



# Stress testing: risk workshops

Successful business and strategy planning relies on the operation of many interrelated factors conforming to predicted behaviours and patterns. The potential volatility in outcome depends on several features such as the timeframe, the state of knowledge when setting the plan – how reliable is historic data for predicting the future? – and emerging risks and issues.

Understanding the extremities of the potential outcomes is a key feature in defining the risk appetite stance adopted. The risk-bearing capacity of the organisation is critical when considering the potentially damaging effects of extreme circumstances.

Sensitivity analysis and stress testing is carried out to give senior management an appreciation of the potential vulnerability of the organisation to these factors. The key feature of stress testing is to look at the range of outcomes that are reasonably foreseeable, even if highly remote, and then ask whether this range of outcomes sits within the risk appetite and capacity of the organisation.

Stress testing consists of analysing the worst-case scenario for each of each the

risks identified and calculating the impact on the key risk metrics that these risks will have. Risk metrics are the elements of the plan or strategy that are based on assumptions (see table). Staff turnover rates, for example, may be assumed to be eight per cent annually as this is the level experienced in recent years.

But what if this varies significantly, to 15 or 20 per cent? The extra expense of staff recruitment and the inefficiency in operations will damage the organisation's profit expectations.

### Scenario analysis

It is helpful to create plausible scenarios of prejudicial or catastrophic scenarios. For example, in a firm producing food a combination of product tampering, increasing raw material costs, new competition and under-investment in marketing, all happening at the same time, would severely damage the company's ability to remain viable.

### Reverse stress testing

When considering the high-level or strategic aims of the organisation the question should be asked: "What

conditions or circumstances could cause us to fall short of our aims?" Rather than taking the granular stress test metric by metric, risk managers should construct their own 'armageddon' scenarios for discussion with senior executives.

### Practical steps

Stress testing features at different stages of operational management such as strategy development and business planning, risk analysis and performance management. Analysis of research on peer group experiences can be a rich source of learning about the circumstances that create extreme conditions.

### Strategy and business planning

To embed stress testing in strategy and business planning, firms should ensure their analysis includes the following;

- **income projections** – describe confidence levels of various ranges
- **budget assumptions** in financial metrics
- **survival** – continuity and cost overruns
- **confidence levels** of various ranges
- **dependencies** (eg major supplier)
- **competitive** – describe known competitors and their planned new initiatives

Examples of stress-testing metrics

Staff turnover Staff costs Skills availability Fraud - internal Fraud - external	Interest rates FX rates Cash flow Commodity price and availability Power and services prices and availability	Major suppliers Major suppliers of suppliers Major customers Major customers of customers Transport costs Income projections including product pricing
Tax rates Credit default Contract or licensing reliance (concentration) Legal environment and penalties Competition	Innovation/redundancy in products Reputation/brand Value Fashion trends	Weather risks Political risks Contingency and crisis management/readiness and capabilities Outsourcing



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