

# Opscore Web Service

ITO33's Opscore Web Service delivers easy, cutting-edge engagement with the convertible bonds market for non-specialists

**T**wo decades in the market have seen ITO33 firmly establish itself as the solution provider of choice for convertible bond specialists. This gold standard is delivered via Opscore, the firm's front-office solution for pricing, hedging, and analysis of convertible securities. Opscore brings together the most advanced data model of terms and conditions available in the market, and a pricing engine built on ITO33's cutting-edge research and methodologies – the core of the firm's expertise.

ITO33's unique perspective and position in the market has led to the development of a new service which will broaden access to the firm's expertise beyond dedicated convertibles players to users who are not 100 percent focused on the asset class. Potential users include risk management groups, valuation needs, equity financing desks, securities lending/financing, collateral management teams, and prime brokers dealing with convertible bonds.

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ITO33's Opscore Web Service is a web interface offering an easy and lightweight remote access to Opscore, ITO33's state-of-the-art pricing solution for convertible bonds and other equity and credit derivatives.

Opscore Web Service consists of a set of endpoints accessible via HTTPS protocol to the client, allowing the user to retrieve the instruments available in the ITO33 terms and conditions database and to perform the valuation of these instruments on



**Pedro Ferreira**

Opscore.

Opscore Web Service enables users to securely send requests for the valuation of convertible bonds or other equity derivatives such as exchangeable bonds or warrants. Computations are carried out remotely using the Opscore pricing solution and output data is sent back to users in the form of theoretical value and greeks.

While easy to deploy and use, Opscore Web Service is designed to be a robust and cost-effective pricing solution for convertible bonds. Subscription costs are a function of the number and frequency of requests by users.

## Serving the broader market

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**Serge Kouyoumjian**

market value of around \$400 billion come hell or high water, specifically due to the unique benefits of the asset class and a hard core of sophisticated, specialized players (issuers and investors) who are always in the game. At the same time, there are other participants who are present in the market due to the applicability of the asset class in special situations, but whose overall trading focus is elsewhere.

In the recent low-interest-rates environment, the accessibility of credit markets to issuers has meant that high-yield issuers have steered away from convertibles because of their complexity and cost of issuance. Investment-grade issuers are also offered very competitive pricing on traditional bond markets due to quantitative easing.

Serge Kouyoumjian, partner and co-founder of ITO33, explains the

factors affecting market participation. “To compete with pure credit the convertible market has created structures to better match the issuer’s needs: Non dilutives, Overcollateralized Bonds, Bonds with warrants where the currency of the warrant is different from the currency of the bond for example. This is forcing investors who want to maintain the size of their investable convertible universe to model and understand these nontraditional structures.”

This combination of complexity and relatively small size of the market has also meant that financial technology firms without ITO33’s unique makeup “... find this asset class a challenging one to handle. Furthermore, they understandably find the commercial opportunity not attractive or enticing enough. Therefore, we haven’t seen so many competitors willing to invest huge amounts of money in order to enter the market.” Kouyoumjian reflects, “It is a niche market and we are a specialist. We are a global leader in pricing convertible bonds with a number of clients who are very specialized, very sophisticated and very advanced.”

“There are, however, some participants who have fewer bonds in position and they will generally go for a solution from a one-stop-shop that does everything, basically badly, but they have a kind of easy solution!” says Kouyoumjian. “However, some of these guys need to have good pricing. Take the example of a repo desk that happens to have convertible bonds in collateral, this is not a specialist in convertible bonds, but they still need to have precise accurate pricing that is, ideally, objective, expert and impartial. It’s a case of an institution who need a high-quality solution who do not have the skills and resources to build it or the time to

integrate it in-house.”

“Within a bank, convertible bonds are used by flow trading, sales people, proprietary trading desks, they are also used by risk management, new issuance teams, repo desks, valuation people, etcetera, there are many parties who have a stake in this market. It is just normal that not all these people

of the new convertible bonds and we replicate corporate actions to maintain the coherence of the database.”

“So, this is also something that represents a lot of value for the client,” Ferreira says. “A company that is not specifically focused on convertible bonds surely doesn’t want to have a data team just dedicated to converts

The independence of the valuation is key to the value of the service too, Ferreira emphasizes. “A very good example is, if a bank is doing a margin call based on a price; they want to be able to say ‘This is not being computed by us, but by an external expert that is a reference for this class of assets, so this is a reliable

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will have the skill, ability or time to go into building similar software or even into understanding how to use or how to best take advantage of a relatively complex piece of technology on such a specific product.”

### Scenarios

In the simplest scenario a user with access to the Opscore Web Service might only have a few bonds in their portfolio that they need to value. Via a web API the user submits the ISIN code or codes and receives price and greeks. The user is also able to request information on terms, dates of calls, and any information about the instrument itself.

“All this relies on the fact that ITO33 has a database maintained by a team that follows the market in convertible bonds and mandatories, keeping the terms updated, a team that keeps feeding the database with new bonds and verifies that everything is coherent,” Pedro Ferreira, product manager at ITO33 explains. “We incorporate information from the datasheets and the prospectuses

which are a class of complex instruments that needs daily screening of the market. So, they can rely on our service for that.”

Beyond the simplest case, permutations abound. Kouyoumjian explains: “in many cases clients would rely on our volatility and credit spread inputs to produce price and greeks. However some other clients would need to provide themselves volatility credit spread and even yield curve inputs which will be used for pricing, this way they remain in control of input parameters.”

According to Ferreira, applicability of the service ranges from “the fixed income desk of any company that is mostly focused on straight bonds, but who wishes to have a small equity exposure through converts, to risk management desks who need to handle all the instruments across the firm’s portfolio from equity derivatives, to credit derivatives and commodities. Evidently these guys cannot be specialists of all these domains or purchase software for each complex or idiosyncratic product.”

price, it is not something that we cooked internally.”

Opscore Web Service is not only applicable to convertibles but to neighboring instruments too, Kouyoumjian says. “Exchangeable bonds, mandatory bonds, warrants, preferred shares that need to be priced, and ASCOTS, Options on convertible bonds, which are a nightmare to price for many people since they are a mixture of OTC on something which has an ISIN code. It’s also something that people would be interested in; we hear a lot about ASCOT books which are totally neglected or badly priced, or sometimes it is a hindrance for people to trade the instrument, they do not want to end up with a big book which is not really properly priced.”

Creating a structure that allows users to simply consume results rather than go through any integrative process also provides immediate benefits to existing users of Opscore.

More information about ITO33 and the Opscore Web Service is available at [www.ito33.com](http://www.ito33.com).

