Balancing the risk-return equation

How CFOs can use risk-adjusted forecasting and planning to protect and enhance value, boost confidence, and manage risk.

Financial forecasts and plans carry a lot of weight in the business world. But how much confidence do companies and CFOs really have in their forward-looking numbers – especially in a business environment that is increasingly complex, uncertain, and risky?

Forecasts and plans are often created by aggregating 'best guesses' from across the enterprise without focusing much attention on the risks that could have a major impact on actual performance. Sure, everyone builds a safety buffer into their estimates. Also, many companies conduct a sensitivity analysis to see how variations in single factors, such as average selling price or foreign exchange rates, will affect their forecasts and plans. However, these limited approaches to risk are not nearly enough to reflect the rising challenges and complexity of today's global business environment.

Some companies have come under scrutiny recently because their financial plans and forecasts were not robust enough. And even those that have not been flagged face increasing pressure from analysts and investors to clearly demonstrate how their plans and forecasts are affected by risk, and what they are doing to quantify and manage risk more effectively.

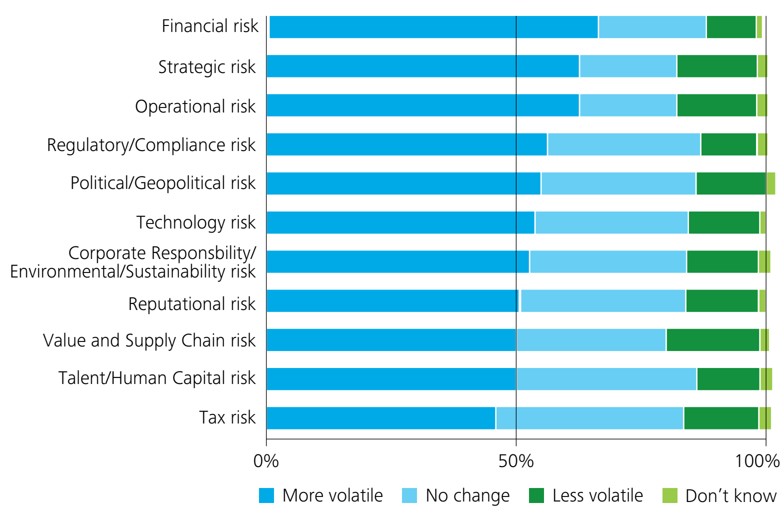
To address these challenges, businesses should move beyond the traditional approach of generating a single set of aggregated numbers and then hoping it is sufficient. In order to improve their forecasting and planning processes, they should incorporate multivariable risk modeling and analysis that shows a broad range of likely outcomes and their associated probabilities. This improved approach – which we call risk-adjusted forecasting and planning – enables companies and CFOs to have greater confidence in their forward-looking plans and forecasts, and to manage risk more effectively. It also gives CFOs greater insight into overall business risk, helping them identify potential problems before they occur – protecting value – and to spot new opportunities for value creation.

Forecasting in a risky and complex world

Companies today face a dizzying array of risks, from regulatory pressures and competitor actions to talent shortages and cost volatility, and everything in between. What's more, many CFOs believe the risks are only going to get worse. (Figure 1).

Figure 1: Volatility and risk on the rise[1]

How volatile do you think each of the following risk areas will be over the next three years?

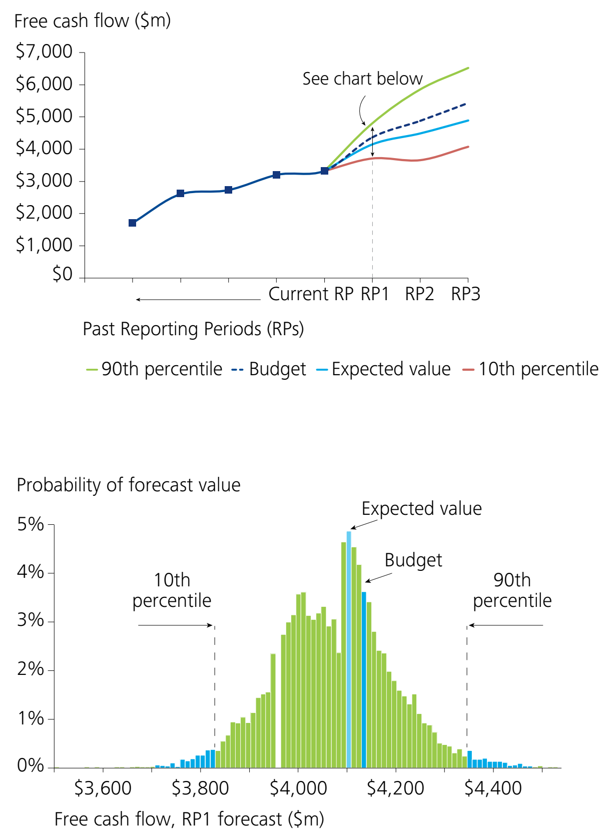


All of these risks can have a significant impact on financial performance. Yet most financial forecasts revolve around single-point estimates and metrics that don't explicitly address a company's key risks. Traditional risk management practices focus on compliance and control, which are important, but rarely align with or add to a company's financial and strategic planning processes. Generally speaking, there is very little process integration between risk management, strategic planning, financial forecasting, and budgeting. Also, companies don't always stress test their forecasts – and when they do, it tends to be limited to single-variable sensitivity analysis focused on a generic parameter such as price, demand, or input costs. What's more, the inputs to forecasting and stress testing are often based on experience and intuition – with widely varying assumptions across the enterprise. Given this ad hoc approach, it may be hard to be confident in the results.

Risk-adjusted forecasting and planning

Risk-adjusted forecasting and planning generates a range of possible outcomes and associated probabilities based on multiple risk variables – which provides a unique and illuminating perspective on the company's risk profile. Cash flow and earnings-at-risk measures are produced by 'shocking' financial forecasts against major risk drivers to generate a probability distribution for each period (see figure 2). This risk-adjusted output is much more insightful and useful than traditional forecasts and plans, which present single-point estimates and metrics with little or no discussion of risks and possible variances, and are unable to show correlations between multiple risks.

Figure 2: Risk-adjusted forecast example (upside and downside)



Snapshot case study

Risk-adjusted forecasting to support strategic decisions

A Pharmaceutical Preparation Manufacturer's franchises were the cornerstones of its portfolio. The company developed risk-adjusted forecasts to better understand, assess and prioritize disease areas based on commercial attractiveness and strategic fit. In this way, the company identified high-potential assets and M&A targets. The risk-adjusted forecasts indicated that over the next 10 years, one of their franchises would face declining revenue, while another franchise would grow at a moderate rate. Each franchise forecasted growth rate was below the organization's targeted growth rate, highlighting the need to explore inorganic growth opportunities.

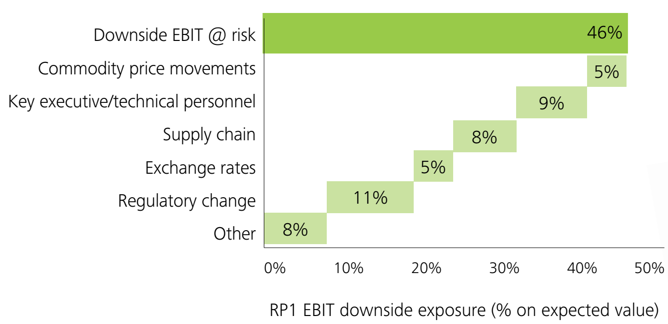
Some key benefits

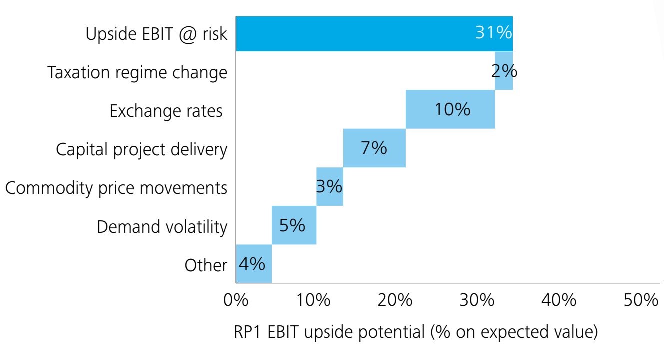
Compared to traditional forecasting and planning, a risk-adjusted approach can offer a number of significant and tangible benefits:

- A quantified perspective on the level of confidence in forecasts and plans, which helps business leaders make informed decisions, and directly addresses a question now being asked by analysts, investors, and ratings agencies.
- Protection against downside risk and identification of potential upside opportunities.
- A granular view of volatility drivers so companies can create risk mitigation strategies that address specific risks that could have a demonstrable impact on financial performance.
- A common basis for improved dialogue between leaders at the group and business-unit level.
- Improved understanding of risk/return trade-offs.

Capturing risks and planning assumptions in a quantitative model supplements existing estimates and intuition with systematized rules that can be analyzed and improved, creating greater transparency and repeatability. Also, improved integration with risk management and strategic planning can assist the forecasting and budgeting process to tap into the organization's existing knowledge about key business risks – without having to reinvent the wheel.

Figure 3: Example output of risk driver contribution to the earnings-at-risk (sample)





Snapshot case study

Risk-adjusted forecasting and scenario modelling to optimize asset performance

The main operating sites of this Global Metals and Mining Company frequently failed to meet planned production targets and budgets. The underlying planning process relied on averaged values based on historical performance, and did not take process variance into account during the limited scenario modelling that was conducted. By identifying and analysing key input variables, quantitative distributions were able to be developed for each risk driver, and risk-adjusted forecasting models were generated for each the sites. This resulted in an improved understanding of how the underlying volatility was impacting production performance. On the back of this, more effective decision making was enabled through enhanced scenario modelling, increasing confidence in plans and budgets – and ultimately improving profitability.

A closer look at the model

The quantitative model is built around a number of detailed risk drivers that are most likely to affect financial performance – both to the upside and downside. The number and types of risk drivers are different for every company, and are likely to change over time as the business and market environment evolve.

Once the model has been fully populated, it then analyzes all of the selected detailed risk drivers and produces a high-level summary of the primary drivers, and how each contributes to overall risk levels.

Barriers to improvement

Risk-adjusted forecasts and plans can help companies and CFOs manage the business more effectively, and to present forward-looking numbers with much greater confidence. Also, the process of developing this output can give CFOs much deeper insight about the business and its associated risks. Given these benefits, why isn't every company already doing it?

CFOs know the traditional methods are far from perfect, and once they learn about risk-adjusted forecasting and planning, they quickly recognize it as a leading approach.

- **Inertia** is the first common barrier. Although the traditional approach to forecasting and planning is less robust than a risk-adjusted approach, most companies still use it and view it as good enough. In fact, some CFOs may not even be aware that a better approach exists – although that's starting to change as organizations around the world look for effective ways to deal with the rising tide of risk. Already, many companies in the energy and resources industries have adopted these enhanced forecasting approaches as a standard operating practice.
- **Perceived complexity** is the second common barrier. Quantitative risk modeling and multivariable stress testing analysis can be intimidating compared to the traditional approach, which uses simple aggregation, single-variable sensitivity analysis, and best guesses based on experience and gut feel. Also, some CFOs are concerned that risk-adjusted outputs will be too complex to explain to analysts and the board.
- **Lack of data** is the final perceived barrier. Many companies worry that their data and IT systems may not be good enough to support risk-adjusted forecasting and planning.

Although these concerns have some merit, none are deal breakers. A good way to get started is by considering the development of a pilot or proof-of-concept that focuses on group-level forecasts, or on a particular business unit or product P&L. Input to the model should be a balanced mix of quantitative data and qualitative insights from subject matter experts. Over time, the pilot can evolve and expand in response to future business needs. In most cases, the required data already exists within the organization – or is easily obtained.

Companies that take the leap are likely to find that risk-adjusted forecasting and planning is not nearly as complex as it seems, and that the results are well worth the effort. Analysts, investors, and ratings agencies recognize the limitations of the old approach and are looking for insights about risk that are more detailed and nuanced. Risk-adjusted forecasting and planning can help address that need, while providing business leaders with the risk insights they need to make smart decisions about capital allocations and investments.

Snapshot case study

Risk-adjusted economic forecasting to generate probabilistic KPIs

This Energy Utility Company was frustrated with the deterministic nature of the organization's long-range economic forecasting. The organization targeted the development of advanced, stochastic economic forecasting models that could effectively analyze the business in such a way that the organization could understand their business issues from a risk-weighted probabilistic perspective. The company developed an economic forecasting engine that utilized Monte Carlo simulation and linear programming techniques to simulate the behavior of commodity markets (power, natural gas, coal), interest rates (treasury rates, credit spreads etc.), customer demand, power generation dispatch, and other uncertain factors in order to generate a set of defined probabilistic key performance indicators.

Ready. Set. Go.

Ironically, the biggest barrier to change often comes from CFOs themselves. CFOs know the traditional methods are far from perfect, and once they learn about risk-adjusted forecasting and planning, they quickly recognize it as a leading approach. Yet many are reluctant to move away from the status quo — often from some combination of the barriers outlined above. Of course, it may not be long before they don't have a choice. Today's business environment is more complex and risky than ever. Financial forecasts and plans must reflect that complexity and uncertainty; otherwise, businesses expose themselves to unacceptable levels of risk. The stakes are high and CFOs have a personal interest in getting this right.

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(Endnotes)

1 : Aftershock: "Adjusting to the new world of risk management," June 2012. The report is based on a survey of 192 U.S. executives from consumer and industrial products, life sciences, health care and technology/media/telecommunications industries conducted by Forbes Insights in association with Deloitte.