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## FastVal – Independent Valuation

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# Objective of Presentation

- To brief analysts about the growing emphasis on independent valuation, and how SunGard is responding through the FastVal service for OTC derivatives and structured products
- FastVal background and the independent valuation market
- FastVal 3.0 – a totally re-engineered process and application
  - Architecture
  - T+0 valuations
  - Greeks
  - Data snapshots
  - Data transparency
  - Templates, APIs and workflows
- Examples of customer use cases and current sales cases
- Future roadmap



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## Background

# Market Drivers for Independent Valuation

- Post-crisis, there is more pressure than ever to provide independent valuation of hard-to-value products
  - Pressure on banks, from their regulators and shareholders
  - Pressure on asset managers, from their regulators and investors
- What is independent valuation?
  - For banks who originate or hold OTC products, independent valuation could mean a separate risk/control team using its own models and data sources to validate the valuations provided by the front office
  - For asset management and corporate customers of OTC products, independent could mean valuations supplied by their counterparty
  - But truly independent valuation requires an outsourced service deploying its own data, models and expertise to provide valuations
- Many banks and customers will lack the in-house models and expertise required to value structured products

# Who Needs Independent Valuation?

## ○ Customers for independent valuation include

- Risk and product control teams at banks who are in the business of originating structured products for their customers
- Third-party administrators and fund services providing independent valuation to their asset management customers
- Asset managers and hedge funds offering in-house independent valuation as a part of their reporting to investors
- For corporations, accountants and auditors looking to value the structured products bought by the corporate treasury function

# FastVal Background

## ○ FastVal is

- An independent valuation service
- Delivered by ASP
- Accessed by browser or API

## ○ Acquired by SunGard in 2003, as part of Reech

## ○ FastVal scope is OTC derivatives and structured products

- What are known as Level 2 and Level 3 products
- Multi-asset-class including commodity, credit, equity, FX, inflation, interest rate and hybrid derivatives
- From vanilla (swap, CDS, OTC option) to highly structured products, described using the “ADEP” scripting language
- Clients can upload new trades using a file-based API, or enter themselves by browser, or fax/email term sheets to the FastVal service team

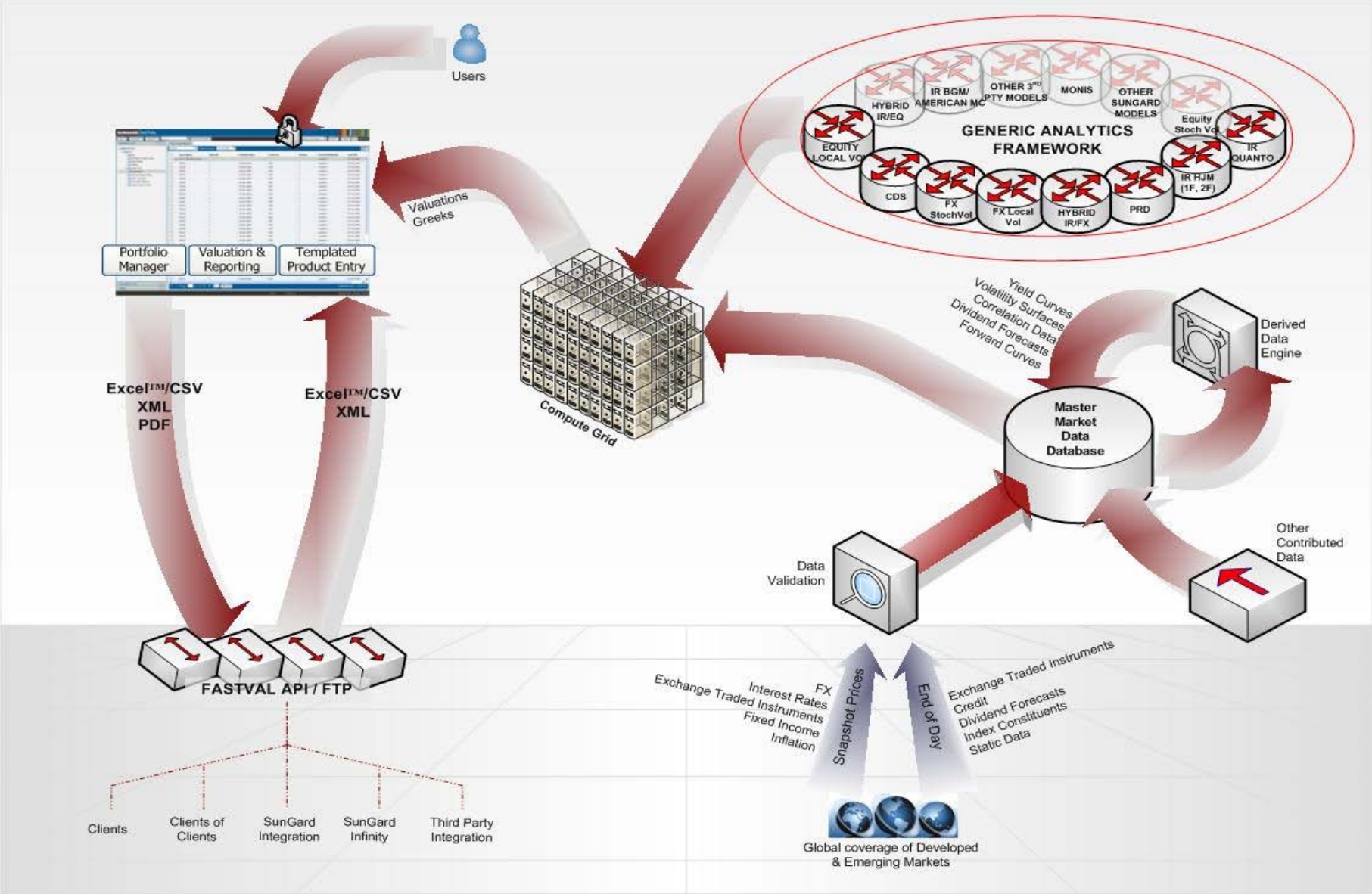


## FastVal 3.0

# FastVal 3.0 Summary of Benefits and New Market Potential

- Key demands from existing FastVal customers have driven the FastVal 3.0 development
  - Provision of valuations earlier in the day
  - Transparency of market data lying behind each valuation
  - Greek measures calculated using models consistent with the valuations
  - Configurable reports
- Issues that have constrained FastVal's market penetration beyond its existing geographic and asset class heartland have included
  - T+0 valuations
  - Multiple data snapshots to follow the clock
  - Easier uploading of high volumes of more generic products, with reduced manual intervention

# FastVal 3.0 Architecture



# FastVal 3.0 Data Snapshots

- FastVal has historically offered only one daily data snapshot, taken overnight based on official market closes
- FastVal 3.0 offers four market-wide daily snapshots
  - Asia (3pm Hong Kong)
  - Europe (3pm London)
  - US (3pm EST)
  - End-of-day
- Clients can choose which snapshots to use at the level of each individual trade, or even value products more than once daily

# FastVal 3.0 T+0 Valuations

- FastVal hitherto has provided its valuations on a T+1 basis
- A separate project earlier in 2009 delivered
  - a switch to new market data providers
  - a wholly new data engineering process
  - automated scheduling of valuations
- As a result, FastVal is already able to provide T+1 valuations much earlier in the day
- When combined with multiple data snapshots, FastVal 3.0 will be able to provide T+0 valuations for the first time

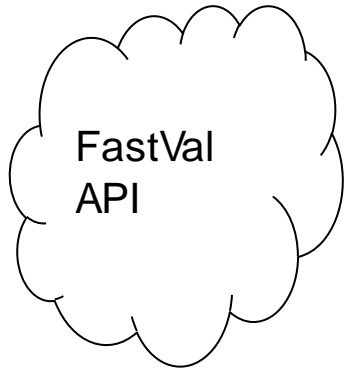
# FastVal 3.0 Data Transparency

- FastVal customers can challenge/query the valuations they receive
  - a facility that is now much more frequently used than pre-crisis
- Very often the requirement is simply to see the market data that lie behind a given valuation
  - Yield curves
  - FX rates
  - Market prices
  - Volatility surfaces
  - Correlations
- FastVal 3.0 now provides complete transparency of market data underlying each valuation, direct from the valuation report
  - As well as choice of model configuration and calibration

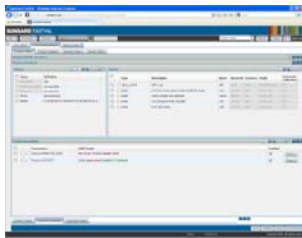
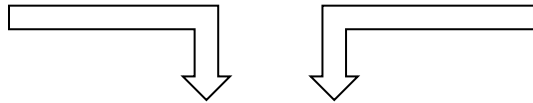
# FastVal 3.0 Greeks

- Valuation has always been the main driver behind customers using FastVal
  - There have always been ancillary outputs e.g. intrinsic value, PV of each swap leg, exercise probability, probability of hitting barrier, average life etc
  - There has been increasing interest in using our data, models and expertise to validate risk numbers as well as well as valuations
- FastVal 3.0 provides the facility for customers to obtain Greek measures alongside valuations
  - These Greeks are wholly consistent with the valuations, obtained using the same data and models
  - They can be used to provide a benchmark for validation of clients' risk systems, as well as to understand daily variations in valuations

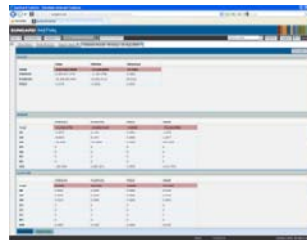
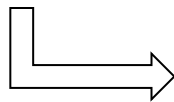
# FastVal 3.0 Instrument Templates, APIs and Workflows



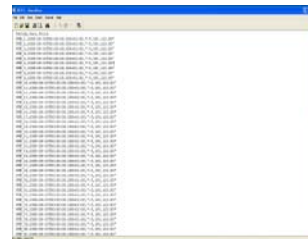
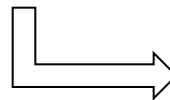
Products can be programmatically uploaded using the FastVal API or entered manually



Transaction modelled in FastVal



Valuations and Greeks are calculated with full model and data transparency



Price file available



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## Sample Customer Cases

# Bank

- A major European retail and commercial bank
  - Many of their SME clients have “real” FX, IR & commodity exposures, but these clients are not big enough themselves to be investment bank customers
  - Acting as relationship bank, the bank intermediates the transaction, doing back-to-back transactions with an investment bank and corporate customers
  - The bank has no market exposure, but they do have counterparty risk
- The bank were looking for
  - A fully serviced solution – they lack the quant resources available to investment banks
  - No large implementation, no large overhead for maintaining it
- FastVal is now central to their business process in two areas
  - In the origination process, to validate the prices from investment banks
  - Post-trade, to provide weekly valuations for counterparty risk purposes – without which, they may have had to pass on new structured product business

# Institutional Asset Manager

- A large European insurance company/asset manager
  - They have a large number of structured derivatives traded across multiple European locations
- They were looking for a solution that could
  - Be used across the board
  - Be easily implemented
  - Handle an increasing number and type of derivative transactions – scope and extensibility
- FastVal is now their Europe-wide valuation service of choice
  - Provides them with a consolidated daily file of all their derivative activity, which they use programmatically to feed their accounting and other downstream processes
  - Recently extended from structured to vanilla OTC derivatives as well because it was more cost-effective than having two providers

# Hedge Fund Manager

## ○ A US hedge fund manager

- Requirement for weekly valuation of the derivatives in their portfolios – the fund prospectus includes a requirement to validate valuations

## ○ They are looking for a solution that will

- Improve the credibility of their CDS valuations – either by replacing, or by validating, the valuations they currently obtain from counterparties
- Include a programmatic interface with their portfolio accounting system (SunGard VPM)
- Be an ASP service, with no application to install and support

## ○ Evaluation is ongoing

- As part of the evaluation process they sent a portfolio of 300 CDSs that FastVal was able to on-board and provide valuations within a day



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## FastVal Future Roadmap

# FastVal Roadmap

## ○ Functional developments

- More of the user-friendly templates for uploading products
- Extending to users the ability to customise their own reports
- Exploring whether we should offer the option for clients to value their positions using their own data

## ○ Model developments

- American Monte Carlo and BGM model for better handling of snowballs and other interest rate products that combine path-dependence with American exercise
- SABR process for calibrating interest rate models to swaption smile
- Integration of the SunGard Monis convertible bond model

## ○ Adaptive integration

- White Paper earlier this year
- Interest rate models, Equities models

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