Over the past decade, risk management has been an integral part of public and private sector organization planning, budgeting and the overall strategic management process. Risk management functions have been included in organizational structures for decades; however, this subject area has become more visible — mainly due to the recent collapse of major financial institutions and the increased regulatory environments in hopes of mitigating future events that could erode public trust and well-being. Risk management is not limited to Federal agencies. As decreased tax revenue and cost cutting are more prevalent, state and local municipalities are looking to better leverage risk management techniques. Also, the increasing level of public scrutiny on government spending, program outcomes and employee actions is creating greater risk to agency reputation and management credibility. Such events could significantly affect legislative decisions regarding funding as well as the pressures of investigations and increased oversight.

If you asked CFOs, Agency Heads, or Finance Directors to list the major uncertainties they’ve grappled with over the past couple of years, you might get consensus on risks such as the economy, regulation, declining property values, and consumer demand. Many businesses might also cite brand and reputational risk. But you would probably get little agreement on how they’ve factored such risks into their financial forecasts and planning.

Why? Well, one reason may be that many governments are still trying to determine how effective risk management practices should be integrated into their strategy, mission, goals, and supporting financial planning processes.

Part of the problem is that financial planning and analysis (FP&A) has not changed fundamentally from the way it was done 10 years ago, despite the onslaught of new and more-strategic risks. Many oversight agencies, headquarter functions, and elected officials demand even greater forecasting accuracy. Furthermore, many governments’ operations are “stove-piped” and therefore offer very little process integration across risk management, strategic planning, financial forecasting, and budgeting — integration often considered vital to addressing the speed and range of risks many governments face. In this issue of CFO Insights, we will discuss what still needs to be fixed in the FP&A process and introduce an analytical framework — risk-adjusted forecasting — that seeks to mitigate the uncertainties in that process.
Identifying and incorporating risks

For Financial Managers, risks are everywhere — and they’re multiplying. In the 4Q 2013 CFO Signals report, the chief worries of North America’s CFOs who responded to our survey centered on concerns over long-term growth and the impact of government actions on the economic recovery (see sidebar: “Endless risks: What CFOs are worried about now”). What’s more, many CFOs are well aware that the risks they face pose high risks for their companies. In a survey Deloitte conducted recently with Forbes Insight, strategic risks — those that affect or are created by business strategy decisions such as the pursuit of increased market share — have become a major focus, with 81% of surveyed companies now explicitly managing strategic risk rather than limiting their focus to traditional areas, such as operational, financial, and compliance risk.

Yet, despite this heightened awareness, current FP&A processes are often still woefully inadequate. Granted, many private- and public-sector entities typically incorporate “safety buffers” into their forecasts. But safety buffers tend not to have been linked explicitly to the drivers of risk and volatility. Sensitivity analysis typically tackles risk on a variable-by-variable basis rather than simultaneously. Even Monte Carlo analysis simulation is often an experiment rather than actually embedded into the processes. In fact, some common problems in today’s current FP&A processes include:

1. **Static view.** Traditional forecasts and plans typically use single-point estimates and metrics with little or no discussion of risks and possible variances, and without showing correlations among multiple risks.

2. **Guesses rather than facts.** Forecasts are often developed by aggregating best guesses from across an enterprise without focusing on risks that could have a major impact on performance, such as arising economic challenges (such as the housing market or employment rates), talent shortages, cost volatility, and regulatory compliance requirements.

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**Endless risks: What are CFOs worried about now?**

Based on the results of the 4Q 2013 CFO Signals survey, North American CFOs face a litany of risks. Although these risks directly impact many private-sector entities, many public-sector entities may see similarities in their organizations with the results below:

- **Effects of “quantitative easing” and unwinding.** Worries have escalated about the long-term effects of U.S. monetary policy and nearer-term effects of tapering or unwinding the bond-buying program.
- **Government gridlock.** Worries that the ability of government to make and implement policy continue to accelerate.
- **Industry regulation.** Concerns that the government will take a more active role within industries have grown. This factor was mentioned in all sectors except Retail/Wholesale and Energy/Resources.
- **Margin pressures:** Concerns remain about competition, pricing, and the ability to align cost with revenue.
- **Execution:** Companies continue to worry about their ability to execute well on current and new strategies and successfully implement large, complex projects.

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3. **Inadequate stress testing.** Many agencies don’t normally stress test their forecasts, and when they do, the efforts tend to be limited and focused on a single generic parameter such as anticipated funding, revenue drifts or costs.

Given that risks happen in aggregation and often interact, it is a serious oversimplification to look at the drivers of uncertainty in isolation. Without a cross-functional and interactive view of risk, it can be very difficult to address the burning risk questions that currently face finance departments and the organization overall. How can we align our resources to best meet our mission? How do we optimally prioritize programs that meet our organization’s strategic goals and objectives to determine the optimal projects? How can we continue meeting our mission, strategic goals and objective while facing shrinking budgets?

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Enter risk-adjusted forecasting
Far from a theoretical solution, risk-adjusted forecasting can offer the answers — and the comfort level — many CFOs and Finance Directors seek. Using established analytical modeling techniques, the process generates a range of possible outcomes and probabilities based on multiple risk variables, rather than a single variable. Funds received and executed can be calculated by analyzing how financial forecasts could be impacted by major risk drivers and by generating a probability distribution (for example, a bell curve) of likely outcomes for each period. Once the model has been fully populated, it can analyze the aggregate impact of multiple risks and also produce a high-level summary of how much each driver may contribute to overall risk levels.

The process works by capturing risks and planning assumptions in a quantitative way that augments traditional estimates and intuition. The number and types of risk drivers may differ for each government depending on the level of government and the region, country, or municipality this government serves (for example, revenue uncertainty for a municipality with low employment rates or increased costs to comply with new laws/regulations). But the expanded view can help many governments address interconnected risks, some of which may have been previously identified, others that may have gone unnoticed. This methodology also helps improve strategic planning by providing public-sector executives with a better understanding of performance against strategic goals and objectives, funds allocation, and return on program or initiative investment against a backdrop of related risks.

For finance chiefs, this process can offer a powerful decision-making tool. Given that the model can evaluate various scenarios in individual years, governments can compare the differences between the budget, the expected results, and the realistic worst- and best-case scenarios. That probability of “best” and “worst” cases can then be set at whatever level of confidence a CFO seeks — say, 1 in 10 or 1 in 8. And this facilitates a discussion around what an acceptable level of downside uncertainty is, which very often supports a public-sector entity’s risk appetite.

Visualization of the data can effectively showcase that risk has been underestimated, and adjustments can be made. In other words, the process can provide a much deeper assessment of the uncertainties a government entity faces in revenue and expenditure forecasts, as well as a clearer quantitative understanding of which risks contribute most of the exposure.

Start small, then spread the word
There are multiple hurdles many CFOs may have to overcome to fully embrace risk-adjusted modeling at their organizations. For example, despite the potential for bolstering management’s confidence in forecasts, there appears to be an overall lack of awareness about the approach as well as loyalty to the status quo (accentuated by a hefty dose of inertia). In addition, there can be a perceived complexity associated with multivariable stress-testing analysis, which some senior leaders view as intimidating, as well as worries that corporate IT systems may not support the process.

To help overcome such hurdles, consider the following:

Start with a pilot. Agencies interested in risk-adjusted forecasting may want to start with a pilot project focused on group-level forecasts or a particular program’s results. Input to the model (which could be developed using advanced spreadsheet tools) should be a balanced mix of quantitative data and qualitative insights from subject-matter specialists — information that in many cases already exists within the organization or can be easily obtained. Over time, the pilot can evolve and expand in response to future business requirements. But some benefits of keeping an implementation focused are that it targets specific problems, makes significant quick wins and tangible contributions to mission or program success, actively engagement management in considering risk that impact program success, and minimizes costs.
Make planning top-down and bottom-up. The bottom-up part of planning involves identifying those drivers that have historically had a greater impact on the mission and operations and are actionable, such as increasing or decreasing services or number or programs. The top-down part involves a strategic framing process, especially for identifying the forward-looking factors that could impact mission or operations in the future. Many public-sector Managers people are more comfortable examining available data (the bottom-up step) than having an open-ended planning or brainstorming discussion (the top-down step). For this framing process to work effectively, keep in mind three key principles: invite a broad representative of stakeholders that captures the entities mission and portfolio of programs and activities supporting the mission, create an environment where participants can speak openly and noncritically about risk and uncertainty, and then ask the hard questions (for instance, How could we be wrong? What would cause outcomes to be much worse than we expect? What if our primary assumptions are incorrect, when will we know and would our contingency plan be?).

Don’t boil the ocean. Risk-adjusted forecasting may allow you to compare a range of possible outcomes. That doesn’t mean, however, that you should include the full range of possibilities in your planning. Trying to capture the effects of more than, say, 10 or 15 risk drivers on your agency’s prospects can lead to excessive complexity, calculation time, and data points. Instead, consider the benefit of each incremental step of complexity that you’re adding, in terms of data availability, practicality, and perceived importance. For many agency’s 10 to 15 risk factors is probably a suitable balance between getting valuable insights and not overburdening the organization.

Use existing processes — and technologies. Many governments already have the functionality to deliver risk-adjusted forecasts — they just don’t know it. In fact, many Enterprise Resource Planning (ERP) systems’ functionality can produce such forecasts, but often, they are not being leveraged. A structured discussion between the CFO, the CIO, and the head of Budget and Planning can help identify any gaps that need to be filled.

Risk-adjusted modeling: A phased approach to implementation

1. How do we build the business case?
   - Articulate core benefits
   - Outline quick wins and long-term value
   - Set up internal working group

2. Where should we start?
   - Initiate pilot project or proof-of-concept
   - Use group-level forecasts
   - Build executive buy-in

3. What level should we go to?
   - Limit input to top 10-15 risks
   - Mixture of data and SME input is required
   - Consider SME challenge of risk inputs

4. What is the basis of the technical approach?
   - Outline desired outputs
   - Build and validate technical model
   - Provide consistent set of risks and forecasts

5. How do we start to use the output?
   - Plan a road map for “first use”
   - Build into existing frameworks
   - Consider how to use in market communication

Visualize the outputs. In many cases, there is a disconnect between how CFOs want their forecasts to reflect risk and what those forecasts actually look like. That isn’t the case in all industries, of course. For example, in the commercial space, specifically in the energy and resources industries, management is often more familiar with risk analysis, and typically delivers forecasts that reflect high volatility and changes in capital expenditure. But one way to close the gap and start the conversation among the stakeholders in the process is to visualize what the new set of outputs and insights might be. Knowing what you want out of FP&A can allow help create better risk awareness and facilitate more informed decision making which can impact how you plan and allocate resources within your organization.

Figure 1. Risk-adjusted forecasting outputs
This example shows how existing “single point” forecasts can be extended to include a quantitative measure of risk (from several specific risks), such as a cash-flow-at-risk metric.
Categorize and define your risks. Risk factors vary for different national, regional, state and local governments. Knowing what the common risks are and defining them in a way that everyone can understand, however, can help create a foundation for a pilot program. Public-sector entities can categorize risks in terms of strategic, operational, financial, and regulatory/compliance risks, as well as other risks specific to that individual government.

Be an ambassador. Without the backing of the CFO, a risk-adjusted forecasting project will not get off the ground. It is no different from other finance processes or methodology-reengineering-type projects that require tone — and action — from the top. Once a finance chief becomes convinced of the forecasting process’ application in finance, however, there should be a road map that allows the CFO to roll it out across broader operations and programs that facilitate the public-sector entity’s mission. Otherwise, the inertia that troubles many cross-organizational projects will likely ground this one. But with the right backing, risk-adjusted forecasting actually offers a way to turn a reactive reporting process into a more proactive, dynamic contributor to decision making and insight.
The benefits of integration

In a recent Deloitte Dbrief titled “Risk-adjusted Forecasting and Planning: Balancing the Risk-Return Equation,” participants were asked what they viewed as the most difficult step in risk framing. Almost half of the 2,600 respondents cited identifying the full set of value and risk drivers; 25% said facilitating an honest, constructive conversation with relevant stakeholders; 16.6% thought using framing results to guide modeling and data collection would prove most difficult; and 8.6% worried about assembling a broad, relevant set of stakeholders.

Admittedly, each could be a barrier to implementing risk-adjusted modeling. Yet, armed with an improved understanding of uncertainty, many public- and private-sector entities can better anticipate and react faster to unexpected events. They can also develop more-consistent assumptions both within and across departments or programs, which may foster stronger communication internally and externally. And CFOs as custodians of the forecasting process can gain confidence in the delivery of the plan.

Furthermore, the practical application of risk-adjusted approaches within the organization can help integrate strategic planning with risk and finance, driving more value at the department/program level and preparing a government entity to be more nimble. Given the level, speed, and complexity of risks currently facing many governments, such an integrated approach should be considered a necessity.

Endnotes

1. CFO Signals, Deloitte CFO Program, see 4Q 2013, January 2014.
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