

# MAKERERE UNIVERSITY BUSINESS SCHOOL

## LECTURE NOTES

Program: BSc. Finance

Course unit: Mutual and Pension Fund Management

Year of study: Two

Semester: Two

# Introduction

## Direct and Indirect Investments

Investors make **direct investments** when they buy securities issued by companies and governments and when they buy real assets, such as precious metals, art, or timber.

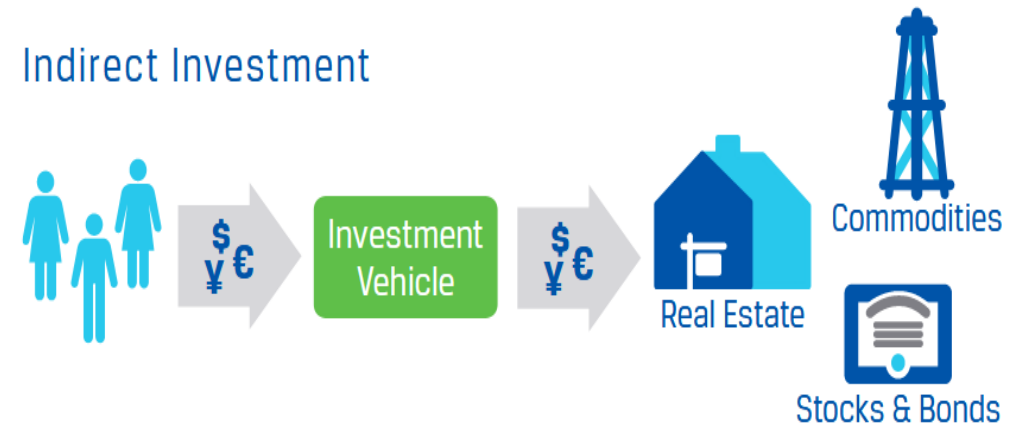
But a common way to invest is through indirect investment vehicles. That is, investors give their money to investment firms, which then invest the money in a variety of securities and assets on their behalf.

Thus, investors make **indirect investments** when they buy the securities of companies, trusts, and partnerships that make direct investments

### Direct Investment



### Indirect Investment



# Introduction

## Indirect (Pooled) investment vehicles

**M**ost indirect investment vehicles are pooled investments (also known as pooled/collective investment schemes) in which investors pool their money together to gain the advantages of being part of a large group.

**T**he resulting economies of scale can significantly improve investment returns.



# Introduction

The following are examples of pooled indirect investment vehicles:

- ❑ Shares in mutual funds and exchange-traded funds.
- ❑ Unit investment trusts
- ❑ Limited partnership interests in hedge funds, Private Equity funds, VC funds.
- ❑ Variable Annuities
- ❑ Asset-backed securities, such as mortgage-backed securities
- ❑ Interests in pension funds.

How pooled/indirect investment vehicles work

- Banks, insurance companies, and investment management firms organize most pooled investment vehicles.
- The organizer is often called the sponsor. Sponsors can organize investment vehicles as business trusts, limited partnerships, or limited liability companies.
- Depending on the form of the organization, ownership shares are known as shares, units, or partnership interests.
- Large sponsors can organize hundreds of investment vehicles.

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# Mutual Funds

A Mutual Fund is an investment company that pools money from many investors with a common financial goal.

The money/funds collected, is/are then invested in financial market instruments as defined by the investment objective.

The portfolio created could consist of stocks, bonds, money market instruments or some combination of these investments.

The investment experts who invest the pooled money on behalf of investors of the scheme are known as 'Fund Managers'.



# Mutual Funds

The income earned through the mutual funds' investments and the capital appreciation realized are shared by its unit holders in proportion to the number of units owned by them.



The pooling of resources is the biggest strength for mutual funds.

The relatively lower amounts required for investing into a mutual fund scheme enables small retail investors to enjoy the benefits of professional money management and lends access to different markets, which they otherwise may not be able to access.

# Mutual Funds

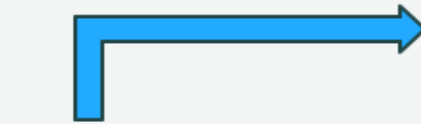
## SUMMARY



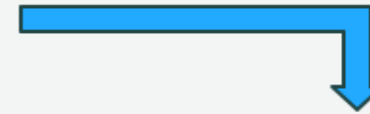
### How Do Mutual Funds Work

Passed back to the investors

Pool their money together



INVESTORS

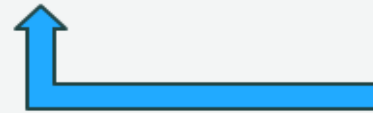


RETURNS

#### HOW MUTUAL FUNDS WORK



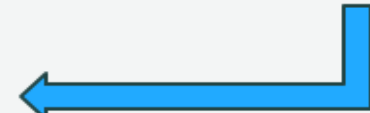
FUND MANAGERS



Securities such as stocks, bonds, gold, etc generate returns



SECURITIES



Choose & invest in securities

# Mutual Funds— Big Business by Any Standard

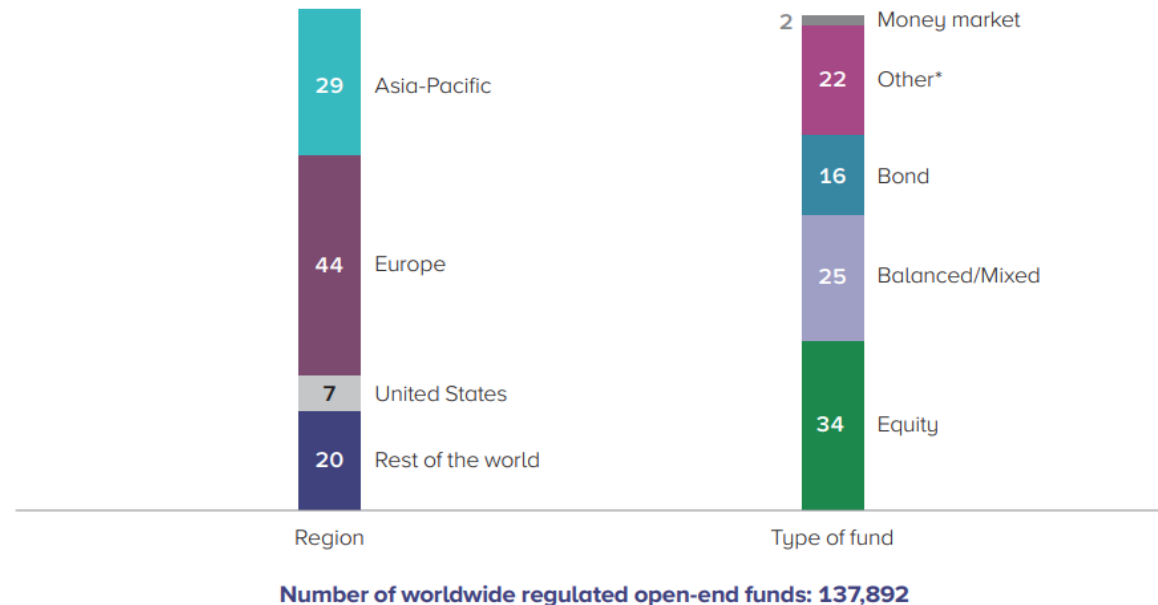
Investors around the world have historically demonstrated strong demand for regulated open-end funds (also referred to as regulated funds).

In the past decade, worldwide net sales of regulated funds have totaled \$18.8 trillion, and fund providers have expanded the vast array of choices, offering investors more than 137,000 regulated funds.

FIGURE 1.1

## Number of Worldwide Regulated Open-End Funds

Percentage of funds by region or type of fund, year-end 2022



\* Other funds include guaranteed/protected funds, real estate funds, and other funds.

Note: Regulated open-end funds include mutual funds, ETFs, and institutional funds.

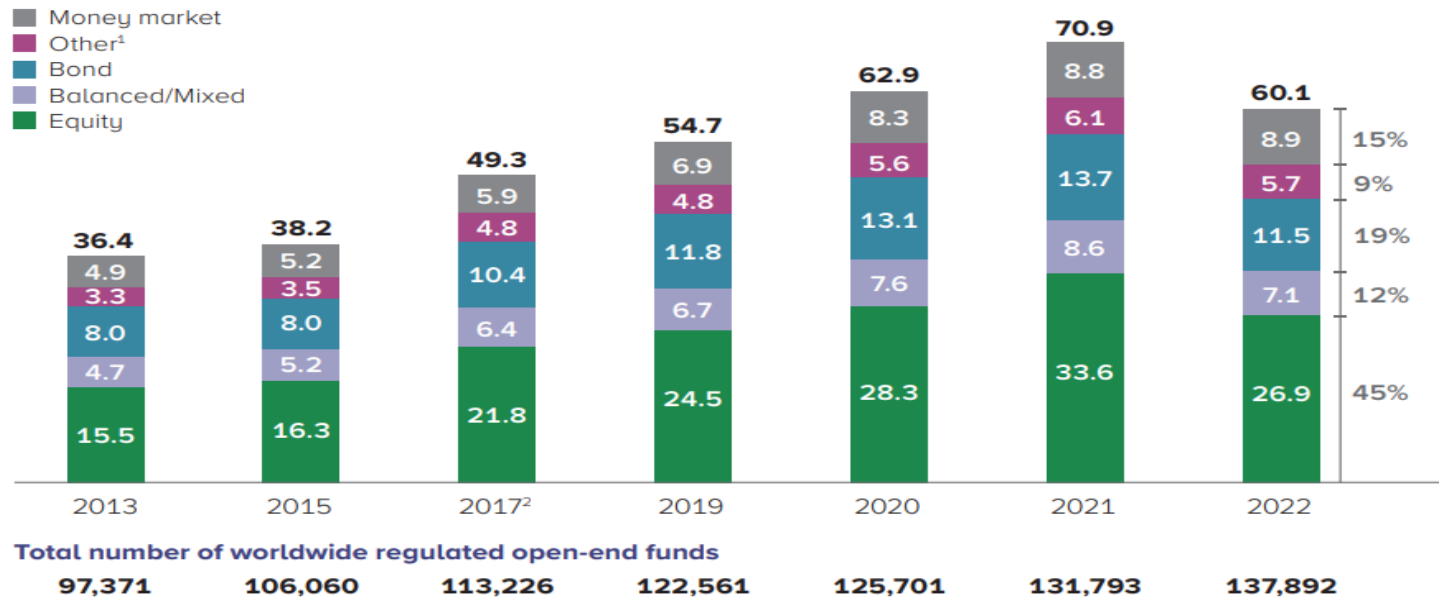
Source: International Investment Funds Association

# Mutual Funds— Big Business by Any Standard

FIGURE 1.2

## Total Net Assets of Worldwide Regulated Open-End Funds Declined to \$60.1 Trillion in 2022

Trillions of US dollars by type of fund, year-end



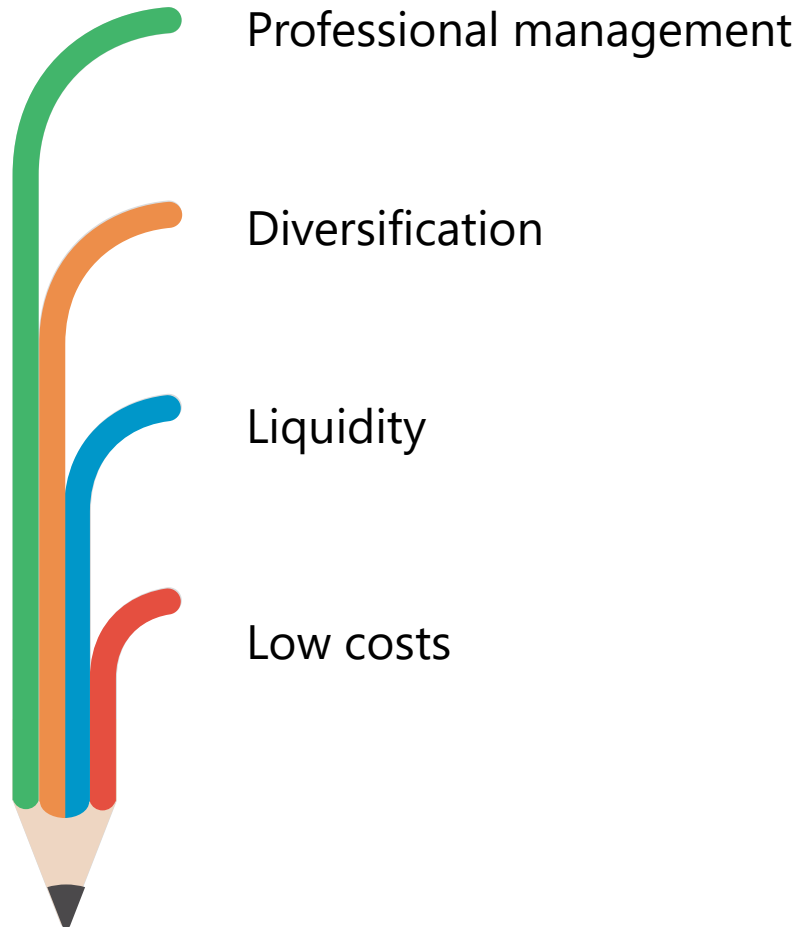
<sup>1</sup> Other funds include guaranteed/protected funds, real estate funds, and other funds.

<sup>2</sup> Data for Russia are for 2017:Q3.

Note: Regulated open-end funds include mutual funds, ETFs, and institutional funds.

Source: International Investment Funds Association

# Why invest in mutual funds?



- So why do so many people keep a large part of their investments in the form of mutual funds?
- Different investors will have different reasons, but the compelling ones include;

# Why invest in mutual funds?



A wide range of investment choices

Convenience and flexibility

Low minimum investment

Regulatory protection



# Disadvantages of Mutual funds

Price fluctuation

Lack of control

Costs; fees, sales charges

Tax inefficiency

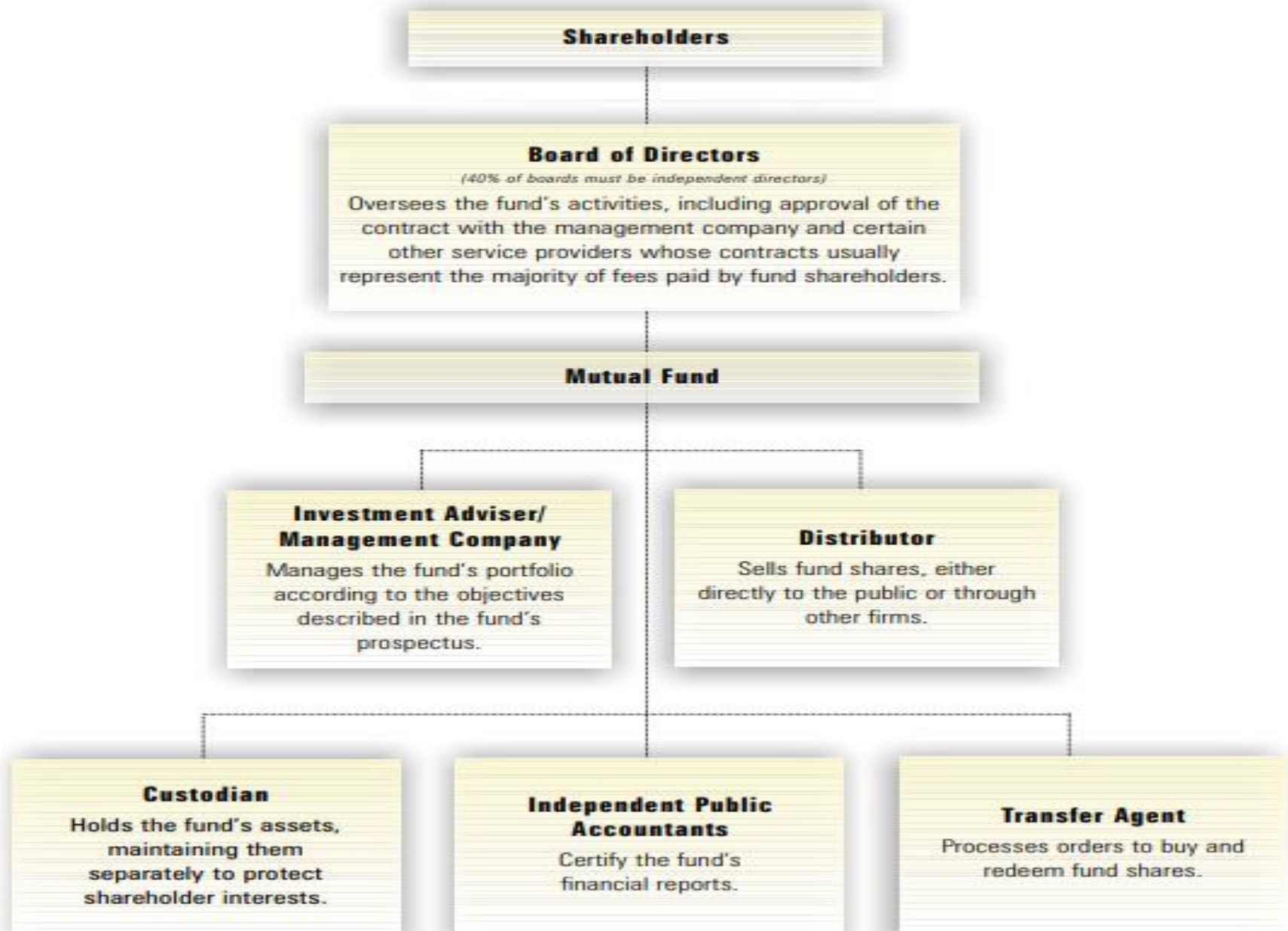


## Mutual fund Structure/organization

- It is important to emphasize that each mutual fund – whether it stands by itself or belongs to a family is a separate company.
- A mutual fund is usually either a corporation or a business trust (which is like a corporation).
- A mutual fund is a separate legal entity (usually a trust or corporation) from its creators and managers. It acts as a “flow-through” or “pass-through” vehicle: income, gains, and tax liabilities pass directly to investors (the fund itself is typically not taxed if it distributes substantially all income)
- Most mutual funds are externally managed; they do not have employees of their own. Instead, their operations are conducted by affiliated organizations and independent contractors
- Their structure is deliberately designed to protect shareholders by separating ownership, oversight, day-to-day management, custody of assets, distribution, accounting, and transaction processing.
- No single party controls everything, which reduces conflicts of interest and safeguards investor money.

## The Structure of a Mutual Fund

The illustration below shows the business structure of a typical mutual fund.



# Mutual fund organization

## **A. Shareholders/Investors/Unit holders;**

- A mutual fund is corporation or trust owned by its hundreds or thousands of individual shareholders.
- These are the investors who buy shares in the mutual fund.
- They own the fund proportionally to the number of shares they hold.
- Their money is pooled together to create the fund's investable capital.
- Receive dividends/distributions, capital gains
- They also ultimately bear the investment risk and reward (gains or losses in the fund's value).
- Protected by disclosure (prospectus, annual reports) and fiduciary standards.

# Mutual fund organization

## **B. Mutual Fund**

- This is the legal entity (usually a trust or corporation) that actually holds the investments.
- It is not a company with employees; instead, it is a “shell” that contracts out almost all functions to specialized service providers.
- All money from shareholders flows into this entity, and all investments are owned by it.

## **C. Board of Directors / Trustees**

- Governing body of the fund (independent majority required in most jurisdictions).
- Appointed to represent investors’ interests (fiduciary duty).
- Approves investment advisory contract, distribution agreements, and fees.
- Oversees service providers, reviews performance and expenses annually.
- Can hire/fire the investment adviser.
- Must be “independent” (not affiliated with the adviser) in a large proportion.

# Mutual fund organization

## **D. Sponsor / Promoter / Fund Management Company**

- Initiates and organizes the fund (often contributes seed capital).
- Provides brand name, infrastructure, and initial setup.
- Usually owns or controls the Investment Adviser/AMC.
- Responsible for overall promotion and compliance with regulatory approval (e.g., SEBI approval in India, SEC registration in US, CMA licensing in Uganda)

## **E. Investment Adviser / Portfolio Manager / Asset Management Company (AMC)**

This is the professional portfolio manager (e.g., Fidelity, Vanguard, BlackRock, UAP Fund manager, Britam Asset Managers etc.).

Day-to-day investment manager (hired by the board).

Decides what securities to buy/sell to meet the fund's objective.

Conducts research, executes trades, and monitors the portfolio.

Paid via management fee (typically 0.5–2% of AUM annually).

Must be registered (e.g., with SEC as RIA in US or SEBI in India, CMA in Uganda).

# Mutual fund organization

## **Independent custodian;**

- The fund's assets (cash, bonds and stocks) are kept by an independent third party, typically a bank or trust company. This protects shareholders against theft by management.
- The custodian also handles payments and receipts for the fund's securities transactions.
- Collects dividends, interest, bond coupons, redemption proceeds, and other income on behalf of the fund. Credits these to the fund's account promptly.
- Often provides additional services: fund accounting, NAV calculation support, compliance.

# Mutual fund organization

## Transfer Agent;

Transfer Agent (often called Registrar and Transfer Agent or RTA in many jurisdictions) is the specialized service provider responsible for maintaining investor records, processing unit/share transactions, and handling all shareholder servicing activities.

Key duties include;

- **Maintenance of unit holder / shareholder records;**
- Keeps the official register of all investors (unit holders), including personal details, contact information, tax status, and KYC/AML documentation.
- Updates records for every change (new investors, redemptions, switches, transfers, death, inheritance, etc.).
- **Processing subscriptions, redemptions, and switches;**
- Receives and verifies applications to buy (subscribe) or sell (redeem) units.
- Processes switches between funds (if allowed).
- Calculates the number of units based on the applicable NAV (Net Asset Value) on the transaction date.
- Ensures funds are received before issuing units (for subscriptions) and units are cancelled before paying out redemption proceeds.

# Mutual fund organization

## **Transfer Agent;**

**Processes income distributions (dividends or interest payouts);** either pays cash to investors or reinvests them by issuing additional units.

## **Principal underwriter/ fund distributor;**

Responsible for selling the fund shares to the public.

- Can sell:

- ❖ Directly to investors (no-load funds, e.g., Vanguard, Fidelity direct), or

- ❖ Through brokers, financial advisers, banks, or platforms (load or intermediary-sold funds).

- They handle marketing and distribution. In many cases they are an affiliate of the management company (e.g., the same firm that manages the fund also distributes it).

# Types of mutual funds

- Mutual funds are typically set up as either open ended funds or close ended funds.

## Open-end mutual funds;

- These pooled investment vehicles are called open-end because they have the ability to issue or redeem (repurchase) shares on demand. In otherward, the fund is available for subscription and repurchase on a continuous basis.
- When investors want to invest in a mutual fund, the fund issues new shares in exchange for cash that the investors deposit. When existing investors want to withdraw money, the fund redeems the investors' shares and pays them cash.
- Investors can conveniently buy and sell units of the fund at a determined price i.e at Net Asset Value (NAV) related prices which are declared on a daily basis. The key feature of open-end schemes is liquidity.

# Types of mutual funds

## Closed-end mutual funds

- Closed-end funds were more popular than open-end funds during the early years of the mutual fund industry.
- Closed-end funds do not purchase and redeem shares at a price dependent on NAV.
- Instead, they collect a pool of money, issue shares once to the investors in exchange for their money, and normally plan to neither issue nor redeem these initial shares thereafter.
- The shares of a closed-end fund trade on the secondary market (such as the New York Stock Exchange), just as the common stock of a corporation does. Therefore, the fund's [market value](#) can move just like an individual stock, free to rise and fall above and below the actual cash value of the shares
- The market determines the share price one gets when buying or selling the shares, and this price may be different from the net asset value
- The shares can therefore trade at a premium or discount.

# Types of mutual funds

## Unit Investment Trusts (UITs)

- A Unit Investment Trust (UIT) is a registered investment company that raises money from investors through a one-time public offering and invests it in a generally fixed portfolio of stocks, bonds, or other securities. Investors receive redeemable units (shares) representing undivided proportional ownership in the underlying assets.
- The sponsor designs the UIT, states its investment objective (e.g., income, growth, tax-exempt), selects and deposits a fixed basket of securities (listed in the prospectus), sets the termination date, and determines fees. The securities are professionally chosen but then “locked in.”
- A fixed number of units are issued via IPO-like offering (similar to closed-end funds). No continuous creation/redemption like open-end mutual funds.

# Types of mutual funds

## Unit Investment Trusts (UITs)

- Once formed, the portfolio is not actively traded. Securities are held with little or no change for the life of the trust (exceptions: replacement only if an issuer's creditworthiness collapses or for legal/tax reasons). This eliminates manager style drift and high turnover.
- Interest/dividends are passed through to unit holders (monthly or semi-annually for bond UITs). Capital gains (if any) are also distributed or realized at termination.

# Categorization of mutual funds

Mutual funds can further be categorized in different forms  
i.e.

- By fees charged,
- investment objective,
- investment style,
- geographical focus etc.

# Categorization by Fees charges

## Load funds vs. No load funds

**Load Funds:** Charge a sales load (commission) when shares are purchased and/or sold. The load compensates the broker/advisor/distributor for advice, marketing, and distribution.

**No-Load Funds:** Do not charge a sales load (front-end or back-end). Investors buy shares directly from the fund company or through platforms without paying a commission to a salesperson.

# Investment objective

## ***THE FUND'S BROAD OBJECTIVES***

The *primary objectives* of any fund would fit into one of three broad categories:

1. *Income.* The emphasis is on producing a steady flow of dividend payments.
2. *Capital Gains.* The manager concentrates on increasing the value of your principal through appreciation of the stocks held.
3. *Income and Capital Gains.* Some combination of the first two approaches.

Many funds will also list *stability* or *capital preservation* as an ancillary goal.

# Stock/ Equity Funds

## **Equity funds/stock fund;**

Equity funds invest a maximum part of their funds into equities holdings. The structure of the fund may vary different for different schemes and the fund manager's outlook on different stocks.

Aim to provide growth and capital appreciation over the long term.

The various subclassifications of equity funds include;

### Small company funds

Invest in companies with relatively low market "caps"

### Growth funds

Invest in larger, growth companies. Primary emphasis is on capital appreciation.

### Equity income funds

Focus on equities with high dividends yields.

# Stock/ Equity Funds

## ❑ Hybrid funds

These are not pure equity funds. Some have a fairly heavy bond orientation.

## ❑ Specialty funds

Have a specific investment focus. For example, holdings might be confined to companies meeting certain ethical criteria or in a particular geographic location.

## ❑ Sector funds

A kind of specialty fund focusing on a specific stock group. Typically limited to firms within a single industry like health care, manufacturing etc.

## ❑ Stock market index funds

Hold the same or similar stocks as we would be found in a particular market index like the Standard & Poor's 500.

## ❑ International funds

Invest in foreign stocks, usually from several countries.

# Debt Funds

- Debt mutual fund schemes are suitable for investors who want steady returns.
- They are less volatile and, hence, considered less risky compared to equity funds.
- Debt mutual funds primarily invest in fixed-interest generating securities like corporate bonds, government securities, treasury bills, commercial paper and other money market instruments.
- These funds ensure low risk and provide stable/regular income to the investors

# Money Market Funds

- These funds aim to provide easy liquidity, preservation of capital and moderate income.
- A money market fund invests in a pool of short-term, interest-bearing securities such as treasury bills, certificates of deposit, commercial paper, etc.
- Money market funds are most appropriate for short-term investment and savings goals or in situations where you seek to preserve the value of your investment while still earning income.
- These schemes are used mainly by institutions and individuals to park their surplus funds for short periods of time.
- These funds are more or less insulated from changes in the interest rate in the economy and capture the current yields prevailing in the market.

## Balanced Funds/ Hybrid funds

- These are the funds that aim at allocating the total assets with it in the portfolio mix of debt and equity instruments.
- Balanced funds provide investor with an option of single mutual fund that combines both growth and income objectives, by investing in both stocks (for growth) and bonds (for income).
- Balanced funds are also called equity oriented funds and their tax treatment is similar to an equity fund.
- Their average returns and risk profile fall somewhere in between growth and debt funds.

## Categorization based on investment style

### Passive/Index Funds

- Index Funds invests in companies that constitute the index and in the same proportion, in order to replicate a specific market index and provide a rate of return over time that will approximate or match that of the market which they are mirroring subject to tracking error.

Advocates of unmanaged, passive investing--sometimes referred to as indexing--have long argued that the best way to capture overall market returns is to use low-cost market tracking index investments. This approach is based on the concept of the efficient market, which states that because all investors have access to all the necessary information about a company and its securities, it's difficult if not impossible to gain an advantage over any other investor. As new information becomes available, market prices adjust in response to reflect a security's true value. That market efficiency, proponents say, means that reducing investment costs is the key to improving net returns.

- No active selection of any stock / sector i.e., securities selected based on an index
- Attempts to match benchmark performance
- Infrequent trading tends to minimize portfolio expenses
- Portfolio is modified every time index composition changes.

## Active Funds

Proponents of active management believe that by picking the right investments, taking advantage of market trends, and attempting to manage risk, a skilled investment manager can generate returns that outperform a benchmark index.

For example, an active manager whose benchmark is the Standard & Poor's 500 Index (S&P 500) might attempt to earn better than-market returns by overweighting certain industries or individual securities, allocating more to those sectors than the index does. Or a manager might try to control a portfolio's overall risk by temporarily increasing the percentage devoted to more conservative investments, such as cash alternatives.

- Invests in securities and sectors that may offer a better return than the index.
- Actively manage the allocation to market securities and cash.
- May perform better or worse than the market index.
- Incur a higher cost than passive funds.

## Investor Returns from Mutual Fund Ownership

- The return an investor gets from investing in mutual fund shares reflects three aspects of the underlying portfolio of mutual fund assets.
- First, income and dividends are earned on those assets.
- Second, capital gains occur when assets are sold by a mutual fund at prices higher than the purchase price.
- Third, capital appreciation in the underlying values of the assets held in a fund's portfolio add to the value of mutual fund shares. With respect to capital appreciation, mutual fund assets are normally marked-to-market daily.
- This means that the managers of the fund calculate the current value of each mutual fund share by computing the daily market value of the fund's total asset portfolio and then dividing this amount by the number of mutual fund shares outstanding.
- The resulting value is called the net asset value (NAV) of the fund. This is the price the investor gets when selling shares back to the fund that day or buying any new shares in the fund on that day.

# Net Asset Value

- The term "net asset value," which is frequently used in regard to mutual funds, is used to calculate the worth of the assets owned.
- The Net Asset Value (NAV) is the market value of a share in a specific mutual fund and is frequently linked to investments in mutual funds.
- The net asset value, or NAV, of a mutual fund is calculated by dividing its net assets by the total number of outstanding units.
- Mutual fund NAV formula:  $NAV = (\text{Assets} - \text{Liabilities}) / \text{Total Number of Outstanding Units}$

# Net Asset Value

The assets include the value of securities held and liquid cash, equity, debentures, bonds, exchange bills, commercial papers, any interest or dividend earned.

The liabilities include expenses in the form of money payable, interest payable, fund management expenses etc. Fund Managers calculate the NAV of a mutual fund at the end of the market day.

Suppose an equity mutual fund scheme reports the following at the end of its trading day. Compute the fund's NAV

Cash and equivalent holdings:	\$2,400,000
Stocks held and market prices	
10,000 shares A Co. @ \$50	
20,000 shares B Co. @ \$30	
50,000 shares C Co. @ \$08	
Liabilities:	\$ 1,150,000
Fund shares outstanding	\$ 800,000

## Impact of capital appreciation on NAV



Suppose a mutual fund contains 2,000 shares of Tesla, currently trading at \$45.50, 1,000 shares of Exxon/Mobil currently trading at \$91.25, and 1,500 shares of Amazon currently trading at \$33.75. The mutual fund currently has 15,000 shares outstanding held by investors. Compute the NAV of the fund today.

If next month Tesla shares increase to \$50, Exxon/Mobil shares increase to \$95, and Amazon shares increase to \$45, Compute the NAV (assuming the same number of shares outstanding)

## Factors to consider before investing in mutual funds

- Investing in mutual funds can be a solid way to build wealth through diversification and professional management, but it's not a one-size-fits-all decision.
- **Some factors to consider include;**
- Investment goals/objectives
- Risk tolerance
- Investment horizon
- Fund performance
- Fees and costs etc.



