Fundamental Analysis

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Origin of Fundamental Analysis

- Formulated 60 years ago by Graham and Dodd's college text "Security Analysis”
- Popularized in Benjamin Graham's book, "The Intelligent Investor”
- Focus on intrinsic value
- Justified by a firm's assets, earnings, dividends, and financial strength

Investing is Not Speculating

- In 1948, over 90% of public opposed buying common stock, calling them:
  - “not safe, a gamble” or “don’t understand”
- When was this? At one of the greatest opportunities ever to own common stocks
- By June 1962 a leading financial journal headlined:
  - Small Investor Bearish, they are selling odd-lots short

Why Value Investing?

- Warren Buffet, “I read (Intelligent Investor) in 1950, when I was 19. I thought then that it was by far the best book about investing ever written. I still think it is.”
- **Does Not Require** high IQ, unusual business insight, or insider information
- **Requires** a sound intelligent framework for making decisions
- **Requires** ability to keep emotions from corroding that framework

The Philosophy of Value Investing

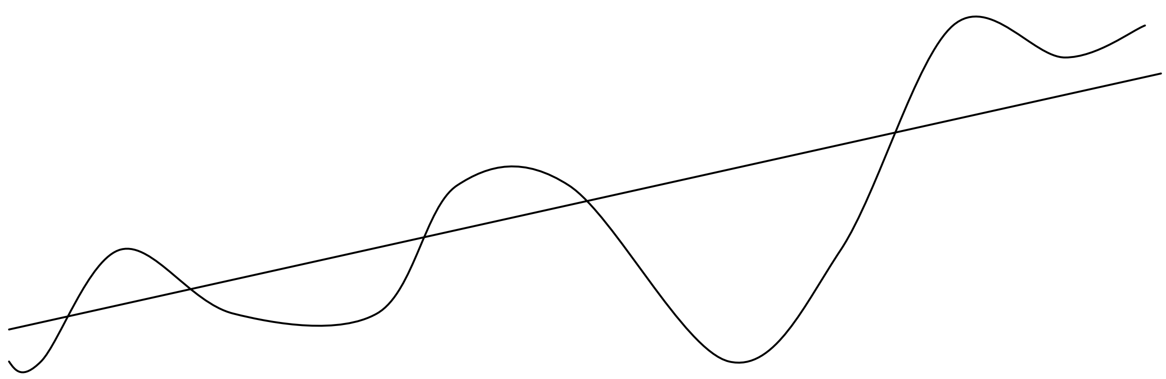
- Difficult for investors to "beat the market" with great Growth stock. Reason?
  - First, stocks with obvious growth prospects are highly priced
  - Second, investor may be wrong about the firm's growth prospects or be swept by "tides of pessimism and euphoria" to buy high, sell low.

Graham Proposed a Method to Reduce the Risk of Misjudgment

- First determine an "intrinsic" value for a stock that is independent of the market
- Tangible assets are a particularly important component
- Other factors included earnings, dividends, financial strength, and stability
- Investors should limit their purchases to stocks selling not far above this value
- Stocks selling below their intrinsic value would offer an <u>even better margin of safety</u> to investors

View Yourselves as the Owners of a Business

- Buying a sound and expanding business at a rational price, regardless of what the stock market might say.
- Collect the dividends produced and the long-range trend of the average market value of the stock



Types of Investors

- Defensive Investors
  - Limited time or interest in analysis (MD)
  - Large established profitable companies
  - Leaders in their industries paying dividends
- Aggressive or “Enterprising” investors
  - Time and inclination for analysis
  - Expand their universe to secondary stocks
  - More aggressive in buying and selling (Value)

Suggested Asset Allocation

- Intelligent Investor Rule, “Reduce Risk”
- When the market is Undervalued Range from 75% Stocks to 25% Bonds
- When the market is Overvalued, Range from 25% Stocks to 75% Bonds
- Diversification of Stocks
  - No less than 10
  - No more that 30

Why Buy or Own Bonds?

Returns, Growth, and Income for 1946 - 2004

Average	**Stocks**	**Bonds**	**Cash**
Annual Return (%)	11.6	5.9	4.6
Annual Return After Infl. (%)	7.5	1.8	0.5
Annual Growth (%)	7.5	0.0	0.0
Annual Income (%)	4.1	5.9	4.6

Note: How did 30 Years Bonds perform after the **".com"** bubble burst? During the 1987 Crash? During the beginning of a Recession?

Value Stock Criteria for Defensive Investors

- Adequate size
- Strong financial condition
- Earnings stability
- Strong dividend record
- Earnings growth
- Moderate price-to-earnings ratio
- Moderate price-to-book-value ratio

Adequate Size

- Sales of $580 million for industrial companies
  - $100 million Inflation adjusted from 1972 assuming 5%
- Sales of $ 290 million for public utilities
  - $50 million Inflation adjusted from 1972 assuming 5%

Strong Financial Condition

- For industrial companies, current assets (cash, accounts receivable and inventory) should be at least twice current liabilities (short-term debt),
- Long-term debt should not exceed the net current assets (working capital, or current assets less current liabilities);
- For public utilities the debt should not exceed twice the stockholder's equity (total assets less total liabilities).

Three More Criteria

- **Earnings stability**
  - Positive earnings for at least the last 10 years
- **Strong dividend record**
  - Uninterrupted dividend payments for at least the past 20 years
- **Earnings growth**
  - Minimum increase of at least one-third in earnings per share in the past 10 years (a 2.9% average annual growth rate over 10 years).

Moderate Price-to-Earnings Ratio

- The current price should not be more than 15 times average earnings for the past three years. The goal is a portfolio with an average price-earnings ratio that is reasonable compared to the inverse of the high-grade corporate bond yield.
- At the time the cut-off price-earnings ratio of 15 was stated, high-grade corporate's yielded 7.5%, with an inverse of 13.3. However, cutoff price-earnings ratios should be adjusted based on prevailing interest rates; when rates go up, investors should require lower price-earnings ratios and when rates are lower, investors can accept higher price-earnings ratios as cut-offs.

Moderate Price-to-Book-Value Ratio

- The current price should not be more than 1 1/2 times the last reported book value.
- Graham noted that a price-earnings ratio below the target level could justify a higher price-to-book-value ratio. As a rule of thumb, he proposed that the product of the two should not exceed 1 1/2 times the cut-off price-earnings ratio. For instance, if the target price-earnings is 15, an issue selling at 2.25 times book value could be justified if it were selling at 10 times earnings (15 x 1.5 = 22.5; 10 x 2.25 = 22.5).

Graham’s Favored Utilities

- Graham viewed utilities as particularly attractive for defensive investors, which is why the criteria includes adjustments specifically for utilities. Graham felt these firms fulfilled his criteria well and were selling at particularly attractive prices at the time

Graham Bias Against Growth

- Graham intended to skew a defensive investor's portfolio away from "growth" stocks
  - Viewed more likely to be overvalued and risky
- His emphasis on book value, excludes intangibles
- This excluded firms that have considerable assets in the form of goodwill, patents, software, franchises, etc.
  - Service-oriented, Computer and Technology sectors,

Enterprising Investors

- **Based on Defensive criteria with <u>relaxed rules</u>**
  - **Size:** Select from a wider universe of stocks.
  - **Financial condition:** Current assets should be at least 1½ times current liabilities, and debt should not be more than 110% of net current assets for industrial firms.
  - **Dividend record:** Some level of dividend payments.
  - **Price-earnings ratio:** Among the lowest 10% of all stocks.
  - **Price-to-book-value ratio:** The price should be less than 120% of net tangible assets.

Additional Flexibility

- He also suggested that the criteria be more flexible, allowing positive attributes in one rule (for instance, large average earnings) to compensate for small negatives (such as negative earnings in a bad environment) in another.
- Nonetheless, these criteria, like those for the defensive investor, will tend to exclude industries with large intangible assets.

Targets for Enterprising Investors

- Large unpopular companies, indicated by a low price relative to current earnings
  - Small companies may be undervalued, but have much greater risk of failure in adversity
- Look for "bargains," particularly among secondary stocks. Graham defined a "bargain" as a stock that is selling for 50% or less than its "indicated" value
- Most obvious bargain, was one selling for less than its net working capital (current assets minus current liabilities)

Secondary Company

- Enterprising investors could also find success investing in secondary companies if purchased as bargains.
- A secondary company is defined as one that is a smaller concern in an important industry, or a top firm in an unimportant industry; many mid-sized listed companies would fit this definition.

Distrustful of Subjective Factors

- Could mislead investors as much as help them.
- Graham preferred basing decisions on quantitative, rather than qualitative, factors.
- He noted in his book that an investor's **"operations for profit should be based not on optimism but on arithmetic."**

Stock Monitoring

- Manageable number of stock: minimum of 10 different issues and a maximum of 30
- Stock holdings should be reviewed at least annually
- Pay attention to dividend returns and the operating results of the company, and ignoring share price fluctuations.
- If the earnings power of the holdings remained satisfactory, the investor should stick with the stock and ignore any market movements

When to Sell

- Investors should take advantage of market fluctuations on the upside
- When a stock becomes overvalued (or fairly valued for stocks that were purchased at below their intrinsic value)
- Investors should sell and replace their holding with one that is more fairly valued or undervalued

Summary Graham's Approach

- Graham's emphasis on tangible assets may need modifications
- Intelligent investing consists of analyzing potential purchases according to sound business principles including:
  - Understanding of what you are doing, making your own decisions, ensuring that you are not risking a substantial portion of your original investment, and sticking to your own judgments without regard to market opinion

Summary - Continued

- "You are neither right nor wrong because the crowd disagrees with you,"
- "You are right because your data and reasoning are right. “
- “In the world of securities, courage becomes the supreme virtue after adequate knowledge and a tested judgment are at hand.”

Implementation?

- Use the Standard Approach to Fundamental Analysis?
- How does one dig up and use the information to screen and analyze stocks?
- Does this approach work?
- Why not just buy a value Mutual Fund or Berkshire-Hathaway Stock?
- Move between Growth and Value

Fundamental Analysis Uniformity?

No! There is great diversity in chosen methods and the way they are executed

- Warren Buffet literally buys companies and fixes them and/or makes them better
- Al Frank (today John Buckingham) buys value stocks and leverage them up to 50%
  - 1987 Crash, Al Frank “Prudent Speculator” portfolio draw down was -64.9% {08/31/87 to 11/30/87}
- William Danoff (Fidelity - Contrafund) [**10 yr 13.8%**]
- Bill Miller (Legg Mason - Value Trust)

Dig Up Information on Your Own

- Internet
- Value Line
- Library
- Your Broker
- Newsletters

The Hard Way

- Easier Way
- Use software with preprogrammed screens
  - AAII's *Stock Investor Professional*
  - Covers utilities and the rest of the stock universes

Use Screening Software

- **AAII Stock Investor Pro** (prepackaged data)
  - Data come monthly or download weekly
  - Clean data that is accurate and available
- **Example** of screen for Allegheny Technology (N: ATI) Feb 2000

P/E	P/E 3-yr Avg EPS	5-yr Avg P/E	Sales Last 12 Mos.	Curr Ratio	LT Debt **Equity**	5-yr EPS Grth Rate	Div **Yield**	5-yr Avg Div Yield	P/Bk	5-yr Avg P/Bk
(x)	**(x)**	**(x)**	**($ mil)**	**(x)**	**(%)**	**(%)**	**(%)**	**(%)**	**(x)**	**(x)**
4.5	6.1	84.0	3683.4	2.0	18.1	46.0	4.8	3.0	1.12	4.40

Graham (Defensive-Industrial) Screen Data 9/28/07

Ashland Inc.	ASH	Fabricated Plastic & Rubber
Ennis, Inc.	EBF	Office Supplies
Fred's, Inc	FRED	Retail (Specialty Non-Apparel)
Nam Tai Electronic, Inc	NTE	Electronic Instruments & Controls
Reliance Steel & Alum	RS	Misc. Fabricated Products
Seaboard Corp	SEB	Fish/Livestock
Signet Group plc (ADR)	SIG	Retail (Specialty Non-Apparel)
Sun Hung Kai Prop Lt	SUNJY	Construction Services
Tidewater Inc.	TDW	Oil Well Services & Equipment
Universal Forest Pd, Inc	UFPI	Forestry & Wood Products
Watts Water Tech, Inc	WTS	Misc. Fabricated Products

Does This Approach Work?

- Warren Buffet’s Berkshire-Hathaway
  - $10,000 purchased at beginning of 1977 is worth $13,258,000 today. (+27%)**Smart Money, Nov 07**
- SP 500, same 100K & period returned $340,000 (+12.5%) Smart Money, Nov 07
- The Prudent Speculator (Al Frank)
  - Investment Newsletter has returned +19.2% since 1980. (**VALUX** +15.6% since 1/2/98) **Hulbert Digest September 07**
- Mutual funds - many Excellent Value/Balanced
  - Contrafund, Last 10 yr +13.8%, one-third less volatile
- *Ref.* Dow Jones Wilshire 5000 Total Return 13.2%

Move Between Growth and Value

- Stocks
- ETFs
- Mutual Funds
- Your Company 401K
- “Stock Investor Pro” does not exclude Growth or Technology
- "You are right because your data and reasoning are right.” Benjamin Graham

Conclusion

- Fundamental Analysis can work very well.
- Provides a powerful way to value stocks
- A useful Tool with any investment technique
- Intelligent investing consists of analyzing potential purchases according to sound principles

Reference Documents

- *Intelligent Investor*, Fourth Edition, by Benjamin Graham
- *Stock Market Winners, What Works and Why,* AAII Booklet, By Maria Crawford Scott
- *The Prudent Speculator, Al Frank on Investing,* By Al Frank,
- *Security Analysis*, by Benjamin Graham and David L. Dodd
- A Random Walk Down Wall Street, by Burton G. Malkiel
- On-line documents and classes, www.aaii.com