Palisade Case Study

Undertaking due diligence on property portfolios using @RISK from Palisade

Background

RisqWorx, part of niche market development house TimeWorx (www.timeworx.co.za), specialises in developing risk applications. Founded in South Africa, the company was launched in 1999 with the belief that, because all organisational decisions involve making calculated risk / return judgements, evaluating and managing risk must therefore be an integral part of business activities. As a result it developed a suite of risk profiling modules, called PRISM-SUITE, which enable the management of corporate governance requirements.

RisqWorx recognised that on occasion, Monte Carlo simulation needed to be incorporated in to PRISM-SUITE in order that the likelihood and severity of risk associated with a project could be modelled and quantified, and capital set aside to mitigate this. The company turned to risk analysis specialist, Palisade (www.palisade.com) to supply this element, and introduced @RISK as a result.

@RISK extracts value from data

Using its @RISK risk-profiling tool, RisqWorx helped a variety of companies in the insurance market make informed decisions relating to corporate governance. Based on that experience, RisqWorx believed that it could also assist companies in other industries to realise value from the data that they gathered, but were not currently using.

Property portfolio feasibility

Based on RisqWorx's previous successes, contacts in the property sector believed the @RISK tool could play a vital role in their operation. A key area was making risk analysis accessible in the boardroom in order that informed decisions could be made about property acquisitions.

Common practice was to use the following simple calculation to determine whether to buy a particular property:

Profit = sale price – (purchase price + renovation/alteration/building costs)

However, this did not take into account variables that could substantially change, and potentially erode, the profit margins. Building costs might initially be factored in at £200 per square foot but rise to £400 per square foot during the project (a common issue in London for example is the discovery of asbestos in the course of renovation, which significantly increases expenses), thereby weakening the financially feasibility of the purchase. Equally, if the project is not completed within the scheduled time, bank interest on borrowings increases, again affecting overall profitability.

Due diligence with @RISK

RisqWorx's @RISK model allows all the variables associated with property portfolios to be incorporated into the equation. These include the initial cost of the building, the construction and materials costs, the length of the building project, professional fees, interest rates and the sale price or rental yield (which is affected by the general economic climate and the commercial property market).

The complex calculations are then presented to board members of property companies in easy-to-understand Monte Carlo graphs. As a result of this due diligence, they are able to make an informed decision about which property purchases will make sound investments for their portfolio.

@RISK extracts value from data
"@RISK is a highly-prized software. It allows the user to perform very complex modelling but, at the same time, it is intuitive to use and produces easy-to-understand results," explains Alan Cartmell, the consultant at RisqWorx who has developed PRISM-SUITE and incorporated @RISK.

Cartmell concludes: "The software is highly flexible and can be applied to any spreadsheet to show the range of outcomes and how likely they are to happen. Organisations can realise value from vast amounts of previously unused data which can now be used as inputs to the @RISK model, the outcomes of which will inform their decision making and drive profits."

Additional information
Photo illustration:
RisqWork's @RISK model was used to determine go-ahead on a £118 million mixed use (residential and commercial) project in Lewisham, south-east London

Key software features used:
Using the regression coefficients, @RISK immediately gives users what is dependant on what to make acquisition profitable.

Distributions used:
Risk triangle. This function makes use of three spreads - minimum, more than likely and maximum. Within the property business, 98% of the variables (outlined above) that will determine the resulting profit can make use of this function.

Illustrations