Managing a Firm’s Cash Flow Recovery Strategy

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ABSTRACT

Traditional cash flow estimation techniques focus on generating net cash flow estimates period-by-period, which are then discounted by the firm’s cost of capital. While conceptually strong, this aggregation approach can be insensitive to the fine-grained detail so important to managing project cash flows, in particular, that investment returns are always a combination of growth (renewal) and decline (convergence) forces at work over the firm’s life. As is demonstrated in this paper, the aggregation problem can be addressed by employing a cash flow recovery period (CFRP) framework, which distinguishes and quantifies the renewal and convergence forces unique to each firm’s project cash flows. The benefit of this more fine-grained approach is that it provides an additional level of detail that can be used to manage firm returns.

Keywords: Cash Flow Recovery Period, Competitive Strategy, Convergence, Red Queen, Renewal, Shareholder Value, Strategy to Enterprise Value, Valuation

INTRODUCTION

Valuation using discounted cash flows is considered both an art and a science. Current forecasting techniques use various techniques to determine future forecasts. However, such techniques, lacking strategic frameworks, often provide little explicit linkage to the forces that drive forecasted values, nor do they provide direct reasoning as to why forecasted cash flows increase or decrease. In contrast, a strategic framework that explicitly links competitive forces to cash flow estimates would be useful in more precisely quantifying and managing the value created by firms over time. Taking inspiration from work done by Rappaport (1987), Rizzi (1984), Day and Fahey (1988), and Christopher (1999), we have examined the link between strategy and firm value and have developed a cash flow recovery period (CFRP) valuation framework.

As we will show, one could expect considerable benefits for a firm to adopt such a framework. First, such a structure would potentially encourage more accurate forecasting, by linking the dynamic competitive forces at work in the firm’s environment to actual cash flows that result. Second, the framework would provide a forward-looking cause and effect explanation to its forecasts that would enable the user to develop executable strategies over time that enhance firm value. Finally, such a framework could help calculate the amount of

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value being created by different strategic options under consideration by the firm.

In order to build such a framework, we first identify principles of competitive strategy that can be aligned with valuation techniques. Once these links are identified, we develop a strategic framework, based on CFRP principles, to address these links and make adjustments to valuation equations to incorporate missing elements. As a final goal of this paper, we illustrate via simulation how valuation estimates using the CFRP framework yield increased precision and accuracy.

BUILDING STRATEGY INTO THE PERPETUITY ASSUMPTION

While different methods of valuation define a firm’s lifecycle differently, they all contain certain drawbacks. The most popular variant of intrinsic valuation, the discounted cash flow method, is characterized by the emphasis it places on the perpetuity part of the valuation. As stated in the first Miller-Modigliani paper, “Dividend Policy, Growth, and the Valuation of Shares” (Miller-Modigliani, 1961), the value of a company is equal to the time discounted summation of all future cash flows generated by that company. The discounted cash flow (DCF) method is made up of two sections. The first is a sum of discounted cash flows over a transient, short time period. The second is the perpetuity value of cash flows generated by the firm as a going concern. One of the drawbacks when using a DCF model is the high percentage of value trapped in the estimate of perpetuity as compared to the transient time period (Mauboussin, 1997).

To calculate the perpetuity value one can either use the Gordon growth method, which uses an adjusted equation derived by Gordon (1959), or the exit multiple approach. In the Gordon growth method, it is assumed that the company will continue to grow at a stable fixed growth rate to perpetuity. Unfortunately, the growth rate assumed is somewhat arbitrary with a single constraint of not exceeding the US economy growth rate. The exit multiple approach attempts to value the perpetuity value of the company relative to a market financial multiple such as Enterprise Value / EBITDA. Unfortunately, this method inherently contains the limitations of relative valuation such as sensitivity to macroeconomic factors. This significantly reduces one of the major advantages of DCF (being an intrinsic method where value of the company is calculated based on internal factors of the company and not external market conditions). Additionally, DCF valuation does not take into account the cyclic nature of competition, and competitive strategy (Rizzi, 1984).

The value driver model (VDM) Stewart (1991), although logically similar to DCF, addresses the perpetuity dilemma and is somewhat more in line with strategy thinking. The VDM splits value creation between value generated from current operational earnings (NOPAT) until perpetuity and value generated from future potential NOPAT earnings created by investing capital, I, in projects with return ROIC greater than the cost of capital C for a time period T. In practice, based on the type, maturity, and complexity of the industry, one then assumes an appropriate value of T. Although this method brings finance estimates foundationally closer to competitive dynamics, there is still an issue with the static conceptualization of T. VDM defines T as a period of time during which a company earns excess returns (excess returns defined as ROIC – Cost of Capital). Once this time period, T, has run out, the company cannot earn returns greater than the cost of capital.

Mauboussin has investigated T defined as “Competitive Advantage Period” in his paper “Competitive Advantage Period: The Neglected Driver” (Mauboussin, 1997). As compared to the VDM model, Mauboussin defines the Competitive Advantage Period or CAP as the market’s estimation of the amount of time the company can generate excess returns. Therefore, as time progresses, the CAP need not gradually decrease but can remain constant or even increase based on market conditions. This can be achieved through outstanding manage-
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