As the coronavirus (COVID-19) creates challenges for all businesses, private, mid-market and family businesses should implement financial stress testing to allow them to take a proactive approach.

Business resilience, a business’ ability to adapt to changes in circumstances and implement measures that underpin the health of operations, people and assets, is something all organisations are implementing during the coronavirus challenge. As part of this preparation, many businesses have already started their crisis management plans – but many don’t realise that financial stress testing should form part of any holistic approach to managing through times of crisis.

Scenario analysis and stress tests are not the sole domain of large businesses, SMEs should be undertaking these as well. The depth and length of this downturn is unknown, therefore it is imperative that you are as prepared and knowledgeable as possible on how to prioritise activities, where payments are directed and how stakeholders are managed. Some simple analysis can reveal the key areas of business stress and vulnerability.

Businesses need to respond with speed during any crisis – but your activities must be well thought through – you should consider engaging with your advisors to access quick to deploy diagnostic tools that preserve cash and help identify areas of focus.

The what and why of financial stress testing

Financial stress testing is fundamentally about identifying the areas of vulnerability and weakness in a business so plans can be designed and implemented to address them in a timely and proactive manner. These plans might cover:

- **tactical initiatives** – implemented quickly with minimal cost and disruption
- **operational initiatives** – seeking to make longer term changes to the business’ operating model
- **strategic initiatives** – which shift an organisation’s strategic focus and or business model.

Stress testing will allow you to determine the length of time your organisation can trade under different circumstances (and what its safety net is), and allow you to be deliberate in your crisis response rather than being rushed into an action because there is no time to consider alternatives. The benefit of time will allow your business to engage with key stakeholders (shareholders, regulators, staff and funders) and negotiate outcomes, something that becomes increasingly difficult to do once the business is in a state of distress.

Stress testing allows you to assess the impact on the financial health of your business as a result of applying greater than normal changes to key assumptions (that drive the
business). Consider how changes to assumptions impact financial performance (i.e. the profit and loss), financial position (i.e. the balance sheet) and cash flow.

You can choose to apply the variation of assumptions on an isolated basis – making drastic changes to one assumption and holding the others constant (example one below); or by making changes to multiple assumptions and assessing the aggregate impact (example two below).

- **Example one**: dramatic and rapid decline in revenue but maintaining normal staff and creditor payment cycles.
- **Example two**: dramatic and rapid decline in revenue and extended debtor collection periods.

**How to undertake a stress test**

Financial stress testing is essentially assessing the health of a business projected into the future. To allow you to do these two things need to occur – building a financial model and undertaking data analysis:

1. **Building a model of financial performance and cash flow**

Building a financial model does not need to be a complex task – it can be as simple as analysing the cash inflows and outflows and varying the driving assumptions. There are many advantages to this ‘sources and uses of funds’ approach. It’s relatively quick and easy to establish and can be done by people who understand cash flow but are not necessarily trained accountants.

However if you have a larger or more complex business, you’re likely to need a more comprehensive financial model. This can be built by starting with the historic profit and loss (P&L) and balance sheet and extending these out for a forecast period. A cash flow forecast is derived by reflecting how the movements in the P&L and balance sheet impact cash flow – this is often called a three-way model or an integrated cash flow forecast.

Using this approach means that management needs to understand and determine key performance indicators and business-specific stress indicators, so that they can be linked to the P&L, balance sheet or cash flow forecast and updated automatically as the model updates. These ratios should be prominently displayed through the model so they can be monitored as new assumptions are tested.

**Important considerations when building a financial model**

| 1. | Purpose and granularity | • Define the model purpose upfront and decide on the right amount of granularity. |
| 2. | Key performance indicators | • Be clear on the KPIs that drive the assessment of business performance and balance sheet health.  
• List KPIs so they are prevalent throughout the model. |
### Flags
- Errors should be automatically flagged, as should performance, solvency and liquidity indicators when defined triggers are reached.

### Flexibility
- Well-built models should have the flexibility to accommodate scenario analysis and changes in assumptions without the need to re-write formulas.

### Visual
- Model should be easy to read and formatted for easy printing.
- Graphs and charts should be used to summarize data and drive insight development.
- Cells should be clearly identified as input, or formula or output.

## 2. Data analysis
Few private, mid-market and family businesses have sophisticated data analytic capabilities – but there are some basic forms of data analysis that can help you identify business vulnerabilities. These vulnerabilities are usually determined by how significantly they impact business health when varied. The examples below generally don’t require sophisticated analytics capabilities but can be crucial in identifying a business’ potential fatal flaws:

- concentration of sales by customer or product
- supplier dependency
- pricing benchmarks and impacts of pricing changes
- business unit / product / customer profitability
- ratio of fixed costs to revenue
- percentage of non-revenue generating staff costs to revenue
- percentage and value of overtime/bonuses to total wages
- head room in debt facilities
- debt facilities maturing in the near term, or on a month to month rolling basis
- debt instruments with conversion rights and the impacts of those conversion rights on control and capital
- current or forecast capex projects, and ability to defer/suspend.

## Indicators of financial distress
There are a number of indicators of financial distress and once you have identified these – additional assumptions can be applied through the financial model to determine the best course of action to be taken. Consider:
• **Breaches of debt covenant ratios** – debt covenants (often restrictive) are imposed by lenders to ensure businesses retain the ability to make interest and capital payments when due. Common ratios include debt to EBITDA, debt to equity and interest cover ratio.

• **Negative operating cash flows** – operating cash flows are those cash flows generated by a business’ day to day operations.

• **Solvency issues** – in a solvent business, total assets are greater than total liabilities. What this indicates is that the company can pay its debts when they fall due. But when liabilities are increasing and assets are static or declining, a company’s solvency position is worsening.

• **Liquidity issues** – a business is said to be liquid when it can settle its debts when they fall due, or it can easily convert its assets so that debts can be settled. It is measured as a ratio of current assets to current liabilities.

• **Increasing working capital cycles** – A working capital cycle is the number of days it takes for a company to sell its stock, collect its debtors and settle current liabilities. When debtors delay paying invoices or suppliers demand earlier payment of their invoices the working capital cycle extends (or becomes negative) and this can have a significant impact on cash.

For many of us, our immediate focus through the coronavirus is, and should be, on the safety and wellbeing of our employees. **It's important to remember your statutory obligations during this time.**

The best chance for your business to achieve favorable outcomes during these unprecedented times is advance preparation. Preparation will allow you to execute lead as planned rather than be forced to make drastic moves. Make sure you engage with all of your stakeholders early and be well prepared for the meetings and presentations that will be coming – this will give credibility to the discussions and the logic of what is being proposed. But these early analyses of your financial position will allow you to make better decisions when embarking on a potential future cost and business model optimization programs.

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