



Dear Student,

This master supplement contains important guidance and study resources that should be a part of your Series 7 Top-Off preparation. These should be used in addition to a full set of resources, including a textbook, classroom lectures, and online practice exams (Qbanks).

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Options Worksheets (practice solving options questions)

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Margin Worksheets (practice solving long and short margin questions)

Good luck!

Formula Sheet

- Current Yield (CY) = Annual interest ÷ Market value of bond
- Accrued Interest = (Days of accrued ÷ Days in year) × Annual interest
 - o Corporates or Munis = 30 / 360 basis; T + 2 settlement
 - o Treasuries = Actual days / 365 day year; T + 1 settlement
- Conversion Ratio = Par value ÷ Conversion price
 - o Note: Set at the time a bond is issued. The conversion ratio and conversion price do not change, unless there is an anti-dilution covenant.
- Parity price of bond = Market value of stock × Conversion ratio
- Parity price of stock = Market value of bond ÷ Conversion ratio
- Dividend yield = Annual dividend ÷ Current market value of the stock
- Tax equivalent yield = Tax free yield ÷ (100% - Tax bracket)
 - o Used to convert a tax-free yield into a taxable yield
- Tax-free equivalent yield = Taxable yield × (100% - Tax bracket)
 - o Used to convert a taxable yield into a tax-free yield
- Annual Accretion = Total discount from par ÷ Years to maturity
 - o Accretion is the amount the cost basis of a bond is adjusted upwards towards par each year
- POP (Public offering price) = Sales charge (SC) + Net asset value (NAV)
- Sales charge = (POP - NAV) ÷ POP
- POP = NAV ÷ (100% - SC)
- Maintenance market value for long account = DR ÷ .75
 - o Minimum LMV before a margin call
- Maintenance market value for short account = CR ÷ 1.3
 - o Maximum SMV (before a margin call)

Retirement Plans

	<u>Qualified Corp. Plan</u>	<u>Traditional IRA</u>	<u>Roth IRA</u>	<u>Annuity Products</u>
Contributions (2021 limits)	Max: \$58,000 ELIGIBILITY: 1) 1-year tenure, 2) 21 years old, & 3) Full-time (1,000 hr/yr) or part-time workers who work at least 500 hours in 3 consecutive years - All plans must have a vesting schedule.	\$6,000 - \$7,000 if 50 years old or older ("catch-up provisions") <i>The \$6,000 limit is the total for all IRA accounts (both traditional and Roth)</i>	\$6,000 - 7,000 if 50 years old or older RESTRICTIONS: High-income earners cannot contribute	No limit
Contributions (taxes)	Pre-tax	Pre-tax* or post-tax	Post-tax	Pre-tax** or post-tax
Earnings & Growth	Tax-deferred	Tax-deferred	Tax-free	Tax-deferred
Distributions (age)	<i>Distributions may begin at 59½ years old</i> (Before age 59 ½: Distributions may face a 10% tax penalty)			
Distributions (taxes)	<u>All distributions</u> Taxed at ordinary income rates	<u>Contributions:</u> - Pre-tax: Taxed as ordinary income - Post-tax: No tax (already taxed) <u>Earnings & growth</u> Taxed at ordinary income rates	<u>Tax free</u> - Account must be opened for 5 years	<u>Contributions:</u> - Pre-tax: Taxed as ordinary income - Post-tax: No tax (already taxed) <u>Earnings & growth</u> Taxed at ordinary income rates
Notes	Examples: 1) Defined benefit (e.g. pension plan) and 2) defined contribution (401(k)) 3) HR-10 or Keogh Plans (self-employed)	* Pre-tax Traditional IRA contributions are available for individuals who have: 1) No corporate plan, or 2) Annual income of less than \$66,000 (single) or \$105,000 (married), regardless of corporate plan	Tax advantaged educational savings plans (e.g. 529 Plans or Coverdell ESA) have similar tax rules as Roth IRAs. Contributions are made post-tax, which grow and are distributed tax-free for qualified educational expenses.	** Pre-tax annuity contributions are available for qualified annuities, such as 403(b) plans, for employees of non-for profits (e.g. charities, hospitals, schools)

Suitability Chart

Investor Objective	Suitable Recommendation
Preservation of Capital (safety)	- FDIC insured bank Certificate of Deposits (CDs) - Money market instruments or funds (commercial paper) - T-Bills
Growth - Balanced/Moderate	- Large-Cap stocks - Defensive stocks (food, utility, drug companies)
Growth – Aggressive	- Technology stocks - Sector funds (biotech, technology, automotive) - Cyclical stocks (industries that produce durable goods, such as raw materials or heavy equipment)
Income – safety of principal	- US Government Bonds - US Government Bonds funds
Income – tax-free	- Municipal bonds - Municipal bond funds
Income – high-yield	- Corporate bonds - Corporate bond funds (NOTE: zero coupon bonds are not suitable for an income objective)
Income – from a stock portfolio	- Preferred stocks - Utility stocks
Liquidity	- Money market funds (NOTE: DPPs, real estate, and annuities are NOT considered liquid)
Speculation	- Volatile stocks - High-yield bonds - Stock/index options

Security	Defined	Benefits	Risks
Common Stock	Equity ownership in a corporation.	- Capital appreciation (growth) - Income (dividends) - Hedge against inflation - Transferability - Voting rights (proxy is absentee ballot) - Limited liability (at risk for only amount invested)	- Market risk - Business risk (poor earnings)
Preferred Stock	A class of ownership (equity) in the issuing company that shares characteristics of fixed income securities.	- Fixed dividend - No fixed maturity date - Preference at liquidation or dissolution over common stock (though still a weak claim on assets)	- Inflationary risk (purchasing power risk) - Interest rate risk - Dividends are not guaranteed

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Security	Defined	Benefits	Risks
Real Estate Investment Trusts (REITs)	A company that manages a portfolio of real estate investments to earn profits for shareholders. REITs are publicly traded and highly liquid.	- Allows investment in real estate without liquidity risk of direct real estate investments - Inverse relation to the performance of the general stock market - Reasonable income - Potential capital appreciation	- Performance of REIT depends on the manager - Defaults can cause the REITs income or capital to decrease - Dividends are taxed as ordinary income (not at the preferred 15% capital gains rate)
Corporate Bonds	A corporate bond represents money loaned to a corporation by investors. Corporate bonds can be secured or unsecured.	- Safety of principal (for highly rated bonds) - Steady stream of income (interest payments) - Fixed maturity date (return of principal) - High income (for speculative bonds)	- Risk of default - Inflationary risk (purchasing power risk) - Interest rate risk (as interest rates rise bond prices fall)
Municipal Bonds	A municipal bond represents money loaned to a municipality by investors. Municipal bonds are either i) general obligation bonds (backed by taxes) or ii) revenue bonds (backed by earnings of a revenue-producing enterprise, e.g. a bridge).	- Steady stream of income - Safety of principal (second only to US Government securities) - Federal tax-free income (and sometimes state and local tax-free)	- Credit risk (municipalities have occasionally defaulted) - Inflationary risk (purchasing power risk) - Interest rate risk (as interest rates rise bond prices fall) - Possible AMT tax implications
US Government Debt	US Government bonds are the safest investment - T-Bills – short term (1 year or less); issued at discount - T-Notes – medium term (2 - 10 years) - T-Bonds – long term (30 years) - Treasury Inflationary Protection Securities (TIPS) – protects against inflationary risk	- Steady stream of income - Highest safety of principal and interest - Liquidity - Fixed maturity date - Regular income - Inflation risk protection (TIPS only)	- Inflationary risk (purchasing power risk - except TIPS) - Interest rate risk - Lower rates in exchange for safety

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Security	Defined	Benefits	Risks
US Government Agency Debt and Government Sponsored Enterprises	US federal agency securities are issued by: - Ginnie Mae – GNMA (Government National Mortgage Association) - Fannie Mae – FNMA (Federal National Mortgage Association) - Freddie Mac –FHLMC (Federal Home Loan Mortgage Corporation) - Federal Home Loan Bank (FHLB) - Federal Farm Credit Bank	- Steady stream of income - Very safe - Higher coupon payments than Treasury securities	- Inflationary risk (purchasing power risk) - Interest rate risk - Pre-payment risk (for mortgage-backed securities)
Zero coupon Bonds	Zeros are issued at a deep discount and mature at par	- No reinvestment rate risk - Useful when saving for a target goal, such as retirement or college education	- Credit risk (risk of default) - Higher volatility - Taxed on accrued (phantom) interest - No regular interest payments
Money market securities	Short-term securities with maturity of one year or less. Most are issued at a discount and mature at par. The most widely-used benchmark for money-market securities is LIBOR. Examples of money market securities include: - Treasury Bills - Negotiable CDs - Commercial paper	- Safety - Liquidity - Minimal interest rate risk - Minimal inflationary risk	- Low return - Fluctuating income (principal is regularly being returned and must be reinvested)
Open-end Investment Company Securities (mutual funds)	A professional investment advisers manages the portfolio. Mutual fund shares are redeemable.	- Diversification - Professional management - Convenience - Liquidity - Low minimal investment (\$100 or less)	- Market risk (for equity funds) - Interest rate risk (for bond funds) - Fees & expenses (12b-1)

Security	Defined	Benefits	Risks
Closed-end Investment Company Securities	An investment company consisting of a set portfolio that trades in the secondary market (on exchanges or OTC). Examples include: - Country funds - Municipal bond funds (tax-free income) - Fixed income funds (taxable income)	- Diversification - Professional management - Convenience - Liquidity	- Market risk (for equity funds) - Interest rate risk (for bond funds) - Management fees & expense ratio
Hedge Fund Investments	Hedge funds are unregulated investment companies that pursue risky strategies seeking high returns. Investment in hedge funds is generally limited to institutional investors and wealthy individuals (accredited investors).	- Designed to generate positive returns in rising and falling markets - Multiple strategies to meet investment objectives - May add diversification to a portfolio	- High fees (2% & 20%) - Risky strategies can cause large losses
Direct Participation Programs (DPPs)	Most DPPs are limited partnerships which pass through income, gains, losses, deductions, and credits directly to the investors without paying corporate income tax.	- Professional management (the General Partner, GP) - Pass-through of income or loss (tax savings) - Limited liability (for limited partners)	- Liquidity risk (DPPs are illiquid) - Inability to use passive losses (passive losses can only be offset against passive gains) - Legislative risks - Risk of audit (ownership of DPPs is a red flag for the IRS)
Variable annuities	An annuity is a contract between an individual investor (the annuitant) and a life insurance company. The contract provides that the annuitant will pay premiums to the insurance company, and in return at a future date the insurance company will make payments back to the annuitant based on the performance of the investments for the lifetime of the annuitant.	- Tax-deferred earnings and growth - Guaranteed death benefit - Lifetime income (after annuitization) - Various investment options (within the separate account) - No required minimum distributions - No probate	- Earnings (once received) are taxed as ordinary income - High administrative and insurance related fees - Withdrawals made prior to age 59½ are subject to a 10% penalty - Potential surrender fees in early years - Market risk for selected investments

Cost Basis of Options Positions

Position	Cost Basis	Proceeds
Long Call	Strike price + premium	Market price
Short Call	Market Price	Strike price + premium
Long Put	Market Price	Strike Price - premium
Short Put	Strike price - premium	Market price