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Amir Lakha

Personal Information

- Marital : Married
- Nationality: British
- DOB: 02/09/1972
- Place of Birth: Britain

Education

2004 - 2006 *Birkbeck College, University of London*

MSc Financial Engineering (Part Time) - incomplete.

- Financial Econometrics
- Mathematical Methods in Finance (Numerical Techniques, Stochastic Calculus)
- Pricing (PDE and Martingale Pricing)
- Risk Management
- *Received a distinction in all the exams.*
- *Dissertation was not completed.*

1995 - 1996 *University of Cambridge, Trinity College*

MEng Electrical and Information Engineering (EIST)

- Finance & Accounting, Advanced Pattern processing, Computer Vision, Marketing.
- Project: "Neural Networks in Financial Modelling" – Involved the pricing of derivative securities such as options using neural computing techniques.

1992 – 1995 *University of Cambridge, Trinity College*

BA Electrical and Information Engineering (EIST) Class II.1

- Computer Architecture, Control Engineering, Artificial Intelligence, Pattern Recognition and Communication.
- Mechanical Engineering, Thermodynamics, Materials.

1986 – 1991 *Manshead Upper School* *Caddington, Beds*

STEP

- Physics (S)
- Mathematics (1)

S Level

- Physics (1)

A Level

- Maths (A), Further Maths (A), Physics (A), Chemistry A)

GCSE

6 A's and 2 B's including English and Maths

Professional experience

May2016 – Mar2019 Barclays Wealth

Senior Quantitative Analyst / Developer (Contract Role)

- Specified MiFID Stress Testing requirements for fund products and led the working group on incorporating the changes into the existing product governance framework.
- Worked closely with the Quantitative Research team on their day to day workload, four eyeing a variety of key initiatives related to their strategic asset allocation process, risk rating products and investments.
- Validation of Quantitative Models including End User Developed Applications (EUDA's).
- Developing a risk profile engine to assign an appropriate risk tolerance to clients.
- Looking at adding alternative asset classes such as risk parity and alternative beta style and factor based investing to the Strategic Asset Allocation process.
- Providing technical and quantitative support to the new goal based investing initiative.
- Maintaining and enhancing Forecast Engine, an in-house monte-carlo simulator developed by myself for projecting the evolution of a client's portfolio, taking into account a client's asset allocation, future contributions and financial aspirations (goals) and tax status. I am responsible for maintaining both the Matlab prototype and the production engine written in Scala.
- Developed MiFid Costs and Charges Model for the Discretionary and Advisory businesses.
- Working with the Investment risk team on specifying, prototyping and testing the replacement for the investment suitability framework for the Advisory business.

Jan2016 – May2016 Bluebay Asset Management

Senior Investment Risk Manager (Contract Role)

- Implementing new risk system allowing for performance and risk attribution to be more closely aligned.
- Developing an adhoc stress testing framework with associated processes and workflow.
- Review and streamline liquidity risk calculation methodology.
- Developing tools to be used for portfolio construction, risk budgeting and to come up with suggested beta replication or hedging strategies for the various fixed income funds using derivatives.
- Helping to define and implement a new guidelines and limits system.

Mar2014 – Dec2015 Barclays Wealth

Technical Specialist – Investment Risk and Asset Allocation (Contract Role)

- Building stochastic forecasting models, looking at risk and asset allocation of investment portfolios, future expected contributions and financial goals.
- Portfolio construction and asset allocation optimisation across the full range of asset classes :
    - Equities (developed, emerging)
    - Fixed Income (Govt Bonds, IG and High Yield)
    - Real Estate
    - Commodities
    - Alternatives
    - Cash and Equivalents.
- Mean Variance and Black Litterman.
- Developing complex monte-carlo simulation models, incorporating theory from behavioural economics and finance.
- Cashflow modelling.

- Formulating a selection of pension glide-path solutions targeting either the purchase of an annuity at retirement or a drawdown strategy with the assets invested according to the clients risk appetite.
- Not only looking at Risk Tolerance/Appetite but also Risk Capacity.
- Working with Audit and Compliance teams to ensure that the outputs of the models being delivered to clients meet suitability and impartiality criteria. Also ensuring that every stage has appropriate levels of auditing.
- Building of Matlab prototype of Forecast engine and subsequent business owner and SME, ensuring that the Java / Scala production solution produced by IT is delivered meeting all functional and non-functional requirements.

Oct 2013 – Mar-2014 AXA Investment Managers UK

Head of Investment Risk (Contract Role)

- Produce regular risk reporting including stress testing using a number of packages including Risk Metrics RiskManager, UBS Delta, Northfield and Factset. Streamlined the production of these reports within the applications.
- Support the investigation of daily internal investment guideline breach alerts
- Investigate internal and client risk limit breaches. Approving temporary extensions of existing limits.
- Support analysis of risk alerts (e.g. liquidity, performance) on UK perimeter.
- Provide 2nd level risk oversight of External Managers Group (EMG): Fund of Hedge Funds and Multi Manager.
- Provide 2nd Level Risk oversight of the Fixed Income Funds (Govies, IG Credit, High Yield). Working closely with the PEG (Portfolio Engineering) team on portfolio construction issues, quantitative risk analysis and stress testing.
- Worked with the fund of funds team and their managers to get their underlying positions into UBS Delta. Defining file formats to be delivered by the fund managers and creating a batch process that would consume the data and upload into the risk system (parsing and transforming where necessary).
- Working closely with the LDI team on new product approval, setting and monitoring of limits and formulating investment guidelines.
- Improve the production efficiency of the monthly investment risk reports. Automating generation of reports using Excel / VBA and SQL Server.
- Quantum validation for the London Operational Risk and Incident committee.
- Providing reporting, analysis and validation to support our regulatory reporting requirements.
- Working with fund managers, marketing and compliance to ensure that fact sheets and investment guidelines are suitable for all parties. Ensuring that the infrastructure to support the monitoring of hard and soft limits is in place or to devise tactical solutions whilst a more robust solution is investigated and delivered by the support teams.
- Provide assistance to middle office teams relating to valuation, technical and internal policy queries. Escalate any issue with the application of Valuation Standards to UK CRO and Global Head of Investment Risk.
- Provide ongoing support to the UK CRO and the Global Head of Investment Risk on ad hoc requirements.
- Attend local committee meetings as and when required.
- Manage junior members of the team.

Oct 2012 – Jul-2013 USS Investment Management

Senior Risk Manager / Deputy Head of Risk (Fixed Term Contract)

- Providing support to the Head of Investment Risk, Performance and Quantitative Analysis.
- Acting as a subject matter expert in the team on derivative modelling, ALM, fixed income, LDI.
- Built an ALM tool to allow us to report our funding level and asset/liability risk on a daily basis. Calculating VaR, DCaR, ERaR using different methodologies for modelling the liabilities.
- Worked closely with the Government Bond and Credit Fund Managers to produce useful monitoring and risk reporting that aided them in their investment process.
- Member of the Investment Policy committee, providing input into the Strategic Asset Allocation process. Looking at portfolio optimisation, traditional mean variance / black litterman. Looking at alternative asset classes and strategies.
- Built an in house framework to replace the multitude of unmanageable spread sheets being used as parts of extremely important processes around asset allocation, risk and performance reporting.
- Ran the LDI manager search and engaged with the schemes consultants and teams at the various top LDI houses in defining the LDI mandate and benchmark.
- Carried out much of the due diligence in understanding how the various LDI managers ran their mandates and how they added value if they were given discretion. Spent a considerable amount of time understanding their interaction with the market and their execution style.
- Carried out a risk system review, looking at our current risk analysis requirements. Concentrating specifically on those requirements' where the incumbent system was falling short. Systems that were reviewed included Sungard APT, EM Applications, Barclays POINT, UBS Delta, RiskMetrics, Sophis, FinCAD, Barra, Finanalytica, Factset.
- Fed into the Counterparty Risk Management Committee with suggestions around the measurement of counterparty risk for the derivatives book and the setting of limits and calculating limit usage.

Mar 2011 – May 2012   Pensions First

Head of Risk and Asset Analytics

- Day to day management of the risk team including planning for business growth and ensuring we have adequate skills within the team.
- Provide strategic input to the PensionsFirst management group around all areas of risk analytics required to support the wider business.
- Assess the ongoing business requirements from a strategic perspective and to provide the management team, with my assessment and propose solutions.
- Structure and oversee the implementation projects and once complete, operationalise and embedded into the regular business processes.
- Contribute to the development of the businesses.
- Provide marketing and client support to pitch PensionsFirst risk models and to address questions on the risk models and methodology.
- Development and production of the risk analytics provided in PFaroe (The Pensions First Risk Management Platform)
- The refinement and production of the risk analysis provided in the PFaroe platform. These include metrics such as :
    - Historical VaR
    - Monte Carlo VaR.
    - Development of a multi-period ALM.

- Responsibility for the day to day running of the team and overseeing the development of models and tools used to generate the appropriate scenarios as well as sourcing and calibration of the tools to market data to generate the appropriate scenarios.
- Participation in marketing pitches and answering questions from PFaroe prospects and end users around the risk approach and risk functionality.
- Asset modelling support for the cross asset trading platform
- Establishing the appropriate methodology for curve creation and asset valuation models within a global cross-asset trading platform. The asset platform provides asset analytics in the form of current valuations, stressed valuations and forecasts of future asset cashflows under both current market conditions and stressed scenarios. The portfolios contain a wide range of assets, to name a few :
    - Government and corporate bonds
    - Fixed income, FX, Inflation and Credit derivatives
    - Equities
    - Properties (both direct property investment and REIT)
    - ABS and MBS
    - Alternative assets (e.g. private equity, infrastructure etc)
- Curve methodologies needed for both asset and liability valuations e.g. interest rate and inflation curves under swaps and gilts basis.
- Reviewing the methodology proposed by the risk analysts and ensuring it is appropriate to the business requirement in terms of balance between theoretical accuracy and practical constraints.
- Provide risk expertise to the wider business
- Support the advisory business around creating the relevant risk / return metric for pension scheme clients to manage their asset and de-risking strategies
- Support the advisory business around project specific resources and risk modelling
- Support the PensionsFirst Capital business around appropriate internal and regulatory risk and economic capital modelling requirements
- Support the PensionsFirst Capital business with appropriate studies and analysis of the key risks faced by the business to facility the most effective means manage the risk (e.g. to hedge or transfer to counterparties or to hold and capitalise).

Sep 2005 – Mar 2011 Axial Investment Management / Ignis Asset Management

Senior Risk Manager / Head of Investment Risk

- Joined Axial from inception (2 other members of the company when I started.
- Have been actively involved in all aspects of building and managing the Asset Management firm :
    - Dealing and executing trades
    - Engaging with counterparties, external funds and service providers.
    - Engaging with clients and shareholders.
    - Setting Internal Risk Policy and advising clients on risk related matters.
    - Specifying and building out the Risk Management Framework and Global Risk Model.
    - Performance Measurement.
    - Risk Reporting.
    - Calculation of absolute and benchmark relative risk metrics such as VaR and Tracking Error.
- Delivered much of the ALM (Asset and Liability Management) services that we provide to our clients.
    - Liability Modeling.
    - Risk Reviews and Reporting.
    - Hedging (calculating, proposing and then executing).

    - Minimizing regulatory capital requirements, ICA/VAR.
    - Built and maintained models for all level 3 assets (hard to value structured trades).
- Initially designed and built many of the tactical systems to allow us to provide much of the above services to the clients and subsequently founded the Rapid Application Development Team. Also specified and tested most of the functionality required from the third party systems that we eventually bought and implemented. To name a few of the systems that were developed and implemented :
    - Derivative valuation and risk management system. In house development subsequently chose Sungard FRONTARENA as our trading and risk system. My team and I have been involved in the specification and testing of all out of the box and custom functionality.
    - Performance Measurement System. Initially an in-house tactical solution subsequently chose a 3rd party system called Eagle. Again my team and I have been involved in testing the performance calculations and agreeing benchmarks (especially liability benchmarks).
    - Deal ticket platform.
    - Market and Static Data database, automatically pulling in data from the market on a daily basis.
    - Reporting framework. In house development, initially prototyped by the Risk team and then handed over to RAD and IT for migrating to production. We now use the framework to provide a wide variety of risk related reports.
    - Operational Risk Management (ORM) Framework.
    - Mandate Monitoring Framework (both Client Investment Mandates and Asset Mandates).
- Member and attendee of various risk committees / forums :
    - Asset and Liability Committee.
    - Asset Allocation Forum.
    - Counterparty and Credit Risk Committee.
    - Operational Risk Committee.
    - BCP (Business Control Procedures) Forum.
- Some of the Asset Classes that we dealt with were :
    - Equities.
    - Fixed Income Securities (Bonds, FRN's, Index Linked).
    - Property and Private Equity.
    - Hedge Fund Investments (Fund of Funds).
    - Derivatives :
        - Equity Index futures and options (ETD).
        - IRS, TRS and CDS (OTC)
        - Swaptions (OTC).

Sep 2001 – Aug 2005   BNP Paribas

Market Risk Officer

- Member of the Market Risk Team.
- Calculated the Value at Risk for all of the Bank's activities (Monte-Carlo and Historical).
- Ensure that all risks are captured and develop ways of incorporate any missing products / business lines into the VAR framework.
- Run monthly stress testing and back testing analysis and review the various stress scenarios.
- Methodology enhancements / improvements to more accurately capture the risk.
- Prototype any methodology changes and write the specification documents that will allow IT to industrialise these solutions.

- Tactical developments to improve performance, integrate internal and external systems, improve accuracy of VAR.
- IT Skills used : Unix Shell, C++, Excel / VBA, Visual Basic, Access, Sybase

Jan 2000 – Sep 2001 Goldman Sachs International

Analyst Developer

- Developing Fixed Income Analytics.
- Maintaining and enhancing the trading systems.
- Developing new calculators.
- Helping to reconcile risk and P&L reports.
- Developing new spreadsheets and tools to allow traders to more easily view their exposure and allow them to calculate their P&L on the fly.
- Use my previous experience as a trader to suggest and develop other tools / reports that would help the traders make decisions.
- Also worked closely with other fixed income development teams. For example :
    - Non-Dollar Repo - many projects ranging from simple Perl based CGI forms to large scale C++ projects interfacing with many other systems.
- IT Skills used : Unix, Perl, CGI, C, C++, Sybase SQL, LISP.

Sep 1996 – Apr 1999 Chase Manhattan Bank

Global Trading Officer

Joined the graduate training program after completing my masters degree. Began with a series of training courses covering economics, accounting, fixed income, mathematics and SFA registration. After a 3 month rotation which involved 1-2 week placements on all of the various desks (Equity derivatives, Capital markets, Emerging Markets, Fixed Income Derivatives, Commodity derivatives), I was assigned permanently to the Interest Rate Derivative group on the Scandi desk.

After the initial junior / training period, this evolved into :

- Trading Fixed Income Derivative Securities including SWAPs, FRA's Bonds, Options and Futures, primarily in the Scandinavian markets.
- Also had FX positions and traded most of the Interest Rate Futures on LIFFE and DTB.
- Market making Scandi Swaps and FRA's as well as taking proprietary positions in most other vanilla interest rate derivatives as well as forex positions.
- Actively managed the funding requirements of my book, either through the repo desk or using short term FX swaps and depo's.
- Developed spreadsheets to calculate my own risk positions as well as those of the rest of the Scandinavian desk.
- Developed many of the pricing and analytical spreadsheets/software used on the desk. This involved extensive use of VBA, VB and Access.
- Was responsible for the IT requirements of the desk and therefore worked closely with both middle office and IT support staff.

Additional Skills and Training

Driving

- Full clean UK Driving Licence

Computing

- Advanced Expertise with Excel including VBA, Visio, MS Project, Powerpoint

- SQL, Sybase, SQL Server, Integration Services, Reporting Services
- Unix Shell Scripting, Perl (including CGI), Python.
- C and C++, FORTRAN, Pascal, MATLAB™, R, C#, Java and Scala .
- Reuters, Bloomberg, SunGard Front Arena, Eagle (Performance Measurement)
- EM Applications, FinCad, Calypso, GEMS (Economic Scenario Generator), Barra, RiskManager, Factset (Northfield Risk Model), Barclays POINT

Languages

- French and Spanish (GCSE)

Other

- SFA – Securities and Financial Derivatives Representative (1997)
- 1-week residential management course run by staff from Pershore College. Course is certified by the National Examining Board for Supervisory Management
- FSA Approved Person (CF30)

Other Achievements and Responsibilities

- First Class Bronze Award in National Physics Olympiad in 1991.
- Offered sponsorship by both BT and National Grid Company in 1992 (accepted BT)
- President of Trinity College Badminton club (1995 – 1996).
- Represented University in Regional Karate Tournament (attained Bronze Award in 1995).

Interests and Activities

- Badminton, Tennis, Pool, Reading, Home Cinema.