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E-Content

On

"Dividend Policies"

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Prepared By:

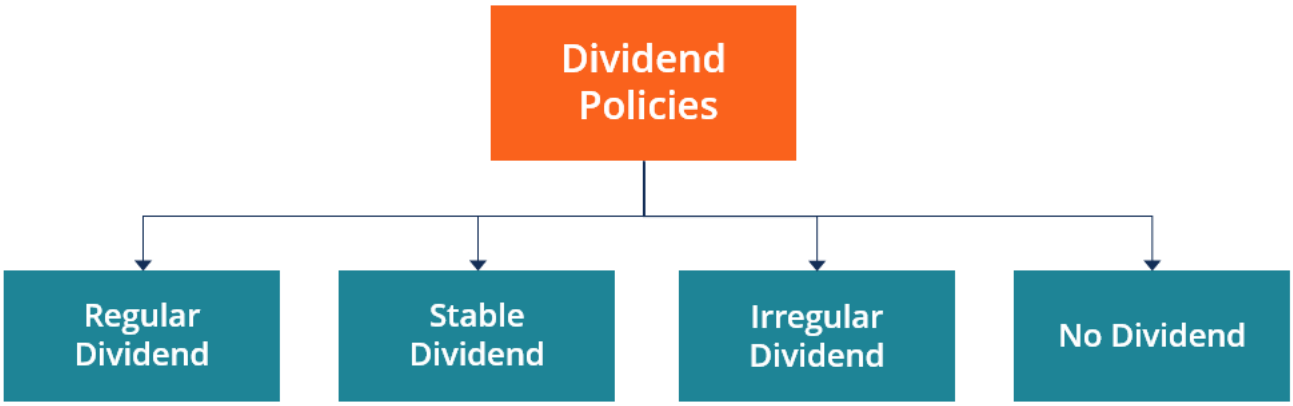
Prof. Kulkit Yadav

Department of Commerce &Management

Dividend Policy

What is a Dividend Policy?

A company's dividend policy dictates the amount of dividends paid out by the company to its shareholders and the frequency with which the dividends are paid out. When a company makes a profit, they need to make a decision on what to do with it. They can either retain the profits in the company (retained earnings on the balance sheet), or they can distribute the money to shareholders in the form of dividends.



What is a Dividend?

A dividend is the share of profits that is distributed to shareholders in the company and the return that shareholders receive for their investment in the company. The company's management must use the profits to satisfy its various stakeholders, but equity shareholders are given first preference as they face the highest amount of risk in the company. A few examples of dividends include:

1. Cash dividend

A dividend that is paid out in cash and will reduce the cash reserves of a company.

2. Bonus shares

Bonus shares refer to shares in the company are distributed to shareholders at no cost. It is usually done in addition to a cash dividend, not in place of it.

Examples of Dividend Policies

The dividend policy used by a company can affect the value of the enterprise. The policy chosen must align with the company's goals and maximize its value for its shareholders. While the shareholders are the owners of the company, it is the board of directors who make the call on whether profits will be distributed or retained.

The directors need to take a lot of factors into consideration when making this decision, such as the growth prospects of the company and future projects. There are various dividend policies a company can follow such as:

1. Regular dividend policy

Under the regular dividend policy, the company pays out dividends to its shareholders every year. If the company makes abnormal profits (very high profits), the excess profits will not be distributed to the shareholders but are withheld by the company as retained earnings. If the company makes a loss, the shareholders will still be paid a dividend under the policy.

The regular dividend policy is used by companies with a steady cash flow and stable earnings. Companies that pay out dividends this way are considered low-risk investments because while the dividend payments are regular, they may not be very high.

2. Stable dividend policy

Under the stable dividend policy, the percentage of profits paid out as dividends is fixed. For example, if a company sets the payout rate at 6%, it is

the percentage of profits that will be paid out regardless of the amount of profits earned for the financial year.

Whether a company makes $1 million or $100,000, a fixed dividend will be paid out. Investing in a company that follows such a policy is risky for investors as the amount of dividends fluctuates with the level of profits. Shareholders face a lot of uncertainty as they are not sure of the exact dividend they will receive.

3. Irregular dividend policy

Under the irregular dividend policy, the company is under no obligation to pay its shareholders and the board of directors can decide what to do with the profits. If they a make an abnormal profit in a certain year, they can decide to distribute it to the shareholders or not pay out any dividends at all and instead keep the profits for business expansion and future projects.

The irregular dividend policy is used by companies that do not enjoy a steady cash flow or lack liquidity. Investors who invest in a company that follows the policy face very high risks as there is a possibility of not receiving any dividends during the financial year.

4. No dividend policy

Under the no dividend policy, the company doesn't distribute dividends to shareholders. It is because any profits earned is retained and reinvested into the business for future growth. Companies that don't give out dividends are constantly growing and expanding, and shareholders invest in them because the value of the company stock appreciates. For the investor, the share price appreciation is more valuable than a dividend payout.

Final Word

The dividends and dividend policy of a company are important factors that many investors consider when deciding what stocks to invest in. Dividends can help investors earn a high return on their investment, and a company's dividend payment policy is a reflection of its financial performance.

Capital Gains Yield

Capital gain expressed as a %

What is Capital Gains Yield (CGY)?

Capital gains yield (CGY) is the price appreciation on an investment or a security expressed as a percentage.

	Example #1	Example #2	Example #3
Current Price	$75.03	$54.25	$107.81
Original Price	$47.90	$54.25	$122.65
Price Change	**$27.13**	**$0.00**	**($14.84)**
Capital Gains Yield	**56.6%**	**0.0%**	**-12.1%**

Capital Gains Yield Formula

CGY = (Current Price – Original Price) / Original Price x 100

Capital Gain is the component of total return on an investment, which occurs as a result of a rise in the market price of the security.

	Example #1	Example #2	Example #3
Current Price	$75.03	$54.25	$107.81
Original Price	$47.90	$54.25	$122.65
Price Change	**$27.13**	**$0.00**	**($14.84)**
Capital Gains Yield	**56.6%**	**0.0%**	**=E5/E4**

Calculating Capital Gains Yield

Consider the following example. John buys a share of company XYZ at a market price of $100. Over the course of one year, the market price of a share of company XYZ appreciates to $150. At the end of the year, company XYZ issues a dividend of $5 per share to its investors.

The Capital Gain Yield for the above investment is (150-100)/100 = 50%.

Also note that:

The Dividend Gain Yield for the above investment is 5/100 = 5%.

The total return from the investment is therefore 55%.

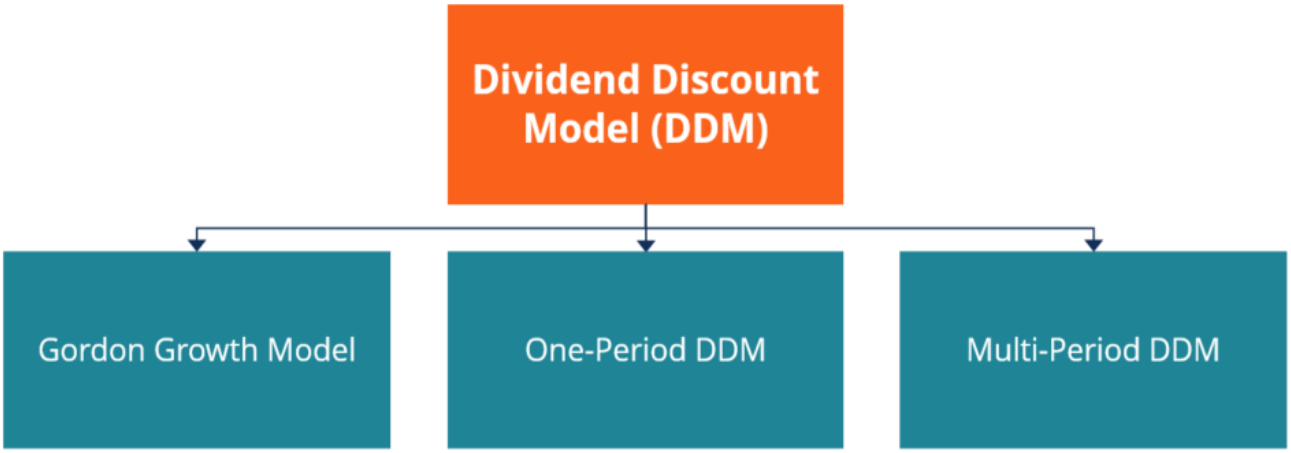
Dividend Discount Model

Assumes that the current fair price of a stock equals the sum of all company's future dividends discounted back to their present value

What is the Dividend Discount Model?

The Dividend Discount Model (DDM) is a quantitative method of valuing a company's stock price based on the assumption that the current fair price

of a stock equals the sum of all of the company's future dividends discounted back to their present value.



Breaking Down the Dividend Discount Model

The dividend discount model was developed under the assumption that the intrinsic value of a stock reflects the present value of all future cash flows generated by a security. At the same time, dividends are essentially the positive cash flows generated by a company and distributed to the shareholders.

Generally, the dividend discount model provides an easy way to calculate a fair stock price from a mathematical perspective with minimum input variables required. However, the model relies on several assumptions that cannot be easily forecasted.

Depending on the variation of the dividend discount model, an analyst requires forecasting future dividend payments, the growth of dividend payments, and the cost of equity capital. Forecasting all the variables precisely is almost impossible. Thus, in many cases, the theoretical fair stock price is far from reality.

Formula for the Dividend Discount Model

The dividend discount model can take several variations depending on the stated assumptions. The variations include the following:

1. Gordon Growth Model

The Gordon Growth Model (GGM) is one of the most commonly used variations of the dividend discount model. The model is called after American economist Myron J. Gordon, who proposed the variation. The GGM assists an investor in evaluating a stock's intrinsic value based on the potential dividend's constant rate of growth.

The GGM is based on the assumption that the stream of future dividends will grow at some constant rate in the future for an infinite time. The model is helpful in assessing the value of stable businesses with strong cash flow and steady levels of dividend growth. It generally assumes that the company being evaluated possesses a constant and stable business model and that the growth of the company occurs at a constant rate over time.

Mathematically, the model is expressed in the following way:

$$V_0 = \frac{D_1}{r - g}$$

Where:

- **V_0** – The current fair value of a stock
- **D_1** – The dividend payment in one period from now
- **r** – The estimated cost of equity capital (usually calculated using CAPM)
- **g** – The constant growth rate of the company's dividends for an infinite time

2. One-Period Dividend Discount Model

The one-period discount dividend model is used much less frequently than the Gordon Growth model. The former is applied when an investor wants to determine the intrinsic price of a stock that he or she will sell in one period (usually one year) from now.

The one-period DDM generally assumes that an investor is prepared to hold the stock for only one year. Because of the short holding period, the

cash flows expected to be generated by the stock are the single dividend payment and the selling price of the respective stock.

Hence, to determine the fair price of the stock, the sum of the future dividend payment and that of the estimated selling price, must be computed and discounted back to their present values.

The one-period dividend discount model uses the following equation:

$$V_0 = \frac{D_1}{1 + r} + \frac{P_1}{1 + r}$$

Where:

- **V_0** – The current fair value of a stock
- **D_1** – The dividend payment in one period from now
- **P_1** – The stock price in one period from now
- **r** – The estimated cost of equity capital

3. Multi-Period Dividend Discount Model

The multi-period dividend discount model is an extension of the one-period dividend discount model wherein an investor expects to hold a stock for multiple periods. The main challenge of the multi-period model variation is that forecasting dividend payments for different periods is required.

In the multiple-period DDM, an investor expects to hold the stock he or she purchased for multiple time periods. Therefore, the expected future cash flows will consist of numerous dividend payments, and the estimated selling price of the stock at the end of the holding period.

The intrinsic value of a stock (via the Multiple-Period DDM) is found by estimating the sum value of the expected dividend payments and the selling price, discounted to find their present values.

The model's mathematical formula is below:

$$V_0 = \frac{D_1}{(1+r)^1} + \frac{D_2}{(1+r)^2} + \ldots + \frac{D_n}{(1+r)^n} + \frac{P_n}{(1+r)^n}$$

Notable Shortcomings of the DDM

A shortcoming of the DDM is that the model follows a perpetual constant dividend growth rate assumption. This assumption is not ideal for companies with fluctuating dividend growth rates or irregular dividend payments, as it increases the chances of imprecision.

Another drawback is the sensitivity of the outputs to the inputs. Furthermore, the model is not fit for companies with rates of return that are lower than the dividend growth rate.

Retained Earnings

The accumulation of net income after dividends

What are Retained Earnings?

Retained Earnings (RE) are the accumulated portion of a business's profits that are not distributed as dividends to shareholders but instead are reserved for reinvestment back into the business. Normally, these funds are used for working capital and fixed asset purchases (capital expenditures) or allotted for paying off debt obligations.

Retained Earnings

© Corporate Finance Institute. All rights reserved. FINANCIAL STATEMENTS	Historical Results 2013	2014	2015	2016	2017
Assets					
Cash	67,971	81,210	83,715	111,069	139,550
Accounts Receivable	5,100	5,904	6,567	7,117	7,539
Inventory	7,805	9,601	9,825	10,531	11,342
Property & Equipment	45,500	42,350	40,145	38,602	37,521
Total Assets	**126,376**	**139,065**	**140,252**	**167,319**	**195,951**
Liabilities					
Accounts Payable	3,902	4,800	4,912	5,265	5,671
Debt	50,000	50,000	30,000	30,000	30,000
Total Liabilities	**53,902**	**54,800**	**34,912**	**35,265**	**35,671**
Shareholder's Equity					
Equity Capital	70,000	70,000	70,000	70,000	70,000
Retained Earnings	2,474	14,265	35,340	62,053	90,280
Shareholder's Equity	**72,474**	**84,265**	**105,340**	**132,053**	**160,280**
Total Liabilities & Shareholder's Equity	**126,376**	**139,065**	**140,252**	**167,319**	**195,951**

Retained Earnings are reported on the balance sheet under the shareholder's equity section at the end of each accounting period. To calculate RE, the beginning RE balance is added to the net income or reduced by a net loss and then dividend payouts are subtracted. A summary report called a statement of retained earnings is also maintained, outlining the changes in RE for a specific period.

The Purpose of Retained Earnings

Retained earnings represent a useful link between the income statement and the balance sheet, as they are recorded under shareholders' equity, which connects the two statements. The purpose of retaining these earnings can be varied and includes buying new equipment and machines, spending on research and development, or other activities that could potentially generate growth for the company. This reinvestment into the company aims to achieve even more earnings in the future.

If a company does not believe it can earn a sufficient return on investment from those retained earnings (i.e., earn more than their cost of capital), then

they will often distribute those earnings to shareholders as dividends or conduct a share buybacks.

What is the Retained Earnings Formula?

The RE formula is as follows:

RE = Beginning Period RE + Net Income/Loss – Cash Dividends – Stock Dividends

Where RE = Retained Earnings

Retained Earnings Formula

RE = Beginning Period Retained Earnings
+ Net Income/Loss
– Cash Dividends
– Stock Dividends

Beginning of Period Retained Earnings

At the end of each accounting period, retained earnings are reported on the balance sheet as the accumulated income from the prior year (including the current year's income), minus dividends paid to shareholders. In the next accounting cycle, the RE ending balance from the previous accounting period will now become the retained earnings beginning balance.

The RE balance may not always be a positive number, as it may reflect that the current period's net loss is greater than that of the RE beginning balance. Alternatively, a large distribution of dividends that exceed the retained earnings balance can cause it to go negative.

How Net Income Impacts Retained Earnings

Any changes or movement with net income will directly impact the RE balance. Factors such as an increase or decrease in net income and incurrence of net loss will pave the way to either business profitability or deficit. The Retained Earnings account can be negative due to large, cumulative net losses. Naturally, the same items that affect net income affect RE.

Examples of these items include sales revenue, cost of goods sold, depreciation, and other operating expenses. Non-cash items such as write-downs or impairments and stock-based compensation also affect the account.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	© Corporate Finance Institute. All rights reserved.			Historical Results					Forecast Period				
2	**FINANCIAL STATEMENTS**			2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
3	Balance Sheet Check			OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
24													
25	**Revenue**			**102,007**	**118,086**	**131,345**	**142,341**	**150,772**	**165,849**	**182,434**	**200,678**	**220,745**	**242,820**
26	Cost of Goods Sold (COGS)			39,023	48,004	49,123	52,654	56,710	69,657	85,744	100,339	79,468	84,987
27	**Gross Profit**			**62,984**	**70,082**	**82,222**	**89,687**	**94,062**	**96,193**	**96,690**	**100,339**	**141,277**	**157,833**
28	**Expenses**												
29	Salaries and Benefits			26,427	22,658	23,872	23,002	25,245	28,194	31,014	34,115	37,527	41,279
30	Rent and Overhead			10,963	10,125	10,087	11,020	11,412	15,000	15,000	15,000	15,000	15,000
31	Depreciation & Amortization			19,500	18,150	17,205	16,544	16,080	13,132	13,786	14,211	14,487	14,667
32	Interest			2,500	2,500	1,500	1,500	1,500	3,000	3,000	2,000	1,000	1,000
33	**Total Expenses**			**59,390**	**53,433**	**52,664**	**52,066**	**54,237**	**59,327**	**62,800**	**65,326**	**68,014**	**71,946**
34	**Earnings Before Tax**			**3,594**	**16,649**	**29,558**	**37,622**	**39,825**	**36,866**	**33,890**	**35,013**	**73,263**	**85,887**
35													
36	Taxes			1,120	4,858	8,483	10,908	11,598	10,322	9,489	9,804	20,514	24,048
37	**Net Earnings**			**2,474**	**11,791**	**21,075**	**26,713**	**28,227**	**26,543**	**24,401**	**25,209**	**52,749**	**61,839**
38													
39													
40	**Balance Sheet**												
41													
42	**Assets**												
43	Cash			67,971	81,210	83,715	111,069	139,550	161,050	179,175	177,827	232,676	292,140
44	Accounts Receivable			5,100	5,904	6,567	7,117	7,539	8,179	8,997	9,896	10,886	11,975
45	Inventory			7,805	9,601	9,825	10,531	11,342	15,267	21,142	27,490	21,772	23,284
46	Property & Equipment			45,500	42,350	40,145	38,602	37,521	39,389	40,603	41,392	41,905	42,238
47	**Total Assets**			**126,376**	**139,065**	**140,252**	**167,319**	**195,951**	**223,885**	**249,916**	**256,605**	**307,239**	**369,637**
48													
49	**Liabilities**												
50	Accounts Payable			3,902	4,800	4,912	5,265	5,671	7,061	8,692	10,171	8,056	8,615
51	Debt			50,000	50,000	30,000	30,000	30,000	30,000	30,000	10,000	10,000	10,000
52	**Total Liabilities**			**53,902**	**54,800**	**34,912**	**35,265**	**35,671**	**37,061**	**38,692**	**20,171**	**18,056**	**18,615**
53	**Shareholder's Equity**												
54	Equity Capital			70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000
55	Retained Earnings			2,474	14,265	35,340	62,053	90,280	116,824	141,225	166,434	219,183	281,022
56	**Shareholder's Equity**			**72,474**	**84,265**	**105,340**	**132,053**	**160,280**	**186,824**	**211,225**	**236,434**	**289,183**	**351,022**
57	**Total Liabilities & Shareholder's Equity**			**126,376**	**139,065**	**140,252**	**167,319**	**195,951**	**223,885**	**249,916**	**256,605**	**307,239**	**369,637**

How Dividends Impact Retained Earnings

Distribution of dividends to shareholders can be in the form of cash or stock. Both forms can reduce the value of RE for the business. Cash dividends represent a cash outflow and are recorded as reductions in the cash account. These reduce the size of a company's balance sheet and asset value as the company no longer owns part of its liquid assets.

Stock dividends, however, do not require a cash outflow. Instead, they reallocate a portion of the RE to common stock and additional paid-in capital accounts. This allocation does not impact the overall size of the company's balance sheet, but it does decrease the value of stocks per share.

End of Period Retained Earnings

At the end of the period, you can calculate your final Retained Earnings balance for the balance sheet by taking the beginning period, adding any net income or net loss, and subtracting any dividends.

Example Calculation

In this example, the amount of dividends paid by XYZ is unknown to us, so using the information from the Balance Sheet and the Income Statement, we can derive it remembering the formula ***Beginning RE – Ending RE + Net income (-loss) = Dividends***

Retained Earnings Example

Example 1. Extract from XYZ's Balance sheet (in millions except preferred stock and common stock)		
	2016	2015
Shareholders' Equity		
Preferred stock	$ 5,200	$ 5,500
Common stock	$ 351	$ 351
Additional paid-in capital	$ 78,569	$ 77,283
Treasury stock	$ 3,211	$ 2,914
Retained earnings	**$ 78,732**	**$ 77,232**
Accumulated other comprehesive loss	-$ 3,271	$ 2,897
Total XYZ, Inc shareholders' equity	$ 162,792	$ 166,177
Equity attributable to non-controlling interests	$ 298	$ 313
Total Equity	$ 163,090	$ 166,490

XYZ Information from Consolidated Statements of Comprehensive Income.		
For the years ended August 31, 2014 and 2013 (in million)		
	2016	2015
Sales	$ 232,540	$ 227,506
Net Income	**$ 5,297**	**$ 4,769**

We already know:

Beginning RE: **$77,232**

Ending RE: **$78,732**

Net Income: **$5,297**

So, **$77,232 – $78,732 + $5,297= $3,797**

Dividends paid = $3,797

We can confirm this is correct by applying the formula of **Beginning RE + Net income (loss) – dividends = Ending RE**

We have then **$77,232 + $5,297 – $3,797 = $78,732, which is in fact our figure for Ending Retained Earnings**