Cash Management Rates Snapshot

Morgan Stanley

Monday, May 13th, 2019

Cash Market Indices:[1]

Term	Rate (%)	Tax-exempt Equiv (%)
1W LIBOR	2.38850	1.55%
1M LIBOR	2.44900	1.59%
2M LIBOR	2.48963	1.62%
3M LIBOR	2.52788	1.64%
6M LIBOR	2.58700	1.68%
1Y LIBOR	2.69338	1.75%
FED FUNDS	2.37000	1.54%
O/N REPO	2.41000	1.57%

Corporate Bond (AA):[2]

Term	Discount Rate (%)	BEY (%)
12 months	2.51	2.60
24 months	2.50	2.58
36 months	2.52	2.61

Corporate Bond (A):[3]

Term	Discount Rate (%)	BEY (%)
12 months	2.63	2.72
24 months	2.64	2.73
36 months	2.66	2.75

Corporate Bond (BBB):[4]

Term	Discount Rate (%)	BEY (%)
12 months	2.87	2.97
24 months	2.94	3.05
36 months	3.00	3.11

Municipal Market Indices:[5]

SIFMA Index	1.59	1Y AAA MMD	1.51

U.S. Treasury Bills:[6]

Term	Discount Rate (%)	BEY (%)
30 day	2.36	2.39
90 day	2.34	2.39
180 day	2.31	2.37
360 day	2.24	2.31

Commercial Paper (A1+/P1+/F1+):[7]

Term	Discount Rate (%)	BEY (%)
7 day	2.39	2.42
15 day	2.39	2.43
30 day	2.40	2.44
45 day	2.40	2.44
60 day	2.41	2.45
90 day	2.42	2.47
120 day	2.44	2.49
150 day	2.44	2.50
180 day	2.44	2.50
270 day	2.42	2.49

Commercial Paper (A1/P1/F1):[8]

Term	Discount Rate (%)	BEY (%)
7 day	2.37	2.40
15 day	2.38	2.42
30 day	2.41	2.45
45 day	2.43	2.47
60 day	2.45	2.49
90 day	2.48	2.53
120 day	2.50	2.56
150 day	2.51	2.57
180 day	2.51	2.58
270 day	2.52	2.59

Commercial Paper (A2/P2/F2):[9]

Term	Discount Rate (%)	BEY (%)
7 day	2.57	2.61
15 day	2.60	2.64
30 day	2.66	2.70
45 day	2.68	2.73
60 day	2.71	2.76
90 day	2.79	2.85
120 day	2.92	2.99
150 day	3.04	3.12
180 day	2.98	3.07
270 day	3.43	3.55

Commercial Paper (A3/P3/F3):[10]

Term	Discount Rate (%)	BEY (%)
7 day	3.00	3.04
15 day	3.05	3.10
30 day	3.12	3.17
45 day	3.15	3.21
60 day	3.16	3.22
90 day	3.10	3.17
120 day	N.A.	N.A.
150 day	N.A.	N.A.
180 day	N.A.	N.A.
270 day	N.A.	N.A.

Agency Discount Notes:[11]

Term	Discount Rate (%)	BEY (%)
7 day	2.29	2.32
15 day	2.31	2.34
30 day	2.34	2.38
45 day	2.37	2.41
60 day	2.38	2.42
90 day	2.38	2.43
120 day	2.36	2.41
150 day	2.34	2.40
180 day	2.31	2.37
270 day	2.27	2.33

Certificates of Deposit:[12]

Term	Interest Rate (%)	APY (%)
30 day	2.20	2.22
60 day	2.20	2.22
90 day	2.25	2.27
180 day	2.25	2.26
270 day	2.35	2.36

1. Source: Bloomberg. Fed Funds is Fed Funds Effective Rate.
2. Source: Bloomberg. Rates are composite of offered levels for AA US Corporate Bonds.
3. Source: Bloomberg. Rates are composite of offered levels for A US Corporate Bonds.
4. Source: Bloomberg. Rates are composite of offered levels for BBB US Corporate Bonds.
5. Municipal Market Indices sourced from:
- 1Y AAA MMD is Municipal Market Data 1 Year 'AAA' Index.
- SIFMA Index is Securities Industry and Financial Markets Association Index.
6. Source: Bloomberg.The index is a composite of offered levels for US Treasury bills.
7. Source: Bloomberg. Rates are composite of offered levels for A1+/P1+/F1+ US Commercial Paper.
8. Source: Bloomberg. Rates are composite of offered levels for A1/P1/F1 US Commercial Paper.
9. Source: Bloomberg. Rates are composite of offered levels for A2/P2/F2 US Commercial Paper.
10. Source: Bloomberg. Rates are composite of offered levels for A3/P3/F3 US Commercial Paper.
11. Source: Bloomberg.The index is a composite of discount offered levels received from brokers and dealers for U.S. Agency discount notes.
12. Retail primary market offerings (CDs under $100k) brokered by Morgan Stanley & Co. LLC. and available through Morgan Stanley Wealth Management.

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Key

BEY:	Bond Equivalent Yield. The yield on a discounted money market instrument or pass-through security calculated so that it is comparable to a yield computed on a coupon.
TEY:	Taxable Equivalent Yield. The yield which must be earned on a taxable investment to match the yield which would be earned on a tax-exempt investment. TEY calculation is based on a 35% federal tax bracket.
Tax-Exempt Equiv:	Yield which must be earned on a tax-exempt investment. Yield calculation is based on a 35% federal tax bracket.
LIBOR:	London Interbank Offering Rate
APY:	Annual Percentage Yield. The rate of return earned in one year, taking into account the effect of compounding.
NQ:	Not Quoted

Certificates of Deposit
Time deposits issued by financial institutions that typically entitle the holder to receive interest plus principal at maturity. Annual Percentage Yield (APY) is quoted as of the date shown above and is subject to availability. Early withdrawal is not permitted in most circumstances. A minimum deposit of $1,000 is required. Offered CDs are held through your account at Morgan Stanley Wealth Management. CDs are insured by the FDIC, an independent agency of the U.S. Government, up to a maximum amount of $250,000 (including principal and accrued interest) for all deposits held in the same insurable capacity (e.g. individual account, joint account, IRA, etc.) per CD depository. Investors are responsible for monitoring the total amount held with each CD depository. All deposits at a single depository held in the same insurable capacity will be aggregated for purposes of the $250,000 federal deposit insurance limit, including deposits (such as bank accounts) maintained directly with the depository and CDs of the depository held through Morgan Stanley. A secondary market in CDs may be limited. CDs sold prior to maturity are subject to market risk and therefore investors may receive more or less than the amount invested or the face value. Callable CDs are callable at the sole discretion of the issuer. For more information about FDIC insurance, please visit the FDIC website at www.fdic.gov. For a complete listing please contact your Morgan Stanley Financial Advisor.

Commercial Paper (CP)
Short-term negotiable unsecured promissory notes issued at a discount to par, primarily by industrial and financial corporations. Interest income on CP is fully taxable.

Corporate Bonds
A debt security issued by a corporation and sold to investors. The backing for the bond is usually the payment ability of the company, which is typically money to be earned from future operations. In some cases, the company's physical assets may be used as collateral for bonds.

Bonds are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which is the risk that the issuer will redeem the debt at its option, fully or partially, before the scheduled maturity date. The market value of debt instruments may fluctuate, and proceeds from sales prior to maturity may be more or less than the amount originally invested or the maturity value due to changes in market conditions or changes in the credit quality of the issuer. Bonds are subject to the credit risk of the issuer. This is the risk that the issuer might be unable to make interest and/or principal payments on a timely basis. Bonds are also subject to reinvestment risk, which is the risk that principal and/or interest payments from a given investment may be reinvested at a lower interest rate.

Federal Agency Discount Notes
Federal Agency Discount Notes are short-term securities issued by government sponsored enterprises (GSEs) at a discount to par value. The difference between the discount purchase price and the par value (the accreted interest) is paid at maturity. The interest earned on some Federal Agency Discount Notes is state and local tax-exempt.

U.S. Treasury Bills
Short-term securities issued by the U.S. Government at a discount to par. The difference between the discount purchase price and the par value (the accreted interest) is paid at maturity. The interest earned on T-Bills is state and local tax-exempt. When investors purchase Treasuries, they are lending their money directly to the U.S. Government. In turn, the government is generally obligated to pay investors periodic interest plus full principal at maturity. Treasuries are backed by the 'full faith and credit' of the U.S. government. They provide a government guaranteed return of principal when held to maturity.

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