London Quant Group
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INVESTMENT TECHNOLOGY SEMINAR

June 21st 2010 at the Institute of Directors
116 Pall Mall, London

11.30   Registration

12.00 – 12.45   Dan di Bartolomeo, Northfield Information Systems

Incorporation of Strategy Risk into Portfolio Assessment and Optimization

Within asset management, the risk of benchmark relative performance is typically expressed by measures such as "tracking error", which describes the expectation of times-series standard deviation of benchmark relative returns. This is clearly a useful measure for index fund management, where the expectation of the mean for benchmark relative return is fixed at zero.

However, the active management case is problematic, as tracking error excludes the potential for the realized future mean of active returns to be other than the expected value. *All active managers must believe their future returns will be above benchmark (or peer group average) in order to rationally pursue active management, yet it is axiomatically true that roughly half of active managers must produce below average results.*

Following the convention of Qian and Hua (2004), we refer to this additional portfolio risk as "strategy risk". In this presentation, we will first describe our approach to empirically estimating the magnitude of strategy risk across asset classes and manager styles. We will then illustrate procedures to incorporate this additional risk into security level portfolio optimizations, risk budgeting and manager selection.

1.00 – 2.00   Finger buffet lunch sponsored by Northfield

2.00 – 2.45   Don Syme, Microsoft, Inc.

F# - Bringing Functional Programming into the Mainstream

What is F#? Why is Microsoft including it in Visual Studio 2010? Why should I be interested in it? And what is functional programming anyway?

Find out the answer to these questions and more, directly from the creator of F#, as he discusses the development of F#, its simplicity when solving complex tasks, the thriving F# community, and its future direction.

If you've ever written parallel, algorithmic, technical or explorative development applications, and found yourself fighting against the language to express your ideas, then F# should be of interest to you.

3.00 – 3.45   Patrick Burns, Burns Statistics

Optimising and Constraining Portfolio Distances

Portfolio distance can be defined as the value of trades that it would take to go from one portfolio to the other; or as the sum of the absolute value of the difference in weights. Such distances can be minimized in an optimisation subject to constraints.

Alternatively, distance constraints can be used in optimisation and when generating random portfolios. The leading use of this may be for fundamental fund managers to get as close as possible to their target portfolio while obeying a set of constraints. An additional application using random portfolios will also be discussed.

4.00 – 4.45   Prof. Gautam Mitra, OptiRisk Systems & CARISMA, Brunel University

Enhanced Indexation Based on Second-Order Stochastic Dominance

Second order Stochastic Dominance (SSD) has a well recognised importance in portfolio selection, due to its connection to risk-averse behaviour theory. Recently proposed SSD-based portfolio models assume that a reference distribution is available; then, a portfolio is constructed, whose return distribution dominates the reference with respect to SSD. The purpose of this paper is to analyse the effectiveness of such strategies in the context of enhanced indexation.

Several datasets, drawn from FTSE 100, SP 500 and Nikkei 225 were used for backtesting in a rebalancing frame; three main conclusions were drawn. First, the portfolios chosen by the SSD based models consistently outperformed the indices and the traditional index trackers. Secondly, the SSD based models do not require imposition of cardinality constraints since naturally a small number of stocks are selected. Thus, they do not present the computational difficulty normally associated to index tracking models. Finally, the SSD based models are robust with respect to changes in the scenario set and thus little or no rebalancing is necessary.

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FinAnalytica
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Exhibition space is still available. Please contact Liisa@lqg.org.uk for further information.

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Entrance to this event is free. Pre registration is required to attend the event. Dress Code: No Jeans