

## ASSET MANAGEMENT: CENTRAL UTILITY FOR DERIVATIVES AND STRUCTURED PRODUCTS

CAPITALISE ON NEW IDEAS, CONTROL PRICES AND RISKS, STREAMLINE PROCESSES

LexiFi offers a central utility for the valuation, analysis and management of derivatives and structured products. The system is designed for installation within asset management firms faced with a multitude of legacy systems and spreadsheets.

Unlike integrated portfolio management applications, which often provide only partial support for derivatives and evolve relatively slowly, LexiFi's compact solution enables users to rapidly define, value, analyse and manage tailored products; provides specialised capabilities for managing structured funds; and offers easy programmatic access to functions and data.

### Develop ideas, take action

Design opportune investment solutions with analytical tools that provide insight into the economics of proposed products, and create clear and explicit documents for investors.

### Structuring

Quantify precisely the risks and rewards of both new and existing products with a collection of analytics:

- **Contract variations** – Calculate the impact on price of changes in product parameters.
- **Solver** – Calculate product parameters to match a user-entered price.

- **Market data sensitivity** – Calculate the impact on price of instantaneous changes in market data.
- **Monte Carlo simulation** – Explore the details of a Monte Carlo pricing result.
- **Greeks.**
- **Historical simulation** – Quantify the performance of a product as if it had been acquired in the past.
- **Forward-looking simulation** – Analyse the behaviour and value of a product along future market scenarios.
- **Historical value at risk.**

### Investor documents

Create investor documents in the format and language of your choice. LexiFi's solution simplifies the design and automates the production of high-quality, dynamic documents.

### Control prices, performance and risks

Value derivatives and structured products, measure and explain performance, and estimate risks with state-of-the-art pricing models and analytics.

### Pricing

Use LexiFi's state-of-the-art pricing models or in-house models, and relevant market data to value tailored products. Key features include:

- **Underlyings** – Price equity, foreign exchange, commodity, interest rate, inflation, credit and hybrid derivatives.



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### Structured funds

In addition to providing structuring, pricing and document creation capabilities, the LexiFi solution offers specialised functions to automate the management of funds driven by the payoff of derivative contracts:

- **Multi-legged deals** – Record, value and manage multi-legged deals (e.g., option payoff with LIBOR or converse funding and periodic fees).
  - **Purchases and sales of fund shares** – Easily adjust the notional amount of multi-legged deals to reflect changes in the size of the fund.
  - **Restriking** – Adjust the terms of derivative components after large market movements to keep satisfying the fund's constraints.
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- **Market data** – Access market data snapshots, historical time series and derived data such as yield curves and volatility surfaces from a central location to ensure consistent valuations and analyses across products and portfolios.
  - **Calibration** – Transform observable market data into relevant model inputs with robust calibration algorithms.
  - **Multiple curves** – Price with multiple yield curves to reflect the different credit and liquidity risk of Libor rates with different tenors and overnight discounting of cash flows.
  - **Issuer credit spreads** – Discount cash flows with risky curves that reflect the credit risk of issuers.

LexiFi provides direct access to financial engineers who are implementing pricing models.

If required, users may leverage LexiFi's open pricing architecture to interface the system with in-house and third-party valuation libraries.

### Risks

Estimate risks with a variety of methods, including Greeks, value at risk and scenario analysis. The system comprises a powerful framework for designing, managing and running historical, forward-looking and stress scenarios on a contract or portfolio.

### Ongoing valuations

Compare counterparty prices and in-house valuations, and receive alerts when the difference exceeds a user-defined threshold.

The system automates the ongoing valuation of derivatives thanks to a combination of pricing and operational management capabilities. Each product is related to one or more pricing environment(s). Users may store pricing results—calculated by the system and/or imported from an external source—and associated market data inputs.

### Performance reporting

Measure the realised performance of existing products, provide qualitative and quantitative explanations, analyse potential performance and present the information in interactive screens and in high-quality performance reports.

- **Performance measurement** – Visualise the price history of products and underlyings, and calculate their respective performance over user-defined periods.
- **Qualitative explanation** – Precisely describe the economics of a product from inception to maturity and document the consequences of salient life cycle events.
- **Quantitative explanation** – Quantify the contribution of key factors to the change in value of a product between two dates.
- **Potential performance** – Define and apply future scenarios for underlyings, and measure their impact on potential product performance.

### Handle product diversity

Create an authoritative and up-to-date source of derivatives and structured products data.

### Comprehensive instrument coverage

LexiFi's solution supports hundreds of structures out-of-the box, based on any type and combination of underlying assets. Users rapidly define new structures and benefit immediately from the system's analytical and processing capabilities.

### Trade capture

Accurately record the terms and conditions of candidate transactions in graphical input screens laid out like term sheets. Users do not need to learn a script language: the most complex input is a formula. Users may also choose to import product data from a Microsoft Excel file.

### Central product database

Centralise terms and conditions, auxiliary data, documents, contract-specific pricing environments and pricing results for derivatives and structured products in a single database.

Interactive displays give access to pertinent product, underlying, trade, position and risk information; and enable users to respond immediately to client enquiries.

The system's event processing capabilities ensure that product definitions are always up-to-date.

### Streamline processes

Automate the processing of trades and the life cycle management of derivatives and structured products.

### Custom post-trade workflows

Implement workflows to: control product data and investor documents; process trades; synchronise relevant data with in-house systems; and interact

### Regulation

The LexiFi solution is a key component for implementing a safe, integrated and transparent process through which asset management firms may satisfy the requirements of:

- independent valuation and risk monitoring of complex products,
- production of clear and explicit information for investors.

with other stakeholders upon consummating a trade.

### Cash flows and positions

Use interactive displays to quickly find orders and trades and to calculate pertinent information such as past and future cash flows, and security positions.

### Monitoring of barriers

Products with embedded conditions, such as continuous barriers, require special monitoring capabilities. The LexiFi solution measures the proximity of the event, generates alerts, diagnoses when a condition is met, records detailed information on the circumstances surrounding the event and details its consequences.

### Event management

Detect and process life cycle events such as payments, fixings, option expiries, barrier crossings and equity corporate actions. Product definitions adapt automatically in response to such events.

### Product Audit

Access accurate product records, from inception to maturity, inspect past events and audit cash flow calculations at all times.

### Integrate and customise

Give a new life to existing systems by combining their strengths and full coverage of derivatives and structured products.

## Shield in-house applications from the complexity of derivatives.

### Deployment options for every need

LexiFi's solution may be deployed as: an integrated application that implements end-to-end business processes; a server acting as a shared utility in support of business processes managed by one or more other applications; or an embedded component that enhances the functional coverage of an in-house or third-party application.

### Integration and customisation

LexiFi provides tools and services to meet distinct client requirements, including: integration APIs; an Extension Kit for adding financial instruments, pricing models, product and portfolio analytics, and processing capabilities independently from LexiFi; a professional services offering that covers all phases of a software acquisition project, from evaluation to ongoing system operation; and a complete technology and knowledge transfer program.

### Find out more

For more information about LexiFi's central utility for derivatives and structured products, please visit [www.lexifi.com/solution\\_asset\\_managers](http://www.lexifi.com/solution_asset_managers).

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## Summary

LexiFi offers a central utility for the valuation, analysis and management of derivatives and structured products. The system is designed for installation within asset management firms faced with a multitude of legacy systems and spreadsheets.

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## Business challenges

- Understand the risks and rewards of derivatives.
- Reduce the time needed to launch structured funds and the cost of managing them.
- Streamline business processes and systems related to derivatives and reduce reliance on key individuals.
- Meet regulatory requirements stemming from the use of non-standard products.

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## Key features

- **Comprehensive instrument coverage** – Start working immediately with out-of-the-box analytical and management support for hundreds of structures.
- **Structuring** – Quickly define new structures and quantify precisely their risks and rewards.
- **Pricing** – Use state-of-the-art pricing models and relevant market data to value complex products.
- **Risk** – Estimate risk with a variety of methods, including Greeks, value at risk and scenario analysis.
- **Structured funds** – Use specialised functions to design, launch and manage funds driven by the payoff of derivative contracts.
- **Product database** – Create a central database of derivatives and structured products.
- **Cash flows and positions** – Calculate past and future cash flows, and security positions.
- **Product maintenance** – Monitor barriers and process product life cycle events.
- **Integration and customisation** – Access powerful analytics and complete reference data, integrate with existing workflows and independently extend the system.

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## Business benefits

- **Improve knowledge** about derivatives, **develop new ideas** and **control valuations** with state-of-the-art structuring and pricing capabilities.
- Deliver **timely** and **relevant investment solutions**, while controlling costs and risks.
- **Handle the diversity of derivatives** with a uniform process and put an end to a maze of ad-hoc systems.
- **Give a new life to existing systems** by combining their strengths and full coverage of derivatives and structured products.
- **Satisfy regulatory requirements.**

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## For more information

Visit us online at [www.lexifi.com/solution\\_asset\\_managers](http://www.lexifi.com/solution_asset_managers).

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