

PMS functionalities for treasury and risk management

- ◆ **Full support** for all risk management processes, from front office to back office
- ◆ **Support** for risk management using flexibly parameterisable risk perspectives
- ◆ **Consistent and quality-assured data pool** for an integrated risk management and measurement
- ◆ Integrated limit system that enables monitoring of regulatory and internal risk figures
- ◆ **Extensive stress tests** on various levels (including correlation and macro-economic analyses)
- ◆ **Coverage** of a broad range of relevant **risk types** including a presentation of the interactions and any possible risk concentrations as well as sensitivities
- ◆ **Transparent procedures** for model validation: Assistance provided by the system to run backtesting analyses on the level of the instruments, portfolios etc.
- ◆ **Functions** relating to the capturing of trades, to the pre-trade limit simulation and monitoring of various exposure representations and financial key figures based on an integrated data supply
- ◆ State-of-the-art **instrument modelling** (extensive coverage of financial and real assets)
- ◆ **Calculation of the market values** (present values) also for products with a complex structure by applying mathematical models such as Hybrid Hull-White Model, Libor-Market Model and approx. 30 more valuation models
- ◆ **Risk hedge calculations** in various forms, proposals for hedge optimisation, portfolio optimisation and hedge effectiveness measurement
- ◆ **Representation** of repurchase (repo) and reverse repo transactions
- ◆ **Compliance** with regulatory requirements (MaRisk, NFSR, LCR, ICAAP, etc.)
- ◆ **Different analysis levels:** Analyses at security level, portfolio level and at different individual aggregation levels / asset allocations for example
- ◆ **Generation** of standardised and/or customised reports and options to create ad hoc reports such as maturity profiles, credit key figures, changes in holdings, present values
- ◆ **In-depth logging** of changes **in accordance with auditing standards**
- ◆ **Cash flow simulations** including a simulated prolongation of mature positions to determine the interest expense in future years; prolongations can be simulated involving interbank rates (e.g. 6-m-Euribor) or fixed interest rates or a mixture of both methods (e.g. 60 % interbank rate, 40 % fixed rate).
- ◆ **Plausibility checks** for market values, exchange rates, interest rates

- ◆ Making sure that the capturing of financial transactions follows the **four-eyes principle** (distinction between input and confirmation)
- ◆ **Provision** of captured, valuation and analysis data in any desired format
- ◆ **Position grouping** and analyses according to asset class and valuation unit (micro hedges)
- ◆ **Deterministic cash flow simulations** taking limits and warning thresholds into account
- ◆ **Stress test** for cash flow simulations using freely definable interest rate scenarios
- ◆ **Ad hoc simulations** of fictitious position changes
- ◆ **Estimation of key figures** e.g. for the average capital tie-up, residual maturity and original time to maturity as well as for the average interest payment and the mean fixed interest rate
- ◆ **Collateral Management** including the generation of margin calls, dispute assistance, margin and interest rate calculation using thresholds, rounding rules and minimum transfer amounts; possibility to import counterparty portfolios from an Excel or CSV file via interface; market value reconciliations between counterparty portfolio and PMS portfolio via report
- ◆ **Connection to payment and accounting systems** (e.g. SAP) for the purpose of processing automation
- ◆ **Restricted operation competencies** (capturing, valuating, analysing) for different departments and users (read, write, administration) in the system owing to the PMS right system
- ◆ **Provision** of an integrated system (**PMS**)
- ◆ **Installation** of the system as in-house solution or as an **SaaS** (Software-as-a-Service) or **BPO** (Business Process Outsourcing) **service**
- ◆ **Calculation of the implied interest rate** at the transaction start and at the date of each transaction change (such as unscheduled payments)
- ◆ **Calculation of daily refinancing** of all cash flows made at each value date including initial payment, interest rates and amortisations by means of a selected index (e.g. EONIA)
- ◆ **Treasury result calculation**: Profit/loss adjusted by refinance costs/proceeds
- ◆ **Calculation of the risk-bearing ability**
- ◆ Presentation of **dirty & clean close-out transactions** based on notional interest and cost of interest payable
- ◆ **Margin calculation** and comparison with target benchmark
- ◆ **Future exposure** representation
- ◆ **Value-at-Risk** (historical simulation, parametric, Monte Carlo, Long Term, Mixture of Normals)