



Article from

## **Risk Management Newsletter**

August 2015

Issue 33

# Realizing ERM's Potential: Driving Strategic Execution and Stock Value Growth

By Damon Levine

## THE STOCK VALUE APPROACH

In many companies enterprise risk management (ERM) is regarded primarily as protection against severely adverse events or, worse yet, as a sort of appendage created mostly to satisfy external stakeholders.

To truly influence strategic decision making and embed a risk management mentality in all business lines, risk managers must fundamentally change both their approach and their messaging.



**Damon Levine, CFA**, is vice president, Enterprise Risk Management at Assurant in New York, N.Y. He can be reached at [damon.levine@assurant.com](mailto:damon.levine@assurant.com).

We must move away from the defensive angle so often emphasized in ERM and convey that in addition to down-

side protection we can visibly create value and exploit risk-intelligent opportunity. This article provides an overview of the *Stock Value Approach* (SVA) to ERM as a solution to these common challenges.

SVA weaves the goal of share price growth into the “DNA” of an ERM framework and enables decision making through a risk-reward lens. We illustrate SVA’s application to an insurance company but the approach is well suited for any public company.

## DRIVERS OF STOCK PRICE

A very common approach to risk identification is to ask management and various subject matter experts (SMEs) to consider what can harm the company. It is important to realize that this approach necessarily leads to a version of ERM that is focused solely on the downside and will typically not resonate with line management. By asking very different questions we may create a distinct breed of ERM: one which links to strategy and drives growth in stock price.

At a hypothetical insurance company (the Company) the Risk Management department (RM) facilitates a discussion with the Investor Relations department (IR) and addresses the following questions:

1. What are the key drivers for our stock valuation?
2. What specific stock valuation models do our analysts use most frequently?

IR suggests the following are key drivers for sentiment on stock valuation: execution of publically communicated goals (mainly increasing sales in Latin America and achieving the return on equity (ROE) target for the property & casualty (P&C) division as described at Investor Day), strong cash flow, earnings growth, and earnings diversification. They feel that the *dividend discount model* (DDM) and *price to earnings ratio* (P/E) are the most commonly used valuation models by analysts tracking the Company.

## RISK IDENTIFICATION AND THE RISK-VALUE MAPPING

SVA views *risk* as uncertainty or volatility around planned or expected business objectives. This interpretation naturally includes upside as well as downside. If upside is systematically excluded from risk models then the modeled probability of missing performance targets will likely be very inflated.

Continuing with our example, RM works with IR, SMEs and management to describe the “ideal future state” in terms of the Company’s main goals for the next year. The enterprise goals are shown below with their short hand title in capitals:

- I. EARN: Achieve earnings growth of 5 percent versus last year
- II. CASH: Achieve an increase of 7 percent in net cash flow versus last year
- III. LATAM: Demonstrate a more diversified product portfolio by expanding LATAM sales to at least 5 percent of Company sales
- IV. ROE: Meet the return on equity target of 12 percent for the P&C division
- V. BEST: Maintain capital levels which target A ratings from AM Best for all legal entities

VI. CAP: Maintain a level of deployable capital at the holding company level which enables a high confidence of continued operations for the next two years (this capital level is determined to be sufficient in 99.5 percent of risk scenarios as quantified in a stochastic enterprise risk model)

Our discussions with IR suggest that the first four goals should positively influence the inputs of the DDM and P/E models used by analysts.

Given the list of key goals, RM works with SMEs to describe the tasks and smaller “sub-goals” which are necessary to achieve them. Those discussions yield crucial information which is largely related to project management and strategic execution.

This is where risk comes in: we identify the potential obstacles to achieving the various goals, sub-goals and tasks as well as challenges or conditions which may affect the quality of our execution or the attainment of our objectives. This includes internal and external risks as both must be identified and, if deemed appropriate, actively managed to help ensure success.

The following list shows each enterprise goal followed by an example of an associated critical to success sub-goal (“CtS”) and related threats to attainment of the CtS.

EARN CtS goal: “achieve internal earnings forecast in 3D printer warranty line.” At risk due to high rates of malfunctions in some new brands of 3D printers and inefficiencies in claims processing.

CASH CtS goal: “reduce number of ventures with large upfront cash investments and increase sales in fee based products.” At risk due to misaligned new business development incentives/compensation and marketing effectiveness.

LATAM CtS goal: “roll out training and IT infrastructure by end of Q1.” At risk due to resource/planning challenges in both the Sales and IT departments.

ROE CtS goal: “reduce expenses by 5 percent versus last year.” At risk due to IT legacy systems and sub-optimal negotiated rates for print marketing materials.

BEST CtS goal: “forecast accurate statutory financials and link to capital management.” At risk due to poor validation of assumptions in the planning process and volatile claims in the earthquake insurance line.

CAP CtS goal: “establish a capital management policy which dynamically links to the risk profile as described in the enterprise risk model.” At risk due to uncertainty on new business sales and unknown pricing for catastrophe reinsurance purchases.

Note that if this exercise were performed for an actual company the list would be larger and would have much more detail. In addition, the Company would identify regulatory, legal, and compliance risks.

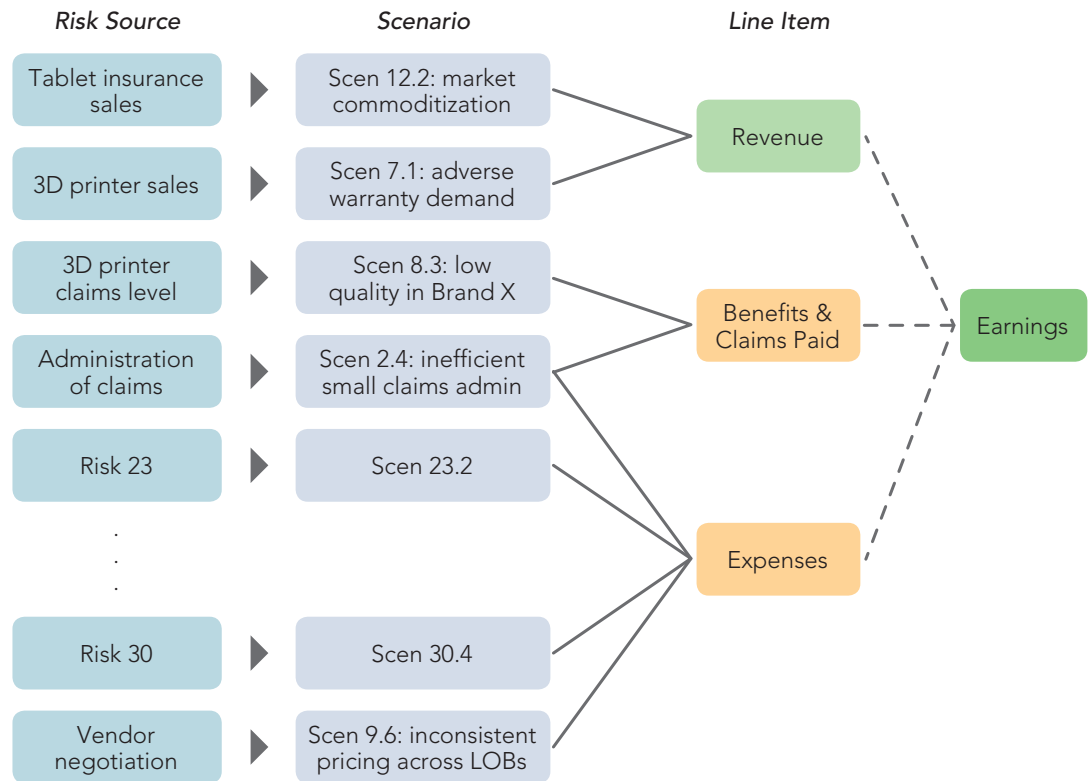
Observe that each risk affects the outcome of one of the enterprise goals and each of these goals ties to a specific driver of the Company’s stock valuation. This may be described as a “mapping” of each risk to a stock value driver. For example, it has been seen that IT legacy systems may affect the CtS goal of reducing expenses by 5 percent versus last year and therefore affects the ROE goal. The achieved ROE is known to inform the analyst models and therefore drive the Company’s stock valuation.

The Exhibit 1, on page 14, illustrates such a mapping for the EARN goal.

By focusing on drivers of stock price we identify many strategic, operational, and insurance risks. This inclusion of many “internal” factors in the Company’s sphere of influence is a very important benefit. In many ERM programs, risk identification places far too much emphasis on “external” or *force majeure* risks that the company cannot affect. This makes ERM a largely irrelevant exercise: too much focus is placed on risks that cannot realistically be managed. SVA’s emphasis on stock value drivers leads to inclusion of many sources of performance variability that the company

CONTINUED ON PAGE 14

**Exhibit 1 A Risk-Value Mapping for Earnings**



may influence, through risk mitigation and/or strategic decisions, with obvious rewards.

**SELECTION OF RISK METRICS AND QUANTIFICATION**

At this point we move from discussion of SVA's approach to risk identification to some of the other elements of any ERM framework, namely risk metrics and risk quantification. It will be the *right* choice of risk metrics and the quantification approach that will allow for clear links across risk management, strategy, and stock value growth. Risk metrics which are appropriate for one company may not be so for another. Appropriate selection will depend on enterprise goals, company culture, risk appetite, and management style.

For the sake of brevity we will not discuss the risk quantification model (RQM) details but it will be assumed that for each risk source we are able to quantify the impact to several years of income statements and balance sheets. Additionally, the model should capture a continuous range of impact results rather than only capturing a few specific dollar outcomes.

RM facilitates discussions with management, the Board, IR, and Strategy groups to determine appropriate metrics to track progress and risk relating to the stated enterprise goals and the Company decides on risk-based forecasts of the following metrics to assess the risks to achieving the six goals:

- I. earnings growth

- II. net cash flow growth
- III. LATAM sales
- IV. ROE for P&C division
- V. shortfall versus A-rated target capital levels
- VI. shortfall versus targeted level of holding company deployable capital

The shortfalls in V and VI are defined as  $\min(0, \text{modeled value} - \text{target value})$  so shortfalls are negative values and a zero corresponds to a target being met or exceeded. This ensures that for all metrics above, a larger numerical value is a better result. These metrics are denoted  $m_1, m_2, \dots, m_6$ .

## RISK-INTELLIGENT DECISION MAKING

We now introduce a single metric defined as a function of the above six metrics. This will enable analysis that takes into account all of the most important risk-reward metrics in a single quantity. Additionally, it will reflect the relative importance of its components as perceived by the Company.

Rather than using the metrics  $m_1, m_2, \dots, m_6$  directly in a weighted average, we will use scaled metrics (e.g., each is restated on a 1-10 scale defined by management) to form a weighted average metric,  $M$ . This scaling is important because some of the metrics are percents and others are dollar amounts and care should be taken to ensure that the relative size differences do not unintentionally inflate the importance of some metrics versus others in a weighted average metric.

Based on the perceived levels of importance of each metric, the Company reaches consensus on priority weightings to define a single metric  $M$  as a weighted average of the above six scaled quantities.

A carefully designed RQM captures each of the component metrics of the weighted average metric  $M$ . The RQM may be run stochastically to produce many simulations of risk manifestation and the resulting values for  $M$  and its component metrics.

As a result, for the risk sources captured in the model we can prioritize or rank them based on a myriad of metrics including the value or deviation from the financial plan of:

- Earnings
- Free cash flows
- ROE
- any specific  $m_k$
- $M$

Clearly,  $M$  contains significant information linking the Company's risk-reward profile to key drivers of stock value. When considering risk response one may analyze the various options by estimating the effect on  $M$ . It is possible that mitigation for certain risk scenarios shown in the rankings mentioned above can be addressed in a much more economical way than for others.

Simulation of the *distribution* for  $M$  is a straightforward result of running the RQM and enables determination of the percentiles of results for  $M$ , the average or expected value of  $M$ , as well as volatility measures such as standard deviation of  $M$ . Given several strategic choices or risk mitigation alternatives we may run the model assuming each particular option in turn. We may then develop an efficient frontier for these options with, for example, risk captured by standard deviation of  $M$  and reward defined as the average value for  $M$ .

Additional detail on SVA and its applications, including risk-based compensation and forecasting, can be found in the original research paper "Growth in Stock Price as the ERM Linchpin" at: <http://www.erm-symposium.org/2014/pdf/erm-2014-paper-levine.pdf>. ■

*Disclaimer: The views expressed in this paper are my own and not necessarily those of my employer, Assurant Inc.*