



# Information That Predicts

Crystal Ball's Solutions for Financial Forecasting and Analysis

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*“Doing a business-case analysis without Crystal Ball is like driving with your lights off at night.”*

**CHAD LANDER**  
SENIOR FINANCIAL ANALYST  
SPRINT

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## Introduction

Failing to include the impact of uncertainty and risk in your analysis can derail your financial plans. Oracle’s Crystal Ball transforms your spreadsheets into dynamic models that solve almost any problem involving uncertainty, variability, and risk.

Every day you strive to meet your strategic financial goals. And each business decision you make either advances you toward them— or impedes your progress. Whether you are creating a business case or developing financial forecasts and plans, you need to account for the uncertainty and risk in your models. Because the more you understand risk, the better your opportunity for profit.

Oracle’s Crystal Ball is the leading spreadsheet-based application suite for predictive modeling, forecasting, simulation, and optimization. It gives you unparalleled insight into the critical factors affecting risk. With Crystal Ball, you can make the right tactical decisions to reach your objectives and gain a competitive edge under even the most uncertain market conditions.

## Make Superior Financial Decisions

Most financial spreadsheets and other data analysis tools lack the functionality, capacity, and power required for successful financial management. They rely on a linear analysis process in which variables such as life expectancy and investment returns are treated as known, static values. To create flexible plans that can handle a complex financial environment, you need to move from a deterministic, fixed-input model to a stochastic process that lets you analyze variability and uncertainty.

Crystal Ball calculates the probability of achieving your strategic goals, giving you the ability to develop plans that include a more realistic measure of financial risk and reward than traditional financial planning and analysis methods. Moreover, these plans get decision-makers thinking about investment and long-term planning in terms of probability rather than certainty, so they become accustomed to quickly responding to a changing business environment—reducing the number of costly, last-minute decisions.

### Automate “What-If” Analyses

To make informed financial decisions, you must address the realities of limited information and inexact equations. Crystal Ball automates the “what-if” analysis process by using a method called Monte Carlo simulation to apply a range of values to each uncertain variable. For example, in financial planning, historical statistical estimates can be used to factor in account returns, volatility, correlations, and more. Crystal Ball generates random values from within

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*“We find that Crystal Ball is a most powerful and comprehensive sensitivity analysis tool.”*

**EITAN BAR-ADAM**

CHIEF EXECUTIVE OFFICER

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the defined probability ranges and then recalculates the model thousands of times to create thousands of “what-if” scenarios. By replacing time-consuming, self-generated iterations with automated procedures, you can quickly perform analyses that would otherwise be too labor intensive. Crystal Ball lets you successfully balance time and knowledge constraints with the demand for good investment decisions.

## Access Better Analytical Tools

Crystal Ball delivers sophisticated tools you can use to simulate real-world situations in your financial analyses. Methods such as time-series forecasting, simulation, and optimization help you solve problems in corporate finance, investments, financial risk management, and financial planning. With little effort, you can apply these techniques to new or existing spreadsheets.

Sensitivity analysis determines which inputs most affect value so you can focus on those factors to mitigate risk. Correlations let you link uncertain inputs and account for their positive or negative dependencies. Time-series forecasting and optimization techniques help you protect the short- and long-term value of a portfolio and maximize its returns. Crystal Ball’s results let you more fully understand probable outcomes, so you can provide decision-makers with information that clearly shows the risks associated with each potential choice.

## Optimize Processes and Portfolios

If you ignore the effects of uncertainty in your financial and business analyses, you potentially expose your organization to unnecessary risk. Whether you’re calculating return on investment or net present value, assessing credit risk, determining bank capital adequacy, valuing assets, or forecasting financial returns, you need to account for the uncertainty in your models. Crystal Ball’s optimization tools let you include uncertainty and risk in simulations while determining the best possible settings for variables such as staffing levels, investment amounts, or product prices to achieve success. These tools help you optimize processes, products, or portfolios and perform efficient asset allocation given budgetary constraints and other requirements.

## Quantify Planning Risks and Rewards

In traditional financial planning, for example, deviations from your original assumptions usually require a revision of the plan. However, if clients have already taken significant action, such as retiring early or making large gifts to family members or charity, their financial security could be put at risk if the plan did not take that action into account.

By adding stochastic analysis with Crystal Ball, you can see how a plan will succeed or fail in thousands of possible financial scenarios. You can give clients the probability, based on historical data, that they will not lose their hard-earned nest egg, or tell a retiring couple how much they can withdraw annually while maintaining their original investment. Crystal Ball gives you wizards to automate report generation and charts (such as trend charts) to visually analyze the uncertainty around a portfolio. Crystal Ball’s graphics and reports illustrate the various assumptions and forecasts for clients, investors, and management, helping them understand the decision-making process better.



## Win with Crystal Ball

Fact: Crystal Ball software is used by more than 4,000 customers worldwide, including 85 percent of the Fortune 500.

While everyone must take risks to succeed, blind risks too often lead to costly errors. Crystal Ball puts the odds in your favor by helping you choose the most promising calculated risks. Each time you perform a simulation with Oracle's Crystal Ball, you gain a richer understanding of the inherent risks. When you become skilled and swift at framing financial decisions to maximize opportunities while mitigating risk and understanding uncertainty, you gain a significant competitive advantage.



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