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Bloomberg

October 21, 2024

Ms. Vanessa A. Countryman
Secretary
Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549-1090

Via Electronic Submission

Re: Financial Data Transparency Act Joint Data Standards Under the Financial Data Transparency Act of 2022
File No. S7-2024-05

Dear Ms. Countryman:

Bloomberg L.P.[1] ("Bloomberg") respectfully submits this letter in response to the above-referenced proposed rule issued by nine federal agencies (collectively, the "Agencies")[2] to jointly establish data standards for the collections of information reported to the Agencies and for the data collected from the Agencies on behalf of the Financial Stability Oversight Council (the "FSOC"). [3] We appreciate the opportunity to respond to the Proposal. It is important to provide material background, context and data regarding this important initiative.

Executive Summary

The Proposal, which flows from a series of directives contained in the Financial Data Transparency Act of 2022 ("FDTA), establishes a set of common data standards to promote interoperability of data between the Agencies and increase transparency for investors. The FDTA itself is a bipartisan piece of legislation that represents the culmination of Congress's decades-

[1] Bloomberg L.P. is a global leader in business and financial information, delivering trusted data, news, and insights that bring transparency, efficiency, and fairness to the markets. The company helps connect influential communities across the global financial system via reliable technology solutions that enable our customers to make more informed decisions and foster better collaboration.

[2] The Office of the Comptroller of the Currency ("OCC"), the Board of Governors of the Federal Reserve System ("Federal Reserve Board"), the Federal Deposit Insurance Corporation ("FDIC"), the National Credit Union Administration ("NCUA"), the Consumer Financial Protection Bureau ("CFPB"), the Federal Housing Finance Agency ("FHFA"), the Commodity Futures Trading Commission ("CFTC"), the Securities and Exchange Commission ("SEC"), and the Department of the Treasury ("Treasury") jointly participated in the rulemaking.

[3] *See* Financial Data Transparency Act Joint Data Standards, 89 FR 67890 (August 22, 2024), *available at* https://www.federalregister.gov/documents/2024/08/22/2024-18415/financial-data-transparency-act-joint-data-standards (the "Proposal").

long effort to safeguard the monitoring of the financial markets through the use of open data standards. As discussed further below, the FDTA requires the Agencies to establish common identifiers – including those for financial instruments – that are standardized, machine-readable, non-proprietary, and made available under an open license.

In the initial stage of the two-part process mandated by the FDTA, the Agencies have identified the joint standards. We look forward to the second stage of this process as the rules implementing Agency-specific reporting requirements will be considered under the requirements that adhere to any prospective rulemaking.

Bloomberg supports the Agencies' ongoing efforts on standardization, including full support for the complete list of proposed common identifiers. We concur with the expert opinion of the nine financial regulators who recommended the "Financial Instrument Global Identifier" ("FIGI") as the standard for financial identifiers. The federal government is attempting to create a true picture of risk across a complicated enterprise. That is a very different use case than the private sector's trading, executing, clearing and settling. FIGI provides the exact capability that the Agencies – and specifically the FSOC – require to fulfil its oversight and stability mission. We believe the soundness of the Agencies' recommendation will become even clearer as this process continues.

Overview of the Financial Data Transparency Act

Joint Agency Rulemaking

The Financial Data Transparency Act of 2022 (the "FDTA") added a new section 124 to the Financial Stability Act of 2010.[4] Section 124 directs the Agencies to jointly issue regulations establishing data standards for (i) certain data *reported to* each Agency by financial entities under the jurisdiction of the Agency, and (ii) data *collected from* the Agencies on behalf of the FSOC.[5]

The overarching purpose of the joint rulemaking is to identify standards for use by the Agencies that will promote interoperability of financial data across the Agencies – so that the Agencies receive and manage their own data in a manner that is consistent, useful, and streamlined. The FDTA, in particular, calls for the Agencies to identify standards that are made available under an open license, at no cost to the public. The open data requirement not only encourages data standards that are consistent, transparent, and accessible to the public, but also aligns the Agencies' data management practices with the federal government's existing government-wide open data policy.[6]

[4] Pub. L. 117-263, title LVIII, 136 Stat. 2395, 3421 (2022).

[5] 12 U.S.C. 5334.

[6] *See e.g.,* Open Government Data Act, Public Law No. 115-435 (Jan. 14, 2019).

New section 124(c)(1) of the Financial Stability Act specifically requires the joint standards noted above to include "common identifiers," for "collections of information reported to covered agencies or collected on behalf of the [FSOC]."[7] The statute further requires that the "common identifiers" possess specific characteristics that, to the extent practicable:

(i) render data fully searchable and machine-readable;
(ii) enable high quality data through schemas, with accompanying metadata documented in machine-readable taxonomy or ontology models, which clearly define the semantic meaning of the data, as defined by the underlying regulatory information collection requirements;
(iii) ensure that a data element or data asset that exists to satisfy an underlying regulatory information collection requirement be consistently identified as such in associated machine-readable metadata;
(iv) be nonproprietary or made available under an open license;
(v) incorporate standards developed and maintained by voluntary consensus standards bodies; and
(vi) use, be consistent with, and implement applicable accounting and reporting principles.[8]

These specific characteristics build on existing industry and government best practices for data processing.

The FDTA further directs the Agencies, in establishing the joint standards, to consult with other federal agencies with the goal of promoting interoperability of financial regulatory data across members of the FSOC.[9] The statute requires the Agencies to issue a joint rule finalizing these new data standards within two years of enactment of the legislation.[10]

Agency-Specific Rulemakings

Separate from the requirements of new section 124 of the Financial Stability Act, the FDTA also directs each Agency (*i.e.,* the SEC, OCC, FDIC, Federal Reserve Board, NCUA, CFPB, and FHFA), upon completion of the joint rulemaking, to individually engage in Agency-specific rulemakings to adopt the applicable data standards for collections of information that are regularly filed with or submitted to that Agency.[11]

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[7] 12 U.S.C. 5334(c)(1). New section 124 requires the joint standards to include a "common nonproprietary legal entity identifier that is available under an open license for all entities required to report to covered agencies."

[8] 12 U.S.C. 5334(c)(1)(B)(i)-(vi).

[9] 12 U.S.C. 5334(c)(2).

[10] 12 U.S.C. 5334(b)(2). The FDTA was signed into law on December 23, 2022.

[11] *See* FDTA section 5821.

The data standards that an implementing Agency adopts in its Agency-specific rulemaking must incorporate and ensure compatibility with, to the extent feasible, the applicable joint standards.[12] In discharging these requirements, the Agencies are afforded a certain amount of flexibility and discretion by the FDTA to: (i) determine the feasibility of incorporating the joint standards; (ii) determine the applicability of the joint standard to the collection of information;[13] (iii) scale data reporting requirements to reduce any unjustified burden on smaller entities affected by the regulations; and (iv) minimize disruptive changes to those entities or person.[14]

The application of the joint standards to any specific Agency collection of information would only take effect through an Agency-specific rulemaking or other action after the finalization of the joint standards.[15]

Overview of the Proposed Rule

In formulating the Proposal, the implementing Agencies consulted with a variety of federal governmental entities with relevant experience on data standards, including data scientists, symbologists, and reporting experts with unique expertise in data management and regulatory reporting. The Agencies also engaged with a variety of public stakeholders in advance of issuing this proposal.[16]

On August 22, 2024, the Agencies' Proposal was published for public comment in the Federal Register. As directed by the FDTA, the Agencies identified a set of data standards, including a set of common identifiers that the Agencies deemed to meet the specific requirements listed in section 124(c)(1)(B)(i)-(vi) of the FDTA. The Agencies selected:

(i) for the legal entity identifier, the Legal Entity Identifier ("LEI");
(ii) for identification of swaps and security-based swaps, the unique product identifier (UPI);
(iii) for identification of financial instruments that are not swaps or security-based swaps, the classification of financial instruments ("CFI");
(iv) for identification of financial instruments, the Financial Instrument Global Identifier (FIGI) created by the Object Management Group
(v) for identification of dates, the date as defined by ISO 8601 using the Basic format option;

[12] FDTA section 5842 (OCC); FDTA section 5863 (Board); FDTA section 5833 (FDIC); FDTA section 5873 (NCUA); FDTA section 5852 (CFPB); FDTA section 5883 (FHFA); and FDTA sections 5821, 5823, and 5824 (SEC).

[13] *See e.g.,* FDTA section 5821(a)(2).

[14] *See e.g.,* FDTA sections 5821(i)(2), 5823(b)(2), and 5824(b)(2).

[15] The FDTA does not require Treasury or the CFTC to issue individual rules adopting the joint data standards.

[16] Proposal at 21.

(vi) for identification of states, possessions, or military "states" of the United States of America or geographic directionals, the U.S. Postal Service Abbreviations as published in Appendix B of Publication 28 – Postal Addressing Standards, Mailing Standards of the United States Postal Service;

(vii) for identification of countries and their subdivisions, the country code with the code for subdivisions, as appropriate, as defined by the Geopolitical Entities, Names, and Codes ("GENC") developed by the Country Codes Working Group of the Geospatial Intelligence Standards Working Group; and

(viii) for identification of currencies, the alphabetic currency code as defined by ISO 4217 – Currency Codes.

This letter is focused primarily on the Agencies' collective decision to establish FIGI as the common identifier for financial instruments. This letter also addresses the Agencies' decision to select the UPI as the identifier for swaps and security-based swaps and the LEI as the legal entity identifier.

History of FIGI

Development of FIGI

Financial identifiers are unique codes or numbers assigned to financial instruments such as stocks and bonds. They are used to distinguish and track individual financial assets in the global financial markets as well as for trading and settlement, portfolio management, regulatory compliance, risk management, financial reporting, and cross-border transactions. Identifiers are crucial for investors and market participants to ensure clarity and consistency in financial transactions and reporting. They also aid regulators in overseeing the financial industry and facilitating public transparency. For this reason, the FDTA's Congressional sponsors intended to include common, non-proprietary identifiers for financial products, instruments, and transactions among the data standards to be established.[17] This consistent commitment to open-source data standards and common identifiers was articulated as recently as May, 2024 as the bi-partisan, bi-cameral sponsors of FDTA stressed to the Agencies the importance to the public of the Agencies finalizing their FDTA rulemakings.[18]

[17] *See* Sen. Mark R. Warner Press Release: "Warner & Crapo Introduce Legislation to Boost Transparency Around Financial Data" (May 25, 2022), *available at* https://www.warner.senate.gov/public/index.cfm/2022/5/warner-crapo-introduce-legislation-to-boost-transparency-around-financial-data; *see also* FDTA Fact Sheet issued by Sen. Warner (May 25, 2022), *available at* https://www.warner.senate.gov/public/_cache/files/1/2/12a8927c-f495-4904-ad99-c9dcf96b122a/CCD42332C3EFA07CF4B6F481745F1D20.financial-data-transparency-act-fact-sheet.pdf.

[18] Letter from Reps. Patrick McHenry and Maxine Waters and Sens. Mark R. Warner and Mike Crapo to financial regulators regarding FDTA implementation (May 14, 2024), *available at* https://financialservices.house.gov/uploadedfiles/2024-05-14_fdta_implementation_letter.pdf.

FIGI is a unique 12-character, publicly available identifier that offers coverage for financial instruments globally across all asset classes. It was initially developed by Bloomberg as an internal data management standard to help solve licensing challenges and shortcomings in data organization and identifier governance.[19]

FIGI entered the public domain as a free, open data standard in 2014 after Bloomberg assigned all rights and interest in FIGI to the Object Management Group ("OMG").[20] Founded in 1989, OMG is an international non-profit technology standards consortium and is a liaison organization with the International Organization for Standardization ("ISO"). All of OMG's formal specifications may be downloaded without charge from the OMG's website.[21] No aspect of FIGI is behind a paywall – FIGI is entirely in the public domain. FIGI is available free of charge for use by all market participants with no commercial terms or restrictions on usage. This is one of the many attributes that sets the FIGI apart from other financial identifiers that impose significant licensing fees and restrictions on use.

Bloomberg retains no ownership right or interest in the FIGI standard.

Accreditation of FIGI as a National Standard

In 2021, the Accredited Standards Committee X9 Inc. ("ASC X9"), a non-profit organization accredited by the American National Standards Institute ("ANSI"), adopted the FIGI as a U.S. national standard, designated as ANSI X9.145-2021.[22] X9 is the same standards

[19] In approving the FIGI as a U.S. national standard, the Accredited Standards Committee (ASC) X9 explained that FIGI originated from a specific use case – the need for a financial instrument data management standard: "FIGI originated from a need for a standard methodology to bridge across multiple identification systems for financial instruments. Without prejudice against any existing symbol-based solutions, or any question of the validity of one system over the other, the FIGI standard utilizes a metadata driven approach to enable the unique and persistent identification of financial instruments. In so doing, while employing the principles of open data, it provides a mechanism for interoperability between existing identification systems." *See* American National Standard for Financial Services ANSI X9.145-2021, Financial Instrument Global Identifier FIGI, Accredited Standards Committee X9, Incorporated, Financial Industry Standards (July 29, 2021) at 4, *available at* https://x9.org/wp-content/uploads/2021/08/ANSI-X9.145-2021-Financial-Instrument-Global-Identifier-FIGI.pdf (the "ASC X9 Accreditation Approval"). The X9 Consensus Body ballot overwhelmingly approved the FIGI as an American National Standard: 20 voted yes, 3 no, and 5 abstained.

[20] Press Announcement: "What is in a Name? The Bloomberg Global ID Is Reborn as the FIGI" (Oct. 9, 2014), *available at* https://www.bloomberg.com/company/press/whats-name-bloomberg-global-id-reborn-figi.

[21] FIGI is offered under the MIT Open Source license. This dedication is formally embedded within the X9, ABNT, and OMG standard accreditations. The meta term "dct:license" specifically outlines the application of the MIT Open Source license in the standard for the identifier and associated metadata. *See* ASC X9 Accreditation Approval at 28; *see also* OMG FIGI v1.0 (2015) at 31, *available at* https://www.omg.org/spec/FIGI/1.0/PDF ("OMG FIGI v1.0").

[22] *See* ASC X9 Accreditation Approval.

organization that accredited CUSIP as a national standard.[23] The ASC X9 consensus body that approved the FIGI consisted of 50 member organizations with representatives across the financial services industry.[24] The 23 members of the ASC X9D1 subcommittee that produced the FIGI standard included representatives from the American Bankers Association ("ABA"), Bloomberg L.P., CUSIP Global Services ("CGS"), the US Department of Treasury's Office of Financial Research ("OFR"), among others.[25]

In certifying FIGI as a national standard, ASC X9 explained that FIGI originated from a specific use case: the need for a financial instrument data management standard.[26] FIGI's scope is global and across asset classes, like the ISIN. CGS is the Association of National Numbering Agencies-endorsed ("ANNA") National Numbering Agency ("NNA") for the U.S. As such, CGS issues the U.S. subset of the ISIN universe. The CUSIP itself is purely a U.S. identifier and a component of U.S. ISINs. Other countries issue their own ISINs, which are unconnected to the CUSIP. For example, consider IBM – the CUSIP, 459200101, is a component of the ISIN, US4592001014.

In approving the FIGI standard, the Committee concluded that, while the ISIN and the CUSIP standards overlap with the FIGI standard in that they, too, seek to assign unique identifiers to financial instruments, they can be viewed as "complementary, rather than competing standards" and differ in three broad ways:[27]

(1) **Scope.** The FIGI provides, both in practice and in future implementation, a much broader scope than does ISIN/CUSIP. FIGI provides a consistent and unique data point that serves to identify financial instruments and the different contexts in which

[23] "CUSIP Re Approved as U.S. Standard for Securities Identification, Building on 50 Years of Support for Transparent and Efficient Markets" (Feb. 3, 2021), *available at* https://x9.org/cusip-re-approved-as-u-s-standard-for-securities-identification.

[24] ASC X9 Accreditation Approval at vii-viii. The 50 member organizations include ACI Worldwide, Amazon, American Bankers Association, Bank of America, BankVOD, BDO, Bloomberg L.P., Conexxus, Inc., CUSIP Global Services, Delap LLP, Deluxe Corporation, Diebold Nixdorf, Digicert, Dover Fueling Solutions, Federal Reserve Bank, FirstBank, FIS, Fiserv, FIX Protocol Ltd – FPL, Futurex, Gilbarco, Harland Clarke, Hyosung TNS Inc., IBM Corporation, Ingenico, ISITC, ITS, Inc. (SHAZAM Networks), J.P. Morgan Chase, MagTek, Inc., MasterCard Europe Sprl, NACHA The Electronic Payments Association, National Security Agency, NCR Corporation, Office of Financial Research, U.S. Treasury Department, PCI Security Standards Council, PricewaterhouseCoopers LLP, SWIFT/Pan Americas, Symcor Inc., TECSEC Incorporated, The Clearing House, U.S. Bank, U.S. Commodity Futures Trading Commission, University Bank, USDA Food and Nutrition, VeriFone, Inc., Viewpointe, VISA, Wells Fargo Bank, and Zions Bank.

[25] ASC X9 Accreditation Approval at x. ABA and CGS, members of ASC X9 Committee that approved the FIGI as a national standard in the US, own and operate CUSIP.

[26] *Id.* at 47.

[27] *Id.* at 4, 47.

they exist throughout their lifecycle. This enables robust and comprehensive data management.[28]

(2) **Granularity.** The ISIN/CUSIP provides a single identifier at the single issued level for a fungible instrument. FIGI, in contrast, provides not only that in the form of the Share Class Global Identifier, but also more granular information at the country and trading venue level.[29]

(3) **Persistence.** ISINs/CUSIPs periodically change as a result of corporate actions, such as name changes, acquisitions, and corporate relocations. By contrast, the characters present in the FIGI identification string are, with the exception of the check digit, entirely meaningless. As such, there are no inferred references to the currency, market, country location, or company name embedded in the identifier, which is not the case for ISINs, depending on the structure of the embedded national number and the country prefix used.[30]

The Accreditation Committee – in contrasting the virtues of FIGI versus those of ISIN – certainly leaves little doubt about whether FIGI has global utility as an international identifier. These conclusions were not reached casually. The process of accreditation entailed a multi-year, multi-stage examination that required affirmative approval by super-majorities of multiple expert panels. Those panels consisted of both public and private sector leaders representing a broad array of stakeholders.

FIGI's open source, nonproprietary framework is designed to produce a unique, non-changing identifier, with no commercial terms or restrictions on usage. The same FIGI identifier, once attached to a particular financial instrument, is intended to remain attached to that instrument throughout the life of the instrument. The FIGI does not change and is never recycled for use in new financial instruments. In addition to serving as a unique identifier, FIGI also serves as a historical reference for retired or obsolete financial instruments.[31]

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[28] *Id.*

[29] *Id.*

[30] *Id.*

[31] The X9 standard explains, "the FIGI standard utilizes a metadata driven approach to enable the unique and persistent identification of financial instruments. In so doing, while employing the principles of open data, it provides a mechanism for interoperability between existing identification systems." ASC X9 Accreditation Approval at 4. The FIGI standard identifier allocation methodology including its approach to Corporate Actions, stresses identifier uniqueness and permanence for historical lineage as best practice in data management. *See* Allocation Rules for the Financial Instrument Global Identifier (FIGI) Standard, Version 29.9 (July 2022), *available at* https://www.openfigi.com/assets/local/figi-allocation-rules.pdf ("FIGI Allocation Rules"). In July 2021, CUSIP changed its policies and procedures and instituted a new policy based on industry feedback. In what is called the "CUSIP Permanence," the CUSIP identifier will remain the same for corporate and mutual fund name changes even when there is a significant impact on the alpha-numeric sequencing within the CUSIP system. *See* CUSIP Global

FIGI is available free of charge for use by all market participants.[32] FIGI incorporates the open-source concepts of the MIT Open Source license.[33] Accordingly, FIGIs are freely redistributable, can be used, transmitted, databased, stored, enriched or otherwise utilized without restrictions aside from ensuring that the MIT Open Source permissions are included and disclosed. As such, there are no restrictions on associating or "mapping" FIGI and the associated metadata to other standards, using the FIGI in or as part of other standards, or adding these other standards or identifiers as associated metadata. FIGI mapping is discussed in further detail below.

FIGI makes available 8 to 13 data fields (depending on the asset class) under the open license. These data fields are sufficient to enable any market participant to uniquely identify a particular financial instrument. All the information and underlying reference data that is required to uniquely identify a financial instrument is available through FIGI in the public domain – free of charge and without license. Detailed examples are provided below in Appendix A.

Issuance of FIGI

Registration Authority Role. Under the FIGI standard, the Registration Authority serves as both an issuer of FIGI identifiers and as a comprehensive system of record of the registered identifiers.[34] The OMG Financial Domain Task Force ("FDTF") is responsible for selecting the organization that serves as the Registration Authority. In 2015, Bloomberg was selected by the FDTF to be the Registration Authority for the FIGI standard. Bloomberg has served in this role since 2015.[35]

Certified Provider Role. A Certified Provider serves as an issuer of FIGI identifiers and can also elect to maintain a comprehensive inventory of identifiers if it so chooses. The FIGI standard allows for multiple entities to serve as a Certified Provider. There are currently two Certified Providers for the FIGI standard: Bloomberg and Kaiko.[36]

Services, "Permanence FAQ," *available at* https://www.cusip.com/pdf/news/CUSIPGlobalServices-Permanence-FAQ.pdf ("CUSIP Permanence FAQ").

[32] The FIGI standard specification, ANSI-X9.145-2021, is also open source and freely available for download. *See* ASC X9 Accreditation Approval, *available at* https://x9.org/wp-content/uploads/2021/08/ANSI-X9.145-2021-Financial-Instrument-Global-Identifier-FIGI.pdf. In contrast, there is a $100 fee for the ANSI CUSIP standard, X9.6-2020. *See* https://webstore.ansi.org/standards/ascx9/ansix92020?%20srsltid=AfmBOoqtgqHNVEhL0l3jSGcJsMxjemCGkPNHmUt5kQMrNbtZ6CIFNKC4.

[33] *See* ASC X9 Accreditation Approval at 48; *see also* OMG FIGI v1.0 at 31.

[34] *See* FIGI Allocation Rules.

[35] *See* Press Announcement: "OMG Announces Kaiko to Expand FIGI Standard for Crypto Assets" (Jan. 20, 2021), *available at* https://www.omg.org/news/releases/pr2021/01-20-21.htm.

[36] *Id.* Kaiko is a market data provider in the blockchain-based digital assets space, founded in 2014, that provides institutional investors and market participants with enterprise-grade data infrastructure. *See* https://www.kaiko.com/about-kaiko.

Since 2015, over 1.3 billion FIGIs have been issued, with approximately 136 million FIGIs issued last year alone. Contrary to certain assertions that FIGI is a new and unproven identifier, FIGI has been in existence in the public domain for close to a decade. During this time, the FIGI has established a demonstrated track record of providing identifiers that are accurate, issued in a timely manner, and with comprehensive coverage across all asset classes globally. As a result, FIGI is currently employed widely by a diverse user base. This is discussed in more detail below in Appendix C and D.

Legislative History of the FDTA

The Agencies' Proposal did not spring out of nowhere like Athena from the head of Zeus. The FDTA – and thus Congress itself – directed the Agencies to establish these standards to promote interoperability of data between the Agencies and to increase transparency for investors, consumers, and the general public. Congress has been engaged in a decades long effort to make federal data – both information reported to agencies and data generated by agencies – openly accessible and usable by the public. In this way, the FDTA is a continuation of a broader ongoing effort to promote government-wide open data that is interoperable, transparent, consistent, and useful.

Following the 2008 global financial crisis, Congress passed the Dodd-Frank Wall Street Reform and Consumer Protection Act, which, among other things, created the FSOC to better facilitate coordination between the financial regulatory agencies and to monitor for emerging risks.[37] Congress rightfully recognized that the newly-created FSOC would be required to ingest, house, and make sense of vast troves of data to fulfill its mandates. To facilitate these new data needs, Dodd-Frank also created the Office of Financial Research with a goal of, among other things, "standardizing the types and formats of data reported and collected" on behalf of the FSOC.[38]

In 2014, Congress sought to further embrace the use of open data by enacting the Digital Accountability and Transparency Act of 2014 (the "DATA Act").[39] Specifically, the DATA Act sought to make publicly available all direct expenditures by federal agencies and to link this data with federal procurement and grants information on a publicly available website.[40] Similar to the creation of FSOC in Dodd-Frank, Congress recognized that consolidating data from numerous federal agencies would require the establishment of data standards. To that end, Congress directed the Office of Management and Budget and the Department of Treasury to issue "Government-wide financial data standards for any federal funds made available to or expended

[37] Pub. L. No. 111-203, 124 Stat. 1376 (2010).

[38] 12 U.S.C. 5341.

[39] Pub. L. No. 113-101, 128 Stat. 1146 (2014).

[40] The Data Act at sections (2)(1) and (2)(2), *available at* https://www.congress.gov/113/plaws/publ101/PLAW-113publ101.pdf.

by Federal agencies and entities receiving Federal funds."[41] The DATA Act was supported by many of the same Members of Congress and open government stakeholders that came together to ultimately enact the FDTA.

Further, the DATA Act requires that the data standards established under the Act meet many of the same requirements as those called for by the FDTA, such as incorporating data elements developed and maintained by voluntary consensus standards bodies and "includ[ing] unique identifiers for Federal awards and entities receiving Federal awards that can be consistently applied Government-wide." Importantly, the requirement to include "unique identifiers for Federal awards" is closely analogous to the requirement to select common identifiers under the FDTA.

In 2018, Congress enacted the OPEN Government Data Act (the "OPEN Government Data Act") to "change how government information is formatted, catalogued, and presented for public access and use."[42] The OPEN Government Data Act, among other things: (i) defined the terms including "data", "data asset", and "open government data asset"; (ii) called for government information to be made "open by default"; (iii) required agencies to complete comprehensive data inventories to facilitate a federal data catalogue; and (iv) established the position of "chief data officer" within certain federal agencies.[43] Importantly, these chief data officers appear to have been very much involved during the course of the FDTA joint rulemaking process.[44]

Throughout the years, a host of open-government stakeholders across the ideological spectrum strongly supported the Congressional goals of promoting open data, including the legislation discussed above, and this trend was continued with the introduction of the FDTA.[45]

The FDTA, which was originally entitled the Making All Data Open for Financial Transparency (MADOFF) Act,[46] was first introduced in 2015 by Representative Darrell Issa (R-CA), and cosponsored by a bipartisan group of 35 Representatives.[47] In the aftermath of the

[41] *Id*. at Section 4 (a)(1).

[42] *See* The OPEN Government Data Act: A Primer (Congressional Research Service) (Dec. 29, 2022), *available at* https://crsreports.congress.gov/product/pdf/IF/IF12299/4.

[43] *Id.*

[44] Chief Data Officers are listed for nearly all agencies as points of contact for additional information in the Proposal.

[45] *See* Letter from Transparency Groups to Congressional Sponsors Supporting Adoption of Financial Data Standards dated Oct. 28, 2022, *available at* https://datafoundation.org/files/download/ab7c29f672bd1be.

[46] *See* "Issa unveils MADOFF Act," Ripon Advance News Service (Mar. 26, 2015), *available at* https://riponadvance.com/stories/510504356-issa-unveils-madoff-act/.

[47] *See* Financial Transparency Act of 2015 (H.R. 2477) *available at* https://www.congress.gov/bill/114th-congress/house-bill/2477.

global financial crises, lawmakers and stakeholders across the political spectrum realized that transparent, interoperable government data would be a key tool in meeting the challenges posed in a modern digital economy.[48] The FDTA itself was intended to build upon the lessons learned from the DATA Act to make data more accessible, useful, and more accurate.

As the Chairwoman of the House Financial Services Committee Congresswoman Waters noted at the time the FDTA was passed into law, the legislation was designed "to adopt data standards for the information [agencies] collec[t] and to upgrade their reporting requirements so that reported data is stored in an open, searchable, and accessible manner."[49] As sponsor Rep. Maloney characterized it:

> All data would be made available in an open-source format that is electronically searchable, downloadable in bulk, and without license restrictions. This is a win-win for regulators, for investors, for the public, for accuracy, and for industry.[50]

With the benefit of a long and unambiguous legislative record, it is clear that Congress intended that the financial regulators thoroughly re-examine their existing data standards for the collections of information with a view to upgrading their reporting requirements to broadly incorporate open, nonproprietary data standards and identifiers.

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[48] *See* Press Release: Issa Introduces Financial Transparency Act (Mar. 16, 2017), *available at* https://transparencycaucus-quigley.house.gov/media-center/press-releases/issa-introduces-financial-transparency-act (quoting Congressman Randy Hultgren, Vice Chairman of the House Financial Services Subcommittee on Capital Markets, Securities and Investment: "Fraudsters like Bernie Madoff have fooled major U.S. regulators because many are still using 1930s pen and paper technology to handle today's digital challenges. This archaic practice harms our investors, markets and consumers. We need regulators to use searchable, open data to improve transparency and reduce the time consumers and businesses spend each year on unnecessary paperwork… The Financial Transparency Act encourages data standards that would make regulatory filings more transparent, useful and efficient for everyone who generates, collects and uses the information. Better decisions by investors and regulators, and lower compliance costs, will translate to faster economic growth and greater confidence in our economy").

[49] Remarks by Chairwoman Maxine Waters (D-CA) during floor consideration of H.R. 2989, the Financial Transparency Act of 2021, (Congressional Record Vol. 167, No. 187 at H5847) (Oct. 25, 2021), *available at* https://www.congress.gov/117/crec/2021/10/25/167/187/CREC-2021-10-25-pt1-PgH5840.pdf.

[50] *Id.*

FIGI Meets the FDTA's Statutory Requirements for Common Identifiers and the Agencies Appropriately Selected FIGI as the Identifier for Financial Instruments

The FDTA directs the Agencies to identify a set of "common identifiers" for "collections of information" reported to the Agencies or collected on behalf of the FSOC that, to the extent practicable, have the characteristics set forth in Section 124(c)(1)(B)(i)-(vi), including that the common identifiers "be nonproprietary or made available under an open license" and "incorporate standards developed and maintained by voluntary consensus standards bodies."[51]

We address how FIGI as an identifier for financial instruments meets each of these requirements. Bloomberg also notes how CUSIP fails to meet a number of these requirements.

1. *Common Identifiers Must Be Nonproprietary or Made Available Under an Open License*[52]

The FDTA requires that any common identifier selected must be nonproprietary or made available under an open license. The term "open license" is defined as "a legal guarantee that a data asset is made available *at no cost to the public* and with *no restrictions on copying, publishing, distributing, transmitting, citing, or adapting such asset*.[53]

Under the FDTA, the Agencies were instructed to identify a common identifier that is either (i) nonproprietary or (ii) made available under an open license, with open license defined as incurring no cost to the public and with no restrictions on use.

Bloomberg does not retain any right or ownership interest in FIGI.[54] The FIGI standard is owned and made available under an open license by OMG. The FIGI standard is, in fact, the first X9 data standard that incorporates the MIT Open Source License, in which the data created and identified within the standard will be available to the public. Therefore, all of the information and associated meta data that is required to uniquely identify a financial instrument is available through the FIGI standard in the public domain – free of charge and without license.

More broadly, all formal OMG specifications may be downloaded without charge from the OMG's website. FIGI therefore meets both prongs of the statutory requirement as it is both nonproprietary and made available under an open license at no cost.

The same cannot be said about CUSIP, which is neither nonproprietary nor available under an open license. The ABA is the owner of all rights to the CUSIP system. CUSIP is managed on behalf of the AB by FactSet Research Systems Inc. ("FactSet"). In addition to its proprietary nature, CUSIP is not made available under an open license. ABA and/or CGS own

[51] 124(c)(2)(B)(iv)-(v).

[52] 12 U.S.C. 5334(c)(1)(B)(iv).

[53] 44 U.S.C. 3502(21) (emphasis added).

[54] *See* Appendix B for additional information.

all rights in and to CGS's various commercial databases and the CGS data. There are substantial fees associated with issuing, licensing, viewing, possessing, or otherwise making use of CUSIPs. On a quarterly basis, these fees appear to generate tens of millions of dollars in revenue.[55] CUSIP does not meet the FDTA requirements in part because it is not made available under an open license (*i.e.,* no cost to the public and with no restrictions on use) nor is it nonproprietary.

The Agencies arrived at the same conclusion - that the CUSIP does not meet the requirements of the FDTA - and explicitly stated in the Proposal that CUSIP is both proprietary and not available under an open license.[56] It is also worth noting that the ABA, in its letter submitted to the Agencies in response to the Proposal, seems to openly confirm these incontrovertible facts.[57]

2. *Common Identifiers Must Incorporate Standards Developed and Maintained by Voluntary Consensus Standards Bodies*[58]

The FDTA requires that any common identifier selected must incorporate standards developed and maintained by voluntary consensus standards bodies. As this requirement related to FIGI, all rights and interest in FIGI are owned by the OMG. OMG is an international non-profit technology standards consortium. All of OMG's formal specifications may be downloaded without charge from the Object Management Group's website.[59] In addition, in 2021, FIGI was accepted by ANSI as a U.S. national standard. So FIGI is maintained and developed with input from and according to two separate voluntary consensus standards bodies, OMG and ANSI.

3. *Common Identifiers Must Also:*

(i) Render data fully searchable and machine-readable.[60]

(ii) Enable high quality data through schemas, with accompanying metadata documented in machine-readable taxonomy or ontology models, which clearly

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[55] *See* FactSet to Acquire CUSIP Global Services for $1.925 Billion (Dec. 21, 2021), *available at* https://investor.factset.com/news-releases/news-release-details/factset-acquire-cusip-global-services-1925-billion ("[CUSIP] generates annual revenues of approximately $175 million with consistent revenue growth rates in the mid- to high-single digit range").

[56] Proposal at 28. "For identification of securities, the Agencies also considered CUSIP and the ISIN (which includes the CUSIP). While these identifiers are widely used, they are proprietary and not available under an open license in the United States."

[57] *See* Letter submitted by the ABA to the SEC in response to the Proposal, dated Sept. 3, 2024, at n.1*, available at* https://www.sec.gov/comments/s7-2024-05/s7202405-515015-1487362.pdf ("ABA Letter").

[58] 12 U.S.C. 5334(c)(1)(B)(v).

[59] *See* Object Management Group, FIGI Specifications, Data Sheet, *available at* https://www.omg.org/spec/FIGI.

[60] 12 U.S.C. 5334(c)(1)(B)(i).

define the semantic meaning of the data, as defined by the underlying regulatory information collection requirements.[61]

(iii) Ensure that a data element or data asset that exists to satisfy an underlying regulatory information collection requirement be consistently identified as such in associated machine-readable metadata.[62]

(iv) Use, be consistent with, and implement applicable accounting and reporting principles.[63]

FIGI, as used in reporting schemas, is fully searchable and machine-readable. With over 1.3 billion FIGIs issued, market participants have the ability to search the entire database seamlessly. The FIGI standard includes the associated metadata necessary to uniquely identify a financial instrument (see Appendix A examples).[64] The standard itself already incorporates a machine readable, semantics-based approach that aligns with modern ontological data solutions.

For all the reasons noted above, FIGI meets the standards for common identifiers set forth in the FDTA.

FIGI's Design, Coverage, and Attributes Make FIGI Uniquely Qualified to Serve the Government's Purposes

The following sections seeks to correct certain misinformation about the FIGI and provide more information in support of the Agencies' decision.

FIGI Is a Fully Fungible Identifier that Is Interoperable with Proprietary Identifiers

FIGI was designed to be fungible with other identifiers. As the X9D subcommittee noted in the X9's approval of the FIGI standard: "…the development of the Financial Instrument Global Identifier originated from a need for a standard methodology to bridge across multiple identification systems for financial instruments."[65]

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[61] 12 U.S.C. 5334(c)(1)(B)(ii).

[62] 12 U.S.C. 5334(c)(1)(B)(iii).

[63] 12 U.S.C. 5334(c)(1)(B)(vi).

[64] The OMG FIGI standard approved by ASC X9 includes a description of market sector (asset class) specific data elements that are necessary to uniquely identify a financial instrument. When seeking a FIGI for a financial instrument, these data elements are used to confirm that a financial instrument had not been assigned an identifier. Similarly, an OpenFIGI.com web-based or API-based query of a FIGI or alternative identifier will display these data elements in the 8 to 13 different columns of data and associated metadata contained in the fields. Unless one of those fields critical for identification change, in the data management sense, there is no reason to change a financial security's identifier.

[65] ASC X9 Accreditation Approval at 4.

The FIGI currently fulfills this role and can be used to seamlessly link disparate databases that rely on other proprietary identifiers, and FIGI can be mapped one-on-one to other identifiers. OpenFIGI.com provides a free mapping service where a user can provide a set of identifiers to obtain the appropriate corresponding FIGIs. This mapping service is discussed in greater detail below. These mapping services can be and are provided by other service providers.

Independent of Bloomberg, FIGI is widely supported by market data vendors, including some which act as national numbering agencies in other countries, demonstrating its fungibility with other instruments and widespread use as an identification standard.[66] This fungibility is a key feature and design of the FIGI standard because it enables users to place market data vendors in competition with each other to meet the user's specific data needs. The FIGI framework does not force reliance or adoption of a single market data vendor's product, including Bloomberg. On the contrary, it promotes competition. Further, it is clearly evident that solutions incorporating FIGI have been embraced by many different types of stakeholders unrelated to Bloomberg.[67]

Mapping to FIGI Is a Viable Means of Data Management

In 2016, Bloomberg launched OpenFIGI.com and the OpenFIGI API to provide exchanges, data providers, custodians, and other organizations direct access to multiple tools for identifying, mapping and requesting FIGIs. These web-based tools help organizations search for existing FIGIs, request identifiers for new securities, and cross-reference or map FIGIs to other third-party identifiers – all without cost.

In particular, Bloomberg provides a free mapping service via OpenFIGI.com that enables anyone to input security descriptive information, or CUSIP, SEDOL, ISIN, Ticker Symbol, or other identifier, and receive the corresponding FIGI for the instrument.[68] This mapping may be performed in bulk via the free OpenFIGI API. In September 2024 alone, OpenFIGI API fulfilled requests for over 15 billion securities.

Indeed, since January of 2023, OpenFIGI.com has fulfilled requests for more than 236 billion securities. This suggests several things: (1) FIGI effectively identifies financial instruments; (2) there is a market need being met by this service; and (3) as the Financial Industry Regulatory Authority ("FINRA") and the SEC have both observed, mapping is not a daunting challenge.

There are no caps on the amount of data that can be downloaded from OpenFIGI.com. However, to manage request loads, and to ensure that a requester does not dominate the

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[66] *See* Appendix C.

[67] *See* Appendix D.

[68] *See* https://www.openfigi.com/api for more information, including links to OMG OpenFIGI API examples on Github.

OpenFIGI look-up resources or cause a bottleneck to other requesters, the OpenFIGI API limits the number of data calls that can be requested at one time. For example, each requester can submit 25,000 requests that can return upwards of 1,000,000 FIGIs every minute per API key. It should be noted that any firm may use more than one API key.

In addition to the Open FIGI mapping service, any third-party has the ability to provide a similar FIGI mapping service since every FIGI, as well as the associated reference data needed to uniquely identify each instrument, is available without license, freely redistributable, and at no cost to the public.[69]

The SEC has recognized the utility of the FIGI mapping services in prior rules. For example, the SEC recently acknowledged FIGI's mapping capabilities in its 2022 rule amending Form 13F filing requirements. The SEC noted that "FIGI allows users to link various identifiers for the same security to each other, which includes mapping the FIGI of a security to its corresponding CUSIP number."[70] In connection with allowing the use of FIGI on Form 13F, the SEC noted that Form 13F data users could benefit from certain FIGI features, including the ability to use FIGIs without fees or restrictions.[71] The SEC also noted that market participants may benefit from the fact that, because each security has a single FIGI for its lifetime, regardless of any corporate action, the tracking of securities over time may be easier with FIGIs than with CUSIP numbers.[72]

FIGI Can Handle Corporate Actions

The FIGI associated with a particular financial instrument does not change due to a corporate action. This is not true for certain other identifiers. For example, certain corporate actions result in a CUSIP identifier change.

As noted above, the fact that FIGI does not change, regardless of any corporate action, means that the tracking of securities over time may be easier with FIGIs than with other identifiers, such as CUSIP numbers.[73]

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[69] According to the OMG, over 135 data vendors worldwide include FIGI as a security identifier option and there is also a mix of companies that use FIGI to provide services and others that map FIGI to other identifiers. (*See* Appendix C for more detail).

[70] Electronic Submission of Applications for Orders under the Advisers Act and the Investment Company Act, Confidential Treatment Requests for Filings on Form 13F, and Form ADV-NR; Amendments to Form 13F, Sec. Exch. Comm. Rel. No. 34-95148 (June 23, 2022) at n.99, *available at* https://www.sec.gov/files/rules/final/2022/34-95148.pdf ("13F Final Rule").

[71] *Id.* at 49.

[72] *Id.* at n.144.

[73] *Id.*

In 2023, FIGI managed over 50 event types and a million related actions. Corporate actions impact risk, trading, pricing, valuation, and settlement and clearance. Corporate action management is complicated not only due to capital structure considerations but also due to the corporate being listed and traded in multiple listings or jurisdictions. A US ISIN may change, for example, if there is a reverse stock split, a change in rights offerings, or if the debt becomes listed on an exchange. From a data management perspective, it is not entirely clear why the governance convention would demand a change in the security identifier – none of these actions change the identity of the security – rather, attributes of the security are changing. When trading restrictions are removed on a corporate bond, the security has not changed, so the FIGI will not – the CUSIP, however, changes. FIGIs persist on a delisting and upon security or instrument maturity because the data needs to be preserved. FIGI is never reallocated because it creates conflicts in the management of securities for analysis. When two entities conjoin, there are detailed FIGI survivor rules - for example target-acquirer M&A activity. A new FIGI is allocated to the new entity's instruments in a spin-off and in M&A where a new entity is formed.

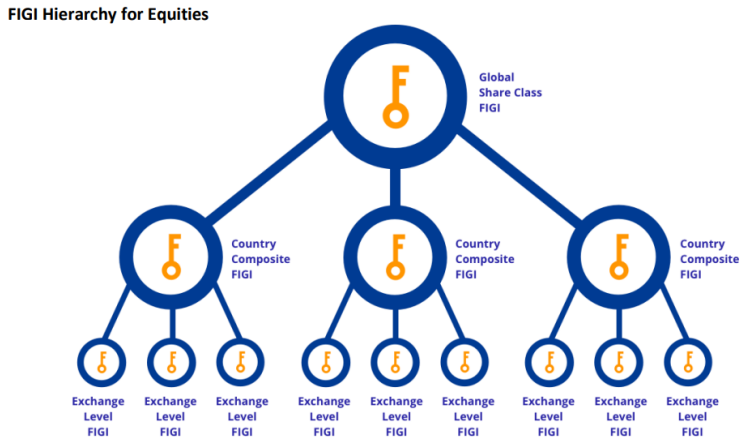
Assigning new identifiers for active securities after a corporate action may work for a single “this is the one thing at this point in time” use case, but it breaks historical lineage which is critical for data management. As a data management standard – unless there is a change in the context of what “this thing” is – the FIGI persists. A more contextual data model, supported by metadata and having a self-referential ability was needed to connect disparate data sources across asset classes, including those that lack standard identifiers. Data management is where FIGI is fit for purpose and, as CGS, ABA, OFR and others in the X9 standards group noted, complements ISIN and other NNA schemes (*e.g.,* CUSIP).

It Is Clear How to Report Using a FIGI and Which FIGI to Report

FIGI presents a data model approach to identification and is therefore unique in the functionality this can provide to regulators and the public. Depending on the asset class and the desired oversight, a reporting rule or requirement can specify the appropriate level of granularity for any particular use case. Because it is an ontological model, the relationship structure may differ by asset class, but can be expanded through revision of the standard or its implementation as necessary.

For example, for corporate bonds, there exists one FIGI per instance of a bond, as there is typically no concept of exchanges or multiple jurisdictional listings for bonds. However, common stock may trade in different jurisdictions and be held and valued in different currencies. Hence, the structure allows users to view common stock from an overall issuance (Share Class FIGI), by jurisdiction (and therefore potentially different risk profiles) using the Composite FIGI, or by identifying the common stock at the individual trading venue using the FIGI. This functionality is particularly relevant in events such as the split created between T+1 and T+2 regimes where the same common stock may have different treatment and risk based on the venue or jurisdiction it exists in, regardless of the location of the primary issuance.

Regardless, the metadata provided for more granular instances will always contain reference to the FIGIs pertaining to higher level aggregation. The granularity of any particular FIGI is easily evidenced by the metadata associated with that instance.



Adoption of FIGI Would Not Create Disruptions in the Market

The FDTA primarily addresses how the federal government manages and makes use of reported data internally and allows agencies to specify the form and manner in which it receives reported data. The Proposal does not impact how the market trades, clears, or manages data. Nothing in the instant Proposal, nor in any subsequent Agency proposal flowing from the FDTA, would change the way that the market trades, clears, or otherwise changes how a firm manages its data.

The FDTA does not mandate or even suggest that the Agencies should engage in rulemaking that either upends the clearing and settlement process or otherwise adjusts private conduct. After the joint standards have been finalized and the Agencies are thus set to commence the Agency-specific rulemaking, the FDTA directs each Agency to apply the established standards, to the extent feasible and subject to other limitations described in the Act, to "*collections of information*" that are regularly *filed with or submitted to* the Agencies. Neither the FDTA nor the Proposal supports a mandate beyond specifying the form and manner of these collections that are filed or submitted to the Agency. The FDTA has a clear and limited purpose. It directs the Agency to establish a set of standards and then directs the Agencies to implement those standards, to the extent feasible and subject to certain limitations.

This suggests that switching from CUSIP to FIGI for reporting to the federal government, or being required to report FIGI alongside CUSIP, would not have a "negative and highly disruptive impact" on the "connectivity and stability of the global financial markets as suggested by some"[74] As noted repeatedly, the FDTA's instructions, and therefore the Proposal's scope, is

[74] *See e.g.,* ABA Letter at 2.

limited to "collections of information" that are reported or submitted to the Agency. In addition to the limited nature of the Act, the Agencies themselves already have experience with and understand the capabilities of FIGI in the reporting context.

For example, of the 24 instances in which CUSIP appears in the SEC's rulebook in connection with a reporting requirement or on forms that a market participant would be required to file with the SEC, FIGI is already a reporting option in five of those instances – either as an optional identifier alongside CUSIP[75] or as a required element alongside CUSIP.[76] These requirements have not been "highly disruptive" and have not put at risk the "stability of the global financial system."

For example, in May 2022, FINRA filed a proposed rule to expand reporting requirements for the Trade Reporting and Compliance Engine ("TRACE") to collect information on trades in foreign sovereign debt securities that are U.S. dollar-denominated. FINRA proposed to allow reporting parties the option to report a CUSIP, ISIN, or FINRA-assigned TRACE symbol. In the Proposal and based on earlier feedback received from the market, FINRA noted that a CUSIP or CINS may not be available for these foreign sovereign debt securities.[77]

In response to the FINRA Proposal, both the Financial Information Forum ("FIF") and Securities Industry and Financial Markets Association ("SIFMA") raised operational concerns regarding reporting of transactions in U.S. dollar-denominated foreign sovereign debt securities to TRACE where a CUSIP or CINS number is not assigned or available, particularly given the proposed same-day reporting timeframe.[78] FIF members further noted that "FIGIs are currently

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[75] *See e.g.,* Reporting of Securities Loans, Sec. Exch. Comm. Rel. No. 34-93613 (Oct. 13, 2023) at 45, *available at https://www.sec.gov/files/rules/final/2023/34-98737.pdf).* Data elements required in the report include: "(1) the legal name of the security issuer, and the Legal Entity Identifier ("LEI") of the issuer, if the issuer has an active LEI; (2) the ticker symbol, ISIN, CUSIP, or FIGI of the security, if assigned, or other identifier; (3) the date the loan was effected; (4) the time the loan was effected; and (5) for a loan executed on a platform or venue, the name of the platform or venue where Executed"). *See also* 13F Final Rule at 38 (allowing managers to provide other identifiers such as a FIGI for each security).

[76] *See e.g.,* Short Position and Short Activity Reporting by Institutional Investment Managers, Sec. Exch. Comm. Rel. No. 34-98738 (Oct. 13, 2023) at 27, *available at* https://www.sec.gov/files/rules/final/2023/34-98738.pdf. In this rule, the SEC requires the reporting of a FIGI of the equity security for which information is being reported, if a FIGI has been assigned. The SEC noted that, like CUSIP, FIGI provides a methodology for identifying securities.

[77] *See* Notice of Filing of a Proposed Rule Change to Expand TRACE Reporting Requirements to Trades in U.S. Dollar-Denominated Foreign Sovereign Debt Securities, SEC Rel. No. 34-94891 (May 11, 2022) at n.12, *available at* https://www.sec.gov/files/rules/sro/finra/2022/34-94891.pdf.

[78] *See* SIFMA Letter to the SEC, dated June 7, 2022, *available at* https://www.sec.gov/comments/sr-finra-2022-011/srfinra2022011-20130538-299179.pdf ("SIFMA Letter") (noting that the lack of CUSIP numbers presents a general operational challenge for members trading USD foreign sovereign debt). *See also* FIF Letter to the SEC, dated June 7, 2022, *available at* https://www.sec.gov/comments/sr-finra-2022-011/srfinra2022011-20130542-299194.pdf ("FIF Letter") (requesting that ISIN and FIGI identifiers be allowed for direct reporting, without the separate need to request a FINRA symbol).

included in the various TRACE trade dissemination reports and the Trace Master list, and it would thus be appropriate also to include FIGIs in the TRACE trade reports."[79]

In response to these concerns, FINRA stated that where a CUSIP or CINS is not available, FINRA intends to permit members to report using a FINRA-assigned symbol. FINRA also committed to updating the new issue form process to permit members to submit the new issue form and receive a FINRA symbol based solely on an ISIN or a FIGI (irrespective of whether a CUSIP and CINS also are available) using the web-based process. In approving the FINRA Proposal, the Commission determined that:

> FINRA's plans to permit members to receive a FINRA symbol based solely on an ISIN or a FIGI (irrespective of whether a CUSIP and CINS also are available) as well as to avoid duplicative symbol assignments, are reasonably designed to address the commenters' concerns, minimize burdens, and facilitate compliance with the proposal.[80]

Finally, the SEC, in every instance in which FIGI has been added to a report, has concluded that costs imposed on reporting parties or recipients of the enhanced data will be negligible.[81]

Agencies Have the Authority Under the FDTA to Select an Instrument-Level Identifier

Some have argued that the FDTA does not authorize the Agencies to select an identifier for financial instruments. Bloomberg believes this is clearly incorrect. While The FDTA does not explicitly mention "securities level identifiers," it actually contains broader language that directs the Agencies to select a set of identifiers for collections of information reported to the Agencies:

> The data standards established in the final rules promulgated under subsection (b)(2) shall… include common identifiers for collections of information reported to covered agencies or collected on behalf of the Council, which shall include a common nonproprietary legal entity identifier that is available under an open license for all entities…[82]

This broad FDTA directive certainly permits the Agencies to select securities level-identifiers, as well as other identifiers that are necessary and appropriate for collections of

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[79] FIF Letter at 4.

[80] *See* Order Approving Proposed Rule Change to Expand TRACE Reporting Requirements to Trades in U.S. Dollar-Denominated Foreign Sovereign Debt Securities, Sec. Exch. Comm. Rel. No. 34-95465 (Aug. 10, 2022) at 15, *available at* https://www.sec.gov/files/rules/sro/finra/2022/34-95465.pdf.

[81] *See e.g.*, 13F Final Rule at 51 (stating "the Commission does not expect that permitting managers to identify securities on Form 13F with FIGIs in addition to CUSIP numbers will impose any costs on managers relative to the baseline").

[82] 15 U.S.C. 5334(c)(1).

information, such as identifiers for derivatives products, country codes, and currencies. This interpretation of the FDTA is entirely consistent with the Agencies' Proposal, in which nine federal regulators independently reached the same conclusion – that the statute authorized the selection of additional identifiers.

Proponents of CUSIPs argue that the fact the FDTA specifically mentions the legal entity identifier as an identifier that must be included in the joint standards means that securities level identifiers must be excluded. But the requirement to include a legal entity identifier is clearly only a subset of the broader directive to identify a set of common identifiers.

The FDTA provides a lengthy list of characteristics that all common identifiers must possess. These characteristics are in addition to those specifically required for the legal entity identifier. In fact, there is an entire section of the FDTA that specifies the characteristics that the Agencies should consider in selecting common identifiers other than the legal entity identifier. This section would be rendered meaningless if the only identifier the Agencies were permitted to select was a legal entity identifier.

Finally, contemporary statements from the sponsors of the legislation clearly indicate that the FDTA applies to identifiers of financial instruments. For example, Senator Warner, sponsor of the FDTA, stated in the press release announcing the FDTA:

> The new standards will include the use of common, non-proprietary legal identifiers for financial products, instruments, and transactions. The identifiers would be required to be available under an open license, at no cost to the public, per existing Federal law.[83]

All this, considered alongside the legislative purpose and history of the FDTA, described above, make it clear that the FDTA requires the Agencies to select a financial instrument identifier as part of the common data standards it must establish.

Selecting FIGI For the Joint Standards Will Not Mean That FIGI Will Replace CUSIP for Reporting Purposes

The Proposal notes that each Agency has significant discretion in applying the joint standards to the specific collection of information. For example, in the event that a financial instrument could be identified by more than one of the joint standards, an Agency could determine not to require both standards.[84] Or, in the event an Agency determines that a particular standard should be tailored or used in conjunction with an identifier that is not in the joint standards, each Agency has discretion to tailor or adopt the joint standards accordingly.[85] So it is simply not true that the Agencies have necessarily concluded or pre-judged a particular outcome

[83] *See supra* n.17.

[84] Proposal at n.44.

[85] Proposal at n.20.

will come about. The FDTA is very clear that the Agencies are afforded discretion and must weigh a number of factors, including feasibility, regulatory burden, and potential for market disruption before making any changes in the second-stage rulemaking.

FDTA – A Two Stage Rulemaking

The FDTA requires a two-step rulemaking. In the initial phase, the Agencies are directed to establish standards, which include a set of common identifiers, for use by the Agencies to manage their data internally and for reporting to the FSOC.[86] In the second rulemaking, which will occur only after the initial phase has been completed, the FDTA directs each Agency to transpose the established standards and common identifiers into each Agency's reporting rules, to the extent feasible, and subject to the determinations and discretion afforded to each Agency under the Act.[87] Therefore, the FDTA does not require the Agencies, during the first stage of rulemaking – which is the current phase of FDTA implementation - to identify how every standard will be implemented in every instance in each Agency's rules. And the Agencies are not situated to undertake this analysis in any event.

The Agencies have a substantial level of discretion in the second phase of rulemaking – not to mention Agency-specific statutory constraints - that will necessarily require each Agency to independently assess how the established standards are transposed into the Agency reporting requirements.

The FDTA clearly requires all changes to Agency-specific reporting requirements to be implemented by rule with requisite opportunity for notice and public comment. This subsequent rulemaking process will be fully subject to all statutory restrictions pertinent to each Agency and Administrative Procedure Act ("APA") rulemaking requirements applicable to all Agencies broadly when in engaged in rulemaking. Therefore, arguments about the lack of cost benefit made in the current juncture are inappropriate and premature.

The Act clearly expects each Agency, in the second phase when applying the joint standards, to work with the public and the entities they oversee to "determine feasibility" and "applicability", and appropriately "scale the data reporting the requirements to reduce any unjustified burden" and "minimize" disruption. The scope of the FDTA is very narrow. There are three use cases for the joint standards under the FDTA: (1) "Taking data in": information reported to an Agency; (2) "Internal/sharing use": an Agency using and sharing its information with other Agencies and the FSOC; and (3) "Publication": Agency disseminating information to the public. This rulemaking addresses the second use case, "Internal/sharing". The next rulemaking phase will address the first ("Taking data in") and third ("Publication") use cases.

The FTDA may provide the Agencies an opportunity to introduce competition through open-source standards and enables market participants an opportunity to choose joint standard

[86] 15 U.S.C. 5334(b)(1).

[87] 15 U.S.C. 5334(b)(2).

usage where it is "feasible" and "applicable" and where it makes sense to do so (*e.g.,* "minimize disrupted changes"). For example, when considering reporting information to an Agency, the FDTA requires an Agency to "determine feasibility of incorporating the joint standards". An agency, in consultation with the industry, may determine that it is cheaper for the industry to continue reporting to an Agency using the current (incumbent) proprietary identifier (*e.g.,* CUSIP) with the Agency taking on the responsibility to map the data from the regulatorily entrenched (incumbent) proprietary identifier to the applicable joint standard (*e.g.,* FIGI). Alternatively, an Agency may advocate reporting with the incumbent identifier "and" the joint standard. An Agency may advocate reporting with the incumbent identifier "or" the joint standard[88]. In each case, an Agency proposing any such change under the FDTA would need to conform with the APA and conduct a cost benefit analysis.

The statute is clear that Congress determined that there is a compelling need - that it is in the public interest for the nine regulatory Agencies to select, employ and make available their data to each other and the FSOC using joint standards for research and enhanced regulatory oversight to ensure financial stability. The FDTA also concluded that it was in the public interest to "publish" and disseminate their (government) data to the public using open-source joint standards in machine-readable format because it would ensure expanded usability (*e.g.,* consumption and availability would not be limited by proprietary standards (*e.g.,* CUSIP) license agreements) of agency data. FINRA's TRACE experience is particularly instructive and should provide the Agencies with confidence and insight to stay the course outlined in the Proposal.

FINRA's TRACE databases are populated with data from its members. Under rule, FINRA members are required to provide TRACE operations with notice of basic data to identify a security so TRACE can record transactions and disseminate certain trade information both in real-time and in historical information files. TRACE requires financial instrument identification. While FINRA maintains for all TRACE securities a data management identifier ("FINRA-symbol"), FINRA requires its members to report the CUSIP if a CUSIP has been assigned. If a CUSIP has not been assigned, FINRA does not require the member to pay for one – the member can request FINRA TRACE operations to assign a FINRA-symbol.[89] In its response to comments on a 2022 proposal to expand TRACE transaction reporting to US Dollar Denominated Foreign Bonds, FINRA reiterated, as they have recognized in the past, they are sensitive to the variety of commenters' concerns regarding the ability to report to TRACE where a CUSIP is not available for a security.[90] As of April 30, 2024, 8.3% of the active bonds in

[88] In a cost benefit analysis, reporting with an entrenched proprietary identifier "OR" the joint standard would not impose any associated costs on the public similar to this phase of FTDA implementation. Any costs to enhance or create new technology to leverage the open-source joint standard would be voluntary and based on each firm's particular situation/cost-benefit assessment.

[89] *See* FINRA Rule 6760(b).

[90] *See* FINRA response to comments on Proposed Rule Change to Expand TRACE Reporting Requirements to Trades in U.S. Dollar-Denominated Foreign Sovereign Debt Securities, File No. SR-FINRA-2022-011 (Aug. 1, 2022), *available at* https://www.finra.org/sites/default/files/2022-08/SR-FINRA-2022-011-response-to-comments-8-1-2022.pdf ("FINRA Response to Comments").

FINRA's corporate bond database represented instances where members availed themselves of FINRA-assigned identifiers for transaction reporting rather than pay all the costs associated with utilizing CUSIP.[91]

The FINRA-symbol schema is fungible - corresponding on a one-to-one basis with a single security and any related CUSIP,[92] similar to FIGI. [93] To ensure expanded usability of its published data, FINRA currently makes TRACE historical information for all of the TRACE reportable asset classes (Corporates, ABS/MBS securitized products, US Treasuries) available to the public "in both CUSIP and Non-CUSIP versions (for customers without a CUSIP license)."[94]

Agencies Did Not Decline to Consider CUSIP in Violation of the APA

The ABA, which owns CUSIP, asserts in its letter to the Commission that the Agencies, in proposing to establish FIGI as the common identifier for financial instruments, declined to "consider" CUSIP and ISIN in the course of their deliberations.[95]

Nothing could be further from the truth. First, a simple reading of the Proposal contradicts the ABA's claim on this point. As a matter of fact, the Agencies *did* consider CUSIP and ISIN for securities identifiers – and determined that neither aligned with the FDTA's requirements for financial identifiers.[96]

Second, immediately after claiming in its letter that the SEC did not consider CUSIP, the ABA's *own letter* proceeds to summarize and take issue with the Agencies' critique of CUSIP in the Proposal. So, the claim that CUSIP was not "considered" is entirely without merit and contrary to the content of the ABA's own letter.

As importantly, the Agencies also specifically addressed *why* neither CUSIP nor ISIN met the requirements for common identifiers as set forth under the FDTA. As the Proposal notes, the FDTA, among other requirements, directs the Agencies, to the extent practicable, to identify common identifiers that are "*nonproprietary* or made available under an *open license*."[97] So a

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[91] This is based on the analysis of the bonds in FINRA's "TRACE Corporate and Agency Master file" at the end of day on Apr. 30, 2024.

[92] FINRA Response to Comments at 3.

[93] The FDTA requires FINRA to engage in rulemaking to adopt the established joint standards (to the extent feasible) within two years of the Agencies finalizing the joint standards.

[94] *See* FINRA, "Historic Data Information," *available at* https://www.finra.org/filing-reporting/trace/historic-academic-data.

[95] ABA Letter at 3.

[96] Proposal at 28.

[97] Proposal at 18. *See also* FDTA Section 5811(c)(2)(B)(iv) (*emphasis added*).

common identifier must be either (i) nonproprietary or (ii) made available under an open license. The Proposal correctly notes that CUSIP and ISIN are *neither* nonproprietary *nor* made available under an open license.[98] Consequently, CUSIP and ISIN do not meet the criteria for common identifiers set forth under the FDTA.

The fact is that the FDTA requires the Agencies to select identifiers that are nonproprietary or under an open license. The Agencies have determined rightly that CUSIP meets neither of those criteria. Should CUSIP wish to be included in the set of identifiers proposed by the Agencies, the simplest way to do so would be to become nonproprietary and under an open license.

FIGI Is Made Available Under an Open License at No Cost to Users

FIGI's open source, nonproprietary framework is designed to produce a unique, non-changing identifier, with no commercial terms or restrictions on usage. FIGI is available free of charge for use by all market participants.

In an attempt to muddy this relatively straightforward analysis, some have attempted to argue that FIGI is not really free. The argument goes that FIGI - the number itself - is free, but there are associated reference data that are hidden behind a paywall, available only to users with a paid subscription to more complete reference data as accessible with Bloomberg terminal.

This is untrue for several reasons. First, the FIGI standard is maintained by OMG under an open license. These open-source standards are formally embedded within both the X9 and OMG standards or accreditations. In addition to the identifier itself, the associated metadata that accompanies each identifier is contained within the FIGI standard and is included within the open license. Accordingly, and contrary to the claims that "extra" reference data is needed in connection with the use of FIGI as an identifier, all of the information and associated metadata that is required to uniquely identify a financial instrument is available through the FIGI standard in the public domain – free of charge and without license.

More specifically, there are eight to thirteen data fields that are made available under the open license, the core fields being:

- FIGI (This is the FIGI assigned to the instrument itself)
- Name of the instrument
- Ticker of the instrument
- Exchange Code (Pricing Source)
- Security Type
- Market Sector (*e.g.,* asset class)
- FIGI Composite (This is the country composite FIGI. For Equities - This is the second level hierarchy it relates all the exchange level FIGIs within the listing exchange's country)

[98] Proposal at 28.

- Share Class FIGI (Global share class FIGI) (This is the Global ID. For Equities, this corresponds/maps to the CUSIP, ISIN; For Loans, this is the deal FIGI)
- Security Description
- Security Type (2)

Crypto securities may have an underlying security for quoting, delivery, etc. FIGI metadata is displayed to identify those relationships.

- Pair FIGI
- Base Asset FIGI
- Quote Asset FIGI

These fields are sufficient to enable any market participant to uniquely identify a particular financial instrument.[99] Indeed, when FIGI was adopted as an American National Standard, the Accredited Standards Committee accepted that the FIGI's data fields and associated metadata available under open license were sufficient for identifying a financial instrument. The fact that OpenFIGI monthly records over 15 billion downloads strongly suggest that FIGI – by itself – suffices for the FDTA's purpose of identifying a financial instrument and is indeed widely used for that purpose.

For use cases beyond the identification of a financial instrument, these fields may be supplemented with additional reference data that may be provided by virtually any reference data provider.[100] Over 135 data vendors worldwide include FIGI as a security identifier option.

FIGI is Widely Available, Fit for Purpose as an Identifier of Financial Instruments, and Has Developed a Proven Track Record

FIGI provides the capacity to identify, not only the financial instrument, but also the venue or country in which it trades. This is useful for regulatory supervision. For most financial instruments, CUSIPs simply identify the financial instrument. Some commenters have expressed that the FIGI hierarchy introduces confusion as to which identifier to use. As an initial matter, the hierarchy provides, as the X9 standard notes, added identification granularity.[101] And, like

[99] This was the conclusion that the 23 members of the ASC X9D1 subcommittee, that included the ABA, CGS, OFR and others, that developed the FIGI standard. The FIGI standard, approved by X9 in 2021, recognizes that the "uniqueness of identifiers is vitally important. This applies not only to the actual twelve-character string used as an identifier, but also to the instrument(s) identified." *See* ASC X9 Accreditation Approval at 41. The standard lays out the "key information elements" that are required to uniquely identify a financial instrument. *See* ASC X9 Accreditation Approval at 14 (Section 6).

[99] *See* Appendix C.

[100] *Id*.

[101] *See* ASC X9 Accreditation Approval at 47. Additionally, the equity hierarchy may become more important as the SEC frames a 24-hour trading structure for national market system equities. *See* 24X National Exchange LLC; Notice of Filing of Amendment No. 1 to an Application for Registration as a National Securities Exchange under

FIGI, CUSIP has employed a hierarchical identification structure in loan identification by assigning a CUSIP to both the loan deal and each specific loan (tranche) underlying the deal.[102] The metadata links the specific loan (tranche) to the deal. When using CUSIP in loans, guidance is issued for each identifier to use in each use case - showing that in equities, the so-called FIGI "information vacuum" is easily resolved with Agency implementation guidance that expresses the preferred FIGI identifier for the particular use case.

FIGI has comprehensive coverage that is unparalleled in the identifier space. While no security identifier has 100% coverage, FIGI's breadth, because it is a data management standard, is extensive. Where there may be gaps, a FIGI can be requested through OpenFIGI.com. Under the OMG FIGI standard, the Registration Authority serves as both an issuer of identifiers and as a comprehensive system of record of the registered identifiers. Bloomberg as the Registration Authority and, along with Kaiko, a Certified Provider, will work with the requester to evaluate the request and assign a FIGI.

Agencies Have Already Incorporated FIGI into a Number of Reports

The SEC has been increasingly including the use of alternate identifiers in recently finalized rules, such as the rule on short position and short activity reporting by institutional investment managers. The SEC allowed the option of using the FIGI in Form 13F filing, noting that it is a commensurate methodology to the CUSIP for identifying securities and that it is widely used and provided for free. It further noted that using the FIGI provides additional clarity, not confusion, to market participants and the public.

The Commodity Futures Trading Commission (CFTC), in joint rulemaking initiative undertaken with the SEC, has also allowed the use of the FIGI in private fund reporting. Industry participants have also been voluntarily showing support for FIGI by reporting to the SEC using the FIGI as their identifier of choice in other forms, including NPORT-P, N-CEN, N-MPF2, Form 20F, Form 6-K, and Form 8-K filings.[103]

CUSIP Does Not Meet the FDTA Standards

Brief history of ABA Ownership

As described in the pending Dinosaur litigation, beginning in the 1960s, government regulators and industry participants, including the ABA, began working toward developing a

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Section 6 of the Securities Exchange Act of 1934, Sec. Exch. Comm. Rel. No. 34-100839 (Aug. 27, 2024), *available at* https://www.sec.gov/files/rules/other/2024/34-100839.pdf.

[102] *See* CGS Syndicated Loans, *available at* https://www.cusip.com/pdf/CGS095_CGS_Syndicated_Loans_02_15_17-USLtr.pdf (stating "CUSIP is assigned to each deal and its underlying facilities"). *See* Appendix A for the FIGI Loan Hierarchy.

[103] *See. e.g.,* Form N-Port-P Filing, *available at* https://www.sec.gov/Archives/edgar/data/822977/000175272424230031/xslFormNPORT-P_X01/primary_doc.xml.

uniform numbering system to facilitate the use of electronic trading systems. By 1966, the CUSIP was launched, and by 1971, the SEC was mandating use of CUSIPs in certain regulatory filings.[104]

The CUSIP is owned by the ABA and operated by FactSet Research Systems Inc. Unlike the FIGI, CUSIP charges fees for obtaining and using the database that includes the relevant identifiers. CUSIP has enjoyed a monopoly status in the world of identifiers in part because of its government imprimatur, as well as express regulatory directives to use CUSIP. Financial institutions, issuers of securities, and other market participants have paid and continue to pay significant licensing fees as a result.

CUSIP Is Proprietary and Is Not Open Source

In the last two decades, alternate identifiers – like the FIGI, which is free to use – have come into existence, and industry participants have raised concerns with the increasingly burdensome fees that CUSIP has been imposing unchecked on investment advisers, investors, and others.

CUSIP fees are charged not only to issuers that pay for an assignment of a CUSIP number, but also to data vendors that provide data containing CUSIP numbers, and end users taking in that information. Even government agencies gathering regulatorily required information that contain CUSIP numbers must pay licensing fees to CUSIP. It is estimated that CUSIP currently charges around $20 million annually for issuing CUSIP numbers for securities alone, with additional $100 million charged to end users for downloading CUSIP numbers. The amount increases even more when fees charged to data vendors, government agencies, and other users are added.[105]

CUSIP fees disproportionately affect and have had a greater detrimental impact on smaller reporting entities. Organizations such as the Investment Adviser Association ("IAA") that represent small advisory firms, have previously raised to the SEC their concerns with the increasingly burdensome fees imposed for the acquisition, retention, and use of CUSIP. The IAA has asked the SEC to review the policy of mandating the use of CUSIP in regulations or regulatory filings as these practices may pose potentially liability, subject users to the payment of burdensome fees, or are otherwise problematic.[106]

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[104] CUSIP is currently litigating a class action lawsuit filed regarding CUSIP licensing fees. *See Dinosaur Financial Group LLC et al. v. S&P Global, Inc. et al.,* No. 22-cv-1860(KPF) (S.D.N.Y.).

[105] *Id*.

[106] *See* Letter from the IAA to the SEC, dated Sept. 29, 2020 at 6, *available at* https://www.sec.gov/comments/s7-08-20/s70820-7859973-223872.pdf; Letter from the IAA to the SEC, dated Dec. 17, 2021 at 3, *available at* https://www.sec.gov/comments/s7-15-21/s71521-20109989-264314.pdf. *See also* Letter from the IAA, Bond Dealers of America, and Government Finance Officers Association to the SEC, dated Nov. 10, 2010, *available at* https://www.bdamerica.org/wp-content/uploads/2010/12/CUSIP-SEC-Letter-FINAL-IAA-GFOA-BDA-111010.pdf.

Far from being open-source, CUSIP is currently the subject of a class-action lawsuit regarding allegedly abusive licensing restrictions.[107]

CUSIP Lacks Robust Coverage Both in the US Market as Well as Internationally

CUSIP coverage beyond US listed equities and corporate bonds is less robust than the coverage FIGI provides. FIGI provides global coverage for currency futures, cryptocurrencies, indices, and commodity futures that CUSIP does not provide.

Beyond US markets for common stock and bonds, CUSIP does provide the CUSIP International Numbering System ("CINS"). However, this is based on requests from users to issue a CINS and in most cases is duplicative of ISINs issued by the NNA responsible for the particular jurisdiction.

And as noted above in regards to public comments to FINRA concerning TRACE reporting, in many instances a CUSIP or CINS is not available. This may be tied to the CUSIP model relying on a reactive issuance – necessary due to the fee required to be paid to issue any CUSIP or CINS – versus the proactive model FIGI is issued under. Said another way, CUSIPs are only issued when requested to be issued, as opposed to FIGIs which are issued based on a public document curation process, such that FIGIs many times are available well in advance of a CUSIP, if a CUSIP is ever issued.

Finally, FIGI provides coverage for a wide range of financial instruments, including digital assets. By contrast, CUSIP does not cover digital assets.

LEI and UPI

Bloomberg supports the Agencies' decision to select the UPI for swaps and security-based swaps and the LEI as the legal entity identifier.

With respect to LEI, the identifier is used extensively and broadly on a global basis. It is important, in the subsequent rulemaking initiatives, to give careful consideration as to how the reporting requirements are implemented to ensure that the responsibilities for obtaining and maintaining the LEIs are allocated appropriately – and in a manner that minimizes disruption. This is particularly true where there may not be a requirement for the issuer to obtain and maintain an LEI.

Where We Are in the Process

Even prior to the FDTA, the need to revisit the CUSIP's entrenched role in the public reporting process, has been raised as an issue by the regulators themselves. As early as 2014, SEC Commissioner Gallagher noted that the Commission should consider removing CUSIP

[107] *See supra* n.104. *See also* Comment Letter from Competition Law Partners PLLC, Kaplan Fox & Kilsheimer LLP, and Wollmuth Maher & Deutsch LLP to the SEC on the Proposal, dated Oct. 1, 2024, *available at* https://www.sec.gov/comments/s7-2024-05/s7202405-526315-1509703.pdf.

references from the Commission's Rules.[108] And while it may have historically been appropriate to entrench a private company into the SEC's rules – and thus require any and all reporting entities and the general public to make use of the private entity's services – that time has long since passed. As Commissioner Allison Lee more recently noted:

> Given that there are noncommercial, open, and freely available alternatives to proprietary identifiers, it makes sense to consider how to allow their usage when it comes to regulatory reporting requirements.[109]

The FDTA embodies these sentiments and provides a clear mandate for the Agencies to, as an initial matter, identify a set of common identifiers that meet the FDTA's statutory requirements, and then update their rules to make use of open standards according to the FDTA's directives.

As noted above the FDTA contemplates a two-part rulemaking process. First, the agencies must propose and finalize a rule establishing joint standards. After those joint standards have been finalized, the statute directs each Agency to engage in an Agency-specific rulemaking to apply the joint standards to certain collections of information, to the extent feasible, and subject to the additional instructions provided within the FDTA.

At this juncture we are only at the beginning of the first stage. The Agencies have identified the joint standards in the Proposal and are receiving public feedback. This provides the public with an opportunity to provide additional feedback and clarity surrounding the proposed standards.

But since this is only the first step in the overall process, this Proposal, if finalized, would create no additional requirements for, nor impose any burdens on, any market participant or reporting party. The statute directs the Agencies to first develop standards and then to determine how to apply those standards (or not). As the Proposal notes:

> The FDTA both requires and serves as the legal basis for the Board to issue this proposed rule. The FDTA instructs the Agencies to establish data standards to promote interoperability of financial regulatory data across these Agencies. The proposed rule only applies to the Agencies themselves—it does not apply to any

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[108] Commissioner Dan Gallagher, Remarks to the Georgetown University Center for Financial Markets and Policy Conference on Financial Markets Quality (Sept. 16, 2014), *available at* https://www.sec.gov/newsroom/speeches-statements/2014-spch091614dmg ("And I would be remiss if I didn't point out that the Commission needs to do something about the de facto monopoly forcing the use of CUSIPs in the fixed income markets, starting with removing references to CUSIPs from our rules").

[109] Commissioner Allison Lee, Remarks at the XBRL US Investor Forum 2020: Ready for Anything – Using Data in Perilous Times (Nov. 17, 2020), *available at* https://www.sec.gov/newsroom/speeches-statements/lee-structured-data-2020-11-17.

other entities, including small entities. Therefore, the proposed rule includes no new reporting, recordkeeping, or other compliance requirements.[110]

At the second stage of rulemaking, each Agency is empowered to, yet limited by, the FDTA's directives to each Agency to transpose the data standards into their respective rulebooks.

Conclusion

As discussed above, the Proposal is the first step in a lengthy process that has been directed by Congress. As an initial matter, the Agencies have been instructed to identify a set of common identifiers and established standards that meet the requirements set forth in the FDTA according to the timelines set for the in the Act. Bloomberg supports this initial step and supports the Agencies' decision to select FIGI as the common identifier for financial instruments.

We appreciate the Commission's willingness to consider our comments and would be pleased to discuss any question that the Commission may have with respect to this letter.

Thank you.

Very truly yours,

Gregory Babyak
Global Head of Regulatory Affairs, Bloomberg L.P.

Gary Stone
Regulatory Analyst and Market Structure Strategist, Bloomberg L.P

[110] Proposal at 44.

Appendix A. OpenFIGI Provides Metadata to Identify a Financial Security

FIGI was created to be flexible, contextual, and global to solve a specific use case – the challenges of global financial instrument data management. FIGI is a data management standard, and its data model accurately assigns a unique **persistent** identifier to a security description and provides additional metadata to form context. For example, in equities and loans, the data model includes a hierarchy that reflects the fragmented market structure (across countries and exchanges) in equities (Figure 3) and the complexities of loan deals and associated tranche structures (Figure 4). The FIGI data model identifies a financial instrument and provides key data elements to identify it. The FIGI data model is different than providing a market data product that includes significant tranches of data in addition to what is necessary to serve as an identifier for the purposes of data management (see Comparison of Instrument Identification Data below).

FIGI has structural advantages as an identifier over NNA and other identifiers. Governance (*e.g.,* reusing identifiers and the increasing number of exceptions to the business rules being imbedded in the identification scheme) and scope issues (*e.g.,* asset identification gaps) with the National Numbering Agencies (NNAs) local identifiers (*e.g.,* CUSIP, ISIN, etc.) made them ill-suited for the data management use case. The NNA identifiers are matched for their original use case – creating an identifier that represented "this is the one 'thing' at this point in time" in the local market - for efficient trading, settlement and clearance. Unique historical lineage formed from identifier persistence are not major governance considerations for identifiers when used for a single use case or a process such as trading, settlement, or clearance. But tying these processes together, and keeping a history is where FIGI's strengths and benefits become highlighted. The 23 members of the ASC X9D1 committee, that included representatives from the American Bankers Association (ABA), Bloomberg L.P., CUSIP Global Services (CGS), the US Department of the Treasury Office of Financial Research (OFR) and others,[111] that developed the FIGI standard concluded that ISIN/CUSIP and FIGI were ***complimentary*** [112] because a data management standard use case is different than security/instrument identification for a specific purpose such as trading, settlement, and clearance.

As a data management standard, FIGI and Open Symbology provides the foundation for linking, normalizing, and then analyzing data that historically was costly and too difficult to proactively manage and bring together. The relationships formed from the FIGI metadata enables a true picture of risk across an enterprise (asset classes and geographies) to be formed. In 2014, as the industry started to create "data lakes" as an enterprise data management strategy, some institutions created their own proprietary financial instrument identification system to link their various data silos – the decentralized, fragmented stores of data – across the organization. Valuable scarce IT and budget resources are allocated to creating and maintaining such systems. The FIGI model connected disparate data sources stored across organizations, including asset classes that lack standard identifiers. This use case is similar to the challenges that confront the Chief Data Officers of the nine regulatory Agencies in trying to tie their databases together into a

[111] *See* ASC X9 Accreditation Approval at x.

[112] *Id*., at 47.

Federal regulatory data lake or data mesh, in 2024.[113] Moreover, FIGI provides the exact capability that the Agencies and specifically the FSOC require to fulfil its oversight and stability mission. FIGI is uniquely fit for this purpose.

The ASC X9D1 subcommittee recognized that the "uniqueness of identifiers is vitally important. This applies not only to the actual twelve-character string used as an identifier, but also to the instrument(s) identified." [114] The FIGI standard lays out the "key information elements" that are required to uniquely identify a financial instrument.[115] This is the data that is provided in an OpenFIGI.com search.[116] (see Comparison of Instrument Identification Data below).

FIGI is an open-source standard where identifier information can be returned from a web-based search at OpenFIGI.com or through a free OpenFIGI API. Bloomberg relinquished all rights to FIGI to the Object Management Group ("OMG"), an independent, vendor neutral, international, open membership, not-for-profit technology standards consortium,[117] so that that the standard could be placed into the public domain. The MIT Open Source License is integrated into the standard enabling FIGI to be an Open Source solution to financial security identification.[118]

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[113] *See* Proposal at n.22. "Since March 2023, staff at the implementing Agencies and Treasury consulted with counterparts at the National Institute of Standards and Technology, Federal Chief Data Officers Council, Federal Evaluation Officer Council, the Federal Financial Institutions Examination Council (FFIEC), the Department of Health and Human Services, and the Department of Homeland Security." *See also* a list of the Chief Data Officers listed in "For Further Information Contact" at 11-14.

[114] *See* ASC X9 Accreditation Approval at 41.

[115] *Id*., referring to Section 6, that "a financial instrument is identified by multiple things, is classified by multiple things, and is associated with multiple things. It is this collection of relationships that needs to be understood so as to ensure that a given financial instrument has not already been assigned an identifier." *See also id.* at 4. The standard explains that the FIGI model "is developed from a previously existing infrastructure that had issued in excess of 150 million FIGI-compliant identifiers as of the 2014 OMG publication of the original specification."

[116] *Id*. at 4, 7. An OpenFIGI.com search provides the data points needed to define an instrument: A consuming application is in conformance with this standard provided that it is configured to ingest and store a syntactically correct Financial Instrument Global Identifier, a Composite Global Identifier, and a Share Class Global Identifier. Optionally, a consuming application may, but is not required to, ingest and store any or all of the remaining data points associated with an Identifier, *e.g.,* the associated definition."

[117] *See* Object Management Group, "About us," *available at* www.omg.org. "The Object Management Group® (OMG®) is an international, open membership, not-for-profit technology standards consortium. Founded in 1989, OMG standards are driven by vendors, end-users, academic institutions and government agencies. OMG Task Forces develop enterprise integration standards for a wide range of technologies and an even wider range of industries. When tech organizations, government, and academia need to solve discrete pieces of a technology puzzle or discuss matters of common interest—they often look to join or form a consortium. Since 1989, we have created and nurtured a productive community with common technology interests and problems to resolve. We are global, not-for-profit, and vendor neutral."

[118] ASC X9 Accreditation Approval at 48.

There are three use cases for FIGI identifier acquisition:

1. I have a FIGI - What is the corresponding security description and type?
2. I have the security description – What is the FIGI that matches the descriptive data?
3. I have an alternative identifier – What is the FIGI that corresponds to the alternative identifier?

(1) If I have a FIGI - What is the corresponding security?

FIGI covers 10 Market Sectors (asset classes) globally:

- Equity
- (Equity) Preferred
- Commodity
- FX
- Fixed Income
  - Government
  - Corporate
  - Money Market
  - Mortgage
  - Municipal
- Index

In this use case, the FIGI Composite (or any FIGI in the hierarchy) can be placed in the search box and the OpenFIGI web-based search or the OpenFIGI API will return, depending upon the market sector (asset class), eight and potentially as many as 13 metadata columns or fields of data, including:

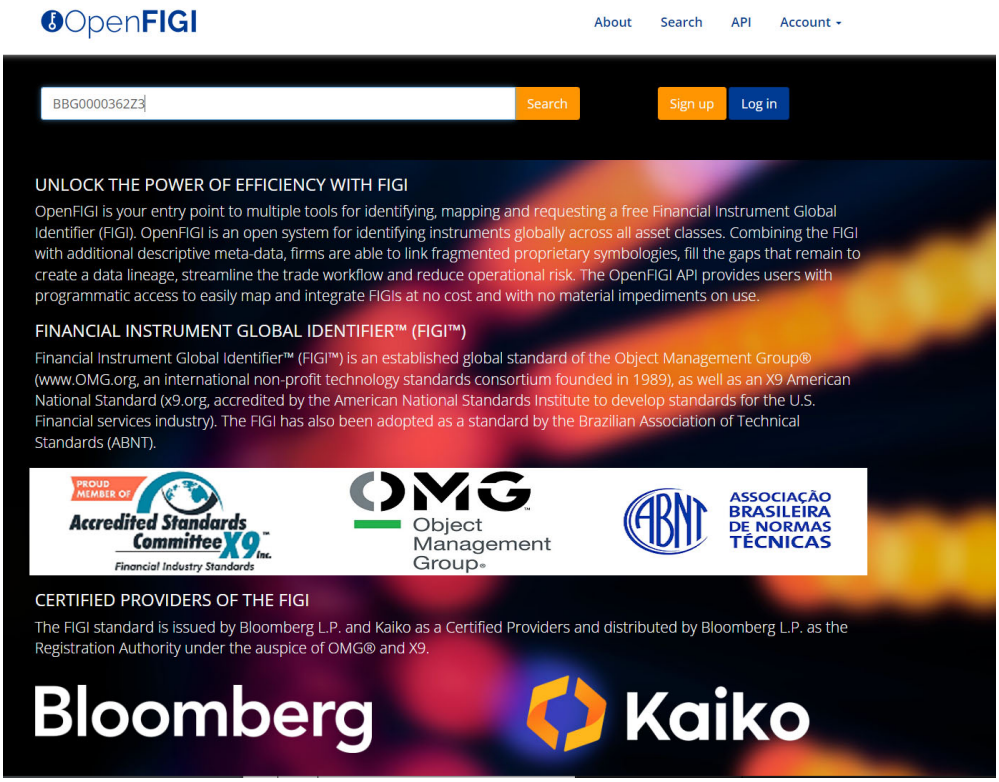
- FIGI (This is the FIGI assigned to the instrument itself)
- Name of the instrument
- Ticker of the instrument
- Exchange Code (Pricing Source)
- Security Type
- Market Sector (*e.g.,* asset class)
- FIGI Composite (This is the country composite FIGI. For Equities - This is the second level hierarchy it relates all the exchange level FIGIs within the listing exchange's country)
- Share Class FIGI (Global share class FIGI) (This is the Global ID. For Equities, this corresponds/maps to the CUSIP, ISIN; For Loans, this is the deal FIGI)
- Security Description
- Security Type (2)

Crypto securities may have an underlying security for quoting, delivery, etc. FIGI metadata is displayed to identify those relationships.

- Pair FIGI
- Base Asset FIGI
- Quote Asset FIGI

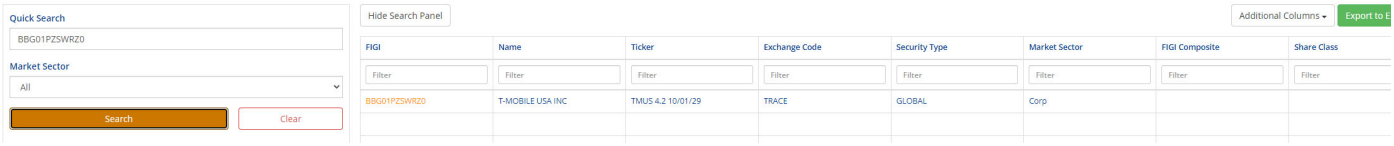
These data fields along with additional data contained in some of the data fields, such as the ticker and security description, are sufficient to enable any market participant to uniquely identify a particular financial instrument. The results from OpenFIGI.com are also explained in Section 8, FIGI Ontology section of the ASC X9 document.[119]

After placing a FIGI (*e.g.,* BBG01PZSWRZ0) in the search box, the search will return the "metadata".



[119] *Id.* at 37-39.

In the case of a fixed income security, FIGI BBG01PZSWRZ0 is a T-Mobile USA INC Corporate Bond:



The search returns nine descriptive data points including the name of the issuer (T-Mobile USA Inc), the ticker (TMUS 4.2 10/01/29), exchange code (in this case it shows that the security is TRACE eligible), the security type (Global) and the market sector (Corporate Bond). Within the ticker, additional information is provided including the coupon rate is 4.20, that the coupon type is "FIXED", the maturity date of the bond (10/01/2029) and the "exchange ticker" of the issuer (TMUS). This is the critical information to identify the security.

Across an enterprise, different groups will require different reference data. The back office will need information to combine with the sale price to calculate the cash value to settle and clear the security. A research institution may need the amount outstanding to calculate capital structure or debt distribution. An academic analyzing FINRA's corporate bond TRACE historical transaction data may not need any reference data and a major point of the FDTA is that unless the public requires reference data, they shouldn't have to pay for it just to receive a security identifier. The nine Chief Data Officers (CDOs) are in the best position to assess and understand their needs. The FIGI identifier-only model enables the CDOs to place data vendors in competition for the data that they need to manage their data budget.

(2) I have the security description – What is the FIGI that matches the descriptive data? [120]

When using a security description to identify a FIGI, OpenFIGI accepts over 100 fields and 750 security descriptor options across the 10 market sectors to aid in correctly identifying the FIGI of a specific financial security. A complete list of all the descriptors is available on OpenFIGI.com.[121]

For example, OpenFIGI accepts 26 alternative identifiers including ISIN, SEDOL, Common Code, Germany's Wertpapierkennnummer/WKN, CUSIP, CINS, FINRA TRACE, MIC, Italy, exchange symbols, base tickers, OPRA Symbology, short codes, vendor index codes, etc.

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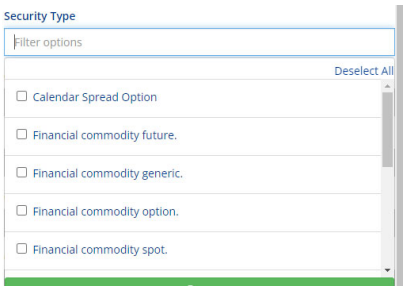
[120] OpenFIGI.com provides tutorial, sample API code etc. on open source forums such as GitHub (https://www.openfigi.com/api#examples-on-github), OpenFIGI.com (https://www.openfigi.com/api#openapi-schema).

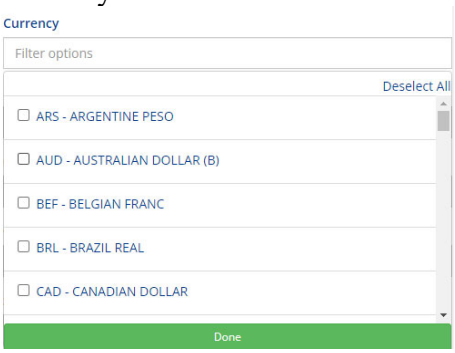
[121] *See* V2 Sunsetting 2026 at https://www.openfigi.com/api#v2. For example, the extensive list of security types is found in a hyperlink in the "security type" property: "Security type of the desired instrument(s). Click here for the current list of Security Type values." The "Click here" leads to https://www.openfigi.com/api/enumValues/v3/securityType and displays the 446 available filters. There are 10 Market Sector and 324 currency filters.

In addition, even without a third-party identifier, OpenFIGI also accepts market sector descriptors, security type descriptors, contract size, strike prices, expiration, option types, coupons, maturity, etc. The Security type enables users to describe the security further as money market, ADR, Depositary Receipt, convertible bond, a warrant, mutual fund, future, index, index future, index warrant, ETF, REIT, etc.

All of the possible descriptive data options are available in OpenFIGI.com by selecting the market sector and clicking into the different description options. For example, in the Commodity Market Sector, the Security Type:



Currency:



Filter options are available for exchange code, country, option type (put/call). Ranges for strike and expiration date are also available.

From these different security descriptors, OpenFIGI will return the FIGI and associated metadata for the security. Some queries could be simply to return all securities belonging to "IBM". Or all the identifiers for IBM equity securities.

These are the critical elements in data management and demonstrate the reach of FIGI as a global framework. And, if a FIGI cannot be located, the website provides a mechanism to contact a FIGI administrator for additional help. If a FIGI does not exist, the administrator can create one – without any license fees or other cost (See Appendix D, Open-Source and Identifier Creation).

Use Cases by Market Sector

Equity:

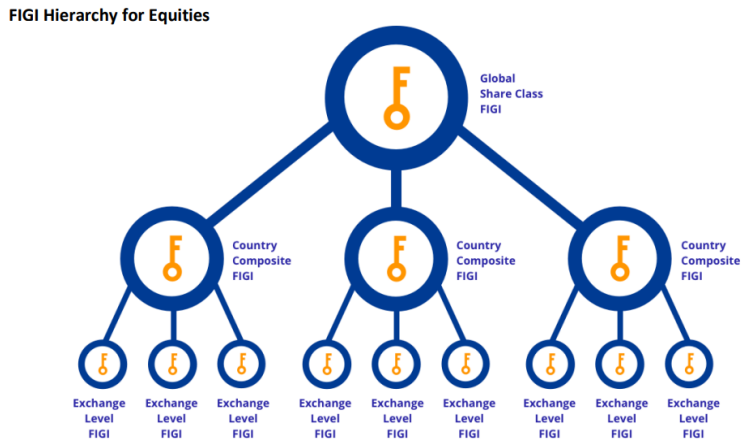
Contextualization and Hierarchy: Contextual data models take into account that different use cases and users may view the same "one thing" in different ways. This means that the data associated with each different context may be slightly different. For example, in equities traders care about what exchange the stock trades on - the settlement location (depository for the country) is not necessary and is just noise in that context. But, settlement information is important to the back-office, and any exchange-related information may be noise and causes problems. Same stock with different contexts.

The FIGI standard is self-referencing in the vertical context – for example there is an entity that has issued stock. That stock may trade on different venues and be listed to trade on different venues that are in different countries and currencies (Figure 3). FIGIs are fungible – exchange level rolls up to the country composite which rolls up to the share class – and the FIGI metadata provides "pointers" to these related contexts.

For financial oversight and research, because equity liquidity is fragmented across countries and exchanges, both perspectives are needed. In some cases, the oversight and research analysis may be conducted at the "share class level" – *e.g.,* overall activity in a particular stock; but in others instances, a "country composite" may be required – *e.g.,* US-Canada inter-listed securities where the approximately 25% of the trading activity in the large Canadian banks is in the U.S. and as much of half of the trading activity in some Canadian technology stocks is in the US; and of course with 13 stock exchanges and three trade reporting facilities, an "exchange level" perspective may be warranted.

May 28, 2024 was the effective date of the new T+1 settlement cycle for most securities in the US. The rest of the world remained at T+2. The country composite FIGI provides a data management structure to compare the impact of the change to T+1 on NMS ADRs and ETFs with non-holdings still settling T+2, dislocations on multi-listed securities, and OTC equities listed stocks (would be subject to T+1 in the US with their underlying still at T+2 treatment). No other security identification framework has a FIGI equity-hierarchy – which is what makes FIGI uniquely a data management identification solution and fit for purpose for the Agency's use case. (See Appendix D for more detail on Mapping, Fungibility and Interoperability).

Figure 3. FIGI Hierarchy for Equities.



Common Stock or ETP - Example: Ticker: “IBM”, “Equity”

1. Name: Provides the public name of the stock.
2. Ticker: The ticker (typically as assigned by the exchange).
3. Exchange Code: Provides specific exchange, or the country for Composite FIGI.
4. Security Type: Within a Market Sector, a specific sub-type.
5. Market Sector: The general asset type (Equity, Fixed Income, etc.).
6. FIGI: For common stock, the identifier relates to a specific exchanged traded instance.
7. FIGI Composite: For common stock, will be the same for all FIGI within a single settlement jurisdiction.
8. Share Class: For common stock, associates all global instances of a single common stock issuance.
9. Security Description: Any additional description available.
10. Security Type 2: Sub asset type if applicable.

FIGI	Name	Ticker	Exchange Code	Security Type	Market Sector	FIGI Composite	Share Class	Security Description	Security Type 2
Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
BBG00X1L7136	INTL BUSINESS MACHINES CORP	IBM	VG	Common Stock	Equity	BBG000BLNNH6	BBG001S5S399	IBM	Common Stock
BBG000BLNQ16	INTL BUSINESS MACHINES CORP	IBM	UN	Common Stock	Equity	BBG000BLNNH6	BBG001S5S399	IBM	Common Stock
BBG000BLNRW0	INTL BUSINESS MACHINES CORP	IBM	UT	Common Stock	Equity	BBG000BLNNH6	BBG001S5S399	IBM	Common Stock
BBG00THD3737	INTL BUSINESS MACHINES CORP	IBM	VL	Common Stock	Equity	BBG000BLNNH6	BBG001S5S399	IBM	Common Stock
BBG00X1PNB46	INTL BUSINESS MACHINES CORP	IBM	VP	Common Stock	Equity	BBG000BLNNH6	BBG001S5S399	IBM	Common Stock
BBG000BLNR78	INTL BUSINESS MACHINES CORP	IBM	UB	Common Stock	Equity	BBG000BLNNH6	BBG001S5S399	IBM	Common Stock
BBG000BLNPB7	INTL BUSINESS MACHINES CORP	IBM	UC	Common Stock	Equity	BBG000BLNNH6	BBG001S5S399	IBM	Common Stock
BBG000BLNS85	INTL BUSINESS MACHINES CORP	IBM	UM	Common Stock	Equity	BBG000BLNNH6	BBG001S5S399	IBM	Common Stock
BBG000BLNYM6	INTL BUSINESS MACHINES CORP	IBM	VK	Common Stock	Equity	BBG000BLNNH6	BBG001S5S399	IBM	Common Stock
BBG000BLNQG0	INTL BUSINESS MACHINES CORP	IBM	UP	Common Stock	Equity	BBG000BLNNH6	BBG001S5S399	IBM	Common Stock
BBG000BLNSR4	INTL BUSINESS MACHINES CORP	IBM	UX	Common Stock	Equity	BBG000BLNNH6	BBG001S5S399	IBM	Common Stock
BBG000BLNWJ4	INTL BUSINESS MACHINES CORP	IBM	UD	Common Stock	Equity	BBG000BLNNH6	BBG001S5S399	IBM	Common Stock
BBG00DJCWHL8	INTL BUSINESS MACHINES CORP	IBM	VF	Common Stock	Equity	BBG000BLNNH6	BBG001S5S399	IBM	Common Stock
BBG000BLNY91	INTL BUSINESS MACHINES CORP	IBM	VJ	Common Stock	Equity	BBG000BLNNH6	BBG001S5S399	IBM	Common Stock
BBG000BLNNH6	INTL BUSINESS MACHINES CORP	IBM	US	Common Stock	Equity	BBG000BLNNH6	BBG001S5S399	IBM	Common Stock
BBG000BLNNV0	INTL BUSINESS MACHINES CORP	IBM	UA	Common Stock	Equity	BBG000BLNNH6	BBG001S5S399	IBM	Common Stock
BBG000BLNXV8	INTL BUSINESS MACHINES CORP	IBM	VY	Common Stock	Equity	BBG000BLNNH6	BBG001S5S399	IBM	Common Stock
BBG000BLNXP5	INTL BUSINESS MACHINES CORP	IBM	UF	Common Stock	Equity	BBG000BLNNH6	BBG001S5S399	IBM	Common Stock

Preferred - Example: Ticker: “PETR4”, “Equity – Preference”

FIGI	Name	Ticker	Exchange Code	Security Type	Market Sector	FIGI Composite	Share Class	Security Description	Security Type 2	Pair FIGI	Base Asset FIGI	Quote Asset FIGI
Filter	Filter	Filte	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
BBG000BF4RP2	PETROBRAS - PETROLEO BRAS-PR	PETR4	BS	Preference	Equity	BBG000BF4R45	BBG001S7GRB2	PETR4	Preference			

It is important to note that many alternative identifiers do not provide the hierarchy of country and exchange in their metadata for equities.

Commodity:

Future - Example: Ticker: “CLV4”, “Comdty”

FIGI	Name	Ticker	Exchange Code	Security Type	Market Sector	FIGI Composite	Share Class	Security Description	Security Type 2	Pair FIGI	Base Asset FIGI	Qu
Filter	Filter	Filte	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	F
BBG00JSLLRZ0	WTI CRUDE FUTURE Oct24	CLV4	NYM	Physical commodity future.	Comdty			CLV4 COMB	Future			

Foreign Exchange:

GBP (British Pound)

FIGI	Name	Ticker	Exchange Code	Security Type	Market Sector	FIGI Composite	Share Class	Security Description	Security Type 2	Pair FIGI	Base Asset FIGI	Quote As
Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
BBG0013HFH84	British Pound Spot	GBP		SPOT	Curncy			GBPUSD Curncy	CROSS			

Note that the name identifies the FIGI as the British Pound Spot and security description clarifies that the "spot" is the GBP USD currency cross. This description compares to the JPY, Japanese Yen spot where the security description explains that the FIGI represents the USD JPY cross.

FIGI	Name	Ticker	Exchange Code	Security Type	Market Sector	FIGI Composite	Share Class	Security Description	Security Type 2	Pair FIGI	Base Asset FIGI	Quot
Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filt
BBG0013HG3T1	Japanese Yen Spot	JPY		SPOT	Curncy			USDJPY Curncy	CROSS			

FX Volatility Option: JPY (Japanese Yen)

FIGI	Name	Ticker	Exchange Code	Security Type	Market Sector	FIGI Composite	Share Class	Security Description	Security Type 2	Pair FIGI	Base Asset FIGI	Quote
Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filte
BBG0013LY2B3	USD-JPY OPT VOL 1M	USDJPYV1M		OPTION VOLATILITY	Curncy			USDJPYV1M Curncy	OPTION VOLATILITY			

Note that the security description and security type note that the option is a 1-month volatility option.

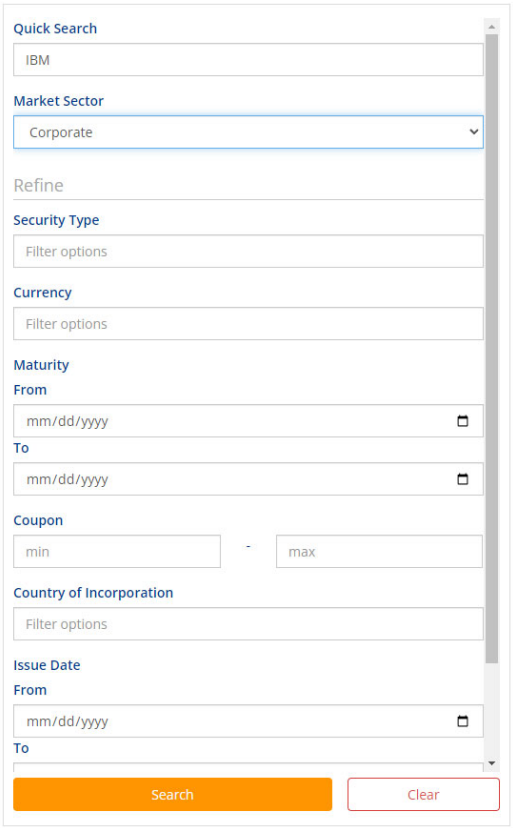
Fixed Income:

Government/US Agency (FNMA 2.125 04/24/26)

FIGI	Name	Ticker	Exchange Code	Security Type	Market Sector	FIGI Composite	Share Class	Security Description	Security Type 2	Pair FIGI	Base Asset FIGI	Quote As
Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
BBG00CS9H781	FANNIE MAE	FNMA 2.125 04/24/26	TRACE	GLOBAL	Govt			FNMA 2 1/8 04/24/26	Govt			

Corporate bond: IBM- In addition to searching for information on a specific FIGI, OpenFIGI enables users to display all of the related securities. For example, the market sector,

security type, currency, maturity, coupon, country of incorporation, issue date, etc., can be used to identify the FIGIs associated with IBM corporate bonds.



Hide Search Panel | Additional Columns | Export to Excel

FIGI	Name	Ticker	Exchange Code	Security Type	Market Sector	FIGI Composite	Share Class	Security Description	Security Type 2	Pair FIGI	Base Asset FIGI	Quote Asset FIGI
Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
BBG000504GT2	IBM CORP	IBM 5.805 10/01/98 MTN		DOMESTIC MTN	Corp			IBM 5.805 10/01/98	Corp			
BBG000818GN9	IBM CORP	IBM 4.5 11/15/10 NOTE	TRACE	DOMESTIC MTN	Corp			IBM 4 1/2 11/15/10	Corp			
BBG0006H43Z6	IBM CORP	IBM 2.15 08/15/04 NOTE	NOT LISTED	DOMESTIC MTN	Corp			IBM 2.15 08/15/04	Corp			
BBG00066X5C8	IBM CORP	IBM 5.95 06/02/03 MTN	NOT LISTED	DOMESTIC MTN	Corp			IBM 5.95 06/02/03	Corp			
BBG005ZC4DP3	IBM CORP	IBM F 02/05/16	FRANKFURT	GLOBAL	Corp			IBM Float 02/05/16	Corp			
BBG000860DZ0	IBM CORP	IBM F 10/02/08 144A	TRACE	PRIV PLACEMENT	Corp			IBM Float 10/02/08	Corp			
BBG005ZC4HG4	IBM CORP	IBM F 02/12/19	TRACE	GLOBAL	Corp			IBM Float 02/12/19	Corp			
BBG00001V9M8	IBM CORP	IBM 7.5 06/15/13 A	FRANKFURT	US DOMESTIC	Corp			IBM 7 1/2 06/15/13	Corp			
BBG0152L6FV4	IBM CORP	IBM 2.2 02/09/27	NEW YORK	GLOBAL	Corp			IBM 2.2 02/09/27	Corp			
BBG0004R0ZD3	IBM CORP	IBM 5.3 09/30/99 +1BR		SAMURAI	Corp			IBM 5.3 09/30/99	Corp			
BBG00FVNFBT9	IBM CORP	IBM 2.5 01/27/22	TRACE	GLOBAL	Corp			IBM 2 1/2 01/27/22	Corp			
BBG00N6FNJ57	IBM CORP	IBM 0.375 01/31/23	DUSSELDORF	EURO NON-DOLLAR	Corp			IBM 0 3/8 01/31/23	Corp			
BBG0043N8DY3	IBM CORP	IBM 1.25 02/08/18	BERLIN	GLOBAL	Corp			IBM 1 1/4 02/08/18	Corp			
BBG00091FCM0	IBM CORP	IBM 3.7 02/15/10 NOTE	NOT LISTED	DOMESTIC MTN	Corp			IBM 3.7 02/15/10	Corp			
BBG004X74XR3	IBM CORP	IBM 3.375 08/01/23	TRACE	GLOBAL	Corp			IBM 3 3/8 08/01/23	Corp			
BBG00PSLMBL5	IBM CORP	IBM L 07/16/20 1		REV	Corp			IBM REV UNSEC USD	Corp			
BBG000090LW7	IBM CORP	IBM 4.95 03/22/11	FRANKFURT	GLOBAL	Corp			IBM 4.95 03/22/11	Corp			
BBG00037SRF4	IBM CORP	IBM 7.875 11/21/04	NOT LISTED	US DOMESTIC	Corp			IBM 7 7/8 11/21/04	Corp			
BBG0019YWJQ8	IBM CORP	IBM 2 01/05/16	FRANKFURT	GLOBAL	Corp			IBM 2 01/05/16	Corp			
BBG0005Y2L91	IBM CORP	IBM 0.62 06/21/02 +1RG		SAMURAI	Corp			IBM 0.62 06/21/02	Corp			

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And the FIGIs with the metadata are freely downloaded into a spreadsheet if using the web-search or into another machine-readable format using the API. Some identifier schemas will say that they offer 60 fields of metadata – it is important to note that there are 60 possible fields but not all the fields are applicable to uniquely identifying a security or to all asset classes (see Comparison of Instrument Identification Data below). In this example, there are 8 columns and 11 fields of metadata in the related columns.

Money Market:

FIGI	Name	Ticker	Exchange Code	Security Type	Market Sector	FIGI Composite	Share Class	Security Description	Security Type 2
Filter	Filter	Filte	Filter	Filter	Filter	Filter	Filter	Filter	Filter
BBG0013W0VY7	CRESCENT STATE BANK	CRESNT		U.S. CD	M-Mkt			CRESNT CD	CD

Mortgage:

FIGI	Name	Ticker	Exchange Code	Security Type	Market Sector	FIGI Composite	Share Class	Security Description	Security Type 2	Pair FIGI	Base Asset FIGI	Quote Asset FIGI
Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
BBG00076JDQ1	ABFC 2004-FF1 M1	ABFC 2004-FF1 M1		ABS Home	Mtge			ABFC 2004-FF1 M1	ABS			

ABS:

FIGI	Name	Ticker	Exchange Code	Security Type	Market Sector	FIGI Composite	Share Class	Security Description	Security Type 2	Pair FIGI	Base Asset FIGI	Quote Asset FIGI
Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
BBG00076JDQ1	ABFC 2004-FF1 M1	ABFC 2004-FF1 M1		ABS Home	Mtge			ABFC 2004-FF1 M1	ABS			

Municipal:

FIGI	Name	Ticker	Exchange Code	Security Type	Market Sector	FIGI Composite	Share Class	Security Description	Security Type 2	Pair FIGI	Base Asset FIGI	Quote Asset FIGI
Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
BBG00HY785T8	NEW YORK CITY NY TRAN	NY NYCGEN 3.14 08/01/2028		FIXED	Muni				Muni			

Index:

OpenFIGI About Search API Account

Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
BBG002SJPV89	Bloomberg Barclays Intermediat	LD06OAS		Index	Index			Bloomberg Barclays Intermediat	Index	Bloomberg Barclays Intermediate Corporate Average OAS
BBG00QKSX7H8	Barclays MERCI Strategy	BEFSMEU4		Index	Index			Barclays MERCI Strategy	Index	Barclays MERCI Strategy
BBG00NS00114	Barclays IDMO Strategy	BEFSIDMO		Index	Index			Barclays IDMO Strategy	Index	Barclays IDMO Strategy
BBG00Q6K8CF0	Barclays IDNG Strategy	BEFSIDNG		Index	Index			Barclays IDNG Strategy	Index	Barclays IDNG Strategy
BBG00PP074Q2	Barclays USMX Strategy	BEFSUSMX		Index	Index			Barclays USMX Strategy	Index	Barclays USMX Strategy
BBG00R4CRL58	Barclays MERCI+ Strategy	BEFSMEUP		Index	Index			Barclays MERCI+ Strategy	Index	Barclays MERCI+ Strategy
BBG00QJCYQY3	Barclays UNLS Strategy	BEFSUNLS		Index	Index			Barclays UNLS Strategy	Index	Barclays UNLS Strategy
BBG00NTLK758	Barclays WSVR Strategy	BEFSWSVR		Index	Index			Barclays WSVR Strategy	Index	Barclays WSVR Strategy
BBG00WHNTHP4	Barclays MEUB Strategy	BEFSMEUB		Index	Index			Barclays MEUB Strategy	Index	Barclays MEUB Strategy
BBG00Q6K8CD2	Barclays IDCL Strategy	BEFSIDCL		Index	Index			Barclays IDCL Strategy	Index	Barclays IDCL Strategy
BBG00NS00123	Barclays IDME Strategy	BEFSIDME		Index	Index			Barclays IDME Strategy	Index	Barclays IDME Strategy
BBG004PBXJP4	Bloomberg Barclays MSCI Global	EGAMMAT		Index	Index			Bloomberg Barclays MSCI Global	Index	Bloomberg Barclays MSCI Global Agg ESG Weighted Maturity
BBG00SW8SDN6	Buraschi Barclays Adaptive Tre	BEFSBAHY		Index	Index			Buraschi Barclays Adaptive Tre	Index	Buraschi Barclays Adaptive Trend Strategy FX EM HF ER
BBG002SVL173	Bloomberg Barclays US Comparat	BKET2P		Index	Index			Bloomberg Barclays US Comparat	Index	Bloomberg Barclays US Comparator Inflation Linked Bond 1 to 10 Year Clean Price
BBG002T0QDT5	Bloomberg Barclays US Corporat	LF98OAS		Index	Index			Bloomberg Barclays US Corporat	Index	Bloomberg Barclays US Corporate High Yield Average OAS
BBG008MWH080	Barclays Dynamic VIX Backwarda	BEFSDVB1		Index	Index			Barclays Dynamic VIX Backwarda	Index	Barclays Dynamic VIX Backwardation Strategy ER
BBG002TM3PG9	Bloomberg Barclays World Govt	BDIG1I		Index	Index			Bloomberg Barclays World Govt	Index	Bloomberg Barclays World Govt Ex-AUS Ex-JAP Ex-IT Income
BBG009Z18MJ2	Barclays UX1M	BEFSUX1M		Index	Index			Barclays UX1M	Index	Barclays UX1M
BBG002T2F832	Bloomberg Barclays Global Aggr	GAGCSIUH		Index	Index			Bloomberg Barclays Global Aggr	Index	Bloomberg Barclays Global Aggregate G21 C55 Since Inception Return Hedged USD
BBG004PBXKS8	Bloomberg Barclays MSCI Global	EGAMYW		Index	Index			Bloomberg Barclays MSCI Global	Index	Bloomberg Barclays MSCI Global Agg ESG Weighted Yield To Worst

Options:

Options are particularly instructive in the volume of metadata that is provided. While options in of themselves are not a market sector, they are applicable across market sectors. The presentation and the information are similar. While there are nine columns of data (FIGI, Name, Ticker, Exchange Code, Security Type, Market Sector, FIGI Composite and hierarchy, Security Description, and Security type), the name and the description provide the expiry, strike, and the put/call. These are the critical elements in data management.

FIGI	Name	Ticker	Exchange Code	Security Type	Market Sector	FIGI Composite	Share Class	Security Description	Security Type 2
Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
BBG00V8M20B9	July 20 Puts on IBM US	IBM 07/24/20 P131	UG	Equity Option	Equity	BBG00V8M1ZD1		IBM UG 07/24/20 P131	Option
BBG012N8FQW2	October 21 Calls on IBM US	IBM 10/08/21 C85	UF	Equity Option	Equity	BBG012N8FQC4		IBM UF 10/08/21 C85	Option
BBG01B1PN8C1	March 23 Puts on IBM US	IBM 03/17/23 P60	UL	Equity Option	Equity	BBG01B1PN831		IBM UL 03/17/23 P60	Option
BBG01B0XBQZ3	December 22 Puts on IBM US	IBM 12/02/22 P128	UG	Equity Option	Equity	BBG01B0XBQ29		IBM UG 12/02/22 P128	Option
BBG00M8FZDP5	November 18 Calls on IBM US	IBM 11/30/18 C105	UG	Equity Option	Equity	BBG00M8FZCS4		IBM UG 11/30/18 C105	Option
BBG00HV4C8J8	November 17 Puts on IBM US	IBM 11/10/17 P142	UA	Equity Option	Equity	BBG00HV4C8G1		IBM UA 11/10/17 P142	Option
BBG00Z2C0LC3	March 21 Puts on IBM US	IBM 03/12/21 P112	UO	Equity Option	Equity	BBG00Z2C0L60		IBM UO 03/12/21 P112	Option
BBG0081PZTQ5	February 15 Puts on IBM US	IBM 02/06/15 P136	UP	Equity Option	Equity	BBG0081PZTD9		IBM UP 02/06/15 P136	Option
BBG01K7VPV57	December 23 Calls on IBM US	IBM 12/15/23 C147	UQ	Equity Option	Equity	BBG01K7VPTQ9		IBM UQ 12/15/23 C147	Option
BBG00CFG7Q24	April 16 Puts on IBM US	IBM 04/29/16 P141	UF	Equity Option	Equity	BBG00CFG7PJ8		IBM UF 04/29/16 P141	Option
BBG00BXDQTD4	February 16 Calls on IBM US	IBM 02/19/16 C122	UG	Equity Option	Equity	BBG00BXDQSK8		IBM UG 02/19/16 C122	Option
BBG008158SF3	March 15 Puts on IBM US	IBM 03/13/15 P175	UO	Equity Option	Equity	BBG008158S90		IBM UO 03/13/15 P175	Option
BBG00H0VG318	August 17 Calls on IBM US	IBM 08/04/17 C140	UL	Equity Option	Equity	BBG00H0VG2Q3		IBM UL 08/04/17 C140	Option
BBG00FB73KX4	November 16 Puts on IBM US	IBM 11/25/16 P200	UT	Equity Option	Equity	BBG00FB73K82		IBM UT 11/25/16 P200	Option
BBG005Y9H477	March 14 Calls on IBM US	IBM 03/07/14 C240	UM	Equity Option	Equity	BBG005Y9H3J6		IBM UM 03/07/14 C240	Option
BBG01C7NK3N0	February 23 Calls on IBM US	IBM 02/24/23 C145	UG	Equity Option	Equity	BBG01C7NK2Q9		IBM UG 02/24/23 C145	Option
BBG0075BVPQ6	October 14 Calls on IBM US	IBM 10/18/14 C177.5	UA	Equity Option	Equity	BBG0075BVPN9		IBM UA 10/18/14 C177.5	Option
BBG00CC6MDX7	April 16 Calls on IBM US	IBM 04/15/16 C160	UJ	Equity Option	Equity	BBG009V50P71		IBM UJ 04/15/16 C160	Option
BBG00BMRCJK4	January 16 Puts on IBM US	IBM 01/29/16 P140	UT	Equity Option	Equity	BBG00BMRCHX4		IBM UT 01/29/16 P140	Option
BBG0019BGXS3	July 11 Calls on IBM US	IBM 07/16/11 C145	UQ	Equity Option	Equity	BBG0019BGXB1		IBM UQ 07/16/11 C145	Option

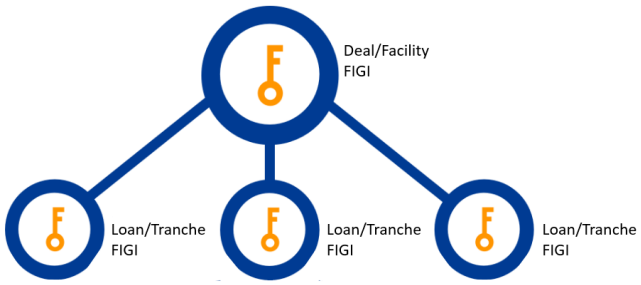
Loans:

The loan market consists of a few segments – for example, club/bilateral, direct lending, syndicated and, of course, private loans. The loan market is evolving. Rising institutional investor participation and the emergence of ETFs [122] to provide retail access to this market necessitates the need for greater loan identification and transparency. Since 2003, Bloomberg has assigned identifiers to loans. Those identifiers were extended to FIGI in 2014. The three most popular loan identification schemes include LoanX, CUSIP and FIGI - of which FIGI is the only open-source standard. LoanX is popular in settlement and clearance. FIGI is generally used as a loan-data management identifier. No Loan Identification Scheme has 100% coverage. With supporting documentation, FIGI identifiers, as an open-source standard managed by the OMG, can be created by the registration authority without any associated fees.

Like equities, FIGI employs a hierarchical structure for loans that associates the deal/facility with its individual loans/tranches.

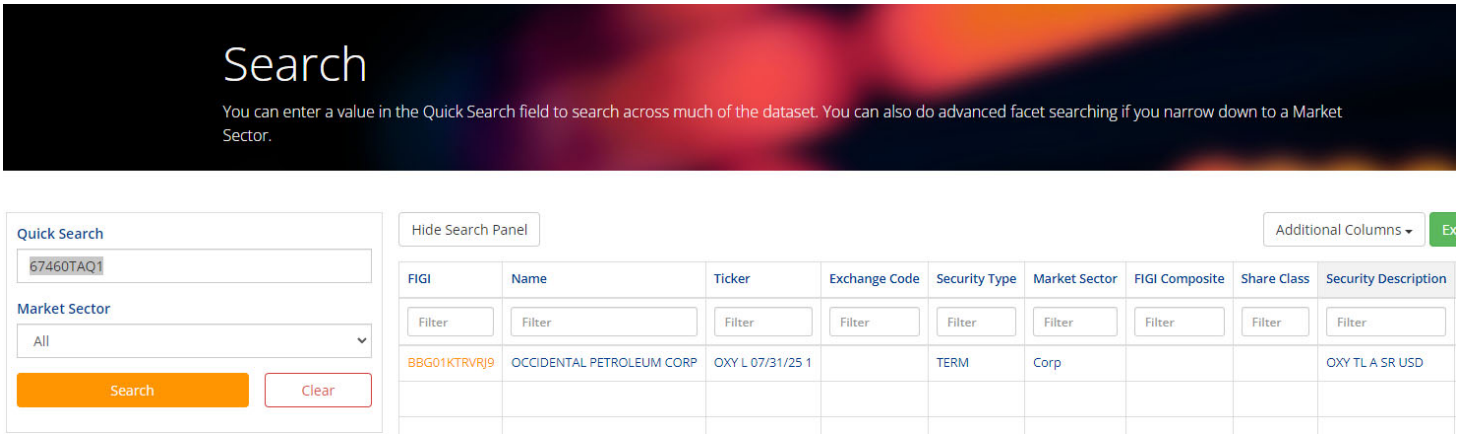
[122] Private credit is a natural extension of the term loan market. Institutional investors participating in those loan contracts is growing. The secondary market is becoming more active. In September 2024, Apollo and State Street were the first to seek approval for an exchange traded SPDR SSGA Apollo IG Public and Private Credit ETF. *See* Form N-1A Registration Statement, SSGA Active Trust, "SPDR SSGA Apollo IG Public & Private Credit ETF" (Sept. 10, 2024), *available at* https://www.sec.gov/Archives/edgar/data/1516212/000119312524216340/d878371d485apos.htm.

Figure 4. FIGI Hierarchy for Loans.



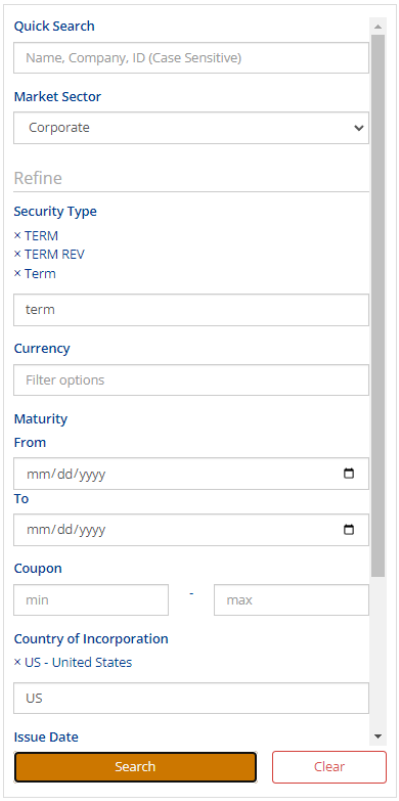
Like FIGI, CUSIP has employed a hierarchical identification structure in Loan identification by assigning a CUSIP to both the loan deal and each specific loan (tranche) underlying the deal.[123] The metadata links the specific loan (tranche) underlying the deal.

OpenFIGI enables participants to search for the identifier of a deal/facility and associated loans/tranches. For example, using an alternative identifier, the FIGI Occidental Petroleum Term Loan due 7/31/2025 can be discovered:



[123] *See* CGS Syndicated Loans, *available at* https://www.cusip.com/pdf/CGS095_CGS_Syndicated_Loans_02_15_17-USLtr.pdf (stating "CUSIP is assigned to each deal and its underlying facilities").

OpenFIGI also enables search by issuer company, deal name, and over 50+ structures (*e.g.,* Term and Term Rev (revolver) Asset-Based, Bridge, Delayed-Draw, Dim Sum, DIP, Islamic, LOC, PIK, Reserve-based, Standby, Swingline, Synthetic, TLTRO, Unitranches, VAT-Tranche). Loan structures are identified within the "Ticker" description with "L":

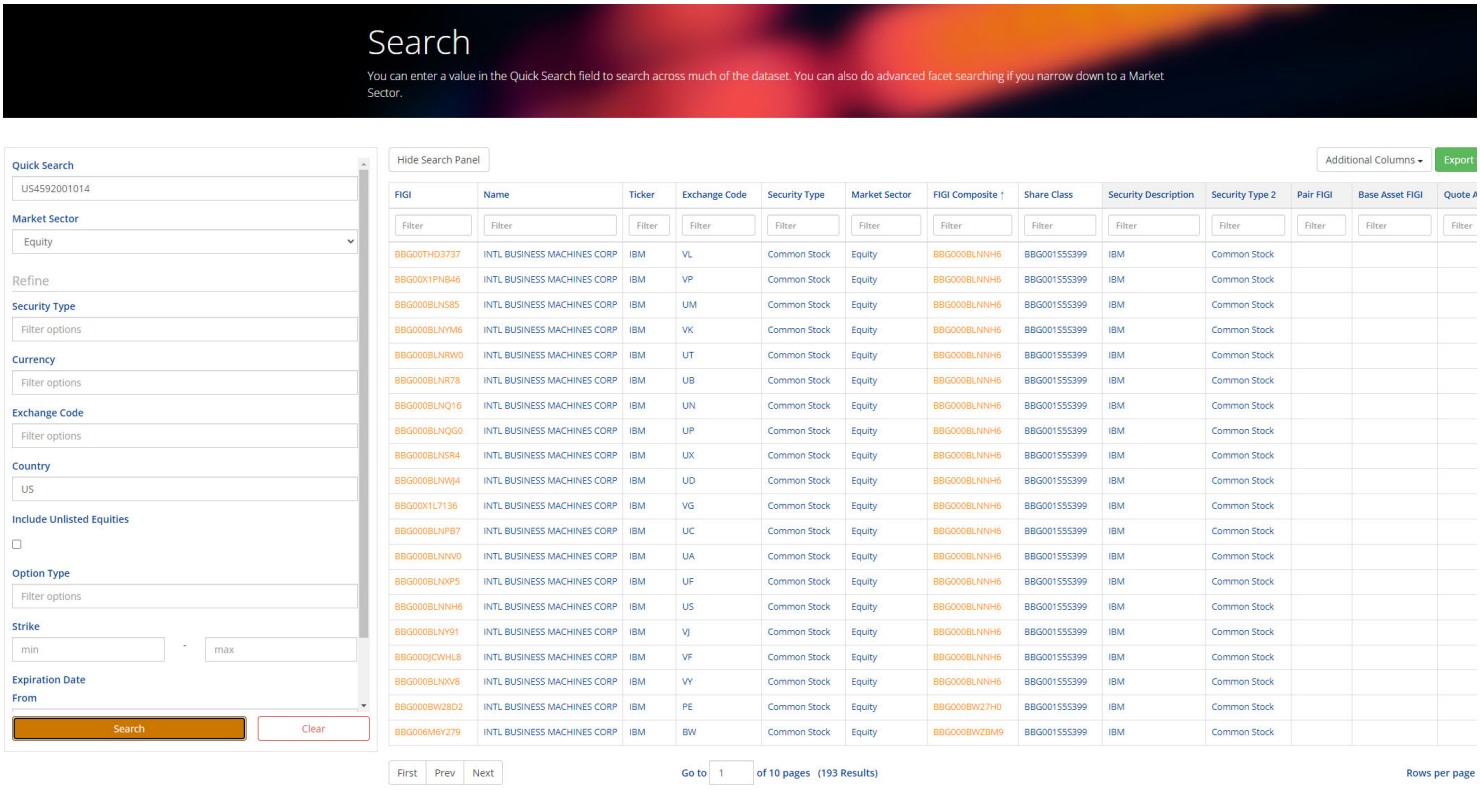


Hide Search Panel

FIGI	Name	Ticker	Exchange Code	Security Type	Market Sector	Security Description	Security Ty
Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
BBG00010JQ18	AMERICAN COMML LINES LLC	ACLI L 06/30/07 C		TERM	Corp	ACLI TL C 1L USD	Corp
BBG01J1P79B1	SPRINGBROOK SOFTWARE LLC	SPRSOF L 12/26/23 2		TERM	Corp	SPRSOF TL 1L USD	Corp
BBG0149HJ2R9	VINEYARD WIND 1 LLC	VINWIN L 10/15/31 1		TERM	Corp	VINWIN TL 1L USD	Corp
BBG000115NM5	COORSTEK INC	KEYACQ L 12/06/06 B		TERM	Corp	KEYACQ TL B USD	Corp
BBG00KG5ZNH9	HUDSON PACIFIC PROPERTIE	HPP L 04/01/22 6		TERM	Corp	HPP TL B GUAR USD	Corp
BBG00D9MCD74	CONTINENTAL CARBON CO	CHISYN L 12/07/21 1		TERM	Corp	CHISYN TL CAPEXA GUAR USD	Corp
BBG003TNW9K4	TESORO CORP	ANDV L 05/30/16 B		TERM	Corp	ANDV TL B 1L USD	Corp
BBG00K80X9F4	OUTPUT SERVICES GROUP	OUTSER L 03/27/25 4		TERM	Corp	OUTSER TL 2L USD	Corp
BBG002CN8M86	OCEANEX INC	OCNXIN L 05/09/18 2		TERM	Corp	OCNXIN TL 1L CAD	Corp
BBG00SXJJV65	DG INDUSTRIAL PORTFO	DGINPI L 02/28/23 1		TERM	Corp	DGINPI TL A UNSEC USD	Corp
BBG0001313W8	BEHRINGER HARVARD ST LOUIS	BEHARE L 07/01/11		TERM	Corp	BEHARE TL GUAR USD	Corp
BBG007MLRQS6	IHS GLOBAL INC	IHS L 10/17/19 2		TERM	Corp	IHS TL A1 GUAR USD	Corp
BBG00G50Q456	REGENCY CENTERS LP	REG L 12/02/20 1		TERM	Corp	REG TL GUAR USD	Corp
BBG01F5M95W5	MARKETPLACE EVENTS LLC	MAREVE L 09/30/25 1		TERM	Corp	MAREVE TL 1L USD	Corp
BBG01G3HVHZ2	VENTURE GLOBAL PLAQUE	VEGLPL L 05/25/29 6		TERM	Corp	VEGLPL TL 1L USD	Corp
BBG00PKSB846	ELITE DENTAL PARTNERS	ELIDEN L 06/01/23 1		TERM	Corp	ELIDEN TL UNSEC USD	Corp
BBG00LZFCYH5	IRET PROPERTIES	IRET L 01/15/24 3		TERM	Corp	IRET TL A GUAR USD	Corp
BBG00013V729	COVANTA ENERGY CORP	CVA L 06/30/12 T1		TERM	Corp	CVA TL T1 GUAR USD	Corp
BBG00DBJ8NF2	IPT BAYPORT DC LP	IPTBAY L 10/01/23 1		TERM	Corp	IPTBAY TL 1L USD	Corp
BBG00QRW7GB7	DA LI INTERNATIONAL LLC	IACO L 04/08/22 1		TERM	Corp	IACO TL A 1L USD	Corp

(3) I have an alternative identifier – What is the FIGI that corresponds to the alternative identifier?

In this example, a user can use the search option to input an alternative equity identifier and OpenFIGI will return the search with a the 1:1 Share Class (*e.g.,* ISIN US4592001014, CUSIP 459200101, etc., map to FIGI Share Class BBG001S5S399), as well as the hierarchy - FIGI Country (*e.g.,* US BBG000BLNNH6) and exchange (*e.g.,* NYSE BBG000BLNQ16).



Comparison of Instrument Identification Data

As noted above, the ASC X9D1 subcommittee in the FIGI standard lays out the "key information elements" that are required to uniquely identify a financial instrument.[124] The data that is provided in an OpenFIGI.com search[125] are those key information elements.

The FIGI data model is different than providing a market data product that includes significant tranches of data in addition to what is necessary to serve as an identifier for the purposes of data management.

[124] *See supra* n. 4.

[125] *See supra* n.5.

The elements in OpenFIGI.com are the same as the ones that are provided in alternative identifier schemes master file data elements. Appendix C provides more details that over 135 data vendors globally are able to map/cross reference/include FIGI as a security identifier option along-side other identifiers, such as the NNA's CUSIP, ISIN, SEDOL and other proprietary symbology such as the ICE Consolidated Feed Symbols[126], RICs, etc.

Listed Equities

Common Stock, Warrants, Fund

FIGI metadata	FIGI Example Source: OpenFIGI.com	CGS CUSIP Master File Data Elements Source: https://experience.cusip.com/resource/fact-sheet/cusip-master-file	Notes
Name	INTL BUSINESS MACHINES CORP	Issuer name	
Ticker	IBM	Ticker Symbol	
Exchange Code	UN	Where Traded	
Security Type	Common Stock	Description	
Market Sector	Equity	CFI Codes (ISO and U.S.)	
Exchange FIGI	BBG000BLNQ16		
FIGI US Composite	BBG000BLNNH6	CUSIP	
Global Share Class	BBG001S5S399		
Security Description	IBM		
Security Type 2	Common Stock		

Warrant and Fund are be reflected in the Security Type:			
Thanks	Warrant	Warrant	
Security Type	Fund	Fund	

Additional Data Provided that is not related for unique instrument identification		
	Currency	CUSIP indicates the currency of the original issue in the original country of issue. FIGI data can be searched with currency. Note that any multi-listed item may have a different currency based on country or exchange listing.
	Status	Related to the actual record, not applicable to instrument identification
	Activity Date	Related to the actual record, not applicable to instrument identification
	Initial Public Offering Indicator	Related to the actual record, not applicable to instrument identification specific to it relating to an IPO
	Depository Eligible Indicator	Related to status at DTCC, not applicable to instrument identification
	Issue Status	Related to issue origination, not applicable to instrument identification.
	Form	
	Ownership Restrictions	
	Source Document	
	Underwriter	
	Auditor	
	Voting Rights	
	Payment Status	
	Transfer Agent	
	Financial Advisor	
	Legal Advisor	
	Type of Preferred Dividend Income	Related to specific Preferreds, not applicable to instrument identification
	State	Related to Issuer, not applicable to instrument identification
	Domicile	Related to Issuer, not applicable to instrument identification

[126] *See* Nathaniel Dahm, Director, Content Strategy, ICE, "Instrument discovery: making the search easier by design" (June 2022), *available at* https://www.ice.com/insights/market-pulse/instrument-discovery-making-the-search-easier-by-design.

Exchange Traded Fund

FIGI metadata	FIGI Example Source: OpenFIGI.com	CGS CUSIP Master File Data Elements Source: https://experience.cusip.com/resource/fact-sheet/cusip-master-file	Notes
Name	INVESCO QQQ TRUST SERIES 1	Issuer name	
Ticker	QQQ	Ticker Symbol	
Exchange Code	UQ	Where traded	
Security Type	ETP	Description	
Market Sector	Equity	CFI Codes (ISO and U.S.)	
Exchange FIGI	BBG000BSWN45		
FIGI US Composite	BBG000BSWKH7	CUSIP	
Global Share Class	BBG001S9GN63		
Security Description	QQQ		
Security Type 2	Mutual Fund	Fund	

Additional Data Provided that is not related for unique instrument identification		
	ADR Program Type	Not applicable to Funds
	Warrant	
	Initial Public Offering Indicator	
	Transfer Agent	
	Type of Preferred Dividend Income	
	Currency	For CUSIP data, only indicates the currency of the original issue in the original country of issue. FIGI data can be searched with currency.
	Status	Related to the actual record, not applicable to instrument identification
	Activity Date	Related to the actual record, not applicable to instrument identification
	Depository Eligible Indicator	Related to status at DTCC, not applicable to instrument identification
	Issue Status	Related to issue origination, not applicable to instrument identification.
	Form	
	Ownership Restrictions	
	Source Document	
	Underwriter	
	Auditor	
	Voting Rights	
	Payment Status	
	Financial Advisor	
	Legal Advisor	
	State	Related to Issuer, not applicable to instrument identification
	Domicile	Related to Issuer, not applicable to instrument identification

Depositary Receipt

FIGI metadata	FIGI Example Source: OpenFIGI.com	CGS CUSIP Master File Data Elements Source: https://experience.cusip.com/resource/fact-sheet/cusip-master-file	Notes
Name	SONY GROUP CORP - SP ADR	Issuer name	
Ticker	SONY	Ticker Symbol	
Exchange Code	UN	Where traded	
Security Type	ADR	Description	FIGI differentiates between GDR, ADR, and local DR types at the Security Type level, allowing for splitting these out
Market Sector	Equity	CFI Codes (ISO and U.S.)	
Exchange FIGI	BBG000BT81N7		
FIGI US Composite	BBG000BT7ZK6	CUSIP	
Global Share Class	BBG001S5W6H8		
Security Description	SONY		
Security Type 2	Depositary Receipt	ADR Program Type	Not all DR are ADRs (see Security Type)

Additional Data Provided that is not related for unique instrument identification		
	Fund	Irrelevant to ADRs
	Warrant	
	Initial Public Offering Indicator	
	Type of Preferred Dividend Income	
	Currency	For CUSIP data, only indicates the currency of the original issue in the original country of issue. FIGI data can be searched with currency.
	Status	Related to the actual record, not applicable to instrument identification
	Activity Date	Related to the actual record, not applicable to instrument identification
	Depository Eligible Indicator	Related to status at DTCC, not applicable to instrument identification
	Issue Status	Related to issue origination, not applicable to instrument identification.
	Form	
	Ownership Restrictions	
	Source Document	
	Underwriter	
	Auditor	
	Voting Rights	
	Payment Status	
	Transfer Agent	
	Financial Advisor	
	Legal Advisor	
	State	Related to Issuer, not applicable to instrument identification
	Domicile	Related to Issuer, not applicable to instrument identification

Fixed Income

MUNICIPAL

FIGI metadata	FIGI Example Source: OpenFIGI.com	CGS CUSIP Master File Data Elements Source: https://experience.cusip.com/resource/fact-sheet/cusip-master-file	Notes
Name	NYC MUNI WTR FIN-AA1	Issuer Name	
Ticker	NY NYCUTL 4 06/15/2054	Coupon Rate; Maturity Date	
Exchange Code			
Security Type	FIXED, OID		
Market Sector	Muni	CFI Code (ISO and U.S.)	
FIGI	BBG01Q0C5H74	CUSIP	
FIGI Composite			
Share Class			
Security Description			
Security Type 2	Muni		
Additional Data Provided that is not related for unique instrument identification			
		Currency	For CUSIP data, only indicates the currency of the original issue in the original country of issue. FIGI data can be searched with currency.
		Activity Date	Related to the actual record, not applicable to instrument identification
		Depository Eligible Indicator	Related to status at DTCC, not applicable to instrument identification
		Issue Status	Related to issue origination, not applicable to instrument identification.
		Form	
		Redemption Features	
		Underwriter	
		Closing Date	
		Refundable Indicator	
		Remarketed Indicator	
		Sale Date	
		Dated Date	
		First Coupon Date	
		Enhancements	
		Secondarily Insured	
		Sinking Fund Indicator	
		Taxable Indicator	
		Paying Agent	
		Offering Amount	
		Source Document	
		Tender Agent	
		Competitive/Negotiated	
		Put Indicator	
		Bank Qualified Indicator	
		Callable Indicator	
		Alternative Minimum Tax Indicator	
		Interest Payment Frequency	
		Auditor	
		Pre-refunded Indicator	
		Rate Type	
		Transfer Agent	
		Financial Advisor	
		Legal Advisor	
		State Code	Related to Issuer, not applicable to instrument identification
		Domicile	Related to Issuer, not applicable to instrument identification
		Issuer and Issue Description	Related to Issuer, not applicable to instrument identification

US Treasury

FIGI metadata	FIGI Example Source: OpenFIGI.com	CGS CUSIP Master File Data Elements Source: https://experience.cusip.com/resource/fact-sheet/cusip-master-file	Notes
Name	TREASURY BILL	Issuer Name	
Ticker	B 0 04/03/25	Coupon Rate; Maturity Date	
Exchange Code			
Security Type	US GOVERNMENT		
Market Sector	Govt	CFI Code (ISO and U.S.)	
FIGI	BBG01Q1TYJF1	CUSIP	
FIGI Composite			
Share Class			
Security Description	B 04/03/25		
Security Type 2	Bill		
Additional Data Provided that is not related for unique instrument identification			
		Currency	For CUSIP data, only indicates the currency of the original issue in the original country of issue. FIGI data can be searched with currency.
		Competitive/Negotiated	Not applicable to Treasuries
		Underwriter	
		Sinking Fund Indicator	
		Tender Agent	
		Put Indicator	
		Auditor	
		Financial Advisor	
		Legal Advisor	
		Activity Date	Related to the actual record, not applicable to instrument identification
		Depository Eligible Indicator	Related to status at DTCC, not applicable to instrument identification
		Issue Status	Related to issue origination, not applicable to instrument identification.
		Form	
		Redemption Features	
		Closing Date	
		Refundable Indicator	
		Remarketed Indicator	
		Sale Date	
		Dated Date	
		First Coupon Date	
		Enhancements	
		Secondarily Insured	
		Taxable Indicator	
		Paying Agent	
		Offering Amount	
		Source Document	
		Bank Qualified Indicator	
		Callable Indicator	
		Alternative Minimum Tax Indicator	
		Interest Payment Frequency	
		Pre-refunded Indicator	
		Rate Type	
		Transfer Agent	
		State Code	Related to Issuer, not applicable to instrument identification
		Domicile	Related to Issuer, not applicable to instrument identification
		Issuer and Issue Description	Related to Issuer, not applicable to instrument identification

Corporate Bond

FIGI metadata	FIGI Example Source: OpenFIGI.com	CGS CUSIP Master File Data Elements Source: https://experience.cusip.com/resource/fact-sheet/cusip-master-file	Notes
Name	IBM CORP	Issuer Name	
Ticker	IBM 7 10/30/25	Coupon Rate; Maturity Date	
Exchange Code	NEW YORK		
Security Type	US DOMESTIC		
Market Sector	Corp	CFI Code (ISO and U.S.)	
FIGI	BBG0000362Y4	CUSIP	
FIGI Composite			
Share Class			
Security Description	IBM 7 10/30/25		
Security Type 2	Corp		
Additional Data Provided that is not related for unique instrument identification			
		Currency	For CUSIP data, only indicates the currency of the original issue in the original country of issue. FIGI data can be searched with currency.
		Competitive/Negotiated	Not applicable to Bonds
		Sinking Fund Indicator	
		Tender Agent	
		Put Indicator	
		Auditor	
		Financial Advisor	
		Legal Advisor	
		Activity Date	Related to the actual record, not applicable to instrument identification
		Depository Eligible Indicator	Related to status at DTCC, not applicable to instrument identification
		Issue Status	Related to issue origination, not applicable to instrument identification.
		Form	
		Underwriter	
		Redemption Features	
		Closing Date	
		Refundable Indicator	
		Remarketed Indicator	
		Sale Date	
		Dated Date	
		First Coupon Date	
		Enhancements	
		Secondarily Insured	
		Taxable Indicator	
		Paying Agent	
		Offering Amount	
		Source Document	
		Bank Qualified Indicator	
		Callable Indicator	
		Alternative Minimum Tax Indicator	
		Interest Payment Frequency	
		Pre-refunded Indicator	
		Rate Type	
		Transfer Agent	
		State Code	Related to Issuer, not applicable to instrument identification
		Domicile	Related to Issuer, not applicable to instrument identification
		Issuer and Issue Description	Related to Issuer, not applicable to instrument identification

Loans

FIGI metadata	FIGI Example Source: OpenFIGI.com	CGS CUSIP Master File Data Elements Source: https://experience.cusip.com/resource/fact-sheet/cusip-master-file	Notes
Name	MICROSOFT CORP	Issuer Name	
Ticker	MSFT 2.525 06/01/50	Coupon Rate; Maturity Date	
Exchange Code	TRACE		
Security Type	GLOBAL		
Market Sector	Corp	CFI Code (ISO and U.S.)	
FIGI	BBG00V1L17H8	CUSIP	
FIGI Composite			
Share Class			
Security Description	MSFT 2.525 06/01/50		
Security Type 2	Corp		
Additional Data Provided that is not related for unique instrument identification			
		Currency	For CUSIP data, only indicates the currency of the original issue in the original country of issue. FIGI data can be searched with currency.
		Competitive/Negotiated	Not applicable to Loans
		Sinking Fund Indicator	
		Tender Agent	
		Put Indicator	
		Auditor	
		Financial Advisor	
		Legal Advisor	
		Activity Date	Related to the actual record, not applicable to instrument identification
		Depository Eligible Indicator	Related to status at DTCC, not applicable to instrument identification
		Issue Status	Related to issue origination, not applicable to instrument identification.
		Form	
		Underwriter	
		Redemption Features	
		Closing Date	
		Refundable Indicator	
		Remarketed Indicator	
		Sale Date	
		Dated Date	
		First Coupon Date	
		Enhancements	
		Secondarily Insured	
		Taxable Indicator	
		Paying Agent	
		Offering Amount	
		Source Document	
		Bank Qualified Indicator	
		Callable Indicator	
		Alternative Minimum Tax Indicator	
		Interest Payment Frequency	
		Pre-refunded Indicator	
		Rate Type	
		Transfer Agent	
		State Code	Related to Issuer, not applicable to instrument identification
		Domicile	Related to Issuer, not applicable to instrument identification
		Issuer and Issue Description	Related to Issuer, not applicable to instrument identification

Index

FIGI metadata	FIGI Example Source: OpenFIGI.com	CGS CUSIP Master File Data Elements Source: https://experience.cusip.com/resource/fact-sheet/cusip-master-file
Name	S&P 500 INDEX	n/a
Ticker	SPX Index	n/a
Exchange Code		n/a
Security Type	Equity Index	n/a
Market Sector	Index	n/a
FIGI	BBG000H4FSM0	n/a
FIGI Composite		n/a
Share Class		n/a
Security Description	SPX	n/a
Security Type 2	Index	n/a

Crypto Currency

FIGI metadata	**FIGI Example** Source: OpenFIGI.com	**CGS CUSIP Master File Data Elements** Source: https://experience.cusip.com/resource/fact-sheet/cusip-master-file
Name	bitcoin	n/a
Ticker	BTC	n/a
Exchange Code		n/a
Security Type	Crypto	n/a
Market Sector	Curncy	n/a
FIGI	KKG000000M81	n/a
FIGI Composite		n/a
Share Class		n/a
Security Description		n/a
Security Type 2	CRYPTO	n/a
Exchange Traded		
Name	BTC-USDC	n/a
Ticker	BTC-USDC	n/a
Exchange Code	KRKN	n/a
Security Type	Crypto	n/a
Market Sector	Curncy	n/a
FIGI	KKG00000NSJ1	n/a
FIGI Composite		n/a
Share Class		n/a
Security Description	SPOT	n/a
Security Type 2		n/a
Pair FIGI	KKG00000JHK8	n/a
Base Asset FIGI	KKG000000M81	n/a
Quote Asset FIGI	KKG000007J81	n/a

Corporate Actions to Preserve Historical Lineage

The OMG FIGI framework is a data management standard and preserving historical lineage is one of the main attributes of the framework. As noted before, the FIGI standard handles corporate actions[127] differently than NNA identifiers because each standard solves for a different security identification use case(s). NNAs created financial security identifiers in the local market to identify "this is the one 'thing' at this point in time." When the NNA identification schemes were developed, the use case promoted efficient trading, settlement, and clearance. NNA identifier naming conventions were algorithmically integrated into the identifier taxonomy and standard. So, when ticker or corporation name changed the identifier algorithm/business rules required, for consistency, that the identifier changed even through there was no material change to the stock (security).

Markets change and needs evolve. CUSIP adopted a hierarchical structure to identify Loans. And, in July 2021, following a request for comments, CGS changed its policies and procedures and deviated from other NNA and ISIN policies and procedures by instituting "CUSIP Permanence".[128] "[T]he CUSIP identifier will remain the same for corporate and mutual fund name changes even when there is a significant impact on the alpha-numeric sequencing within the CUSIP system" but "ISINs assigned by other National Numbering Agencies ("NNAs") will continue to follow their existing procedures." The FIGI identifier is semantically meaningless, so it does not (need to) change with name or ticker symbol change.

[127] *See* FIGI Allocation Rules at 14.

[128] *See* CUSIP Permanence FAQ.

The FIGI associated with a particular financial instrument does not change as a result of a corporate action. [129] This is not true for certain other identifiers. For example, certain corporate actions result in a CUSIP identifier change.

As noted above, the fact that FIGI does not change, regardless of any corporate action, means that the tracking of securities over time may be easier with FIGIs than with other identifiers, such as CUSIP numbers.[130]

Using an NNA identifier for data management becomes complicated when (several) identifiers need to be stitched together – forming a daisy chain of identifiers at different points in time and complicated exception management handling – in the data management context. It becomes even more complicated if an identifier is recycled and used to identify a different security. Further, different NNAs in different countries have different rules for when they may change an identifier, so there is a lack of consistency globally. FIGI was developed, in part, to resolve these challenges. This one of the many reasons that the members of the ASC X9D1 subcommittee, that included the ABA, CGS, OFR and others,[131], and developed the FIGI standard, concluded that ISIN (CUSIP) and FIGI were ***complimentary***.

FIGI was designed to promote interoperability globally and across asset classes and other standards and its governance and strict Corporate Actions methodology was designed to promote uniqueness and historical lineage which are critical when using security data for oversight, historical trends and analysis. In 2023, FIGI managed over 50 event types and a million related actions. Corporate actions impact risk, trading, pricing, valuation and settlement and clearance. Corporate action management is complicated not only due to capital structure considerations but also from the corporate being listed and traded in multiple listings/jurisdictions. In addition to name or trading symbol change, an NNA identifier may change, for example, if there is a reverse stock split, a change in right offerings, or if the debt becomes listed on an exchange.[132]

From a data management perspective, it is not entirely clear why the governance convention of changing the identifier needs to occur on a reverse stock split. From a data management perspective, a reverse stock split is simply a change in the number of shares outstanding – an attribute of the security has changed, but the identity of the security has not.

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[129] *See* FIGI Allocation Rules at 14.

[130] *See* Electronic Submission of Applications for Orders under the Advisers Act and the Investment Company Act, Confidential Treatment Requests for Filings on Form 13F, and Form ADV-NR; Amendments to Form 13F, Sec. Exch. Comm. Rel. No. 34-95148 at 39 n. 144 (June 23, 2022), *available at* https://www.sec.gov/files/rules/final/2022/34-95148.pdf.

[131] ASC X9 Accreditation Approval at x.

[132] *See* "How does CGS handle special situations? Corporate Actions (Name Changes / Mergers / Reorganization)," *available at* https://www.cusip.com/apply/index.html#:~:text=require%20a%20new%20CUSIP%20based,144A%20Private%20Offerings.

When trading restrictions are removed on a Corporate Bond, the security has not changed so the FIGI will not – the CUSIP, however, changes. [133] FIGIs persist on a delisting and upon security/instrument maturity because the data needs to be preserved. The FIGI is never reallocated because it creates conflicts in the management of securities for analysis. When two entities cojoin, there are detailed "FIGI survivor" rules - for example target-acquirer M&A activity. A new FIGI is allocated to the new entity's instruments in a spin-off and in M&A where a new entity is formed.

[133] For example, trading restrictions removed on corporate bond RPD 1 ¼ 03/15/29 Corp caused the CUSIP to change from 753422AG9 to 753422AH7, whereas FIGI BBG01J69CJK4 remained unchanged.

Appendix B. FIGI, an Object Management Group Free, Open Data Standard

FIGI became a free, open data standard in 2014 after Bloomberg assigned all rights and interest in FIGI to OMG, a non-profit third-party standards consortium. The FIGI standard is owned and made available under an open license by OMG. More broadly, all formal OMG specifications may be downloaded without charge from the OMG's website.[134]

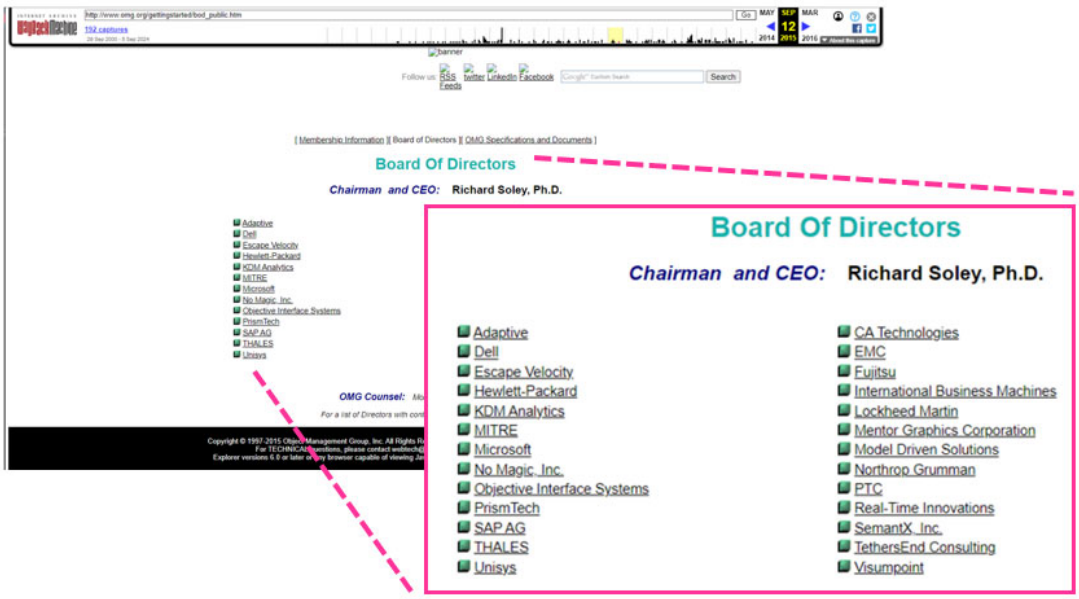
FIGI is based on the open-source concepts of the MIT Open Source license. As such, FIGI identifiers are freely redistributable, can be used, transmitted, databased, stored, enriched or otherwise utilized without restrictions aside from ensuring that the MIT Open Source permissions are included and disclosed. There are no restrictions on associating or 'mapping' FIGI or the associated metadata to other standards, using the FIGI in or as part of other standards, or adding these other standards or identifiers as associated metadata within an extended FIGI object.

Bloomberg retains no ownership, right, or other interest in the FIGI standard. FIGI therefore meets both prongs of the statutory requirement as it is both nonproprietary and made available under an open license at no cost. The historical record here is clear.

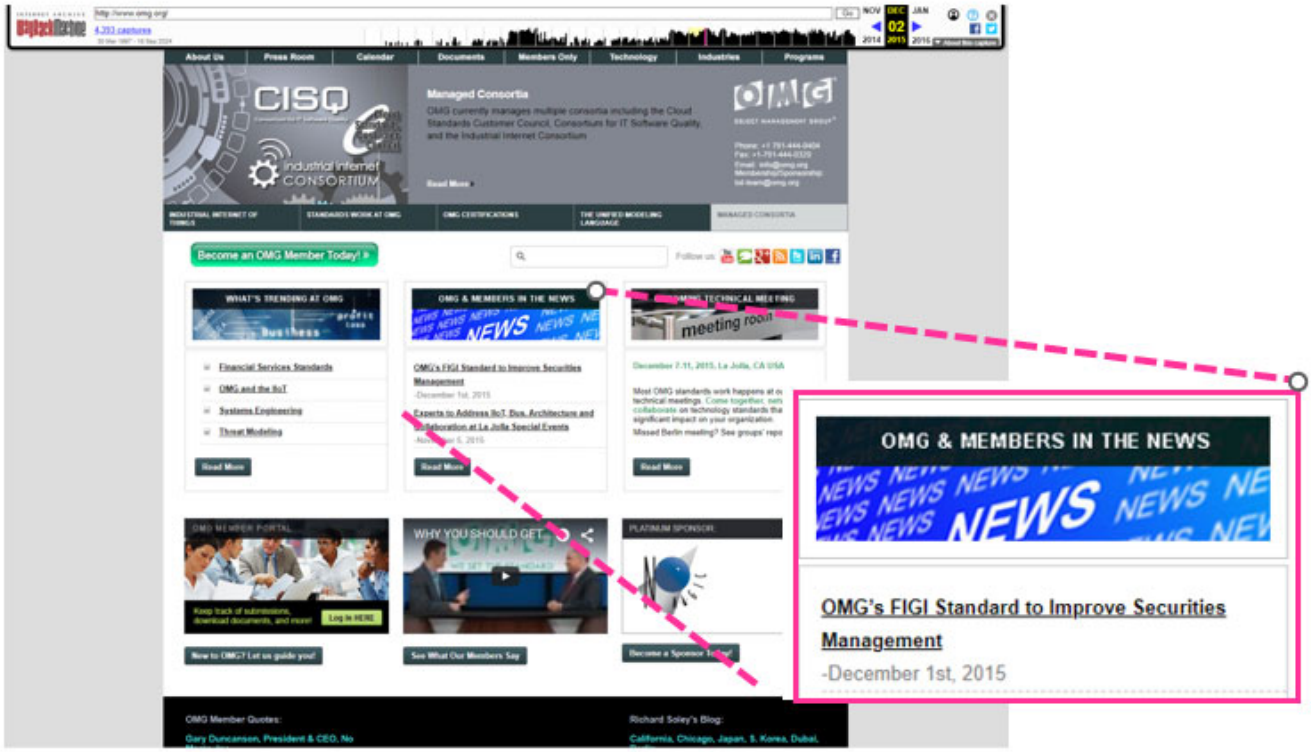
Below are a series of screenshots sourced from the "Wayback Machine" (https://web.archive.org/) 2015-2016 internet archive of www.omg.org related to OMG's adoption of the FIGI standard.

[134] See www.OpenFIGI.com.

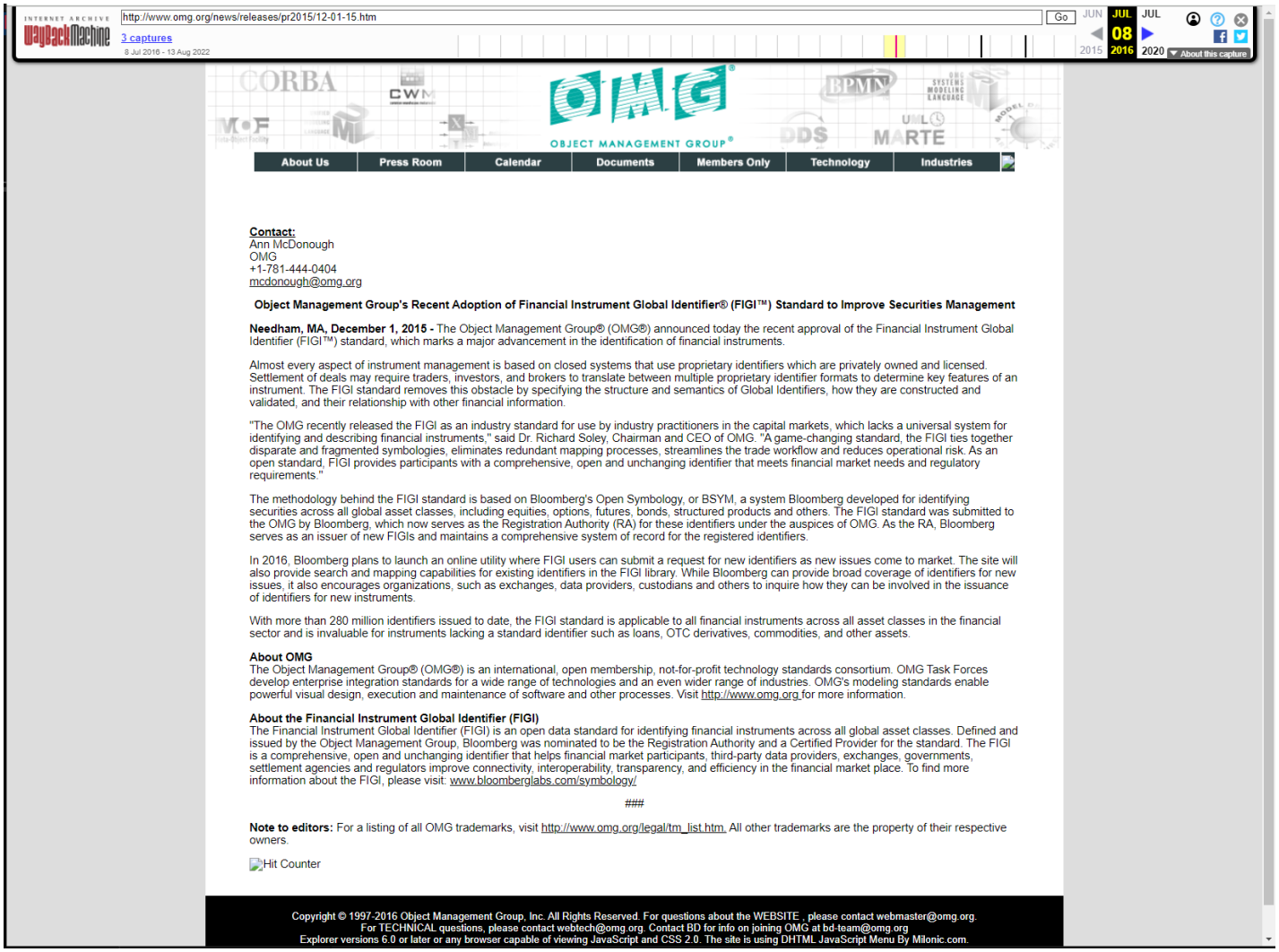
The screenshot from www.omg.org on September 12, 2015 showing the affiliations of OMG board members who approved OMG's adoption of the FIGI standard to improve securities management. These members approved FIGI as an open source standard, assuming control of the FIGI trademark and appointing Bloomberg L.P. as the FIGI RA:



The screenshot from www.omg.org on December 2, 2015 showing OMG's adoption of the FIGI standard to improve securities management on December 1, 2015:



The screenshot from www.omg.org on July 8, 2016 of the December 1, 2015 press release announcing OMG's adoption of the FIGI standard to improve securities management:



INTERNET ARCHIVE Wayback Machine http://www.omg.org/news/releases/pr2015/12-01-15.htm Go JUN JUL JUL 08 2015 2016 2020 3 captures 8 Jul 2016 - 13 Aug 2022 About this capture

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OMG
+1-781-444-0404
mcdonough@omg.org

Object Management Group's Recent Adoption of Financial Instrument Global Identifier® (FIGI™) Standard to Improve Securities Management

Needham, MA, December 1, 2015 - The Object Management Group® (OMG®) announced today the recent approval of the Financial Instrument Global Identifier (FIGI™) standard, which marks a major advancement in the identification of financial instruments.

Almost every aspect of instrument management is based on closed systems that use proprietary identifiers which are privately owned and licensed. Settlement of deals may require traders, investors, and brokers to translate between multiple proprietary identifier formats to determine key features of an instrument. The FIGI standard removes this obstacle by specifying the structure and semantics of Global Identifiers, how they are constructed and validated, and their relationship with other financial information.

"The OMG recently released the FIGI as an industry standard for use by industry practitioners in the capital markets, which lacks a universal system for identifying and describing financial instruments," said Dr. Richard Soley, Chairman and CEO of OMG. "A game-changing standard, the FIGI ties together disparate and fragmented symbologies, eliminates redundant mapping processes, streamlines the trade workflow and reduces operational risk. As an open standard, FIGI provides participants with a comprehensive, open and unchanging identifier that meets financial market needs and regulatory requirements."

The methodology behind the FIGI standard is based on Bloomberg's Open Symbology, or BSYM, a system Bloomberg developed for identifying securities across all global asset classes, including equities, options, futures, bonds, structured products and others. The FIGI standard was submitted to the OMG by Bloomberg, which now serves as the Registration Authority (RA) for these identifiers under the auspices of OMG. As the RA, Bloomberg serves as an issuer of new FIGIs and maintains a comprehensive system of record for the registered identifiers.

In 2016, Bloomberg plans to launch an online utility where FIGI users can submit a request for new identifiers as new issues come to market. The site will also provide search and mapping capabilities for existing identifiers in the FIGI library. While Bloomberg can provide broad coverage of identifiers for new issues, it also encourages organizations, such as exchanges, data providers, custodians and others to inquire how they can be involved in the issuance of identifiers for new instruments.

With more than 280 million identifiers issued to date, the FIGI standard is applicable to all financial instruments across all asset classes in the financial sector and is invaluable for instruments lacking a standard identifier such as loans, OTC derivatives, commodities, and other assets.

About OMG
The Object Management Group® (OMG®) is an international, open membership, not-for-profit technology standards consortium. 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 http://www.omg.org for more information.

About the Financial Instrument Global Identifier (FIGI)
The Financial Instrument Global Identifier (FIGI) is an open data standard for identifying financial instruments across all global asset classes. 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. To find more information about the FIGI, please visit: www.bloomberglabs.com/symbology/

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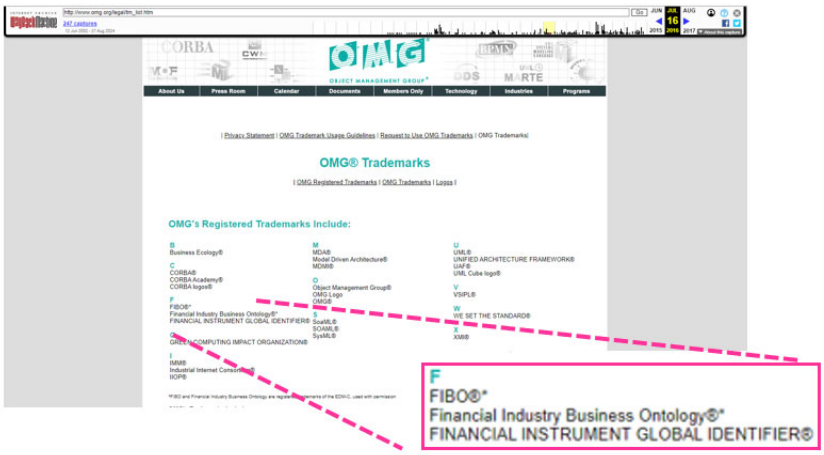
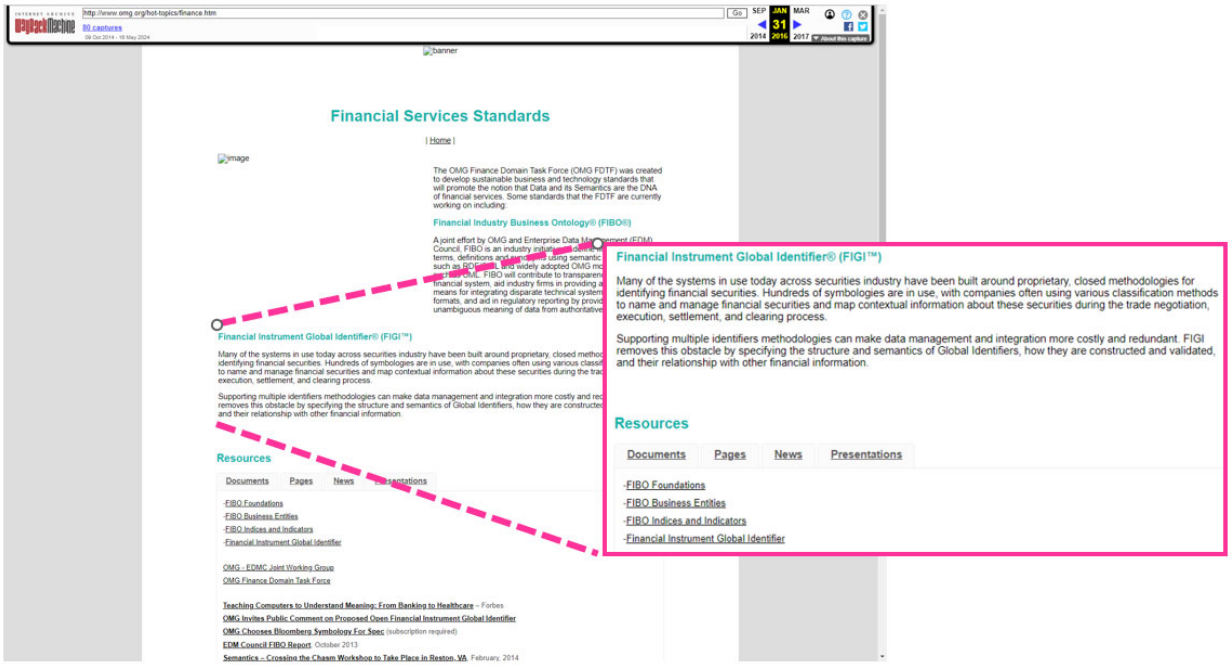
Note to editors: For a listing of all OMG trademarks, visit http://www.omg.org/legal/tm_list.htm. All other trademarks are the property of their respective owners.

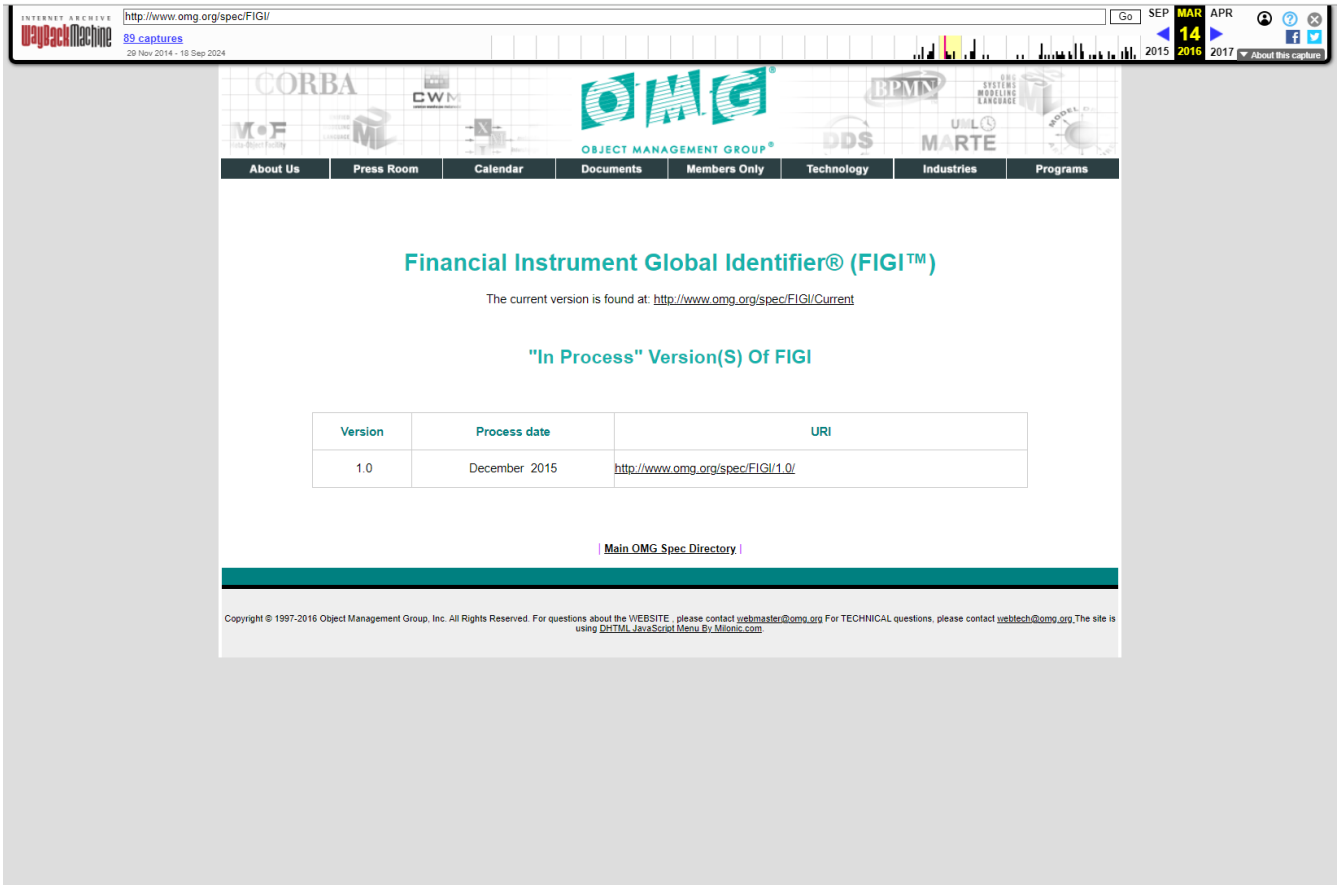
Hit Counter

The screenshot of www.omg.org indicating OMG's ownership of the FIGI Trademark:



The screenshots from www.omg.org on March 14, 2016 three webpages displaying the FIGI standard technical information:




INTERNET ARCHIVE
WayBackMachine
http://www.omg.org/spec/FIGI/
Go
89 captures
29 Nov 2014 - 18 Sep 2024
SEP
MAR
APR
14
2015
2016
2017
About this capture
CORBA
CWM
OMG
OBJECT MANAGEMENT GROUP
BPMN
SYSTEMS MODELING LANGUAGE
UML
MARTE
About Us
Press Room
Calendar
Documents
Members Only
Technology
Industries
Programs
Financial Instrument Global Identifier® (FIGI™)
The current version is found at: http://www.omg.org/spec/FIGI/Current
"In Process" Version(S) Of FIGI
Version
Process date
URI
1.0
December 2015
http://www.omg.org/spec/FIGI/1.0/
| Main OMG Spec Directory |
Copyright © 1997-2016 Object Management Group, Inc. All Rights Reserved. For questions about the WEBSITE , please contact webmaster@omg.org For TECHNICAL questions, please contact webtech@omg.org The site is using DHTML JavaScript Menu By Milonic.com

http://www.omg.org/spec/FIGI/1.0

31 captures

JAN MAR 14 2015 2016

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Documents Associated With Financial Industry Global Identifier® (FIGI™), V1.0

Release Date: December 2015

Normative Documents

OMG document number	Explanation	Format	URL
formal/2015-12-01	v1.0	PDF	http://www.omg.org/spec/FIGI/1.0/PDF
formal/2015-12-01	v1.0	PS	http://www.omg.org/spec/FIGI/1.0/PS

Normative Machine Consumable Files

OMG document number	Explanation	Format	URL
dtc/2015-05-04	GlobalInstrumentIdentifiers UML XMI	xmi	http://www.omg.org/spec/FIGI/20150501/GlobalInstrumentIdentifiers.xmi
dtc/2015-05-05	GlobalInstrumentIdentifiers ODM XMI	xmi	http://www.omg.org/spec/FIGI/20150501/GlobalInstrumentIdentifiers.xmi
dtc/2015-05-05	PricingSources ODM XMI	xmi	http://www.omg.org/spec/FIGI/20150501/PricingSources.xmi
dtc/2015-05-05	SecurityTypes ODM XMI	xmi	http://www.omg.org/spec/FIGI/20150501/SecurityTypes.xmi
dtc/2015-05-06	GlobalInstrumentIdentifiers RDF	rdf	http://www.omg.org/spec/FIGI/20150501/GlobalInstrumentIdentifiers.rdf
dtc/2015-05-06	PricingSources RDF	rdf	http://www.omg.org/spec/FIGI/20150501/PricingSources.rdf
dtc/2015-05-06	SecurityTypes RDF	rdf	http://www.omg.org/spec/FIGI/20150501/SecurityTypes.rdf
dtc/2015-05-06	AboutFIGI RDF	rdf	http://www.omg.org/spec/FIGI/20150501/AboutFIGI.rdf
dtc/2015-05-06	AboutFIGI-1.0 RDF	rdf	http://www.omg.org/spec/FIGI/20150501/AboutFIGI-1.0.rdf

FTF Report: http://www.omg.org/cgi-bin/doc?dtc/2015-06-01

Return to FIGI Home

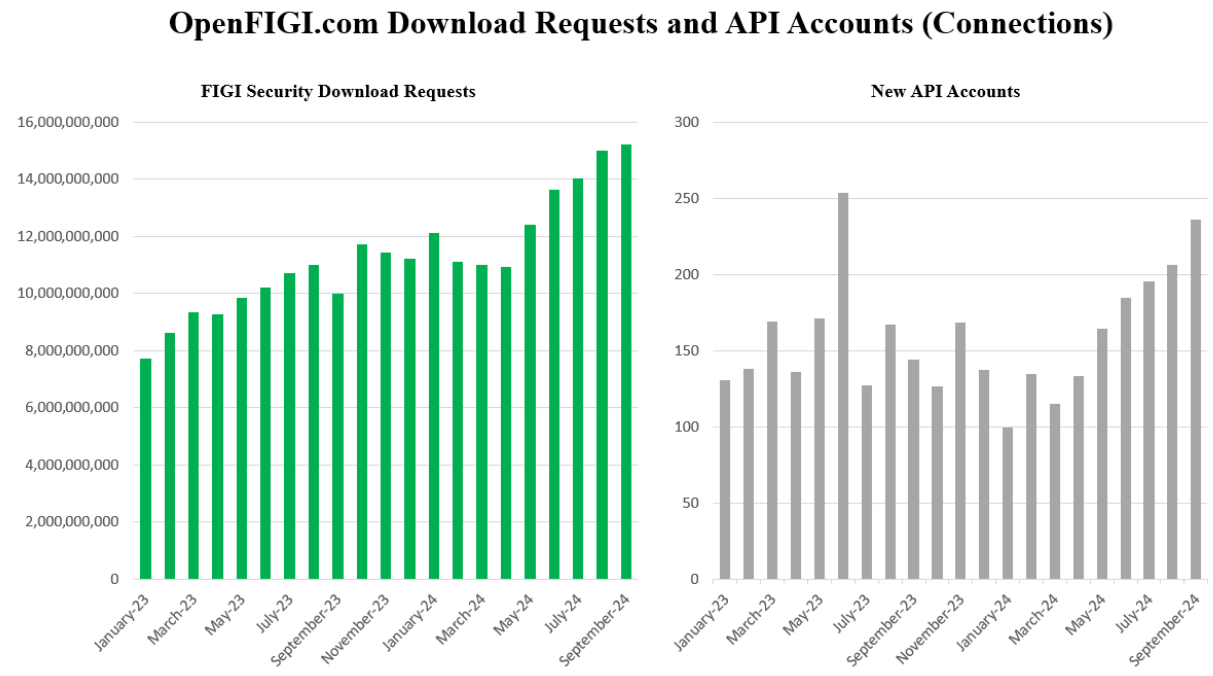
Appendix C: Market Data Providers and other Third-Party Service Providers Support FIGI and other Symbology schemes.

Independent of Bloomberg, FIGI is widely supported by market data vendors other third-party service providers.

The FIGI's usage is growing (Figure 1) and is supported by the major market data vendors (Figure 2) and other third-party service vendors demonstrating the interoperability and fungibility of the FIGI standard with other proprietary identifiers such as ISIN and CUSIP. As a data management standard, FIGI's coverage is global and extends across multiple asset classes (Figures 4-5).

Interoperability and fungibility are key features in the design of the FIGI standard. The FIGI standard and OpenFIGI.com provide the key essential data elements to uniquely identify a security. It works because more than 135 data vendors map to it. This mapping (Appendix D) enables users to place market data vendors in competition with each other to meet the user's specific data needs. The FIGI framework does not force reliance or adoption of a single market data vendor's product, including Bloomberg. On the contrary, it promotes competition. [135]

Figure 1. FIGI "Usage" is Growing.

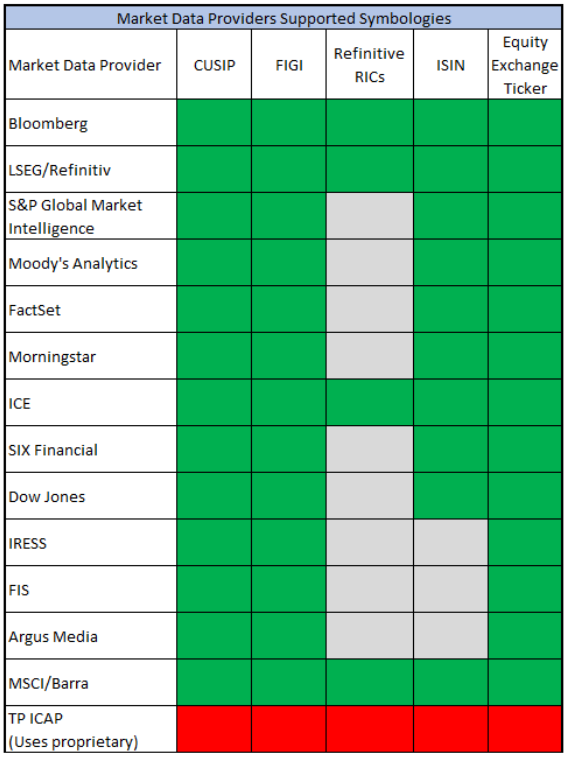


Source: FIGI Registration Authority.

[135] Over 135 data vendors worldwide include FIGI as a security identifier option. *See* https://www.openfigi.com/about/facilitators.

Figure 2. Market Data Providers Supported Symbologies.

Key: Green: Publicly accessible documentation indicates identifier support.
Gray: Notes inability to locate publicly accessible documentation that either indicates identifier support or lack of identifier support.
Red: Publicly accessible documentation indicates lack of identifier support.



Market Data Providers Supported Symbologies					
Market Data Provider	CUSIP	FIGI	Refinitive RICs	ISIN	Equity Exchange Ticker
Bloomberg					
LSEG/Refinitiv					
S&P Global Market Intelligence					
Moody's Analytics					
FactSet					
Morningstar					
ICE					
SIX Financial					
Dow Jones					
IRESS					
FIS					
Argus Media					
MSCI/Barra					
TP ICAP (Uses proprietary)					

[1] Source: Burton Taylor

Figure 1A : Sources of information for Figure 1

Market Data Provider	Source
LSEG/ Refinitiv	(1) https://www.lseg.com/en/data-analytics/market-data/data-analytics-pricing/data-symbology (2) https://community.developers.refinitiv.com/questions/50529/ho w-to-map-rics-permid-for-a-given-figi-code.html (3) https://developers.lseg.com/content/dam/devportal/api-families/refinitiv-data-platform/refinitiv-data-platform-apis/documentation/symbology_user_guide.pdf (4) https://www.openfigi.com/about/facilitators#third%20parties
S&P Global Market Intelligence	(1) https://www.marketplace.spglobal.com/en/datasets/global-instruments-cross-reference-service-gicrs-(12)?utm_source=SPGMIwebsite&utm_medium=referral&utm_content=&utm_campaign=crossrefpage

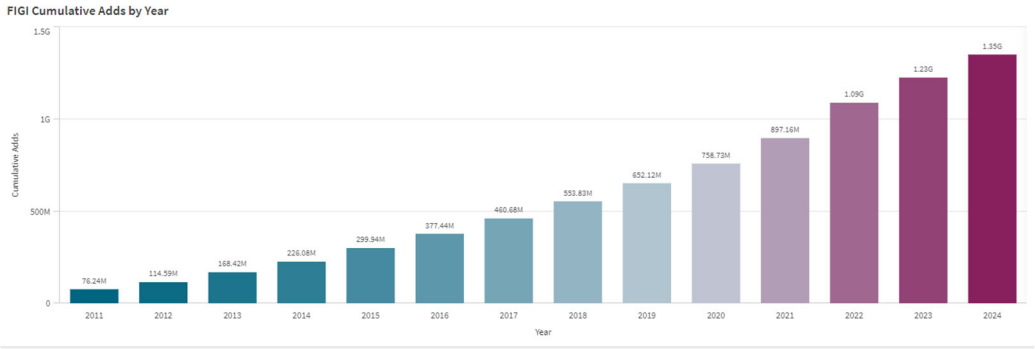
	(2) https://www.spglobal.com/esg/insights/expand-data-connections-with-a-comprehensive-data-linking-solution (3) https://www.martechcube.com/resources/spglobal/xpressfeed_brochure/xpressfeed-brochure.pdf
Moody's Analytics	(1) https://www.fintechsandbox.org/partner/moodys-analytics/
FactSet	(1) https://developer.factset.com/api-catalog/symbology-api (2) https://www.openfigi.com/about/facilitators#third%20parties
Morningstar	(1) https://morningstardirect.morningstar.com/clientcomm/CustomDatabase.pdf (2) https://addin.morningstarcommodity.com/media/Morningstar%20Direct%20Add-In%20Quick%20Reference%20Guide.pdf (3) https://www.rozettatechnology.com/morningstar-tick-data/
ICE	(1) https://www.ice.com/insights/market-pulse/instrument-discovery-making-the-search-easier-by-design (2) https://www.ice.com/fixed-income-data-services/access-and-delivery/connectivity-and-feeds/consolidated-feed (Instrument discovery/alternative symbology)
SIX Financial	(1) https://web.apiportal.six-group.com/portal/bfi/api?param=instrumentSymbology (2) https://www.openfigi.com/about/facilitators#third%20parties
Dow Jones	(1) https://www.google.com/search?sca_esv=ebaa99a3a7428bee&rlz=1C1GCEA_enUS1124US1124&q=dow+jones+%22FIGI%22+support&sa=X&ved=2ahUKEwj-u8bFtceIAxU_mokEHcIWNuoQ5t4CegQIFRAB&biw=1878&bih=1045&dpr=1.1 (2) https://developer.dowjones.com/site/docs/factiva_apis/factiva_workflow_apis_rest/factiva_company_executives/factiva_market_data_api/index.gsp
IRESS	(1) https://www.iress.com/media/documents/QH_software_fact_sheet_0424.pdf (2) https://www.openfigi.com/about/facilitators#third%20parties
FIS	(1) https://www.openfigi.com/about/facilitators#third%20parties
Argus Media	(1) https://www.argusmedia.com/en/solutions/how-we-deliver/channel-partners
MSCI/ Barra	(1) https://www.msci.com/index-data-modules (2) https://www.msci.com/ticker-codes (3) https://www.msci.com/documents/10199/91f6d6e3-29a5-4155-addb-db4f7ae2a4a9
TP ICAP (Uses proprietary)	Uses proprietary only - redistributors (like Bloomberg, Reuters, etc.) can remap. https://www.waterstechnology.com/data-management/7523806/tp-icap-debuts-next-gen-feed-to-support-data-expansion-ropes-in-pegasus-for-integration

Figure 3. FIGI's coverage is global and broad because it is a data management standard.

	FIGI	CUSIP	ISIN	CFI Code
Total	1.3 BN Semantically meaningless	94 MM Structured syntax	96.7 MM Structured syntax	N/A Structured syntax
Coverage	Global	Primarily used in the US and Canada	Stocks, bonds, mutual funds, EU/UK derivatives. Globally recognized and used for cross-border trading and regulatory reporting	Global
Managed	Managed by Bloomberg L.P., Operated by the Object Management Group (OMG)	Managed by CUSIP Global Services (FactSet Research Systems Inc), Operated by American Bankers Association (ABA)	Managed by the Association of National Numbering Agencies (ANNA), managed by each country's official National Numbering Agency (NNA), typically a listing exchange (*e.g.,* LSEG in the UK)	SIX Financial Information is responsible for managing the modifications and enhancements to the code list based on the algorithm (or "recipe") provided in the standard
Open Source	Yes - OMG and X9 standard with Bloomberg and Kaiko	No - ABA with CGS/FactSet Research Systems	No - ANNA with Local NNA	Yes - Swiss Association for Standardization (SNC)/SIX Financial Information
Use Cases	Data Management Regulatory reporting Maintains data lineage through permanence Primary key in back-office by providing linkages across multiple security masters	Settlement and Clearing US and Canada Securities	Settlement and Clearing; Regulatory reporting in the EU/UK (Mandated by MiFID II)	Financial Instrument Classification
Governance	Once issued, never changed establishing an identifier with permanence (for historical lineage); new FIGI assigned only when new corporate is formed in M&A	Certain corporate actions automatically create a new CUSIP when no corporate structure change occurs (*e.g.,* stock split, M&A). Reused for high volume fixed income products, especially short-term maturities in the corporate and government market sectors. There are certain exceptions in the algorithmic allocation rules – *e.g.,* manual	Inactive ISIN identifiers may be reused; Certain corporate actions automatically create new ISIN when no corporate structure change occurs (*e.g.,* stock split, M&A) Differences in treatment by individual NNA's based on jurisdictional differences (*e.g.,* name changes)	Algorithmically generated; no manual intervention

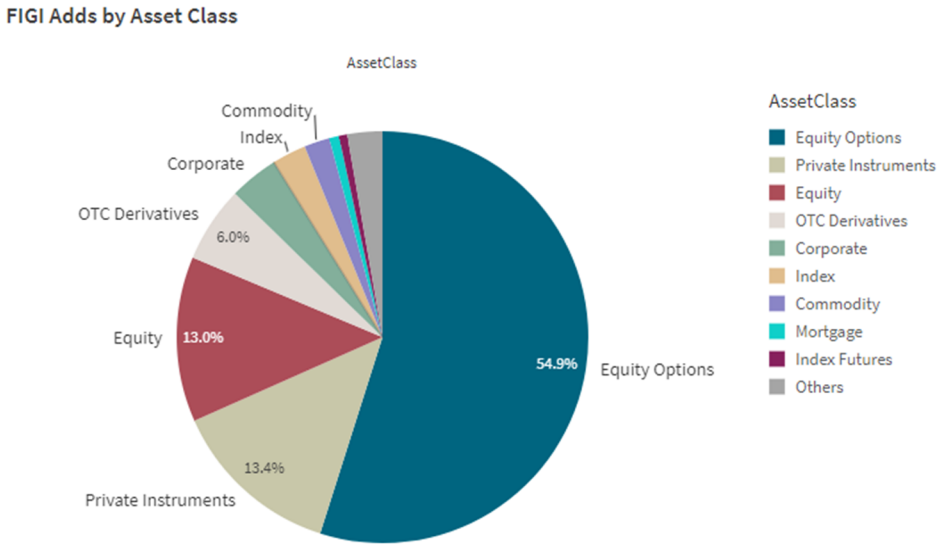
		interventions to retain "CUSIP Permanence" in name changes.		

Figure 4. New FIGI Identifiers Created: Cumulative by year.



Source: FIGI Registration Authority

Figure 5. FIGI Identifiers Breakdown by Asset Class.



Source: FIGI Registration Authority

Examples of third-party service providers that support FIGI and FIGI mapping.

- ExcelPriceFeed, an Excel Add-in owned and distributed by Coderun Technologies Ltd., has created several "functions" to convert from an ISIN, CUSIP, FIGI WKN, SEDOL, to the exchange ticker, https://www.excelpricefeed.com/userguide/instrument-code-isin-cusip-conversion-formulas

- DowJones offers BIGTXN: https://www.dowjones.com/professional/risk/financial-instruments/

- **Twelvedata** offers an API that maps exchange tickers to the FIGI Composite for equities, Funds, and Indices, https://twelvedata.com/docs#cryptocurrencies-list.
- **Datacareer** published a tutorial: "In financial markets, tradable instruments and securities have unique identifiers. The identifiers are very useful, because you can make sure that you and your counterparty are talking about the same instrument while trading. The difficulty is that there isn't really a standard for all the various sorts of instruments or markets. Anyone working in the industry will recognize this issue, especially people working at larger institutions who deal with a variety of instruments. Products like equities, bonds (fixed income), indices, derivatives, currencies and structured products all have their own conventions…. Fortunately, the problem is recognized and there are steps being made to tackle this. Bloomberg has initiated OpenFigi and Refinitiv (formerly Thomson Reuters) PermID. Basically, they are open sourcing their proprietary identifiers. This makes it easier to map instruments to other identifiers which you may use…" https://www.pythonsherpa.com/static/files/html/Financial%20Market%20Instruments%20-%20Unique%20Identifiers.html
- FasterCapital, emphasizes the complimentary nature of FIGI and CUSIP in "FIGI: Financial Instrument Global Identifier: FIGI and CUSIP: Bridging the Gap in Security Identification." They stress the complimentary nature of the two standards:

  1) "Interoperability and Mapping: One of the key advantages of FIGI is its interoperability with other identification systems. For example, a single FIGI can

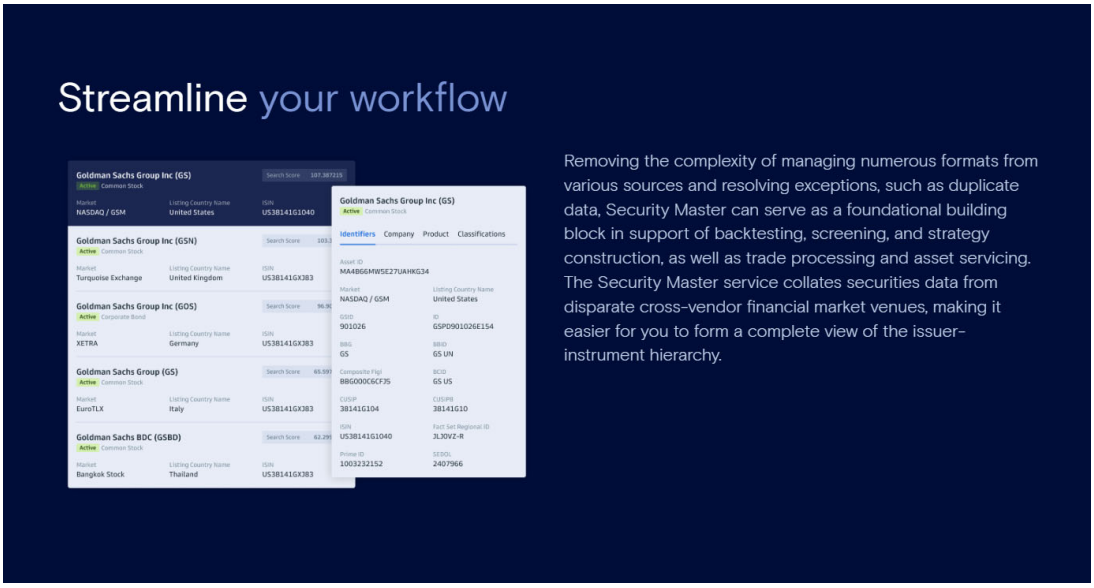
map to multiple CUSIPs, allowing for a seamless transition between domestic and international trading platforms. Examples of Implementation: An example highlighting the utility of FIGI can be seen in the case of multinational corporations that issue securities in various countries."

2) "How FIGI Complements CUSIP in the Financial Ecosystem?
In the intricate tapestry of financial markets, the seamless identification of securities is paramount. The Financial Instrument Global Identifier (FIGI) and the Committee on Uniform Securities Identification Procedures (CUSIP) number system serve as the warp and weft of this fabric, each playing a distinct yet complementary role. While CUSIP provides a unique identifier for North American securities, aiding in the clear-cut classification and settlement of trades, FIGI emerges as a global counterpart, extending the reach of security identification beyond geographical confines. Together, they form a robust framework that enhances the efficiency and accuracy of financial transactions worldwide. From the perspective of a trader, the integration of FIGI and CUSIP is a boon, allowing for a more streamlined process when dealing with a diverse portfolio that spans multiple countries. For regulatory bodies, this combination ensures better oversight and easier tracking of securities across borders. Meanwhile, financial institutions benefit from reduced operational risks and improved data management capabilities."

3) "This [FIGI / CUSIP] synergy has facilitated a more streamlined and efficient approach to identifying financial instruments globally, addressing the complexities and challenges that arise from the diverse and fragmented nature of financial markets. By harmonizing these two systems, institutions can leverage the strengths of both identifiers: FIGI's broad global coverage and CUSIP's established presence in North American markets."
https://www.fastercapital.com/content/FIGI--Financial-Instrument-Global-Identifier---FIGI-and-CUSIP--Bridging-the-Gap-in-Security-Identification.html

- Financial Desktop Connectivity and Collaboration Consortium (FDC3) is an open standard for interoperability between application on the financial desktop. They provide mapping examples for FIGI, CUSIP, SEDOL, RIC, PERMID, ISIN, (FDS) FactSet ID, the ticker, etc.
https://fdc3.finos.org/docs/context/ref/Instrument
- Open Sanctions for sanctions compliance
https://www.opensanctions.org/datasets/openfigi/
has mapped securities to ISIN, Ticker, FIGI, etc.
https://www.opensanctions.org/entities/isin-DE000HC7U2T0/

- Goldman Sachs has created a security master that "unifies securities attributes and symbols across multiple data sources under the same consistent framework" by mapping their GSID and "Prime ID" to the Composite FIGI, CUSIP, ISIN, SEDOL, etc., https://developer.gs.com/discover/security-master



- ICE has mapped the ICE Consolidated Feed (Symbology) to alternative identifiers. "Market participants use a variety of symbologies to identify financial instruments. These include those from national or international associations such as ISIN, SEDOL, and CUSIP, exchange-specific tickers, and vendor-specific symbologies such as Refinitiv's RICs, Bloomberg's FIGIs and ICE's Consolidated Feed Symbols. As a result, anyone wishing to subscribe to financial instruments on a vendor's data feed must undertake instrument discovery, that is, they must cross reference their preferred symbology with the vendor's symbology to find the securities they need." https://www.ice.com/insights/market-pulse/instrument-discovery-making-the-search-easier-by-design

Example

This example shows how a client can use the ICE Consolidated Feed to perform instrument discovery when a standard symbol reference is not enough to return a non-ambiguous result.

On the SIX Swiss exchange, funds can trade in multiple currencies. However, no matter the currency, all instances of a given fund use the same ISIN number. For clients who rely on the ISIN for identification, this can obviously present a major challenge.

Instrument Description / ANNA Global Codes

Instrument Name	Segment MIC	Trading Currency	ISIN
21Shares Bytetree BOLD ETP	XSWX	CHF	CH1146882308
21Shares Bytetree BOLD ETP	XSWX	EUR	CH1146882308
21Shares Bytetree BOLD ETP	XSWX	GBP	CH1146882308

The ICE Consolidated Feed helps by returning a robust set of reference data as part of the subscription request. When a client subscribes to ISIN CH1146882308 on the SIX Swiss Exchange, they receive a set of records with key reference data fields:

ICE Identifiers	Instrument Description / ANNA Global Codes			
ICF Source, Symbol	Instrument Name	Segment MIC	Trading Currency	ISIN
257,E:BOLD	21Shares Bytetree BOLD ETP	XSWX	CHF	CH1146882308
257,E:BOLD-EUR	21Shares Bytetree BOLD ETP	XSWX	EUR	CH1146882308
257,E:BOLD-GBP	21Shares Bytetree BOLD ETP	XSWX	GBP	CH1146882308

Exchange / Local Identifiers			BBG Identifiers	
VALOR	Exchange Ticker	Exchange Trade Code	BBG Ticker	BBG FIGI
114688230	BOLD	3612504	BOLD SE	BBG0170X9QP6
114688230	BOLD	3612505	BOLDEUR SE	BBG01712T513
114688230	BOLD	3612506	BOLDGBP SE	BBG01712Z650

The client can then choose whether to explicitly subscribe to one or all of the instruments, based on a clear understanding of the differences. This is especially critical for trading clients as they will likely need to submit their orders using the exchange's local trade code.

Appendix D. Mapping for Fungibility and Interoperability is Achievable and Manageable

In a March 2017 report, "Building a Framework for Innovation and Interoperability," Dayle Scher, TABB Group FinTech Primary Analyst highlighted the need for an interoperable identifier:

> "Throughout the transaction lifecycle, vendors and market participants assign proprietary identifiers to financial instruments for various operational processes, creating huge inconsistencies across the industry and wreaking havoc on middle and back offices. Not only do financial instrument identifiers need to be mapped to each other, they typically need to be reconciled across incompatible data models."[136]

Fungibility refers to the substitutability of identifiers – for example, 123456 is the same as ABCDEFGH. Interoperability refers to the ability of two different identifiers to be able work together through some mechanism or methodology. FIGI was designed to be fungible with other identifiers and interoperable in different workflows and use cases.

Appendix C provides insight market data providers and other third-party service provider support for FIGI and other symbology schemes. In Accreditation Approval,[137] the X9D subcommittee of Securities noted in the ASC X9's approval of the FIGI standard, "the development of the Financial Instrument Global Identifier originated from a need for a standard methodology to bridge across multiple identification systems for financial instruments."[138]ASC X9 not only noted that FIGI was complimentary[139] with the ISIN/CUSIP standards but that is interoperable[140] between existing identification systems.

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[136] *See* Dayle Scher, "Standards Would East Market Data Pain, Spur Innovation," TABB Forum (Mar. 10, 2017), *available at* https://tabbforum.com/opinions/standards-would-ease-market-data-pain-spur-innovation/. *See also* Scher's study to gauge the operational pain across the capital markets caused by inaccurate or insufficient financial instrument identification, TABB Group, "Building a Framework for Innovation and Interoperability," (Mar. 2017), *available at* https://www.scribd.com/embeds/341489734/content?start_page=1&view_mode=scroll&show_recommendations=true&access_key=key-LOCU09JG9sdQ6o6KiHfx.

[137] The X9 Consensus Body ballot was overwhelming to approve X9.145 FIGI draft standard as an American National Standard – 20 voted yes, 3 no and 5 abstained.

[138] ASC X9 Accreditation Approval at 4.

[139] *See* ASC X9 Accreditation Approval at 47. "The ISIN standard overlaps with the FIGI standard in that it, too, seeks to assign unique identifiers to Financial Instruments. It differs, however, from the FIGI in a number of critical ways which will be explicated below. Because of the overlap and the differentiation, FIGI and ISIN can be viewed as complementary, rather than competing, standards."

[140] *Id.* at 4. "FIGI originated from a need for a standard methodology to bridge across multiple identification systems for financial instruments. Without prejudice against any existing symbol-based solutions, or any question of the validity of one system over the other, the FIGI standard utilizes a metadata driven approach to enable the unique and persistent identification of financial instruments. In so doing, while employing the principles of open data, it provides a mechanism for interoperability between existing identification systems."

It is important to note that prior to the creation of FIGI as an open-source data management standard in 2014, as far back as 2003, the NASD (now, FINRA) recognized that they had a similar use case – the need for an open-source identifier for its members and the public for TRACE reporting and transparency dissemination. The NASD (FINRA) in 2003 demonstrated that, like FIGI, it was possible to map, create fungibility to NNA identifiers.[141]

The NASD (FINRA) Bond Issue Symbol

Beyond equities, there is no identification framework that has 100% coverage. For example, FINRA's TRACE corporate database is populated with data from its members. Under rule, they are required to provide TRACE operations with notice of basic data to identify a security so TRACE can record transactions and disseminate certain trade information in real-time. In its response to comments on the proposal to expand TRACE transaction reporting to US Dollar Denominated Foreign Bonds, FINRA reiterated, as they have recognized in the past, they are sensitive to the variety of commenters' concerns regarding the ability to report to TRACE where a CUSIP is not available for a security. [142]

Under FINRA Rule 6760 (Obligation to Provide Notice), FINRA members have the option to provide a CUSIP, if one exists, or request that FINRA to create a FINRA-assigned identifier if one does not.[143] As of April 30, 2024, 8.3% of the active bonds in FINRA's corporate bond database where members availed themselves of FINRA-assigned identifier for transaction reporting rather than pay all the costs associated with utilizing CUSIP. The FDTA requires FINRA to engage in rulemaking to adopt the established joint standards (to the extent feasible) within two years of the Agencies finalizing the joint standards. The final requirements for reporting US Dollar Denominated Foreign Bonds**,** "as requested by commenters, FINRA will update the new issue form process to permit members to submit the form and receive a FINRA symbol based solely on an ISIN or a FIGI (irrespective of whether a CUSIP and CINS also are available) using the web-based process, which will obviate the need for members to call or email FINRA for assistance with setting up a symbol for a new issue that does not have a CUSIP." [144]

Open-Source and Identifier Creation

While no security identifier has 100% coverage, FIGI's breadth, because it is a data management standard, is extensive (Appendix C, Figure 3). The NASD and FINRA showed/show that there were/are gaps in TRACE-eligible Corporate Bonds. The NASD created

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[141] *See* NASD, 2005 TRACE Fact Book, Introductions and Definitions, "Symbol – The bond issue symbol as assigned by NASD for TRACE trade-reporting purposes" at 6, *available at* https://www.finra.org/sites/default/files/AppSupportDoc/p017618.pdf.

[142] *See* FINRA Response to Comments.

[143] *See* FINRA Rule 6760(b).

[144] *See* FINRA Response to Comments.

a mechanism so that their members could get an identifier for compliance purposes without having to pay additional fees.

Similar to contacting TRACE Operations for a FINRA-assigned symbol, where there may be gaps, a FIGI can be requested through OpenFIGI.com. When seeking a FIGI for a financial instrument, specific data elements need to be submitted with some documentation to confirm that an identifier has not been assigned to a financial instrument. Data elements will vary by market sector (asset class). But there is no cost to request and receive a FIGI.

The public can contact a market sector (asset class) administrator through OpenFIGI.com/feedback for questions about a FIGI or to request a FIGI to be created. Under the OMG FIGI standard, the FIGI Registration Authority serves as both an issuer of identifiers and as a comprehensive system of record of the registered identifiers. Bloomberg as the FIGI Registration Authority and, along with Kaiko, a FIGI Certified Provider, work with the requester to evaluate the request and assign a FIGI.

In the FINRA rulemaking, despite operating the FINRA-assignment service (and mapping to an NNA identifier) since at least 2005, CGS objected to FINRA maintain the symbol-creation service, stating that mapping to multiple identifiers would be a too difficult. FINRA flatly rejected this assertion, noting:

> CGS also raised the possibility that assigning a FINRA symbol to multiple identifiers could create identifier mapping challenges (or otherwise cause confusion) and stated that, if there is a need to assign a FINRA symbol to a foreign debt security, it should be on a one-to-one basis with the corresponding and fungible CUSIP/CINS or ISIN. FINRA does not agree that associating a FINRA symbol with multiple identifiers creates any unique challenges in the context of the Proposal, as an individual security currently may be assigned CUSIP/CINS, FIGI and ISIN identifiers. FINRA always seeks to avoid duplicative symbol assignments and confirms that FINRA-assigned symbols are intended to correspond, on a one-to-one basis, with a single security and any related identifiers.[145]

What FINRA is also acknowledging is the necessity to provide a fee-free mechanism for its members to get an identifier created so that those members could be in compliance with TRACE's transaction reporting mandate. FINRA assigned its own proprietary symbol for issues that need to be identified but don't otherwise have a CUSIP is exactly the type of activity that the FDTA is seeking to solve.

Public Dissemination of Government Data

The FDTA highlights that in Phase II, the Agencies need to consider the joint standard (open source) options when making their data available to the public. The NASD/FINRA TRACE experience is again very instructive here.

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[145] *Id.*

The FINRA-symbol schema is fungible - corresponding on a one-to-one basis with a single security and any related CUSIP,[146] similar to FIGI.[147] To ensure expanded usability of its published data, FINRA currently makes TRACE historical information for all of the TRACE reportable asset classes (Corporates, ABS/MBS securitized products, US Treasuries) available to the public "in both CUSIP and Non-CUSIP versions (for customers without a CUSIP license)."[148]

The FINRA's publication of its TRACE historical file with FINRA symbols "for customers without a CUSIP license" is the real-world transparency experience that the FTDA was focused on and is what makes CUSIP ineligible as a joint standard under the statute. Similar to NNA identifier assignment for settlement and clearance, a FINRA-assigned identifier serves a specific use case. It is not a global financial instrument data management standard, like FIGI, which is what the Chief Data Officers at each of the nine Treasury's Financial Stability Oversight Council in scope Agencies concluded that they required.

Form 13F reporting

As noted in the main document, the SEC has recognized the utility of the FIGI mapping services in prior rules. For example, the SEC recently acknowledged FIGI's mapping capabilities in its 2022 rule amending Form 13F filing requirements.

13F reporting for the Q2 2024 (July 2024) reporting period – where CUSIP and FIGI were required to be reported side-by-side – appears to have been largely successful. An analysis of a random sample of the 13F reports shows that some reporters may need clarification on the need to report the Share Class FIGI as they used the (country) composite or exchange level FIGI instead.

Similarly, when reporting options, the CUSIP of the underlying should be reported. Bloomberg analyzed a random sample of 15 13F reports and found that there were 324 instances where dummy CUSIPs were used for reporting. These were mainly in the reporting of equity option positions where users are required to report using the CUSIP of the underlying but apparently created a dummy CUSIP, perhaps because there was difficulty identifying the CUSIP of the option.

Regardless of these apparently isolated issues, the 13F reporting experience suggests that ahead of the FDTA mandate, FIGI is a fungible and interoperable standard. Moreover, the new reports enabled the public access and use the new reports using a free open-source identifier.

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[146] *Id.* at 3.

[147] The FDTA requires FINRA to engage in rulemaking to adopt the established joint standards (to the extent feasible) within two years of the Agencies finalizing the joint standards.

[148] *See* FINRA, "Historic Information," *available at* https://www.finra.org/filing-reporting/trace/historic-academic-data.