Implementing a portfolio stress-testing programme

By Quintin Rayer | June 21, 2017

In previous articles Quintin Rayer gave an overview of portfolio stress-testing, what it can and cannot do, offered a definition, and outlined the range of stress-test methodologies available with a classification, before focusing on historical and then artificial stress-tests. This sixth and final article in the current series looks at how a stress-testing programme might be applied to portfolios.

Introduction

Meaningfully assessing portfolios risks is never easy, and extreme asset moves can negatively impact portfolios in ways which may not be captured by conventional risk measures [1]. Diversification breakdown may mean that portfolio values are not protected. Stress-testing may be used to estimate portfolio impacts and if necessary appropriate restructuring can limit the downside, although guidance may be required [2]. Typically stress-testing may look at significant historical market events, or artificial scenarios invented to reflect particular concerns.

Although an understanding of the various approaches is crucial, advisers must also appreciate what is required to implement an on-going programme of stress-testing to add the most value for their clients.

Implementing Stress-Testing

Stress testing tends to be a practical activity and not just a purely theoretical exercise. Fundamentally, any potential set of market events that might keep one awake at night could be regarded as the basis for stress-test scenarios.

Efforts are made to explore the impacts of the identified scenarios on the portfolio. Guidance may be required on how to turn initial concerns into useful stress-test scenarios, with definition requiring experience and judgment [2]. After that, implementation of the stress test can become more scientific. Scenario selection will depend on various assumptions, generally regarded as 'unlikely but plausible' [3].

As defining stressed scenarios involves judgments, involvement of stakeholders (including advisers and portfolio managers) is essential. This is likely to be better achieved if stress testing is undertaken regularly as an integral part of portfolio oversight. The portfolio manager's input will be invaluable in helping to identify issues of concern, with discussion around the appropriate severity of stressed scenarios.

Managers should not see stress testing as an inconvenience, but as a reassurance to clients and advisers of the quality of their investment decisions. By making investment outcomes more robust, reputation should be enhanced.
Stress-testing can be implemented through a four-step process [4]:

1. Risk identification: historical events or anticipated concerns.
2. Definition of stressed scenarios: involvement of stakeholders, integration within investment decision making.
3. Execution of stress-test scenarios: derivation of portfolio value.
4. Analysis of results: commentary in reporting.

The definition of stress-test scenarios should not be regarded as a 'one-off' activity. Existing scenarios should be constantly reviewed, re-evaluated and adjusted to maintain their usefulness. A policy should also be established to review stressed scenarios periodically to assist in establishing good discipline and to learn from experience.

Examining the Results

Once the outcomes of stress tests are known, advisers and portfolio managers can consider the outcomes in the light of their client's stated portfolio objectives. In some cases, a stress test may reveal that the identified scenario has little impact. When this occurs, advisers and clients have reassurance that the event is perhaps a lesser concern than they feared. On the other hand, if the stress test suggests that the portfolio may be adversely impacted by the scenario to an unacceptable level, discussions can follow as to how to restructure and reposition the portfolio to make it more resilient against the possible events considered.

How advisers can add value

Advisers can play an important role by working with clients and investment managers to help identify suitable portfolio concerns and interpreting test results against their client's portfolio objectives. By including an ongoing programme of stress testing in portfolio review and oversight, with the scenarios, methods and outcomes documented, it will be clear that advisers are actively working to protect the portfolio value against more extreme market events. Such a programme would help demonstrate that advisers are working hard to protect portfolios and clients can be reassured that robust investment processes are in place.

References

[1] Q.G. Rayer, "Dissecting portfolio stress-testing," Review of Financial Markets, vol.7, pp.2-7, 2015

[2] Advisers are likely to require professional advice on implementation, although some on-line training is available. Advisers/consultants: www.p1im.co.uk, www.fortgreyconsultanting.com, online training: www.fortgreyconsultanting.com/training

[3] M. Crouchy, D. Galai and R. Mark, The Essentials of Risk Management, 2nd ed. New York: McGraw-Hill Education, 2014

[4] Deloitte, "Risk management within AIFMD for private equity, "24 September 2014, available at bit.ly/2cTirp6 [accessed 6 July 2015], 2014

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