

Wallstreet Suite

Comprehensive, cross-asset investment and debt management solutions for financial institutions and corporations

www.wallstreetsystems.com



FACT SHEET: STRUCTURED PRODUCTS



Wallstreet Suite enables the complete life cycle of a structured product to be handled in a single database. Thanks to the flexible instrument configuration, new financial products can be assembled by arranging their fundamental elements in a way that eliminates the need for coding changes.

BUSINESS CHALLENGES

Structured products are innovative financial instruments that consist of a combination of nested, sometimes interdependent, products, payoffs or features. They are attractive as they provide the flexibility to tailor an investment or borrowing structure to meet specific requirements such as a particular risk profile, payment structure, or up-front costs, but by their nature, they are difficult to value and process.

Pressures come from regulatory bodies and internal auditors, who demand control over how these financial vehicles are priced and processed. Indeed, structured products are complex to process, and due to a lack of suitable automation, many organizations are faced with the choice of putting trades into spreadsheets, or simply not handling structured trades at all. The use of spreadsheets to process structured products implies increased operational risk.

Without the right support, the lead time to bring a structured product to market can be several months, and this delay results in organizations losing their first-mover advantage.

KEY FEATURES



UNIQUE STRUCTURING CAPABILITY

Wallstreet Suite's Instrument Editor is a unique offering that allows you to create an infinite number of new instruments. Every financial product can be decomposed to different components such as cash flows, schedules & legs, events and payoff expressions or fees. You can then take these components and combine them differently to create a new instrument. For example, you can create a multiple leg swap with conditional payoff by combining different payment schedules, rate settings with triggers with Excel-like formulas, currencies and calendars. During the life of the trade you can easily change the structure and, for example, switch references such as CMS or Libor without changing basic deal data.

The instruments can then be grouped into user-defined groups together with the more vanilla instruments, for example, bonds could be organized as:

- Vanilla Bonds
- ABS
- Structured Bonds
 - Callable bonds
 - Sticky coupons structures

Wallstreet Suite supports very complex interest rate, equity, and foreign exchange linked structures including:

- Structures split per time periods: E.g. first years fixed, then floating
- Compounding
 - reset at $\text{reference_rate}_1 + \text{spread}_1$, compounding at $\text{reference_rate}_2 + \text{spread}_2$
- Generic capped/floored (reverse) floater
- Sticky (coupon rate i constrained to $i-1$ by $\text{maxup}_i, \text{maxdown}_i$)
 - $\max(\text{floor}_i, \min[\text{cap}_i, \alpha_i + \beta_i * \text{reference_rate}])$
- Quanto (applied to a notional in a different currency)
- Digital
 - if $\text{reference_rate} > \text{boundary}_i$ then $\text{coupon_rate} = x_i \%$ else $\text{coupon_rate} = y_i \%$
- Dual currency
- Range accrual
- Rainbow: option to choose coupon currency
- Power Reverse Dual Currency and FX-linked coupons
 - $\alpha_i * \text{fx_rate} / \text{fx_rate}_i - \beta_i$
- Multi-callable structures
- Multi-triggered structures
- Conversion option from one structure to another
- From fixed to floating, from zero-coupon to fixed, etc.
- Index-linked: Inflation, FX and EQ basket performance



VALUATION

Wallstreet Suite enables you to benefit from the NumeriX interest rate valuation library, where you can get advanced and accurate valuations of your positions in structured products. Using the NumeriX library you get a flexible choice of models such as Hull & White, Black & Karasinski, BGM modeling combined with Tree, PDE, and Monte Carlo valuation method, as well as valuation tools previously only available in the proprietary systems developed by investment banks.

Treasury Monitor, Wallstreet Suite's unique real-time monitoring tool, lets you analyze the position and risk of your structured product portfolio. The key figures are updated in real-time as the underlying market data changes or as new trades are made.

PROCESSING

For front-to-back processing, structured products benefit from Wallstreet Suite's customizable workflow control providing full support for the segregation of duties through rule-based authorizations. Changes can be logged and tracked in audit reports enabling you to always know what's happening. It uses a single database which eliminates interfaces between functions.

The processing of events (e.g. trigger, fixing etc.) are automated wherever possible to remove routine tasks. Any operations that require manual intervention, such as exercising calls or options, can be processed online.

Wallstreet Suite also includes an advanced accounting sub-ledger which performs the structured products accounting in accordance with international standards such as IFRS and FAS.

Wallstreet Suite comes with the added advantage that it is a complete integrated system that supports not only your structured products but also the more vanilla products for investments, debt, FX, credit derivative and commodity instruments. It gives you a complete picture of your position in terms of risk and valuation with more than 300 key figures available in real-time. It processes your accounting results and liquidity forecasts in one system and lets you process and settle all your financial instruments on one platform with the same tools in one integrated system.



BUSINESS CHALLENGE

WALLSTREET SUITE SOLUTION

SUPPORT

- ▶▶ Using Wallstreet Suite's flexible Instrument Editor, you construct new instruments as and when new products are developed. This makes it possible for you to react quickly to innovation in the financial market.

VALUATION

- ▶▶ Wallstreet Suite's Treasury Monitor gives you real-time valuations of your structured product's portfolio using NumeriX valuation library so you will always know what the position is worth.

OPERATIONAL RISK

- ▶▶ The complete life cycle of a structured product is supported in a single database with segregation of duties and auditability making any compliance requirements easy to fulfill.

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