

A newsletter for fund directors

U.S. Fund Directors Insight

Volume 4, Number 1 | April 2018



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Table of contents

- 3** Perspective
- 4** Facing oversight challenges for over-the-counter derivatives
- 8** New external panel assists SEC in assessing bond market structure
- 9** Recent questions from our clients' board members

Perspective

We can already see that 2018 is shaping up to be a year of increased market opportunity. The return of price volatility resulting from uncertainty around monetary, fiscal and trade policy has set global markets on a new trajectory. As the head of ICE Data Services' index business, which combines the recently acquired Bank of America Merrill Lynch Global Research division's fixed income index platform with ICE and NYSE's established index business, my team and I are excited to offer our index expertise in these dynamic times.

The October 2017 transaction that brought the BofAML indices into the ICE family was part of a trend of banks selling their index businesses. In my career leading the index business at BofA Merrill Lynch, I had the opportunity to participate in the industry-wide evolution of fixed income indices since the 1980s. Today, that evolution is increasingly driven by demand for index-related strategies and products, including the shift from active to passive investing. Along with the dramatic growth of pure beta index-based fixed income ETFs, clients I speak with have stated their belief that "smart beta" strategies, common on the equity side, will begin to gain traction in fixed income as well. These strategies require highly customized indices. So it is no surprise that our team is seeing growing demand for custom indices fueled, in part, by the trends toward both passive and smart beta investing. We're also hearing that fund oversight obligations over benchmarks used by the funds are becoming more important and more challenging, leading some to rethink plans to manage their own indices.

ICE Data Services offers indices across all major asset classes from fixed income to equities, commodities and currencies, supported by our affiliate ICE Data Pricing & Reference Data's own

award-winning evaluated prices¹, reference data, analytics, and underpinned by a robust technology infrastructure. Our fixed income indices, in particular, include over 5,000 indices which track close to \$70 trillion in debt spanning the global bond markets and are employed as benchmarks by funds totaling nearly \$1 trillion in assets under management.

Along with our index offering, ICE, through its subsidiary the New York Stock Exchange, also supports your investment strategies and products through a variety of services as the leading listing venue for exchange traded products. The all-electronic NYSE Arca is the leading U.S. exchange for ETFs by assets under management and trading volume as well as number of new ETF listings.

Because of the range of services we are able to offer, I am excited to be part of one of the world's leading operators of global markets and data services. Our mission is to build, operate and transform global markets through expertise, information and technology. I hope the addition of BofAML Indices to the ICE family will have a positive impact for you in bringing innovative, efficient solutions and allowing you to develop additional services for your customers. Please leverage us and our index services as a resource for your funds.



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¹Evaluated pricing (including fixed income evaluations), continuous evaluated pricing, end-of-day evaluations, and Fair Value Information Services related to securities are provided in the US through ICE Data Pricing & Reference Data, LLC and internationally through Interactive Data (Europe) Ltd. and ICE Data Services Australia Pty Ltd.

Facing oversight challenges for over-the-counter derivatives

Fund managers employ a variety of derivatives strategies both to manage risks and pursue returns in the face of market volatility and an uncertain path of monetary policy. Over-the-counter derivatives positions may present distinct compliance oversight challenges in light of pending U.S. rules applicable to mutual fund reporting and newly implemented European regulations intended to promote transparency and monitoring of order execution quality.

Mutual funds along with other market participants utilize over-the-counter (OTC) derivative instruments to manage exposure to three basic drivers of fixed income risks and returns: interest rates, credit, and currencies.

At a glance:

- U.S. mutual fund reporting modernization rules, and possibly MiFID II depending on a fund's circumstances, create new oversight needs for fund boards.
- The SEC's Investment Company Reporting Modernization Rule will require funds to submit previously unreported calculations such as portfolio-level risk metrics and days-to-liquidate estimates.
- Under MiFID II, U.S. funds that hold European securities or trade with European counterparties may be required to monitor and report on execution quality of their own trades, broken out by dealer and venue, for derivatives along with other instruments.
- This article suggests questions boards may consider when overseeing risk management and compliance for funds employing OTC derivatives.

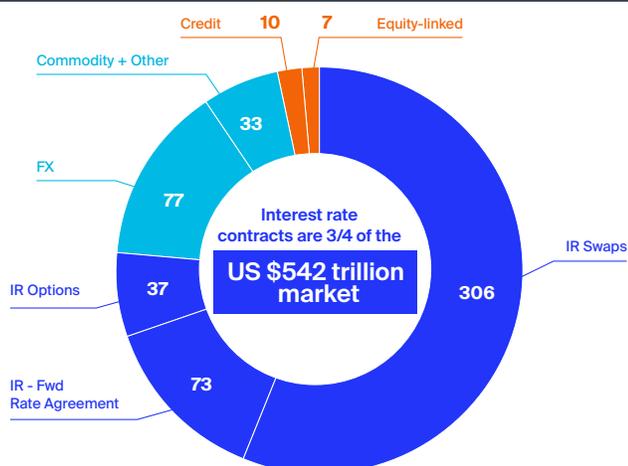
In the immediate aftermath of the global financial crisis, regulatory regimes were overhauled with the aim of making swaps and other bilateral financial contracts more transparent to both watchdogs and market participants. Meanwhile, as the crisis receded in time, markets evolved. Instrument types that had suffered irreparable damage, such as low-quality mortgage assets, were relegated to a shrunken corner of the derivatives markets, while others, such as bank loans to businesses, gained ground.

In today's market environment, interest rate derivatives play an important role in managing funds' exposure to an uncertain pace of future Federal Reserve interest rate hikes. Meanwhile, potential returns from credit assets continue to attract fixed income professionals wary of duration risk. One example cited in a media report last December: total return swaps on European bank-issued additional Tier 1 capital ("AT1") bonds became a popular investment soon after introduction by Goldman Sachs in October 2017.² And market volatility in the early months of 2018 has focused participants' attention on the volatility-sensitive features and risk of options and certain other derivatives types.

² Credit derivatives house of the year: Goldman Sachs, Risk.net, December 8, 2017.

Global OTC derivatives market

Notional outstanding (US\$trillion), 6/30/17



Source: Bank for International Settlements

Mutual funds that employ derivatives to initiate or hedge market risk exposures face a slate of new regulations. In the U.S., funds are completing preparations to comply with the SEC's [Investment Company Reporting Modernization Rule](#), whose recordkeeping obligations begin on June 1, 2018 for fund companies with at least \$1 billion under management. That rule will require funds to generate and eventually file with the SEC via the new Form N-PORT, a wide range of data on their portfolio holdings, including derivatives.³ Reporting obligations within Form N-PORT and the additional new Form N-CEN now include many previously unreported calculations, such as portfolio-level risk metrics and days-to-liquidate estimates.⁴ The SEC reporting modernization rule also amended existing Regulation S-X to require significant new derivatives-related disclosures within funds' financial statements.

As of January 2018, all transactions involving European securities or European counterparties are subject to expanded reporting and trade execution requirements under [MiFID II](#). U.S. mutual funds with exposure to European markets may be subject to MiFID II requirements throughout the trade lifecycle,

from certain pre-trade transparency requirements to transaction reporting and best execution analysis. Provisions affecting OTC derivatives include requirements to associate standard identifiers (ISINs) with instruments that previously lacked them, and for broker-dealers and venues to provide post-trade transparency for a subset of OTC derivative instruments required to transact on trading venues, similar to Dodd-Frank in the U.S. Asset managers subject to MiFID II will be required to monitor and report on execution quality of their own trades, broken out by dealer and venue, for derivatives along with other instruments a fund holds. Specifically, asset managers subject to MiFID II must ensure that they have taken "all sufficient steps" to ensure orders were executed at "the best possible result for their clients," per ESMA RTS 27 and 28 of MiFID II.

MiFID II Best Execution requirements are gaining attention among asset managers as the first reporting cycle for that provision begins in April 2018.

Market risks and credit risks associated with derivatives positions may differ fundamentally from risks of owning cash securities such as stocks and bonds. Risks specific to OTC derivatives can include counterparty risk, plus leveraged exposure to both future financial obligations and asset price swings. Because little or no cash is exchanged upfront, a fund's potential future payment obligations from a derivatives contract can be a large multiple of the investment's market value at any given time. From a market risk standpoint, a contract's value may have a nonlinear relationship with the underlying asset or index, and may be sensitive to additional option risks including fluctuations in implied volatility, interest rates, and time to expiry. Liquidity considerations and risks for OTC derivatives also can differ from standard asset types.

³On December 8, 2017, the SEC adopted a "temporary final rule" that postponed the initial Form N-PORT submission deadline for large fund groups from July 30, 2018 until April 30, 2019. However, the SEC will still require large fund groups to maintain in their records most information that is required to be included in Form N-PORT, subject to SEC examination, beginning no later than July 30, 2018 (covering an initial month of June, 2018). [SEC Release 33-10442](#)

⁴A separate SEC "interim final rule" released February 22, 2018 will require large fund groups to report to the SEC on Form N-PORT, security-level and portfolio-level liquidity classification data derived from days-to-liquidate estimates, beginning July 30, 2019 (covering an initial month of June, 2019). That rule postpones the December 1, 2018 compliance date for the classification provision of the SEC's existing Liquidity Risk Management rule that was finalized in 2016. [SEC Release IC-33010](#)

With respect to regulatory compliance, both the U.S. reporting modernization rules and MiFID II create new oversight needs. The SEC's new Form N-PORT will require a lengthy list of details about each derivative instrument held in a fund⁵. Derivatives holdings also must be included when calculating required portfolio-level risk metrics -- duration and spread (OAS) duration, each broken into separate measures for five "key rate" maturity points and for each currency that makes up at least 1% of the portfolio⁶. And when classifying their holdings within the SEC's published taxonomy of instrument and issuer types, funds must resolve ambiguities in some of the stated definitions.

U.S.-based funds trading in European securities markets may face MiFID II compliance challenges that include potential data inconsistencies between two official recordkeeping bodies for derivatives⁷, and unresolved questions about which particular contract types fall within the rule's definition of instruments obligated to trade on a trading venue ("ToTV")⁸.

Questions to consider

Boards responsible for overseeing risk management and compliance for funds employing OTC derivatives may consider questions such as the following:

Risk management:

- Is the adviser's process for managing market, credit, liquidity, and other applicable risks, adequate for all derivative instruments that the fund may hold at present or in the foreseeable future?
- Are the adviser's policies and procedures regarding asset valuation appropriate for the fund's current and potential derivatives holdings?

SEC Reporting Modernization compliance:

- What steps have been taken to resolve issues associated with producing all disclosures required by Form N-PORT for the fund's positions in OTC derivative instruments, including FX forwards, interest rate swaps, credit default swaps, and options?
- For additional oversight questions addressing the new SEC mutual fund reporting rule, please refer to [U.S. Fund Directors Insight](#), Volume 3, No. 2 (September 2017), "Funds Gear Up for Expanded SEC Data Reporting Regime"

MiFID II compliance:

- Has the board assessed whether and to what extent MiFID II applies to funds they oversee?
- For any such funds that are subject to MiFID II:
- How is the board monitoring Best Execution policy compliance across all asset classes, including FX forwards, interest rate swaps and credit default swaps?
- How does the fund's adviser identify which forward and swap instruments and OTC options are subject to public dissemination (pre- and post-trade), and which instruments are subject to dissemination delays due to trade size or instrument liquidity?
- How is the adviser utilizing the publicly disseminated trade/price data?
- How is the adviser collecting and utilizing derivatives reference data related to MiFID?

⁵ See Item C.11 of Form N-PORT, pages 592-595 of the [Investment Company Reporting Modernization](#) rule.

⁶ Duration metrics are mandated from all funds whose fixed income assets and related derivatives represent at least 25% of NAV as of the reporting date

⁷ [MiFID Challenge: Which OTC Derivatives to Report?](#) FinOps Report, November 16, 2017.

⁸ ToTV instruments are subject to additional transparency and best execution requirements. [MiFID II: What is Traded on a Trading Venue?](#) International Financial Law Review, June 22, 2017.

ICE Data Services OTC derivatives solutions

ICE Data Services provides a comprehensive valuation calculation service with multi-asset coverage encompassing FX, commodities, energy, interest rates, equities and credit derivatives. The service is supported by a dedicated quantitative analysis team that have implemented models for the calculation of OTC derivatives covering both vanilla and bespoke complex products. Additional services include cross asset derivative market data feeds, providing real-time, intraday and end-of-day curves and volatility surfaces, as well as a comprehensive suite of analytics and market risk tools.

ICE Data Services solutions include:

- Comprehensive valuation calculation services and market data feeds for OTC derivatives with multi-asset coverage
- Form N-PORT reporting service will provide the derivatives data elements required by the SEC's Investment Company Reporting Modernization rule
- Historical intraday pricing for OTC derivatives, helping clients to conduct transaction reviews in support of MiFID II Best Execution requirements as well as helping to control trading costs

Our Form N-PORT reporting service will provide the derivatives data elements required by the SEC's Investment Company Reporting Modernization rule -- including derivatives type classification, underlying instrument disclosures, exercise and payoff details, and risk metrics. We have agreements in place with Donnelley Financial Solutions and other regulatory reporting service providers to incorporate our content into the applicable Form N-PORT file formats and submit to the SEC through their respective platforms. Our service is currently undergoing parallel testing with multiple clients, and is targeted to be live by June 1 in support of clients' requirements to archive the data effective June 2018 and make available to the SEC upon request.

We are working to add OTC derivatives coverage (along with CLOs/CDOs) to our ICE Liquidity Indicators™ service during the second half of 2018. Designed to support funds' liquidity risk management needs and utilizing client specific assumptions, ICE Liquidity Indicators uses a wide range of market data to derive estimates of projected trading volume, projected days needed to liquidate a position, and projected market price impact from liquidating a position. The service supports clients in their liquidity classification determinations within the SEC's four aggregate portfolio liquidity buckets (Highly Liquid, Moderately Liquid, Less Liquid, and Illiquid).

Services that can help support your MiFID II compliance include our derivatives pricing tools, Best Execution Service and reference data. We now offer historical intraday pricing for OTC derivatives, helping clients to conduct transaction reviews in support of MiFID II Best Execution requirements as well as helping to control trading costs. To meet transaction reporting obligations for derivative instruments, we created new security-level reference data fields that assess the liquidity status of individual securities and the various security-specific and venue-specific conditions that underpin MiFID II. Our MiFID reporting eligibility flag takes account of each derivative's underlying instruments, extending to the components within indices or baskets.

New external panel assists SEC in assessing bond market structure

After years of reviewing information about bond market liquidity challenges, the Securities and Exchange Commission has convened a committee representing diverse perspectives to advise it about fixed income market structure.

The [SEC's Fixed Income Market Structure Advisory Committee](#) was announced last November and held meetings on January 11 and April 9. Its 23 members represent asset owners and asset management firms, issuers, trading venues, dealers, self-regulatory organizations, and finance academics, among others. ICE Data Services President and COO Lynn Martin is a member.

The committee will advise the SEC on the “efficiency and resiliency” of fixed income markets and identify opportunities for regulatory improvements, according to the release announcing its formation. A related objective is creating actionable consensus for market reform, said committee Chairman Michael Heaney (a board member of Legal and General Investment Management Americas and former Morgan Stanley global co-head of fixed income sales and trading).

In the years since the financial crisis, various market participants, regulators, academics and other observers have raised concerns that bond market liquidity may be shrinking and that limited liquidity could contribute to a future financial crisis. Among specific concerns:

- Stringent restrictions on risk, capital and other variables leave dealers, which generally are regulated as banks, less capable of providing liquidity (taking the opposite side of a customer's trade) than in the pre-crisis environment.⁹
- Increased costs for “immediacy”: trades requiring rapid execution tend to incur large transaction costs.¹⁰
- Any challenges surrounding liquidity are especially salient for mutual funds, which allow their shareholders to request redemptions at any time.

At a glance:

- In the past several years market participants, regulators and academic researchers have raised concerns that bond market liquidity may be shrinking as banks step back from proprietary risk-taking
- The committee will advise the SEC on the efficiency and resiliency of fixed income markets; identify opportunities for regulatory improvements; and pursue actionable consensus for market reform
- ICE Data Services President and COO Lynn Martin is among the group's 23 members

⁹A recent Federal Reserve study found that tight bid-ask spreads for executed trades may be more reflective of “customer-provided liquidity” than the liquidity that dealers traditionally provided. Choi, Jaewon, and Yesol Huh (2017), [Customer Liquidity Provision: Implications for Corporate Bond Transaction Costs](#) Finance and Economics Discussion Series 2017-116. Washington: Board of Governors of the Federal Reserve System

¹⁰“We show that these mechanisms lead to an underestimation of the impact of regulations on liquidity, and once we reduce this bias, measured costs of demanding immediacy in the U.S. corporate bond markets have increased post-regulation.” Ibid., page 26

What we are hearing:

Recent questions from our clients' board members

Question: The funds I oversee have U.S.-based investment advisers and are distributed to U.S. investors. Do I need to be concerned with MiFID II compliance for our funds?

Answer: MiFID II is complex and the assessment as to whether it applies to a U.S. based fund depends on your specific facts and circumstances. U.S. mutual funds with exposure to European markets may be subject to MiFID II requirements, including pre-trade and post-trade transparency and best execution analysis for fixed income instruments. The directive, which took effect January 3, 2018, applies to investment firms (regardless of location) that trade European assets or trade with European counterparties -- even if they do not manage money for European clients. "Europe" in this context comprises member states of the European Union plus Norway, Iceland and Liechtenstein. In a recent Greenwich Associates [report](#), 36% of U.S. buy-side respondents said they were required to comply with MiFID II, and an additional 9% had elected to comply.

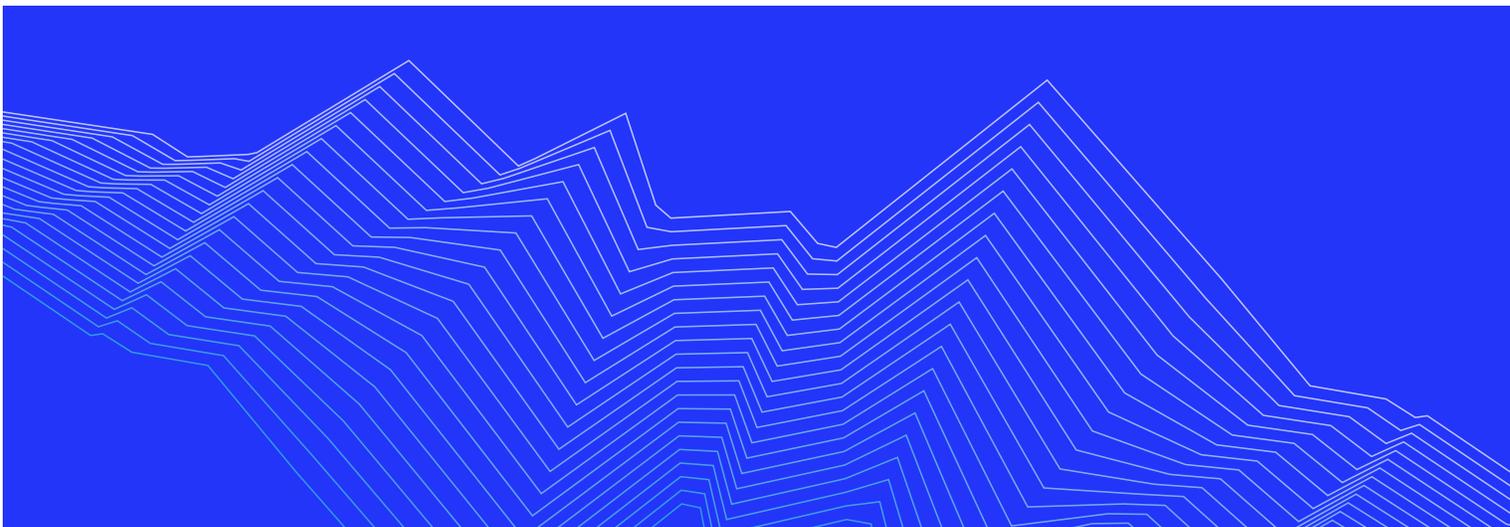
Question: How is ICE responding to the growth of digital currencies and the developments related to the use of blockchain technology?

Answer: On January 18, Intercontinental Exchange [announced](#) the launch of a [Cryptocurrency Data Feed](#) through an exclusive agreement with blockchain technology provider Blockstream. The feed provides streaming real-time, end of day and historical data for bitcoin and several other leading digital currencies from more than 15 exchange venues globally, delivered through ICE Data Services' Consolidated Feed. In addition, NYSE Indices created the NYSE Bitcoin Index (NYXBT), which is available on an end of day basis from our Global Index Feed.

Question: The SEC recently signaled that liquidity-challenged mutual funds and ETFs will be one area of focus in 2018 compliance examinations. How can ICE Data Services assist funds with identifying and managing liquidity risks?

Answer: The SEC's Office of Compliance Inspections and Examinations, in its annual listing of [examination priorities](#) released on February 7, said it will focus in part on mutual funds "that have experienced poor performance or liquidity in terms of their subscriptions and redemptions relative to their peer groups," and on ETFs with little secondary market trading volume that face the risk of exchange delisting, whose shareholders could suffer losses if the ETF is forced to liquidate assets.

Liquidity can change quickly for a security, an asset type, a sector or a portfolio, in response to shifting market conditions or news. Liquidity estimates generated by ICE Liquidity Indicators™, which draw upon proprietary market information and publicly available data, can be used to model alternative liquidity scenarios at the security, sector or portfolio level. Outputs provided by ICE Liquidity Indicators include estimated days to liquidate and market price impact, under varying market conditions and other assumptions specified by a user for a portfolio or particular securities. This information, which our service updates daily, can assist a fund in monitoring changes in portfolio liquidity in near-real time, and classifying portfolio assets as specified in the SEC Liquidity Risk Management rule.



Past editions of this newsletter or any other ICE Data Services reports mentioned herein are available by request to:

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If interested in attending a meeting of the ICE Data Services Funds Advisory Board or one of our industry Working Groups, please reach out to:

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