

Investment Banking Representative Qualification

Series 79 Top Off

Trending Topics | Crunch Time Facts

Includes:

Fact Sheet

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TRENDING TOPICS

BOND OR DEBT CONCEPTS

Although the majority of questions on bonds or fixed income securities are covered on the SIE Exam, some of the following basic concepts may also be tested on the Series 79 Exam.

A **call feature** on a bond is advantageous for the issuer since it allows the issuer to redeem the bond prior to its maturity. Issuers will most likely call bonds prior to maturity if interest rates are declining. If their bonds are called, bondholders will receive either par value or a premium above par value.

For variable rate instruments, the rate that's most commonly used by issuers as a benchmark to determine the rate at which they will pay interest to investors is the **London Interbank Offered Rate (LIBOR)**. For short-term, fixed rate securities, the benchmark rate is that of Treasury bills, while for longer term, fixed rate securities, the benchmark rate is that of Treasury notes or Treasury bonds.

If an issuer is struggling to sell its debt securities due to lack of investor demand, the issuer could offer an incentive to investors by increasing the rate it's currently paying to a larger spread above the comparable Treasury security (e.g., from 100 to 125 basis points).

A bond with the longest maturity and the lowest coupon rate will have the greatest duration or interest rate risk.

Since the purchase price of a Treasury bill is less than its par value and it pays no annual interest, its **bond** equivalent yield (BEY) is greater than its discount yield.

A CFO who's anticipating a declining interest rate environment, but wants to borrow funds for a long period, could issue bonds with a variable or floating rate coupon. A CFO who's investing surplus funds in a rising interest rate environment will expect an increase in interest income.

PROMISSORY NOTES

Promissory notes are similar to other debt securities and, when defined as securities, they're either subject to or exempt from SEC registration. One difference is that if a promissory note's maturity doesn't exceed 270 days (nine months), the SEC will typically not consider it to be a security.

UNDERWRITING CONCEPTS

A **jump ball** is a term that's used to describe a process by which an underwriter sets aside shares for institutional clients and allows all member firms to compete for orders. The profit is then allocated based on each member firm's sales. The institutions that receive allocations will generally designate the underwriters to whom the sales are credited.

The **free retention** is a term that's used to describe the amount of shares that an underwriter is allotted for placement to its own clients. Sales to the firm's retail clients are often filled from this amount, with the profit from the sales going to the member firm that made the sale.

NEW ISSUE PRICING AND TRADING PRACTICES

The lead underwriter is also referred to as the **book-running manager**. For regulatory purposes, if a syndicate has more than one lead underwriter, one of them will be considered the *book-running lead manager*. This firm is required to adhere to the following new issue pricing and trading practices:

- In order to provide transparency to issuers and their pricing committees, the book-running lead manager must provide reports on indications of interest and final allocations to the issuer's pricing committee (if the issuer has no pricing committee, then to its board of directors):
 - A report including the names of interested institutional investors and the potential number of shares indicated by each
 - A report of the aggregate demand from retail investors
 - After the settlement date, a report on the final allocations of shares to institutional investors and aggregate sales to retail investors
- Any lock-up agreements or other restrictions on the transfer of shares by officers and directors of the issuer (these restrictions will also apply to issuer-directed sales)
- The Agreement Among Underwriters (AAU) between the book-running lead manager and the other syndicate members must require that any shares trading at a premium to the public offering price which are returned by the purchaser of a syndicate member after secondary market trading:
 - Be used to offset the existing syndicate short position, or
 - *If no syndicate short position exists*, the member must either:
 - Offer returned shares at the public offering price to unfilled customers' orders pursuant to a random allocation methodology, or
 - Sell returned shares on the secondary market and donate profits from the sale to an unaffiliated charitable organization with the condition that the donation be treated as an anonymous donation

FAIRNESS OPINIONS

A fairness opinion is not required by law and doesn't exempt the board of directors from its fiduciary duty to shareholders. Advisors to a transaction (e.g., sell-side bankers) may write fairness opinions as long as conflicts of interest are disclosed. The creator of a fairness opinion must disclose whether additional compensation is contingent on the close of the transaction. However, the amount of the fee is not required to be disclosed.

A fairness opinion doesn't address the tax implications of a transaction. A fairness opinion that's written for the target's board of directors is not previewed or approved by the acquirer or its advisor (e.g., buy-side banker).

The creator of a fairness opinion is not required to verify information that it's been provided. Also, the creator of a fairness opinion is not liable for the accuracy of non-verified information that it's been provided; however, the creator must disclose that the information was not verified.

VALUATION

Economic Value Added (EVA) or Economic Profit = Accounting Profit - Opportunity Costs

- A common measure of EVA is [EBIT x (1 tax rate)] [WACC x Investment Capital]
- If Return on Invested Capital (ROIC) is greater than WACC, an investment or project will have an economic profit.



The Crunch Time Facts are a collection of statements that we believe are valuable as you engage in the final preparation to sit for your examination. These facts are not designed to raise questions; instead, they are to be part of your final review and used with any notes created during your studies.

CHAPTER 1 INDUSTRY TERMINOLOGY AND DATA COLLECTION

- A partnership may NOT own shares of a Subchapter S corporation.
- Distributions from a Subchapter S corporation are a non-taxable return of capital; however, the sale of Subchapter S corporation shares will result in capital gains (taxable) or capital losses.
- For a Subchapter S corporation, a married couple is considered one shareholder.
- A Subchapter S corporation is limited to 100 shareholders and is NOT able to be listed on an exchange (e.g., Nasdaq or the NYSE).
- An LP, MLP, LLC, and a C corporation company don't limit the number of owners/shareholders and its shares may be listed on an exchange. A GP's shares are NOT traded on an exchange.
- REITs pass through income (at least 90%), but cannot pass through losses.
- A company is required to file three 10-Qs and one 10-K per year, the required timing for the filing of these reports is based on the category of the filer:
 - A large accelerated filer has a public float of \$700 million or more, has filed one annual report (Form 10K),
 and has been subject to SEC reporting requirements for least 12 months.
 - An accelerated filer has a public float of at least \$75 million, but less than \$700 million, has filed one annual report (Form 10K), and has been subject to SEC reporting requirements for at least 12 months.
 - A non-accelerated filer has a public float of less than \$75 million.
- Form 10-K must provide audited financials, including balance sheets for the last two fiscal years, as well as income statements and cash flows for the last three years.
- Form 10-K must be signed by the principal executive officer, financial officer, controller, and a majority of the board of directors. However, the chairman of the board is not specifically required to sign.
- Form 10-Q is generally unaudited; it doesn't contain a list of greater than 5% shareholders and only needs to be signed by one principal officer.
- A Schedule 13D is filed by any person that acquires MORE than 5% of an issuer's equity.
- If three different investors form a group and each owns 3% of a company's equity, they must file a Schedule 13D. If filer's ownership changes by more than 1% (e.g., from 6% to 7%), an amended filing is required.
- An annual proxy must be sent to shareholders at least 20 days prior to the meeting date.
- The proxy doesn't include the voting records of board members, minutes from board meetings, or the results of previous votes.
- To determine an issuer's largest shareholders, a person may review a 13D, 13G, 10K, or Proxy.
- Under SARBOX, the principal executive officer (CEO) and the principal financial officer (CFO) must certify the annual financial reports.
- When conducting the audit of an issuer, if an outside auditor (accountant) determines that an illegal act may have occurred, it should first be reported to the audit committee of the board of directors.
- An annual proxy must disclose any director who attended less than 75% of the board meetings.

- According to SARBOX, the members of the audit committee must be independent directors.
- A person who's using a growth at reasonable prices (GARP) strategy of investing will purchase an undervalued stock that has good growth potential.

CHAPTER 2 PUBLIC OFFERINGS

- Piggyback registration rights allow an investor who owns restricted securities to offer her shares along with the issuer's shares when it's conducting a public offering.
- Investors who own restricted stock or warrants that has piggyback registration rights will be notified in advance of a public offering of the issuer's stock.
- An issuer's registration statement must be signed by the registrant, the CEO, the CFO, the controller or principal accounting officer, and by at least a majority of the board of directors or persons performing similar functions.
- The issuer is only required to Blue-Sky its securities in any state in which the securities will be offered (Blue-Sky laws are state securities laws).
- One reason that an issuer may be required to re-file its registration statement is due to its financial statements being stale.
- A bring-down due diligence meeting is a final meeting that's held prior to an IPO to ensure that no material changes have occurred in the disclosure documents.
- When determining whether to grant an accelerated effective date, the SEC's main concern is being certain that the public has enough available information about the issuer.
- Investors who purchase an issuer's IPO want management to establish a lock-up agreement since they're concerned about their ability to flip shares once trading begins.
- A free writing prospectus is filed with the SEC by no later than the day it's used.
- A WKSI may use an FWP before filing a prospectus supplement with the SEC.
- A seasoned issuer may use an FWP after filing a prospectus supplement with the SEC.
- A member firm is not required to maintain a record of documents that have been filed by an issuer (e.g., prospectuses and registration statements).
- Gun-jumping is a violation and is best defined as any prohibited communication that occurs between an offering's filing date and effective date.
- A road show is organized by the syndicate or managing underwriter.
- An issuer's senior management will generally make a presentation at the road show of its offering.
- In a registration statement, the term stale financials refers to a financial statement that's more than 134 days old (135 days is considered stale).
- An issuer is NOT permitted to use a Section 11 defense.
- If a broker-dealer has a conflict of interest involving a public offering of securities for which it's a participant, certain written disclosures are required to be made prominently in the prospectus. The disclosures include the nature of the conflict of interest, the name of the firm that's acting as the QIU, and a brief statement regarding the role and responsibilities of the QIU.
- A client's prior written approval is required if a customer has a discretionary account, if the broker-dealer participates as an underwriter, and if a conflict of interest exists.

- Regulation D offerings and municipal securities offerings are NOT subject to FINRA's Corporate Financing Rules.
- Reimbursement of issuer-related expenses (e.g., filing fees and printing costs) is NOT considered compensation to an underwriter.
- In an underwriting agreement, a tail fee may NOT have a duration of more than two years.
- Regulation FD was created to protect retail investors by assuring that the release of material, non-public information to securities professionals will trigger the release of the same information to the public.
- IPO order of events:
 - Issuer selects an underwriter
 - Registration statement (including the red herring) is filed
 - Non-binding indications of interest can be obtained
 - Lead underwriter organizes roadshow
 - Issuer may request an accelerated effective date
 - At or around the same time, a bring-down due diligence meeting is held, the issue is priced, and the underwriting agreement is signed

CHAPTER 3 UNDERWRITING

- A firm's corporate financing department will prepare the offering documents (this is not a function of the syndicate department).
- A block trade will expose an underwriter to a larger amount of capital risk than a one-day or fully marketed road show.
- Final settlement of a syndicate account must occur within 90 days.
- The Green Shoe Clause permits a maximum of 15% of additional shares to be issued and is good for 30 days.
- In a best efforts underwriting, since the underwriter is not committing any capital, it's typically has the lowest underwriting cost.
- For syndicate short covering transactions, if the stock is trading above the IPO price, the Green Shoe Clause should be exercised. On the other hand, if the stock is trading below the IPO price, the shares should be purchased in the open market.
- Prior to the IPO date, if syndicate manager believes that the offering is over-subscribed, it may notify the issuer and the issuer may choose to increase the number of shares offered and/or the offering price.
- If an offering is being done exclusively by selling shareholders, the issuer will NOT receive any of the proceeds.
- A syndicate's expenses are deducted from the underwriting fees.
- The concession (the largest single portion of the spread) is included when calculating the amount to which a syndicate member is entitled.
- A research analyst is NOT permitted to attend a road show for an investment banking deal.
- An investment banker CANNOT contact a research analyst and demand the increase of a stock's rating.
- During a distribution of securities, a firm is NOT permitted to ask clients about the price that they would be willing to pay for the stock in the secondary market.
- If an offering is oversubscribed, the best course of action is to use a pro rata allocation of shares.
- The possibility of placing a stabilizing bid must be disclosed in the prospectus.

- A stabilizing bid may be entered at the lower of the offering price or the highest independent bid.
- A selling group is used by an underwriting syndicate primarily to expand the distribution of the securities being offered.
- The reallowance is a discount to the POP and is the fee that's paid to a broker-dealer that contacts an underwriting member to purchase part of a new issue to fill its own customer orders. It's actually part of the selling concession and the underwriter will receive the difference between the selling concession and the reallowance.
- Many IPOs have a 7% underwriting fee (stated as a percentage of the dollar amount of the offering's proceeds). However, under FINRA rules, the maximum compensation that's generally considered fair and reasonable will vary directly with the amount of risk being assumed by the participating underwriter and is inversely related to the dollar amount of the offering's proceeds.
- An employee of a BD's investment banking department is NOT permitted to be included on the committee that reviews and approves the compensation of a research analyst (RA).
- An RA who's employed by any member of the syndicate or selling group may NOT prepare a research report on an IPO for 10 calendar days (quiet period).
- For a follow-on offering, the quiet period is three calendar days and only applies to the manager/co-manager.
- The three-day and 10-day quiet period don't apply to emerging growth companies (EGC).
- IB may not retaliate or threaten to retaliate against a research analyst for publishing adverse, negative, or unfavorable research reports that may be detrimental to the member firm's current or prospective investment banking business.
- IB is prohibited from prepublication review, clearance, or approval of research reports.
- IB is prohibited from directing a research analyst to engage in communications with a customer or prospective customer that relate to an investment banking transaction.
- An RA is not permitted to solicit or pitch investment banking business to potential clients or discuss the due diligence requirements of a proposed transaction prior to the selection of underwriters. After the selection of underwriters is made, the RA is permitted to participate in joint due diligence.
- For purposes of selling IPOs, restricted persons include employees of a broker-dealer and immediate family members of employees, including spouse (not ex-spouse), parents, siblings, in-laws, and any person who's supported by the B/D employee.
- Executive officers of an issuer are generally prohibited from receiving IPO allocations; however, an exception is granted if the allocation of issuer-directed securities is being made in writing by the issuer and the member has no involvement or influence (directly or indirectly) in the allocation decisions of the issuer.
- In order for a security to be listed on the NYSE or Nasdaq, a majority of the members of the company's board of directors must be independent.
- To be listed on Nasdaq, an issuer is NOT required to maintain a minimum price/book or price/earnings ratio.
- The OTCBB is a quotation system for securities that are NOT listed on either the NYSE or Nasdaq.
- If a company whose stock trades on the NYSE or Nasdaq has been delisted or is bankrupt, the stock may immediately be quoted on the OTCBB or OTC the Pink Market

CHAPTER 4 EXEMPT SECURITIES AND EXEMPT TRANSACTIONS

- A block of loans may be defined as a security and, therefore, subject to registration even if it's not labeled as a security. However, a specific exemption is available if, at the time of issuance, the loans have a maturity that does NOT exceed nine months (270 days).
- ADRs, REITs, unit investment trusts, and mutual fund shares are NOT exempt from SEC registration.
- A security that's offered under Rule 147 may NOT be sold to a non-resident for six months from the date of the last sale by the issuer.
- Regulation A (A+) offerings are limited to no more than \$50 million over a 12-month period.
- Exempt offerings, such as Reg D (private placements), Rule 144A, and Reg S offerings still require the performance of due diligence by the investment banking firm that's assisting the issuer.
- An investment banking firm will NOT target all existing employees of the issuer when offering a private placement.
- The following *accredited investors* are eligible to purchase a Reg D offering:
 - Financial institutions (regardless of their assets) such as banks, registered investment companies, private business development companies
 - Pension plans and ERISA accounts with total assets in excess of \$5 million
 - Any 501(c)(3) organization or trust with total assets of \$5 million provided they were not formed for the specific purpose of acquiring the securities being offered
 - Any executive officer, director, or general partner of the issuer of the securities
 - Any natural person whose net worth exceeds \$1 million or who has annual income of \$200,000 (\$300,000 joint income)
 - Any entity whose equity owners are all accredited investors
- Under Reg D Rule 506(c), an issuer can raise an unlimited amount of capital and may use both general solicitation and general advertising as long as all of the purchasers are accredited investors.
- If a foreign corporation (e.g., one from China) wants to raise an unlimited amount of capital in the U.S. without triggering SEC registration and wants to target wealthy investors and institutions, it may offer its securities under Regulation D.
- Rule 144A is used mostly by QIBs for trading privately placed corporate debt.
- A Private Investment in Public Equity (PIPE) offering is a type of private placement in which a broker-dealer acts as a placement agent for the restricted securities of an issuer that already has publicly traded securities.
- A Qualified Institutional Buyers (QIB) does NOT include individual investors, even if the investors have at least \$100 million of investable securities.
- Banks and savings and loan associations must have a net worth of at least \$25 million to be considered QIBs.
- A broker-dealer that acts as an agent by purchasing \$100MM of securities on a non-discretionary basis in a transaction with a QIB is not considered a QIB.
- The following persons are NOT permitted to purchase a Regulation S offering:
 - A U.S. person who's vacationing in Europe
 - A British (foreign) investor who's living in the United States
- If a non-U.S. person makes a permitted Reg S offering purchase in Hong Kong, she may sell it immediately in another overseas market.

CHAPTER 5 MERGERS AND ACQUISITIONS

- When performing due diligence, if an IBR learns that a client is doing business in a country that's on the OFAC list (e.g., Syria, Cuba), all transactions must be blocked and law enforcement must be notified within 10 business days.
- When performing due diligence, an IBR learns that the client is making payments to foreign government officials. This is a violation of Foreign Corrupt Practices Act; therefore, the DOJ and SEC should be notified.
- The sell-side banker is interested in how the buyer will pay for the transaction.
- The seller or sell-side banker will organize and control the data room.
- The sell-side banker will coordinate the management presentations and site visits.
- The buy-side banker will be interested in determining the identity of the largest shareholders as well as determining the best method for approaching the target.
- When performing due diligence, the buy-side banker will interview the seller's senior management, suppliers, accountants, and possibly its customers, but NOT its large shareholders.
- The buy-side banker will review the technology and IP property that's owned by the target, visit the target's facilities, create pro forma financials, and review the target's internal control systems.
- A bake-off is when a company invites competing investment banking firms to make a pitch to win its business.
- In an auction, a bidder can make its offer more attractive by offering more cash or shortening the time required to close the deal.
- A *go-shop* provision may result in a higher price.
- A "breakup fee" refers to a payment that a seller owes a buyer in the event a deal falls through due to reasons that are explicitly specified in the letter of intent or other merger documents. The fee is a penalty that's paid in M&A transactions to compensate the acquirer for the time and resources spent in negotiating the deal.
- An indemnification clause will be included to quantify the amount of compensation that the buyer will receive if the seller breaches the sales contract after the deal closes.
- In an M&A transaction, the correct order of events is the teaser, NDA, CIM, IOI, LOI (also referred to as MOU), definitive agreement.
- A fairness opinion is NOT issued to value an IPO.
- If an M&A deal falls through before the proxy period, a fairness opinion is not typically created.
- A fairness opinion does NOT advise shareholders as to how to vote.
- In an M&A transaction, the acquirer will benefit if the cost basis increases.
- Stapled financing is most often used for M&A transactions in order to reduce the execution risk of the transactions.
- A private equity recapitalization occurs when the PE firm buys most, but not all, of the equity which allows the owner to have liquidity and participate in the equity upside on a resale.
- A dividend recapitalization occurs when a PE firm pays both itself and management a cash dividend by taking on additional debt of a previously purchased company.
- If a private company wants to expand prior to seeking a liquidity event, contacting a bank to obtain a loan is a better option than contacting a private equity, hedge fund, or venture capital investor. The bank is simply lending funds unlike the investors who actually acquire equity and subsequently involve themselves in the management of the business.

CHAPTER 6 TENDER OFFERS AND M&A RULES

- A preliminary proxy is filed with the SEC at least 10 days prior to the date that the definitive proxy is sent to shareholders.
- A definitive proxy must be filed with the SEC by no later than the date it's first sent to shareholders
- An S-4 registration statement is filed by the acquirer if it's issuing stock to make an acquisition.
- A Schedule TO is filed for tender offers and must be filed with the SEC as soon as it's practical on the commencement date.
- A tender offer must remain open for at least 20 business days.
- If a tender offer commences on April 1, it will not end on April 22, since that time period is less than 20 business days.
- An exception to the best price rule is granted if compensation changes are approved by the compensation committee of the target.
- If an acquirer is using its stock to make an acquisition, its shareholders will only be required to vote if the offer will increase in its outstanding shares by more than 20%.
- A two-step merger is quicker than a one-step merger.

CHAPTER 7 FINANCIAL RESTRUCTURING AND BANKRUPTCY

- A company's public float is equal to its outstanding shares minus its restricted stock.
- A company may negotiate with its creditors prior to filing for bankruptcy. If the negotiation is unsuccessful, the best course of action may be to file for bankruptcy.
- In a Chapter 11 bankruptcy, the filing company is in control of the assets and is referred to as the debtor-inpossession (DIP).
- A reorganization plan is considered to be approved by a class of creditors if at least two-thirds of the dollar amount of the claims and more than one-half of the total number of creditors in the class has approved of the plan.
- An impaired class of creditors includes those that will not receive the full amount owed, while an unimpaired class of creditor includes those that will be paid in full. Only impaired creditors vote on a reorganization plan.
- Provided at least ONE class approves the plan, despite the objections of SOME classes of creditors, a cramdown allows a bankruptcy court to approve the plan and considers it to be fair to all classes of creditors.
- In a Chapter 7 liquidation, an entire class of creditors must be paid in-full before the next class receives anything. If one class is not paid in-full, then creditors will be paid on a pro rata basis and claims below that class will receive nothing.
- The creditor's committee does NOT assist in obtaining DIP financing or in conducting a 363 sale.
- As it relates to payments in bankruptcy, administrative expenses have priority over most creditors.
- Perfecting a lien is done by the secured creditors, NOT the unsecured creditor's committee. A lien is perfected
 when it's properly recorded with the appropriate government agency.
- Subordinated debenture holders are paid after unsecured debt, but before preferred or common stockholders.
- In a 363 sale, the stalking horse bidder provides the lead bid and will purchase assets in a bankruptcy.

CHAPTER 8 FINANCIAL ANALYSIS

- A company's outstanding shares include its restricted stock, but NOT its treasury stock.
- Commercial paper is NOT a part of the capital structure of a corporation.
- Treasury stock is subtracted at cost to determine shareholders' equity.
- Additional paid-in capital (capital surplus) represents the amount that the public pays over par value for a company's stock.
- If a company's revenue is flat and it reduces its operating expenses, but its net income still declines, a possible explanation is that interest expenses have increased and/or its tax rate has increased.
- When calculating pension fund liabilities, using a high discount rate is considered aggressive.
- When calculating projections and a company's tax rates are given, use the marginal tax rate. The marginal tax rate is usually the highest rate and includes the federal statutory rate (21%) and the state tax rate.
- Net operating losses (NOLs) that occurred prior to 2018 can be carried forward for 20 years and carried back for two years. From 2019 on, NOLs are deductible to the extent of 80% of the corporation's income, can be carried forward indefinitely, but can no longer be carried back.
- Assuming inflation or rising costs, FIFO has lower COGS, but higher margins, higher profits (earnings), higher taxes, and higher inventory valuation.
- Assuming inflation or rising costs, LIFO has higher COGS, but lower margins, lower profits (earnings), lower taxes, and lower inventory valuation.
- Switching from LIFO to FIFO will lower COGS, resulting in higher earnings and, therefore, higher EBIT and EBITDA.
- Switching from FIFO to LIFO will increase COGS, resulting in lower earnings and, therefore, lower EBIT and EBITDA.
- Direct manufacturing costs are generally considered variable costs.
- The EBIT margin should be lower than the EBITDA margin. If a chart has this reversed, there's an error.
- If a company's total assets increased and its total liabilities remained the same, the value of the company's shareholders' equity must have increased.
- Interest that a company pays on its debt outstanding and the interest income it receives are recorded on the CF statement under CF from operating activities. Principal payments that are made to retire debt outstanding are reported as a reduction in the CF statement under the financing activities section.
- EBIT or EBITDA/interest expense and net debt/EBITDA are used to judge the credit worthiness of a company; however, EV/EBITDA is not.
- When calculating a company's debt-to-total capital, the debt that may be included in the formula are both short-term and long-term debt, mortgages payable, convertible debt, finance leases, and a revolver credit facility.

CHAPTER 9 VALUATION ANALYSIS

• Net Present Value (NPV) is the calculation which compares the projected amount to be earned from a project (using a present value calculation) versus the cost of the project (also using present value).

In other words, NPV compares the projected inflows versus outflows.

- A positive NPV exists if a project's inflows exceed its outflows. For example, if a person invests \$1 million today (present value) and receives a cumulative return over a five-year period, these cash inflows must be discounted to their present value. If the total present value for the five years exceeds \$1 million, the project will have a positive NPV.
- Internal Rate of Return (IRR), which is one of the key components of NPV, is the discount rate that's used when calculating the present value of cash flows. The lower the discount rate, the greater the present value. The IRR is the discount rate which matches the present value of inflows and outflows. In other words, it's the interest rate that makes the NPV equal to zero.
- To calculate the annual payment in perpetuity:
 - The annual payment in perpetuity is divided by the annual rate of return. For example, if the annual payment is \$400,000 and the annual rate of return is 10%, then \$4 million of principal is required (\$400,000/.10).
- If given both the primary EPS and the fully diluted EPS, use the fully diluted number in calculations.
- To calculate the implied equity value per share, subtract the debt and add the cash to the enterprise value.
- If two companies (U.S. and foreign), have similar EVs and net incomes, but the foreign company has a higher EV/EBITDA, it must have a lower EBITDA. Since NI is similar, a possible explanation is that the U.S. company has higher taxes.
- DCF analysis should be used as a valuation metric when comparing two companies and working capital is an important component.
- In addition to price, an important concern for a target is how the acquirer will be able to pay for the transaction (e.g., cash vs. stock).
- Precedent transaction analysis and LBO analysis are NOT used to value an IPO. However, comparable company analysis, SOTP, and DCF may be used.
- When reviewing previous merger transactions in the technology sector, an IBR will NOT use takeovers during the dot-com bubble of the late 1990s to 2001.
- LBO analysis is most relevant for private equity investors, but not for venture capitalists.
- Debt/EBITDA ratio is an important valuation metric in LBO analysis; however, EV/EBITDA is not.
- When valuing the assets of a company being acquired, a higher write-up will lower the amount of goodwill after the acquisition is complete.

CHAPTER 10 M&A VALUATION

- For an M&A transaction in which the purchase price is denominated in FX, the buyer could hedge its risk during the period between the announced date and the closing of the transaction as follows:
 - A U.S. buyer could purchase an FX call and
 - A foreign buyer could purchase an FX put
- When an acquisition is made, certain intangible assets which can be sold, transferred, or licensed (e.g., patents and trademarks) are added to the intangible assets on the acquirer's balance sheet. These intangible assets which have a finite life are amortized over time.

Schedules and Forms			
Forms 10-K and 10-Q	These financial filings are required of publicly traded firms with over \$10 million in assets and 2,000 or more persons or over 500 non-accredited shareholders (there are three 10-Qs filed per year).		
Form 8-K	Form 8K is filed within four business days for any material event that could affect the issuer's share price or financial condition.		
Form 3 (Insider Reporting)	Form 3 is filed within 10 calendar days to provide the SEC with notification of having achieved insider status. Insiders are defined as officers, directors, and owners of more than 10% of an issuer's voting securities.		
Form 4 (Insider Reporting)	Form 4 is filed within two business days to provide the SEC with notification of any changes in an insider's position		
Schedule 13D	This schedule is filed by any person that acquires more than 5% of an issuer's equity. It's filed with the issuer, the SEC, and the exchange on which the stock trades within 10 days . Schedule 13D is the BEST source of information for determining the identity of the most recent largest shareholders.		
Schedule 13E-3 For delisted issuers or those that are no longer reporting companies	Schedule 13E-3 is filed when an issuer or affiliate of the issuer (not a third party) plans to go private. Shareholders are required to vote (proxy) and be provided with a summary term sheet. Schedule 13E-3 may be used for reverse stock splits or LBOs.		
Schedule 13G	Schedule 13G is an alternative to 13D and is filed by an institutional investor (e.g., a mutual fund) that has no intention of exhibiting control over the issuer.		
Schedule 13F	Schedule 13F is filed quarterly by institutional investment managers that exercise investment discretion over at least \$100 million in equity securities. It's filed regardless of the SEC registration status of the filer.		
Form 14A PROXY (Two types: regular annual proxy and special or merger-related proxy)	Proxy Statements (used when a vote is required by shareholders) A definitive proxy is filed with the SEC on the same day it's sent to shareholders. In some cases (e.g., business combinations and M&As), a preliminary proxy must be filed with the SEC for prior review. The preliminary proxy statement must be filed with the SEC at least 10 days prior to the date that the definitive proxy is sent to shareholders. A definitive proxy must be sent to shareholders 20 days prior to meeting		

Schedules and Forms				
Form S-1 Registration of securities	Form S-1 is a registration form which is used for most IPOs (long-form) or for issuers that are not eligible for filing Form S-3.			
Form S-3 Registration of securities	Form S-3 is a short-form registration statement which is used by issuers that have been SEC reporting companies for at least 12 months and have \$75 million public float in voting and non-voting common equity.			
Form S-4 Registration of securities used for a merger	Form S-4 is used when new securities are being offered in connection with a merger. It's required to be filed by the acquirer and a proxy is required to be issued by the target . The target's shareholders vote on the approval of merger, while the acquirer's shareholders vote on issuing shares to be used in the merger.			
Tender offer (no vote is required by shareholders) Schedule TO	A tender offer is a solicitation by the issuer or a third party to purchase securities (usually at a premium) for a limited period. In addition to 13D, Schedule TO is filed by any person that makes a tender offer and becomes the owner of more than 5% of a company Offers must be kept open for 20 business days. If the terms are amended, the offer must remain open for at least 10 business days from the amendment. No open market transactions are permitted. Persons making the TO cannot purchase the same security or convertible in the open market during duration of the offer. Shareholders can tender shares ONLY if they have a net long position on the shares (options must be exercised for the underlying stock to be included).			
Schedule 14D-9	Schedule 14D-9 is filed by certain persons (the issuer and other owners of the company) and includes recommendations or solicitations that relate to the TO. Essentially, it becomes the target's official stance on the offer.			

Rules and Regulations			
Regulation FD	According to FD, if material, non-public information is improperly disclosed, the information must be disseminated to the public. If the disclosure was intentional , issuer must file a public statement immediately. If the disclosure was unintentional , it must do so within 24 hours. • Created to protect retail investors		
Trust Indenture Act of 1939	Requires a trustee that's appointed by the issuer to act in the bondholders' best interest; applies only to corporate debt.		
Rule 137	BDs may publish research reports when they're not acting as underwriters		
Rule 138	BDs may publish research reports when they are acting as underwriters for another class of security (e.g., if the issuer's common stock is under registration, a BD may comment on its non-convertible debt).		
Rule 139	If the issuer is a reporting company or WKSI, BDs may publish reports when they're acting as underwriters for the underlying security, but only if they're continuing their regular coverage.		
Sarbanes- Oxley	SARBOX establishes disclosure and corporate governance rules for publicly traded companies and makes senior management more directly accountable for the company's internal control system and its release of financial information to the public. • Financial information must be certified by CEO and CFO ("Signing Officers")		
Rule 14d-10	In a tender offer , there's no preferential pricing; therefore, all shareholders must be offered the same price regardless of their ownership position. Rule 14d-10, which is also referred to as the Best Price Rule , provides an exception if the compensation is approved by the compensation committee of the target.		
Hart-Scott- Rodino AntiTrust Act (HSR Act)	This federal antitrust act requires certain parties to file notice with the FTC before a merger deal may be completed. The merger may not be completed until 30 days after notice is filed (15 days if the transaction is all cash). HSR also requires financial investors to file and comply with a 30-day waiting period unless the purpose is for investment purposes only.		
Regulation MA	This regulation is designed to facilitate communications and disclosures which are made by companies that are engaged in M&A transactions. Under this rule, summary term sheets provide shareholders with all of the pertinent information about the transaction.		

Rules and Regulations			
Securities that are exempt from SEC registration	 U.S. government or agency securities Municipal bonds Short-term debt (maturity less than 270 days) - Commercial paper Commercial bank securities Securities issued by non-profit organizations 		
Regulation A (A+) (Small Businesses)	 Exempt transaction for small businesses Offering limited to \$50 million over 12 months No more than \$15 million (30% of the amount offered) may be on behalf of selling shareholders Offering circular must be filed with the SEC "Testing the waters" is allowed 		
Rule 147	Intra-state exemption which is available to issuers that sell within ONE state: Issuer must have its "principal place of business" in that state and satisfy any one of the following four requirements: - 80% of assets located within that state - 80% of revenues generated within that state - 80% of net proceeds from sale used in state; and - A majority of the issuer's employees are based in that state Resale to non-state residents is permissible after six months from date of last sale (formerly nine months)		
Regulation S (Offerings that are conducted outside of the U.S.)	Provides a registration exemption to U.S. companies that issue securities for sale outside of the U.S. provided the following: No offer is directed to a U.S. resident and The transaction is effected through an overseas securities market Reg S securities may be resold to a U.S. resident after 40 days for debt, or one year for equities		
Private Placements * Section 4(2)	Registration exemption for securities that <u>DO NOT</u> involve a public offering.		
Private Placements * Section 4(5)	Registration exemption for securities transactions that meet the conditions below: Offering doesn't exceed \$5 million No advertising or public solicitation can be used Offering may be sold only to accredited investors (sophisticated) * Reg D exemption allows for a limited number of non-accredited investors (35)		

Rules and Regulations					
	This registration exemption is available to issuers that conduct private placements				
Private		Deal Size	Non-Accredited Investors	Accredited Investors	
Placements	Rule 504	Up to \$5 million	No Limit	No Limit	
* Reg D	Rule 506	Unlimited	No more than 35	No Limit	
(Created to provide safe harbors for private placements)	Accredited investors have a net worth of \$1 million (excluding primary residence) OR annual income of \$200,000 (\$300,000 for spouses) Regulation D Road shows require pre-qualification of investors 506 (c) offerings allow issuers and placement agents to use general solicitation if reasonable steps are taken to verify that all potential investors are accredited				
Rule 144A	Registration exemption for securities that are sold to QIBs and allows QIBs to freely trade private placements amongst themselves with no holding period • Same class of securities as listed on an exchange are ineligible				
Rule 144	Permits the sale of Restricted and Control stock Restricted Stock is unregistered (e.g., Reg D private placement, Reg S, or employee stock that's received as compensation) Resale restrictions with regards restricted stock are: 1. The company must have publicly held available shares, and 2. The shares are subject to a six-month holding period Control Stock (affiliated) is registered stock that's purchased and owned by corporate insiders (i.e., control persons) which are the company's officers, directors, and greater than 10% shareholders Has no mandatory holding period To sell either restricted or control stock: SEC must be notified at time the sell order is placed Over any 90-day period, the maximum sale allowed is the greater of 1% of outstanding shares or the average weekly trading volume over prior four weeks Exemption from notifying the SEC is available if the sale doesn't exceed 5,000 shares or the dollar amount doesn't exceed \$50,000 When shares sold under Rule 144, they become registered stock				

Regulation M – Manipulation relating to securities offerings Limits the activities that could manipulate the price of a security during a restricted period • Restricted period begins one or five business days prior to pricing and ends when the distribution has been completed • Participants are prohibited from buying covered security during restricted the restricted period and must refrain from active market making - 101 pertains to BDs that are involved in the offering - 102 pertains to the issuer and selling shareholders Regulation M 1 or 5 End of Pricing days Distribution Rules 101 and RESTRICTED PERIOD 102 PASSIVE MARKET MAKING ONLY Five days Public Float less than \$25 million and ADTV of less than \$100,000 prior to pricing One day Public Float between \$25 million and \$150 million and ADTV of at prior to pricing least \$100,000 Activity Traded Securities – Public Float of at least \$150 million and No Restricted Period ADTV \$1 million (for BDs only) Municipals, governments, non-convertible investment grade debt Passive market making is permitted if there's at least one independent market maker **Rule 103** • PSMM may not bid higher than highest independent bid (Passive Market • PSMM's daily purchase limit (DPL) is higher of 30% of its ADTV or 200 shares (exception is Making) available for executing a single order) • The only form of price manipulation that's allowed by the SEC • Stabilizing bid may be made at **lower of: Rule 104** a. The public offering price or (Stabilization b. The highest bid in the principal market Penalty Bids) • Only one syndicate member may stabilize • There's no limit on how long stabilizing bid may remain open **Rule 105** • Restricts the purchase of new issues if a short position was executed within the five business day period prior to pricing (Short Selling)

F	Full Registration Timeline				
1.	Pre- Registration	 Document preparation and due diligence begins No communication with public unless it's 30 days prior and there's no mention of the offering 			
2.	File Registration Statement	Begins the 20-day "Cooling Off period No sales or money may be accepted Issuer distributes preliminary prospectus (Red Herring) Used to obtain indications of interest (non-binding) Omits final price and effective date Blue Sky provisions Registration of securities (by issuer) and B/Ds, RRs, at state level			
3.	Effective Date Determined by SEC	 Final statutory prospectus (full disclosure document) must be delivered to all purchasers Aftermarket prospectus delivery rules: 25 days for an exchange-listed IPO, including Nasdaq 40 days for a non-listed registered secondary 90 days for a non-listed IPO 			

Registration Statement (Miscellaneous)			
Financial Statement (Re-filing requirement)	Balance sheet for the last two years; income statement and cash flows for the last three years Financials are required to be re-filed if they become stale: For Large/Seasoned Filers (WKSI) – more than 129 days (130 days is considered stale) For Unseasoned/Small Reporting Company Filers (non-WKSI) – more than 134 days (135 days is considered stale)		
"Gun-Jumping"	Refers to non-allowable communication during the "Cooling Off" period related to new issues; communications not deemed to be a prospectus (e.g., tombstone ad) Two Safe Harbors which allow communication to be released by the issuer (or on its behalf): 1. Factual Business Information (Reporting and Non-Reporting Issuer safe harbor) 2. Forward Looking Information (Reporting Issuer-Only safe harbor)		
General Types of Communication	 Written Communication: includes written, printed, broadcast and graphic communication Graphic Communication: refers to electronic media, such as email, CDs, SMS Oral Communication: live and in real-time 		

Categories of Issuers	Criteria
Well Known Seasoned Issuer (WKSI) and Seasoned Issuer	 Eligible to use Form S-3 or Form F-3 PLUS Within 60 days of determining eligibility, issuer must pass one of the following tests: Public Float Test - \$700 million of common equity Non-Convertible Test - \$1 billion in aggregate non-convertible debt issuances in prior three years May not be an ineligible issuer (i.e., blank check company, shell company, LP) Majority owned subsidiary of a WKSI may also qualify Benefits: Automatic Shelf Registration (ASR) – Available for three years; effective immediately; not subject to SEC review "Pay-as-you-go" filing fees are assessed only when securities are pulled from shelf, not when registering
Seasoned Issuer	 Eligible to use Form S-3 or Form F-3 for primary offerings, but doesn't meet the other financial tests to be a WKSI
Unseasoned issuer	■ Not eligible to file a Form S-3 or Form F-3
Non-Reporting Issuer	 The company has not yet filed reports (10-Ks) with the SEC An example is a company that's filed a Form S-1 and is in the process of conducting an IPO.

	Equity Research Blackout Periods:		
These are FINRA rules		<u>IPO</u>	Follow-On
The rules don't apply if the company is an	Manager/Co-Manager	10 days	Three days
emerging growth	Underwriter/Syndicate Member	10 days	None
company (EGC) Revenue of less	Selling Group	10 days	None

Underwriting Fees	;				
Underwriting Fee Distribution	underv Selling	vriting proceeds) and th	Underwriting Fee 20 to 30% difference between the public offering price (deceive selling concession)	Selling Concession 50 to 60% price paid to the issuer (referred to a or POP) a since they assume no risk	s the
Free Writing Pr	ospecti	ıs (FWP)			
Defined as any document which is used in connection with an offering that's not a statutory prospectus	Filed with SEC when it's sent and is used by: WKSIs – anytime Seasoned Issuers – after their registration statement has been filed Unseasoned and Non-reporting Issuers – after their registration statement has been filed; it must be proceeded or accompanied by a statutory prospectus Ineligible Issuers – they're not permitted to use an FWP				

Business Formation				
C Corporation	 Limited liability for owners Unlimited number of shareholders Corporation is a taxable entity; shareholders are taxed again if cash dividends are paid out. Qualifying dividends are taxed at a lower rate than ordinary income. Cannot pass through losses 			
Subchapter S Corporation	 Limited liability for owners No more than 100 shareholder (married couple is considered as one shareholder) Not a viable option for an IPO (first convert to a C Corporation) S Corporation is not a taxable entity; only shareholders are taxed S Corporation passes through income and losses 			
Real Estate Investment Trust (REIT)	 Unlimited number of shareholders (many trade on exchanges) At least 75% is invested in real estate activities Must distribute at least 90% of income (if done, the REIT will not be taxed) Shareholders invest to receive dividends (taxed at the same rate as ordinary income) Can only pass through income, not losses 			

Bankruptcy	
Chapter 11 Reorganization	 Most are voluntary, with the filing done by the company Company and management continue to exist The filer is referred to as the debtor-in-possession (DIP) DIP files the plan or reorganization
Chapter 7 Liquidation	 Trustee files the plan Company and management cease to exist Assets are sold off to pay creditors and other investors
Payment Priority	 Secured creditors are paid first up to the value of the collateral, then unsecured as follows: Administrative claims Employee back wages Other unsecured debt (senior first, then subordinated debt) Preferred stockholders Common stockholders

Miscellaneous

- No SEC or FINRA recordkeeping requirement applies to documents that are produced by issuers (e.g., prospectus).
- E-mail, instant messaging, or any other type of electronic communication must be able to be stored by a member firm.
- Market capitalization includes restricted stock, but public float doesn't include it.
- A Section 11 Defense is an SEC rule which provides an exemption from liability for certain parties in an offering of securities if they're able to prove that they had no knowledge of the fraud (however, it cannot be used by an issuer).
- A Private Investment in Public Equity (PIPE) is a type of private placement in which a broker-dealer acts as a placement agent for the restricted securities of an issuer that already has publicly traded securities.
- The Green Shoe Clause is good for 30 days and allows an underwriter to sell more shares than originally being offered (over-allotment) and go back to the issuer to receive up to an additional 15% (for short covering transactions)
- 338(h)(10) Election is a provision in the IRS tax code by which (under certain conditions) a stock sale may be treated as an asset sale for tax reporting purposes in an M&A transaction. Also, it allows the buyer to step-up its cost basis for future tax purposes.
- In an auction for a company, a letter of intent (LOI) is non-binding.
- A two-step merger (a tender offer, followed by a short-form merger agreement) is quicker than a one-step merger (requires target shareholder vote).

Series 79 Key Formulas

Balance Sheet / Leverage Formulas:

Working Capital: Current Assets – Current Liabilities

Current Ratio: Current Assets/Current Liabilities

Quick Ratio: (Cash + Cash Equiv. + Acet Rec)/Current Liabilities

Book Value: Com. Shareholder Equity/Number Common Shares Outstanding

Tangible Book Value: Total Assets – Total Liabilities – Intangible Assets – Goodwill

Debt-to-Total Cap. Ratio: Total Debt/Total Capital

Debt-to-Equity Ratio: Total Debt/Total Shareholder Equity

Common Shareholder Equity: Total Shareholder Equity – Preferred Shareholder Equity

Days Sales Outstanding: (Acct Rec/Total Credit Sales) x Number of Days

Interest Coverage Ratio: EBITDA/Interest Expense

Debt-to-EBITDA Ratio: (Short + Long-Term Debt)/EBITDA

Accounts Receivable Turnover: Sales on Credit (current year)/Average Acct Rec.

Inventory Turnover Ratio: COGS/Average Inventory

Income Statement / Profitability Formulas:

Gross Profit: Revenue – Cost of Goods Sold (COGS)

Gross Profit Margin: Gross Profit/Sales or Revenue

Operating Profit: Gross Profit – Operating Expenses

Operating Profit Margin: Operating Profit/Sales or Revenue

Operating Income (EBIT): Operating Profit +/- Other Income or Expenses

Net Income: Operating Income – Interest – Taxes

Net Profit Margin: Net Income/Sales or Revenue

Earnings Available to Common: Net Income – Preferred Dividends

Basic EPS: Earnings Available to Common/Avg. Com. Shares Outstanding

Series 79 Key Formulas

Return on Equity: Earnings Available to Common/Avg. Com. Shareholder Equity

EBITDA Margin: EBITDA/Sales or Revenue

EBITDAR Margin: EBITDAR/Sales or Revenue (note: "R" is for rent)

Return on Assets: Net Income/Average Assets

Valuation Formulas:

P/E Ratio: Market Price Common/EPS

P/E to Growth (PEG) Ratio: P/E Ratio/Annual Growth Rate note: Growth Rate is an integer

Dividend Yield: Annual Dividend/Market Price Common

Dividend Payout Ratio: Annual Dividend/EPS

Earnings Yield: EPS/Market Price Common

Price to Book Ratio: Market Price Common/Book Value

Price to Free Cash Flow: Market Price Common/Free Cash Flow per Share

Free Cash Flow Yield: Free Cash Flow per Share/Market Price Common

Price to Sales Ratio: Market Price Common/Sales or Revenue

Enterprise Value (EV): Market Cap Com. and Pref. + LT and ST Debt + Finance Leases + Minority Interest

- Cash and Equivalents or Market Cap + Net Debt

Market Value per Share: Market Cap Com./Number Common Shares Outstanding

Enterprise Value (EV) to EBITDA: EV/EBITDA

Enterprise Value (EV) to Sales: EV/Sales or Revenue

After Tax Cost of Debt (WACC): Pretax Cost x (1-Tax Rate)

Cost of Equity (CAPM): $Ri = Rf + \beta(Rm-Rf)$

Risk Premium (Excess Mkt Return): Rm-Rf

Cost of Equity (Gordon Growth): $k^* = D_1/P_0 + g$

WACC: Cost of Equity xWeight of Equity + Cost of Debt x Weight of Debt

Weight of Debt (Debt-to-Capital): Debt-to-Equity Ratio/(1 + Debt-to-Equity Ratio)

Series 79 Key Formulas

Weight of Equity: 1/(1 + Debt-to-Equity Ratio)

Free Cash Flow to Firm (FCFF): EBIT x (1-Tax Rate) + Deprc. and Amort. – Capital Exp. +/- Change to Working

Capital

Free Cash Flow to Equity (FCFE): Net Income + Depre. and Amort. - Capital Exp. +/- Change to Working Capital

Present Value of Free Cash Flow: $P0 = \sum_{t=1}^{\infty} t=1$ FCFFt/(1+WACC)^t

Terminal Value (DCF): Expected Cash Flow/(Discount Rate – Terminal Growth Rate)

Enterprise Value (DCF): P0 = \sum n t=1 FCFF/(1+r)t + Terminal Value/(1+r)t

Enterprise Value (perpetuity method): Cash Flow x (1+g)/(Discount Rate – Growth Rate)

Dividend Discount Model: P0 = $\sum n t = 1 d1/(1+r)t$

Intrinsic Value (Gordon Growth): P1 = (D0(1+g))/(k-g)

Exchange Ratio (Acquisition): Offer Price of the Target Co./Market Price Acquiring Co.

Economic Value Added (EVA): [EBIT x (1 – Tax Rate)] – [WACC x Investment Capital]

Return on Invested Capital (ROIC): [EBIT x (1 – Tax Rate)]/Investment Capital

Mean: Average value of data set

Median: Middle value of a data set (note: if there are an even number of entries, the median is

the average of the two numbers in the middle.)

Financial Metric Review:

Price/Book: Financial Service Companies

Price/Funds from Operations: REITS

Normalized, Relative P/E: Cyclical Companies

Price/Sales Ratio: Companies with Negative Earnings or Retail Companies – same leverage

Earnings Yield: Companies with Negative Earnings

EV/EBITDA: Basic (Heavy) Industry Companies

EV/Sales: Retail Companies – different leverage

PEG Ratio: Companies with high P/E ratios