

Video lecture

https://youtu.be/RgT8odI_gqo

What?

There are several fixed income securities that we can include into our financial portfolio. These include, CDs, treasuries, agencies, municipals, corporates and high yield corporates. Each of these fixed income securities serve a specific purpose and may or may not be suitable for our portfolio goals.

CDs

Certificates of deposits (CDs) are time deposits at financial institutions. Individual CD holders have deposit insurance through Federal Deposit Insurance Corporation (FDIC) up to \$250,000. CDs may be simple bank accounts at our usual banks in our neighborhood. CDs can also be purchased from any financial institution through our brokerage company. Either way though, when we buy a CD, we receive deposit insurance. CDs cannot be sold or withdrawn before their maturity. Early withdrawal usually involve severe financial penalties. CDs cannot be transferred as well. Please note that, like any other fixed income security, CDs bear market and interest rate risks.

Some example CDs from our brokerage company:

Coupon Maturity	Knell Ratings	Issue Description Call Information CUSIP	Price	APY/YTW	YTM	Qty/Min.(M)	Action	Market Trade Date Settle Date
2.750 01-14-2020	N/A	WELLS FARGO BANK NA (SD) 13 MONTH, Non Callable CUSIP: 949763VZ6	100.000	2.785	2.785	35,575/1	Buy	Primary 12/13/2018 12/14/2018
1.750 01-27-2020	B+	ALLY BK MIDVALE UTAH Non Callable CUSIP: 02006LWZ5	98.881	2.746	2.746	6/1	Buy	Secondary
1.850 01-27-2020	B	GOLDMAN SACHS BK USA NY Non Callable CUSIP: 38146J6L0	99.175	2.583	2.583	30/1	Buy	Secondary
1.950 02-04-2020	B	DISCOVER BK Non Callable CUSIP: 254872QH5	99.225	2.626	2.626	10/1	Buy	Secondary
2.350 02-18-2020	B-	MORGAN STANLEY BK N A UTAH Non Callable CUSIP: 61747MK67	99.562	2.718	2.718	203/15	Buy	Secondary

Notice the first CD that is offered by WELLS FARGO BANK NA (SD). It has a coupon payment of 2.750% and its maturity is 01-14-2020. It is a non-callable CD and its CUSIP number is 949763VZ6. CUSIP number is the specific identifier for fixed income securities. Just as stocks have symbols, fixed income securities have CUSIP number. Note that each issuer can issue many different fixed income security, having one identifier per issuer would not

work. Whereas companies have one stock and thus having one symbol for this stock is sufficient.

The first CD has a price of \$100 and its yield to withdrawal (APY/YTW) is 2.785%. Since, it is a non-callable CD, its yield to maturity (YTM) is the same as YTW. There are 35,575 CDs available for purchase and minimum number of CDs to trade is 1.

Treasuries

Treasuries are fixed income securities issued by the US treasury department. They are considered to have the lowest level of default risk among all fixed income securities. Treasuries are highly liquid and they can be bought and sold with ease. Please note that, like any other fixed income security, treasuries bear market and interest rate risks. Shorter the maturity, higher the liquidity and lower the market and interest rate risks. Maturities of treasuries vary from 1 month to 30 years.

There is a treasury auction for these fixed income securities every trading day. The yields for treasuries are announced through treasury departments own web site.

Date	1 Mo	2 Mo	3 Mo	6 Mo	1 Yr	2 Yr	3 Yr	5 Yr	7 Yr	10 Yr	20 Yr	30 Yr
11/01/18	2.21	2.28	2.32	2.49	2.67	2.84	2.91	2.96	3.06	3.14	3.29	3.38
11/02/18	2.19	2.28	2.33	2.50	2.70	2.91	2.98	3.04	3.13	3.22	3.37	3.46
11/05/18	2.20	2.29	2.36	2.51	2.71	2.91	2.99	3.03	3.12	3.20	3.34	3.43
11/06/18	2.23	2.29	2.35	2.52	2.72	2.93	3.01	3.05	3.14	3.22	3.35	3.43
11/07/18	2.23	2.29	2.37	2.51	2.74	2.96	3.03	3.07	3.15	3.22	3.35	3.43
11/08/18	2.21	2.29	2.35	2.52	2.74	2.98	3.05	3.09	3.17	3.24	3.36	3.43
11/09/18	2.21	2.30	2.36	2.52	2.73	2.94	3.01	3.05	3.13	3.19	3.32	3.40
11/13/18	2.24	2.32	2.38	2.53	2.72	2.89	2.95	2.99	3.07	3.14	3.28	3.36
11/14/18	2.24	2.33	2.38	2.52	2.71	2.86	2.92	2.95	3.04	3.12	3.26	3.35
11/15/18	2.20	2.32	2.37	2.51	2.70	2.86	2.91	2.94	3.02	3.11	3.27	3.36
11/16/18	2.21	2.31	2.36	2.50	2.68	2.81	2.85	2.90	2.99	3.08	3.23	3.33
11/19/18	2.23	2.32	2.38	2.52	2.66	2.79	2.82	2.87	2.97	3.06	3.22	3.32
11/20/18	2.23	2.35	2.39	2.51	2.67	2.79	2.83	2.88	2.97	3.06	3.22	3.31

Agencies

Agencies are fixed income securities issued by US agencies. They are usually considered to bear lower default risk since they are US agencies. However, their yields are usually little higher than ordinary treasuries. Please note that, like any other fixed income security, agencies bear market and interest rate risks.



Coupon Maturity Coupon Type	Issue Description Call Information CUSIP	Ratings Outlook Industry	Price	YTW	YTM	Qty/Min (M)	Action	Additional Resources
1.200 01-06-2020 Fixed	FEDERAL FARM CR BKS Cont Callable, Next Call 12-10-2018 @ 100.000 CUSIP: 3133EGLV8	Aaa/AA+ [] / [] Agency	98.393	2.707	2.707	855/5	Buy	Moody's Report
1.500 01-17-2020 Fixed	FEDERAL HOME LN MTG CORP Non Callable CUSIP: 3137EAEES	Aaa/AA+ [] / [] Agency	98.796 98.873	2.597 2.527	2.597 2.527	1,000/2 5,000/25	Buy	Moody's Report
1.625 01-21-2020 Fixed	FEDERAL NATL MTG ASSN Non Callable CUSIP: 3135G0A78	Aaa/AA+ [] / [] Agency	98.872 98.910 98.999	2.643 2.609 2.528	2.643 2.609 2.528	3,260/500 750/2 5,000/25	Buy	Moody's Report
1.500 01-24-2020 Fixed	FEDERAL NATL MTG ASSN Non Callable CUSIP: 3136G1B24	Aaa/AA+ [] / [] Agency	98.752	2.619	2.619	3/1	Buy	Moody's Report
2.000 02-07-2020 Fixed	FEDERAL NATL MTG ASSN Non Callable CUSIP: 3136FTB73	Aaa/AA+ [] / [] Agency	99.274	2.630	2.630	500/1	Buy	Moody's Report

Notice the first security offered by FEDERAL FARM CR BKS. This is a continuously callable issue with the next call date of 12-10-2018. At this date the call price is \$100. This specific issue has a coupon payment of 1.2% and its maturity is 01-06-2020. It is currently trading at \$98.393 and its yield to maturity (YTM) and yield to call (YTW) is 2.707%. There are 855 securities available for trade and there is a minimum trade amount of 5 issues at a time.

Municipals

Municipals are fixed income securities that are issued by municipalities around the US. They are considered to be comparable to corporate bonds with respect to risk and return. While there are prime issues there are also junk issues. Please note that, like any other fixed income security, municipals bear market and interest rate risks. Some municipals offer income tax exemptions. If we buy tax exempt municipal fixed income securities, our income from these securities would be exempt from any income tax. This feature however helps the municipalities rather than the investors. This is because municipalities sell at a slightly lower yield which is usually equal to the effect of the tax exemption for investors.

State Type	Issue Description Call Information CUSIP	Coupon Maturity Issuer	Ratings Outlook Underlying Ratings	Price	YTW	YTM	Qty/Min (M)	Action	Additional Resources
MO REV	MISSOURI ST HEALTH & EDL FACSOUTH HEALTH FACS REV REV BDS EUC HEALTH SYSTEM HOSPITALS REV ALL BONDS Ser 2014, Non Callable, Extraordinary Redemption Provisions CUSIP: 60637AEM0	5.000 01-01-2020	Aa2/AA [] / [] Aa2/---	103.370	1.811	1.811	5/5	Buy	SAP News SAP Report EMMA Disclosure MuniPoints
IL GO	PEORIA ILL GO REF BDS GEN PURP/PUB IMPT ULT GLO ALL BONDS Ser B, Non Callable CUSIP: 7131784U8	4.000 01-01-2020	A2/AA- [] / [] A2/---	101.925	2.173	2.173	5/5	Buy	SAP News SAP Report EMMA Disclosure MuniPoints
WA	WASHINGTON ST CTFS PARTN COPS GEN PURP/PUB IMPT LEASE-RENT CTFS OF PARTN Ser 2015B, Non Callable, Extraordinary Redemption Provisions CUSIP: 939720CX9	5.000 01-01-2020	Aa2/--- [] / [] Aa2/---	103.521	1.672	1.672	5,745/5	Buy	SAP News SAP Report EMMA Disclosure MuniPoints
WA	WASHINGTON ST CTFS PARTN COPS GEN PURP/PUB IMPT LEASE-RENT CTFS OF PARTN Ser 2016 B, Non Callable, Extraordinary Redemption Provisions CUSIP: 939720UF3	3.000 01-01-2020	Aa2/--- [] / [] Aa2/---	101.200	1.864	1.864	5/5	Buy	SAP News SAP Report EMMA Disclosure MuniPoints

Notice the first security issued by MISSOURI ST HEALTH & EDL FACSOUTH HEALTH FACS REV REV BDS. It offers a 5% coupon and it has a maturity of 01-01-2020. It is a non-callable issue. It is currently selling at the price of \$103.370. Its yield to maturity (YTM) and yield to call (YTW) are the same at 1.811%. Currently there are 5 securities available and minimum number of issues that can be traded is 5. Notice that this issue has “Extraordinary Redemption Provisions.” These provisions may be quite important and we need read the bond indentures for these provisions.

Corporates

Corporate fixed income securities are issued by domestic and international corporations as well as foreign governments. These securities bear default risk as well as market and interest rate risk. These issues may have special provisions that may be quite important for investors. Seniority of issue and collaterals are common among these special provisions.

Coupon Maturity Coupon Type	Issue Description Call Information CUSIP	Ratings Outlook Industry	Price	YTW	YTM	Qty/Min (M)	Action	Additional Resources
5.500 01-08-2020 Fixed	GENERAL ELEC CAP CORP MTN BE Non Callable CUSIP: 36962GAJ0	Baa1/BBB+ [] / [] Industrial	101.070 101.244 101.870	4.480 4.317 3.732	4.480 4.317 3.732	19/5 15/15 500/10	Buy	Moody's Report
2.661 01-09-2020 Fixed	FORD MOTOR CREDIT CO LLC Non Callable CUSIP: 345397YE7	Baa3/BBB [] / [] Industrial	98.666 98.844 99.830	3.636 3.672 2.839	3.636 3.672 2.839	1,700/200 200/200 500/200	Buy	Moody's Report
2.200 01-09-2020 Fixed	GENERAL ELEC CAP CORP MTN BE Cont Callable, Next Call 12-09-2019 @ 100.000, GENERAL ELECTRIC COMPANY CUSIP: 36962G7N0	Baa1/BBB+ [] / [] Industrial	97.822 97.850	4.256 4.229	4.256 4.229	130/5 100/10	Buy	Moody's Report
2.100 01-10-2020 Fixed	CATERPILLAR FINL SVCS MTNS BE Non Callable, Make Whole Calls CUSIP: 14912L8Y2	A3/A [] / [] Financial	99.116 99.420	2.923 2.639	2.923 2.639	233/50 500/10	Buy	Moody's Report
2.450 01-10-2020 Fixed	CTTIGROUP INC Cont Callable, Next Call 12-10-2019 @ 100.000, Make Whole Calls CUSIP: 172967LF6	Baa1/BBB+ [] / [] Financial	99.290 99.326	3.112 3.078	3.112 3.078	214/10 125/5	Buy	Moody's Report

Notice the first security issued by GENERAL ELEC CAP CORP MTN BE. It has a coupon of 5.5% with maturity of 01-08-2020. It is a non callable issue. Its current price is \$101.070 and this translate to a yield to maturity of 4.480%. Currently there are 19 issues available for sale with a minimum of 5 per trade. There is another seller however. Since this seller's price is a little higher, s/he is the second in line among sellers. His/her price is \$101.244 and this translates into a yield to maturity of 4.317%. There is also a third seller with a price of \$101.870 and yield to maturity of 3.732%.

High yield corporates

High yield corporates are corporate fixed income securities. The reason that they have their own category is the fact that they are considered to have



high default risk. Since their yields are usually high, they also have higher market and interest rate risks. These can be issued by any company as well as by any foreign government.

Coupon Maturity Coupon Type	Issue Description Call Information CUSIP	Ratings Outlook Industry	Price	YTW	YTM	Qty/Min.(M)	Action	Additional Resources
5.000 01-15-2020 Fixed	CALIFORNIA RES CORP Cont Callable, Next Call 12-15-2019 \$ 100,000, Make Whole Calls, CALIFORNIA HEAVY OIL INC. CUSIP: 13057QAB3	Caa3/CCC- [] / [] Industrial	94.810	10.042	10.042	50/5	Buy	Moody's Report
8.500 01-15-2020 Fixed	TEEKAY CORPORATION Non Callable, Make Whole Calls CUSIP: 97300Y9A1	Caa1/B+ [] / [] Transportation	100.810 101.290	7.712 7.258	7.712 7.258	100/5 100/5	Buy	Moody's Report
4.050 01-23-2020 Credit Sensitive	SOUTHWESTERN ENERGY CO Callable, Next Call 12-23-2019 \$ 100,000, Make Whole Calls CUSIP: 845467AK5	Ba3/BB [] / [] Industrial	101.350 101.840	2.736 2.266	2.829 2.393	7/7 100/5	Buy	Moody's Report
5.625 02-01-2020 Fixed	M.D.C.HLDGS INC Non Callable, Make Whole Calls, RICHMOND AMERICAN HOMES OF ARIZONA INC CUSIP: 552676AP3	Ba2/BB+ [] / [] Industrial	102.790	3.143	3.143	100/5	Buy	Moody's Report
7.625 03-15-2020 Fixed	CLEAR CHANNEL WW HLDGS INC Cont Callable, Next Call 01-02-2019 \$ 100,000, Make Whole Calls, CLEAR CHANNEL OUTDOOR HOLDINGS INC CUSIP: 18451QAH1	Caa1/CCC+ [] / [] Industrial	100.475	1.264	7.215	100/5	Buy	Moody's Report

Notice the first issue by CALIFORNIA RES CORP. This issue has a coupon of 5% with a maturity date of 01-15-2020. This is a continuously callable issue with the next call date of 12-15-2019 with a call price of \$100. The “make whole call” stipulation refers to the ability of the issuer to payoff the outstanding issues early. The current price is \$94.810 which translates into yield to maturity of 10.042%. Notice how high the yield is. This is because of the risk involved by buying this issue for the investor. There are 50 issues available with minimum trade amount of 5.