companies.

There's no precise line that separates these categories from each other. However, one often-used rule is that stocks with market capitalizations of $10 billion or more are treated as large-caps, with stocks having market caps between $2 billion and $10 billion qualifying as mid-caps and stocks with market caps below $2 billion getting treated as small-cap stocks.

Large-cap stocks are generally considered safer and more conservative as investments, while mid-caps and small caps have greater capacity for future growth but are riskier. However, just because two companies fall into the same category here doesn't mean they have anything else in common as investments or that they'll perform in similar ways in the future.

Domestic stocks and international stocks

You can categorize stocks by where they're located. For purposes of distinguishing domestic U.S. stocks from international stocks, most investors look at the location of the company's official headquarters.

However, it's important to understand that a stock's geographical category doesn't necessarily correspond to where the company gets its sales. Philip Morris International (NYSE:PM) is a great example, as its headquarters are in the U.S., but it sells its tobacco and other products exclusively outside the country. Especially among large multinational corporations, it can be hard to tell from business operations and financial metrics whether a company is truly domestic or international.

Growth stocks and value stocks

Another categorization method distinguishes between two popular investment methods. Growth investors tend to look for companies that are seeing their sales and profits rise quickly. Value investors look for companies whose shares are inexpensive, whether relative to their peers or to their own past stock price.

Growth stocks tend to have higher risk levels, but the potential returns can be extremely attractive. Successful growth stocks have businesses that tap into strong and rising demand among customers, especially in connection with longer-term trends throughout society that support the use of their products and services.

Competition can be fierce, though, and if rivals disrupt a growth stock's business, it can fall from favor quickly. Sometimes, even just a growth slowdown is enough to send prices sharply lower, as investors fear that long-term growth potential is waning.

Value stocks, on the other hand, are seen as being more conservative investments. They're often mature, well-known companies that have already grown into industry leaders and therefore don't have as much room left to expand further. Yet with reliable business models that have stood the test of time, they can be good choices for those seeking more price stability while still getting some of the positives of exposure to stocks.

IPO stocks

IPO stocks are stocks of companies that have recently gone public through an initial public offering. IPOs often generate a lot of excitement among investors looking to get in on the ground floor of a promising business concept. But they can also be volatile, especially when there's disagreement within the investment community about their prospects for growth and profit. A stock generally retains its status as an IPO stock for at least a year and for as long as two to four years after it becomes public.

Dividend stocks and non-dividend stocks

Many stocks make dividend payments to their shareholders on a regular basis. Dividends provide valuable income for investors, and that makes dividend stocks highly sought after among certain investment circles. Technically, paying even $0.01 per share qualifies a company as a dividend stock.

However, stocks don't have to pay dividends. Non-dividend stocks can still be strong investments if their prices rise over time. Some of the biggest companies in the world don't pay dividends, although the trend in recent years has been toward more stocks making dividend payouts to their shareholders.

Income stocks

Income stocks are another name for dividend stocks, as the income that most stocks pay out comes in the form of dividends. However, income stocks also refer to shares of companies that have more mature business models and have relatively fewer long-term opportunities for growth. Ideal for conservative investors who need to draw cash from their investment portfolios right now, income stocks are a favorite among those in or nearing retirement.

Cyclical stocks and non-cyclical stocks

National economies tend to follow cycles of expansion and contraction, with periods of prosperity and recession. Certain businesses have greater exposure to broad business cycles, and investors therefore refer to them as cyclical stocks.

Cyclical stocks include shares of companies in industries like manufacturing, travel, and luxury goods, because an economic downturn can take away customers' ability to make major purchases quickly. When economies are strong, however, a rush of demand can make these companies rebound sharply.

By contrast, non-cyclical stocks, also known as secular or defensive stocks, don't have those big swings in demand. An example of non-cyclical stocks would be grocery store chains, because no matter how good or bad the economy is, people still have to eat. Non-cyclical stocks tend to perform better during market downturns, while cyclical stocks often outperform during strong bull markets.

Safe stocks

Safe stocks are stocks whose share prices make relatively small movements up and down compared with the overall stock market. Also known as low-volatility stocks, safe stocks typically operate in industries that aren't as sensitive to changing economic conditions. They often pay dividends as well, and that income can offset falling share prices during tough times.

Stocks categorized by sector

You'll often see stocks broken down by the type of business they're in. The basic categories most often used include stock market sectors:

Communication Services -- telephone, internet, media, and entertainment companies

Consumer Discretionary -- retailers, automakers, and hotel and restaurant companies

Consumer Staples -- food, beverage, tobacco, and household and personal products companies

Energy -- oil and gas exploration and production companies, pipeline providers, and gas station operators

Financial -- banks, mortgage finance specialists, and insurance and brokerage companies

Healthcare -- health insurers, drug and biotech companies, and medical device makers

Industrial -- airline, aerospace and defense, construction, logistics, machinery, and railroad companies

Materials -- mining, forest products, construction materials, packaging, and chemical companies

Real Estate -- real estate investment trusts and real estate management and development companies

Technology -- hardware, software, semiconductor, communications equipment, and IT services companies

Utilities -- electric, natural gas, water, renewable energy, and multi-product utility companies

ESG stocks

ESG investing refers to an investment philosophy that puts emphasis on environmental, social, and governance concerns. Rather than focusing entirely on whether a company generates profit and is growing its revenue over time, ESG principles consider other collateral impacts on the environment, company employees, customers, and shareholder rights.

Tied to ESG's governing rules is socially responsible investing, or SRI. Investors using SRI screen out stocks of companies that don't match up to their most important values. However, ESG investing has a more positive element in that rather than just excluding companies that fail key tests, it actively encourages investing in the companies that do things the best. With evidence showing that a clear commitment to ESG principles can improve investing returns, there's a lot of interest in the area.

Blue chip stocks

Finally, there are stock categories that make judgments based on perceived quality. Blue Chip stocks tend to be the cream of the crop in the business world, featuring companies that lead their respective industries and have gained strong reputations. They

typically don't provide the absolute highest returns, but their stability makes them favorites among investors with lower tolerance for risk.

Penny stocks

By contrast, penny stocks are low-quality companies whose stock prices are extremely inexpensive, typically less than $1 per share. With dangerously speculative business models, penny stocks are prone to schemes that can drain your entire investment. It's important to know about the dangers of penny stocks.

You've probably heard that portfolio diversification is important for developing strong, stable investments. Keep all of these stock classifications in mind as you plan for diversity -- investing across companies of different market capitalizations, geographies, and investing styles contributes to a well-balanced portfolio.

3. Basics of bonds

Bonds are debt instruments issued by corporations and a variety of government entities to raise money to purchase assets and finance deficits. In effect the bond issuer borrows money from the bond purchaser and agrees to pay interest at an established rate over a fixed period of time. The "loan," or face value of the bond, is repaid at the end of the bond's term when it matures. The bond serves as a contract between the two parties, with stipulations regarding the obligations of the bond issuer to the bondholder. While shareholders are considered owners of a corporation, bondholders are among its creditors. A company's stock is part of its equity, while bonds are part of its debt. If the bond issuer is a corporation, bondholders have a prior claim against the corporation's assets and earnings to that of the corporation's shareholders.

Bonds represent the debts of issuers, such as companies or governments. These debts are sliced up and sold to investors in smaller units. For example, a $1 million debt issue may be allocated to one-thousand $1,000 bonds. In general, bonds are considered to be more conservative investments than stocks, and are more senior to stocks if an issuer declares bankruptcy. Bonds also typically pay regular interest payments to investors, and

return the full principal loaned when the bond matures. As a result, bond prices vary inversely with interest rates, falling when rates go up and vice-versa.

The bond markets are a very liquid and active, but can take second seat to stocks for many retail or part-time investors. The bond markets are often reserved for professional investors, pension and hedge funds, and financial advisors, but that doesn't mean that part-time investors should steer clear of bonds. In fact, bonds play an increasingly important part in your portfolio as you age and, because of that, learning about them now makes good financial sense. In fact having a diversified portfolio of stocks and bonds is advisable for investors of all ages and risk tolerance.

When you purchase a stock, you're buying a microscopic stake in the company. It's yours and you get to share in the growth and also in the loss. On the other hand, a bond is a type of loan. When a company needs funds for any number of reasons, they may issue a bond to finance that loan. Much like a home mortgage, they ask for a certain amount of money for a fixed period of time. When that time is up, the company repays the bond in full. During that time the company pays the investor a set amount of interest, called the coupon, on set dates (often quarterly).

There are many types of bonds, including government, corporate, municipal and mortgage bonds. Government bonds are generally the safest, while some corporate bonds are considered the riskiest of the commonly known bond types.

For investors, the biggest risks are credit risk and interest rate risk. Since bonds are debts, if the issuer fails to pay back their debt, the bond can default. As a result, the riskier the issuer, the higher the interest rate will be demanded on the bond (and the greater the cost to the borrower). Also, since bonds vary in price opposite interest rates, if rates rise bond values fall.

Bonds are rated by popular agencies like Standard and Poor's, and Moody's. Each agency has slightly different ratings scales, but the highest rating is AAAand the lowest rating is C or D, depending on the agency. The top four ratings are considered safe or

investment grade, while anything below BBB for S&P and Baa3 for Moody's is considered "high yield" or "junk" bonds.

Although larger institutions are often permitted to purchase only investment grade bonds, high yield or junk bonds have a place in an investor's portfolio as well, but may require more sophisticated guidance. Generally, governments have higher credit ratings than companies, and so government debts are less risky and carry lower interest rates.

Credit Ratings

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Pricing Bonds

Bonds are generally priced at a face value (also called par) of $1,000 per bond, but once the bond hits the open market, the asking price can be priced lower than the face value, called a discount, or higher than the face value, called premium. If a bond is priced at a premium, the investor will receive a lower coupon yield, because they paid more for the bond. If it's priced at a discount, the investor will receive a higher coupon yield, because they paid less than the face value.

Bond prices tend to be less volatile than stocks and they often respond more to interest rate changes than other market conditions. This is why investors looking for safety and income often prefer bonds over stocks as they get closer to retirement. A bond's duration is its price sensitivity to changes in interest rates—as interest rates rise bond

prices fall, and vice-versa. Duration can be calculated on a single bond or for an entire portfolio of bonds.

Issuers of Bonds

There are four primary categories of bond issuers in the markets. However, you may also see foreign bonds issued by corporations and governments on some platforms.

Corporate bonds are issued by companies. Companies issue bonds—rather than seek bank loans for debt financing in many cases—because bond markets offer more favorable terms and lower interest rates.

Municipal bonds are issued by states and municipalities. Some municipal bonds offer tax-free coupon income for investors.

Government (sovereign) bonds such as those issued by the U.S. Treasury. Bonds (T-bonds) issued by the Treasury with a year or less to maturity are called “Bills”; bonds issued with 1 to 10 years to maturity are called “notes”; and bonds issued with more than 10 years to maturity are called “bonds”. The entire category of bonds issued by a government treasury is often collectively referred to as "treasuries." Government bonds issued by national governments may be referred to as sovereign debt. Governments may also offer inflation-protected bonds (e.g. TIPS) as well as small denomination savings bonds for ordinary investors,

Agency bonds are those issued by government-affiliated organizations such as Fannie Mae or Freddie Mac.

4. Questions for self-control

1. What is real investments?
2. What is financial investments?
3. What is the difference between real and financial investments?
4. Explain the sense of stocks issue as a source for financing of a project.
5. List different types of stocks.
6. What is the essence of bonds?

Topic 5. International investment activity

Lecture plan

1. Conceptual apparatus of international investment activity
2. Principles of international investment activity
3. International investment market
4. Benefits and Constraints of Foreign Business Activities
5. Questions for self-control

1. Conceptual apparatus of international investment activity

These markets regulate the process of exchange of investments and investment objects (goods). Let's consider their classification, according to the subject of our research (investment, or investment activity), namely:

1. The domestic market (or national) - is divided into the domestic market (revolving securities of resident issuers of a given country) and the foreign market (transactions with financial assets of non-residents are carried out). The rotation of foreign securities is governed by the law of the country in which they were issued. For example, securities issued in US by foreign corporations or their subsidiaries operating in the United States must comply with American law. Foreign corporations wishing to issue their financial instruments in Japan must act in accordance with the laws of Japan and the regulations of the Ministry of Finance of this country.

Different foreign markets have specific names. For example, the US foreign market is called the Yankees market. In Japan, the foreign market is called-the Samurai, in the UK - bulldog, in the Netherlands - the market is Rembrandt, in Spain - the market of matador.

2. An external market (or international market) includes securities with the following characteristics: immediately after issue, they instantly become available to investors in many countries; they are emitted outside the legislation of a particular country. The external market is still called offshore, but more often it is called euro-market.

1) From the point of view of securities circulating in the market, the international (external) market is divided into:

2) the world market for ordinary shares, which includes the market of euro-certificates - securities issued in several national markets by international syndicates;

3) the global bond market, including the Eurobond market, divided into several sectors, depending on the currency, in which they are denominated (Eurodollar bonds, Eurobonds, etc.)

Eurobond is a valuable paper that: mimics the international syndicate; available immediately after issue to investors in several countries; revolves outside the law of any country;

4) the money market, the instrument of which is a debt with a maturity of no more than a year (commercial paper, bank acceptance, deposit certificates, sales and reverse repurchase agreements - REPO;

5) market of financial derivatives (options and futures);

6) the market for "real" (non-core) investments, which involves (including) the direct investment and venture capital operations.

Separate classification units are the so-called "mature market" and "emerging market" or "growing market".

Mature markets are markets, developed countries (USA, Japan, EU countries), characterized by a high proportion of organized trade through stock exchanges, a high level of market capitalization and an exhausted system of organizational and legal security of securities trading.

Growing or developing markets are financial markets of fast developing countries or transition economies characterized by high growth rates, increased risk, low capitalization, and regulatory frameworks that are in the process of being formed. The "growing market" phenomenon is often associated with wider opportunities (more free niches) for investing.

The above classification shows that there are many variants of capital investment, the spectrum of which is expanding in connection with the development of international economic relations.

Investing underlies the functioning of the modern economy, it integrates the interests and resources of citizens, firms and the state in terms of effective social and economic development. In the broadest sense

Investments - this is the conclusion of capital in one form or another in one or another matter for the purpose of its subsequent increase or preservation. In general, for a stable economic growth, investments should be at the level of 15-30% of the gross national product (GNP), which is provided by the appropriate levels of savings.

Investments are all types of property and intellectual property that are invested in objects of entrepreneurial and other activities, which result in the creation of profit (income) or social effect.

From the economic point of investment - this is a business operation, which provides the acquisition of fixed assets of intangible assets, corporate rights and securities in exchange for funds or property.

These values include:

• funds, targeted bank deposits and other securities;

• movable and immovable property (buildings, structures, equipment, etc.);

•property rights arising from copyright, experience and other intellectual property values;

• a set of technical, technological, commercial and other knowledge;

• rights to use land, water, resources, buildings, structures, equipment, as well as other property rights;

• other values.

Capital investment is a form of investment to reproduce only fixed assets and the growth of inventories.

Investing is a process of spending material, labor and money resources on creation of fixed assets or placement in financial instruments.

The main types of investment are:

• investments made by citizens and business entities that are residents of Ukraine;

• state investment by the authorities and authorities of Ukraine, the Autonomous Republic of Crimea, local Soviets of People's Deputies at the expense of budgetary funds, extra budgetary funds and borrowed funds, as well as state enterprises and institutions;

• foreign investment;

• joint investment.

The main sources of investment are:

• own resources of the investor (savings of citizens, for enterprises - profits and depreciation deductions);

• borrowed (state credit, bank loans);

• attracted (funds of other investors and depositors, including from the issue of securities);

• investment allocations from budgets of different levels;

• foreign investment (including financial resources of international financial organizations).

National and international investment resources are collectively referred to as the world's investment wealth, which has financial (57.7%) and material (42.3%) components. Financial wealth is accumulated in the form of securities (49.6%) and cash (8.7%), and material - in real estate (35.6%) and valuable metals (6.7%).

As already noted, international investment activity is a set of actions of actors (investors and participants) in making investments abroad and foreign investments in order to receive profits. Its subjects-investors are individuals, corporations, national and international financial institutions, governments of countries, and the subjects-participants are individuals and legal entities that ensure the implementation of investments as executors of orders or orders of the investor. The resources of the investor consist of resources received from all available sources of investment - domestic, borrowed and borrowed.

International investment activity is being carried out in two directions: export of capital and attracting foreign investments.

The export of capital is conditioned by factors such as surplus capital in the country, the need for new markets, raw materials, the formation of a certain level of competitive economy, international division of labor, transnationalization of the economy.

The need for attracting foreign investment arises from: the limited internal investment resources; low investment activity of their own investors; the need to provide, together with the investment of new technology and technology; the desire to create a competitive economy and to master the world markets; the need for modernization of the social infrastructure of society.

In terms of subjectivity in world economic theory and practice distinguish individual, institutional, corporate investors and government.

An individual investor independently (without intermediaries) carries out an investment activity. An institutional investor is a financial intermediary that accumulates funds from individual investors and carries out specialized investment activities, as a rule, in securities transactions. Institutional investors include investment funds and companies, pension funds, insurance companies, mutual funds, as well as banks. Corporate investors are enterprises and organizations of various branches of the economy. As a specific investor is the government (Christakos, 2018).

The main objective of private foreign investment is the export of investment capital abroad in cash or commodity form for the purpose of profit or expansion of economic influence.

The main goal of state foreign investment is to create legal, economic and organizational conditions for the sustainable development of the country's economy, where investments are invested. State capital (all types of funds from the state budget that are moving abroad or taken from abroad by the decision of governments) and capital held by intergovernmental organizations are official capital.

As for the subjects of international investment activity, the following concepts are used:

• investor of an investment abroad - a donor subject who is a resident of a certain country (country-based) and who invests in facilities abroad; foreign investment recipient - an entity that is not a resident of the home country and receives funds from an investor who is a resident of the home country;

• "foreign investor" means a non-resident of a host country who deposits funds from recipient's resident in the host country;

• represent of foreign investments - a resident which is a resident of the host country and which attracts funds from foreign investors.

Investments themselves can be classified according to different criteria: Forms and types of investments.

Investments are made in the following forms:

• material - in the form of movable and immovable property;

• financial - in the form of cash, deposits, securities;

•intangible - in the form of property rights, intellectual property, various knowledge and so on.

In addition, investments can be classified according to many features, including:

By the nature of participation in the investment process, financial investments are divided into:

Direct investment is an economic transaction that involves the introduction of funds or property into the statutory fund of a legal entity in exchange for corporate rights issued by such a legal entity.

Portfolio investment - a business transaction that involves the acquisition of securities, derivatives and other financial assets for funds in the stock market. Such investments do not give real investor control over the object of investment.

By form of ownership:

• state - financing from the state budget, local budgets, state. enterprises.

• private - characterize the capital investments of individuals, as well as legal entities

• non-state forms of ownership mixed - assume the investment as a share of private and public capital in investment objects.

On a regional basis distinguish:

• internal - investment of capital by economic entities of this state;

• foreign investment of foreign legal entities and individuals, foreign states, international governmental and non-governmental organizations;

• overseas - investing in investment objects outside the territory of this state (acquisition of securities of foreign companies, property, etc.).

Depending on the terms of development: long-term, medium-term, short-term.

By organizational form they distinguish:

• investment project - involves, firstly, a certain completed object of investment activity and, secondly, implementation, as a rule, one form of investment;

• investment portfolio - Includes various forms of investment by one investor.

According to the reproductive orientation:

• gross investments characterize the total amount of capital invested in the reproduction of fixed assets and intangible assets in a given period;

• renewable investments characterize the amount of capital invested in the simple reproduction of depreciable fixed and intangible assets.

• net investments characterize the amount of capital invested in the extended reproduction of fixed assets and intangible assets.

By the nature of capital use:

• primary investments characterize the use of newly formed for investment goals of capital at the expense of both own and borrowed financial resources;

• reinvestment represents the re-use of capital for investment purposes for conditions of its preliminary release in the course of the implementation of previously selected investment projects, investment goods or financial instruments of investment;

• disinvestment is a process of withdrawing previously invested capital from investment turnover without further use for investment purposes (for example, to cover

losses of the enterprise). They can be characterized as negative investments of the enterprise

A quantitative criterion for distinguishing direct and portfolio investments in a developed market economy is the share of 10% of the investment object. However, an investment with a smaller share of participation may also be considered direct, but it provides a real impact on decision making by the investment object. Conversely, if the investor's share is more than 10%, but he has no real control over the object, then the corresponding investment is not recognized as direct. Along with direct and portfolio investments, an important component of international investment cooperation is the state foreign aid. Structurally, it is formed by grants, loans and technical assistance, with both a two- and multilateral basis.

Conditions for foreign investors are created through economic and social measures, legal norms, which are an integral part of the investment law of the receiving state; international treaties; investment treaties between a foreign investor and the host state; insurance poles for insurance of investments in national and international insurance organizations. Based on these conditions, direct investments can be made in the following forms:

1. Acquisition of controlling stakes in companies of recipient countries is carried out through direct purchase of shares on the local stock market. This method of investment is widely used in the process of privatization of enterprises, as well as in the exchange of shares for debts of enterprises, both state and private ownership.

2. Licensing agreements with firms in the recipient countries give the investor the opportunity to enter the market with minimal risk. A transnational company transfers the rights to the production of a particular product or service or to use a patented process, technology, trademark or other intellectual property to a local firm that will be responsible for the production and marketing of the local market.

3. Strategic alliances and joint ventures give investors more presence in the local market with less risk than direct buying a local firm or creating their own subsidiary.

Creating alliances with large corporations opens up opportunities for small companies looking for sources of funding for growth.

4. Acquisition of controlling stakes in firms of recipient countries by foreign investors brings great benefits to local firms, stimulates the country's economy as a whole and accelerates its integration into the world economy, because it requires investors greater obligations and a longer time to generate profits. Control packets of shares can be obtained through direct purchase of shares, privatization, exchange of shares on debts and other methods.

5. Creation of own subsidiaries in firms of recipient countries is used in the markets with the greatest potential for profit. This form of investment has the greatest risk and the largest liabilities from the foreign investor.

6. Foreign investment credit is an economic relationship between the states, foreign banks and firms on the financing of investment activities on the basis of repayment within certain time limits and, as a rule, with payment of interest.

7. An important component of international investment activity is state foreign aid. Structurally, it is formed by grants, concessional loans and technical and informational and consulting assistance, which have both a two-way and a multilateral basis.

2. Principles of international investment activity

The investor, who plans to make international portfolio investments, must first of all define the principles of forming the structure of their portfolio. The following sequence of formation of the structure of the portfolio of international investments in general or by specific segments is possible:

countries (currencies) - types of securities - specific securities;

types of securities - countries (currencies) - specific securities;

types of securities - specific securities - countries (currency);

specific securities - countries (currencies).

In the first case, the investor can choose from, for example, Japan and France, and then Japanese bonds and French equities and, in the end, specific securities.

In the second case, the types of securities are first selected (for example, stocks or short-term government bonds) 'then for each type of country are determined (for example,

Japan for equity investments, and the United Kingdom - short-term government bonds), and finally, specific securities are identified.

The third and fourth cases are characteristic for determining the structure of the segment of shares in the portfolio of international investment.

In the third case, the choice of a type of securities means the choice of certain sectors of the economy, after which the shares of specific companies in a particular country are selected. The choice of such shares determines the totality of the countries (currencies) of the investment.

Thus, in the first and second cases, the principle of "country (currency) - specific securities ", which in the literature is called" top down "principle. In the third and fourth cases, the principle of "specific securities - countries (currencies)" or "bottom-up" principle is implemented.

At each stage of the considered sequences of formation of a set of segments and specific securities in the portfolio of international investment depends on the purpose of the particular investor. Such goals can be:

• obtaining quality (profitability and risk), close to the quality of a market portfolio, whose structure corresponds to the capitalization of the relevant market;

• reception of profitability above the profitability of a market portfolio;

• ensuring the risk below the market portfolio risk.

These goals can be defined both for the portfolio of international investments in general and for its individual segments.

Along with the formation of the portfolio structure, a foreign investor should determine the principles of managing his risk. At the same time, the following options are possible:

not take any measures, hoping for a favorable situation;

to diversify investments in countries, types of securities, sectors of the economy and securities;

• increase the share of investments in non-risk assets;

• choose less risky assets and investment currencies based on the forecast of their quality;

Take special measures to protect against the adverse change in the price of the asset and / or exchange rate.

Options for building a portfolio of investments in modern conditions.

At present, due to the significant development of international economic relations, an investor who has available free funds and wishes to place them in a portfolio of investments in different ways, namely to formulate a portfolio of investments with:

1) instruments of national issuers denominated in the national currency (valuable papers of state, regional and local authorities, national joint stock companies, deposits in the national currency).

Advantages of the approach:

• the possibility of obtaining a sufficiently complete information on issuers;

• possibility to maintain own statistics on stock and money markets;

• use of the national currency only, excluding currency exchange risk;

• the absence of additional costs associated with investing abroad (including transactions);

• possible tax and other benefits for resident investors as compared to non-resident investors.

The disadvantages of this approach are:

• reducing the opportunities for risk diversification and higher returns relative to the profitability of national markets;

• lack of guarantees of protection against negative external factors, while at the same time depriving them of the positive influence of the world investment market.

2) securities of foreign issuers, which are denominated in national currency and are rotated on the national market (so-called foreign stocks and bonds). For example, a subsidiary company needs Japanese yen to fund its operations and it issues its bonds denominated in that currency on the Japanese market.

The advantage of this approach is:

• the possibility of obtaining a higher quality or lower risk of such securities.

Disadvantages of the approach:

possible difficulties in obtaining information about issuers;

high currency risk (the risk of a fall in the issuer's exchange rate relative to the investor's currency);

3) instruments that are rotated on the national stock and money markets but are denominated in foreign currency.

Advantages of the approach:

• the possibility of obtaining additional income while increasing the rate of the national currency;

• Reduction of the overall portfolio risk when the national securities market falls or the national currency rate falls.

Disadvantages of this approach:

• introduction of administrative restrictions on operations with foreign currency;

• the risk of falling currency exchange rates relative to both the national currency and other currencies;

4) securities that are traded on the international market and the euro market.

3. International investment market

An investment market can be defined as a market regulating the totality of economic relations that arise between the seller and the buyer of investment resources. According to this definition, the international investment market is a regulator of the aggregate of economic relations that arise between the seller of investment resources and their buyer who are residents of different countries.

The functional structure of the international investment market consists of:

1. Markets of real investment objects:

a) Market of direct investment objects:

• new construction;

• expansion;

• reconstruction;

• technical re-equipment;

b) the market of privatized objects;

c) real estate market;

e) Market of other real investment objects.

2. Market of financial investment instruments:

a) Stock market:

• market for bonds (foreign, Eurobonds);

• share capital market (stock exchange, euro active);

b) The money market.

It is clear that the functioning of the international investment market is possible only in close cooperation with the foreign exchange market. The latter not only serves other markets, but also has its own structure and mechanism of self-development. The daily sales volumes of currencies reach hundreds of billions of dollars. The simplified formula for investment costs is as follows:

$\boldsymbol{I}=\boldsymbol{Ia}-\boldsymbol{Er}$ (5.1)

where Ia is a constant factor, Er is the interest rate, and Ia is the exogenous component of investment expenditures; it changes with the change of general mood in the business world (from optimism to pessimism) and with a significant change in technology. Graphically, this ratio is depicted in Fig. It is profitable to invest up to the point when the interest rate is equal to the expected rate of net profit.

The money market proposal is mainly determined by commercial banks that supply resources to firms and government. Non-financial companies with temporary cash balances

also provide short-term money to banks and other companies in the money market. The largest borrower of money is the National Treasury. Large and most well-known corporations are also active borrowers (they offer short notes). In addition, supply and demand are regulated by the Federal Reserve or the National Bank.

In the capital market, the main borrowers are diverse companies.

In addition, the borrower is the government, issuing long-term commitments under various government programs. Borrowers are also households borrowing money to finance, for example, to buy a new home. The offer in this market comes from various financial institutions, such as banks, insurance companies, pension funds and other similar organizations.

To consider demand and supply on the market of international portfolio investments we will take two conditional countries - the base (home) and the recipient country (foreign), two currencies - national and foreign, two types of securities (for simplification, we consider that these securities are bonds) - national and foreign. An investor can have a portfolio with both foreign assets and national ones. The percentage of return on national bonds will be determined as rd, and from foreign rf. Under conditions of fully mobile capital movements between countries, the relationship between the interest rates of the bonds of different countries is represented by the equation:

$\boldsymbol{rd} = \boldsymbol{rf} + \boldsymbol{E}(\boldsymbol{e})$ (5.2)

where $E(e)$is the expected percentage change in the exchange rate between the national and foreign currencies (e is the relative number of units of the national currency in terms of the number of foreign currency units; if the expected depreciation of the national currency is $E(e)$is a positive, negative $E(e)$means expectations of appreciation of the national currency). If $r < r + E$ then national bonds will be sold and foreign dfe purchased. This process will reduce the prices of national bonds and increase the percentage of profits on them through the feedback between bond prices and the percentage of profit. In addition, the price of foreign bonds will increase and, accordingly, their profitability will decrease. If $r > r + E$ then foreign bonds will be sold, and national

ones will be dfebought and there will be a reverse process. When $r = r + E$, then there is dfe no objective exciting motive for changing the composition of an investor's portfolio from one type of bond to another.

The demand for financial assets depends not only on the specified mechanism of changing the composition of the portfolio. To the already given variables, we need to add three more - the real national income of the country, the national price level and real national prosperity.

The place and role of the securities market in the structure of the international investment market.

The securities market occupies a special place in the structure of the modern international investment market, due primarily to the unique features of securities as financial and investment instruments. The leading general tendency of the development of the international financial market is its securitization, that is, the outpacing growth of securities transactions relative to transactions with traditional monetary instruments. For example, in the 90 years on bond loans account for more than 70% of the total volume of international borrowings, while in the 80 years - less than 60%.

There is no generally accepted definition of the international securities market.

In this market, securities trading between non-residents and trade in stock values expressed in currencies other than national ones are traded. In a broad sense, the criterion.

“Internationalism” is determined by whether capital flows from one country to another or “crossed” investment resources national borders. One of the most important indicators of the market is its capitalization.

Market capitalization is an indicator that reflects the market value of all companies, which are listed in stock exchanges (market value of the company is defined as the product of the exchange rate of the stock on the number of its shares in circulation). Some national markets are traditionally considered to be bonds markets, some - equity markets.

Important for the analysis of the securities market is the division of the market into primary and secondary.

The primary market of securities is the economic space, which valuable paper passes from its issuer to the first buyer. In the primary market, any person with the legal status necessary for this purpose can obtain loan capital by issuing its bonds or shares.

The secondary market of securities is the economic space in which securities are traded after they are sold (directly or through an intermediary) to the first owner who bought these securities from the issuer. This market can be:

1) unorganized;

2) organized.

The organized securities market can be both stock exchange and over- the-counter.

In most countries in the unorganized market the bulk of securities (about 85%) are turned on, on an organized basis-a relatively small part of them (15%). However, it is the organized market, where the most qualitative securities are concentrated, which determines the market situation and the process of development of the stock market.

OTC (unorganized) market is characterized by the following features:

1. a large number of securities salesmen;

2. absence of a single rate on the same securities (the issue of the rate of securities is resolved during negotiations between the seller and the buyer);

3. securities trading takes place in different places and at different times;

4. There is no single center for organizing this trade and working out its methodology. Trade takes place both in accordance with the requirements of the current legislation and with its violation.

4. Benefits and Constraints of Foreign Business Activities

For the host country, the attractiveness of direct investment is due to the fact that:

• imports of direct business capital increases production capacity and resources in the country, promotes the dissemination of advanced technology and managerial experience, and the improvement of the skills of labor resources;

• under the conditions of investment import, there are not only new material and financial resources, but also mobilize and more effectively use national resources;

• direct investments contribute to the development of a national research base;

• imports of direct investment stimulate competition and its associated positive phenomena (undermining the position of local monopolies, lowering prices and improving the quality of products, replacing both imports and obsolete local products);

• such imports increase demand and prices for national (local) factors of production;

• in the country, budget revenues in the form of taxes are increasing for the activities of international joint ventures;

• for weak control over the use of state-owned debt, investment risk is transferred to foreign investors who independently solve the problem of self-sufficiency.

At the same time, it should be pointed out the deterrent factors of foreign business development:

• imported resources work for payback and profit, which then repatriated. Moreover, in the long run, the outflow of resources through repatriation of profits should exceed the amount of primary deposits. Therefore, it is expedient to speak about the growth of the productive potential of the receiving country at the expense of foreign investments only in view of their stimulating effect on the economic development of the country as a whole;

• the objectives of a foreign investor may not coincide with national ones. In practice, how the rule cannot avoid collision of national interests and interests of foreign investors. Often there is discrimination of the national sector, which is intensified by legal measures of macroeconomic stimulation of foreign investment;

• enterprises with foreign investment (FDI) as channels of technology transfer often become relatively closed enclaves in the national economy, weakly connected with the other part of it, which, however, falls on the costs of ensuring the functioning of the enclave. In this case, the power of the enclave's effect is inversely proportional to the level of development of the host country. In addition, the host country (even industrially developed), as a rule, almost does not participate in the creation of new technology, and receives its final product. The transfer of part of the research work to the host country takes place mainly in the low-tech sectors;

• FDI may enter into an agreement with the oligopoly (or even worse, monopoly) operating in the local market, as well as restraining on national entrepreneurship by absorbing financial flows in local and foreign currencies;

• substantial inflow of foreign investments is most real in the raw materials industries; in the processing foreign investment in the industry is mainly import-substituting;

• unregulated development of FDI can increase the social stratification of the population the host country.

Engagement by developing countries and countries with economies in transition

Foreign investments are considered by economists as one of the factors of the market transformation of these countries in the context of their integration into the modern world economic system. On the other hand, the improvement of the economic environment in the process of transition to the market stimulates direct foreign investment.

The main reasons for using FDI as a strategy for entering the foreign market are:

1. Production and economic motivation:

reduction of capital costs and risk when creating new capacities;

purchase of raw materials or new production facilities;

expansion of existing production capacities;

realization of advantages of cheap production factors;

• the possibility of avoiding cyclical or seasonal instability of production;

• adapting to the process of reducing the life cycle of products.

2. Marketing motivation:

increasing the effectiveness of functioning marketing;

purchase of new trading channels;

the possibility of penetrating a specific geographic market;

studying needs, gaining managerial experience in new markets;

adaptation to the host country.

3. Non-declared and rarely investigated motives:

• advocacy and prestige, which are characteristic both for large corporations abroad, as well as for international business in certain spheres (tourism, service, etc.);

• personal when FDI is created by founders of one nationality or on a family basis;

• ecological, when the tasks of removing the ecologically dirty industries from developed countries are solved.

In turn, firms in developing countries, with the attraction of investments, are guided by:

1. access to new technologies and advanced management methods;
2. the use of the partner network and the world-famous brands;
3. Mobilization of additional financial resources, etc.

It should be noted that investments abroad are used not only for the development of the market the host country, but also for the purpose of further entering the markets of neighboring countries or entire regions.

5. Questions for self-control

1. What is an international investment activity?
2. What are the reasons for international investment activity?
3. List principles of international investment activity.
4. What is an international investment market?
5. List the benefits of foreign business activity.
6. What are the constraints of foreign business activity.

Module 2. Management of investment activity realization

Topic 6. Management and planning of investment activity of organizations

Lecture plan

1. The essence of simple and compound interest in management of investment activity

2. Inflation and its management in investment activity

3. Inflation and how affects investment return

4. Questions for self-control

1. The essence of simple and compound interest in management of investment activity

Interest is defined as the cost of borrowing money, as in the case of interest charged on a loan balance. Conversely, interest can also be the rate paid for money on deposit, as in the case of a **certificate of deposit**. Interest can be calculated in two ways: simple interest or **compound interest**.

- **Simple interest** is calculated on the principal, or original, amount of a loan.
- **Compound interest** is calculated on the principal amount and the accumulated interest of previous periods, and thus can be regarded as "interest on interest."

There can be a big difference in the amount of interest payable on a loan if interest is calculated on a compound basis rather than on a simple basis. On the positive side, the magic of compounding can work to your advantage when it comes to your investments and can be a potent factor in wealth creation.

While simple interest and compound interest are basic financial concepts, becoming thoroughly familiar with them may help you make more informed decisions when taking out a loan or investing.

Simple Interest Formula

The formula for calculating simple interest is:

Simple Interest = $P*i*n$, (6.1)

where: P=Principal; i=Interest rate; n=Term of the loan.

Thus, if simple interest is charged at 5% on a $10,000 loan that is taken out for three years, then the total amount of interest payable by the borrower is calculated as $10,000 x 0.05 x 3 = $1,500.

Interest on this loan is payable at $500 annually, or $1,500 over the three-year loan term.

Compound Interest Formula

The formula for calculating compound interest in a year is:

Compound Interest=(P(1+i)n)−P (6.2),

where:

P=Principia;

li=Interest rate in percentage terms;

n=Number of compounding periods for a year.

Compound Interest = total amount of principal and interest in future (or future value) less the principal amount at present, called present value (PV). PV is the current worth of a future sum of money or stream of **cash** flows given a specified rate of return.

Continuing with the simple interest example, what would be the amount of interest if it is charged on a compound basis? In this case, it would be:

Interest=$10,000((1+0.05)3−1)=$10,000(1.157625−1)=$1,576.25

While the total interest payable over the three-year period of this loan is $1,576.25, unlike simple interest, the interest amount is not the same for all three years because compound interest also takes into consideration the accumulated interest of previous periods. Interest payable at the end of each year is shown in the table below.

Year	**Opening Balance (P)**	**Interest at 5% (I)**	**Closing Balance (P+I)**
1	$10,000.00	$500.00	$10,500.00
2	$10,500.00	$525.00	$11,025.00

3	$11,025.00	$551.25	$11,576.25
Total Interest		$1,576.25	

2. Inflation and its management in investment activity

Inflation is a sustained rise in overall price levels. Moderate inflation is associated with economic growth, while high inflation can signal an overheated economy.

As an economy grows, businesses and consumers spend more money on goods and services. In the growth stage of an economic cycle, demand typically outstrips the supply of goods, and producers can raise their prices. As a result, the rate of inflation increases.

If economic growth accelerates very rapidly, demand grows even faster and producers raise prices continually. An upward price spiral, sometimes called "runaway inflation" or "hyperinflation," can result.

In the U.S., the inflation syndrome is often described as "too many dollars chasing too few goods;" in other words, as spending outpaces the production of goods and services, the supply of dollars in an economy exceeds the amount needed for financial transactions. The result is that the purchasing power of a dollar declines

What is Inflation? Image Pop Up

HOW IS INFLATION MEASURED?

When economists and central banks try to discern the rate of inflation, they generally focus on "core inflation," such as "core CPI" or "core PCE." Unlike the "headline," or reported inflation, core inflation excludes food and energy prices, which are subject to sharp, short-term price swings, and could give a misleading picture of long-term inflation trends.

There are several regularly reported measures of inflation that investors can use to track inflation. In the U.S., the Consumer Price Index (CPI), which reflects retail prices of goods and services including housing costs, transportation, and healthcare, is the most widely followed indicator. The Federal Reserve prefers to emphasize the Personal

Consumption Expenditures Price Index (PCE). This is because the PCE covers a wider range of expenditures than the CPI. The official measure of inflation of consumer prices in the UK is the Consumer Price Index (CPI), or the Harmonized Index of Consumer Prices (HICP). In the Eurozone, the main measure used is also called the HICP.

WHAT CAUSES INFLATION?

Economists do not always agree on what spurs inflation at any given time, but in general they bucket the factors into two different types: cost-push inflation and demand-pull inflation.

Rising commodity prices are an example of cost-push inflation because when commodities rise in price, the costs of basic goods and services generally increase.

Demand-pull inflation occurs when aggregate demand in an economy rises too quickly. This can occur if a central bank rapidly increases the money supply without a corresponding increase in the production of goods and service. Demand outstrips supply, leading to an increase in prices.

HOW CAN INFLATION BE CONTROLLED?

Central banks, such as the U.S. Federal Reserve, European Central Bank (ECB), the Bank of Japan (BoJ) or the Bank of England (BoE) attempt to control inflation by regulating the pace of economic activity. They usually try to affect economic activity by raising and lowering short-term interest rates.

Management of the money supply by central banks in their home regions is known as monetary policy. Raising and lowering interest rates is the most common way of implementing monetary policy. However, a central bank can also tighten or relax banks' reserve requirements. Banks must hold a percentage of their deposits with the central bank or as cash on hand. Raising the reserve requirements restricts banks' lending capacity, thus slowing economic activity, while easing reserve requirements generally stimulates economic activity.

A government at times will attempt to fight inflation through fiscal policy. Although not all economists agree on the efficacy of fiscal policy, the government can attempt to

fight inflation by raising taxes or reducing spending, thereby putting a damper on economic activity; conversely, it can combat deflation with tax cuts and increased spending designed to stimulate economic activity.

3. Inflation and how affects investment return

Inflation poses a "stealth" threat to investors because it chips away at real savings and investment returns. Most investors aim to increase their long-term purchasing power. Inflation puts this goal at risk because investment returns must first keep up with the rate of inflation in order to increase real purchasing power.

For example, an investment that returns 2% before inflation in an environment of 3% inflation will actually produce a negative return (−1%) when adjusted for inflation.

If investors do not protect their portfolios, inflation can be harmful to fixed income returns, in particular. Many investors buy fixed income securities because they want a stable income stream, which comes in the form of interest, or coupon, payments. However, because the rate of interest, or coupon, on most fixed income securities remains the same until maturity, the purchasing power of the interest payments declines as inflation rises.

In much the same way, rising inflation erodes the value of the principal on fixed income securities. Suppose an investor buys a five-year bond with a principal value of $100. If the rate of inflation is 3% annually, the value of the principal adjusted for inflation will sink to about $83 over the five-year term of the bond.

Inflation is an economy-wide, sustained trend of increasing prices from one year to the next. An economic concept, the rate of inflation is important as it represents the rate at which the real value of an investment is eroded and the loss in spending or purchasing power over time. Inflation also tells investors exactly how much of a return (in percentage terms) their investments need to make for them to maintain their standard of living.

The easiest way to illustrate inflation is through an example. Suppose you can buy a burger for $2 this year and yearly inflation rate is 10%. Theoretically, 10% inflation means that next year the same burger will cost 10% more, or $2.20. So, if your income doesn't increase by at least the same rate of inflation, you will not be able to buy as many burgers.

However, a one-time jump in the price level caused by a jump in the price of oil or the introduction of a new sales tax is not true inflation, unless it causes wages and other costs to increase into a wage-price spiral. Likewise, a rise in the price of only one product is not in itself inflation, but may just be a relative price change reflecting a decrease in supply for that product. Inflation is ultimately about money growth, and it is a reflection of too much money chasing too few products.

Inflation occurs when the supply of money increases relative to the level of productive output in the economy. Prices tend to rise because more dollars are chasing relatively fewer goods. Another way of stating this phenomenon is that the purchasing power of each money unit declines.

With this idea in mind, investors should try to buy investment products with returns that are equal to or greater than inflation. For example, if ABC stock returned 4% and inflation was 5%, then the real return on investment would be minus 1% (5% - 4%).

Inflation and Asset Classes

Inflation has the same effect on liquid assets as any other type of asset, except that liquid assets tend to appreciate in value less over time. This means that, on net, liquid assets are more vulnerable to the negative impact of inflation. In terms of the broader economy, higher rates of inflation tend to cause individuals and businesses to hold fewer liquid assets.

Illiquid assets are also affected by inflation, but they have a natural defense if they appreciate in value or generate interest. One of the chief reasons most workers place money into stocks, bonds and mutual funds is to keep their savings safe from the effects of inflation. When inflation is high enough, individuals often convert their liquid assets into interest-paying assets, or they spend the liquid assets on consumer goods.

So, you can protect your purchasing power and investment returns (over the long run) by investing in a number of inflation-protected securities such as inflation-indexed bonds or Treasury inflation-protected securities (TIPS). These types of investments move with inflation and therefore are immune to inflation risk.

4. Questions for self-control

1. What is simple interest?

2. Explain the essence of compound interest,

3. How do they correlate with investment activity?

4. Why for you as an investor compound interest is better than simple interest?

5. Explain the essence of inflation and its meaning for managing and planning investment activity.

6. How does inflation affect investment activity?

7. How inflation can be controlled?

Topic 7. Management of investment portfolio

Lecture plan

1. The essence of investment portfolio
2. Types of portfolio
3. Time Horizon and Portfolio Allocation
4. Process of portfolio management
5. Questions for self-control

1. The essence of investment portfolio

A portfolio is a collection of financial investments like stocks, bonds, commodities, cash, and cash equivalents, including closed-end funds and exchange traded funds (ETFs). People generally believe that stocks, bonds, and cash comprise the core of a portfolio. Though this is often the case, it does not need to be the rule. A portfolio may contain a wide range of assets including real estate, art, and private investments.

You may choose to hold and manage your portfolio yourself, or you may allow a money manager, financial advisor, or another finance professional to manage your portfolio.

One of the key concepts in portfolio management is the wisdom of diversification—which simply means not putting all of your eggs in one basket. Diversification tries to reduce risk by allocating investments among various financial instruments, industries, and other categories. It aims to maximize returns by investing in different areas that would each react differently to the same event. There are many ways to diversify.

How you choose to do it is up to you. Your goals for the future, your appetite for risk, and your personality are all factors in deciding how to build your portfolio.

Regardless of your portfolio's asset mix, all portfolios should contain some degree of diversification, and reflect the investor's tolerance for risk, return objectives, time horizon, and other pertinent constraints, including tax position, liquidity needs, legal situations, and unique circumstances.

The word "portfolio" comes from the Latin folium, meaning to "carry leaves" (as in papers). Stock and bond certificates were once only issued in paper form, from which this terminology was adopted. Portfolio is also used to describe an artist's collection of works, for similar reasoning.

Managing a Portfolio

You may think of an investment portfolio as a pie that's been divided into pieces of varying wedge-shaped sizes, each piece representing a different asset class and/or type of investment. Investors aim to construct a well-diversified portfolio to achieve a risk-return portfolio allocation that is appropriate for their level of risk tolerance. Although stocks, bonds, and cash are generally viewed as a portfolio's core building blocks, you may grow a portfolio with many different types of assets—including real estate, gold stocks, various types of bonds, paintings, and other art collectibles. 50% bonds, 20% stocks, and 30% short-term investments provide an example of a conservative investment portfolio.

The sample portfolio allocation pictured above is for an investor with a low tolerance for risk. In general, a conservative strategy tries to protect a portfolio's value by investing in lower-risk securities. In the example, you'll see that a full 50% is allocated to bonds, which might contain high-grade corporate and government bonds, including municipals).

The 20% stock allocation could comprise blue-chip or large-cap equities, and 30% of short-term investments might include cash, certificates of deposit (CDs), and high-yield savings accounts.

Most investment professionals agree that, though it does not guarantee against loss, diversification is a key component for reaching long-range financial goals while minimizing risk.

2. Types of portfolio

There can be as many different types of portfolios and portfolio strategies as there are investors and money managers. You also may choose to have multiple portfolios,

whose contents could reflect a different strategy or investment scenario, structured for a different need.

A Hybrid Portfolio

The hybrid portfolio approach diversifies across asset classes. Building a hybrid portfolio requires taking positions in stocks as well as bonds, commodities, real estate, and even art. Generally, a hybrid portfolio entails relatively fixed proportions of stocks, bonds, and alternative investments. This is beneficial, because historically, stocks, bonds, and alternatives have exhibited less than perfect correlations with one another.

A Portfolio Investment

When you use a portfolio for investment purposes, you expect that the stock, bond, or another financial asset will earn a return or grow in value over time, or both. A portfolio investment may be either strategic—where you buy financial assets with the intention of holding onto those assets for a long time; or tactical—where you actively buy and sell the asset hoping to achieve short-term gains.

An Aggressive, Equities-Focused Portfolio

The underlying assets in an aggressive portfolio generally would assume great risks in search of great returns. Aggressive investors seek out companies that are in the early stages of their growth and have a unique value proposition. Most of them are not yet common household names.

A Defensive, Equities-Focused Portfolio

A portfolio that is defensive would tend to focus on consumer staples that are impervious to downturns. Defensive stocks do well in bad times as well as in good times. No matter how bad the economy is at a given time, companies that make products that are essential to everyday life will survive.

An Income-Focused, Equities Portfolio

This type of portfolio makes money from dividend-paying stocks or other types of distributions to stakeholders. Some of the stocks in the income portfolio could also fit in the defensive portfolio, but here they are selected primarily for their high yields. An

income portfolio should generate positive cash flow. Real estate investment trusts (REITs) are examples of income-producing investments.

A Speculative, Equities-Focused Portfolio

A speculative portfolio is best for investors that have a high level of tolerance for risk. Speculative plays could include initial public offerings (IPOs) or stocks that are rumored to be takeover targets. Technology or healthcare firms in the process of developing a single breakthrough product also would fall into this category.

Impact of Risk Tolerance on Portfolio Allocations

Although a financial advisor can create a generic portfolio model for an individual, an investor's risk tolerance should significantly reflect the portfolio's content.

In contrast, a risk-tolerant investor might add some small-cap growth stocks to an aggressive, large-cap growth stock position, assume some high-yield bond exposure, and look to real estate, international, and alternative investment opportunities for their portfolio. In general, an investor should minimize exposure to securities or asset classes whose volatility makes them uncomfortable.

3. Time Horizon and Portfolio Allocation

Similar to risk tolerance, investors should consider how long they have to invest when building a portfolio. In general, investors should be moving toward a conservative asset allocation as their goal date approaches, to protect the portfolio's earnings up to that point.

For example, a conservative investor might favor a portfolio with large-cap value stocks, broad-based market index funds, investment-grade bonds, and a position in liquid, high-grade cash equivalents.

Take, for example, an investor saving for retirement who's planning to leave the workforce in five years. Even if that investor is comfortable investing in stocks and riskier securities, they might want to invest a larger portion of the portfolio in more conservative assets such as bonds and cash, to help protect what has already been saved. Conversely, an individual just entering the workforce may want to invest their entire portfolio in stocks, as

they may have decades to invest, and the ability to ride out some of the market's short-term volatility.

How Do You Create a Financial Portfolio?

Building an investment portfolio requires more effort than the passive, index investing approach. First, you need to identify your goals, risk tolerance, and time horizon. Then, research and select stocks or other investments that fit within those parameters. Regular monitoring and updating is often required, along with entry and exit points for each position. Rebalancing requires selling some holdings and buying more of others so that most of the time your portfolio’s asset allocation matches your strategy, risk tolerance, and desired level of returns. Despite the extra effort required, defining and building a portfolio can increase your investing confidence and give you control over your finances.

A good portfolio will depend on your investment style, goals, risk tolerance, and time horizon. Generally speaking, a good degree of diversification is recommended regardless of the portfolio type in order to not hold all of your eggs in one basket.

How Do We Measure a Portfolio's Risk?

A portfolio's standard deviation of returns (or variance) is often used as a proxy of overall portfolio risk. The standard deviation calculation is not merely a weighted average of the individual assets' standard deviations - it must also account for the covariance among the different holdings. For a 2-asset portfolio, the standard deviation calculation is:

$\sigma p = (w12\sigma12 + w22\sigma22 + 2w1w2Cov1,2)1/2$ (7.1)

4. Process of portfolio management

A portfolio is a cornerstone of investing in the markets. A portfolio is comprised of the various positions in stocks, bonds, and other assets held, and is viewed as one cohesive unit. The portfolio components, therefore, must work together to serve the investor's financial goals, constrained by their risk tolerance and time horizon. Portfolios can be constructed to achieve various strategies, from index replication to income generation to capital preservation. Regardless of the strategy, diversification is seen as a good way to reduce risk without sacrificing the portfolio's expected return.

Two main portfolio management strategies are active and passive management.

Active portfolio management

Active portfolio managers take a hands-on approach when making investment decisions. They charge investors a percentage of the assets they manage for you. Their goal is to outperform an investment benchmark (or stock market index). However, investment returns are hurt by high portfolio management fees — clients pay 1% of their balance or more per year to cover advisory fees, which is why more affordable passive portfolio management services have become popular.

Passive portfolio management

Passive portfolio management involves choosing a group of investments that track a broad stock market index. The goal is to mirror the returns of the market (or a specific portion of it) over time.

Like traditional portfolio managers, a robo-advisor — a service that uses a computer algorithm to choose and manage your investments for you — allows you to set your parameters (your goals, time horizon and risk tolerance). Robo-advisors typically charge a percentage of assets managed, but because there is little need for active hands-on investment management, that cost is a fraction of a percent in management fees (generally between 0.25% and 0.50%).

If you want more comprehensive help — investment account management, plus financial-planning advice — consider using a service such as Facet Wealth or Personal Capital. These services combine low-cost, automated portfolio management with the type of financial advice you'd get at a traditional financial planning firm — advisors provide guidance on spending, saving, investing and protecting your finances. The main difference is the meetings with your financial planner take place via phone or video instead of in person.

5. Questions for self-control

1. What is an investment portfolio?
2. What types of portfolios can you call?

3. What type of portfolio is better?
4. How can you describe the process of portfolio management?
5. What is an active and passive portfolio?

Topic 8. Evaluation of the effectiveness of investment decisions

Lecture plan

1. Main indicators for evaluation of the effectiveness of investment decisions
2. The essence of Net present value (NPV)
3. The essence of Internal Rate of Return (IRR)
4. The essence of Return on Investment (ROI)
5. Payback Period
6. Discount Payback Period
7. Questions for self-control

1. Main indicators for evaluation of the effectiveness of investment decisions

Net Present Value (NPV)

The name is self-explanatory – net income or loss as a result of capital investments, expressed in the present value. NPV is the difference between the discounted amount of cash receipts and expenses. That is, the future additional capital that an investor will receive, taking into account the time value of money.

In order to make a decision on investing in a project, it is enough to have its NPV not less than "0". This indicates that the required level of profitability has been achieved: incomes cover costs, and the invested funds are returned not undervalued.

In order to compare alternative investment options, one that has a larger absolute NPV is usually chosen. If investment funds are limited, and there are a lot of long-term projects, it is necessary to conduct a capital valuation procedure aimed at determining the best distribution of available funds and maximizing the total net present value of chosen projects. In order to do that it is necessary to rank projects according their indexes of return (unit of NPV per unit of invested capital) from the largest to the smallest, and accordingly allocate investment funds.

The calculation of net present value is considered to be the most effective and widespread way to evaluate investment projects.

Internal rate of return (IRR)

In order to calculate the net present value of an investment project, a nominal value of capital is used to bring cash flows to its present value. An alternative way is to determine the internal rate of return of a project and compare it with the cost of capital or the required level of profitability.

IRR is the rate at which the project reaches zero net discounted value. Investments are considered to be recommended when this indicator is equal to or exceeds the cost of capital or the rate of return of the company.

In order to calculate the internal rate of return, it is necessary to discount cash flows at two different rates, and then, applying a linear interpolation formula to the two derived IRR, determine the rate at which the IRR = 0. Of course, the result will not be perfectly accurate, since subjective assumptions are used.

Payback period

A quick and practical way to evaluate and compare investment projects is to determine the period during which the money spent will be reimbursed. This method is based on expected cash flows and indicates the level of liquidity and risk – the sooner the investor will return the invested amount, the sooner he/she can invest again, that is, the liquidity will be higher and the risk – the lower. This is particularly true in conditions where the investment climate is being adjusted and it makes sense to give preference to projects that will release more money soon.

Accounting rate of return (ARR)

Accounting rate of return is an indicator of the profitability of an investment project, calculated as the ratio of accounting profit to the average value of invested capital. The result is compared with the normative level of return and the projects that are being achieved are adopted.

The choice of method for evaluating investment proposals and making capital expenditure decisions is individual for each business and specific project. It depends on how quickly it is necessary to solve the question of what resources and competencies are

available for the preparation of the calculations and what is the ratio between the amount of required capital, the potential profit and the level of the risk involved.

Net present value (NPV) is the difference between the present value of cash inflows and the present value of cash outflows over a period of time. NPV is used in capital budgeting and investment planning to analyze the profitability of a projected investment or project. NPV is the result of calculations used to find today's value of a future stream of payments.

2. The essence of Net present value (NPV)

NPV accounts for the time value of money and can be used to compare similar investment alternatives. The NPV relies on a discount rate that may be derived from the cost of the capital required to invest, and any project or investment with a negative NPV should be avoided. One important drawback of NPV analysis is that it makes assumptions about future events that may not be reliable.

NPV looks to assess the profitability of a given investment on the basis that a dollar in the future is not worth the same as a dollar today. Money loses value over time due to inflation. However, a dollar today can be invested and earn a return, making its future value possibly higher than a dollar received at the same point in the future.

NPV seeks to determine the present value of an investment's future cash flows above the investment's initial cost. The discount rate element of the NPV formula discounts the future cash flows to the present-day value. If subtracting the initial cost of the investment from the sum of the cash flows in the present day is positive, then the investment is worthwhile.

For example, an investor could receive $100 today or a year from now. Most investors would not be willing to postpone receiving $100 today. However, what if an investor could choose to receive $100 today or $105 in one year? The 5% rate of return (RoR) for waiting one year might be worthwhile for an investor unless another investment could yield a rate greater than 5% over the same period.

If an investor knew they could earn 8% from a relatively safe investment over the next year, they would choose to receive $100 today and not the $105 in a year, with the 5% rate of return. In this case, 8% would be the discount rate.

Positive vs. Negative NPV

A positive NPV indicates that the projected earnings generated by a project or investment—in present dollars—exceeds the anticipated costs, also in present dollars. It is assumed that an investment with a positive NPV will be profitable.

An investment with a negative NPV will result in a net loss. This concept is the basis for the Net Present Value Rule, which dictates that only investments with positive NPV values should be considered.

Calculating Net Present Value

Money in the present is worth more than the same amount in the future due to inflation and possible earnings from alternative investments that could be made during the intervening time. In other words, a dollar earned in the future won't be worth as much as one earned in the present. The discount rate element of the NPV formula is a way to account for this.

For example, assume that an investor could choose a $100 payment today or in a year. A rational investor would not be willing to postpone payment. However, what if an investor could choose to receive $100 today or $105 in a year? If the payer was reliable, that extra 5% may be worth the wait, but only if there wasn't anything else the investors could do with the $100 that would earn more than 5%.

An investor might be willing to wait a year to earn an extra 5%, but that may not be acceptable for all investors. In this case, the 5% is the discount rate, which will vary depending on the investor. If an investor knew they could earn 8% from a relatively safe investment over the next year, they would not be willing to postpone payment for 5%. In this case, the investor's discount rate is 8%.

3. The essence of Internal Rate of Return (IRR)

The internal rate of return (IRR) is a metric used in financial analysis to estimate the profitability of potential investments. IRR is a discount rate that makes the net present value (NPV) of all cash flows equal to zero in a discounted cash flow analysis.

IRR calculations rely on the same formula as NPV does. Keep in mind that IRR is not the actual dollar value of the project. It is the annual return that makes the NPV equal to zero.

Generally speaking, the higher an internal rate of return, the more desirable an investment is to undertake. IRR is uniform for investments of varying types and, as such, can be used to rank multiple prospective investments or projects on a relatively even basis. In general, when comparing investment options with other similar characteristics, the investment with the highest IRR probably would be considered the best.

How to Calculate IRR

Using the formula, one would set NPV equal to zero and solve for the discount rate, which is the IRR. The initial investment is always negative because it represents an outflow. Each subsequent cash flow could be positive or negative, depending on the estimates of what the project delivers or requires as a capital injection in the future.

However, because of the nature of the formula, IRR cannot be easily calculated analytically and instead must be calculated iteratively through trial and error or by using software programmed to calculate IRR (e.g., using Excel).

Using the IRR function in Excel makes calculating the IRR easy. Excel does all the necessary work for you, arriving at the discount rate you are seeking to find. All you need to do is combine your cash flows, including the initial outlay as well as subsequent inflows, with the IRR function. The IRR function can be found by clicking on the Formulas Insert (fx) icon.

Here is a simple example of an IRR analysis with cash flows that are known and annually periodic (one year apart). Assume a company is assessing the profitability of Project X. Project X requires $250,000 in funding and is expected to generate $100,000 in after-tax cash flows the first year and grow by $50,000 for each of the next four years.

Excel also offers two other functions that can be used in IRR calculations: the XIRR, and the MIRR. XIRR is used when the cash flow model does not exactly have annual periodic cash flows. The MIRR is a rate-of-return measure that includes the integration of cost of capital and the risk-free rate.

The ultimate goal of IRR is to identify the rate of discount, which makes the present value of the sum of annual nominal cash inflows equal to the initial net cash outlay for the investment. Several methods can be used when seeking to identify an expected return, but IRR is often ideal for analyzing the potential return of a new project that a company is considering undertaking.

Think of IRR as the rate of growth that an investment is expected to generate annually. Thus, it can be most similar to a compound annual growth rate (CAGR). In reality, an investment will usually not have the same rate of return each year. Usually, the actual rate of return that a given investment ends up generating will differ from its estimated IRR.

In capital planning, one popular scenario for IRR is comparing the profitability of establishing new operations with that of expanding existing operations. For example, an energy company may use IRR in deciding whether to open a new power plant or to renovate and expand an existing power plant. While both projects could add value to the company, it is likely that one will be the more logical decision as prescribed by IRR. Note that because IRR does not account for changing discount rates, it's often not adequate for longer-term projects with discount rates that are expected to vary.

IRR is also useful for corporations in evaluating stock buyback programs. Clearly, if a company allocates substantial funding to repurchasing its shares, then the analysis must show that the company's own stock is a better investment—that is, has a higher IRR—than any other use of the funds, such as creating new outlets or acquiring other companies.

Individuals can also use IRR when making financial decisions—for instance, when evaluating different insurance policies using their premiums and death benefits. The general consensus is that policies that have the same premiums and a high IRR are much

more desirable. Note that life insurance has a very high IRR in the early years of policy—often more than 1,000%. It then decreases over time. This IRR is very high during the early days of the policy because if you made only one monthly premium payment and then suddenly died, your beneficiaries would still get a lump sum benefit.

Another common use of IRR is in analyzing investment returns. In most cases, the advertised return will assume that any interest payments or cash dividends are reinvested back into the investment. What if you don't want to reinvest dividends but need them as income when paid? And if dividends are not assumed to be reinvested, are they paid out, or are they left in cash? What is the assumed return on the cash? IRR and other assumptions are particularly important on instruments like annuities, where the cash flows can become complex.

Finally, IRR is a calculation used for an investment's money-weighted rate of return (MWRR). The MWRR helps determine the rate of return needed to start with the initial investment amount factoring in all of the changes to cash flows during the investment period, including sales proceeds.

4. The essence of Return on Investment (ROI)

Return on investment (ROI) is a widely used financial metric for measuring the probability of gaining a return from an investment. It is a ratio that compares the gain or loss from an investment relative to its cost. It is as useful in evaluating the potential return from a stand-alone investment as it is in comparing returns from several investments.

In business analysis, ROI and other cash flow measures—such as internal rate of return (IRR) and net present value (NPV)—are key metrics that evaluate and rank the attractiveness of a number of different investment alternatives. Although ROI is a ratio, it is typically expressed as a percentage rather than as a ratio.

Return on investment (ROI) is an approximate measure of an investment's profitability.

ROI has a wide range of applications, including: It can measure the profitability of a stock investment when deciding whether or not to invest in the purchase of a business or evaluate the results of a real estate transaction.

ROI is calculated by subtracting the initial value of the investment from the final value of the investment (which equals the net return), then dividing this new number (the net return) by the cost of the investment, then finally, multiplying it by 100.

ROI is relatively easy to calculate and understand, and its simplicity has made it a standardized, universal measure of profitability.

One disadvantage of ROI is that it doesn't account for how long an investment is held; so, a profitability measure that incorporates the holding period may be more useful for an investor that wants to compare potential investments.

When interpreting ROI calculations, it's important to keep a few things in mind. First, ROI is typically expressed as a percentage because it is intuitively easier to understand (as opposed to when expressed as a ratio). Second, the ROI calculation includes the net return in the numerator because returns from an investment can be either positive or negative.

When ROI calculations yield a positive figure, it means that net returns are in the black (because total returns exceed total costs). Alternatively, when ROI calculations yield a negative figure, it means that net returns are in the red because total costs exceed total returns. (In other words, this investment produces a loss.) Finally, to calculate ROI with the highest degree of accuracy, total returns and total costs should be considered. For an apples-to-apples comparison between competing investments, annualized ROI should be considered.

ROI Example

Assume an investor bought 1,000 shares of the hypothetical company Worldwide Wicket Co. at $10 per share. One year later, the investor sold the shares for $12.50. The investor earned dividends of $500 over the one-year holding period. The investor also spent a total of $125 on trading commissions in order to buy and sell the shares.

The ROI for this investor can be calculated as follows:

ROI= ($12.50−$10) ×1000+$500−$125$10×1000×100=28.75%ROI =$10×1000($12.50−$10) ×1000+$500−$125×100=28.75%

5. Payback Period

What Is the Payback Period?

The term payback period refers to the amount of time it takes to recover the cost of an investment. Simply put, the payback period is the length of time an investment reaches a break-even point. People and corporations invest their money mainly to get paid back, which is why the payback period is so important. In essence, the shorter payback an investment has, the more attractive it becomes. Determining the payback period is useful for anyone (regardless of whether they're individual investors or corporations) and can be done by taking dividing the initial investment by the average net cash flows.

The payback period refers to the amount of time it takes to recover the cost of an investment or the length of time an investor needs to reach a break-even point.

Shorter paybacks mean more attractive investments, while longer payback periods are less desirable.

The payback period is calculated by dividing the amount of the investment by the annual cash flow.

Account and fund managers use the payback period to determine whether to go through with an investment.

One of the downsides of the payback period is that it disregards the time value of money.

The payback period is a commonly used method by investors, financial professionals, and corporations to calculate investment returns. It helps someone determine how long it takes to recover their initial investment costs. This metric is useful before making any decisions, especially when an investor needs to make a snap judgment about an investment venture.

Figuring out the payback period is simple. It is the cost of the investment divided by the average annual cash flow. The shorter the payback, the more desirable the investment. Conversely, the longer the payback, the less desirable it is. For example, if solar panels cost $5,000 to install and the savings are $100 each month, it would take 4.2 years to reach the payback period.

Capital budgeting is a key activity in corporate finance. One of the most important concepts every corporate financial analyst must learn is how to value different investments or operational projects to determine the most profitable project or investment to undertake. One way corporate financial analysts do this is with the payback period.

Although calculating the payback period is useful in financial and capital budgeting, this metric has applications in other industries. It can be used by homeowners and businesses to calculate the return on energy-efficient technologies such as solar panels and insulation, including maintenance and upgrades.

Some analysts favor the payback method for its simplicity. Others like to use it as an additional point of reference in a capital budgeting decision framework.

There is one problem with the payback period calculation. Unlike other methods of capital budgeting, the payback period ignores the time value of money (TVM). This is the idea that money today is worth more than the same amount in the future because of the present money's earning potential.

Most capital budgeting formulas, such as net present value (NPV), internal rate of return (IRR), and discounted cash flow, consider the TVM. So if you pay an investor tomorrow, it must include an opportunity cost. The TVM is a concept that assigns a value to this opportunity cost.

The payback period disregards the time value of money. It is determined by counting the number of years it takes to recover the funds invested. For example, if it takes five years to recover the cost of an investment, the payback period is five years.

This period does not account for what happens after payback occurs. Therefore, it ignores an investment's overall profitability. Many managers and investors thus prefer to

use NPV as a tool for making investment decisions. The NPV is the difference between the present value of cash coming in and the current value of cash going out over a period of time.

6. Discount Payback Period

The discounted payback period is a capital budgeting procedure used to determine the profitability of a project. A discounted payback period gives the number of years it takes to break even from undertaking the initial expenditure, by discounting future cash flows and recognizing the time value of money. The metric is used to evaluate the feasibility and profitability of a given project.

The more simplified payback period formula, which simply divides the total cash outlay for the project by the average annual cash flows, doesn't provide as accurate of an answer to the question of whether or not to take on a project because it assumes only one, upfront investment, and does not factor in the time value of money.

The discounted payback period is used as part of capital budgeting to determine which projects to take on.

More accurate than the standard payback period calculation, the discounted payback period factors in the time value of money.

The discounted payback period formula shows how long it will take to recoup an investment based on observing the present value of the project's projected cash flows.

The shorter a discounted payback period is, means the sooner a project or investment will generate cash flows to cover the initial cost.

When deciding on any project to embark on, a company or investor wants to know when their investment will pay off, meaning when the cash flows generated from the project will cover the cost of the project.

This is particularly useful because companies and investors usually have to choose between more than one project or investment, so being able to determine when certain projects will pay back compared to others makes the decision easier.

The basic method of the discounted payback period is taking the future estimated cash flows of a project and discounting them to the present value. This is compared to the initial outlay of capital for the investment.

The period of time that a project or investment takes for the present value of future cash flows to equal the initial cost provides an indication of when the project or investment will break even. The point after that is when cash flows will be above the initial cost.

The shorter a discounted payback period is means the sooner a project or investment will generate cash flows to cover the initial cost. A general rule to consider when using the discounted payback period is to accept projects that have a payback period that is shorter than the target timeframe.

A company can compare its required break-even date for a project to the point at which the project will break even according to the discounted cash flows used in the discounted payback period analysis, to approve or reject the project.

To begin, the periodic cash flows of a project must be estimated and shown by each period in a table or spreadsheet. These cash flows are then reduced by their present value factor to reflect the discounting process. This can be done using the present value function and a table in a spreadsheet program.

Next, assuming the project starts with a large cash outflow, or investment to begin the project, the future discounted cash inflows are netted against the initial investment outflow. The discounted payback period process is applied to each additional period's cash inflow to find the point at which the inflows equal the outflows. At this point, the project's initial cost has been paid off, with the payback period being reduced to zero.

Payback Period vs. Discounted Payback Period

The payback period is the amount of time for a project to break even in cash collections using nominal dollars. Alternatively, the discounted payback period reflects the amount of time necessary to break even in a project, based not only on what cash flows occur but when they occur and the prevailing rate of return in the market.

These two calculations, although similar, may not return the same result due to the discounting of cash flows. For example, projects with higher cash flows toward the end of a project's life will experience greater discounting due to compound interest. For this reason, the payback period may return a positive figure, while the discounted payback period returns a negative figure.

Example of the Discounted Payback Period

Assume that Company A has a project requiring an initial cash outlay of $3,000. The project is expected to return $1,000 each period for the next five periods, and the appropriate discount rate is 4%. The discounted payback period calculation begins with the -$3,000 cash outlay in the starting period. The first period will experience a +$1,000 cash inflow.

Using the present value discount calculation, this figure is $1,000/1.04 = $961.54. Thus, after the first period, the project still requires $3,000 - $961.54 = $2,038.46 to break even. After the discounted cash flows of $1,000 / (1.04)2 = $924.56 in period two, and $1,000/ (1.04)3 = $889.00 in period three, the net project balance is $3,000 - ($961.54 +$924.56 + $889.00) = $224.90.

Therefore, after receipt of the fourth payment, which is discounted to $854.80, the project will have a positive balance of $629.90. Therefore, the discounted payback period is sometime during the fourth period.

7. Questions for self-control

1. List main indicators of evaluation of the effectiveness of investment decisions.
2. What is NPV?
3. What is IRR?
4. How do NPV and IRR correlate?
5. Explain the essence of Return on Investment.
6. What is Payback Period?
7. What is Discount Payback Period?
8. What is the difference between PP and DPP?

Topic 9. Prospects for achieving economic efficiency of investment activity

Lecture plan

1. Understanding economic efficiency
2. Types of risks
3. Strategies to Reduce Investment Risks
4. Questions for self-control

1. Understanding economic efficiency

Economic efficiency is when all goods and factors of production in an economy are distributed or allocated to their most valuable uses and waste is eliminated or minimized. A system is considered economically efficient if the factors of production are used at a level at or near their capacity.

In contrast, a system is considered economically inefficient if available factors are not used to their capacity. Wasted resources and deadweight losses may cause economic inefficiencies.

Economic efficiency implies an economic state in which every resource is optimally allocated to serve each individual or entity in the best way while minimizing waste and inefficiency. When an economy is economically efficient, any changes made to assist one entity would harm another. In terms of production, goods are produced at their lowest possible cost, as are the variable inputs of production.

Investment process always assumes receiving income, which has to be predicted, planned, and calculated, and investment decisions are agreed with the strategic objectives of the company. Therefore, it is necessary to plan, consider, analyse, and control not only the expenses connected with compensation for the use of labour but also expenses, which are carried out for the purpose of development and realization of labour potential and formation of the human capital. There are sets of such components as health; the general skills connected with basic preparation, ability of information search and its use during the solution of problems, natural abilities and education level; the technical and special skills connected with engineering procedures, including physical capacities and also the

analytical skills leading to improvement existing or to the creation of new equipment and technologies, which can present the structure of the human capital.

The cost-effectiveness of investments in a brewing waste drying line for the remediation of oil-contaminated soils was calculated using the UNIDO methodology (UNIDO – United Nations Industrial Development Organization).

Evaluation of the effectiveness of investments in manufacturing equipment was based on determining the adequate income that these programs can provide.

A typical investment program provides for the payment of fixed assets at the beginning of the program and subsequent profit for many years.

The effectiveness of the investment project was assessed using the following criteria: net present value (NPV); internal rate of return (IRR); profitability ratio (BCR); return on investment (ROI).

These indicators take into account the fact of the unevenness of the same amounts of receipts relating to different periods and its methodical for calculation was presented in the previous lecture.

2. Types of risks

Investment risk can be defined as the probability or likelihood of occurrence of losses relative to the expected return on any particular investment.

All investments involve some degree of risk. In finance, risk refers to the degree of uncertainty and/or potential financial loss inherent in an investment decision. In general, as investment risks rise, investors seek higher returns to compensate themselves for taking such risks.

Every saving and investment product has different risks and returns. Differences include: how readily investors can get their money when they need it, how fast their money will grow, and how safe their money will be. In this section, we are going to talk about a number of risks investors face. They include:

Business Risk

With a stock, you are purchasing a piece of ownership in a company. With a bond, you are loaning money to a company. Returns from both of these investments require that that the company stays in business. If a company goes bankrupt and its assets are liquidated, common stockholders are the last in line to share in the proceeds. If there are assets, the company's bondholders will be paid first, then holders of preferred stock. If you are a common stockholder, you get whatever is left, which may be nothing.

If you are purchasing an annuity, make sure you consider the financial strength of the insurance company issuing the annuity. You want to be sure that the company will still be around, and financially sound, during yours pay out phase.

Volatility Risk

Even when companies aren't in danger of failing, their stock price may fluctuate up or down. Large company stocks as a group, for example, have lost money on average about one out of every three years. Market fluctuations can be unnerving to some investors. A stock's price can be affected by factors inside the company, such as a faulty product, or by events the company has no control over, such as political or market events.

Inflation Risk

Inflation is a general upward movement of prices. Inflation reduces purchasing power, which is a risk for investors receiving a fixed rate of interest. The principal concern for individuals investing in cash equivalents is that inflation will erode returns.

Interest Rate Risk

Interest rate changes can affect a bond's value. If bonds are held to maturity the investor will receive the face value, plus interest. If sold before maturity, the bond may be worth more or less than the face value. Rising interest rates will make newly issued bonds more appealing to investors because the newer bonds will have a higher rate of interest than older ones. To sell an older bond with a lower interest rate, you might have to sell it at a discount.

Liquidity Risk

This refers to the risk that investors won't find a market for their securities, potentially preventing them from buying or selling when they want. This can be the case with the more complicated investment products. It may also be the case with products that charge a penalty for early withdrawal or liquidation such as a certificate of deposit (CD).

Business risk

The risk associated with the unique circumstances of a particular company as they might affect the price of the company's securities. It can be affected by a number of issues such as changes in share prices, employee layoffs, gains or losses of contracts and changes in management.

Market/systemic risk

The day-to-day fluctuation in a stock's price (also known as volatility). Market risk applies mainly to stocks and options. In general, stocks tend to perform well during a bull market and poorly during a bear market.

Default risk

The risk that a company or individual will be unable to pay the contractual interest or principal on its debt obligations (bonds or debentures). Government bonds, especially those issued by the federal government, have the least amount of default risk and least amount of returns. Corporate bonds tend to have the highest amount of default risk, but also have higher interest rates.

Foreign exchange or currency risk

Currency exchange rates can change the price of an investment. Foreign exchange risk applies to all financial instruments that are in a currency other than your domestic currency. There is a possibility that a profit may be negated once a profit from a foreign investment is converted to domestic currency, especially if exchange rates have changed since the investment was made.

Inflation risk

The possibility that the value of assets or income will decrease as inflation shrinks the purchasing power of a currency. Inflation causes money to decrease in value over time, and does so whether the money is invested or not.

Interest rate risk

Investments such as bonds, Guaranteed Investment Certificates and mortgage-based investments will fluctuate in value when interest rates change. When interest rates go up, the value of fixed-rate investments drop. When interest rates go down, the value of fixed-rate investments increase.

Liquidity risk

The risk coming from the lack of marketability of an investment that cannot be bought or sold quickly enough to prevent or minimize a loss.To sell the investment, you may need to accept a lower price.

Mortgage risk

The risk that the individual or company that borrows the money will fail to make timely principal and interest payments in accordance with the terms of the mortgage.

Opportunity risk

The risk that a better opportunity may present itself after an irreversible decision has been made.

Political risk

Return on an investment could suffer as a result of instability or political changes in a country. For example, the action of the United Kingdom voting to withdraw from the European Union caused the British pound to drop in value.

Unsystematic risk

Sometimes referred to as “specific risk”. Unsystematic risk affects a very small number of assets. An example is news that affects a specific stock such as a sudden employee strike.

3. Strategies to Reduce Investment Risks

Investment Risk

1. Understand your Risk Tolerance:

Risk Tolerance refers to the ability of an investor to endure the risk of losing their capital i.e. invested. Risk tolerance mainly depends on the investor's age and current financial obligations. For example, if you are in your mid-20s, unmarried and have fewer financial responsibilities then you are more risk-tolerant compared to the other investors who are in their late 50s and are married with college-going children. So as the general rule, younger investors are more risk-tolerant than older investors.

So, if we start investing early in life then we can begin our investment journey with an investment portfolio having pure equity that is mainly focused on aggressive wealth creation.

But one should note that this strategy is not recommended for those who are about to retire and they need to focus on wealth preservation. By knowing what is our risk tolerance, we can figure out investments according to the best risk-return value for managing our investment risk.

2. Keep Sufficient Liquidity in your Portfolio:

Beware! A financial emergency can come anytime! So, we need to redeem our investments anytime even when the markets are down. This risk can be reduced if we maintain adequate liquidity. If we have liquid assets in our portfolio, then our existing investments can deliver optimal long-term returns and we will be able to benefit from any periodic market corrections.

One of the ways of maintaining sufficient liquidity in your portfolio is by setting aside an Emergency Fund that should be equal to 6 to 8 months' expenses. For ensuring that there is easy accessibility to emergency funds, we should have low-risk investment options like Liquid Funds and Overnight Funds in our accounts. Once we have determined our risk tolerance and kept some money aside for ensuring adequate liquidity in our portfolio, then it is time to determine an asset allocation strategy that works for us.

3. The Asset Allocation Strategy:

Asset Allocation refers to investing in more than one asset class for reducing the investment risks and this strategy also provides us with optimal returns. We can invest in a perfect mix of key asset classes like Equity, Debt, Mutual Funds, Real Estate, Gold etc.

One of the asset allocation strategies is to invest in a combination of asset classes that are inversely correlated to each other. For example, when one asset class is outperforming then the other asset class underperforms such as Equity and Gold. Equity and Gold are inversely correlated to each other, so when equity outperforms, gold underperforms.

4. Diversify, Diversify and Diversify:

After we have found our perfect mix of asset classes for our portfolio, we can further reduce the overall investment risk by diversifying our investment in the same asset class. This means that if we are investing in Equity Mutual funds, then we should diversify in this asset class by investing in large, middle or small-cap equity mutual funds.

When the market crashes, the prices of small-cap companies fall faster as compared to large-cap companies. So, by diversifying our portfolio, we will reduce the overall investment risk.

5. Instead of Timing the Market, Focus on Time in the Market:

Rather than making a quick buy by timing the market, we should focus on staying for a longer time in the market. Only then can we take the benefit of compounding. If we are invested for a longer time in the stock market, then the smaller corrections won't affect our portfolio and will reduce the overall investment risk.

6. Do your Due Diligence:

Always do your due diligence, before investing in any type of investment tool as you are responsible for your finances. For example, if you are buying a stock for long term investment purposes then you must check how the management is performing and certain key ratios suck Debt-Equity ratio, PE, etc. By doing fundamental analysis we will get an idea of how the company will perform in the upcoming years. If we blindly invest in the

stocks by listening to the recommendations of others then we might suffer the loss that will increase our investment risk.

7. Invest in Blue-Chip Stocks:

To avoid liquidity risk, it is always better to stay invested in a blue-chip stock or fund. Investors should check the credit rating of debt securities to avoid default risk.

Remember that all types of investment products have some other risks. As we have discussed earlier one should consider their risk appetite before deciding on any investment. One should be careful that investment decisions should not affect their lifestyle.

8. Monitor Regularly:

After considering all the factors above, one should monitor their portfolio regularly. If you are a long-term investor, that doesn't mean that you invest and forget about your portfolio. You need to regularly keep a watch on your portfolio's performance and do periodic reviews.

Portfolio review should be done once in six months, that's because some asset classes like equities are prone to short-term volatility, as a long-term investor you should overlook short-term volatility and only change when your investments show poor performance over an extended period.

4. Questions for self-control

1. What is economic efficiency?
2. How does economic efficiency of investments can be measured?
3. List different types of risks.
4. What is inflation risk?
5. What is tax risk?
6. What is Internal Rate risk?
7. What is counterparty risk?
8. List and explain strategies to reduce risk.

Topic 10. Features of innovation investment management

Lecture plan

1. Prerequisites for development of innovation
2. The essence of innovative investment
3. Approaches to innovative investment
4. Questions for self-control

1. Prerequisites for development of innovation

In the contemporary context, innovation is an important driver of development, with different political, social and economic coverage levels. The incorporation of new technologies fosters new markets and productive chains, both for companies, sectors and/or nations. In this sense, the role of government, as the motivator of the innovation process, is fundamental, either through the financial and/or political incentives.

Given this line of reasoning, the great nations have responded to the recommendations of the Oslo Manual by investing in innovation. Brazil, for example, has adhered to a system of innovation performance measurement by means of the Technological Innovation Research (PINTEC) implementation at the end of the 90's. In 2015, PINTEC data was published in 2000, 2003, 2005, 2008 and 2011.

In line with the Oslo Manual, PINTEC allows the comparability of results achieved with other countries. Thus, also for these authors, the research developed by PINTEC is important, especially for explaining the innovative conditions of Brazil by identifying the circumstances of the productive process, the strategies of the organizations as well as the destination of the investments. Consequently, those factors combined could pre-determine the process of innovation in the Brazilian context.

The monitoring of these factors allows the analysis of the innovation market in Brazil, as well as evaluating national and regional innovation policies. Therefore, PINTEC aims at the development of sectoral, regional and national indicators that foster the technological innovation presented by national industries. Thus, in order to analyze the influence of investment in innovation based on financial statement accounts, such as the

net sales of companies and/or sectors, it can be important in the extent to which is possible to assess the link between investments in innovation and the sales obtained by domestic industries.

In particular, for innovative activities, we note that economic sectors are developed in a heterogeneous way, and in considering this condition it allows us to better analyze our data and results. In this respect, point out that the heterogeneity directly impacts the innovation activity, assuming, additionally, that there is a relation between the size of the companies (or sectors) and the capacity for innovation.

2. The essence of innovative investment

Innovative investments are to allocate money in the acquisition of a bundle of resources with the aim of generating innovation results.

Innovative investments are spending a certain amount of money on acquiring a bundle of resources to obtain innovation.

Return on innovation investment is a performance measure used to evaluate the effectiveness of a company's investment in new products or services. The return on innovation investment is calculated by comparing the profits of new product or service sales to the research, development, and other direct expenditures generated in creating these new products or services.

Return on innovation investment is also referred to as "R2I" or "ROI2."

Return on innovation investment (R2I or ROI2) measures how effectively a company turns R&D spending and products into profitability.

Innovation is key to business growth and success, but new ideas also come with risks and sunk costs, which must be weighed against potential gains.

Companies that achieve high returns on innovation investment tend to get prototype or beta versions of their products out to market early and iterate accordingly.

Understanding Return on Innovation Investment

The focus of return on innovation investment is not only to determine how well a company is turning its investments in new products or services into additional profit for the

company, but also how efficient it is in its research & development (R&D) spending. The better a company is able to forecast the demand for its new offerings, as well as how efficient it is in allocating resources, the better its return on innovation investment should be.

The value of an investment in innovation can't be measured by the originality of an idea or the net sales it may produce. Return on innovation investment may, in fact, involve many missteps along the way, and the value gained from these activities in terms of knowledge and experience may make it possible to achieve greater ROI further down line.

Achieving Return on Innovation Investment

Organizations should decide as early as possible on focus areas and structured processes for their innovation efforts and ensure leadership is on board with the ambition level and risk involved. Companies without parameters and shared understandings around their innovation efforts are more likely to see huge misses. Ideally, innovation and risk management should be aligned, not adversarial. To achieve such a balanced state, companies must establish concrete, yet simple, parameters and processes that address risk tolerance and establish the guideposts against which innovation should be pursued, evaluated, and ultimately brought to market.

Experts also suggest taking smaller, iterative steps that require less up-front investment in order to gauge effectiveness and increase confidence and investment gradually. To be successful, however, the organization must culturally support smart risk-taking. Fully vetted ideas, fully backed by financials and consumer insights, are also expensive. Initial goals should include being able to cash in on small ideas, or minimum viable products (MVPs), but this requires a culture that supports them in their sometimes fuzzy incubation phase, long before it may be known how large the return on investment should be.

3. Approaches to innovative investment

A recent report from the World Economic Forum's Global Agenda Council on the Future of Investing showcases a series of case studies that demonstrate how these asset

owners have been innovating. They can be broadly grouped into three different approaches:

1. Creating new models to address gaps in the market

Some long-term investors have stepped in to bridge the gap left behind by traditional financial intermediaries in the wake of intensified regulation by creating new benchmarks and investment models.

One example of this is Caisse de dépôt et placement du Québec (CDPQ), which has created a new model for infrastructure investing. Traditionally, infrastructure has been planned and funded at the government level. But this created a gap between infrastructure needs and the amount of financing available. Public-private partnerships were the next evolution, with governments still taking on the role of planning infrastructure projects, and with private consortiums providing the funding.

CDPQ has developed a new model with their CDPQ Infra, a wholly owned subsidiary which works with the government at the planning stage and with other partners on financing. Beyond that, CDPQ Infra would also be involved in the execution and operation phases.

2. Diversifying risk

Moving away from traditional portfolio models – which build the portfolio by spreading assets across traditional asset classes such as stocks, bonds, commodities and real estate – some asset owners are instead diversifying the sources of risk within their portfolios.

ATP, a Danish pension fund, has had great success with this approach. Since 2006 ATP's investment strategy has been based on risk allocation, where the focus is on the risk associated with a given investment rather than on the amount invested. They have now gone a step further by adopting a risk factor approach where each investment is decomposed into four risk factors (interest rate factor, equity factor, inflation factor and other factors).

3. Active involvement with external managers

While asset owners are growing their own capabilities, they still find value in working with external managers. This relationship has evolved for some investors from a more traditional and passive role as a client, to a more active role that aligns their interests with that of the managers.

An example of this is PensionDanmark, a mid-sized pension fund that has been able to use an external fund manager as an aligned intermediary in direct infrastructure investing. Instead of hiring a manager and ceding investment responsibilities to them directly, PensionDanmark developed an internal team focused on infrastructure, and then seeded Copenhagen Infrastructure Partners as almost an extension of the internal team rather than a traditional external manager.

4. Questions for self-control

1. What is innovative investment?
2. What are prerequisites for its development?
3. List approaches to innovative investment.
4. What is Rate on return of Innovations?
5. What are the features of innovative investments?

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Additional

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Informational resources

1. Верховна Рада України. URL: http:// www.portal.rada.gov.ua

2. Законодавство України. URL: https://zakon.rada.gov.ua/

3. Кабінет Міністрів України. URL: http:// www.kmu.gov.ua

4. Міністерство фінансів. URL: http:// www.minfin.gov.ua

5. Міністерство економіки України. URL: https://www.me.gov.ua/?lang=uk-UA

6. Державна податкова служба України URL: http:// www.tax.gov.ua

7. Державна служба статистики України. URL: http:// www.ukrstat.gov.ua

8. Національний інститут стратегічних досліджень. URL: http:// www.niss.gov.ua

9. Центр перспективних соціальних досліджень. URL: http:// www.cpsr.org.ua

10. Investopedia. URL: https://www.investopedia.com