Part 03 : lecture 02

1/ Sustainable Growth Rate: definition

The **Sustainable Growth Rate (SGR)** is the approximate rate at which a company could grow if its current capital structure – i.e. the mixture of debt and equity – is maintained.

The sustainable growth rate (SGR) is a company's maximum possible growth rate without needing external equity and debt financing. SGR is the growth rate that is achieved through internal accruals alone. A high sustainable growth rate is a positive factor for a company.

A high SGR states that the company is profitable and efficient enough to fund everything through internal accruals.

Key Takeaways

- SGR is the maximum growth rate a company can achieve without relying on external financing, calculated using the retention ratio and return on equity.
- SGR helps visualize a company's stage in its lifecycle, with younger companies typically requiring external financing for growth, while mature companies have higher SGRs due to higher profitability.
- SGR influences a company's capital structure. Low SGRs make it difficult to function without external capital. As SGR rises, companies may consider debt financing as an alternative to equity.

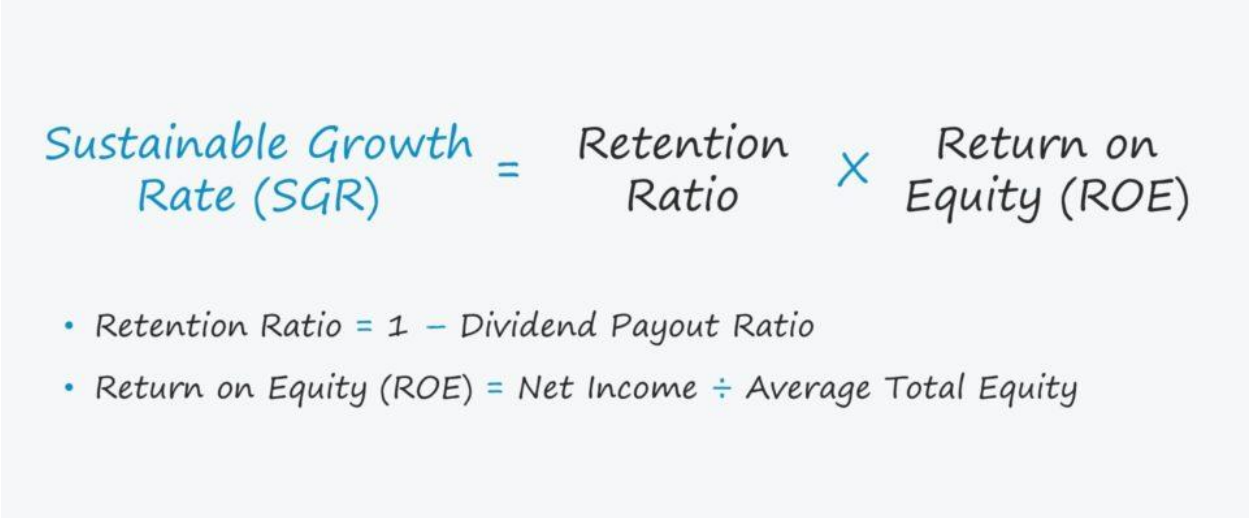
2/ Sustainable Growth Rate Formula (SGR)

The formula for calculating the sustainable growth rate (SGR) consists of three steps:

Sustainable Growth Rate (SGR) = Retention Rate × Return on Equity (ROE)

Where:

- Retention Rate = (1 – Dividend Payout Ratio)
- Return on Equity = Net Income ÷ Average Shareholders' Equity



The dividend payout ratio is the percentage of earnings per share (EPS) paid to shareholders as dividends – thus, if we subtract the percentage paid out as dividends from one, we are left with the retention ratio.

The retention ratio is the portion of net income that is retained, as opposed to being paid out as dividends to compensate shareholders.

The return on equity (ROE) measures a company's profitability based on each dollar of equity investment contributed by its shareholder base.

For example, if a company has a return on equity (ROE) of 10% and a dividend payout ratio of 20%, the sustainable growth rate is 8%.

- Sustainable Growth Rate (SGR) = (1 – 20%) × 10%
- SGR = 0.80 × 0.10 = 8%

Here, the company can grow at 8% per year if the capital structure is left unadjusted by management and operations remain consistent with historical performance.

3/ Sustainable Growth Rate (SGR) vs. Internal Growth Rate (IGR)

- **Internal Growth Rate (IGR)**: The internal growth rate is the maximum rate at which a company can grow without relying on external financing sources (e.g. equity or debt issuances). The IGR assumes that operations will be entirely self-funded by the company's retained earnings.
- **Sustainable Growth Rate (SGR)**: In contrast, the sustainable growth rate (SGR) includes the impact of external financing, but the existing capital structure is kept constant. Since the sustainable growth rate considers the use of leverage – which increases the potential upside in returns and the potential losses – the SGR should be higher than the IGR.

In financial research, the Sustainable Growth Rate (SGR) and Internal Growth Rate (IGR) are crucial indicators that assess a company's capacity to expand without outside funding. Despite having similar ideas, they assess various facets of a business's potential for growth.

Aspect	Sustainable Growth Rate (SGR)	Internal Growth Rate (IGR)
Definition	Maximum rate of growth without external financing, considering profitability, dividend policy, asset utilization, and financial leverage	Maximum rate of growth without external financing, focusing solely on sales revenue and reinvestment rate
Formula	SGR =ROE*(Retention Ratio)= with DuPont model= (Net Profit Margin) * (Asset Turnover) * (Financial Leverage)* (Retention Ratio)	IGR = ROA * (1 - Dividend Payout Ratio)
Focus	Considers profitability, dividend policy, asset turnover, and financial leverage	Focuses primarily on return on assets and reinvestment rate
Components	Includes net profit margin, retention ratio, asset turnover, and financial leverage	Includes return on assets and reinvestment rate
Complexity	More complex due to the inclusion of multiple factors	Less complex as it focuses on fewer variables
Purpose	Provides a comprehensive view of growth potential, considering both internal and external financing factors	Specifically evaluates growth achievable without external financing

Aspect	Sustainable Growth Rate (SGR)	Internal Growth Rate (IGR)
Calculation Complexity	More complex due to the involvement of multiple factors.	Simpler as it relies on ROA and dividend payout ratio only.

4/ Advantages of using a sustainable growth rate

The following are the benefits of applying the Sustainable Growth Rate (SGR) in financial analysis:

1. **Comprehensive Evaluation:** It provides a comprehensive picture of growth potential by taking into account a number of financial indicators.
2. **Takes into Account Dividend Policy:** It takes into consideration how dividend policy affects reinvestment and retained earnings.
3. **Thinks about Asset Efficiency:** It shows operational efficiency in growth by reflecting asset turnover.
4. **Reflects Financial Leverage:** It incorporates the function of leverage in promoting long-term expansion.
5. **Sustainability over the Long Term:** It prioritizes organic growth without outside funding to ensure stability over the long term.
6. **Beneficial for Strategic Planning:** It is a standard by which to measure growth and improve important financial KPIs.
7. **Investor Confidence:** It enhances investor confidence by offering information about internal fund production.

5/ Disadvantages of using a sustainable growth rate

The following are the drawbacks of applying the Sustainable Growth Rate:

1. **Sensitivity to Assumptions:** SGR computations are susceptible to assumptions, which could result in errors.
2. **Restricted Scope:** It ignores external market dynamics in favor of internal considerations.
3. **Ignores Market Dynamics:** It makes the assumption that past growth rates will continue, ignoring changes in the market.
4. **Ignored Capital Constraints:** It considers no potential capital constraints, particularly in times of economic recession.

5. **Complex Calculation:** Interpretation may be hampered by formula complexity.
6. **Dependent on Historical Data:** This relies on historical data, which might not always be an accurate indicator of future results.
7. **Limited Strategic Insights:** They might not provide useful information for making strategic plans.
8. **Not Suitable for All Industries or Stages of Development:** It may not be relevant or appropriate to businesses in specific sectors or phases of development, such as early-stage startups or established firms in highly cyclical industries when growth dynamics diverge markedly from conventional business models.

6/ Factors Contributing to the Decline of Sustainable Growth Rates

The dynamics of the industry, the state of the external economy, and a company's internal operations can all cause the Sustainable Growth Rate (SGR) to decrease over time. The SGR may decline over time for the following reasons:

1. Market Saturation

2. Competitive Pressures

3. Decreasing Margins

4. Declining Efficiency

5. Maturity Stage

6. Macroeconomic Factors