

Kirk Alan Monteverde, Ph.D., M.B.A.

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Senior-level statistical modeler and risk manager with 15+ years experience employing rigorous technical analysis, including modern machine learning techniques, to solve business problems.

I have been especially successful in communicating technical issues to clients and managers in common-sense, business terms. But first, I listen. For example, as a consumer credit risk advisor, I have become attentive to the business intuition of balancing the obvious cost of making a bad loan against the subtle cost of passing on the opportunity to gain a profitable *long-term* customer relationship. Credit risk is not simply about saying “no.”

- EXPERIENCE
- Built successful risk modeling and financial consulting firm with focus on consumer lending.
 - Served as Managing Director and technical spokesperson for multi-billion-dollar affiliate of Bank of America.
 - Advised senior management teams at both small and large-scale banking institutions on key financial issues, including capital adequacy regulation, cost-of-funds transfer pricing, asset/liability management, and cost controls.
- EXPERTISE
- Implemented corporate-level credit model tracking and validation policies.
 - Wrote seminal paper in the public domain on modeling default risk for private student loans (see [Research in Higher Education](#), Vol. 41, No.3 June 2000).
 - Recognized industry expert in development and application of credit scoring models for underwriting and collections, and in actuarial modeling of default development.
 - Hands-on expertise in data analysis and database management, including software proficiency in SAS, JMP (data mining and visualization product), SQL, Crystal Ball (simulation software), MatLab, R and Microsoft Office suite.
 - Extensive knowledge of regulatory requirements/compliance and banking law.
- EDUCATION
- **Ph.D.** in Business Economics, [Stanford Business School](#)
 - **M.B.A.**, [Stanford Business School](#) (*Arjay Miller Scholar, top 10% of class*)
 - **M.S.** in Applied Communication Research, [Boston University](#)
 - **B.A.** in History, [Stanford University](#)
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REPRESENTATIVE PROJECTS IN MODELING AND FINANCIAL MANAGEMENT

- [Established credit model validation procedures for international near-and sub-prime consumer lender \(QuantifyRisk.com\)](#)
- [Wrote seminal paper modeling private student default risk \(Student Loan Risk Advisors\).](#)
- [Built in-house consumer credit underwriting unit from the ground up, including staffing and software selection \(Access Group\).](#)
- [Simulated projected loss scenarios for Bank of America's leasing company, demonstrating a loss percentage almost 40% below previous assumptions \(Montrose and Company\).](#)
- [Developed a dollars-and-cents, “business-intuitive” approach to quantifying the relative importance of competing loan underwriting considerations \(Student Loan Risk Advisors\).](#)

PROFESSIONAL HISTORY & EXPERIENCE

Consultant

(2012 – present)

QuantifyRisk.com, Philadelphia, PA

Rebranded consultancy now focused on predictive modeling and credit risk evaluation.

Long-term engagement with formerly public international small balance consumer lender (taken private in 2014). Oversight responsibility for full life-cycle of the company's world-wide portfolio of risk models from construction, validation and documentation through performance tracking.

In 2016 I was asked to personally review and reconstruct all Retail underwriting models in the Company's largest market (Canada). My efforts resulted in a \$1.6MM net revenue increment for the Single Payment Loan Product and \$3.5MM increase in net revenue for Company's new high growth Installment Loan product.

- Responsible for maintaining “state-of-the-art” statistical knowhow (e.g. lasso regularization, Random Forest) and for educating the company's technical community, but always with a cautious business sense of avoiding needless complexity and implementation risk.
- In-house technical consultant and software instructor to world-wide team of analysts using statistical modeling tools SAS, KnowledgeSEEKER, SAS Enterprise Miner, JMP and R.
- Manager of the company's quarterly Population Stability and Characteristics reporting process and of our Champion/Challenger implementation evaluations.
- Developed an “Optimization Under (regulatory) Constraint” framework for transitioning the company to a new product mix as mandated by regulatory changes in the UK.
- Coordinated development of reporting mandated by new regulation and took personal responsibility for data integrity work necessary to assure that the reports foot to the G/L.

Consultant & Business Owner

(2005 – 2011)

Student Loan Risk Advisors, Philadelphia, PA

Founder of successful consulting practice focused on data-driven analysis of financial risks in the marketing and holding of non-federally-guaranteed (“private”) student loans. Worked with diverse firms in the student loan industry, including large established lenders, guarantors, marketing specialists, and new industry entrants.

- Built new loan programs from the ground up for multiple clients (including innovative private student loan consolidation offerings); specified detailed loan characteristics and pricing; established underwriting, servicing, and collection guidelines; modeled prepayment and default development curves; and successfully represented the programs to funding sources and wrap providers.
- Developed a dollars-and-cents “business-intuitive” approach to the statistical question of the relative importance of predictor variables for underwriting loans or purchasing portfolios.
- Used data set of several million loan records to model default risk associated with Direct-to-Consumer student loans, thus identifying previously unrecognized warning signs.
- Drew upon breadth of experience within the student loan industry (including collection modeling, portfolio evaluation, and actuarial default and prepayment patterns) to document the very long life cycle of private student loans and to highlight distinctive patterns of risk.

Managing Director, Quantitative Methods

(2002 – 2005)

Montrose and Company (a Bank of America affiliate), Reno, NV

Mathematical model-builder, software developer and technical spokesman for this multi-billion dollar leveraged-lease portfolio manager affiliated with the Bank of America.

- Simulated projected loss scenarios for Bank of America's leasing company, demonstrating a loss percentage almost 40% below previous assumptions; as a result, capital allocations were lowered by more than \$100 million annually.
- As recognized expert on proposed international capital standards for leasing industry's long-dated structures, invited to present at *The Leasing Exchange* (TLE) conference and *Equipment Leasing Association* (ELA) conference.
- Implemented monthly mark-to-market algorithm for hedge fund client entering the equipment leasing market; advised clients on credit exposure and asset swaps, built RAROC prototype model, and advised on capital charges for tax-advantaged Section 42 housing loans.
- Delineated algorithm to simulate loss-in-the-event-of-lessee-default and lead project to implement the model in Visual Basic

Director, Research and Risk Management Department

(1995 – 2001)

Access Group, Inc., Wilmington, DE

Led credit department and served as chief risk-policy strategist and statistician for nonprofit lending group, which generated \$750 million per year in student loans and was the country's largest originator of "private" loans to graduate and professional students.

Selected Accomplishments in Programming, Systems Implementation, and Credit Operations:

- Built in-house consumer credit underwriting unit from the ground up, creating processing capacity of 50,000 applications per year; selected software, integrated systems, and trained staff, achieving full functionality within 6 months of project start-up and funding.
- Managed team of outside contractors and used personal SAS programming skills to produce tracking and reporting systems for private loan default statistics.
- Oversaw first-in-industry implementation of an "instant" credit evaluation tool using an ASP architecture and the XML protocol.

Selected Accomplishments in Quantitative Methods:

- Wrote seminal paper in the public domain on modeling default risk for private student loans; used archival credit bureau data, credit scoring, and statistical survival analysis to define student-loan industry's first tiered pricing scheme (see Research in Higher Education, Vol. 41, No.3 June 2000).
- Modeled structured financings for nearly \$1.5 billion of student loan securitizations, including rating agency presentations focused on portfolio credit risk stresses
- Using Monte Carlo simulation techniques and value-at-risk concepts developed recommended level of shadow (non-regulatory) capital to hold against portfolio of non-federally guaranteed loan.
- Within 3 months of hire, compiled statistical evidence sufficient to convince the Board to immediately limit credit exposure within certain customer segments, resulting in future default savings (net of foregone revenue) of over \$6 million

Assistant Professor, Management and Information Systems

(1992 – 1995)

St. Joseph's University, Philadelphia, PA

Part-time Consultant

ShoreBank, Chicago, IL

As tenure-track professor, taught courses to graduate students, conducted research, and held long-term consulting position with ShoreBank, which was then the country's premier community redevelopment bank.