

Done Cost Cutting, What's Next? Setting the Revenue Growth Objectives

Prakah Deo

University of Houston-Downtown

The prolonged economic downturn following the 2008-2009 demise of the housing market, major wall-street firms and the financial markets has forced many firms to focus their strategic plans on withdrawal from indefensible positions and lowering of operating costs to maintaining profit margins. But, cutting costs cannot go forever. You cannot grow the bottom line until you grow the top line. This article examines the financial and managerial issues that a firm and its managers need to evaluate when setting revenue growth objectives. The paper proposes a theoretically sound and practical methodology to develop annual revenue growth objectives consistent with a firm's primary obligation to maximize shareholder value. Specifically, it develops a framework to derive, structure, communicate, negotiate and set short- and long-term revenue growth objectives both at the consolidated entity and business unit levels. We hope that it will help to bridge the gap between "theory" and "practice" for practitioners.

INTRODUCTION

Managers of a firm strive to achieve the over-arching goal of shareholder value maximization through the firm's current and expected performance. This task is accomplished through setting of financial objectives and then meeting or exceeding them in both short- and long-term. The complexity of a business leads to an organization structure that generally includes more than one performance measurement systems such as (1) cost centers, (2) revenue centers, (3) profit centers, (4) investment centers, and (5) expense centers. This, in turn, leads to a constellation of strategic and financial objectives—a consistent set of key drivers of shareholder value.

Growth is an example of both the strategic and financial objectives because the growth may include a percentage growth in sales or market share — a strategic objective and a percentage growth in revenues or a growth in turnover—both financial objectives. A firm's growth may be organic/core or through acquisitions. Since the business cycle is a part and parcel of the industrial economies, during hard economic times, a firm may need to withdraw from indefensible positions, lower its planned growth or experience a negative growth, and focus on lowering of operating costs to maintain profit margins. Therefore, a steady-state revenue growth objective should reflect a growth rate that is attainable truly in the long-term and which explicitly recognizes that a firm may experience temporal hiccups, ie., lower or even negative growth rates during bad economic times. In other words, a firm may not be able to achieve a continuous and linear growth.

But, every single performance measure has its problems, and the revenue growth objective has its pitfalls too! The revenue growth may destroy a firm's value when each unit sold is unprofitable or does not generate cash instead consumes it. Therefore, it is plausible that some firms have gone bankrupt because they grew too fast! On the contrary, some firms which grew too slow piled a large amount of

cash and were acquired by other firms. This leads us to the other weakness in the revenue growth objective that it does not incorporate any balance sheet information. In short, growth has risks on either side and just like costs, it needs to be managed.

The business units or divisions of a firm have a specific set of products and clear market focus, which can be measured individually. Rappaport (1998) explains that a strategy for a business unit may then be viewed as a collection of product-market related investments and the company itself may be characterized as a portfolio of these investment-requiring strategies. The revenue growth opportunities available to a business unit may reflect its industry segment, level of vertical integration, sales mix such as domestic versus international or growth versus stable industry sub-segments, the expected growth rate of the industry, market share, incremental capital intensity, and regulatory climate. Therefore, the slope of the growth curve will be unique to each business unit, and the firm's growth curve will reflect the consolidation of the growth curves of all of its business units/divisions with due considerations to synergies and overlapping functions.

Literature Review

Jensen and Meckling (2009) explain that given the correct choice of price and quantity and product mix, the maximization of total revenue for a given price/quantity is consistent with maximizing the value of the firm. Copeland and Dolgoff (2006) argue that the sales growth is double-edged sword when it comes to value creation as growth can destroy value if each unit sold is unprofitable and if it consumes more resources (assets) than desired. A statistical model of revenue growth generally provides amazing bad results (FMA roundtable, 2006), and therefore firms need to put more thought and analytical discipline into their forecasting.

Hess (2010) cites a number of empirical studies which conclude that smooth and continuous growth is an exception not the rule. He contends that growth has risks and can increase predator risk, and that growth requires a diversified portfolio of growth initiatives. He suggests that constant improvements is the DNA of growth, and scaling is the foundation of high organic growth and strategic acquisitions can be scaling accelerators.

Milano (2010) observes that the emphasis on top-line growth had prevailed before the intense emphasis on return on capital brought on by the ongoing shareholder value movement. Higgins (1977) demonstrated that the financial policies of firms may be inconsistent with their growth objectives. To provide a guide for implementing financial policies and growth objectives which are consistent with each other, he has developed an expression for the sustainable growth rate (SGR) which allows executives monitor whether the firm's growth objectives and financial policies are mutually feasible and use his model to switch to an appropriate mix of financial and growth objectives. The sustainable growth rate in sales (g^*) is defined as the maximum annual percentage increase in sales that can be achieved based on target operating, debt and dividend payout ratios. His expression for the sustainable growth is:

$$g^* = \Delta s/s = p(1-d) (1+L)/ t p (1- d)(1 + L), \text{ where,}$$

p = the profit margin on new and existing sales after taxes,
 d = the target dividend payout ratio and $(1-d)$ is the target retention ratio,
 L = the target debt to equity ratio,
 t = the ratio of total assets to net sales on new and existing sales,
 s = sales at the beginning of the year, and
 Δs = increase in sales during the year.

The sustainable growth rate identifies the relationships among the firm's major areas of concern: operating efficiency measured by profit margin, resource or asset utilization as measured by net asset turnover, its financial policy and dividend policy as measured by debt/equity ratio and the retention ratio, respectively. Higgins argues that firms must think growth as a decision variable to be managed and controlled similar to the management of inventories and payout ratio.

Brealey and Myers (2008) suggest that if issuance of debt is assumed to be zero in the derivation of the sustainable growth rate expression then the sustainable growth becomes an internal growth rate or affordable growth rate. This is the maximum growth rate a firm can achieve assuming it does not issue additional equity and debt.

Ashta (2008) suggests that Higgins' sustainable rate model should use beginning and not average total assets and total equity in calculations of the asset turnover and debt/equity ratios. Burger and Hamman (1999) contend that Higgin's model defines an accounting SGR as it is based on accrual principals, and they introduce a cash SGR which makes adjustments to the accounting SGR for non-cash components of working capital. The cash sustainable growth rate is the rate at which the company can grow while still maintaining a certain target cash balance in the balance sheet.

Johnson (1981) investigated the behavior of sustainable growth rate and financial structure in an inflationary environment, while Platt, Platt and Chen (1995) study the sustainable growth rate of firm in financial distress. Clark, Clark and Verzilli (1985) warn that a desired growth rate is not simply the result of accepting all projects with a positive net-present value or an internal rate of return greater than the cost of capital. They assert that Higgins model provides a good starting point to growth related issues encountered in long-term or strategic planning.

The finance literature primarily focuses on how to calculate sustainable and internal growth rates at the firm level and their relations with the firm's financial policies. Although the business units produce the revenues, the current literature fails to provide a stepped approach on how to derive a revenue growth objective at the business unit level. Unlike the firm, a business unit does not have a debt or dividend payout ratio. Therefore, one cannot use the sustainable growth rate model. The current finance literature neither provides the negotiation tactics to implement the revenue growth objective nor does it shed a light on tradeoffs between the revenue growth and resource requirements such as capital expenditures and working capital. This article proposes a theoretically sound and practical methodology to develop annual revenue growth objective(s) consistent with a firm's primary obligation to maximize shareholder value. Specifically, it develops a framework to derive, structure, communicate, negotiate and set short- and long-term revenue growth objectives both at the consolidated entry and business unit levels.

Setting Financial Objectives for a Firm

A firm's primary financial obligation is to increase the value of its shareholders' investment. In order to achieve this objective, at the beginning of the planning process, it is important to establish a framework to promulgate short-term (one-year) and long-term (three-to five-year) objectives for each business unit. Deo (2010) has discussed how to develop short- and long-term targets in the context of shareholder value maximization. He has discussed the need for and appraised the differences between the entity- and BU-level financial targets, identified and evaluated financial measures, and supported his arguments with an illustration.

Entity and Business Unit Targets

Deo's (2010) recommends long-term targets of revenue growth, return on invested capital, and the total shareholder value. Shareholder value is defined as the discounted value of the free cash flow. Likewise, the short-term externally communicated targets are revenue growth and one-year return on invested capital or EVA. The BU short- and long-term targets are the same as the entity level targets. The BU CFO who conducts the monthly book closings and results with the BU chief needs to evaluate the performance of the return on invested capital and EVA. The financial targets for the rest of the BU (operational) employees, who make the majority of the corporation, are derived from decomposition of the ROIC and EVA targets- targets that could amount to simple accounting measures. These targets include revenue growth, operating return on assets(ORA), operating return on sales (OROS), and asset turnover(AT). That is, while the BU CFO and chiefs monitor the ROIC, EVA or shareholder value for the BU, the operational employees are shielded from the technical jargon of calculating these somewhat complex financial and economic measures, which include various accounting adjustments. Most finance textbooks discuss the strengths and weaknesses of these accounting measures and the DuPont

decomposition of ORA into OROS and AT. As discussed earlier, these BU employees are equally if not more focused on operational drivers specific to their functional areas, such as marketing, sales, product management, human resources, legal, customer support, production and delivery. Some of the associated metrics are quality, market share, customer churn, customer satisfaction, cycle time, and other performance measures related to production and delivery. Although the criticism of accounting measures is a common knowledge, these measures have their own benefits. They are simple to use and are routinely reported and reviewed during the monthly book close process. These measures are reported externally on a quarterly and annual basis consistent with GAAP. As such, the business unit accounting teams, which conduct the monthly book closings and results review with the BU operational teams for each of the functional areas, usually evaluate the performance of these simple accounting measures and routinely report it. Understanding the value drivers for each BU and their impact on the total and incremental plan values certainly helps to firm up the targets and provides a sanity check to ensure the desired shareholder value creation.

Finally, all CFO approvals must take into account the EVA impact. However, the overall assessment of the value of a program-or the decision of whether or not to implement a program-should be based primarily on long-term valuation techniques, not on EVA in a single year and certainly not on operational measures such as ORA, OROS, and AT.

Revenue Growth Objective for a Firm

Financial resources and product/service-market opportunity help determine how fast a firm can grow. Alternatively, the management of growth requires careful balancing of the revenue objectives with its operating efficiency (return on sales, operating return on assets, and operating cash flow to assets ratio) and financial resources (capital expenditures, operating or working capital).

This article defines reinvestment rate as a measure for capital resource requirements, and relates this measure to output expectations for growth, profitability and cash flow. In particular, a relationship between reinvestment rate and revenue growth allows us to assess whether a business is under- or over-spending capital resources and leads to a criterion for deciding when request for additional spending are justified.

Reinvestment Rate

For the internal management of a firm's business units, profitability and cash flows are measured by operating income and net operating cash flow before investments. Note that a free cash flow (FCF) is defined as net operating cash flows less taxes paid. The difference between the (book) income and cash flow represents the resources the firm reinvest in the assets of the company, such as in property, plant , equipment, inventory and receivables.

When the income and cash flow are normalized by average assets, they lead to target measures of income and cash return (operating return on assets and net operating cash flow on assets, respectively). The difference between these two measures is the reinvestment in the business expressed as percent of the assets, and is called the reinvestment rate. The reinvestment rate also signifies the rate of growth of the asset base. High growth businesses typically have high reinvestment rates (i.e., their cash returns are lower than income returns), while cash cows and shrinking businesses have low or negative reinvestment rates (i.e., the cash returns are close to or exceed income returns). Deo and Sethi (1993) express the shareholder value as a function of revenue growth (R), operating margin (M), capital investment (I), and financial assumptions (A), where each of these parameters is a time vector:

$$\text{Shareholder Value} = F(R, M, I, A)$$

The total investment (I) is assumed to accomplish three objectives: maintenance of the current volume of business, revenue growth, and operating margin improvement. The incremental investment is the requirement for revenue growth and margin improvement. To estimate the contribution to value from

revenue growth, we assume that there is no margin improvement beyond the current level and the incremental investment has been reduced to reflect only the revenue growth component.

NOCF = Operating Income – Reinvestment, where

NOCF is the net operating cash flow, and Reinvestment equals Capital Expenditures less Depreciation plus Working Capital Requirements.

OC/A = OR/A – Reinvestment Rate, where,

Operating cash return on assets or OCA = NOCF expressed as percentage of Assets,

Operating return on assets or ORA = Operating income expressed as percentage of Assets,

Reinvestment Rate = Capital Expenditures – Depreciation + Working Capital Requirements.

All expressed as percentage of average assets.

This breakdown of the reinvestment rate into its components reveals that the principal drivers of reinvestment rates are the growth rate and capital or plant intensity of the business. (capital or net plant expressed as percentage of assets). For example, the higher the growth rate, the higher the capital expenditure requirements. This is particularly true in the steady-state where the capital expenditure rate net of depreciation represents the investment for growth. The revenue growth is also a principal driver of working capital requirements as higher volumes cause inventories and receivables to increase. Likewise, the higher the plant intensity of the business, the higher the capital expenditure rate. Some businesses are inherently capital intensive. Consider the following example. ECOM Inc., a fictitious firm has a derived steady-state objective for OCA of 12% -14% and for ORA of 17%. These financial objectives are derived using Deo's (2010) methodology, which is based on the principle of shareholder value maximization. For instance, with regard to the revenue growth targets at the entity (ECOM) level, the internal or affordable growth rate at which ECOM can grow without issuing new debt or equity is calculated as 7%. The sustainable growth rate at which the ECOM can grow issuing new debt but without changing the debt ratio or issuing new equity is derived to be 12%. The sustainable growth rate is higher because of ECOM's current debt ratio and a higher long-term objective for the debt ratio, In addition, the entity-level competitor analog has a range of 8%-10%. The set of these three growth rates in combination with individual business unit growth objectives, and the iterative process of negotiations and adjustments-lead to an entity-level, long range target of 8%-12%. The firm has several business units (BUs) "A" through "D." The implied reinvestment rate (the difference between OCA and ORA) of 3 - 5% would help realize the long-term revenue growth objective of 8% - 12%. The objective for requirements for operating capital at 2% - 3% of assets again reflects a growth expectation of 8% - 12% and assumes that the underlying levels of operating capital accounts (receivables, inventory and payables) on the balance sheet are near the objective levels.

$$\begin{aligned} \text{Reinvestment Rate} &= \text{Capital Expenditures/Average Assets (11\% - 12\%)} \\ &\quad + \text{Working Capital Requirements /Average Assets (2\% - 3\%)} \\ &\quad - \text{Depreciation/Average Assets (10\%)} \\ &= (11\% - 12\%) + (2\% - 3\%) - 10\% \\ &= 3\% \text{ to } 5\% \end{aligned}$$

Assessment of Resource Requirements

The current outlook for the next year and the planning horizon for ECOM are depicted in Text-Table 1, which indicates that while ECOM's 2013 and long-tem reinvestment rates are higher than their

respective objectives, ECOM's short-term and the long-term revenue growths fall short of the revenue growth targets.

**TABLE 1
REINVESTMENT RATE VS. REVENUE GROWTH FOR ECOM INC**

Reinvestment Rate				Revenue Growth			
2013 (Short Term)		2012 – 2017 (Long Term)		2013 (Short Term)		2012 – 2017 (Long Term)	
Objective	Outlook	Objective	Outlook	Objective	Outlook	Objective	Outlook
5.2%	8.7%	4.9%	7.8%	5.3%	4.1%	7.9%	5.7%

Therefore, ECOM should increase its revenue growth to match the higher level of reinvestment rate or reduce its spending rate to a level commensurate with its projected revenue growth. This is particularly true in increasingly competitive markets where the increase in investment and fixed costs cannot be recovered through higher selling price.

Similar assessments can be made at the business unit level. For example, as shown in Text-Table 2, business unit A's (representing slightly more than half of ECOM's capital expenditures) 2013 reinvestment rate is projected to be higher than the target (9.7% versus 7.1%), while the revenue growth rate of 2.4% in 2013 is lower than the target rate of 5.4%. Over the planning horizon 2012- 2017, business unit A's projected reinvestment rate and revenue growth are lower than the respective targets. If ECOM accepts the lower revenue growth projection, ECOM needs to assess whether the reinvestment rate is properly matched. Alternatively, ECOM should explore how it can increase both the reinvestment rate and the revenue growth in order to achieve business unit A's maximum contribution to ECOM's shareholder value.

**TABLE 2
BUSINESS UNIT A**

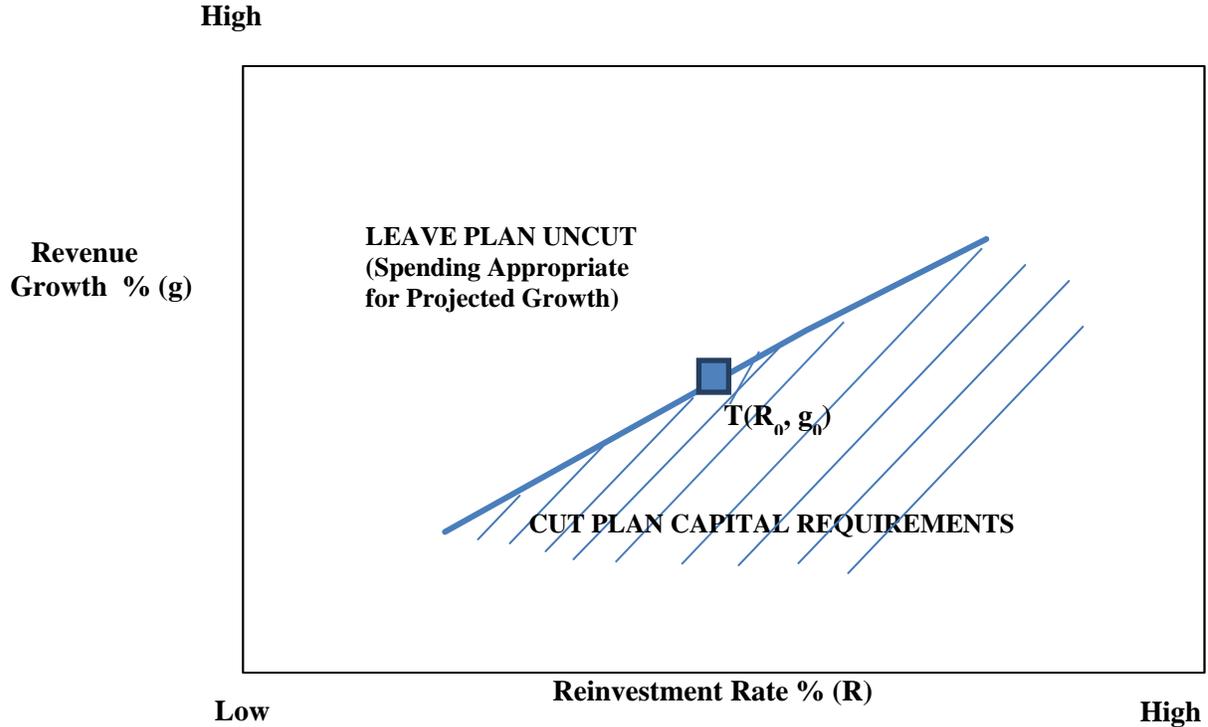
Reinvestment Rate				Revenue Growth			
2013 (Short Term)		2012 – 2017 (Long Term)		2013 (Short Term)		2012 – 2017 (Long Term)	
Objective	Outlook	Objective	Outlook	Objective	Outlook	Objective	Outlook
7.1%	9.7%	5.6%	4.3%	5.4%	2.4%	6.3%	3.8%

Decision Criterion for Resource Allocation

The technique advocated below assists in resource allocation decisions under the assumption that the relevant BUs are all striving toward their growth targets. If a strategy is agreed upon that assigns a central role to selected BUs (e.g., the BUs A and B) and a less critical role to others, then applicability of this resource allocator should be adopted to conform to the altered or lower revenue targets and lower central spending targets for the non-critical businesses.

The decision to allow or cut the requested capital requirements can be based on the ideal relationship between reinvestment rate and revenue growth. This relationship is depicted in Exhibit 1. While strategic considerations can play a critical or preemptive role in resource allocation, comparison of the business plan reinvestment rate and the associated revenue growth with the ideal relationship can indicate if the business is overspending and, therefore, in need of a cut in resources. In exhibit I, the cases of overspending would lie below the ideal plot.

EXHIBIT 1



The plot in Exhibit 1 reflects the sensitivity of revenue growth to reinvestment rate. The slope of the graph varies by BU reflecting the capital or asset intensity of the business, and is determined by the steady-state asset turnover ratio (ratio of revenues to total assets). While various points on the plot provide equivalence between spending rate and induced revenue growth, these points do not generate equal income, cash flow or shareholder value. For example, point T represents a BU's target revenue growth (g_0) and the target reinvestment rate (R_0), as growth and reinvestment rate are also consistent with a BU's operating income and net operating cash flow targets. A point on the graph to the left of T will not help the BU meet its income and cash flow targets even though it matches the reinvestment rate with the revenue growth prospects.

We can also assess a BU's position relative to its targets for reinvestment rate and growth and suggest whether capital requirements need to be cut. This is illustrated in Exhibit 2 and 3A through 3C.

EXHIBIT 2

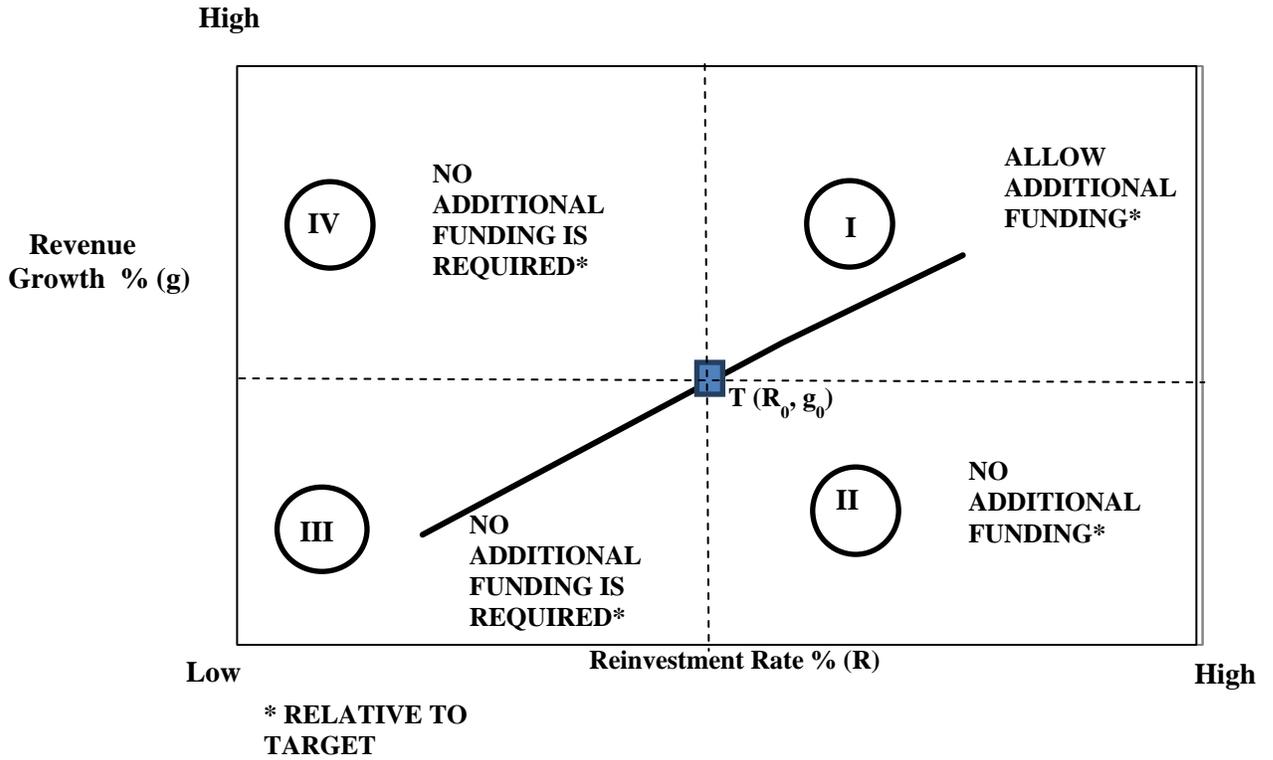


EXHIBIT 3A

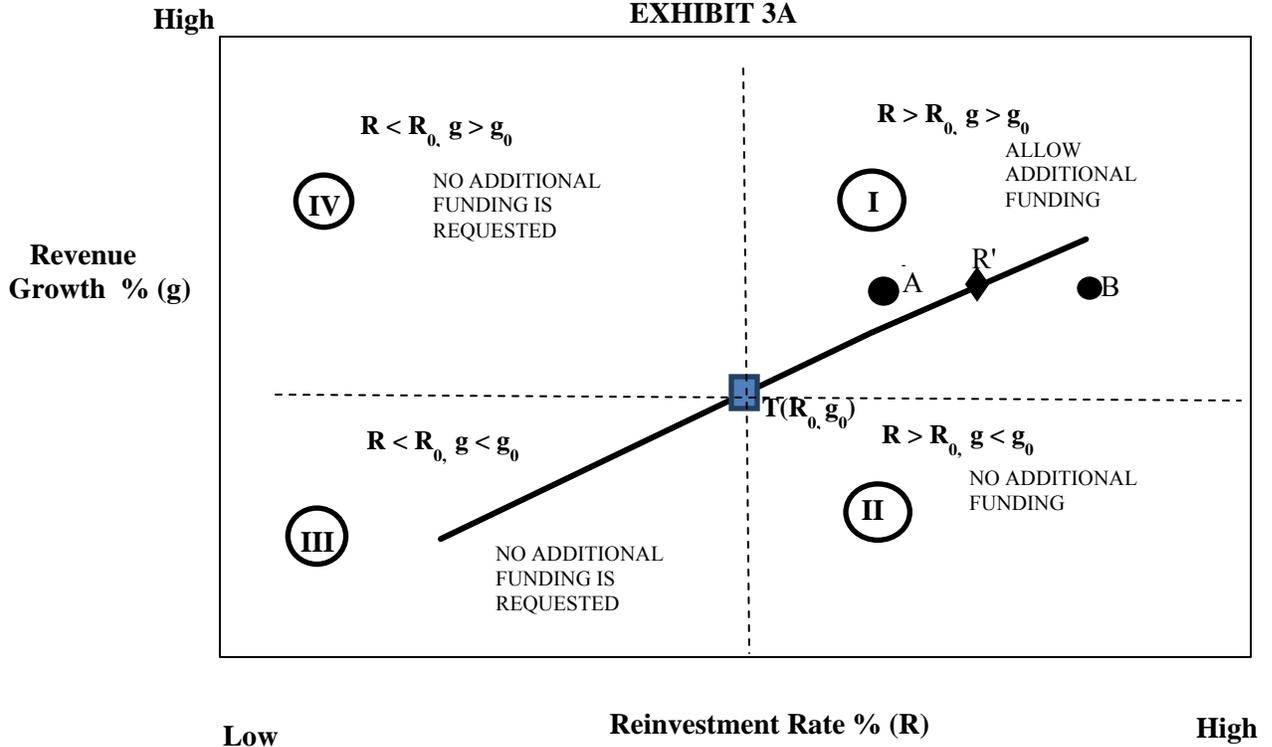
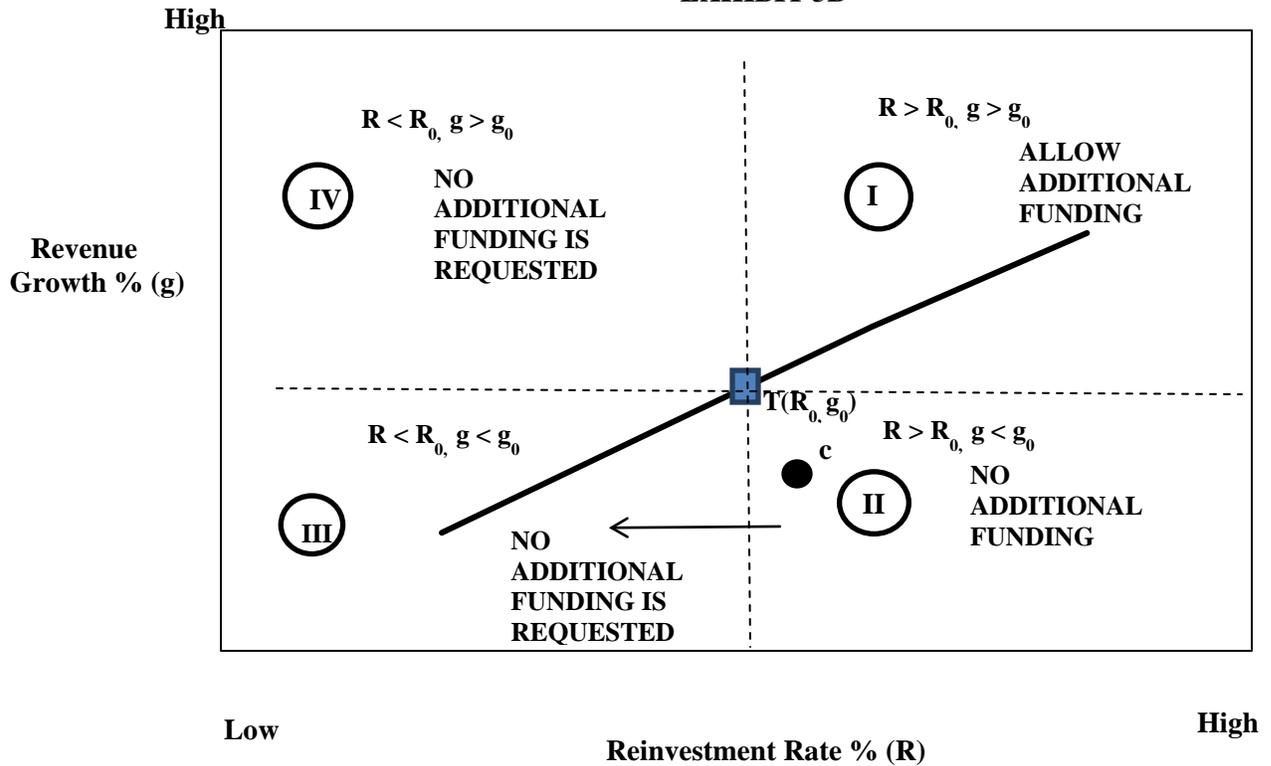


EXHIBIT 3B



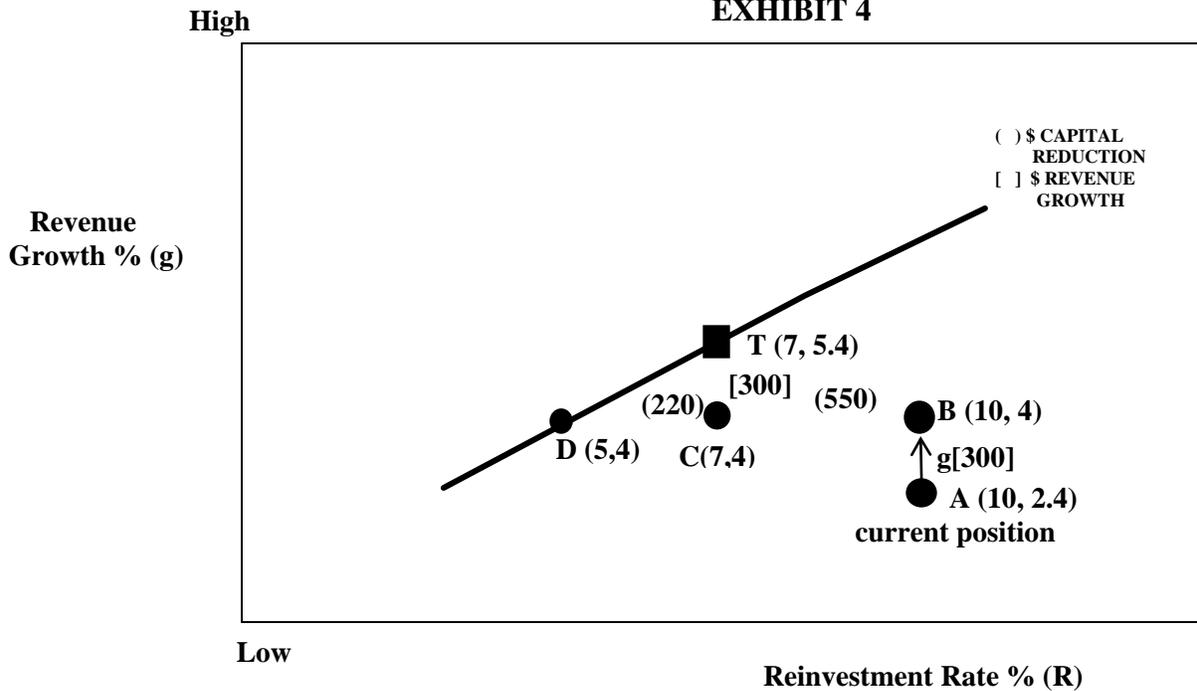
If the BU is in quadrant I, its revenue growth and reinvestment rate exceed the respective targets. In such a case, we should allow the request for additional capital resources up to the level appropriate with the revenue growth projection. For example, in Exhibit 3A, point “A” denotes a request for additional capital spending which should be granted subject to other profitability, value creations, payback and strategic considerations. However, point “B” represents the case where only some of the additional request for funding should be allowed, relative to the original target for reinvestment rate R_0 (or, the reinvestment rate should be reduced from B to R' , the level commensurate with its projected growth rate).

In quadrant 2 (Exhibit 3B), the revenue growth representing point “C” is below its target and the reinvestment rate exceeds the target. Therefore, the reinvestment should be curtailed to the level commensurate with growth. If lack of growth is temporal, the firm should cut capital spending at least to the target level R_0 .

In quadrants III and IV, the BUs do not require additional spending since their reinvestment rates are lower than the targets. In these quadrants, resources may still need to be curtailed if the business is overspending relative to its growth prospects. For example, in Exhibit 3 C, point “D” warrants cutbacks since the growth rate g is less than g_0 . On the other hand, point “E” suggests no cutbacks as the growth g is greater than g_0 .

Exhibit 4 depicts a resource negotiation strategy for BU A.

EXHIBIT 4



At the current position “A,” the 2013 reinvestment rate is about 10% with the revenue growth of 2.4% (current plan). The position “B” incorporates the revenue growth projection of about 4% evident over the planning horizon. A potential cut in capital spending of about \$550M leads to the position “C” (with spending rate of about 7% and revenue growth rate of 4%) which still lies below the desired position. The dollar amounts are for illustrative purposes only. BU A may further cut its capital spending by about \$220M leading to position “D” to match its spending rate with revenue growth of 4%. On the other hand, BU A may generate additional revenues (growth rate = 5.4%) without further capital spending cuts and move on to the target position “T” on the plot. Since the increments in earnings and shareholder value of BU A come from revenue growth (given that operating margins being relatively flat), additional revenue growth to achieve the target position is clearly the preferred option to pursue.

CONCLUSIONS

We have examined the financial and managerial issues that a firm and its managers need to evaluate when setting revenue growth objectives. We have proposed the derivation of long-term steady-state objective of value drivers including the asset turnover ratio should be based on the goal of shareholder value maximization. In turn, this objective allows us to compare the reinvestment rate with the growth rate both in short- and long-terms, and helps a decision-maker to approve or disapprove capital expenditures requests. It also helps to determine if the firm or its business units are underspending or overspending the capital in relative to their revenue growth rates. In addition, our proposed framework helps to evaluate (1) the rate of revenue growth required to support the existing capital program requests, and/or (2) the reductions in capital funding to match the revenue growth rate. It also provides a roadmap to achieve the long-term objective and therefore provides a tool to communicate and negotiate with the business unit during the planning cycle. It substantiates our assertion that the management of growth requires careful balancing of the revenue objectives with its operating efficiency and financial resources.

REFERENCES

- Ashta, A. (2008). Sustainable growth rates: refining a measure. *Strategic Change*, volume 17, 207-214.
- Brealey R., Myers S., and Marcus A., *Fundamentals of Corporate Finance*, (New York, (McGraw-Hill).
- Burger J.H., and Hamman W.D. (1999). Relationship between the accounting sustainable growth rate and the cash flow sustainable grow rate. *South Africa Journal of Business Management*, 30, (4), 101-109.
- Clark J. J., Clark M. T., and Verzilli A. G. (1985). Strategic Palnning and Sustainable Growth. *Columbia Journal of World Business*, Fall, 47-51.
- Copeland, T. and Dolgoff, A. (2006). Expectation-Based Management. *Journal of Applied Corporate Finance* 18, (2), 82-97.
- Deo, Prakash and Sethi, Davinder. (1993). Financial Planning: A Shareholder Perspective. *International Journal of Business (formerly The Review of Business Studies)*. 2, (1). 27-42.
- Deo, Prakash. (2010). Setting Financial Objectives for a Firm Part II: Financial Performance Measures for a Firm. *Corporate Finance Review*. May/June, 15-25.
- Deo, Prakash. (2010). Setting Financial Objectives for a Firm Part I: A Framework for Setting Financial Objectives for a Firm. *Corporate Finance Review*. March/April, 18-25.
- Financial Management Roundtable on Stock Market Pricing and Value-Based Management. (2006). *Journal of Applied Corporate Finance*. 18. (2), 57–81.
- Hess, E. D.(2010). Smart Growth-Creating Real Long-Term Value. *Journal of Applied Corporate Finance*, 22, (2), 74-82.
- Higgins, R.C. (1977). How Much Growth Can a Firm Afford. *Financial Management*, Fall, 7-15.
- Jensen, M. C., and Meckling W. H. (2009). Specific Knowledge and Divisional Performance Measurement. *Journal of Applied Corporate Finance*. 21, (2), 49-57.
- Johnson D. J.(1981). The Behavior of Financial Structure and Sustainable Growth in an Inflationary Environment. *Financial Management*, Autumn, 30-35.
- Milano, G.V.(2010). Postmodern Corporate Finance, *Journal of Applied Coporate Finance*, 22, (2), 56-65.
- Platt H.D. , Platt, M. J., and Chen, G.(1995). Sustainable growth rate of firms in Financial Distress. *Journal of Economics and Finance*. 19 (2), 147-151.