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COMPANY PRESENTATION

People, products and services

QUANTITATIVE
consulting

Introduction

We are an independent consulting company that implements projects for financial institutions in the area of credit, market and operational risk management. Our team of specialists in mathematics, statistics, programming and finance bring a wide range of knowledge and experience, a creative approach and proven solutions.

Creative, Reliable, Adaptive

QUANTITATIVE
consulting

RISK CONSULTING

Scoring models

- Application and behavioral scoring
- Advanced models development, calibration and validation
- Reject inference approaches
- Cut-off setting using cost of error weighting

Basel II and Economic Capital

- RWA, PD, LGD and EAD modeling and methodology
- Time series analysis with economic downturn assessment
- Methods dealing with incomplete observations (LGD)
- PIT x TTC rating (variable scalar approach)

Advanced methodology for LGD Modeling

- Cost allocation + data implied discount rate determination
- Modeling techniques for partial recovery rate observations
- Downturn portfolio LGD

RISK CONSULTING

Value at Risk Models

- Parametric and nonparametric VaR and CVaR models
- Advanced (e.g. GARCH) correlation and volatility estimations
- EVT (Extreme value theory) VaR implementation

Valuation of derivatives

- Valuation and risk quantification of portfolio of plain vanilla forwards, options or interest rate swaps
- Advanced stochastic modeling and exotic derivatives valuation

Basel II Implementation and Capital optimization

- Basel II market and operational risk capital calculation
- Standardized or VaR based approach
- Stress testing and economic capital allocation

BIG DATA CONSULTING

Exploration of all kinds of information

- Internal data sources
- Understand your data through internal or external internet data sources
- Understand better your clients through fusions with external sources (TELCO, energy)

Recognition of hidden profitability opportunities

- Identifying weaknesses in your processes
- Minimizing your client's attrition
- Maximizing sales numbers of your products
- Optimizing your business model

All types of methods to explore the maximum information

- From regression trees to random forests
- From Bayesian to neural networks
- From simple regression to ensemble models
- Gradient boosting, stacking, Adaptive Boosting (AdaBoost) and other methods

FINANCIAL AND INVESTMENT CONSULTING

Optimal Portfolio Allocation

- Expected return versus risk optimization
- Algorithmic trading strategies analysis, design and implementation
- Bayesian approach to asset allocation
- Optimal allocation of financial assets inclusive reliable measurement of their return and risk profile

Performance Measurement and Risk Reporting

- Definition of key performance indicators, benchmarks and risk measures
- Implementation of automatic reporting systems and monitoring processes

Cash Flow Optimization

- Proposal of optimal cash flow structure, financing and financial asset management
- Analysis and hedging of balance sheet foreign exchange, interest rate and liquidity risks

IT CONSULTING

Credit Rating System

- (Web-based) Application for storing and management of financial statements
- Supported by the database structure
- Process of client-level rating assignment, the definition of user roles (analyst, client manager)

Recovery Management System

- Definition of particular recovery processes
- Storage of realized actions on account, direct and indirect costs
- Support recovery process analysis and optimization
- Data export for LGD modeling

Tailor Made Software

- We offer software development on demand and our own software products. We have a competent team with extensive know-how in the area of software applications development and software solutions development

EXECUTIVE DIRECTOR

Jiří Witzany

WORK EXPERIENCE

- Co-founder of Quantitative Consulting
- Senior Consultant CRA System, a quantitative risk management division of Mediaresearch
- Director of the Credit Risk Management Division in Komerční banka (scoring functions development, credit risk reporting and data management, implementation of Basel II, real estate valuation)
- Modern market risk management system development in Komerční banka, implementation of the dealing system Trema, the Middle Office function, and a Management Information System for financial markets trading

ACADEMIC ACTIVITIES

- Professor of Finance, Faculty of Finance and Accounting, University of Economics, Prague and Faculty of Mathematics and Physics, Charles University, Prague
- Guarantor of the Financial Engineering Master degree program
- Formerly a lecturer at the Pennsylvania State University and the University of California in Los Angeles

STRATEGIC DEVELOPMENT

Pavel Charamza

WORK EXPERIENCE

- Research Development Director in Median
- Group CRO of Home Credit International
- CRO of Home Credit in China
- Member of the Board of Directors in Mediaresearch. Established a financial consulting division later transformed into Quantitative Consulting.
- Credit Risk Manager in Komerční banka. Responsible for developing and implementing a new scoring system for the bank.

SUMMARY AND SKILLS

- Lecturer at the Probability and Mathematical Statistics Department, Charles University, Prague. Lecturer of Credit Risk, University of Economy, Prague
- International experience
- Top management experience
- Analytical and mathematical skills
- Credit risk and scoring
- Antifraud, underwriting and collection processes

METHODOLOGY DEVELOPMENT

Petr Veselý

WORK EXPERIENCE

- Head of Department of Portfolio Management and Reporting in Sberbank CZ
- Head of Department of Credit Portfolio Management in Raiffeisenbank
- Head of Department of Portfolio Management in eBanka
- Head of Department of Scoring and Portfolio Management in Komerční banka

SUMMARY AND SKILLS

- IFRS 9 provisioning methodology
- Credit risk statistical modeling
- Scoring functions development
- Early warning systems
- Risk premiums
- Loan loss provisioning
- Basel regulation

REFERENCES

akcenta

BCR

Cetelem
GROUPE BNP PARIBAS

CIB BANK

ČSOB

HOME
CREDIT

HYPO ALPE ADRIA

KB

MONETA MONEY BANK

Nova KBM

PPF Banka

Raiffeisen Bank
International

SBERBANK

TB
TATRA BANKA

VLTAVA LABE
MEDIA

VÚB BANKA

wüstenrot

MonkeyData

KBC

European
Investment Bank

ExxonMobil

UniCredit Bank

PROFI CREDIT
Profireal Group

SKUPINA ČEZ

EUROPEAN CENTRAL BANK
EUROSYSTEM

pwc

CYRRUS

Grant Thornton

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