GLOBAL DATA

DELIVERING REGULATORY TRANSPARENCY

The Challenges Involved in Creating a Universal Financial Instrument Identifier

OpenFIGI

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DELIVERING REGULATORY TRANSPARENCY

The Challenges Involved in Creating a Universal Financial Instrument Identifier

The financial crisis of 2007-2008 has led to an unparalleled regulatory drive to prevent a repetition of those events. Much of the global regulatory response has focused on strengthening the banking system, especially those institutions classified as global, systemically important institutions. Regulators in key markets have also turned their attention to derivatives, alternative investments and activities that fall under the regulatory definition of shadow banking, for example, repo transactions and securities lending. Many new regulations that cover these areas have been developed, derived in large part from the recommendations of global regulatory standard-setting bodies such as the Basel Committee, the Financial Stability Board (FSB) and CPMI-IOSCO.

A common requirement across the new regulatory landscape is greater transparency delivered through increased reporting. Indeed, the output from the 2009 G-20 Pittsburgh Summit included 21 references to transparency.

The range of new reporting varies across different markets, but a number of common themes predominate, including the reporting of over-the-counter (OTC) derivatives trades to trade repositories. Regulators increasingly want to know more about the assets that financial groups hold. As markets have moved to implement the expanded reporting requirements, especially the trade-reporting mandates for OTC derivatives, issues of data quality have become more prominent. Regulators have struggled to digest the information reported, in part because of the lack of standardized identifiers for transactions, financial instruments and entities. Of course, robust identifiers that can identify the "who" and the "what" in financial transactions are particularly crucial. Transparency cannot be achieved unless the parties involved in a transaction and the assets they have traded can be unambiguously named.

Historically, the financial industry has not been efficient in adopting standardized identifiers, either for entities or financial instruments. This is not just an issue in terms of regulatory reporting, but also one that plagues firms themselves within their own data and risk management.

Many large financial firms hold databases containing customer and inventory information in a variety of formats. Some of these databases use the firm's own identifiers, while others may use codes provided by a variety of third-party vendors. Some may not even use an identifier, but rely instead on data records made up solely of a number of fields to describe customers and inventory. Many will have combinations of all the above. This situation complicates operations and inhibits effective risk management and regulatory reporting.

At the same time, efforts by regulators to move toward a more standardized approach for key identifiers have produced mixed results so far and, in the case of financial instrument identifiers, are in danger of producing fragmentation rather than the desired level of harmonization.

ENTITY IDENTIFICATION LEADS THE WAY

One of the aims of reporting trades to repositories was to allow regulators to see the risks building up in the financial system. To do so, they need to identify the exposures that financial firms have to one another. The failure of Lehman Brothers in 2008 was a particular driver, as it was difficult for financial-market regulators to compile a true picture of the possible contagion effect resulting from the investment bank's collapse. The lack of a single industry standard to uniquely and easily identify all the Lehman entities and all the financial firms exposed to them was highly problematic for the financial system.

In conjunction with the move of OTC derivatives' trade reporting to the trade repositories, regulators began to develop a global legal entity identification system. The Basel-based FSB initially undertook this initiative, with governance then handed to the Regulatory Oversight Committee (ROC), which has now evolved into the Global Legal Entity Identifier Foundation (GLEIF), a nonprofit organization supporting the implementation and use of the Legal Entity Identifier (LEI). The GLEIF is overseen by the ROC.

The LEI is a 20-character alphanumeric code. In common with data best practices, the LEI code contains no embedded intelligence related to the entity it identifies. Descriptive reference data elements provide the details of the entity, rather than the code itself.

Twenty-six Local Operating Units are authorized by the GLEIF to issue and maintain LEIs. The LEI code and associated reference data are an International Standards Organization (ISO 17442) standard. Although an ISO standard was already in the entity space (ISO 9362), otherwise known as the Bank Identifier Code (BIC), this standard had limited coverage and flexibility and was not easily adaptable to become a global LEI. Therefore, a new standard was defined and approved by ISO for use in trade-repository reporting, first in the U.S. and later in European and Asian markets.

LEI is now becoming a requirement in other regulatory-reporting contexts beyond trade-repository reporting, but adoption still has some way to go, with about 400,000 entities identified globally. In the EU, the revised Markets in Financial Instruments Directive and Regulation (MiFID II/MiFIR) reporting regime, when implemented in January 2018, will be based on LEI rather than BIC. This could easily add an additional 100,000 LEIs to the list, while the move by the GLEIF to include branches in the scheme will give the LEI a further boost over the coming years. So, even if the adoption and use of LEI have been slower over the past four years than is ideal, at least a generally accepted standard fit for the purpose is now available and gaining momentum.

CHOICES FOR FINANCIAL INSTRUMENT IDENTIFIERS

If the LEI is taking the entity identification challenge in the right direction, what about the other half of the equation, financial instrument identification? Here the picture is more complex.

Aside from the use of in-house codes, the market has a plethora of identifiers available for financial instruments. Instrument identifiers include: stock exchange tickers, Thomson-Reuters RIC codes, CUSIPs (for the identification of U.S. securities) and Sedols (issued by the London Stock Exchange for UK securities). Other identifiers cover only a limited range of financial instruments, such as RED codes, issued commercially by Markit for credit derivatives. Many of the existing codes are specific to a trading venue or country or both. This adds to the complexity of the situation, particularly given the increasing cross-border nature of securities trading.

It was the move to cross-border trading that led to the introduction of the International Securities Identification Number (ISIN). Like the LEI, this is (since 1990) an ISO standard (ISO 6166). The ISIN was designed to enable cross-border identification of securities, with the particular aim of facilitating the post-trade settlement of those securities. It is not used historically in the trading space. The ISIN mainly covers equities and fixed income securities and has a limited coverage of other financial instruments.

Instrument identifiers have typically developed to cover particular trading venues, markets or asset classes. The ISIN helps resolve this problem but falls short of providing a complete solution. In addition, the ISIN has other deficiencies associated with the way it is issued. So, today, there is no exact LEI equivalent for instrument identification. Perhaps it is too much to expect that one identifier can cover the full scope of financial instruments traded in global markets. However, the work Bloomberg has done to deliver Open Symbology with the Financial Instrument Global Identifier (FIGI) does provide a way forward.

What is clear is that given the increasing demands from regulators, a better and more robust solution for instrument identification is needed.

REGULATION & THE FINANCIAL INSTRUMENT IDENTIFICATION CHALLENGES

The range of financial instrument identifiers out there adds complexity to the operations of financial markets globally. Many of these identifiers are entrenched in their respective markets or sectors or both, so, until recently, there has been scant momentum for change.

The regulatory demands for transparency, which led to the development of the LEI, are now a major factor in the evolution of financial instrument identifiers.

Regulators need to receive standardized data if they are to analyze the vast amount of information now required from financial-market participants. This is particularly true for reporting derivatives' transactions to trade repositories. This requirement started out in the U.S. as part of the reforms under the Dodd-Frank Wall Street Reform and Consumer Protection Act in late 2012, followed by EU reporting in 2014 and then similar requirements in a number of Asian markets. In line with the original G-20 mandate for the reporting of OTC derivatives, it is important that this information be capable of aggregation, not only by country or region but also globally. The derivatives need to be clearly identified in a standard way. So, while the instrument identification challenge is not just about derivatives, these products are at the core of most of the international debate about instrument identifiers, given the difficulties associated with identifying them and the regulatory imperative to find a solution.

This has led CPMI-IOSCO to include a Unique Product Identifier (UPI) in its initiatives for standardizing key elements in global derivatives trade reporting. The UPI initiative recognizes that greater standardization is needed for instrument identification to achieve the goals of global regulatory transparency. With a move to greater standardization (which also extends to unique transaction identifiers and other data elements), authorities can more easily aggregate data as well as reduce reporting costs and complexity for those adhering to multiple trade-reporting requirements.

This initiative from CPMI-IOSCO, which has taken the form of various consultations in 2015 and 2016, is welcome and timely. In 2017, the UPI initiative will also involve the FSB, which will consult on governance issues around the UPI.

In parallel, there is a growing risk that regulators' approach to financial instrument identification could become fragmented. The leading example of this fragmentation risk is the approach taken by regulators in the EU, where financial instrument identification has become a key issue in recent Regulatory Technical Standards (RTSs) issued by the European Securities and Markets Authority (ESMA). These RTSs are intended to define the technical rules relating to EU financial markets legislation.

The EU has followed the key global regulatory themes arising from the financial crisis, but it now further seeks to implement the EU Single Market in financial services. The EU is working within a tight time frame dictated by its own legislative mandate, which does not permit it to wait for the CPMI-IOSCO to complete its work.

In late 2015, ESMA issued draft RTSs for reporting, covering not only the reporting of derivatives to trade repositories (which, in the EU, comes under the European Market Infrastructure Regulation–EMIR) but also the extensive regulatory reporting requirements for MiFID II/MiFIR. ESMA does recognize that the standards need more harmonization before being used by market participants across regulatory reporting.

While this is welcome in theory, in practice, the approach taken by ESMA for instrument identifiers raises some important issues; ESMA has chosen the ISIN for MiFID II/MiFIR as the sole instrument identification standard and as the sole product identification standard in EMIR, including for a wide range of complex derivatives that have traditionally been traded OTC.

The ISIN does not provide a comprehensive cross-asset class identifier–particularly problematic given the wide range of financial instruments falling within the scope of MiFID II/MiFIR.

Several issues arise with the choice of the ISIN for key securities-markets measures such as EMIR and MiFID II/MiFIR. The ISIN historically exists to take current national numbering schemes for equities and fixed income instruments and make them ready for international use. For example, the ISIN for a UK equity takes the existing London Stock Exchange Sedol identifier and adds a two-character country code to the front and a check digit at the end to make the 12-character ISIN (e.g., Sedol 000123456 would become GB000123456, plus a check digit).

A similar approach is used for securities from other markets that append their country codes to the front of their national codes. The domestic codes that are the basis for the ISIN tend to be assigned in different ways in each market. So, the lack of commonality at the core of the ISIN, coupled with a limited set of data attributes that correspond to the code, offers minimum granularity and coverage beyond classic exchange-traded instruments.

The ISIN allocation is typically a part of the issuance process for securities, which works adequately for equities and bonds, although even here issues arise with uniqueness and persistence of the ISIN codes over time.

The problem with new derivatives contracts: They are created through the act of trading in response to client requests. The formal issuance process is missing for derivatives, and the whole dynamic is not suited to the current method for ISIN issuance and creation. Each derivative can be changed to reflect new client requirements, such as a maturity date, but in all other aspects, for example, an interest rate swap, would remain the same.

This workflow requires an identifier issued as part of a dynamic process, so that a new ISIN could be created in real time for each variation in the terms of the derivative. This translates into the need for a fast allocation process for hundreds of thousands, or even millions, of ISINs daily. The descriptor fields of the current ISIN standard do not provide much in the way of granularity, thus the current ISIN would be unable to provide any meaningful identification of complex products.

The restrictive nature of the ISIN issuance process causes a further complication and puts it at odds with the LEI on the entity side. Even though the ISIN is an ISO standard, ISO has appointed a registration authority to manage the process of maintenance and issuance, the Association of National Numbering Agencies (ANNA). ANNA has appointed a single national numbering agency (plus a reserve or substitute agency) for each market. For example, in the UK, the London Stock Exchange is the only entity permitted to issue UK ISINs. Another example is WM Daten, the National Numbering Agency for Germany, which also happens to be the substitute agency for the UK. So, unlike with LEI, which always offers a choice of issuing agencies, there is no such equivalent process for the ISIN. The result is a number of de-facto national monopolies.

This issuance mechanism has not been problematic historically, but has become so in the context of MiFID II/MiFIR, because MiFID II/MiFIR requires all trading venues and Systematic Internalizers to obtain an ISIN before the admission of any instrument to trading. The implication for those wishing to trade derivatives is a dependency on one provider in their country to offer an unlimited number of ISINs in a timely (likely real-time) manner before any new derivatives can trade. Under MiFID II/MiFIR, derivatives previously traded OTC will now need to move to a trading venue, and they'll need an ISIN before they're eligible to change hands.

As the derivatives trading association (ISDA) stated in 2016, "ISINs can only be created by a network of national numbering agencies that are sole providers of the identifier in their local markets. Putting aside the lack of competition this creates, current turnaround times for new ISINs would need to be dramatically sped up in order to satisfy derivatives market practices."

This mirrors the comment by ESMA on the choice of the ISIN for MiFID II/MiFIR in its final report accompanying the draft RTSs in September 2015. In the report, ESMA acknowledged, "the ISIN's applicability is considered limited." It further noted, "in general the respondents did not agree with the approach taken by ESMA regarding the suggested usage of ISIN."

An ISO study group was set up in early 2016 to look at how the ISIN could better handle the identification of OTC derivatives. The driver for this group was the mandate in MiFID II/MiFIR to use the ISIN for the reporting of financial instruments, including the OTC derivatives that MiFID II/MiFIR will force onto EU trading venues. The group incorporated work done under the auspices of the ISDA Symbology Group into its study.

The ISO group reported at the end of May 2016 and identified several cases where a structured approach for the allocation of ISINs for complex derivatives that are OTC traded today would need to take place. These are products such as interest rate swaps or credit default swaps. The group focused on how the current ISIN data fields (maximum of seven) can be expanded and structured to capture the key attributes and economic terms of these derivative products. It also came up with time lines and requirements for changes to the issuance process for ISINs to meet the need of derivatives-trading platforms for real-time ISIN issuance.

Whether the ISIN can be upgraded to enable the allocation of the necessary data to describe all the complex OTC derivatives needing identification is still not clear as the work is not complete. Also unknown is whether the new ISINs can really be issued in a timely manner. It seems as if ISINs for these products will be issued not by the national numbering agencies, but by a new bespoke Derivatives Service Bureau (DSB) infrastructure that ANNA is launching in Q4 2016. Much depends on how this DSB responds at the technical and commercial level to this challenge.

We cannot be sure that any ISIN changes driven by the requirements of the EU authorities meet the requirements of the CPMI-IOSCO process for a global UPI. UPI time lines stretch out to late 2017, but MiIFID II/MiFIR testing starts in 2017 – with a live date of January 2018. Thus, there is a risk of creating a fragmented approach, with firms requiring ISINs for the EU but a different identifier for reporting in other global markets, particularly if global regulators reject the ISIN-implementation approach adopted in the EU.

To be compliant with global requirements for the identification of OTC derivatives, the ISIN may need further changes or even the creation of a new ISO standard, much as the LEI had to be created to satisfy global regulators' reporting requirements relating to entities.

These questions are a source of growing uncertainty for financial firms, and we would argue that a new approach is required. There is a clear need for an instrument identifier that is capable of meeting the requirements for a derivative UPI, as well as the broader operational and compliance needs of the industry and global regulators.

This is where the FIGI can help.

A WAY FORWARD – THE FINANCIAL INSTRUMENT GLOBAL IDENTIFIER

Identification for financial instruments and entities is a crucial element in regulatory reporting, as well as for internal risk management. Despite many moving parts in terms of industry initiatives, regulatory studies and upcoming regulatory mandates, the outlines of what is needed are becoming better defined.

At a minimum, a viable financial instrument identifier capable of delivering value for regulators and the industry should meet the following criteria:

- Be consistent with any global recommendations by regulatory bodies such as CPMI-IOSCO.
- Have an open governance structure, with a commercial model that does not lead to competition distortions in the market or unreasonable costs or usage restrictions or both.
- Have agreement among the relevant industry experts through an open consultation process to ensure that the identifier is appropriate in terms of technical and operational effectiveness.

The FIGI is a financial instrument identification option that already meets the above criteria or can be easily adapted to do so.

The FIGI was originally developed as an instrument identification standard by Bloomberg for the identification of financial instruments within Bloomberg's data services. As soon as Bloomberg is notified of the creation of a new financial instrument, a FIGI is created and becomes usable across its services.

For several years, Bloomberg opened the use of the FIGI so that the identifier can be used and, crucially, reused by anyone without incurring charges. So it is possible to obtain all the issued FIGIs and use them within enterprise-wide data systems with no fees. This makes the standard truly open, more so than the ISIN, where costs are often imposed for the reuse or redistribution of ISINs.

In January 2016, the "OpenFIGI" website was introduced (see Appendix 1). This makes it easier to download existing FIGIs and to request new ones. There is no requirement to be a Bloomberg customer to perform these activities, and the site operates in a manner similar to the websites offered for LEI registration and for download by the Local Operating Units of the GLEIF.

The decoupling of the FIGI from Bloomberg services has continued with its adoption by the Object Management Group (OMG). OMG is an international nonprofit technology standards consortium founded in 1989. As an official standard of the OMG, Bloomberg's role in the FIGI has become that of a registration authority that issues and distributes the standard.

Given the heritage of the FIGI as the primary instrument identifier across Bloomberg's data services, it is well-positioned to meet the growing demand for an instrument identifier because of its wide coverage. An application is in process for the FIGI to become part of the ISO world, with the aim of having the FIGI obtain recognition by ISO as a financial instrument global identifier standard over the coming months.

The end of 2016 will see the inauguration of more changes to the governance of the FIGI, with the formation of an industry advisory board to guide the development of the standard. As of September 2016, FIGIs were issued for 320 million financial instruments. This coverage is across asset classes and includes equities, fixed income and many derivatives.

The FIGI, like the ISIN, is a 12-character code with a check digit. There the similarities end, because the FIGI is generated directly for each financial instrument and is not dependent on underlying national coding systems.

The current specification provides for two alpha characters in positions one and two, the letter "G" for Global in position three, followed by eight alphanumeric characters and then a check digit. The FIGI's uniqueness is guaranteed, and the code comes with a meaningful set of metadata. Crucially, the FIGI is capable of being issued at various levels of metadata granularity. For example, FIGIs identify a global share class, a country composite for that share class and the share class at the trading-platform level. All of these levels of associated metadata relate to one another in a hierarchy.

The FIGI hierarchy is capable of being leveraged for the derivatives world also, where it is clear that in the CPMI-IOSCO search for UPI and in industry discussions, an identifier capable of allocation on a hierarchical basis will be central to the way forward. The FIGI will adopt the final industry and regulatory requirements for metadata hierarchy covering key derivative products. In this way, the FIGI will provide a truly open symbology that delivers operational efficiency and regulatory transparency for these products.

The FIGI meets the key requirements for a new approach to instrument identification by offering an open governance and commercial model, commitment to adapt to emerging global regulatory identification needs and a successful record of implementing identification solutions in line with industry needs across asset classes. New developments are under way to bring the FIGI into the ISO world and further entrench the FIGI as a true open global standard.

The FIGI is fast becoming the key tool that the industry and regulators need to deliver transparency, as well as operational efficiency, in global markets across asset classes.

APPENDIX

OpenFIGI.com and OpenFIGI API

OpenFIGI.com provides direct access to multiple tools for identifying, mapping and requesting free and open symbology data sets. The website enables users to search the available Open Symbology data, access news and updates related to the FIGI, and obtain the OpenFIGI API specification. The website also provides powerful search criteria, including increased coverage, the inclusion of additional fields (such as Share Class FIGI) and options to narrow down and pinpoint the results, which can be exported to Excel files without usage restrictions. Bloomberg's Open Symbology team will also use the site to share its subject expertise about symbology, data quality, data governance, metadata and ontology.

The new OpenFIGI API allows mapping from third-party identifiers to the FIGI, and it lets users programmatically access related Open Symbology metadata. Results can be further filtered using exchange and MIC codes. Users should verify whether a license with a third-party provider is needed to map from or otherwise use their identifiers. Bloomberg accepts no responsibility for the improper use of third-party data.

Information on check digit calculation and how to request assignment of a FIGI for IRS and FUNDS is also available where one has not yet been assigned proactively through the standard process. Requests for FIGI assignment are limited to those parties issuing an instrument and require verification against the existing data set.

Registered users have the ability to perform bulk-related services. However, users do not need to be registered or be a Bloomberg customer. There are no fees or license restrictions on the data obtained from the website. Firms and users that have adopted the Open Symbology and the FIGI and wish to become recognized facilitators listed on the website are welcome to contact Bloomberg's Open Symbology team at support@OpenFIGI.com.

ABOUT FIGI

The Financial Instrument Global Identifier (FIGI) is an open data standard for identifying financial instruments across the globe. FIGI is more than a code - it is the methodology and system for defining how data is related, and how that information is conveyed. Defined and issued by the Object Management Group, Bloomberg was nominated to be the Registration Authority and a Certified Provider for the standard. The FIGI is a comprehensive, open and unchanging identifier that helps financial market participants, third-party data providers, exchanges, governments, settlement agencies and regulators improve connectivity, interoperability, transparency, and efficiency in the financial market place. Now available to the industry at no cost, OpenFIGI.com provides direct access to multiple tools for identifying, mapping and requesting free and open symbology datasets.

ABOUT OMG

The Object Management Group® (OMG®) is an international, open membership, not-for-pro t computer industry standards consortium, with representatives from government, industry and academia. OMG Task Forces develop enterprise integration standards for a wide range of technologies and an even wider range of industries. OMG's modeling standards enable powerful visual design, execution and maintenance of software and other processes. Visit www.omg.org for more information

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