FINAL SUMMER INTERNSHIP REPORT

Name of the organization: JPMorgan Chase & Co.

Completed in partial fulfillment of the requirement of MBA Program.

Submitted to:

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Submitted by:

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Roll number: 191420

Batch: MBA FT (2019-21)

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JPMORGAN CHASE & CO.

Project Title	Overview of Financial Instruments
Company Name	JPMorgan Chase & Co.
Company Address	Paradigm Towers- B Wing, Mindspace, Malad (W), Mumbai, Maharashtra- 400064
Purpose of the report	To report the work done at JPMorgan Chase & Co. as a part of Summer Internship

ACKNOWLEDGEMENT

I would like to express my gratitude towards all the people who guided, mentored and inspired me while I was doing my project.

I would like to thank the **Institute of Management, Nirma University** for presenting an opportunity to me to be able to apply my theoretical knowledge in the corporate world. The university made me qualified enough to get such a great opportunity and perform to my best level. I would also like to thank **Prof. Parag Rijwani** who guided and mentored me throughout the internship, solved my doubts and inspired me to do better.

I am grateful to **JPMorgan Chase & Co.** for making me a part of the wonderful organization. Despite unfavorable conditions, the company gave us one of the best holistic experiences, although a virtual one. The company expanded my horizons of knowledge in the domain of finance. It provided me in depth knowledge and also taught us how to apply theoretical knowledge in the practical world.

I would also like to express my sincere and deepest gratitude towards my manager & my buddy who helped me with my projects **"Overview of the Financial Instruments" and "Impact of digitalization on Asset and Wealth Management".** The project allotted by him helped me gain significant knowledge. Despite his busy schedule, he was always available to solve my doubts, guide me and helped me explore all the dimensions of the project.

Overall, this internship is one of the biggest steps in my career path. It helped me in my overall growth and development.

DECLARATION

I, Divya Chugh hereby declare that the Projects entitled **“Overview of the Financial Instruments” and “Impact of digitalization on Asset and Wealth Management”** submitted by me to **JPMorgan Chase & Co.** under the guidance of my manager and buddy as my Summer Internship Project is my original work and the interpretations drawn therein are based on material collected by myself.

Divya Chugh

191420

MBA FT 2019-21

EXECUTIVE SUMMARY

J.P. Morgan Chase and Co is one of the leading banks in the world. There are 6 internship programs that are provided by the organization. I was selected in **CADP program** which stands for Corporate Analyst Development Program. In corporate analyst development, there were **2 lines of business**: Asset and Wealth Management & CIB (Corporate Investment Business). I worked under Asset and Wealth Management domain and within that also, I was associated with **Wealth Management.**

We were given online trainings which gave us an overview of the finance industry. It had 65 topic which briefed about different finance topics related them with the real life example also.

I received two academic projects for which I did in-depth research and accumulated lot of information and data. The first project was **"Impact of Digitalization on Asset and Wealth Management". It contained** an overview of the various digitalization initiatives which have made a mark within the Asset and Wealth Management world. I also elaborated about technology initiatives that have benefited industry; client and overall financial world and the challenges which these inventions have given rise to in terms of compliance and regulatory norms. The project acted as a repository for the operations and the technology world enabling them to understand how digitalization has brought an evolution in the world of Asset and Wealth Management.

My second project was **"Overview of Financial Instruments". It contained** the information regarding all the instruments mainly: Equity, Fixed Income and alternative instruments like hedge funds and mutual funds, with various examples and past instances related to it. The project was made elaborative and eye catchy by stating relevant examples.

Due to the virtual internship, I couldn't work solely on the functional project but I assisted my buddy and team members by helping them make presentations and accumulate the data. The team works at the back office to ensure that all the **operations are carried out efficiently** and smoothly. There are various tools and technologies applied to make the work efficient and effective, to decrease the manual interaction and the time consumed during the processes.

I had a host of helpful people around me who helped me understand the functions, operations and working of the organization. The internship was **all-inclusive** which provided me detailed trainings, helped me comprehend my knowledge in the academic projects and then to be able to apply it in the functional project.

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PART B

1. TRAININGS

I started with my (9weeks) Internship on 6th April 2020 with a virtual induction followed by a comprehensive training program on the website which was for a span of 15 days. Each PPT was of 40-50 pages which consumed a couple of hours to complete. Each PPT had an assessment after it in which we had to score minimum 75%.

The intuition platform on which we had to complete our trainings had 65 mandatory courses which have given an overview of finance.

- ✓ **Life of a trade**: from pre-trade, execution, clearing, and settlement; all the processes have been elaborated and described separately in different PPT chapters.
- ✓ Courses like **asset types**, alternative assets, operational risk, liquidity risk, market risk, credit risk in asset management have given an entire view of the asset management domain.
- ✓ From the **money market, bond market, to equity market**; it gave knowledge about how all assets are issued and traded, their maturity period, and the risk associated with them.
- ✓ What changes **Financial Crisis** brought to the banking institutions and how different acts like the Dodd-Frank act is regulated the market now.
- ✓ The UK and U.S. mutual funds, types of it, its investment, and all the topics were covered in depth with lot of examples and cases.
- ✓ Municipal Bond Market, Corporate bond, Sovereign Bond; such fixed income instrument were also covered which gave me knowledge of investment.

All such courses were covered in the training program which helped me develop confidence and a knack of learning the same in-depth.

Note: I have attached an excel file of all the trainings that we completed.

We had other 15 courses also which elaborated about the policies, privacy and culture of the organization. These were compulsory learning and was a way to comply with the condition and policies of the organization.

2. ZOOM LERANING SESSIONS

There were multiple zoom sessions everyday for 3-4 hours for different purposes. As we didn't have a chance to see the operational work, we had sessions for all the activities, tasks and operations conducted by the organization, so that we get an overview and gist of how the organization works. JPMC has never lockdown affect us. Despite sitting at home we are getting the corporate experience.

The sessions were:

- ✓ Along with the training, we had meetings scheduled on Zoom like **Firmwide intern session** for our induction, the history of JPMC (India), Employee Relation, Class Captain Catch-up, Introduction to NextGen BRG.
- ✓ We also have learning sessions of **3 hours every Thursday** to brief us on topics like Culture, Transaction Lifecycle, Science behind the project, Emotional Intelligence, and Wealth Management.
- ✓ There are additional learnings also which were taken by senior managers.
- ✓ We had 6 sessions from **executive director who were from different LOBs**. These sessions were conducted to give an overview of the functions & operations carried out in the organization. All the senior managers were very interactive and encouraged all our questions.
- ✓ We had sessions which were taken by **old Interns** so that they can guide us how to work and stay updated with the technology to be able to deliver better to the organization.
- ✓ To increase our network with other interns, a '**Virtually Humane'** program has been launched in which we are allotted with fun activities that help us break the ice with our colleagues.
- ✓ There were sessions on **philanthropic initiatives** that the company has taken such as cleaning the lakes.

3. PROJECT WORK

THE FINANCIAL INSTRUMENTS

Investment Vehicle

Financial Market

Equity financing

Debt issuance

FINANCIAL INSTRUMENTS

- A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.
- It includes cash, deposits in other entities, trade receivables, loans to other entities, investments in debt instruments, investments in shares and other equity instruments.
- Financial Instruments are traded on different platforms.

❖ **Direct investments** are those in which the **investor** owns the particular assets himself, while **indirect investments** are investments made in vehicles that pool investor money to buy or sell assets

Traditional Exchange

- The financial instruments of **the listed companies** are traded on traditional stock exchange such as NYSE, NASDAQ OMX.
- A **primary market** where companies looking to raise equity capital can issue shares of stock to investors
- A **secondary market** where this stock, once issued, can be bought and sold.

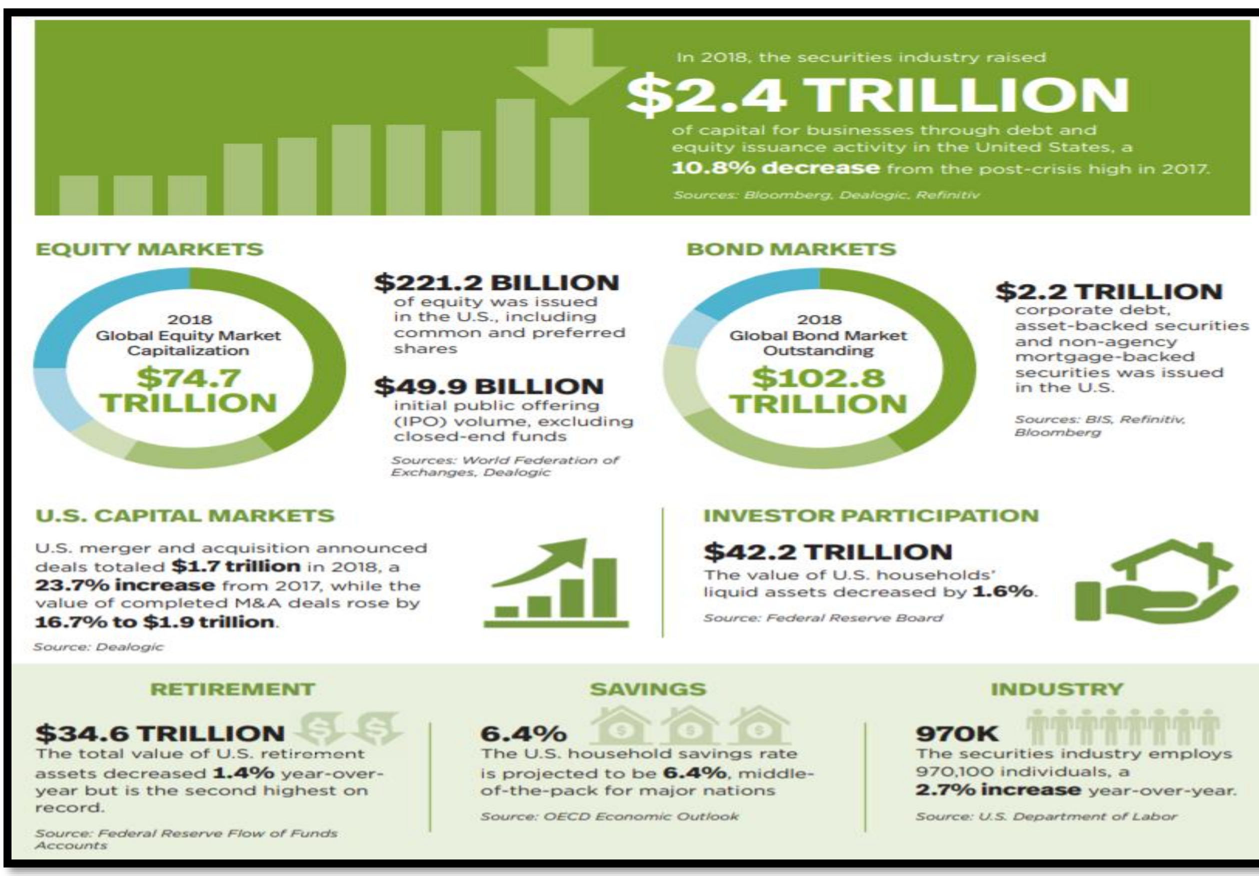
OTC

- Over-the-counter refers to the process of how securities are traded for companies that are not listed on a formal exchange.
- Securities that are traded over-the-counter are traded via a broker-dealer network.

Dark Pools

- Other Off-Exchange Trading Venues do not list stocks themselves, but compete with traditional exchanges by providing an alternative venue for trading stocks listed elsewhere.
- Example: Alternative trading systems (ATS) in the US, Multilateral trading facilities (MTFs) in Europe

CAPITAL MARKET FACTS



EQUITY SHARES

Common Stock	• Also known as common shares, ordinary shares, or voting shares, Issued without maturity date • It is main type of equity security issued by companies, representing the largest portion of equity securities by market value.
Cash Flow Rights	• Companies often pay out a portion of their profits each year to their shareholders as dividends • declared by the **board of directors** and vary according to the company's performance, its reinvestment needs, and the management's view on paying dividends
Par Value	• Par value is the face value of a bond. • Par value doesn't have connection with the market value • Par Value is usually very low: 1 cent in U.S. market.
Trading	• Public companies are traded on stock exchange that facilitates trading at fair price • Private companies don't trade on stock exchanges
Voting Rights	• Shareholders do not typically participate in the day-to-day business decisions of large companies but with voting rights collectively elect a group of people, called the board of directors. • Shareholders get right to vote on certain decisions like acquisition require approval of the shareholders; in portion to the size of ownership stake.
Limited Liability	• By legally separating the shareholders from the company, an individual shareholder's liability is limited to the amount he or she invested. • The first modern limited liability law was enacted by the state of New York in 1811, while the Limited Liability Act 1855 allowed limited liability for public companies in the UK.

DIVIDENDS

1. **Cash Dividend**

   – Dividend payments are normally expressed as a cash amount per share.

   – Dividends are usually paid out on **a quarterly or semiannual basis,** but can also be paid out annually or even monthly depending on the company.

2. **Stock/Scrip Dividend**

   – These dividends pay out stock instead of cash. Each shareholder receives additional shares in the issuing company in proportion to shares owned.

   – Similar to **stock splits** in that both increase the number of shares outstanding and reduce the value of each share.

3. **Property Dividend**

   – These take the form of any asset with tangible value (usually **products or services** that the company produces).

   – Property dividend payments are relatively rare.

4. **Special Dividend**

   – Occasionally, companies may declare a special one-time dividend, which is in **addition to regular dividends**.

   – Special dividends can occur for a variety of reasons, such as very strong earnings results or the disposal of a subsidiary.

EXAMPLES:

- **Google & Amazon** have ever made any dividend payments to investors.
- **Microsoft** never paid a single dividend until 2003, but has paid regular dividends since then.
- Another tech giant, **Apple**, has been paying regular dividends since July 2012, but prior to that it had not made a single dividend payment since 1995.
- **Warren Buffett's Berkshire Hathaway** has never paid a dividend in its entire history as the company is such an active acquirer of businesses that retaining cash flow is a key element of its success.
- By contrast, **Coca-Cola** has made hundreds of consecutive quarterly dividend payments since 1920.

- After a loss, companies that have historically paid regular dividends, sometimes choose to retain cash by **passing the dividend. Nokia**, the once-powerful Finnish mobile phone manufacturer, withheld a dividend payment for the first time in its **148-year history in early 2013** triggered a strong reaction from shareholders, with its **stock price sliding by 5.5%.**

DUAL/MULTIPLE CLASSES

Many companies have a single class of common stock and **follow the rule of "one share, one vote".** Some companies may issue different classes of common stock that provide **different cash flow and voting rights.** The main reason for a dual-class share structure is to retain the voting power within a certain group of shareholders. In the US, dual classes of common stock are typically denoted as "Class A" and "Class B" shares. One of those classes (usually, but not always, Class A) will have "supervoting" powers. Dual classes often emerge when the founders of a privately-held company wish to expand economic ownership by going public but without ceding control.

EXAMPLE1: As of May 2012, **Berkshire Hathaway, a US company,** has two classes of common stock: Class A (NYSE: BRK.A) and Class B (NYSE: BRK.B). In terms of cash flow rights, one Class A share is equivalent to 1,500 Class B shares. But the ratio of the voting rights of Class A shares to the voting rights of Class B shares is not 1,500:1. Voting rights for 1 Class A share are equivalent to the voting rights of 10,000. Class B shares. BRK.A BRK.B Cash flow rights 1 = 1,500 Voting rights 1 = 10,000.

EXAMPLE2: Dual-class share structures have been quite common in recent times, with high-profile tech companies such as **Facebook, Google, LinkedIn, and Groupon** preferring such a structure when going public.

PREFERENCE SHARES

- Preferred shareholders receive **preferential treatment** in some respects. Owners of preferred **stock receive dividends before common shareholders**. They also has a higher claim **on the company's assets** compared with common shareholders if the company ceases operations. Preferred shareholders are **not entitled to voting rights and have no ownership** or residual claim on the company. Preferred shares are typically issued with an assigned par value, along with a **stated dividend rate**. Multiple preferred stock issues (or rounds) are referred to by series.

- **Cumulative preference shares:** The Company is obliged to **compensate cumulative preferred stockholders** for any missed dividends before any payments are made to common stockholders. **Dividends accrue** even though they are not actually paid. If a company is short of cash, the payment of dividends may be suspended until the situation improves. For noncumulative shares, the **dividend is forgone forever.**

- **Redeemable Preference Shares:** Preferred stock may be perpetual or have a fixed maturity date (usually very long-term). Some issues are redeemable: the issuer has the option to buy the stock back

- **Convertible Preference Shares:** Holders of convertible preferred stock have the option to convert the shares into common stock using a predetermined formula. Mandatory convertible stock is automatically converted into common stock at pre-specified dates. Convertible preferred stock is also usually callable in which issuer call the stock & force preferred stockholders to choose between accepting either par value or shares of common stock (forced conversion).

Stanley Black & Decker, Inc. (NYSE: SWK)

Remarketing & pricing of 7,50,000 shares of **Series C Cumulative Perpetual Convertible Preferred Stock**

- On 7th may 2020, it started with remarketing & announced the pricing.
- The shares were originally issued on May 17, 2017 as part of the Company's corporate units.
- Had no par value.
- Liquidation preference fixed at $1,000 per share (the "Convertible Preferred Stock").

Prior to remarketing, the Convertible shares were entitled to:

- Didn't bear any dividends
- Was convertible only upon the occurrence of certain fundamental change events
- The conversion rate was 6.2001 shares of the Company's common stock per share, which was equivalent to a conversion price of approximately $161.29 per share of the Company's common stock
- Was redeemable from and after June 22, 2020 (100% of liquidation price + unpaid/accumulated dividend)

After remarketing, the shareholders will be entitled to

- Cumulative Dividends quarterly in arrears at a fixed rate equal to 5% per annum of the $1,000 per share (including, May 15, 2020 to, but excluding, May 15, 2023)
- 10.000% per annum of the $1,000 per share (including May 15, 2023)
- The earliest redemption date applicable to the Convertible Preferred Stock will be May 15, 2021
- An initial conversion rate of 6.7352 shares of the Company's common stock per share of the Convertible Preferred Stock, which is equivalent to an initial conversion price of approximately $148.47 per share of the Company's common stock

WARRANTS

- A warrant gives the holder the right, but not the obligation, at some time in the future to exercise the warrant and purchase a number of shares at a **pre-agreed (strike/exercise) price**. Warrants typically have expiration dates **several years into the future.** It is to generate immediate revenue in exchange for **potential future obligations,** which also causes **dilution** as pool of profit will be shared more broadly. A company may issue warrants to investors to **raise capital or to employees as a form of compensation** referred to as employee stock options. Companies may attach warrants to a preferred stock issue to make it more attractive. These are known as **sweeteners** as it allows the **issuer to offer a lower annual fixed dividend on a preferred stock issue**.

Making Money from Warrants & Preferred Stock

- In 2008, at the height of the financial crisis, **Berkshire Hathaway** (the investment company of Warren Buffett) purchased **USD 5 billion perpetual preference shares** in **Bank of America** that paid a dividend of 10%. It also bought warrants on USD 5 billion shares at a low strike price.
- At the time, the bank was in need of a capital injection. But it retained the right to repurchase the preferred stock at a 10% premium, which it did when profitability returned in 2011.
- Berkshire Hathaway thus made a profit of USD 500 million from the shares, as well as receiving a dividend of USD 500 million per year.
- In 2013, following a rise in the bank's stock price, Berkshire Hathaway it exercised its warrants. This was done in a cashless transaction using the implicit profits (difference between the market price and strike price).
- Berkshire Hathaway received an equity stake in the bank worth over USD 2 billion without spending a single cent

DEPOSITORIES

- Depositary receipts (DRs) are negotiable instruments issued by **depositary banks (custodians)** that represent ownership of a specified number of **shares of a foreign company**; like a common share on a domestic stock exchange. The transaction costs associated with purchasing depositary receipts are **significantly lower than the costs** of directly purchasing the stock on a foreign country's stock exchange. It allows domestic investors to purchase foreign stocks using an instrument denominated in their **own currency.** The receipts **trade independently** of the underlying shares, has **no maturity date. Dividends and voting rights** usually transfer to DR holders.

•The ordinary shares of Vodafone, a UK company, trade on the London Stock Exchange. The company's stock trades on the NASDAQ exchange in the United States in the form of an American Depositary Receipt (ADR).
•The Bank of New York Mellon (BNY Mellon) holds the shares in custody and issues ADRs of Vodafone.
•The ADRs of Vodafone are available for US and international investors, quoted in US dollars, and each one is equivalent to 10 ordinary shares.
•Unusually, ADR shareholders can instruct BNY Mellon on the exercise of voting rights relative to the number of ordinary shares represented by their holding of ADRs.

Depositary receipts originated as **ADRs**(American Depositary Receipts) **in USA in 1927**, but the concept spread as issuers discovered the advantages in making their shares available to investors elsewhere.

Global depositary receipts (GDRs) are used to access two or more markets around the world, and are typically issued by emerging market companies and sold to professional investors only

Other variations include depositary receipts traded in Europe (EDRs), China (CDRs), Japan (JDRs), and Hong Kong (HDRs).

CORPORATE ACTIONS

- **Seasoned Equity:** Selling of additional shares to raise more capital after an IPO is referred to as a seasoned or secondary equity offering. It has far lower costs associated with it compared with an IPO. It increases the number of shares outstanding by 5%-20%. For an existing investor who does not buy additional shares in the seasoned equity offering, the increase in shares outstanding dilutes the investor's ownership percentage

- **Repurhcase/Buyback:** Companies may choose to return cash to shareholders by repurchasing shares rather than paying dividends. A company can buy shares on the open market or it can make a formal offer for repurchase directly to shareholders. Repurchased shares are either cancelled or kept and reported as treasury stock. It increases the company's earnings per share because net income will be divided by a smaller number of shares. For an existing investor who does not sell shares, the decrease in the number of shares outstanding effectively increases that investor's ownership percentage.

- **Stock split/Reverse stock split:** It is when a company replaces one existing common share with a specified number of common shares. Stock splits increase the number of shares outstanding, but they do not change any single shareholder's proportion of ownership. The overall value of the company won't change, so the price of each share should decrease, making it more affordable to investors. Companies with very low stock prices may conduct a reverse stock split to increase their stock price to meet minimum level dictated by the exchange. The company reduces the number of shares outstanding.

CASES

BIGGEST IPO

In Dec 2019, **Saudi Aramco** completed the largest initial public offering (IPO) in history by **raising $25.6bn for a 1.5% stake in the company.**

This overtakes the $25bn Alibaba raised for its IPO in 2014.

The state-owned oil giant sold three billion shares at SAR32 ($8.53) each to raise the $25.6bn. This values Saudi Aramco at $1.7tn, making it the most valuable company in the world.

RIGHT ISSUE

RIL made Right Issues which is priced at Rs 1,257 per share with a share ratio at 1:15.

The issue amount is Rs 53,125 crore.

Of the Rs 1,257 per share price, only 25 per cent is to be paid at the time of subscription.

25% will be due for payment in May 2021 and the balance 50% for November 2021.

APPLE STOCK SPLIT

In June 2014, Apple Inc. (NASDAQ: AAPL) split its shares 7-for-1 to make it more accessible to a larger number of investors.

Before the split, each share was trading at $645.57, after split: $92.70.

Existing shareholders were also given six additional shares for each share owned.

Apple's outstanding shares increased from 861 million to 6 billion shares, however, the market cap remained largely unchanged at $556 billion.

The day after the stock split, the price had increased to a high of $95.05 to reflect the increased demand from the lower stock price.

REVERSE STOCK SPLIT

In April 2020, **Chesapeake** completed a 1-for-200 reverse stock split as it struggled to maintain its listing on the New York Stock Exchange being bad news for investors. It's often the last stop for **a troubled company before bankruptcy and delisting**. Some recent examples include Blue Apron Holdings Inc (NYSE: APRN), Aurora Cannabis Corp (NYSE: ACB), Rite Aid Corp. (NYSE: RAD)

REVERSE STOCK SPLIT

On 21 March 2011, **Citigroup**, a US company, announced a 1-for-10 reverse stock split effective after the close of trading on 6 May 2011.

Before the split, Citigroup had 29 billion shares outstanding which decreased to 2.9 billion shares after stock split.

The closing stock price of Citigroup on 6 May was $4.52.

On 9 May, the opening stock price was $44.89; being about ten times the pre-split price of $4.52.

BUYBACK

In 2016, **Walt Disney (DIS)** reduced its number of outstanding shares in the market by buying back 73.8 million shares, collectively valued at $7.5 billion.

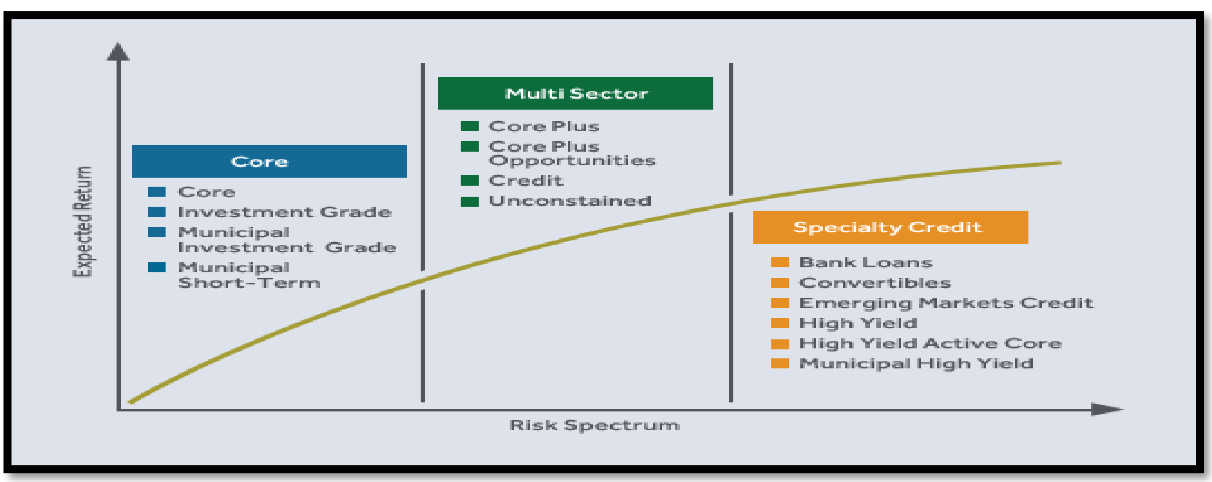
BUYBACK

A wave of stock buybacks swept the United States in 2010 and 2011 when the economy was undergoing a nascent recovery from the Great Recession.

These companies invested in themselves by repurchasing shares, hoping to capitalize when share prices finally began to reflect new, improved economic realities.

FIXED INCOME INSTRUMENTS

Fixed-Income securities are debt instruments that pay a fixed amount of interest, in the form of coupon payments to investors. It has multiple risks associated with it such as: Reinvestment risk, Call/prepayment risk, Credit risk, Inflation risk, Liquidity risk, Exchange rate risk, Volatility risk, Interest rate risk.

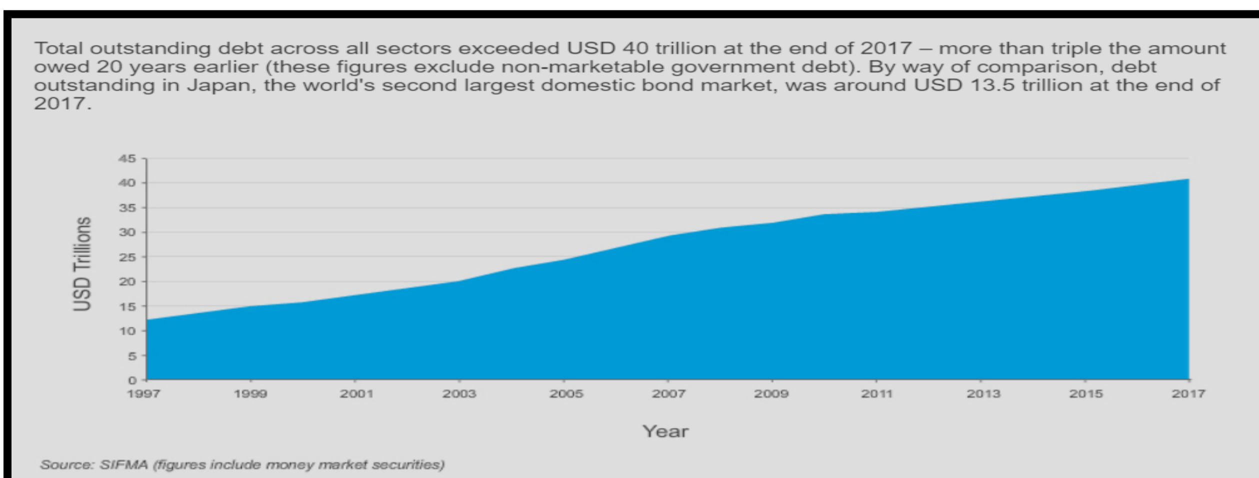


BOND MARKET

Debt securities (bonds)	• When a large company or government borrows money for a period of time at fixed/floating rate. • A bond is a **fixed income instrument** that represents a loan made by an investor to a borrower.
Contractual obligation	• Debt securities represent a **contractual obligation** of the issuer to the holder of the debt security. • The legal contract is sometimes referred to as the **bond indenture or offering circular.**
Different Features	• Each of these bond issues has **different features attached to it**, which affect the bond's expected **return, risk, and value.**
Default	• When the issuers the issuer fails to meet the contractual obligations and make the promised payments.
Legal Right	• The issuer does not meet the contractual obligations and make the promised payments.

US MARKET CAPITALIZATION

The US bond market is by far the largest and most important domestic bond market in the world. The country's debt burden has risen substantially in recent years, raising concerns about its long-term financial health.



COUPON RATES

- **Fixed Rate Bond:** The main type of debt securities issued by companies and governments, also called Bullet bonds (straights). They are issued with fixed coupon rates and payments. Even if interest rates in the market change or the issuer's creditworthiness changes, coupon pay doesn't change. A fixed-rate bond has a finite life that ends on the bond's maturity date. The bond issues with longer times to maturity have higher coupon rates. It has a par value that does not change.

- **Floating bond rate:** The coupon rate variable-rate bonds or floaters changes over time. It is linked to a reference rate. **Eg: The London Interbank Offered Rate (Libor).** The floating rate is equal to the reference rate + a percentage that depends on the borrower's creditworthiness or riskiness and the bond's features. The percentage paid above the reference rate is called the spread. The reference rate does change over time with changes in the level of interest rates in the economy but the spread doesn't change. **Floating rate = Reference rate + Spread**. The Verizon offering included two tranches of FRNs priced with reference to LIBOR.

- **Zero Coupon Bond:** It has a finite life & do not offer periodic interest payments during the life of the bond. Issued at a discount to the bond's par value: at an price that is lower than the par value. The difference between the issue price and the par value received at maturity represents the investment return earned by the bondholder. Many debt securities issued with maturities of one year or less are issued. Because of the risk involved, investors are reluctant to buy zero-coupon bonds with long terms to maturity. Eg: Treasury bills issued by the US government are issued as zero-coupon securities. Companies and governments sometimes issue zero-coupon bonds that have maturities of longer than one year.

BONDS WITH EMBEDDED PROVISION

Callable Bond

- Gives the issuer the right to **buy back** (retire or call) **the bond issue prior to the maturity date**, at a pre-specified price regardless of the call date, referred to as the call price.
- The call price typically represents the **par value** of the bond plus an amount **referred to as the call premium**.
- The call provision is a **benefit to the issuer** and is an adverse provision from the perspective of bondholders
- Consequently, the **coupon rate on a callable bond will generally be higher** than a comparable bond without an embedded call provision to compensate the bondholder for the **call risk** that the bond may be retired early.
- For most callable bonds, the bond issuer cannot exercise the call provision **until a few years after issuance**.

Putable Bonds

- Gives the bondholder the right to **sell (put back)** the bond back to the issuer prior to the maturity date, at a pre-specified price(typically the bond's par value) referred to as the **put price**.
- Bondholders might want to exercise this right if **market interest rates rise** and they can earn a higher rate by buying another bond that reflects the interest rate increase.
- The inclusion of a put provision is an **advantage to the bondholder** and a disadvantage to the issuer.
- Consequently, the **coupon rate on a putable bond will generally be lower** than the coupon rate on a comparable bond.
- Putable bonds typically do not start providing bondholders with put protection until a few years after issuance.

Convertible Bonds

- It contains conversion provision that gives the bondholder the right to **exchange the bond for shares of the issuing company's stock** into a prespecified number prior to the bond's maturity date.
- It is a **hybrid security** has characteristics of and relationships with both equity and debt securities.
- It offers a **coupon rate that is lower** than the coupon rate on a similar bond without a conversion feature.
- **An exchangeable bond is which allows the holder to convert debt into the equity of a third party**.

TRANCHES

Secured Debt Securities

- The borrower, it pledges certain specific assets as collateral to the bondholders, generally a tangible asset, such as property, plant, or equipment.
- In the event of default, the bondholders are legally entitled to take possession of the **pledged assets**.

Unsecured debt securities

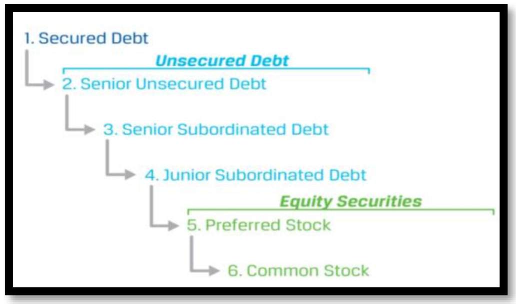
- These are not backed by collateral.
- Consequently, bondholders will typically demand a **higher coupon rate** on unsecured debt securities than on secured debt securities.

SENIORITY RANKING

- The ranking of an issuer's debt (or tranches of the same debt issue) can be distinguished between **senior** and **subordinated** (or junior) debt.
- In the event that the company is liquidated, assets are distributed following a priority of claims, or seniority ranking.

Covered Bonds (Europe)

- While the majority of bonds are issued on a senior unsecured basis, there are also significant covered bond markets.
- In a covered bond, an investor benefits from security in the form of a "cover pool" of high quality assets (usually mortgages) that are ring-fenced from the issuer's other assets.



RATINGS

- Third-party credit rating agencies (CRAs) rate all the bonds based on credit risk. CRAs are Moody's, Standard and Poor's (S&P), and Fitch.
- Each CRA uses its own ratings scale. Gradations of creditworthiness are indicated by: **ratings symbols**(such as Aaa or BBB), **modifiers** (+ or – sign by S&P and Fitch) & (1, 2, and 3 by Moody)
- A credit rating of BBB−/Baa3 or higher is categorized as **investment grade**, while ratings below this are regarded as **non-investment** or **speculative grade** (high yield or "junk" bonds)
- High yield bonds have a greater probability of default, **higher level of risk and thus higher yields.**

	Standard & Poor's	Moody's	Fitch
Investment Grade	AAA	Aaa	AAA
	AA+	Aa1	AA+
	AA	Aa2	AA
	AA–	Aa3	AA–
	A+	A1	A+
	A	A2	A
	A–	A3	A–
	BBB+	Baa1	BBB+
	BBB	Baa2	BBB
	BBB–	Baa3	BBB–
Non-Investment Grade	BB+	Ba1	BB+
	BB	Ba2	BB
	BB–	Ba3	BB–
	B+	B1	B+
	B	B2	B
	B–	B3	B–
	CCC+	Caa1	CCC
	CCC	Caa2	
	CCC–	Caa3	
		Ca	
		C	
			DDD
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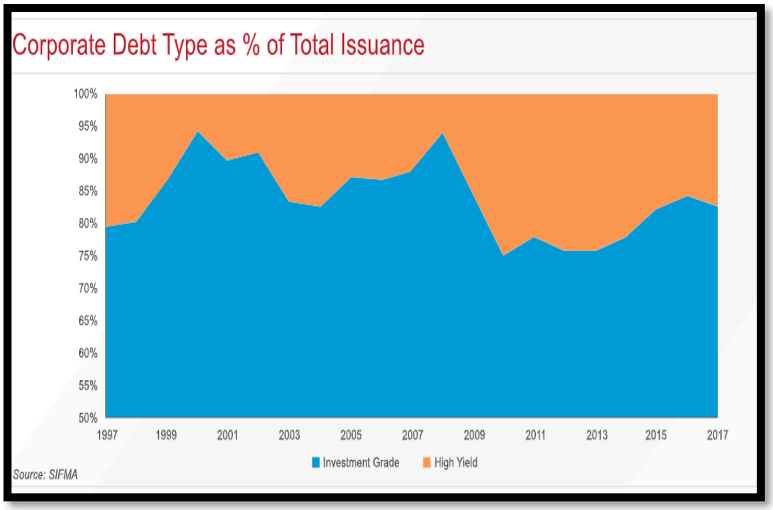
Creditworthiness

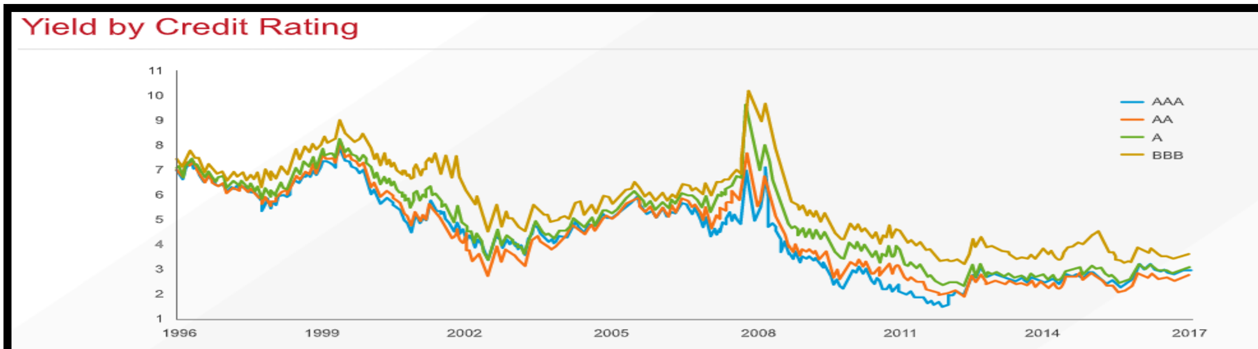
U.S MARKET CAPITALISATION

Of the USD 9 trillion of corporate bonds outstanding at the end of 2017, USD 6.5 trillion was investment grade



PRICE, YIELD, SPREAD

- **Clean price:** It excludes **accrued interest**, which is the amount of interest due since the last coupon payment date.
- **Dirty price:** It includes accrued interest and is the actual price paid by the buyer to the seller of a bond. ***Dirty Price*** *= Clean Price + Accrued Interest.*
- **Bloomberg or Thomson Reuters**: They quote bond prices on a clean price basis.
- **Yield**: Any difference between the amount paid for the bond and the cash flow received at redemption (that is, premium or discount) Yield is used to determine whether a bond is "cheap" or "expensive."
- **Inverse Relationship**: The price falls when the yield rises & vice-a-versa. The less an investor pays initially for the same cash flows, the greater the return must be.
- **Spread**: Investors expect more compensation where:
  - The maturity is longer, The underlying credit risk, in terms of the probability default (PD) and loss given default (LGD) is greater
- **Example:** Verizon provided 6.55% for the 30-year tranche compared to 2.5% for the 3-year series
- **Compensation:** Calculated through reference to a yield spread between the relevant bond and some benchmark rate.
- **Example:** The Verizon fixed rate notes were priced at various spreads over the equivalent-maturity US Treasury securities



Source: ICE Benchmark Administration Limited, Federal Reserve Bank of St. Louis.

UNDERWRITING

- Underwriting services are provided by some large financial institutions, such as banks, or insurance or investment houses, whereby they guarantee payment in case of damage or financial loss and accept the financial risk for liability arising from such guarantee.
- More commonly, particularly for large bond issues, underwriting is performed by a group or **syndicate** of underwriters.

SYNDICATE WRITING BY VERIZON

Underwriters	Principal Amount of Floating Rate Notes due 2016	Principal Amount of Floating Rate Notes due 2018	Principal Amount of Notes due 2016	Principal Amount of Notes due 2018
Barclays Capital Inc.	$ 353,250,000	$ 274,750,000	$ 667,250,000	$ 745,750,000
J.P. Morgan Securities LLC	353,250,000	274,750,000	667,250,000	745,750,000
Merrill Lynch, Pierce, Fenner & Smith Incorporated	353,250,000	274,750,000	667,250,000	745,750,000
Morgan Stanley & Co. LLC	353,250,000	274,750,000	667,250,000	745,750,000
Citigroup Global Markets Inc.	108,000,000	84,000,000	204,000,000	228,000,000
Credit Suisse Securities (USA) LLC	108,000,000	84,000,000	204,000,000	228,000,000
Mitsubishi UFJ Securities (USA), Inc.	108,000,000	84,000,000	204,000,000	228,000,000
Mizuho Securities USA Inc.	108,000,000	84,000,000	204,000,000	228,000,000
RBC Capital Markets, LLC	108,000,000	84,000,000	204,000,000	228,000,000
RBS Securities Inc.	108,000,000	84,000,000	204,000,000	228,000,000
Wells Fargo Securities, LLC	108,000,000	84,000,000	204,000,000	228,000,000
Deutsche Bank Securities Inc.	40,500,000	31,500,000	76,500,000	85,500,000
Santander Investment Securities Inc.	40,500,000	31,500,000	76,500,000	85,500,000
Total	$2,250,000,000	$ 1,750,000,000	$4,250,000,000	$ 4,750,000,000

Underwriters	Principal Amount of Notes due 2020	Principal Amount of Notes due 2023	Principal Amount of Notes due 2033	Principal Amount of Notes due 2043
Barclays Capital Inc.	$ 628,000,000	$ 1,727,000,000	$ 942,000,000	$ 2,355,000,000
J.P. Morgan Securities LLC	628,000,000	1,727,000,000	942,000,000	2,355,000,000
Merrill Lynch, Pierce, Fenner & Smith Incorporated	628,000,000	1,727,000,000	942,000,000	2,355,000,000
Morgan Stanley & Co. LLC	628,000,000	1,727,000,000	942,000,000	2,355,000,000
Citigroup Global Markets Inc.	192,000,000	528,000,000	288,000,000	720,000,000
Credit Suisse Securities (USA) LLC	192,000,000	528,000,000	288,000,000	720,000,000
Mitsubishi UFJ Securities (USA), Inc.	192,000,000	528,000,000	288,000,000	720,000,000
Mizuho Securities USA Inc.	192,000,000	528,000,000	288,000,000	720,000,000
RBC Capital Markets, LLC	192,000,000	528,000,000	288,000,000	720,000,000
RBS Securities Inc.	192,000,000	528,000,000	288,000,000	720,000,000
Wells Fargo Securities, LLC	192,000,000	528,000,000	288,000,000	720,000,000
Deutsche Bank Securities Inc.	72,000,000	198,000,000	108,000,000	270,000,000
Santander Investment Securities Inc.	72,000,000	198,000,000	108,000,000	270,000,000
Total	$4,000,000,000	$11,000,000,000	$6,000,000,000	$15,000,000,000

INVESTORS IN FIXED INCOME INSTRUMENTS

1. **Institutional**: Institutional investors tend to dominate bond markets. Investors include: Investment funds such as mutual funds, money market funds, and ETFs, Pension funds, Insurance companies, Banks, Hedge funds, Monetary authorities (central banks), State and local governments, Foreign governments and other overseas entities

2. **Retail**: Individuals may purchase bonds directly in some markets, but many retail investors access the bond markets via bond funds.

3. **Monetary authorities:** They are major investors in government securities to stimulate growth through quantitative easing (QE) policies. QE involves the purchase of financial assets,(usually bonds) by a central bank through the creation of new money ("printing money").

4. **ECB: The most important investor in European bonds:** At the height of the Eurozone crisis in 2012, ECB president Mario Draghi had to preserve the EURO. By 2015, short-term interest rates had become negative, and the ECB formalized the process of Quantitative Easing (QE). The 2015 Asset Purchase Program (APP) authorized ECB purchases across various bond markets, including sovereigns, corporate, covered bonds. At the end of 2018, ECB winded up the program, having bond holdings of **over EUR 2.6 trillion, including EUR 2.1 trillion of sovereign bonds** – about 25 to 30% of outstanding Euro zone debt.

5. **Foreign Investor:** Chinese Government has invested the most in the U.S. Treasury securities as it is safe haven to invest China’s substantial trade surpluses. It does this to influence USD/CNY exchange rate.

ISSUERS OF FIXED INCOME INSTRUMENTS

1. Government/sovereign entities:

These are the bonds issued by the sovereign. The return is decided on the basis of different features it holds. **On a global basis, government bond markets represent the largest sector.**

Due to Covid 19

- In May 2020, The U.S. auctioned a 20-year bond for the first time since 1986.
- The government sold $20 billion of the issue, the bond priced to yield 1.22%.
- Treasury was considering to issue an ultra-long bond of 50-100 years but to lack of demand, decided to issue 20 years bond which attracted many investors.
- Wells Fargo xpects the federal deficit to total $3.4 trillion for fiscal year 2020, and $2 trillion in 2021.

Treasury Bills	• T-bills are short-term debt obligations with maturities of up to one year. • T-bills are issued for terms of 4, 8, 13, 26, and 52 weeks.
Treasury Note	• T-notes are currently issued with maturities of 2, 3, 5, 7, and 10 years. • T-notes are interest-bearing securities that pay interest on a semiannual basis and mature at par value.
Treasury Bond	• T-bonds are US government securities with maturities greater than ten years. • They are commonly issued with a maturity of 30 years.
Treasury Inflation-Protected Securities	• Introduced in 1997, (TIPS) provide investors with protection against inflation. • Its principal is adjusted in line with inflation, as measured by the Consumer Price Index for All Urban Consumers (CPI-U). • TIPS are issued with maturities of 5, 10, and 30 years. TIPS pay interest semiannually at a fixed rate.
Floating Rate Note	• In 2013, the US Treasury introduced a FRN. • Its interest rate is indexed to the most-recent 13-week Treasury bill auction High Rate prior to the lockout period. As this interest rate rises, the FRN's interest payments increases and vice-versa.
Separate Trading of Registered Interest and Principal of Securities	• STRIPS let an investor hold and trade the interest and principal components of T-bills and T-notes as separate securities. • When a Treasury note, bond, or TIPS is stripped, each component becomes a separate zero-coupon security with its own identifying number so that it can be held or traded separately.

RECENT TREASURY BILL OFFERING

TREASURY NEWS

Department of the Treasury • Bureau of the Fiscal Service

Embargoed Until 11:00 A.M.
August 24, 2017

CONTACT: Treasury Securities Services
202-504-3550

TREASURY OFFERING ANNOUNCEMENT [1]

Term and Type of Security	2-Year Note
Offering Amount	$26,000,000,000
Currently Outstanding	$0
CUSIP Number	9128282T6
Auction Date	August 28, 2017
Original Issue Date	August 31, 2017
Issue Date	August 31, 2017
Maturity Date	August 31, 2019
Dated Date	August 31, 2017
Series	BF-2019
Yield	Determined at Auction
Interest Rate	Determined at Auction
Interest Payment Dates [4]	February 28 and August 31
Accrued Interest from 08/31/2017 to 08/31/2017	None
Premium or Discount	Determined at Auction
Minimum Amount Required for STRIPS	$100
Corpus CUSIP Number	912820334
Additional TINT(s) Due Date(s) and	None
CUSIP Number(s)	None
Maximum Award	$9,100,000,000
Maximum Recognized Bid at a Single Yield	$9,100,000,000
NLP Reporting Threshold	$9,100,000,000
NLP Exclusion Amount	$0
Minimum Bid Amount and Multiples	$100
Competitive Bid Yield Increments [2]	0.001%
Maximum Noncompetitive Award	$5,000,000
Eligible for Holding in TreasuryDirect®	Yes
Estimated Amount of Maturing Coupon Securities Held by the Public	$87,508,000,000
Maturing Date	August 31, 2017
SOMA Holdings Maturing	$3,197,000,000
SOMA Amounts Included in Offering Amount	No
FIMA Amounts Included in Offering Amount [3]	Yes
Noncompetitive Closing Time	11:00 a.m. ET
Competitive Closing Time	11:30 a.m. ET

[1] Governed by the Terms and Conditions set forth in The Uniform Offering Circular for the Sale and Issue of Marketable Book-Entry Treasury Bills, Notes, and Bonds (31 CFR Part 356, as amended), and this offering announcement.
[2] Must be expressed as a yield with three decimals e.g., 7.123%.
[3] FIMA up to $1,000 million in noncompetitive bids from Foreign and International Monetary Authority not to exceed $100 million per account.
[4] In 2020, the February interest payment date for the 5-year and 7-year notes will be February 29, 2020. In 2024, the February interest payment date for the 7-year notes will be February 29, 2024. All other February interest payment dates will be February 28.

2. Government agencies & municipal/local bodies

General Obligation Bonds

- It represents a promise by the issuer to levy enough taxes to make full & timely principal and interest payments to investors.
- They are normally issued to finance public works projects that are **non-revenue producing**, such as parks, schools, public buildings, & improvements to the local police force.

Revenue Bonds

- Principal and interest payments are secured by revenues generated by the project or facility being financed.
- Such facilities or projects include universities/colleges, airports, colleges/universities, hospitals, single family/multi-family housing, public power facilities, toll roads, and sewage & water treatment facilities.

Other forms of municipal debt

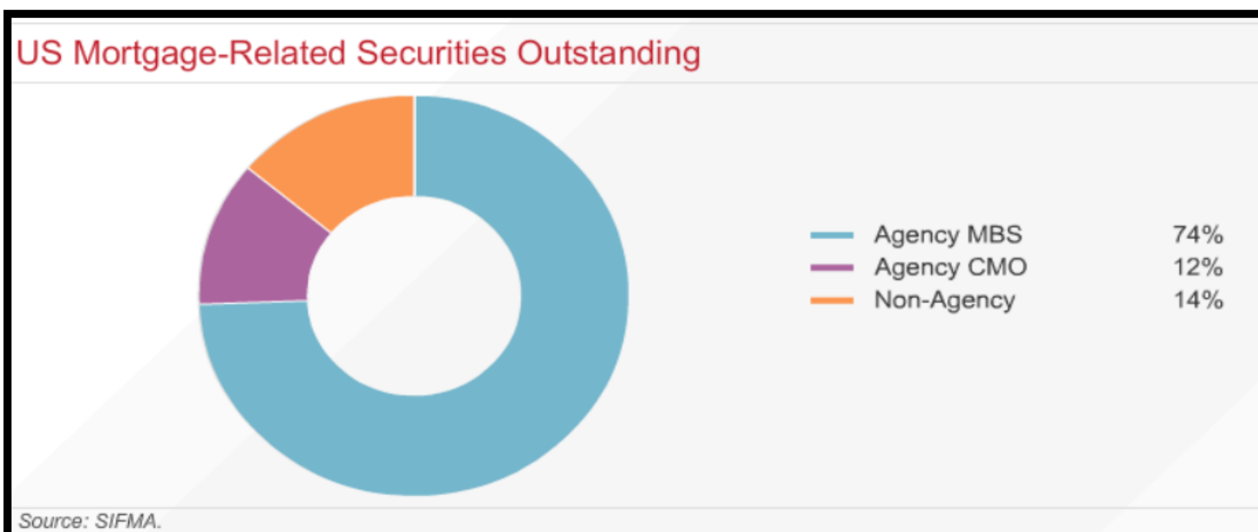
- Tax Anticipation Notes and Revenue Anticipation Notes, Certificates of Participation and Private Activity Bonds.

Municipal bonds are debt obligations issued by towns, cities, states, school district governments, and special district governments. Municipalities issue bonds to raise capital for their day-to-day activities and to finance specific projects such as: Public sector borrowers benefit from bonds that carry government guarantee. **KfW, a German government-owned** development bank, has benefitted from it.

There is a **large municipal bond ("muni") market in the US** whose total outstanding debt in the municipal bonds market was approx **USD 4 trillion** (at the end of 2017).

3. Securitization & special purpose vehicles (SPVs)

- Securitization is a structured process where interests in financial assets, such as loans, mortgages, or other receivables – are packaged, underwritten, and sold in the form of **asset-backed securities (ABS).**
- There is **no overall business entity** standing behind bond payments.
- Instead, revenue-producing assets are purchased by a special purpose vehicle (SPV) and collected into a **collateral pool.**
- The performance of the ABS is tied to the **performance of the pool** as its payments are supported by the revenues generated by it.
- The **residential mortgage-backed securities (RMBS) market accounts for the majority** of securitized transactions, the basic securitization technique is asset-independent.



4. Supranational Bonds

1. These are **cross-border entities**, usually owned or operated by a "**consortium" of sovereigns**; and do not pay local taxes. **Bond issuance** is often the primary source of funding for these entities, thus representing an important component of many international and domestic bond markets.The (implicit or explicit) government ownerships and guarantees mean that supranational bonds are generally regarded as **low risk investments**.The most prominent supranational borrowers are **multilateral development banks (MDBs)** that operates both regionally and globally, borrow in the capital markets in order to lend to infrastructure projects. Examples of regional MDBs include the following: European Investment Bank (EIB), European Bank for Reconstruction and Development (EBRD), Asian Development Bank (ADB), African Development Bank (AfDB), Inter-American Development Bank (IDB)

- The **World Bank** is a vital source of funding for developing countries around the world.
- **EUROFIMA** borrows on behalf of a consortium of European railway networks.
- **World Bank issued first UN sustainable development bond in 2017**
- ADB has issued more than $**1.5 billion in Water Bonds**.

5. Corporate Bonds (Includes banks, financial institutions, nonbank corporate)

VERIZON raised biggest corporate bond

- In September 2013, US telecommunications giant **Verizon which raised 49 billion dollars**.
- The Verizon issue was **split into eight tranches** & priced very cheaply to accommodate the massive size.
- 15 billion dollars of 6.55% **30-year securities was the biggest corporate bond** ever issued. It was priced to yield **265 basis points** more than similar-maturity US Treasuries.
- 5 tranches of **fixed rate** debt with maturities from 3 to 20 years
- 2 tranches of **floating rate notes** priced at a spread over **LIBOR**
- The average coupon across all eight tranches was 3.59%, and coupons on the longer-term tranches ranging from 5.15% to 6.55% attracted high-yield investors.

Tranche	Aggregate Principal	Maturity	Coupon	Spread
1	USD 15 billion	30 years	6.55%	265 bps
2	USD 6 billion	20 years	6.40%	250 bps
3	USD 11 billion	10 years	5.15%	225 bps
4	USD 4 billion	7 years	4.50%	215 bps
5	USD 4.75 billion	5 years	3.65%	190 bps
6	USD 4.25 billion	3 years	2.50%	165 bps
7	USD 1.75 billion	5 years	Floating	175 bps
8	USD 2.25 billion	3 years	Floating	153 bps

Issuance by Corporate & Banks

Commercial Paper

- It is a commonly used type of unsecured, short-term debt instrument issued by corporations, typically used for the financing of payroll, accounts payable and inventories, and meeting other short-term liabilities.
- Maturities on it typically last several days, and rarely range longer than 270 days.
- It is usually issued at a discount from face value and reflects prevailing market interest rates.
- Example: **Bharti Telecom** raised Rs 3,500 crore via commercial paper in May 2020.
- It offered 6.16 per cent on average with a three-month maturity.
- **MTN Nigeria Communications Plc** proposed Commercial Paper Issuance Offer worth **N100 billion,** which began on 28th May 2020, and is scheduled to close on Thursday, June 4, 2020.

Certificate of Deposit

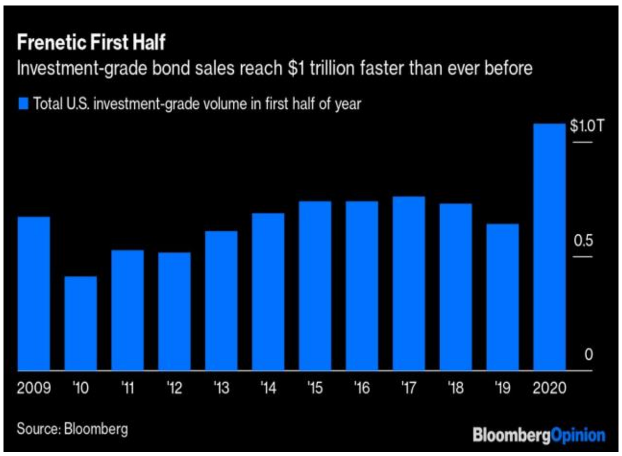
- It is a product offered by banks and credit unions that provides an interest rate premium in exchange for the customer agreeing to leave a lump-sum deposit untouched for a predetermined period of time.
- Almost all consumer financial institutions offer it, although it's up to each bank which CD terms it wants to offer, how much higher the rate will be compared to the bank's savings and money market products, and what penalties it applies for early withdrawal.
- **ICICI bank** to raise $3 billion **in Certificate of Deposit** in single or multiple tranches for a period of one year, in 2020.

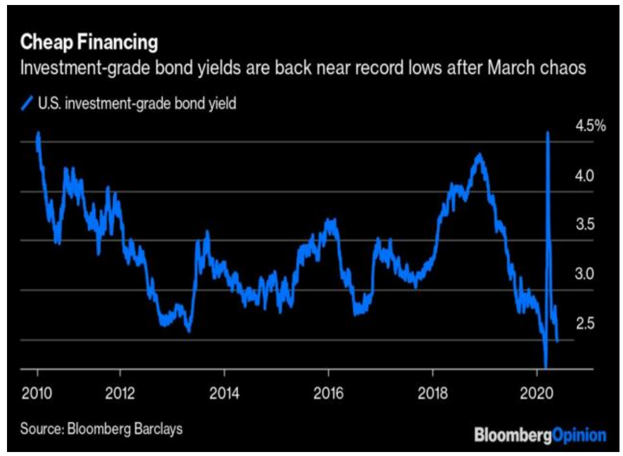
COVID19 IMPACT

- Global demand for oil is on the skids. Fitch Ratings Company predicts that **$43 billion** worth of energy sector bonds and loans may **default this year.**

- The companies directly impacted by the coronavirus pandemic or structural changes to their industries are: Ford Motor Co., Kraft Heinz Co., Macy’s Inc. and Occidental Petroleum Corp.; that **lost their investment grades** earlier this year.

- Coronavirus Aid, Relief and Economic Security Act **(CARES Act)** has created the two-part bond buying program, which will purchase on the secondary market and also directly from corporate issuers.





$1 trillion worth of corporate debt issued in 2020, examples are given below:

$1 trillion worth of investment-grade corporate debt sales had been brought to market in the **first 149 days of the year.**

It began in mid-march, when a pair of U.S. corporate giants, **Verizon Communications Inc. and Exxon Mobil Corp**. sold a combined $12 billion of bonds in a single day.

Boeing sold **$25 billion** in bonds to investors in May 2020, making its total debt $54 billion. Boeing offered sharply higher interest rates than past debt issuances: 10-year tranche yields 5.15%,

Nike (ticker: NKE), which has closed stores due coronavirus outbreak, sold $6 billion of **bonds** in march, in five tranches with maturities of five to 30 years.

Top **13 online largest retailers** based in North America issued **$38.823 billion** worth of bonds from March-May as compared to $8 billion total issue last year. Following the Federal Reserve's announcements that it would buy corporate bonds, they joined in the rush to issue new debt.

Corporate Debt

- **BASF Issues €2 Billion in Corporate Bonds:** On May 28, 2020, **BASF** placed bonds with a total volume of €2 billion on the capital market. The first tranche has an issue volume of €1 billion, a term of 3 years and an annual coupon of 0.101% and will be used for general corporate financing purposes. With the second tranche, BASF issued its first green bond, which has a term of 7 years, a volume of €1 billion and an annual coupon of 0.25%; it serves to finance sustainable products and projects. Due to solid financial structure and its leading sustainability position, BASF could attract investments.
- On 1st June 2020, **Fitch assigned an 'A+' rating to Amazon's proposed $10 billion in unsecured notes**, which Fitch expects will be used for general corporate purposes, including funding equipment currently funded through capital lease arrangements. As such, the issuance is expected to be a leverage-neutral event over time with minimal impact to Amazon's longer-term credit profile.
- **Apple planning to offer $8Billion**: In May 2020, Apple launched its latest debt deal to fund corporate operations like share buybacks and dividends, with reports claiming the offering stands at $8 billion.**The Cupertino tech giant** plans to issue notes that mature in 2023, 2025, 2030 and 2050, according to a preliminary prospectus .Goldman Sachs, Bank of America Securities, JPMorgan and Morgan Stanley are listed as **underwriters** on the debt deal. Apple is offering $2 billion in 0.75% notes set to mature in 3 years, $2.25 billion in 1.125% notes due in 5 years, $1.75 billion in 1.65% notes maturing in 10 years, and $2.5 billion in 2.65% notes due in 30 years.

Portfolio Management

Portfolio management involves building and overseeing a selection of investments that will meet the long-term financial goals and risk tolerance of an investor.

Objectives of Portfolio Management

It weighs strengths and weaknesses, opportunities and threats across the full spectrum of investments. It trade-offs, from debt versus equity to domestic versus international and growth versus safety. It diversifies risk of asset classes by proper asset allocation. It is used for planning taxes. It generates higher & consistent returns, with lesser risk. Example: U.S. Mutual Funds need to have 85% of liquid assets and are allowed to have only 15% as illiquid assets.

Types of Portfolio Management

- **Active portfolio management** requires strategically buying and selling stocks and other assets in an effort to beat the broader market.
- **Passive portfolio management** seeks to match the returns of the market by mimicking the makeup of a particular index or indexes
- **Discretionary Portfolio Management** is gives full leeway to manager to make decisions for the investor. While the individual goals and time-frame are taken into account, the manager adopts whichever strategy he thinks best.
- **Non-Discretionary Portfolio Management** allows manager to just be a financial counselor & advise the investor in which routes are best to take. While the pros and cons are clearly outlined, it is up to the investor to choose his own path

ALTERNATIVE ASSETS

Advantages

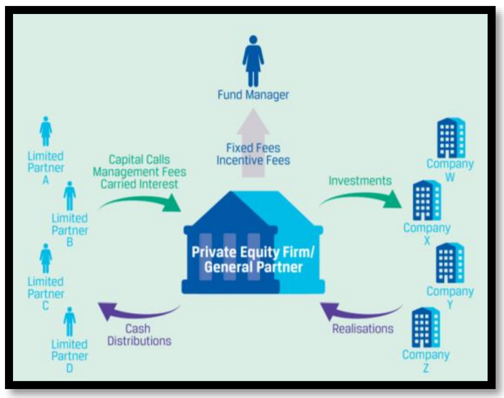
- Different performance characteristics to traditional assets, hence can be benefitting
- Higher **return**
- Lesser **risk**
- **Diversification benefits**: low correlation between different assets

Disadvantages

- **Limited** investment history
- **Illiquid** as non-existent in the secondary market
- **Costly:** The costs of trading, managing, and valuing are often higher as specialized skills required on the part of the asset manager
- **Valuation Issues:** Complex, unreliable as data is unavailable(based on appraisal), not automated & valued infrequently
- **Unregulated** and less transparent
- **Short termism**: Objective is to sell rather than long term development

PRIVATE EQUITY

Private equity firms invest in private companies that are not publicly traded on a stock exchange. Investments include both **equity and debt securities**. It encompasses several strategies that provide money to companies at different stages of their development such as **growth equity, venture capital, buyouts, distressed, and secondaries.** Most PE firms specialize in a particular area (such as VC or growth) and industry sector (for example, energy or healthcare).



BUYOUTS

The **largest PE funds** operate in the buyout sector. Buyouts **purchase controlling stake** in target companies and finance established companies that require money to restructure, have opportunities of growth & revenue margin, and facilitate a change of ownership.

Leveraged buyouts (LBOs): When buyouts use leverage to amplify returns. To service the debt, the target company must have competitive position, low capital expenditure requirements, strong cash flows and good future prospects.

- In **USA**, Buyout transactions mostly involve **(P2P) making a publicly traded company private**, whereas in Europe, mostly portfolio companies are created by "carving out" subsidiaries or by purchasing companies from existing private owners.

UK-based Alliance Boots or US-based Hertz and Hilton Hotels were **once public companies**, but they underwent buyouts and are now **privately owned** companies.

In 2007, **Blackstone Group** purchased **Hilton Hotels** for $26 billion in an LBO financed through $20.5 billion in debt & $5.5 billion in cash.

Kohlberg Kravis Roberts & Co. and Goldman Sachs acquired largest electricity utility in Texas for $48 billion & formed a new company, **Energy Future Holdings** which eventually filed for Chapter 11 Bankruptcy in 2014

Kravis, Roberts & Co. took control of food & tobacco giant **RJR Nabisco**, Inc. in 1989 for $25 billion deal being the largest leveraged buyout. It became inspiration for a movie and a novel: **'Barbarians at the gate',** though, eventually the co. turned into massive losses.

On 25th may, 2020, **Nine Entertainment Co** sold its New Zealand publishing business Stuff to chief executive Sinead Boucher in a **$NZ1 management buyout.**

VENTURE CAPITAL

- VC funds invest in **early-stage and start-up companies** that have innovative biz idea. Unlike buyouts it doesn't make small number of large investments, rather, make a **large number of small investments**. Also, it doesn't combine debt and equity when investing, its investments **solely consists equity**. Take **minority stake** & less need of overall control as growth is mostly dependent on founding entrepreneurs who sometimes need **advice and expertise.** Venture capital is considered the **riskiest type of private equity** investment strategy because initial years see unprofitable activity & many more companies fail than succeed. However, those companies that do succeed tend to greatly reward their investors.

Father of Venture Capital

- Harvard Business School professor **Georges Doriot** is considered the "Father of Venture Capital".
- He started the American Research and Development Corporation (ARDC) in 1946 and raised a $3.5 million fund to invest in companies that commercialized technologies developed during WWII.
- First investment: Company that had ambitions to use x-ray technology for cancer treatment.
- The $200,000 that Doriot invested turned into $1.8 million when the company went public in 1955.

Angel Investors

- The **National Venture Capital Association (NVCA) is** an organization composed of hundreds of venture capital firms that offer to fund innovative enterprises.
- It is generally provided by HNWI also called Angel Investors.

Tech Companies

- Due to the industry's proximity to Silicon Valley, the overwhelming majority of deals financed by venture capitalists are in the technology industry.
- Tech behemoths **Google and Intel** have separate venture funds to invest in emerging technology.
- **GV** provides **venture capital** funding to bold new companies in the fields of life science, healthcare, artificial intelligence, robotics. transportation, cyber security
- Starbucks also invested $100 million venture fund in food startups.

PRIVATE EQUITY STRATEGIES

a. Growth Equity

Growth funds lie between buyout funds and VC funds, they make little use of leverage. The investor **injects capital at a crucial stage** in a company's development such as adding new production facilities, financing infrastructure; to help the company expand and grow. Some growth equity investors specialize in helping **companies prepare for an initial public offering** that outweighs the disadvantages of dilution. An initial public offering, such as those of **Microsoft, Private Equity 374 Google, and Facebook**, is an opportunity for founders and existing shareholders to convert **some or all of their investment in the company into cash.** So, the late addition of equity investors that have successful track records in organizing initial public offerings may be valuable for founders and existing shareholders.

b. Mezzanine debt

It occurs when a hybrid debt issue is subordinated to another debt issue from the same issuer. Mezzanine debt is frequently associated with acquisitions and buyouts. In 2016, Olympus Partners, a private equity firm based in Connecticut, received debt financing from Antares Capital to acquire AmSpec Holding Corp, a company that provides testing, inspection and certification services for petroleum traders and refiners. The total amount of the financing was $215 million, which included a term loan, revolving credit facility, and a delayed draw term loan. Antares Capital provided the total capital in the form of mezzanine debt, thus, giving it equity options.

c. **Secondaries**

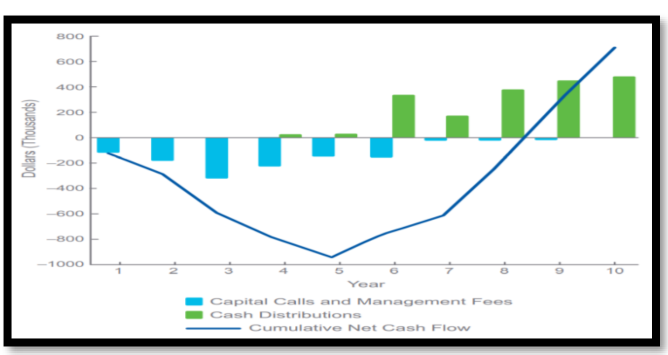
This strategy involves buying or selling existing private equity investments to another private equity partnership, which is known as secondary market.

d. **Distressed Investment**

Distressed investing focuses on **purchasing the debt of troubled companies** that may have defaulted or are on the brink of defaulting. Frequently, investments are made at a significant **discount to par value:** the amount owed to the lenders at maturity. For example, an investor who purchases the debt of a troubled company may only offer the existing **lenders 20% or 30% of the amount they are owed**. Distressed investing does not typically involve a cash flow to the company.

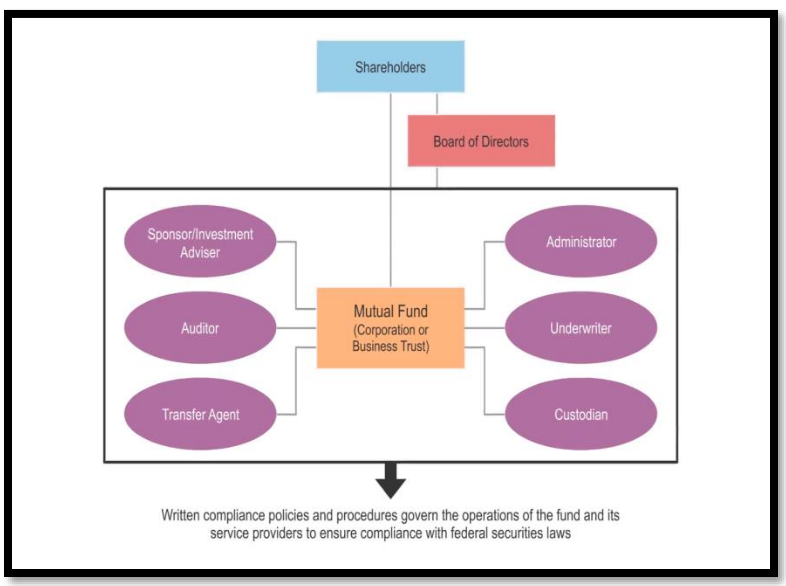
J CURVE

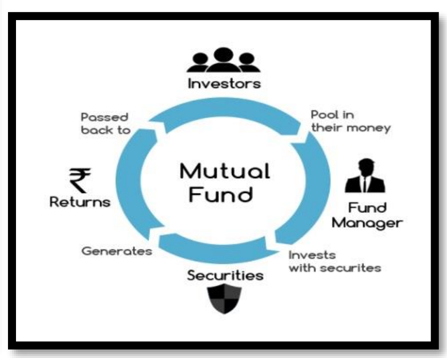
- In **initial years**, private equity firms make investment in different companies which start providing dividend from the 4th year and then they get sold between 6th – 10th year which is known as **harvesting period**.
- The blue bars show the sum of the **capital calls and management fees**, which are assumed to be 1.5% of the committed capital.
- The green bars reflect the **cash distributions**, ignoring carried interest.
- The line is the **cumulative net cash flow** to the limited partner—that is, (the sum of the cash distributions)-(the sum of the capital calls and management fees).



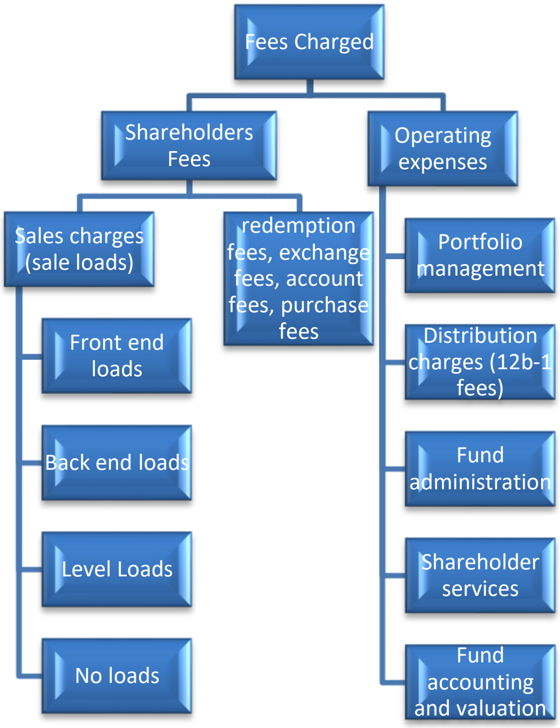
MUTUAL FUNDS

- **Investment Vehicle**
  - Pool investors' money in securities like stocks, bonds, money market instruments, and other assets.
- **Open ended funds**
  - Have the ability to issue or redeem (repurchase) shares on demand
- **Valued at NAV**
  - Shares are issued or redeemed at NAV (net asset value of the fund) which is calculated at the end of the trading day.
- **NAV**
  - Calculated by dividing the total net value of the fund (assets-liabilities) by total number of shares outstanding.
- **Returns**
  - Investors earn return in the form of distribution through dividends earned on stocks, interest received on bonds and capital gains when the securities are sold.
- **Categorized**
  - Based on the kinds of securities they invest in, their investment objectives and their associated risk & returns.
- **Major Investors**
  - According to ICI data, retail investors held 89% of the USD 16 trillion in AUM, & institutional investors: nonfinancial corporate, nonprofit organizations, financial institutions held around 11%
- **Regulation**
  - Section 18 of the Investment Company Act limits the ability of a mutual fund to leverage or borrow against the value of securities in its portfolio., maximum debt-to-assets ratio allowed by law is 1-to-3.





Fees charged by mutual funds



Top Players: Fidelity & Massachusetts

The **Massachusetts Investors Trust,** is credited for pioneering the Mutual funds or open-ended funds. It is one of the oldest asset management companies in the word was created in 1924. It establishing new concepts such as continuous offering of shares to investors, ability to redeem shares rather than hold them until dissolution of the fund, and laying down of clear investment policies and restrictions. It has $528.4 billion total assets under management as at 31st Jan 2020 & $16 trillion in mutual funds assets under management (ICI Factbook 2017). The very first mutual fund: Massachusetts Investors Trust fund, is operational even today.

FIDELITY

- One of the most famous mutual funds: **Fidelity Investments' Magellan Fund (FMAGX).**
- Established in 1963, being an **actively managed fund**, it had an investment objective of capital appreciation via investment in common stocks.
- When **Peter Lynch** managed the portfolio between 1977 and 1990, the fund regularly posted 29% annual returns, almost **double that of the S&P 500**
- In 2000, it became **the largest fund** in the word having AUM nearly $110 billion.
- By April 2019, the fund had over $16 billion in assets & is being managed by **Jeffrey Feingold** since 2011 & Sammy Simnegar becoming a co-manager in Feb 2019.

Types of Mutual Funds

- **Sector Funds:** These are aimed at specific sectors of the economy, such as financial, technology, health. Sector funds can be extremely volatile since the stocks in a given sector tend to be highly correlated with each other.

- **Region Funds:** Domestic funds invest in US stock markets. International funds invest in foreign securities, only in assets located outside the home country. Global funds invest in both international stock markets & home country. Country-specific funds focus on one specific country or region. Emerging market funds invest in stock markets in emerging economies

- **Fixed Income Mutual Fund**: It focuses on investments that pay a set rate of return(interest income), such as government bonds, corporate bonds, or other debt instruments. Bond funds can vary dramatically depending on where they're invested. For example, a fund specializing in high-yield junk bonds is much riskier than a fund that invests in government securities.

- **Inflation-protected funds** invest in treasury Inflation-Protected Securities (TIPS), which makes them a good hedge against inflation. TIPS are bonds whose principal is tied to the consumer price index (CPI) – the principal increases when there is a rise in the CPI (inflation) and decreases when there is a fall in the CPI (deflation).

- **Asset Allocation Fund:** Balanced funds invest in a hybrid of asset classes such as stocks, bonds, money market instruments, or alternative investments to reduce the risk of exposure across asset classes. There are 2 variations: specific allocation strategy that is fixed, dynamic allocation funds that can switch the ratio of asset classes.

EQUITY FUNDS

The **largest category is of equity or stock funds** accounting for more than half of all fund assets under management (ICI Factbook 2017). Some equity funds are classified for the **size of the companies** they are invested in: small-cap (market capitalization ranging from $200 million to $2 billion) , mid-cap, or large-cap(values over $10 billion). Some are classified by their **investment approach**: aggressive growth, income-oriented, value funds. **Value funds** include companies characterized by low price-to-book (P/B) ratios, low price-to earnings (P/E) ratios, and high dividend yields. **Growth funds** include companies that have had/expected to have strong growth in earnings, sales, and cash flows & have high P/E ratios and do not pay dividends. A mutual fund may **blend its strategy** between investment style and company size.

Examples

1. **Ultra-short bond funds:** SPDR Blmbg Barclays Inv Grd Flt Rt ETF (FLRN), iShares Floating Rate Bond ETF (FLOT), VanEck Vectors Investment Grd Fl Rt ETF (FLTR), iShares Short Treasury Bond ETF (SHV), SPDR® Blmbg Barclays 1-3 Mth T-Bill ETF (BIL)
2. **Vanguard Balanced Index (VBINX):** There are number of options with Vanguard for Investors seeking **asset allocation funds.** The firm's Vanguard Balanced Index fund invests approximately 60% in stocks and 40% in bonds. Its holdings seek to track two indexes, the CRSP US Total Market Index and the Bloomberg Barclays U.S. Aggregate Float Adjusted Bond Index.
3. In 1928, **Walter L. Morgan** established the Wellington Fund, **the first balanced mutual funds** in U.S. The **Wellington Management** Company was incorporated in 1933 and has $ 1Lakh Crore under AUM as of in 2017.
4. In April 2020**, Franklin Templeton** announced that it has shut down **6 of its credit strategy oriented debt mutual fund schemes**. These schemes are Franklin India Short

Term Income Fund, Franklin India Ultra Short Bond Fund, Franklin India Credit Risk Fund, Franklin India Low Duration Fund, Franklin India Dynamic Accrual Fund and Franklin India Income Opportunities Fund. Four of these debt schemes had made investment in Essel Infraprojects (EIL) which **defaulted** on its **non-convertible debentures (NCDs).** The four schemes had a maturity value of **Rs 616 crore**.

5. **Sector Funds**: The **T. Rowe Price Global Technology Fund**, trades on the Nasdaq under ticker PRGTX.It beats out the Fidelity Select Software & IT Services Portfolio and the Morgan Stanley Insight Fund based on average annual performance of the last decade. The fund manages about $4.8 billion in assets and has an expense ratio of 0.91%. (CNBC news 2020)

HEDGE FUNDS

Father of Hedge Funds Industry: Alfred Winslow Jones

- The concept of a hedge fund started in US in **1949 by Alfred Winslow Jones.**
- He was originally a sociologist and later a financial journalist. Journalism sparked his interest in developing an investment strategy which would make him wealthy.
- Jones was a pioneer of **"relative value"** strategies – rather than simply purchasing stocks, he looked at **"pairs trades."** However, traditional mutual funds in the US had restrictions on taking short positions.
- Jones and a small number of like-minded investors put together an investment company set up as a **private partnership** with Jones as managing partner.
- This allowed them to **circumvent the restrictions placed on mutual funds** by avoiding registration with the Securities and Exchange Commission (SEC).
- Being successful, the partnership grew from managing just **USD 100,000 initially, to managing hundreds of millions of dollars.**
- Jones remained managing partner for **34 years** – investors only lost money in three of those years.

CHARACTERSTICS OF HEDGE FUNDS

Limited number of investors	• Institutional investors such as pension funds, university endowment funds, and sovereign wealth funds, & high-net-worth individuals make investments.
Lock in period	• Agreements that lock up the investors' capital for fixed periods depending on the time managers will take to implement the strategies & make profits.
Lack liquidity	• Have "gate" provisions which limit the total withdrawals from a fund over a fixed period of time (10–15% of the capital per annum). The "gate" is designed to avoid a "run" on the fund as investors attempt to redeem simultaneously
Compensation	• 2 & 20: A basic 2% management fee and a 20% incentive or performance fee as a % of returns that they produce in excess of a hurdle rate which is reset based on a benchmark such as Libor."Hard" hurdles pay fees on the portion of performance above the hurdle rate, "soft" hurdles pay fees on entire performance.
Regulation	• Since financial crisis, a raft of new regulations have been introduced: Alternative Investment Fund Managers (AIFM) Directive in Europe & Dodd-Frank Act in the US.
Leveraged funds	• Increase their risk exposure through leverage by using borrowed funds or derivatives or repo agreements. Generates 'alpha'.

FAMOUS EXAMPLES

Quatum Fund by George Soros

- **The trade which broke the Bank of England in 1992**
- The British pound was pegged to the value of the Deutschmark as it is a member of the European Monetary System (EMS).
- Soros believed that the level of the peg was unsustainable and that the authorities would be forced to devalue & took out a USD 10 billion short position in sterling.
- Bank of England pulled out of the EMS, GBP plunged, Quantum made profit.

Tiger Funds by Julian Robertson

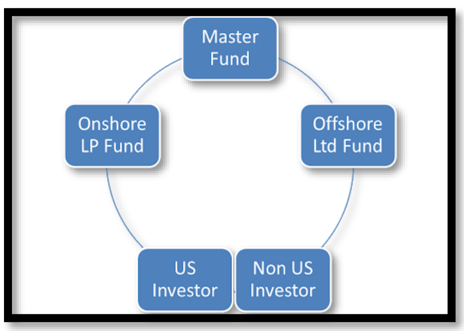
- The investment strategies focused on value investing, comparing fundamentals with market values.
- Didn't focus just on equities, but instead invested across asset classes.
- Made significant money in the copper markets following an ill-fated attempt to corner the price by a Sumitomo Corporation trader.

LTCM by Myron Scholes

- One of the biggest failures in 1998 whose BOD included Noble Laureate.
- Its relative value trades failed to anticipate the major market dislocations of the late 1990s.
- It was atypical hedge fund as it acted as a long-term warehouse reinsuring illiquid market risks.
- It couldn't cover its debts & Federal Reserve stepped in to prevent systemic risk in the financial market.

OFF SHORE: CAYMAN ISLAND

North America is the leading onshore location, hedge funds are also increasingly seeking investment opportunities in Africa, the Middle East, and various emerging market countries. **Offshore entities** (Cayman Islands or the British Virgin Islands, but increasing in EU jurisdictions such as Ireland and Luxembourg) are often set up alongside **US-based partnership. The Cayman Islands** is the most popular offshore location, being the domicile country of choice for around **one third of all hedge funds.** American elite and large multinational corporations invest there because it **charges no corporate or income tax** on money earned outside of its territory. This includes interest or dividends earned on investments. A **master-feeder structure** is often employed so that parallel funds of both types are set up which then invest in a single master fund.

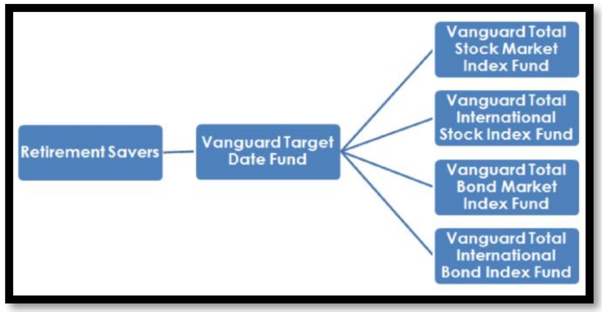


FUNDS OF FUNDS

Apart from hedge fund, Alfred Winslow Jones is often credited with creating the first FOF in 1984 at the age of 82 years. Funds of funds are investment vehicles that invest in other funds. They can be actively managed or passively managed. Managers try to hold well-diversified portfolios of funds to reduce the overall risk of their funds.

- It pools investors' money and invest it into four other Vanguard funds. A **target-date fund** is a mutual **fund** that automatically adjusts the asset mix and allocation over a time period that's based on your age and when you want to retire.

Vanguard's Target date mutual funds



INDEX FUNDS

Index fund	• It is a portfolio of securities structured to track the returns of a specific index called the benchmark index.
Passively managed	• It aims to replicate the benchmark index. • Fund managers who invest in every security in the benchmark index are called full replication
Diversified	• They are highly transparent, charging relatively low management and trading costs. • Accessible to large market.
Tax Efficient	• They do not do a lot of trading that can generate taxable capital gains.
The Index Universe	• The investment industry has created indices to measure the values of almost every existing market, asset class, country, and sector: broad market, multi-market, sector, style indices, indices that track alternative indices such as hedge funds, REITs, commodities.
Approaches	• Price-weighted, Capitalisation-weighted, or Equal-weighted.
DJIA	• The Dow Jones Industrial Average (DJIA) includes only **30 large US company stocks .** • These are **price-weighted,** the index level is simply the sum of the prices of the underlying stocks divided by the number of companies.
S&P 500 & the FTSE 100	• These are **market cap-weighted,** the importance of a stock within an index is in proportion to its market capitalization.
MSCI	• The Morgan Stanley Capital International (MSCI) World Index includes more than **6,000 stocks in 24 developed markets.**

Interesting Stories

- He created the first indices in the 19th century, the most famous of which is the **Dow Jones Industrial Average (DJIA).**

Charles Dow

- **The founder of Vanguard, debuted the first index mutual fund in 1976** to huge criticism. Vanguard is now one of the world's largest investment funds, managing about $6.2 billion under AUM.

Jack Bogle

- Three of today's **biggest index fund providers**: **Vanguard, Fidelity, Schwab**.
- They charge less 0.10% on their most popular index funds, and some charge nothing.

Less Charges

- As well as starting the first hedge fund, **Jones is credited with creating the first FOF**. This was in 1984 when he was 82 years of age.

First FOF

- A bet between legendary investor Warren Buffett and hedge fund manager, Ted Seides, Protege Partners that **S&P 500 Index fund would beat the performance** of five **funds of funds** picked by Protege over a 10-year period, after fees.

Wager of $1 Million

- At the end of 2016, Buffett's index fund bet **had gained 7.1% per year**, or $854,000 in total, compared to 2.2% per year for Protégé's picks – just $220,000 in total.

Index fund gained more than FOF

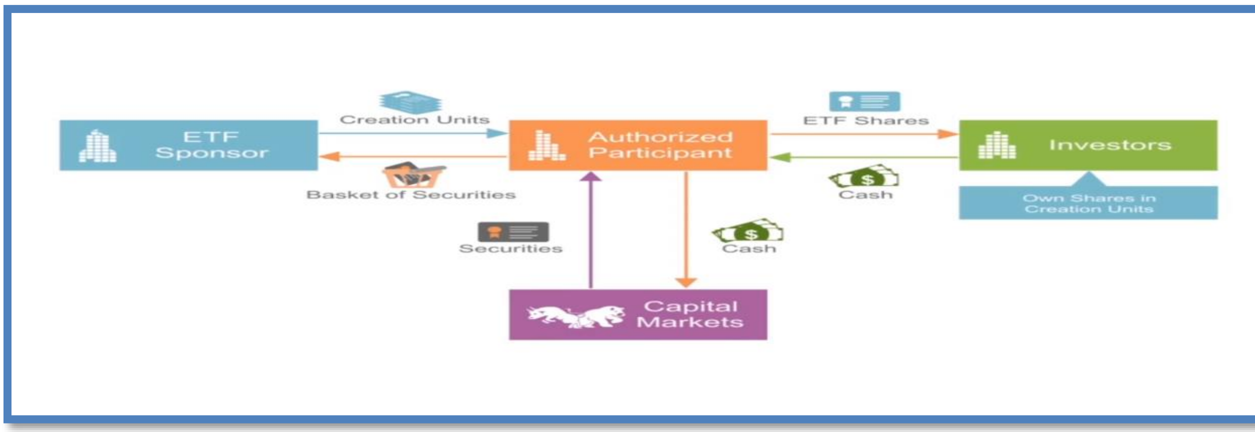
Money Market Funds: Breaking the buck

Money market funds are special class of open-end mutual funds that invests only in **highly liquid** near-term instruments such as cash, cash equivalent securities, and low risk, high credit rating, debt-based securities with a short-term, maturity(less than 13 months) such as U.S. Treasuries. One thing that differentiates money market funds is that it aims to maintain **NAV at $1**. Any excess earning is distributed to the investors in the form of dividend payments. When **the NAV falls below $1** due to price fluctuations in the money market, it is **called breaking the buck**. If overall interest rate drops or the funds use excess leverage to purchase the instruments, then a condition may arise when fund won't be able to meet redemption requests.

The year 1994 saw the first instance of it when **Community Bankers U.S. Government Money Market Fund** was liquidated at 96 cents per share, owing to the large losses it incurred by investing heavily in derivatives.

In 2008, following the bankruptcy of Lehman Brothers, the venerable **Reserve Primary Fund broke the buck**: It held millions of Lehman's debt obligations, and panicked redemptions by its investors caused its NAV to fall to 97 cents per share. The pullout of money caused the Reserve Primary Fund to close and triggered mayhem throughout the money markets.

ETFs



ETFs track the prices of assets such as: Real estate securities, Real estate investment trusts, or REITs, Real estate market indexes, Real estate operating companies, or REOCs, Energy products, such as oil and natural gas, Precious metals, Agricultural commodities, Commodities Future, Currency

ETFs around the World

The US is by far the largest market in terms of assets under management. The **total** net **assets** amounted to approximately 4 trillion **U.S.** dollars in 2019. The first ETF launched tracked S&P 500. In 2019, there were 6,970 **ETFs** globally and USA had **2062 total ETFs traded in market(according to ETFGI). Europe has more ETFs than the US, but AUM is much lower.** The key markets for ETFs in Europe include the Deutsche Börse, London Stock Exchange Group, SIX Swiss Exchange, and Euronext; collectively being 90% of listed ETFs.

Asia-Pacific Region: China, Hong Kong, and South Korea are among the key ETF markets in Asia Pacific region where the market is still developing. The total net assets under management amounts to $60.83 billion.

On **19th May 2020, Federal Reserve snapped up $1.3 billion in corporate bond ETFs,** & the biggest purchase was of iShares iBoxx US Dollar Investment Grade Corporate Bond fund, at the market price of $326.3 billion.

The **Flash Crash** on 6th May 2010 turned liquidity into liabilities for the investors. ETFs accounted for approx **70% of trades** which got cancelled when Dow Jones Industrial Average plummeted by 1,000 points.

FAMOUS ETFs

BlackRock's iShares ETFs

- BlackRock's iShares are the largest ETF issuer in the world.
- Barclays launched iShares in1996, which was acquired by Blackrock in 2009.
- iShares include more than 800 funds & $7.43 trillion in AUM(31/12/19)
- Renowned for building its ETFs around leading global indexes, such as Barclays Capital, Morningstar, Dow Jones and Standard & Poor's.

Vanguard ETFs

- 2nd largest ETF provider in the world.
- Vanguard offers a wide array of low-cost ETFs.
- It is owned by its own funds i.e. its clients are also owners.
- FTSE Emerging markets ETF (VWO)(its size is $73.6 billion in AUM & holds enormous volume.)
- Vanguard Total World Stock ETF (VT)
- Vanguard Total Stock Market ETF (VTI)

State Street Global Advisors' SPDR ETFs

- Founded in 1792, State Street Global Advisors offers more than 100 ETFs.
- The SPDR S&P 500 ETF (SPY) is the oldest and largest ETF, with nearly $276 billion in AUM(in early 2020)
- SPY is the most actively traded ETF in the world.
- The SPDR ' funds are formulated as Unit Investment trusts They tend to track larger-cap firms in developed countries.

Deutsche Bank AWM X-trackers ETFs

- Deutsche Bank's X-trackers is by far the largest non-U.S. ETF provider.
- Its origin is in Europe
- The series was launched in 2007 and met with immediate success
- The series targeted the credit market, money market, and currency markets in Europe. It lags behind in North America and Asia, however.

Liquid Alternatives (absolute return or "40 Act" funds)

Rise of Liquid Alts	• Following the global financial crisis, it saw a rapid growth.
Short-short rule in US	• In 1997, the rule got revoked which permitted fund managers to take shorter term positions. due to which fund managers were taxed if they earned more than 30%
Hedge funds	• These funds are an “alternative to the alternative” of hedge funds as they provide access to hedge funds strategies.
Strategies	• Different approaches are: Equity Long/Short, Managed Futures, Market Neutral, Multi-Strategy, Non-Traditional Bond, Global Macro
Features	• Provide a regulated, safe home for investments, a daily demand bid/offer spread, accept small and large capital amounts & doesn’t require withdrawal notice.

Pimco is the largest manager of liquid alternatives mutual funds in USA. (according to Morningstar). PIMCO states, “Liquid Alts *exhibit modest to low correlation with traditional stock and bond investments and are accessible in broadly available investment vehicles that are without the principal lock-ups of traditional private equity funds and hedge funds.”*

Schroders provide with internally managed & externally managed alternative assets through UCITS vehicles and through Non UCITS Vehicles. It applies equity based strategy, fixed income based strategy and other strategies.

JPMorgan planning to shut 4 liquid alternative ETFs: After the corona virus pandemic, **liquid alternatives have made 7.8% loss** for both, ETFs and open ended funds.(according to Morningstar Direct). JPMorgan has decided to **close four liquid alts ETFs** in the month of June: JPMorgan Long/Short ETF(JPLS), JPMorgan Event Driven ETF (JPED), JPMorgan Managed Futures Strategy (JPMF), and JPMorgan Diversified Alternatives ETF (JPHF). JPMorgan has planned to **close two other ETFs**: JPMorgan Diversified Return Global Equity ETF(JPGE) & JPMorgan Diversified Return Europe Equity(JPEU). JPMorgan is planning to **launch two actively managed ETFs**: JPMorgan International Growth ETF (JIG) & JPMorgan Equity Premium Income ETF (JEPI).

REAL ESTATE (land + anything permanently fixed on it)

Real estate investment trusts (REITs): It is a company that owns, operates, or finances **income-producing properties**. These are investments mostly through **public markets**. Traded on exchanges, thus **provides liquidity & diversified.** Involved at all stages, from the development of land to the construction of buildings and the management of the properties. Congress established **REITs in 1960** as an amendment to the **Cigar Excise Tax Extension.** A company must comply with certain provisions in the **Internal Revenue Code (IRC),** to qualify as REITs. To gauge the performance of the U.S. real estate market, investors use **the FTSE NAREIT Equity REIT Index. 5 types of REITs** are: Retail REITs, Residential REITs, Healthcare REITs, Office REITs, Mortgage REITs. Approximately **24% of REIT investments are in shopping malls** and freestanding retail. This represents the single **biggest investment** by type in America. Approximately **10% of REIT investments** are in **mortgage.** The best known investments are **Fannie Mae and Freddie Mac**, government-sponsored enterprises that buy mortgages on the secondary market. **Healthcare** is one of the fastest-growing industries in the U.S., in the growth of medical buildings, eldercare facilities, outpatient care centers, and retirement communities. All **10 largest REITs belong to USA.**

TOP 10 REITs in US

COMPANY (STOCK SYMBOL)	Property Type	Market Capitalization
AMERICAN TOWER (NYSE: AMT)	Telecommunications	$102.3 billion
CROWN CASTLE INTERNATIONAL (NYSE: CCI)	Telecommunications	$58.9 billion
PROLOGIS (NYSE: PLD)	Industrial	$56.6 billion
EQUINIX (NASDAQ: EQIX)	Data Centers	$50.7 billion
SIMON PROPERTY GROUP (NYSE: SPG)	Retail (malls)	$44.4 billion
PUBLIC STORAGE (NYSE: PSA)	Self-Storage	$37.7 billion
WELLTOWER (NYSE: WELL)	Healthcare	$33.6 billion
EQUITY RESIDENTIAL (NYSE: EQR)	Residential	$30.1 billion
AVALONBAY COMMUNITIES (NYSE: AVB)	Residential	$29.1 billion
SBA COMMUNICATIONS (NASDAQ: SBAC)	Telecommunications	$27.5 billion

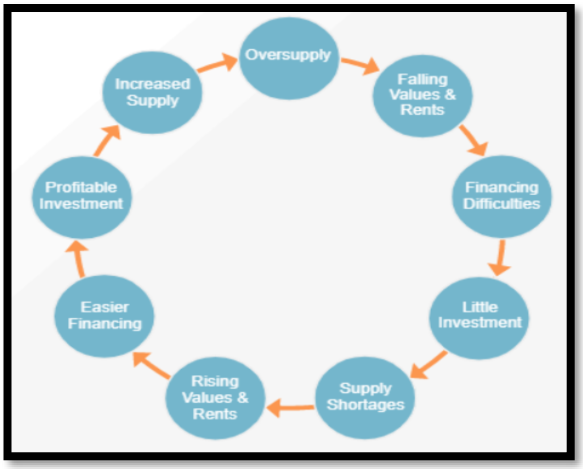
Data source: CNBC/TD Ameritrade. Market capitalizations as of 1/10/2020.

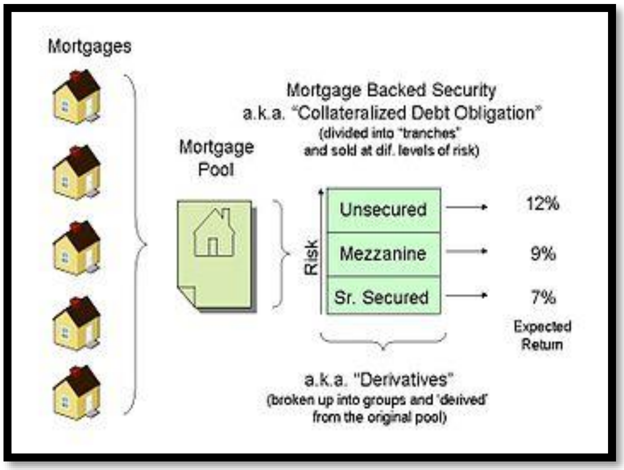
Real estate equity funds: It is private investments, open-end funds. Hold investments in hundreds of commercial properties. Diversified by geography, property type, and vintage year.

Redemption quarterly or on demand from income received from rents and the sale of properties. **Examples: Foreign private equity** funds continued to dominate the **real estate investment in India**. Top investors included Blackstone, Hines, Ascendas and Brookefield. Private equity funds invested $3.8 billion in Indian real estate in initial 10 months of 2019. Most of it got invested in commercial real estate and almost half to Mumbai. US private equity firm **Warburg Pincus** will raise its stake in **Asian real estate fund manager.** ARA Asset Management Ltd (ARA) to 48.7% from 30.7%, as it seeks to capitalise on rising investor interest in property funds.

CHARACTERSTICS

- **Periodic rental yield:** It depends upon location, condition, age of property.
- **Capital appreciation**: It refers to the increase in the value of a property over time. Factors contributing to capital appreciation include property improvements, inflation (which increases replacement costs) & supply and demand.
- **Inflation-proofed returns**: In long run, it gives rise to an element of insurance against the erosion of wealth by inflation.
- **Capital Depreciation**: Poor property maintenance, increased crime levels, and the general decline of an area (even if replacement cost increases)
- **Diversification**: Can invest across multiple real estate sectors or other asset classes as it has low correlation.
- **Illiquid**: Lengthy periods required for purchase & sale and involves high transaction costs.
- **Deflationary Economic Environment:** Real estate may not be a good investment in a disinflationary or deflationary economic environment (though rental income tends to lag downturns in the economy).
- **Speculative bubbles:** Real estate performance can be subject to pronounced cyclicality and speculative bubbles which are often followed by steep price declines.





MORTGAGE BACKED SECURITIES: FINANCIAL CRISIS 2008

MBS

- A mortgage-backed security (MBS) is an investment that is made up of a bundle of home loans bought from the banks that issued them. Investors in **MBS** receive periodic payments similar to bond coupon payments. The **MBS** is a type of **asset-backed security**.

Financial Crisis

- Mortgage-backed securities played a central role in the **financial crisis** that began in 2007, it brought down **Lehman Brothers** & wiped out trillions of dollars in wealth.

Subprime MBS

- The rapid increase in home prices and the growing demand for MBS encouraged banks **to lower their lending standards** which attracted the customers.

Freddie Mac & Fannie Mae

- These are **publicly owned government-sponsored enterprise** that aggressively supported the mortgage market, the quality of all mortgage-backed securities declined and their ratings became meaningless. Then, in 2006, housing prices peaked.

Subprime Borrowers

- They started to **default** and the housing market began its long collapse, homes were worth less than their debts.

Economy Collapsed

- The losses piled up as institutional investors and banks tried and **failed to unload bad MBS investments**. Credit tightened, making many banks and financial institutions **insolvent.**

Regulators

- The **Federal Reserve bought $4.5 trillion** in MBS over a period of years while the **Troubled Asset Relief** Program (TARP) injected capital directly into banks. **The U.S. Treasury** stepped in with a $700 billion financial system bailout intended to ease the credit crunch.

OTHER ALTERNATIVE ASSETS

Infrastructure

- Attracted institutional investors as it provides higher yield, diversification, stable investments.
- Diverse growth in this asset class due to public-private partnership.
- Provides inflation-linked cash flows.
- It has heterogeneous assets, amalgamation of various sectors:
- Roads
- Bridges
- Ports
- Airports
- Power generation and distribution
- Water and gas utilities
- Communications

Currencies (FX)

- This asset class has low correlation with bond or equity markets, which attracts the investors.
- Investing in currencies is a useful tool in diversifying an investment portfolio.
- They are income-producing assets, as investors can earn **interest on foreign currency deposits.**

Art & Collectibles

- Collectibles are seen as **a store of value due to their permanence, portability, and rarity value.**
- They don't generate any income, their value can only be realized by the **sale and transfer of possession**.
- It exhibits low correlation with other asset classes and thus gives opportunity to diversify the portfolio.
- **Compound annual rates** of growth in art prices have historically outperformed bonds and inflation, but underperformed equities**.**
- Collectibles include art, fine wines, jewelry.
- **Sir Kenneth Clark,** art critic & TV personality turned an investment of a few $1000 to **millions of dollar** in less than 50 years.

Credit derivatives

- These are financial instruments through which **the credit exposure** of an underlying asset can be **transferred** between two (or more) counterparties.
- The most popular form is the **credit default swap**, in which a protection buyer is **covered against default** on a reference asset through the payment of a **protection premium** to a protection seller.
- Credit derivatives enable investors to both **acquire and hedge the credit exposure of a reference asset &** ability to **transfer credit risk and returns.**
- It appeals to portfolio managers who invest in distressed debt, **high yield debt,** bank loans, or other credit-dependent assets**.**
- It contains liquidity risk, operation risk **and counterparty risk.**

Managed futures

- These are professionally managed by commodity trading advisors (CTAs). It is similar to mutual funds, but they only trade in **futures and futures options**.
- They have **virtually zero correlation** to traditional asset classes, thus enhances **portfolio returns as well as lower overall volatility.**
- Trading advisors can participate in global **markets, such as commodities, stock indexes, currencies.**
- Many funds diversify further by using several trading advisors with different trading approaches.

Commodities

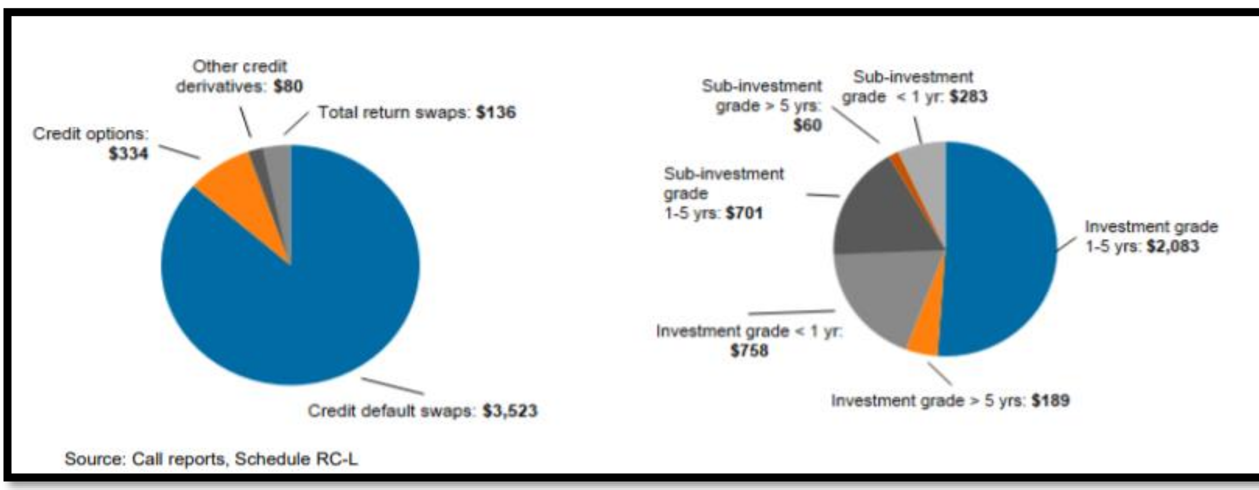
- Commodities are raw or refined material that is traded, consumed (corn), transformed into finished goods (oil-gasoline)or act as a store of value (gold, precious metals).
- The value of a particular commodity is dependent upon **global supply and demand**.
- Most commodities are **exchange-traded and are for future delivery**.
- Commodities **diversify** an investment portfolio as they have **less correlation** with other asset classes & among themselves.
- Act as a **countercyclical.**
- Returns on commodity futures are derived from: Returns made by **rolling near-dated contracts forward** into far-dated contract, **price performance,** interest earned on excess **margin collateral**
- Example: **MCX iCOMDEX Indices, SPDR Gold Share ETF, U.S. Oil Fund** that tracks the movement of West Texas Intermediate light, sweet crude oil;AUM: $1.4B.

CREDIT DEFAUT SWAP

CDS in Financial Crisis 2008

- Credit default swaps were invented by Blythe Masters, former executive of JP Morgan in 1994.
- It became popular in the early 2000s, and by 2007, the outstanding CDS value stood at $62.2 trillion. During the financial crisis of 2008, the value of CDS was hit hard, and it dropped to $26.3 trillion by 2010.
- Lehman Brothers investment bank, owed $600 billion in debt, out of which $400 billion was covered by CDS. American Insurance Group lacked sufficient funds to clear the debt & the Federal Reserve intervened to bail out.
- The Dodd-Frank Wall Street Report Act of 2009 was introduced to regulate the credit default swap market which phased out the riskiest swaps and prohibited banks from using customer deposits to invest in swaps and other derivatives.

2019 Credit Derivative Composition, in Billions of Dollars



STRCUTURED PRODUCTS

These are securities that are structured and issued by banks and other financial institutions, using **combinations of financial instruments**, such as bonds, equities, and derivatives.They are sold in the form of **notes or bonds** which have a **fixed maturity date and returns** that are linked to the performance of **an underlying index, price, or rate** (such as a stock index or FX rate). The notes are fully principal protected. Offers a great **variety & exposure** to different markets or underlying assets. All structured products involve liquidity risk, interest rate risk, volatility risk, commodity price risk & credit risk: the risk that issuer of the structured product may fail to fulfill liabilities to the investor.

Guaranteed Investment Contract (GIC)

- It is a multi-year investment note sold at or near to its face value to both retail and professional investors. No income is usually paid to investors over the life of a GIC and the payoff is flat when the index is lower and is an upward when the index grows to a level higher than a predefined "strike" price.

Lookback product

- The value of the underlying asset is not based on its final value at expiration, but on an average of values taken over the note's term, monthly or quarterly.
- This is also called Asian option, European Option or American Option.

The Rainbow Note

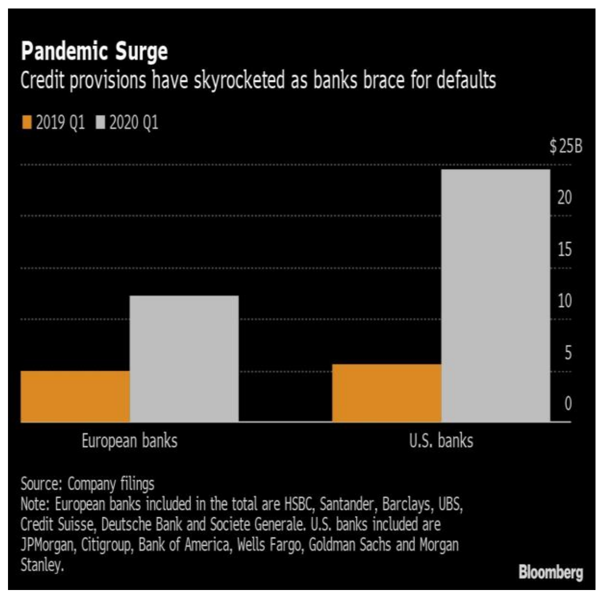
- It is a structured product that offers exposure to more than one underlying asset.
- A rainbow note could derive performance value from three relatively low-correlated assets like the MSCI Pacific Ex-Japan Index, the Dow-AIG Commodity Futures Index, the Russell 3000 Index of U.S. stocks Attaching a lookback feature to this structured product could further lower volatility by smoothing returns over time.

FRENCH BANKS LOST IN THE COMPLEX WORLD OF FINANCE

BNP PARIBAS
The bank for a changing world

BNP Paribas & SocGen

- Structured products had been big money earners for BNP Paribas and SocGen. But the banks that operates in 14 markets in the region have been among Europe's worst-hit financial stocks in year 2020.
- **BNP Paribas and Société Générale both reported approx $200million hit to the revenues related to structured products the banks issued for yield starved clients.**
- Equities income was wiped out when companies moved to cancel dividends, impacting structured products. The equities slump offset a near 35% increase in revenue from fixed income, currency and commodity trading, above the Wall Street average.



Investor should purchase financial instruments like they purchase groceries, not like they purchase perfume. A good investment is not what gives you the highest returns on the lowest risk but the one that meets the objective of the customer.

PART C: LEARNINGS

FUNCTIONAL LEARNING

As I was in operations team, our work was to make the processes efficient. There were sub-branches under the Banking operations.

1. It provided its wealth management services to high net worth clients who were divided according to the amount of the wealth they wanted to invest. Clients were usually divided on the basis of **High Net worth individuals and Ultra High net worth individuals.**

2. All the accounts of the clients are also managed by the team. If the client changes his address or if his type of business changes or the status of marriage changes; every data needs to be up to date. All the **clients' database** is recorded and maintained. The client also provides with the mandate in which he elaborates the way he wants to trade the instruments. He tells how he wants his money to be invested and what are his goals and ambitions so that the managers can invest according to his requirements. All such data related to the accounts and personal information is maintained by the team.

3. **Operations related to Cash:** This includes bills payable, bills overdraft, cash shortage as the company does transactions internationally.
   Any discrepancy in data or any difference needs to be controlled and taken care of. All such processes are checked on a daily basis and amendments are done at the end of the day if there is any difference.

4. There is an option of investing independently in which clients manages his own cash and invests and trade in securities. Even that information needs to be recorded and maintained.
   It needs to be recorded that how much percentage of cash has been invested in different investing avenues. All such information needs to be updated timely.

5. If there is some corporate action for example stock split or stock repurchase, the number of holdings changes and thus even that needs to be updated in the accounts of the clients. Any changes need to be recorded without any mistake or flaw. The affects of dividend distribution are also recorded.

6. As the information is recorded at multiple sources, **reconciliation** of the data needs to be done as the same record is maintained at every platform.

7. The bank also needs **to abide by all the tax policies** which differ according to different types of investment. The team takes care of such tax guidance and accordingly records the balances.

8. **Account transfer and management:** If the client transfers the account, all the information needs to reconciled and transformed meticulously.

The operations team is working to make all these processes automated and find the flaws and amend them if any. Technical tools are being applied to see what will be appropriate and make the processes more efficient. The aim is to save the cost and time of the human resources so that they invest their time in productive decisions. Machine learning and Artificial Intelligence is applied. Machine learning identifies the past patterns of investment and applies to the new clients. So instead of doing the processes manually, technologies are being applied to capture data.

To improve the process, there are different projects started which go on for several months to analyse the processes and come with a solution to decrease the flaws, errors and discrepancies in data. **For example:**

- ✓ **Huge volumes** were recorded and analysed. If there were any errors, they were identified, the source of the error was identified and the team worked at the root cause to terminate the problem. Observations were done and recommendations made to rectify the errors.

- ✓ There were different tools applied to extract the data from the files and to representative the data in a presentable manner. So tools were used for **data visualization and data presentation.**

- ✓ **RPA (robotic process automation)** is applied as it automates the repetitive tasks. It fetched the data and keep the data ready making the work easier, effective, efficient.

- ✓ **Gaps or difference**: If there is any gap or difference in amount of data at different sources, team tries to match it by finding the mistake and the flaws. The team reviews it and puts extra efforts to know if the error was genuine and tries to rectify it.
  The team is working manually to keep all the transactions in process and to see where our Technology is lagging behind and how it can be fixed.

- ✓ The data and information of **Management Information System (MIS)** from all the branches is collected at the end of the day to present it to the senior manager. All the data should be allocated at one place for convenience and to make it presentable, for example:
  How much percentage of work was completed in a day and how much is left to reach

the target. How many employees were present and how many hours they devoted to their work? For this, several softwares were tested to understand which one could accommodate the data properly and systemically and could also update the data if any changes were made at any point of time. A regular mail is sent to get the daily status. All such data is collected to see if there are any loopholes and to make the processes and work more efficient.

- ✓ **Employees' overtime**: If any employee works overtime; the reason for his/her overtime is recorded and analysed if it was required or not. The rationale behind overtime is analysed and the file is updated. Few employees are only allowed to overtime and an employee is allowed to overtime for certain hours only per month. If an employee overtimes very often, analysis is done that why s/he is burdened with so much work. The monthly overtime report is mailed. Once the overtime is approved by the manager, the employee is paid for that service.

- ✓ Due to **Covid,** everyone started working from home suddenly. Some employees didn't have good wifi connection, some didn't have adequate laptops, and some employee's mouse wasn't working well. All such requirements of different employees were recorded and it was the responsibility of the operations team to make all the equipments available to the employees and maintain its proper record. There were surveys done to check if all the requirements were fulfilled or not and the technical issues were solved or not.

- ✓ All the employees are designated with different positions. Many new employees onboard and need to be allocated with different designation/post. So the new employee gets a post by seeing his department line & the business line he would be working under. So in this manner, the operations team makes everything systematic and standardized.

- ✓ There are softwares that function to control the errors and breaches. Risk is calculated for each process and analyzed. After analyzing the risks, root cause is identified and the issue is resolved.

- ✓ The team worked to deploy technology in all the process and to reduce manual work. It worked to automate every process and to decrease the manual interaction. The purpose was to increase efficiency in all the processes and functions.

- ✓ The activities were monitored on a daily basis to recheck if any task was missed in the day. If anything was missed, it was raised and completed; thus completing the tasks of the day.

PERSONAL LEARNING

The world is governed by finance in every way from the largest transaction to the smallest nuances. Since my graduation, I was determined to opt for this particular domain due to a plethora of opportunities it presents and JPMC is one of the most important milestones that has introduced me to every dimension of finance and has helped me take a step ahead to achieve my dream.
It was my first corporate experience and this internship introduced to me a lot of concepts from scratch and kept me happily engaged. It has played a pivotal role in shaping my career and helping me understand the very crux of the type of work that is demanded under the domain of Finance. The team at JPMC is very dedicated and humble and has helped me in every possible way and has motivated me to give my cent percent.

I learnt soft skills of how to make presentations boldly; I also learnt how to make corporate business presentation, how to address other teammates. As the culture at the organization was to treat everyone equally, we conversed with senior post manager also. Thus, I learnt how to talk to senior managers like executive directors confidently.

Through this internship, I have learnt that to make something successful; efficiency and effectiveness is needed in every step towards it. To achieve one big thing, there are many parts, sub parts involved in it.To be one of the successful banks, the organisation needs to achieve perfection in its every step, be it trivial or tremendous function.
"Drop by drop fills the ocean", applies best here.
The team not only works to fulfill the task, but it's working and analysing data to know how the tasks can be achieved more efficiently.
It is working to make the processes more flawless and errorless. It wants to innovate in all the dimensions. The team works to facilitate better functioning of the back office. It's coordinating all the functions and processes at different platforms.
The technology has advanced so much that there is a technical tool alternative for every manual work. This releases the person from manual work and lets him invest his mind in productive work. Hence, this Process improvement project is adopted so that the employees bring new ideas to automate the processes.

The senior managers also gave us some life lessons. They encouraged us to vocalize our views and opinions. They taught that we should be adaptive to changes in dynamic market and keep innovating. They taught that we must always put efforts to grow and develop & should not let our career saturate. If there is risk, there may be rewards; there might be repercussions. But failure is our BFF. “Fail fast, Recover fast!” They inspired ‘servant like attitude’ by telling that the leader must serve the people humbly. “Spread the joy, spread the wealth!”

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