



**Project Finance, Public private
partnership (PPP), Project Risk
Matrix, Investment Appraisal,
Business Cycle.**

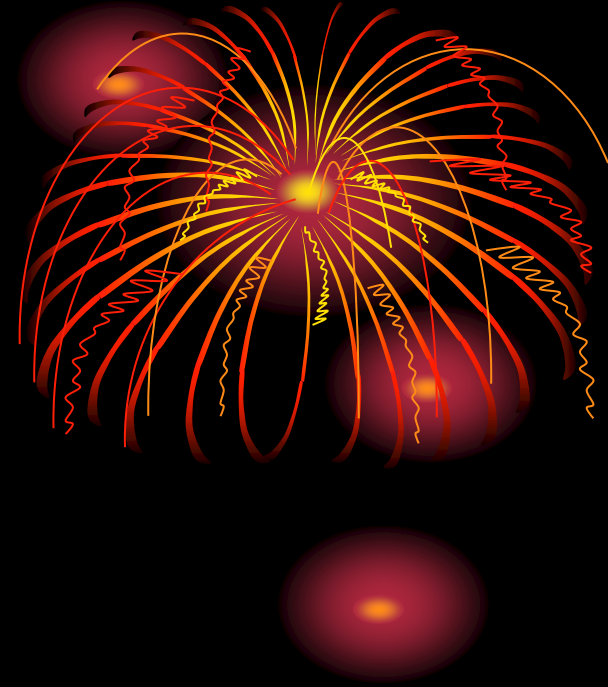
Presented by

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Overview

- **Project Financ.**
 - Key Characteristics of Project Finance.
 - How it works.
 - Benefits of Project Finance.
 - Types of Project Financing.
- **Public Private Partnership.**
- **Financing.**
- **Risk Matrix .**
- **Project Finance Requirements.**
- **Investment**



Definition of Project Finance



Project finance is funding for long-term infrastructure, industrial projects, and public services. It uses a nonrecourse or limited-recourse financial structure. In addition, it relies on a project's cash flows to repay the debt and equity used to finance the project. Project finance, which is commonly used in the energy and telecommunications sectors, benefits companies by keeping debt off their balance sheets.

- Large size
- Capital intensive
- Long life
- Few diversification opportunities ic assets specific
- High operating margin

Definition of Project Finance



Some of the common sponsors of project finance include the following entities:

- **Contractor sponsors:** These sponsors provide subordinated or unsecured debt and/or equity and are crucial to the project's establishment and operation.
- **Financial sponsors:** These include investors who are mainly focused on achieving a big return on their investment.
- **Industrial sponsors:** These are companies with a strategic interest in the project, as the project may align with their core business.
- **Public sponsors:** These sponsors include governments from various levels.
- The build, operate, and transfer (BOT) project finance structure has several key elements. Project finance for BOT projects generally includes a special purpose vehicle (SPV) (A Special Purpose Vehicle (SPV), also known as a Special Purpose Entity (SPE), is a separate subsidiary formed by a parent company to isolate and manage financial risks). The company's sole activity is carrying out the project by subcontracting most aspects through construction and operations contracts. Since new-build projects don't generate revenue during the construction phase, debt service begins only in the operations phase.

Definition of Project Finance



Resource Finance

Resource Finance is a leading financing company that offers customized solutions for a range of financial needs.

With years of experience in the industry, our team of experts has helped countless clients achieve their financial goals, from first-time homebuyers to business owners and investors.

At Resource Finance, we believe in putting our clients first. We understand that financing can be overwhelming and confusing, which is why we offer personalized solutions that meet our client's unique needs. Whether you're looking for a first home buyer loan, a business loan, or equipment financing, our team can provide you with the guidance and expertise you need to make informed decisions about your finances

What Is Non-Recourse Finance?

Non-recourse finance involves a loan where repayment comes only from the project's earnings. Such loans are generally secured by collateral.

Non-recourse loans are commonly used to finance commercial real estate and projects with long lead times. Unlike conventional loans, the repayment depends on the success of the

Recourse Loan

Lender Can Pursue Borrower's Other Assets or Income if the Borrower Defaults on the Loan



Typically Easier to Qualify For



Can Have Higher Interest Rates



Typically Shorter Repayment Terms



Borrower's Personal Liability Is Not Limited



Require Less Collateral



Commonly Used for Lower-Value Assets



More Common in Consumer Lending



Non-Recourse Loan

Lender's Recourse Is Limited to the Value of the Collateral



Typically More Difficult to Qualify For



Can Have Lower Interest Rates



Typically Longer Repayment Terms



Borrower's Personal Liability Is Limited to the Collateral



Require More Collateral



Commonly Used for Higher-Value Assets



More Common in Commercial Lending



Stages of Project Financing



1. Pre-Financing Stage

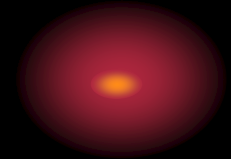
Identification of the Project Plan
Recognizing and Minimizing the Risk
Checking Project Feasibility

2. Financing Stage

Arrangement of Finances
Loan or Equity Negotiation
Documentation and Verification
Payment

3. Post-Financing Stage

Timely Project Monitoring
Project Closure
Loan Repayment



Stages of Project Financing



1. Pre-Financing Stage

. **Identification of the Project Plan** — This process includes identifying the strategic plan of the project and analyzing whether its plausible or not. In order to ensure that the project plan is in line with the goals of the financial services company, it is crucial for the lender to perform this step

Recognizing and Minimizing the Risk — Risk management is one of the key steps that should be focused on before the project financing venture begins. Before investing, the lender has every right to check if the project has enough available resources to avoid any future risks.

Checking Project Feasibility — Before a lender decides to invest in a project, it is important to check if the concerned project is financially and technically feasible by analyzing all the associated factors.

Stages of Project Financing



2. Financing Stage

- **Arrangement of Finances** — In order to take care of the finances related to the project, the sponsor needs to acquire equity or loan from a financial services organization whose goals are aligned to that of the project
- **Loan or Equity Negotiation** — During this step, the borrower and lender negotiate the loan amount and come to a unanimous decision regarding the same.
- **Documentation and Verification** — In this step, the terms of the loan are mutually decided and documented keeping the policies of the project in mind.
- **Payment** — Once the loan documentation is done, the borrower receives the funds as agreed previously to carry out the operations of the project.

Stages of Project Financing



Post-Financing Stage

- **Timely Project Monitoring — As the project commences, it is the job of the project manager to monitor the project at regular intervals.**
- **Project Closure — This step signifies the end of the project.**
- **Loan Repayment — After the project has ended, it is imperative to keep track of the cash flow from its operations as these funds will be, then, utilized to repay the loan taken to finance the project.**

. Financial Resources in Business



Financial resources in business refer to the various assets and funds that a company utilizes to operate, invest, and grow. These resources are critical for sustaining day-to-day operations and supporting strategic initiatives. Here's a closer look at the key types of financial resources in a business context:

1. Cash and Cash Equivalents

The most liquid assets, including physical cash, bank deposits, and short-term investments, can be quickly converted to cash. Maintaining sufficient cash flow is essential for covering operational expenses and managing unexpected costs.

2. Equity Financing

Funds are raised by issuing shares of stock to investors. Equity financing provides capital without the obligation to repay, though it does dilute ownership.

. Financial Resources in Business



3. Debt Financing

Loans and credit lines are obtained from banks or other financial institutions. Debt financing allows businesses to access larger sums of money, but it requires repayment with interest, which can impact cash flow.

4. Retained Earnings

Profits that a company has reinvested in the business rather than distributed to shareholders as dividends. Retained earnings can be a significant source of funding for expansion and development.

5. Investment Capital

Funds are allocated for purchasing assets, such as equipment, real estate, or technology. Investment capital is essential for growth and improving operational efficiency.

. Financial Resources in Business



6. Grants and Subsidies

Financial assistance is provided by governments or organizations for specific projects or initiatives. These resources can help businesses reduce costs and support innovation.

7. Accounts Receivable

Money owed to a business by customers for goods or services provided on credit. Efficient management of accounts receivable ensures timely cash flow and minimizes the risk of bad debts.

Key Features of Project Financing



Capital Intensive Financing Scheme: Project Financing is ideal for ventures requiring a huge amount of equity and debt, and is usually implemented in developing countries as it leads to the economic growth of the country. Being more expensive than corporate loans, this financing scheme drives costs higher while reducing liquidity. Additionally, the projects under this plan commonly carry Emerging Market Risk and Political Risk. To ensure the project is against these risks, the project also has to pay expensive premiums.

Risk Allocation: Under this financial plan, some of the risks associated with the project are shifted towards the lender. Therefore, sponsors prefer to avail this financing scheme since it helps them mitigate some of the risks. On the other hand, lenders can receive a better credit margin with Project Financing.

- **Risk allocation refers to the distribution of potential risks between contracting parties. When entering into a contract, each party must understand the risks associated with their obligations and the potential external factors that may influence the contract's fulfillment. Risks can stem from natural events, regulatory changes, supply chain disruptions, economic fluctuations, or political instability.**
- **In contract law, risk allocation is managed through carefully crafted clauses that specify which party is responsible for bearing particular risks. By clearly defining these responsibilities, contracts help prevent disputes, streamline resolution processes, and support fair compensation.**

Key Features of Project Financing



Multiple Participants Applicable: As Project Financing often concerns a large-scale project, it is possible to allocate numerous parties in the project to take care of its various aspects. This helps in the seamless operation of the entire process.

Asset Ownership is Decided at the Completion of Project: The Special Purpose Vehicle is responsible to overview the proceedings of the project while monitoring the assets related to the project. Once the project is completed, the project ownership goes to the concerned entity as determined by the terms of the loan.

Zero or Limited Recourse Financing Solution: Since the borrower does not have ownership of the project until its completion, the lenders do not have to waste time or resources evaluating the assets and credibility of the borrower. Instead, the lender can focus on the feasibility of the project. The financial services company can opt for limited recourse from the sponsors if it deduces that the project might not be able to generate enough cash flow to repay the loan after completion.

Key Features of Project Financing



Loan Repayment With Project Cash Flow: According to the terms of the loan in Project Financing, the excess cash flow received by the project should be used to pay off the outstanding debt received by the borrower. As the debt is gradually paid off, this will reduce the risk exposure of financial services companies.

Better Tax Treatment: If Project Financing is implemented, the project and/or the sponsors can receive the benefit of better tax treatment. Therefore, this structured financing solution is preferred by sponsors to receive funds for long-term projects.

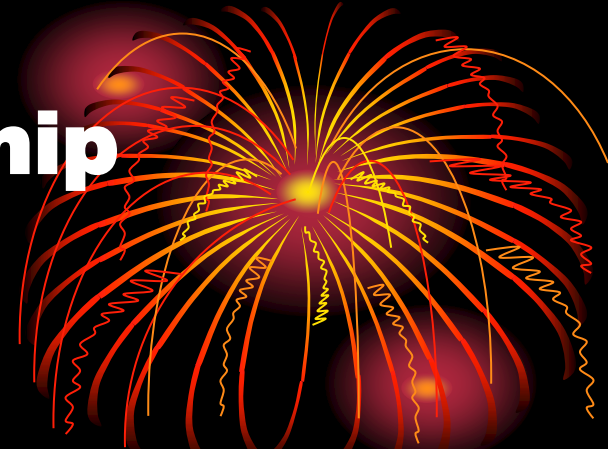
Sponsor Credit Has No Impact on Project: While this long-term financing plan maximizes the leverage of a project, it also ensures that the credit standings of the sponsor have no negative impact on the project. Due to this reason, the credit risk of the project is often better than the credit standings of the sponsor.

Types of Project Financing:



- **Equity Financing:** The project sponsor invests their own capital in the project company.
- **Debt Financing:** The project company borrows funds from financial institutions.
- **Mezzanine Financing:** A hybrid form of financing that combines debt and equity characteristics.

Public Private Partnership



What Are Public-Private Partnerships?

Public-private partnerships involve collaboration between a government agency and a private-sector company that can be used to finance, build, and operate projects, such as public transportation networks, parks, and convention centers. Financing a project through a public-private partnership can allow a project to be completed sooner or make it a possibility in the first place.

Public-private partnerships often involve concessions of tax or other operating revenue, protection from liability, or partial ownership rights over nominally public services and property to private sector, for-profit entities

Public Private Partnership



Key Takeaways:

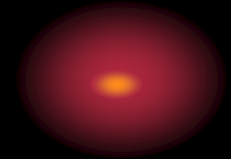
- Public-private partnerships allow large-scale government projects, such as roads, bridges, or hospitals, to be completed with private funding.
- These partnerships work well when private-sector technology and innovation combine with public-sector incentives to complete work on time and within budget.
- Risks for private enterprise include cost overruns, technical defects, and an inability to meet quality standards, while for public partners, agreed-upon usage fees may not be supported by demand—for example, for a toll road or a bridge.
- Despite their advantages, public-private partnerships are often criticized for blurring the lines between legitimate public purposes and private for-profit activity, and for perceived exploitation of the public due to self-dealing and rent-seeking that may occur.

Public Private Partnership



Structures

- **Build Operate Transfer (BOT):**
- **Build Operate Own (BOO):**
- **Design-Build (DB):**
- **Buy Build Operate (BBO):**



Public Private Partnership



What Are Some Types of Public-Private Partnerships?

Public-private partnerships can be arranged in several ways. Here are just a few:

Build Operate Transfer (BOT): A government hands overall construction and operations to a private party for a set number of years (often several decades or more). After that period of time, it is transferred to the government.

Build Operate Own (BOO): The same as a BOT, but the private entity is not required to ever transfer the project to the government.

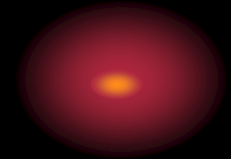
Design-Build (DB): A government contracts with a private party to design and construct a project for a fee. The government retains ownership and may either operate it itself or contract out operations.

Buy Build Operate (BBO): a government sells a pre-existing project that has already been completed and may have been operated by the government for some time to a private party, who will take it over fully. The private party may need to invest in rehabilitating or expanding the project.

Financing



- **Source of Finance**
 - **Commercial Banks**
 - **Financial Institutions**
 - **Export Credit Agencies & Multilateral Agencies**
 - **Capital Market**
- **Export credit agencies offer loans, loan guarantees, and insurance to help domestic companies limit the risk of selling goods and services in overseas markets.**
- **ECAs can be government agencies, private lenders, or semi-government bodies.**



Project Financing Methods



Project financing methods refer to how projects secure the necessary funds to cover costs and ensure successful execution. Most projects utilize a combination of financing methods, including bank loans, government grants, private investments and crowdfunding, to mitigate risks and maintain financial stability.

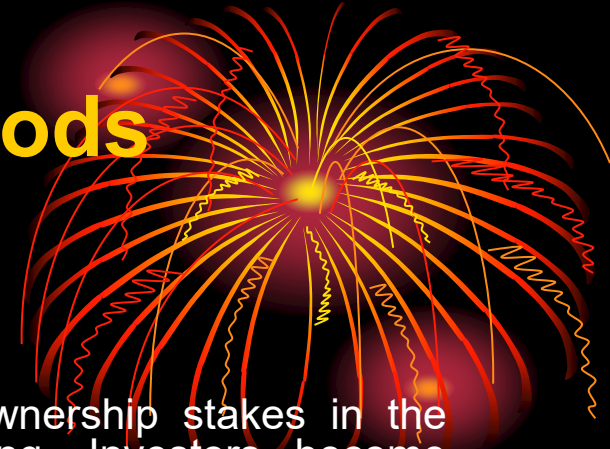
The choice of financing method depends on factors such as project size, industry and risk tolerance. Understanding these financing methods helps project managers plan budgets effectively and align funding with project timelines. Below are common project financing methods.

Debt Financing

Debt financing involves borrowing funds from external sources such as banks, financial institutions or capital markets, with a commitment to repay the principal plus interest over a defined period. It's commonly used in project financing when the project has predictable revenue streams. Lenders may require collateral, such as project assets or future cash flows. This method allows project sponsors to retain full ownership, but increases financial risk due to required repayment regardless of the project's success.

- **Bank Loans/Term Loans:** Most common for medium-to-large projects; often secured by project assets.
- **Bonds (Project Bonds):** For large-scale public infrastructure (e.g., toll roads, hospitals). Investors buy bonds expecting repayment from project revenue.
- **Syndicated Loans:** A group of banks lends together for large projects to spread risk.
- **Government-backed Loans/Development Bank Loans:** Offered by institutions like the World Bank, IFC or national development banks—often for infrastructure or emerging markets.

Project Financing Methods



Equity Financing

Equity financing refers to raising capital by offering ownership stakes in the project to investors, typically in exchange for funding. Investors become shareholders and are entitled to a portion of profits, usually through dividends or capital gains. Unlike debt, equity doesn't require fixed repayments, making it less risky for cash flow in the early stages. However, it dilutes control and potential returns for original sponsors. It's often used for high-risk or early-stage projects lacking steady income.

- **Sponsor Equity:** The project owner or developer puts up their own capital.
- **Private Equity/Institutional Investors:** Especially common in energy, infrastructure and real estate.
- **Public-Private Partnerships (PPPs):** Government and private firms co-invest, often with shared control and benefits.

Hybrid Methods

Hybrid financing combines debt and equity to balance financial risk and control. It allows sponsors to access larger capital pools while limiting dilution of ownership and controlling leverage. Typically, debt is used for predictable income segments of the project, while equity absorbs early-stage risks. This mix helps optimize capital structure by reducing the cost of capital and attracting different types of investors. Common in large-scale infrastructure and energy projects, this approach aligns stakeholders' interests while enhancing financial sustainability.

Project Financing Sources



Project financing sources typically come from a mix of debt, equity and government support, with risks allocated among various stakeholders. Below are key financing sources that enable project developers to secure the necessary capital for successful execution.

- **Commercial Banks:** Traditional lenders that provide debt financing, often in the form of loans or credit lines. They typically require strong creditworthiness and collateral.
- **Development Banks and Multilateral Institutions:** Entities like the World Bank, European Investment Bank (EIB) and Asian Development Bank (ADB) provide long-term financing, particularly for large-scale or sustainable projects in emerging markets.
- **Export Credit Agencies (ECAs):** Government-backed institutions that offer loans, guarantees or insurance to support the export of goods and services related to infrastructure.

Project Financing Sources



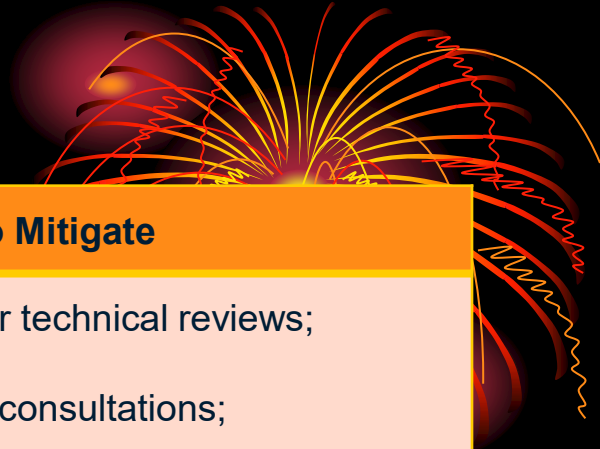
- **Institutional Investors:** Pension funds, insurance companies and sovereign wealth funds that invest in large-scale, long-term projects with stable returns, such as production and distribution infrastructure.
- **Project Sponsors:** Companies or consortia that initiate and finance projects, often through a combination of equity investment and strategic partnerships.
- **Government or Public Sector Agencies:** National and local governments provide grants, subsidies, tax incentives and loan guarantees to encourage adoption and development.
- **Venture Capitalists (VCs):** Investors specializing in high-risk, high-reward opportunities, typically funding innovative startups and early-stage technologies.

Risk Matrix



- Technological Risk
- Schedule Risk
- Financial Risk
- Resources Risk
- Scope risk
- Operational Risk
- Political Risk
- Environmental Risk

Risk Matrix



Risk Type	Description	Level of Risk	How to Mitigate
Technical Risks	Issues with technology, tools, infrastructure, or technical requirements	Medium-High	Regular technical reviews; Expert consultations; Proof of concepts before full implementation
Schedule Risks	Potential for project delays, missed deadlines	Medium	Buffer time in schedules; Critical path analysis; Regular progress tracking
Financial Risks	Cost overruns, unexpected expenses	High	Detailed cost estimation; Reserve budget; Regular financial reviews
Resource Risks	Inadequate staffing, materials, or capabilities	Medium	Skill gap analysis; Cross-training project team members; Backup resource planning

Risk Matrix



Risk Type	Description	Level of Risk	How to Mitigate
<i>Scope Risks</i>	Scope creep, unclear requirements	High	Detailed requirements documentation; Change control process; Regular stakeholder alignment
<i>External Risks</i>	Market changes, natural disasters, regulatory issues, weather	Variable	Environmental scanning; Compliance monitoring; Flexible project planning
<i>Operational Risks</i>	Business process issues, workflow disruptions	Medium	Process documentation; Backup operational plans; Training programs

Investment

- **Investment is traditionally defined as the "commitment of resources into something expected to gain value over time".^[1] If an investment involves money, then it can be defined as a "commitment of money to receive more money later". From a broader viewpoint, an investment can be defined as "to tailor the pattern of expenditure and receipt of resources to optimise the desirable patterns of these flows". When expenditures and receipts are defined in terms of money, then the net monetary receipt in a time period is termed cash flow, while money received in a series of several time periods is termed cash flow stream.**



Types of Capital Investment



There are many ways to classify investments. One classification is as follows.

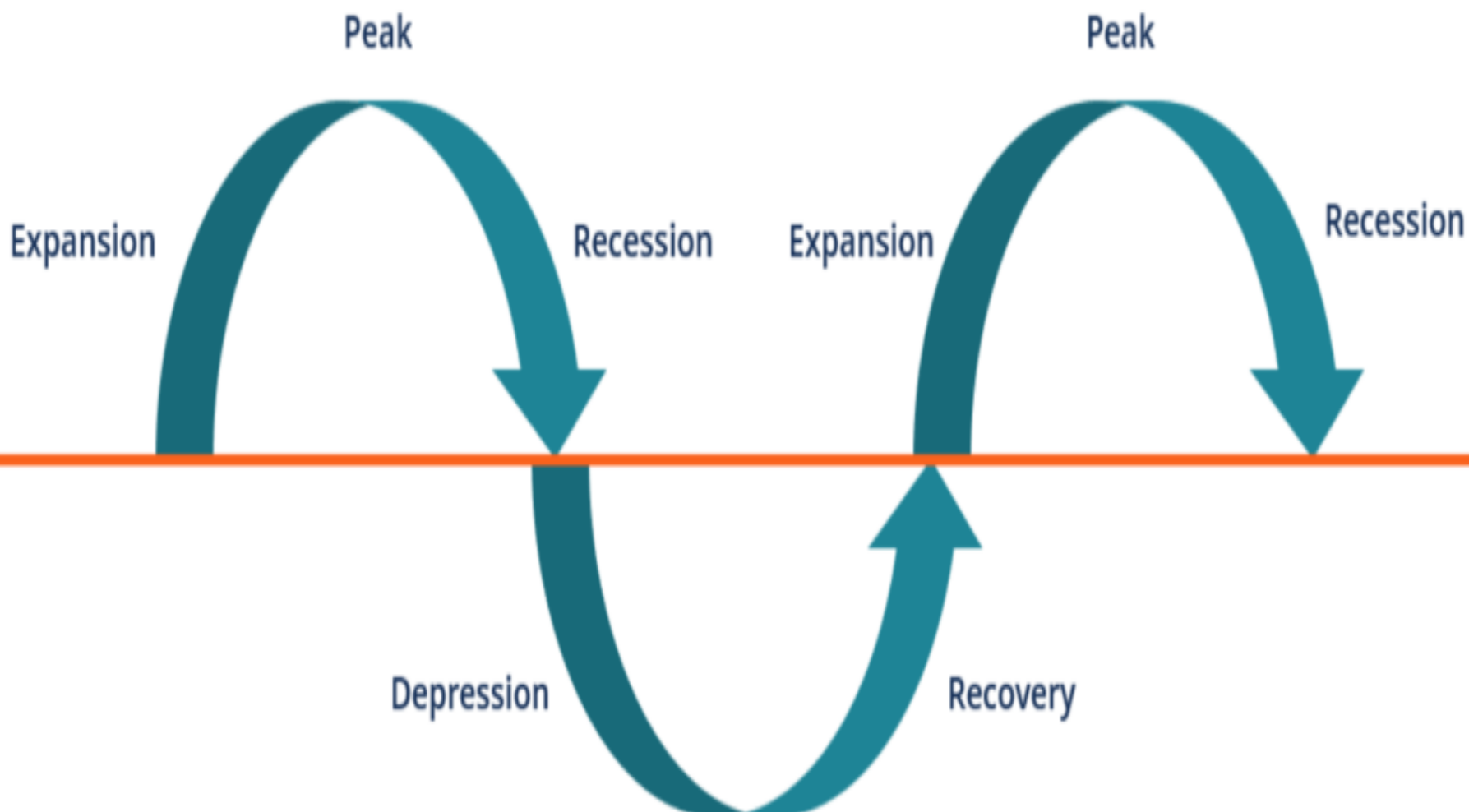
- **Expansion of existing business.**
- **Company acquires existing firm to expand its business. In, either case, the firm makes investment in the expectation of additional revenue. Investments in existing or new products may also be called *revenue-expansion investment*.**
- **Expansion of new business.**
- **A company may add capacity to its existing product lines to expand existing operations. For example, a fertilizer company may increase its plant capacity to manufacture more urea. Expansion of a new business requires investment in new products and a new kind of production activity within the firm.**

Types of Capital Investment



- **Replacement and modernization of old business.**
- **The main objective of modernization & replacement is to improve operating efficiency & reduce costs. Costs savings will reflect in the increased profits, but the firm's revenue may remain unchanged.**

Business Cycle



Business Cycle

es 1. Expansion

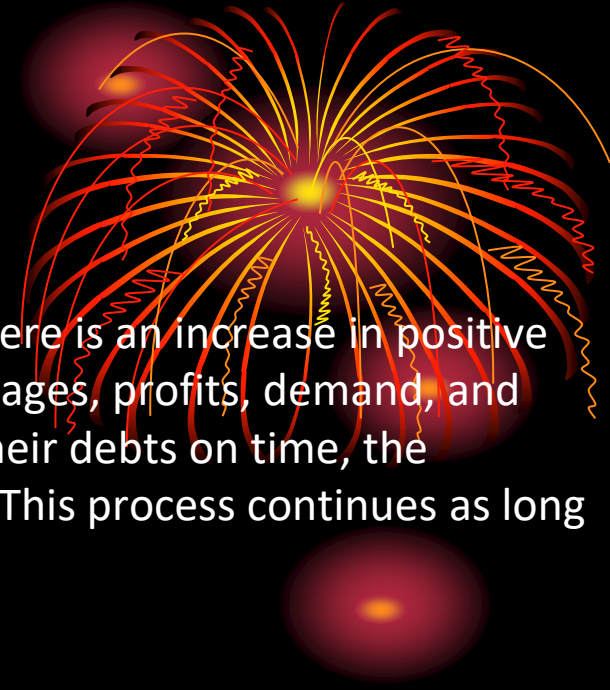
The first stage in the business cycle is expansion. In this stage, there is an increase in positive economic indicators such as employment, income, output, wages, profits, demand, and supply of goods and services. Debtors are generally paying their debts on time, the velocity of the money supply is high, and investment is high. This process continues as long as economic conditions are favorable for expansion.

2. Peak

The economy then reaches a saturation point, or peak, which is the second stage of the business cycle. The maximum limit of growth is attained. The economic indicators do not grow further and are at their highest. Prices are at their peak. This stage marks the reversal point in the trend of economic growth. Consumers tend to restructure their budgets at this point.

3. Recession

The recession is the stage that follows the peak phase. The demand for goods and services starts declining rapidly and steadily in this phase. Producers do not notice the decrease in demand instantly and go on producing, which creates a situation of excess supply in the market. Prices tend to fall. All positive economic indicators such as income, output, wages, etc., consequently start to fall.



4. Depression

There is a commensurate rise in unemployment. The growth in the economy continues to decline, and as this falls below the steady growth line, the stage is called a depression.

5. Trough

In the depression stage, the economy's growth rate becomes negative. There is further decline until the prices of factors, as well as the demand and supply of goods and services, contract to reach their lowest point. The economy eventually reaches the trough. It is the negative saturation point for an economy. There is extensive depletion of national income and expenditure.

6. Recovery

After the trough, the economy moves to the stage of recovery. In this phase, there is a turnaround in the economy, and it begins to recover from the negative growth rate. Demand starts to pick up due to low prices and, consequently, supply begins to increase. The population develops a positive attitude towards investment and employment and production starts increasing.

Employment begins to rise and, due to accumulated cash balances with the bankers, lending also shows positive signals. In this phase, depreciated capital is replaced, leading to new investments in the production process. Recovery continues until the economy returns to steady growth levels.

This completes one full business cycle of boom and contraction. The extreme points are the peak and the trough.



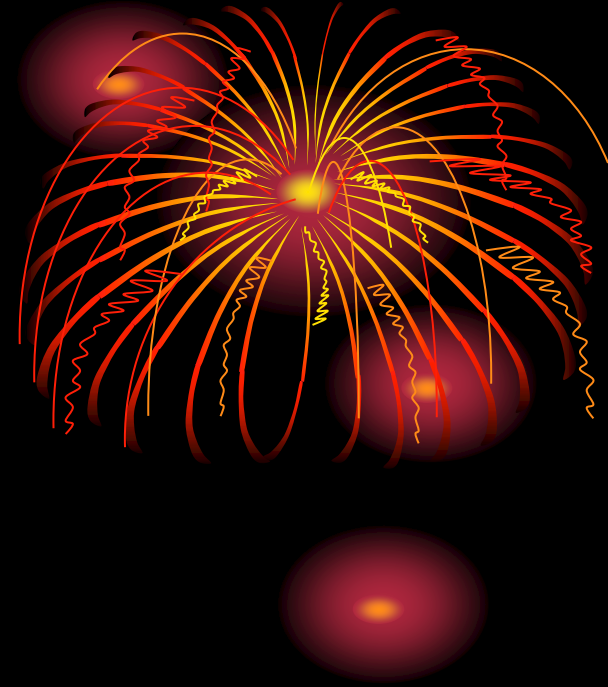
Determination of the need of investment



Determinants of investment are the various factors that influence the level and direction of capital spending by businesses in an economy. These determinants include interest rates, expected future profits, business confidence, technological advancements, and government policies. Understanding these factors helps explain how and why businesses decide to invest in new projects or expand existing operations, impacting overall economic growth.

5 Must Know Facts For Your Next Test

1. Interest rates have an inverse relationship with investment; when rates are low, borrowing is cheaper, encouraging businesses to invest more.
2. Expected future profits play a critical role; if businesses anticipate higher profits, they are more likely to invest in expansion.
3. Government policies, such as tax incentives and regulations, can significantly sway investment decisions by making it easier or harder for companies to invest.
4. Technological advancements can create new investment opportunities or render existing investments obsolete, impacting overall investment strategies.
5. The business cycle affects investment levels; during economic expansions, firms tend to invest more compared to during recessions when uncertainty is high.



Thank You