

# Structured products Americas Awards 2017

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**Technology provider of the year (vendor)**  
**Pricing and analytics platform of the year**

Structured  
products  
Americas Awards  
2017

# Secrets of success in a tough year

**L**ow interest rates and low volatility have made the structured products market a barren landscape. Political risk has increased across the Americas, from Brazil to the USA. The election of President Trump injected a firm sense of direction for the latter half of 2016 in the US at least.

The winners of the Structured Products Americas Awards have ridden out the tough market conditions, supporting a range of business models and customer bases. If there is a common theme throughout their successes, it has been that grit and depth of knowledge can engender trust even when the market is shaking confidence, with more than a smattering of technology smarts.

Major victories have been won by JP Morgan as North America house of the year, deal of the year and index provider of the year. Although the bank has scale it has not succeeded through brute force; digging for opportunity in the development of qualified replacement property-eligible notes and growing its index business, which rolled out 300 indexes last year, has driven growth. Investing in its back end has given it that capacity.

Barclays' dominance in the structured rates space has reflected the importance of its close relationships with structured products clients, which have allowed it to respond quickly to demand in an informed and effective way. As our institutional structurer of the year, the bank has made great use of information and technology via its Barx platform.

To take the Latin America house of the year, BBVA found the opportunities that existed in a highly uncertain market for investors, seeking out a range of options for the buy side while making good use of its global network to match appetite with demand. It was an eye for the bigger picture and an ear to the ground for client rumblings that took the bank ahead of its peers.

BNP Paribas found itself in the enviable position of taking requests. Supporting fintech providers via its Smart Derivatives platform demonstrates the inestimable value that investing in technology for the future can bring. As winner of the award for technology provider of the year (bank), it has repeatedly proven that strong IT foundations build a resilient business.

Numerix took both technology provider of the year (vendor) and pricing and analytics platform of the year, having built out a deep level of data and analytics as well as the capacity to support electronic market-making in the structured products space.

The "revolutionary" Equity Investor Marketplace helped to push UBS into the winning spot as retail house of the year, processing compliant trades worth millions of dollars to the retail market in only minutes. Speed, efficiency and consistency marked the bank out from its competitors.

No less consistent is Davis Polk, law firm of the year, which was seen at the heart of dealers' market discussions and showed expertise that reaches across every element of the structured product ecosystem. Like BNP Paribas, the firm has worked with issuers and newer fintech firms alike, keeping the market fresh and driving evolution.

Given such an arid environment, the winners of this year's awards have proven that the structured products market can be fertile and verdant with the right care and attention. ■

# Technology provider of the year (vendor)

## Pricing and analytics platform of the year

### Numerix

The speed at which electronic markets trade requires pricing and execution systems that can perform at sub-second machine rates. New York-based Numerix, having started out as a pricing specialist for more complex instruments, has added intensive computation power to its platform to enable its clients to enter the realm of high-speed market-making, demonstrating a capacity to support structured products across the spectrum.

“A higher degree of performance and automation are needed as you move into market-making,” says Satyam Kancharla, chief product and strategy officer at Numerix.

The company has also made its platform modular in order to offer services that meet the specific needs of its clients. The broadening of services has led to commercial success and deeper penetration within its client base.

“Initially, our usage [of Numerix] was focused on the pricing of hard-to-value exotic swaps linked to IFC’s funding exotics,” says Howard Covert, portfolio officer at Washington, DC-based International Finance Corporation (IFC), a member of the World Bank Group. “Today, IFC uses Numerix more broadly. We are using the next-generation Oneview offering for valuation and for counterparty risk metrics. We are extending its use to structure convertible debt, hybrid capital and structured products.”

In several instances, Numerix has partnered with other firms to extend its functionality. It has worked with Singapore’s DBS Private Bank to develop distribution and the Reserve Bank of New Zealand on lifecycle process support, including limits, risk and liquidity and collateral management. Where necessary, it has also acquired technology to boost performance.

That approach was needed when it sought to increase support for market-making in structured products. Numerix needed a way to run the many calculations that impact the risk and pricing of structured products efficiently, at sub-second speeds. To achieve this, in March this year it acquired TFG Financial Systems, which offers a high-performance, event-driven calculation framework based on ‘graph technology’.

“A dependency graph is a technology for connecting server systems that speak to each other in an event-driven, real-time, efficient way,” says Kancharla.

TFG’s streaming directed acyclic graph technology triggers calculation modules only if the data they depend on changes, instead of recalculating an entire model in response to an event such as a change in price or credit.

“As a result, the system can calculate Value at Risk and Greeks and carry out stress testing on a sub-second basis, or price 25,000 interest rate swaps per second in volatile markets,” says Kancharla.

By incorporating the TFG technology into Oneview, Numerix has



Satyam Kancharla

significantly increased the efficiency of its software, reducing the number of cloud processors an institution might need for a task and thereby lowering the cost of operating its system.

It has also evolved the Oneview platform so that different types of business can take advantage of its strengths without being constrained by how it is put together. Numerix serves a broad market base, including banks, hedge funds, insurers, asset managers and pension funds. Each client has its own requirements and way of working, often with differing requirements

among its group functions, such as quants, risk or reporting.

To offer more tailored ways of using the platform, Numerix decoupled Oneview’s individual elements from each another and added interfaces and programming tools that allow institutions and groups to access the functionality as a set of customisable ‘business services’. The programming tools are based on the versatile and easy-to-use Python language, which is less reliant on arcane syntax than other programming languages, and the interfaces sit on an open, standardised web services architecture.

“There is continuum of use cases, from a quant who wants to drill down into models and do ‘what-if’ analysis, to a trader who wants to make a quick decision on a deal and move on, all the way to a chief finance officer looking at capital on a dashboard,” says Kancharla.

Oneview’s business services and Python tools now give users the flexibility to tailor a set of functions to their unique needs, all based on a consistent set of underlying analytics and processes.

Clients have been quick to take advantage of the new flexibility. Examples provided to the awards judges of institutions already using the business services and tools of Oneview included: a rates trader running government bond analysis to assess price and risk of trades in a fixed income book; an insurance quant constructing a valuation process; an asset manager doing real-world modelling as opposed to theoretical risk neutral probabilities commonly used in options pricing for liability-driven investment; and a bank constructing indexes.

One member of the judging panel says: “It is evident there is broad market use for the Oneview Enterprise Platform, and the fact that Numerix is able to work with many different client segments across very complex lines of business is impressive.” ■