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Sector Views: How Higher Yields Impact Equity Valuations

This month we will be dissecting the dividend discount model (DDM), its various uses, and how higher yields impact the intrinsic value of equity valuations. This piece will be the first of a series where we examine the impact of a higher yield environment on various fundamental and technical equity factors.

First, we will go through defining the equation that creates the DDM, covering each variable and how it interacts with the rest of the equation. Then we will discuss how higher yields impact equity intrinsic values, as the risk-reward trade off becomes more important with higher rates. Finally, we will translate this information to the sectors of the economy with our monthly sector views.

First, let's start by introducing the DDM formula and then we'll explain what goes into it. The equation itself is below.

DIVIDEND DISCOUNT MODEL (DDM)

$$P_0 = \frac{D_0(1+g)}{(r_e - g)}$$

Where:
P_0 = the intrinsic value of a company
D_0 = today's dividend
$D_0(1 + g)$ = todays dividend multiplied by how much it is expected to grow into the future
r_e = a company's cost of capital (also known as required return or discount rate)
g = a company's dividend growth expectations into perpetuity

The goal of the DDM is to quickly and easily utilize available resources of an asset to understand what the intrinsic value of that asset is based on certain market and company expectations. It values a company as the sum of all its future dividends discounted back to the present. The discount rate (r_e), or individual company's cost of capital, has a positive relationship with interest rates. Meaning as interest rates rise, so does the cost of holding a security, assuming stable growth (g).

The first main component of the formula is the numerator which is made up of today's dividend multiplied out by the growth of that dividend one period into the future. For example, if a company pays a dividend of $2 today, and has a growth rate of 5% for their dividends then D_0 = $2, while D_1 = $2(1.05) = $2.10. The second main component is the denominator which is the difference between a company's required return (also known as discount rate or cost of capital) and its growth rate. For example, let's assume the company we just mentioned that pays a $2 dividend today growing at 5% has a cost of capital of 10%. Its denominator will be the difference between the required return of 10% minus the growth rate of 5%, which is 5%.

How does this all relate to valuations? Despite the DDM seeming like an overly simplified way to value a security, it carries an exceptional amount of weight when performing valuation analysis on equities due to its widespread use. Because the formula can be quickly calculated, the inputs

can be manipulated and adjusted to stress test various scenarios with ease. So, let's bring together the example mentioned above.

$$P_0 = \frac{\$2\,(1 + 0.05)}{(0.10 - 0.05)} = \frac{\$2.10}{0.05} = \boxed{\$42}$$

This means the intrinsic value of a company is $42 given its $2 dividend today, growth expectations of 5%, and a cost of capital of 10%. If this company is trading in the market for more than $42 then it is overvalued and should be sold, if it is trading for less than $42 then it is undervalued and should be bought.

Now, if the required return component of the equation rises without expectations of higher company growth, then the difference between the two variables in the denominator widens, reducing the company's intrinsic value. Let's assume that interest rates are expected to rise which could raise the discount rate from 10% to 12%.

$$P_0 = \frac{\$2\,(1 + 0.05)}{(0.12 - 0.05)} = \frac{\$2.10}{0.07} = \boxed{\$30}$$

A 2% rise in the discount rate, which doesn't seem significant, revalued the company from $42 to $30, a drop of 28.6%. That's significant and can help shed light on why January has been such a tough month for equity markets.

Astute investors are likely thinking of what happens to equities that don't pay a dividend. Like many companies that are in their growth stage, these companies reinvest their earnings back into their business. As mentioned earlier, the DDM values a company as the sum of all its **future** dividends discounted back to the present. So, a large portion of the value of these growth focused companies comes from a distant future, which carries a lot more unknown than a company that is currently generating positive cash flow. As the saying goes, 'a bird in the hand is worth two in the bush,' a dividend today is worth more than the promise of more dividends tomorrow. This is why the growthier technology related names are called 'long duration', and similar to fixed income, assets with long durations are more sensitive to higher interest rates.

That brings us to today, where investors are faced with the economic landscape of higher policy rate expectations from the Federal Reserve (Fed) which translates to higher discount rates, which leads to lower valuations. If company growth remains stable, then the expectation could be that value focused sectors and companies will lead in performance while their growth counterparts could flounder.

For our current views please reference the sector table on the next page.

CURRENT VIEWS ON U.S. SECTORS

	Positive Factors	Negative Factors	Overall View
Communication Services	Beneficiary of reasonably positive trends in subscription services including streaming. Potential future beneficiary from development of augmented reality and metaverse.	Semiconductor chip shortage continues to negatively affect sector – could possibly last until 2023.[1] An increase in interest rates will adversely impact the discount rate applied to future earnings and cash flows. This could encourage a rotation from growth to value, which should negatively impact sentiment.	**Underweight**
Consumer Discretionary	Consumers adapted to the pandemic environment by increasing their use of online ordering and delivery and instore pickup.	Consumer Discretionary is a labor-intensive sector. Wage pressure combined with higher input costs in materials and shipping are a risk to margins should companies not be able to pass along inflation pressures. Adversely impacted by supply chain disruptions, especially the semiconductor shortage in Automotive Industry. Delays in shipping by sea and heightened costs in air freight are headwinds.	**Underweight**
Consumer Staples	If Omicron variant case continues to increase into the winter, this sector could see steady demand in the event of an economic downturn, due to its low level of correlation with economic cycles. Though it appears that Omicron	Inflation will negatively impact margins for companies who cannot pass through rising material costs to the end consumer. In our pricing power analysis, Consumer Staples generally scored poorly.	**Market Weight**

	cases are falling meaningfully.	Higher transport costs by air and sea may negatively impact company margins.[2]	
Energy	Escalated tensions with Russia, a large natural gas exporter to Europe, could lead to elevated energy prices globally, positively impacting the sector. The U.S. has largely reopened and continues to make progress against COVID-19, crude demand stands to benefit from a global reopening and improved growth.	The Energy sector is dependent on global demand and mobility. Consequently, this sector is one of the most sensitive to rising COVID-19 cases. The Omicron variant and travel restrictions are negative for this sector. A reduction in Chinese economic growth could reduce oil demand. Confidence in 'return to normal life' could lead to higher production - increasing supply and lowering prices.	**Overweight**
Financials	The Financial sector benefits from improving economic growth, higher interest rates and a steeper yield curve. Strong balance sheets, attractive valuations, and continued cyclical rebound underpin case for bank performance.[3]	High cash levels and low loan demand are hampering revenues, although loan growth has turned positive recently.[4] Peak in rate of economic growth could offset favorable rise in interest rates. A decline in interest rates or a flattening of the yield curve is detrimental to the Financials sector.	**Overweight**
Health Care	Demographics favor this sector owing to a global population that is aging and a growing middle class in emerging markets. CDC recommending booster shots to	Drug pricing pressure remains a risk factor, though the legislative process is slow and nothing meaningful is currently expected to be passed.	**Overweight**

	combat Omicron variant look to be a boon for both pharmaceutical manufacturers and care providers.[5]		
Industrials	Beneficiary of rising GDP, interest rates, inflation, and possible Infrastructure spending. Re-shoring and a shift towards automation infrastructure spending will be a long-term benefit for Robotics & AI.	Elevated leverage, increasingly expensive valuations, and rising earnings volatility may detract from this sector's performance.[6] Supply chain issues could be a major headwind for Industrials. Companies are issuing more negative than positive Q4 Guidance.	**Market Weight**
Information Technology	Software names should benefit from higher CAPEX as firms look to boost productivity amid rising wage inflation.[7] The increased adoption of certain key disruptive technologies like cloud computing, cybersecurity, and CleanTech are likely to remain in a post-COVID-19 world as societies adapt to these new technologies. This shift will likely continue.	Increased regulatory scrutiny is a risk for this sector. There is bipartisan support for increased regulation in this space. Rising interest rates would negatively impact long duration growth sectors like technology.	**Market Weight**
Materials	Increased focus on Electric Vehicle adoption, alternative energy sources and energy storage should be beneficial to Lithium and Battery Technology.	Significant supply chain bottlenecks could dampen economic growth. Increased regulations, especially those focused on preventing climate change, is a potential negative.	**Market Weight**

	Beneficiary of rising inflation leading to higher price for raw materials.		
Real Estate	The Office, Retail, and Hotels segments in Real Estate could benefit from the reopening with increased focus on a return to normal. Residential REITs seeing strong demand and rising rents, which is translating into higher multi-family rents.	Uncertainty surrounding a full return to the office and how flex working situations may reduce demand for office space. A fast rise in interest rates, which increase the cost of financing, are a risk if costs cannot be passed along to tenants.	**Market Weight**
Utilities	Bank of America identified the Utilities sector as the highest quality sector. It benefits from resilient fundamentals including stable revenues.[8] Preferred sector in recessionary environment due to inelasticity of goods & services.	The potential for increased climate-related regulations over time may detract from the appeal of this sector. Companies may not be able to pass through higher inflation related costs due to government regulation.	**Market Weight**

Footnotes:

[1] WSJ, *Fed Worried About Inflation Risk As It Firmed Up Tapering Plan*, 10/13/2021
[2] FactSet, *Earnings Insight, 10/22/2021*
[3] BofA, *The RIC Report: Get paid to wait*, 1/11/2022
[4] Schwab, *Sector Views: Financials*, 1/25/2022
[5] CDC, *CDC Expands Covid-19 Booster Recommendations*, 11/29/2021
[6] BofA, *The RIC Report: America is Still Exceptional*, 9/14/2021
[7] BofA, *The RIC Report: Get paid to wait*, 1/11/2022
[8] BofA, *The RIC Report: America is Still Exceptional*, 9/14/2021

Definitions

Correlation: Correlation indicates the strength of the linear relationship between two different variables. A correlation that is greater than zero indicates a positive relationship. A value that is less than zero signifies a negative relationship. A value of zero indicates no relationship between the two variables.

Dividend: Distribution of profits by a company to its shareholders. (Some companies do not pay dividends and instead re-invest profits back into the business.)

Valuation: Process used to determine the worth, or value, of an asset.

Investing involves risk, including the possible loss of principal. Narrowly focused investments may be subject to higher volatility. Technology-themed investments may be subject to rapid changes in technology, intense competition, rapid obsolescence of products and services, loss of intellectual property protections, evolving industry standards and frequent new product productions, and changes in business cycles and government regulation.

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