ALLOCATION RULES FOR THE FINANCIAL INSTRUMENT GLOBAL IDENTIFIER (FIGI) STANDARD

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The FIGI Standard – Introduction

In September 2015 the Financial Instrument Global Identifier (FIGI) standard for identifying financial instruments of all types was designated as an official standard of the Object Management Group (OMG). The Object Management Group (OMG) "is an international, open-membership, not-for-profit technology standards consortium. Its task forces develop enterprise integration standards for a wide range of technologies and industries."¹

The OMG owns the trademark of the term "FIGI". Bloomberg acts as the Registration Authority for the OMG FIGI Standard and as a Certified Provider of FIGIs. Bloomberg adheres to FIGI allocation rules as defined in the OMG global standard. For more information, please see <u>http://www.omg.org/spec/FIGI/</u>.

Each FIGI is proactively allocated upon instrument creation, where possible. A FIGI is never reused and remains with the instrument in perpetuity. A FIGI does not change as a result of any corporate action. Once the standard was adopted by the Object Management Group, the term "BBGID" (Bloomberg Global Identifier) was dropped and all references were adjusted to reflect "FIGI" (Financial Instrument Global Identifier) in June 2015.

The allocation rules for FIGIs did not change as a result of the Object Management Group assuming ownership of the standard.

For more information about the Object management Group, please see: <u>http://www.omg.org/gettingstarted/gettingstartedindex.htm</u>

FIGI Definitions

General

Registration Authority (RA)	Authority (a firm or organization) nominated by a standards organization (through a committee, or by a membership vote) to be responsible for the administration, promotion, and integrity of the named standard.
Certified Provider (CP)	Authority duly approved by the standards organization and/or Registration Authority for implementing the name standard. In the case of FIGI, a Certified Provider is the entity that actually issues FIGI and the associated metadata, under the auspice of the Registration Authority. Where there are multiple CP's, the CP's must coordinate through the RA to ensure the integrity of the standard.

Naming Conventions

Since FIGIs are used across multiple platforms, below are some examples as to how FIGIs are mentioned throughout this document:

Name: Financial Instrument Global Identifier

Definition: An identifier is assigned to instruments of all asset classes, is unique to an individual instrument and once issued will not change for an instrument. For equity instruments an identifier is issued per instrument per trading venue.

Naming Convention in this document: FIGI

Naming Convention in Bloomberg Data License/Enterprise Products: ID_BB_GLOBAL

Naming Convention in OpenFIGI.com Search: FIGI

Naming Convention in OpenFIGI.com Mapping Service: figi

Naming Convention in Bloomberg Terminal: ID_BB_GLOBAL, or ID135

Name: Composite Financial Instrument Global Identifier

Definition: The Composite level of assignment is provided in cases where there are multiple trading venues for the instrument within a single country or market. The Composite Financial Instrument Global Identifier (FIGI) enables users to link multiple FIGIs at the trading venue-level within the same country or market in order to obtain an aggregated view for that instrument within that country or market. Note: Where an MTF trades multiple listings, this field will indicate the MTF as composite and the true associated market level is indicated in MTF Assc Mkt Comp Financial Instrument Global ID (ID241,

MTF_ASSC_MKT_COMP_ID_BB_GLOBAL).

Naming Convention in this document: COMPOSITE FIGI

Naming Convention in Bloomberg Data License/Enterprise Products: COMPOSITE_ID_BB_GLOBAL

Naming Convention in OpenFIGI.com Search: FIGI Composite

Naming Convention in OpenFIGI.com Mapping Service: composite FIGI

Naming Convention in Bloomberg Terminal: COMPOSITE_ID_BB_GLOBAL, or ID145

Name: Share Class Financial Instrument Global Identifier

Definition: A Share Class level Financial Instrument Global Identifier is assigned to an instrument that is traded in more than one country. This enables users to link multiple Composite FIGIs for the same instrument in order to obtain an aggregated view for that instrument across all countries globally.

Naming Convention in this document: SHARE CLASS FIGI Naming Convention in Bloomberg Data License/Enterprise Products: ID_BB_GLOBAL_ SHARE_CLASS_LEVEL Naming Convention in OpenFIGI.com Search: Share Class Naming Convention in OpenFIGI.com Mapping Service: shareClassFIGI Naming Convention in Bloomberg Terminal: ID_BB_GLOBAL_SHARE_CLASS_LEVEL, or ID236

Additional naming conventions may be used, but the above are the most common usages.

FIGI Structure

A FIGI is a twelve-character, alphanumeric identifier. The first 2 characters are upper-case consonants (including "Y"), the third character is the upper-case "G", characters 4 -11 are any upper-case consonant (including "Y") or integer between 0 to 9, and the last character is a numeric check-digit. FIGI Composition:

Possibilities	2	2	G	31	31	31	31	31	31	31	31	10
	1	1										
Example	В	В	G	0	0	0	В	L	Ν	Q	1	6
Character	1	2	3	4	5	6	7	8	9	10	11	12
place												
	//								_			

"BB"	Alphanumeric (A through Z, no vowels,	Numeric
Indicates	numbers 0 through 9) and randomly	Check digit ¹
Bloomberg	assigned.	
is the	31 possible characters	
Certified		
Provider		

¹ The numeric check digit is assigned by an algorithm defined in the Open Source MIT License The example provided above represents the NYSE venue level assignment of IBM.

FIGI Allocation by Asset Class

Equities, Funds, and Warrants

Please see **Bloomberg Specific Information** for Bloomberg related functionality.

Equity instruments are allocated a <u>FIGI</u> at the <u>Composite</u> and <u>Trading Venue level</u>, with the exception of openend funds and private companies. Share Class Level_assignment is allocated for all equity instruments, except for Warrants.

Each instrument (Equities, Funds and Warrants), active and inactive, is allocated a FIGI.

The allocation of the FIGI has been enhanced for historically-inactive instruments. Prior to August 2010, instruments that were inactive had only been allocated a single FIGI at the Composite level. Historically-inactive instruments now have a more-granular Trading Venue-level FIGI. The Composite FIGI that was previously allocated remains linked to the instrument at the Trading Venue-level and is recorded in the COMPOSITE FIGI field of that Trading Venue-level FIGI.



Taiwan

Taiwan is a special case where one Trading Venue-level FIGI represents the Composite-level FIGI as well as the Trading Venue-level for both the Taiwan Stock Exchange and the Taipei Exchange.

Example	2883 TT (Taiwan	2883 TT (Taiwan Stock
	Composite)	Exchange)
Ticker Symbol	2883	2883
Exchange Code	TT	TT
FIGI (exchange level represents Taiwan Exchange)	BBG000LH0640	BBG000LH0640
COMPOSITE FIGI (Represents Taiwan Composite	BBG000LH0597	BBG000LH0597
country code)		
SHARE CLASS FIGI	BBG001SK08N9	BBG001SK08N9

Open-End Funds and Shares in Private Companies

In the case of open-end funds and shares in private companies the <u>FIGI</u> and the <u>COMPOSITE FIGI</u> are equal to each other. For shares in Private Companies, where a single FIGI is allocated (FIGI = COMPOSITE FIGI), if the Private Company becomes a listed entity then a FIGI will be created for each Trading Venue within the country (or countries) in which those shares are subsequently listed.

The FIGI does not change as a result of a corporate action. For more information, please see the Equities, Funds, Warrants <u>Corporate Actions</u> section of this manual.

Share Class FIGI

A FIGI is allocated at the Share Class level once the relevant instrument has been created.

A Share Class FIGI will only show data for applicable instruments, and is not applied when there is no underlying Composite Level FIGI.

Multiple listings of the same class of the same instrument will be assigned the same FIGI at this level. This level of FIGI assignment will link or connect all Composite-level FIGIs globally that represent the same class of the same instrument. As the Share Class FIGI can be linked to more than one traded venue instrument, it will not load a single instrument.

The Share Class FIGI is never reused and will not change once allocated.

Example of the Share Class FIGI – Common Shares:

The Share Class FIGI for the Common Shares of Yahoo! Inc is BBG001S8V781.

Composite Level FIGI	Share Class Level	Ticker Symbol
	FIGI	
BBG000GFFQN9	BBG001S8V781	YHOO US
BBG000TL3H46	BBG001S8V781	YHO TH
BBG000SF0LF2	BBG001S8V781	YHOO TE
BBG000Q8SXG3	BBG001S8V781	YHOG IX
BBG000PZL9Q3	BBG001S8V781	YHOO SW
BBG000MG1P20	BBG001S8V781	YHO GR
BBG000PB3S66	BBG001S8V781	YHOO* MM
BBG000KB2D74	BBG001S8V781	YHOO PE
BBG000NRZQ99	BBG001S8V781	YAH LN
BBG000LHCTP4	BBG001S8V781	YHOO ES

Example of the Share Class FIGI - American Depository Receipts (ADRs): The Share Class FIGI for the ADRs of Vale SA is BBG001SB54S8.

Composite Level FIGI	Share Class Level	Ticker Symbol
	FIGI	
BBG000BN5LG7	BBG001SB54S8	VALE US
BBG0019QFZF0	BBG001SB54S8	VALERUB EU
BBG0019QFYR0	BBG001SB54S8	VALERUB EO
BBG000STQ1C1	BBG001SB54S8	CVLB TH
BBG000R5FJR1	BBG001SB54S8	VALE EU
BBG000R5F8D0	BBG001SB54S8	VALE EO
BBG000QQTQJ4	BBG001SB54S8	VALE3 PZ
BBG000QLD7X8	BBG001SB54S8	VALEEUR EU
BBG000QLCZN8	BBG001SB54S8	VALEEUR EO
BBG000NSHN12	BBG001SB54S8	VALE3 FP

Index

Please see <u>Bloomberg Specific Information</u> for Bloomberg related functionality.

Please see the <u>Corporate Actions section</u> for how FIGIs are handled with corporate action events.

Equity Index

All Equity Indices, active and inactive, are assigned a FIGI.

Examples of FIGI:

FIGI	Index Name	Ticker	Market
		Symbol	Sector
BBG000H4FSM0	S&P 500 Index	SPX	Index
BBG000HS1CN6	FTSE 100 Index	UKX	Index
BBG000HX8KM1	Nikkei 225	NKY	Index

Examples of how Different Attributes result in assignment of a new unique FIGI:

Ticker	FIGI	Market	Attribute
Symbol		Sector	
DAX	BBG000HY4HW9	Index	Deutsche Boerse AG German Stock Index
DAXF	BBG000LJ6S88	Index	Deutsche Boerse AG German Stock Index
			(DAX) Fixing

FIGI	Ticker Symbol	Market Sector	Attribute
BBG000H4FSM0	SPX	Index	S&P 500 Index
BBG000VWRDV2	SPTR500N	Index	S&P 500 Net Total Return Index

Non-Equity Indices

FIGIs are allocated to all Non-Equity Indices, active and inactive. Statistical indices, bond indices, economic indices, and LIBOR Rate are examples of Non-Equity Indices.

Examples of Non-Equity Indices:

FIGI	Name	Ticker Symbol	Market Sector
BBG002SBKL10	Federal Funds Effective Rate US	FEDL01	Index
BBG002SBCXZ6	BBA LIBOR USD 1 Month	US0001M	Index
BBG002SBQKM3	US Initial Jobless Claims SA	INJCJC	Index

OTC Energy Commodity Indices, London Metals Exchange Indices, and PLATTs Indices, active and inactive, are assigned a FIGI.

Examples of FIGI assignment against Conventional Ticker Symbols: S&P Hong Kong Listed China MidSmallCap Select (HKD)

FIGI	Ticker	Market
		Sector
BBG0083W8740	SAP4M F10	Index
BBG0083W8759	SAP4M F11	Index
BBG0083W8768	SAP4M F12	Index
BBG0083W8777	SAP4M F13	Index
BBG0083W8786	SAP4M F14	Index
BBG0083W8795	SAP4M F15	Index
BBG006F4D3C7	SAP4M F16	Index

Time-Series Ticker Symbols

During normal markets conventions, some Ticker Symbols are created by adding a "tail" to the end of a Base Ticker Symbol. These "tail" Ticker Symbols are traditionally used to store multiple data types related to the same instrument. Each individual "tail" Ticker Symbol² has its own FIGI.

As each of these will have different valuations, risk and treatment, they are treated as unique instruments when being assigned a FIGI.

Corporates and Preferreds

Please see <u>Bloomberg Specific Information</u> for Bloomberg related functionality. Please see the <u>Corporate Actions section</u> for how FIGIs are handled with corporate action events.

² Ticker Symbols are used as a basis for breaking down information for specific time periods when combined with a "tail" that represents the month and year, quarter and year, season and year, or calendar year. Tails consist of one or two characters that represent the month or season or quarter (e.g., using the letter Q and the numbers 1-4 to represent each quarter), followed by the last two digits of the year.

For Further examples please see the <u>Bloomberg Specific Information section</u>.

General Allocation

FIGIs are allocated to corporate bonds and preferred stock at the instrument level. Unique FIGIs are not assigned by trading venue or by contributed pricing sources for this asset class at this time, given the traditional RFQ nature of the market. This is continuously re-evaluated as market conditions evolve.

Multiple Tranche Assignment

For instruments with multiple tranches, each tranche (or piece) is allocated a FIGI.

Examples of multiple tranches are Bearer DTC, REGS, 144A, International, Fungibles (Temporary ISIN), Registered, AI (accredited investor).

FIGI	Tranche	Ticker Symbol	Market Sector	
BBG0027PBVG4	144A	NROCC 9.375 11/10/24 144A	Corporate	
BBG0027P97W2	REGS	NROCC 9.375 11/10/24 REGS	Corporate	

144A and REGS Tranche Example:

144A and Accredited Investor (AI) Example:

FIGI	Tranche	Symbol	Market Sector
BBG0000HS885	144A	SJQU 0 09/30/36	Corporate
		144A	
BBG0000K2733	AI (Accredited Investor)	SJQU 0 09/30/36 AI	Corporate

DTC and International Example:

FIGI	Tranche	Symbol	Market Sector
BBG00007S3C3	DTC	EIB 4 10/15/37 DTC	Corporate
BBG00007Q219	INTL	EIB 4 10/15/37 INTL	Corporate

Fungible Instrument Example:

FIGI	Series	Symbol	Market Sector
BBG00009LGF4	REGS	VKSC 9.875	Corporate
		01/15/18 REGS	
BBG0000RBHB7	REGs	VKSC 9.875	Corporate
		01/15/18 REGs	

Corporate Actions

A FIGI does not change as a result of a corporate action. For more information, please see the Corporates & Preferreds <u>Corporate Actions</u> section of this manual.

US Government Agency Instruments

US Government Agency instruments are sometimes classified as both a corporate and as a government

instrument. These instruments are allocated the same FIGI, representing they are the same instrument, but may have different asset classifications depending on different factors³.

FIGI	Market	Ticker Symbol
	Sector	
BBG002NFJNQ7	Corporate	FNMDN 0
		04/30/13
BBG002NFJNQ7	Government	FNMDN 0
		04/30/13

Example: Government and Corporate Asset Classes

Loans

Please see <u>Bloomberg Specific Information</u> for Bloomberg related functionality.

General Allocation

FIGIs are allocated to loans facilities and each tranche, including derivative tranches.

FIGI	Level	Market Sector	Ticker Symbol
BBG000144CX2	Facility	Corporate	ARMK L 02/24/21 FA
BBG00015FB14	Term Loan B2	Corporate	ARMK L 01/26/14 B2
BBG00015FB32	Term Loan B3	Corporate	ARMK L 01/26/14 B3
BBG00017ZDT4	Strip	Corporate	ARMK L 02/24/21 ST

Money Markets

Please see <u>Bloomberg Specific Information</u> for Bloomberg related functionality.

Money Market Programs

FIGIs are allocated to both programs and instruments.

The FIGI does not change as the result of any corporate action.

Different program types that are covered under the same document are allocated different FIGIs.

Example: Euro Commercial Paper and Euro Certificate of Deposits issued under a single document

FIGI	Туре	Ticker Symbol	Market Sector
BBG0013WHY28	Commercial Paper	DBASA ECP	Money Market
BBG0013WHXX6	Certificate of Deposit	DBASA ECD	Money Market

Money Market Instruments

Each money market instruments is allocated a FIGI.

³ Due to different methodologies for classifying instruments, it is possible some institutions may classify an asset one way while others view the asset differently. To facilitate these perspectives, both views are captured, but only a single FIGI is assigned to maintain integrity.

Governments:

US Treasury Instruments

All U.S. Treasury instruments are allocated a FIGI at the instrument level including Bills, Notes, Bonds, TIPS, STRIPS, and Cash Management Bills.

For a new issue, the FIGI is generated once the instrument is created as "when-issued" and remains with the life of the instrument.

Following the auction, the metadata changes and the FIGI stays with the instrument.

Example: 12 month Bill new issue

FIGI	Ticker Symbol	Market Sector	Status
BBG000FWG7T8	WIB 7/28/11	Government	when-issued/pre-auction
BBG000FWG7T8	B 7/28/11	Government	auctioned instrument

For a Reopening, the "when-issued" instrument is assigned the FIGI of the already- outstanding instrument. Following the auction for the reopening, the "when-issued" instrument becomes inactive overnight.

Example: 6-month Bill Reopening

FIGI	Ticker Symbol	Market Sector	Status
BBG000FTH7W0	B 9/9/10	Government	already-existing bill
BBG000FTH7W0	WIB 9/9/10	Government	when-issued" for reopening ⁴
			reopening

Japanese Government Instruments

All Japanese government instruments are allocated a FIGI.

The FIGI is generated once the instrument is set up as a "when-issued".

At the time of the auction, if the instrument is determined to be a new issue, a new instrument is set up and is assigned a separate FIGI from the "when-issued" instrument. The "when-issued" instrument becomes inactive after the first settlement date.⁵

At the time of the auction, if it is determined to be a reopening, a new instrument is set up representing the auction of the reopening and is given a separate FIGI from the "when-issued" instrument. The new instrument then funges into the already-outstanding instrument on the first settlement.

	FIGI	Ticker Symbol	Market Sector	Status
At Announcement:	BBG00003VR08	WIJ 2.2 03/20/50 3r	Corporate	"When-issued"
At Auction:	BBG0014H5GZ6	JGB 2.2 03/20/50 3r	Corporate	Represents auction of the reopening ⁶

⁴ Note: Following the auction of a new issue or a reopening, the "when-issued" instrument becomes inactive and reverts back to a blank template. No FIGI is associated with "when-issued" templates when inactive.

⁵ In contrast to the US Treasury process, these instruments will trade side by side separately until the first settlement date, at which point they become the same traded instrument

⁶ As above, this is a temporary JGB and funges into the already existing instrument on the settlement date.

Settle Date:	BBG00002NSX1	JGB 2.2 03/20/50 3	Corporate	already-existing
				instrument

Canadian Government Instruments

All Canadian government instruments are allocated a FIGI.

The FIGI is generated once the instrument is set up as a "when-issued" instrument in the corporate database. For a new issue, at the time of the auction a new instrument is set up and given a separate FIGI from the "when-issued" instrument. The "when-issued" instrument then becomes inactive.

For a reopening, a new FIGI is assigned to the "when-issued" instrument which will be temporary. At the time of the auction, the "when-issued" instrument becomes inactive and the already-existing instrument and its corresponding FIGI remain unchanged.

Example: 5 year note Reopening

FIGI	Ticker Symbol	Market	Status
		Sector	
BBG0014V0Y81	CANW 3 12/01/15	Corporate	When-Issued
	AUG		
BBG0000PKK79	CAN 3 12/01/15	Corporate	already existing instrument

Mortgages

Please see <u>Bloomberg Specific Information</u> for Bloomberg related functionality.

CMO/ABS/CMBS

CMO/ABS/CMBS deals can have numerous tranches, each of which is allocated a FIGI upon creation. REG S, 144a, and AI (Accredited Investor) instruments will each be allocated a different FIGI at the tranche level:

FIGI	Ticker Symbol	Туре
BBG0072FPLH6	AH4R 2014-SFR2 A	REG S
BBG0073F7RR1	AH4R 2014-SF2X A	144a

After a deal is finalized there is still a possibility that a deal can be amended. If the amendment affects the structure of the deal, any FIGI assigned for the original class will become inactive. New FIGIs will be assigned to the newly restructured tranches.

Example of restructure after Finalized:

RESIF 03-D, the retained class A was amended and restructured into 5 classes, A1-A5.

	Prior to Restructure	After Restructure
Ticker	RESIF 03-D Class A	RESIF 03-D Class A1
Symbol(s):		RESIF 03-D Class A2
		RESIF 03-D Class A3
		RESIF 03-D Class A4
		RESIF 03-D Class A5
FIGI(s):	A: BBGXXXXXXXX#	A1: BBG000B61S64
	(Ticker Symbol and FIGI are	A2: BBG000B61SG3
	for reference only)	A3: BBG000B61SJ0
		A4: BBG000B61SL7
		A5:BBG000B61SN5

Pool

FIGIs are assigned at the creation of a Pool.

Example of a Pool:

FIGI	Ticker Symbol	Market Sector
BBG000B43TP4	G2 4	Mortgage

TBA/Generics

FIGIs are allocated to Generic Mortgages.

Example of a Generic Mortgage:

FIGI	Ticker Symbol	Market Sector
BBG0033P4G31	GNSF 5.75	Mortgage

Example of TBA:

FIGI	Ticker Symbol	Market Sector
BBG0029PRM75	FNCL 5.5 12/12	Mortgage

A FIGI is proactively allocated to TBAs with delivery dates one year out from the current month on a rolling basis.

FIGIs are never recycled for TBAs.

Municipals

Please see <u>Bloomberg Specific Information</u> for Bloomberg related functionality.

General Allocation

All municipal instruments are assigned a FIGI at deal issuance.

FIGI	Ticker Symbol	Market Sector
BBG002FXVFD4	LIN 1.8 12/15/2020	Municipal

The FIGI will follow the rules and compliances set forth by the MSRB in regard to corporate actions and remarketing of Municipal Instruments.

Commodity/Index Futures, Commodity Spot Options, Options on Commodity Futures & Currency Futures

Please see <u>Bloomberg Specific Information</u> for Bloomberg related functionality.

General Allocation

Commodity/Index Futures, Commodity Spot Options, Options on Commodity Futures and Currency Futures, whether active or inactive, are allocated FIGIs.

Examples of FIGI Assignment:

FIGI	Security Type	Ticker Symbol	Market
			Sector
BBG002CWKY95	Physical commodity future	IBEUO	Commodity
BBG00CBV10H2	Physical index future	IHK6	Index
BBG00CZ9CFC5	Financial commodity option	1FM6C 99	Commodity
BBG00CZ97JV2	Physical commodity option	SMN6P 385	Commodity
BBG002NL0DP7	Commodity spot future	GIB12W12	Commodity
BBG00G3FCHP9	Currency future	UDWK7	Currency

Expired Instruments

A FIGI Continues to exist for expired instruments.

Examples of expired instruments:

FIGI	Ticker Symbol	Market Sector
BBG000QPT6J0	RXH0	Commodity
BBG000WCDPX1	RXH08	Commodity

FIGIs are assigned to Commodity Spot Options and Options on Commodity Futures when the options are active (pricing) and have already been listed by an exchange. The research task to seek out these active options runs once a day at 5:30pm EST. Therefore, there is a short delay in assigning a FIGI to a newly-listed option.⁷

⁷ This will be re-evaluated if market conditions change such that data is available to the Registration Authority or a Certified Provider in a more timely basis.

CME/EOP/ICE Option Strategies

A FIGI is allocated to each Option Strategy issued by the CME (Chicago Mercantile Exchange), by the EOP (Euronext Paris) and by ICE (Intercontinental Exchange).

The Specific Option Strategies are:

ASSYM BUTTERFLY, ASSYM CONDOR, BOX, BUNDLE, CALL SPRD PUT VS UND, CALL SPREAD THREEWAY, COMBO, COMBO VS UNDER, DIAG STRADDLE CAL SP, DIAGONAL CAL SPREAD, GUTS, IRON BUTTERFLY, LADDER, LADDER VS UNDER, OPTION BUTTERFLY, OPTION CAL SPREAD, OPTION CONDOR, OPTION SPREAD, PUT SPRD CALL VS UND, PUT SPREAD THREEWAY, RATIO SPREAD, REVERSAL, SPREAD VS UNDER, STRADDLE, STRADDLE CAL SPREAD, STRADDLE THREEWAY, STRADDLE VS UNDER, STRANGLE, SYNTHETIC REVERSAL, VOLATILITY TRADE

Generic Spreads

Generic Spreads are not allocated a FIGI.

Example:

Security Type	Ticker Symbol	Market Sector	FIGI
Generic Spread	S:CLCL 1-2	Commodity	Is not assigned a FIGI at this time ⁸

London Metals Exchange Inventory

London Metals Exchange Inventory instruments are assigned a FIGI including generic outrights and prompts

Security Type	Ticker Symbol	Market Sector	FIGI
Generic Outright	LMAADZ 1	Commodity	BBG000VRXBR5
Generic Prompt	LMSNDG 12	Commodity	BBG00CDHSNS0

Spreads and Futures Strategies

A FIGI is allocated for Spreads and Futures Strategies. Examples of FIGIs for Spreads and Futures Strategies:

FIGI	Ticker	Market
	Symbol	Sector
BBG001HJHTN0	CARZ8Z0	Commodity
BBG000VZYXF1	DEDU9U2	Commodity

Generic Futures

All generic futures including monthly and periodic generics are allocated a FIGI.

Example of a generic future:

FIGI	Ticker Symbol	Market Sector
BBG000HV3P58	QS1	Commodity

⁸ A generic spread represents a relationship between two instruments, not an instrument of itself. If market conditions change, this allocation rule may be revisited.

Commodity Futures

Commodity Futures are allocated a FIGI.

Example of a commodity future:

FIGI	Ticker	Market
	Symbol	Sector
BBG004PVTLB5	ESM6	Commodity

Currency Futures

Currency Futures are allocated a FIGI. Example of a currency future:

FIGI	Ticker	Market
	Symbol	Sector
BBG00CRHPK04	A8N6	Currency

"Clone" Ticker Symbols

In order to appropriately support the data points of multiple types of options on the same futures, market conventions create "Clone" Ticker Symbols. A separate FIGI is allocated for each "Clone" Ticker Symbol. This is common among weekly options.

Example: E-mini S&P 500 Futures

FIGI	Туре	Ticker Symbol	Market Sector
BBG0088NLSP1	Monthly Physical Index Future	ESM6	Index
BBG0088NLSL5	Week 1 Physical Index Future	1EM6	Index
BBG0088NLSM4	Week 2 Physical Index Future	2EM6	Index
BBG00C86FV06	Week 3 Physical Index Future	3EM6	Index
BBG0088NLSN3	Week 4 Physical Index Future	4EM6	Index

Expanded Year Symbols

Root ticker symbols for Futures are based on short ticker symbols XXXmy, where XXX is the root symbol and my (monthyear code). However, since short ticker symbols can be re-used/recycled for the next 10-year expiry to be listed, Bloomberg expands the ticker symbol for expired futures from XXXmy to XXXmyy (Expanded Year ticker) and XXXmy yy (Alternate Expanded Year ticker) on the 11th month anniversary following the date of last trade.

Therefore, FIGI is not assigned to a "root ticker" level, but instead at the Expanded and Alternate Expanded tickers.

Example of Expanded Year Symbol:

FIGI	Futures Contract	Original Symbol	Market Sector	Expanded Year Symbol
BBG000T6GP65	Crude Oil Futures Contract 2002	CLZ2	Commodit	CLZ02
			У	
BBG000VKWPG2	Crude Oil Futures Contract 2012	CLZ2	Commodit	CLZ12
			У	

Commodity Spot Symbols

Commodity Spots are allocated a FIGI. Example of Commodity Spot Ticker Symbol:

FIGI	Ticker	Market
	Symbol	Sector
BBG002NL0DP7	GIB12W12	Commodity

Commodity Swap Symbols

Commodity Swaps are allocated a FIGI. Example of Commodity Swap:

FIGI	Ticker Market	
	Symbol	Sector
BBG002BD8MK5	NRN22	Commodity

Virtual Instruments

FIGIs are assigned to Virtual Prompts, BALMOs, and LME Spreads based on an end-of-day research task. The task seeks out these instruments once a day at 5:30pm EST (except on Fridays). Therefore there is a short delay in assigning a FIGI to these instruments. Examples:

FIGI	Туре	Ticker Symbol	Market Sector
BBG000Q9W3S9	Virtual	LMCADP 20170719	Commodity
	Prompt		
BBG002QHND23	BALMO	YOBALMO	Commodity
BBG000H34170	LME Spread	LMAHDS03	Commodity

FX/FX Options

Please see <u>Bloomberg Specific Information</u> for Bloomberg related functionality.

General Allocation

Each currency is assigned a FIGI at the instrument level, with the exception of Credit Default Swaps and Generic spreads, for which FIGIs are not allocated at this time.

Examples:

FIGI	Security Type	Ticker Symbol	Market Sector
BBG007J5FDS7	Bank Bill	NDBB1M	Currency
BBG00142WZ32	Bankers	CDBAC	Currency
	Acceptance		
BBG008KVN611	Basis Swap	IKBS1	Currency
BBG007FJKC98	Butterfly Swap	US051030	Currency
Is not assigned a FIGI at this time	Generic Spread		
Is not assigned a FIGI at this time	Credit Default		
	Swap		

Instruments Can Share Currency Representations with the Same FIGI

More than one currency representation may share the same FIGI. Some objects are created more than once, but with different market convention characteristics. For instance, the FIGI for the USDARS Cross Currency ticker symbol is the same as for the ARS Spot Currency ticker symbol. From execution, settlement, risk and valuation standpoints these are the same object.

Example: USDARS and ARS Currencies

FIGI	Туре	Ticker Symbol	Market Sector
BBG0013HGSP0	Cross	USDARS	Currency
BBG0013HGSP0	Spot	ARS	Currency

Currencies that are pegged to each other share the same FIGI.

Example: GBP and JEP Currencies

FIGI	Туре	Ticker Symbol	Market Sector
BBG0013HFH84	Spot	GBP	Currency
BBG0013HFH84	Spot	JEP	Currency

Currencies No Longer Trading

A currency or currency pair that is no longer trading will retain its FIGI.

Example: Currency no longer trading

FIGI	Ticker Symbol	Market Sector
BBG0013HPYC1	FRFUSD	Currency

Listed FX options

A FIGI is allocated to an FX Option when the option is active and is already traded on a Trading Venue. The task to seek out these active options runs once a day at 5:30pm EST, and therefore there is a short delay in allocating FIGIs to newly-issued options.

If a Trading Venue removes an option strike, that option strike will retain its FIGI.

When an option expires, the FIGI for that option remains allocated to that option.

Equity & Index Options

Please see <u>Bloomberg Specific Information</u> for Bloomberg related functionality. Please see the <u>Corporate Actions section</u> for how FIGIs are handled with corporate action events.

General Allocation

Equity and Index Options are allocated a FIGI at the Composite level and at the Trading Venue level for instruments listed in the Canada, Japan, and the United States, as well as Index Options listed in the United States. The trading Venue-level FIGI will be stored in the field ID135 (ID_BB_GLOBAL) and the Composite-level FIGI will be stored in field ID145 (COMPOSITE_ID_BB_GLOBAL).

Examples of FIGIs for Equity Options at Composite and Trading Venue level:

FIGI	Level	Ticker Symbol	Market
			Sector
BBG002NBPJY9	Composite	IBM US 01/18/14	Equity
		C100	
BBG002NBPK03	Trading Venue	IBM UA 01/18/14	Equity
		C100	

FIGI	Level	Ticker Symbol	Market Sector
BBG0025P2ZG7	Composite	BAC US 01/18/14 P2	Equity
BBG0025P2ZJ4	Trading Venue	BAC UA 01/18/14 P2	Equity

Examples of FIGIs for Index Options at Composite and Trading Venue level:

FIGI	Level	Ticker Symbol	Market
			Sector
BBG002CFLWV0	Composite	NDX US 12/20/14	Index
		C1500	
BBG002CFLX02	Trading Venue	NDX UO 12/20/14	Index
		C1500	

FIGI	Level	Ticker Symbol	Market Sector
BBG0026F1YQ1	Composite	MID US 6/16/12 P870	Index
BBG0026JBL08	Trading Venue	MID UA 6/16/12 P870	Index

All instruments, active and inactive, are allocated a FIGI.

Prior to August 2010, FIGI for inactive instruments are only allocated at the Composite level. The allocation of FIGIs for inactive Equity Options is as defined below:

US Equity Options allocated FIGIs per instrument per trading venue as of 1 July 2009 Eurex Equity Options allocated FIGIs per instrument per trading venue as of 1 August 2009 Other International Equity Options allocated FIGIs per instrument per trading venue as of 20 May 2010 The allocation of FIGIs for inactive Index Options is as defined below:

US Index Options allocated FIGIs per instrument per trading venue as of 2 December 2005 Eurex Index Options allocated FIGIs per instrument per trading venue as of 2 October 2009 Other International Index Options allocated FIGIs per instrument per trading venue as of 20 May 2010.

The allocation of FIGIs to Equity Options issued in Argentina is slightly delayed due to the timing of the publication of information by the exchange, which is typically a day after listing.

The FIGI remains allocated to the instrument and does not change as a result of a corporate action. Please see <u>Corporate Action</u> section for more information.

The same strikes can be and are issued by multiple trading venues. If a strike is removed by one of those venues, the FIGI and the Composite FIGI for that strike remain unchanged and continue to be allocated to that instrument (for the USA and Japan).

Generation Number

The FIGI does not change when a new Generation is listed. The ticker symbol is for the most current generation and will not include a "G" tail in the ticker symbol, while prior generation ticker symbols will include the G tail. For more information on Generation numbers, please see the <u>Bloomberg Specific</u> <u>Information section</u>.

Example:

FIGI	Ticker Symbol	Market Sector	Generation
BBG00020XBB3	BAS GR 12 P50 G3	Equity	Prior Generation 3
BBG002C70GD6	BAS GR 12 P50	Equity	Current Generation 4
			(no G ticker needed)

If a new Generation (Generation 5) is introduced, the "then" current generation ticker will then incorporate the G tail in the Bloomberg ticker symbol: BAS GR 12 P50 G4 Equity.

Equity Futures

The FIGI does not change as a result of a corporate action. Equity futures are allocated a FIGI at the instrument level.

Example of FIGI for Equity Future:

FIGI	Ticker Symbol	Market Sector
BBG002F43VC5	IBM=U2 OC	Equity

If additional contracts are added, a FIGI is generated for each contract added. The FIGI continues to exist as instruments expire or are no longer listed.

Generic Futures are assigned a FIGI.

Example of FIGI for Generic Future:

FIGI	Ticker Symbol	Market Sector
BBG000S52WG7	IBM=4 OC	Equity

CORPORATE ACTIONS

Corporate Actions

The FIGI does not change as a result of a corporate action.

Equities, Funds, Warrants

Please see <u>FIGI Allocation assignment</u> for a general overview of how FIGIs are assigned. Please see <u>Bloomberg Specific Information</u> for Bloomberg related functionality.

Ticker Symbol Change

The FIGIs for the <u>Composite level</u> and for each <u>Trading Venue</u> within that national market are reallocated to be associated with the new Ticker Symbol.

A FIGI is not assigned to the old Ticker Symbol.

Example of a Ticker Symbol change: GNV US => SAR US

	FIGI	Old Ticker Symbol			FIGI	New Ticker Symbol
Composite	BBG000Q6S3Z2	GNV US	>	Composite	BBG000Q6S3Z2	SAR US
Place of Listing	BBG000Q6S5V1	GNV UN	>	Place of Listing	BBG000Q6S5V1	SAR UN
Regional	BBG000Q6SB75	GNV UD	>	Regional	BBG000Q6SB75	SAR UD
Regional	BBG000Q6S7J1	GNV UT	>	Regional	BBG000Q6S7J1	SAR UT
Regional	BBG000Q6S685	GNV UP	>	Regional	BBG000Q6S685	SAR UP
Regional	BBG000Q6SBN7	GNV UF	>	Regional	BBG000Q6SBN7	SAR UF
Regional	BBG000Q6S6Q5	GNV UB	>	Regional	BBG000Q6S6Q5	SAR UB
Regional	BBG000Q6SBC9	GNV UL	>	Regional	BBG000Q6SBC9	SAR UL
Regional	BBG000Q6S4H0	GNV UC	>	Regional	BBG000Q6S4H0	SAR UC
Regional	BBG000Q6S9X1	GNV UO	>	Regional	BBG000Q6S9X1	SAR UO
Regional	BBG000Q6S7Q3	GNV UM	>	Regional	BBG000Q6S7Q3	SAR UM
Regional	BBG000Q6S818	GNV UX	>	Regional	BBG000Q6S818	SAR UX
Regional	BBG000Q6SCL7	GNV VK	>	Regional	BBG000Q6SCL7	SAR VK
Regional	BBG000Q6SCD6	GNV VJ	>	Regional	BBG000Q6SCD6	SAR VJ
Regional	BBG000Q6SC73	GNV VY	>	Regional	BBG000Q6SC73	SAR VY

When referencing the old Ticker Symbol GNV US and any Ticker Symbol for the same instrument on another Trading Venue within that national market, a FIGI is not associated with the old Ticker Symbol. The above example is to show how the FIGI is reallocated to the new Ticker Symbol.

Ticker Symbol change across different Execution Venues

While a change to a Ticker Symbol typically occurs within the same Trading Venue, there are exceptions where Ticker Symbols can change across different Trading Venues. In such cases, FIGIs are reallocated in the same way and the new Ticker Symbol is allocated to the <u>Composite-level FIGI</u>. The examples below where these Ticker Symbol changes have occurred are within the Swiss and UK markets:

Virt-X (VX) --> Switzerland (SW) or vice versa:

The exchange code for the <u>Composite-level FIGI</u> changes from VX to SW.

** IMPORTANT NOTICE: The VX Composite level has been discontinued as of October 23, 2017. All instruments now fall under the composite SW (Switzerland) country code.

London International (LI) --> London Stock Exchange (LN) or vice versa:

The Trading venue code changes from LI to LN, or from LN to LI, at the Composite-level FIGI.

Change in Place of Listing

The Composite-level FIGI and all Trading Venue codes for all Trading Venue-level FIGIs remain unchanged. If the instrument is no longer traded on other Trading Venues within that national market as a result of the change in Place of Listing, the Trading Venue-level FIGIs can be referenced with the Trading Venue code of the original Place of Listing.

NASDAQ GS	FIGI	Ticker Symbol	NYSE	FIGI	Ticker Symbol
Composite	BBG000BNRD35	EXBD US	Composite	BBG000BNRD35	EXBD US
Place of Listing	BBG000BNRNX0	EXBD UW	Place of Listing	BBG000BNRGZ3	EXBD UN
Regional	BBG000BNRDF2	EXBD UA	Regional	BBG000BNRDF2	EXBD UA
Regional	BBG000BNRH63	EXBD UP	Regional	BBG000BNRH63	EXBD UP
Regional	BBG000BNRHT8	EXBD UB	Regional	BBG000BNRHT8	EXBD UB
Regional	BBG000BNRF67	EXBD UC	Regional	BBG000BNRF67	EXBD UC
Regional	BBG000BNRK20	EXBD UM	Regional	BBG000BNRK20	EXBD UM
Regional	BBG000BNRMM	EXBD UL	Regional	BBG000BNRMM4	EXBD UL
Regional	BBG000BNRKB0	EXBD UX	Regional	BBG000BNRKB0	EXBD UX
Regional	BBG000BNRLC7	EXBD UO	Regional	BBG000BNRLC7	EXBD UO
Regional	BBG000BNRMB6	EXBD UD	Regional	BBG000BNRMB6	EXBD UD
Regional	BBG000BNRQ81	EXBD UF	Regional	BBG000BNRQ81	EXBD UF
Regional	BBG000BNRQZ1	EXBD VK	Regional	BBG000BNRQZ1	EXBD VK
Regional	BBG000BNRQS9	EXBD VJ	Regional	BBG000BNRQS9	EXBD VJ
	_		Regional	BBG000BNRJ23	EXBD UT
			Historical	BBG000BNRNX0	EXBD UW

Example of Change in Listing: EXBD US Equity

Example of change in Place of Listing: STORM NO Equity

Change in listing from Norwegian OTC => Oslo Stock Exchange

Norwegian OTC	FIGI	Ticker Symbol	Oslo SE	FIGI	Ticker Symbol
Composite	BBG000R2T174	STORM NO	Composite	BBG000R2T174	STORM NO
Primary	BBG000R2T2F3	STORM NS	Primary	BBG000R2T1X5	STORM NO
			Historical		STORM NS

Delisting

The FIGI continues to exist for the Composite level, for the original Place of Listing and for each regional exchange/Trading Venue

Change of Name/ ID Change

The FIGI remains unchanged for all instruments at the Composite level and at the Trading Venue level. Example of ID Change: SWK US Equity

	FIGI	Ticker Symbol	Old ISIN		FIGI	Ticker Symbol	New ISIN
Composite	BBG000BTQR96	SWK US	US8546161097	Composite	BBG000BTQR96	SWK US	US8545021011
Primary	BBG000BTQTG4	SWK UN	US8546161097	Primary	BBG000BTQTG4	SWK UN	US8545021011
Regional	BBG000BTQV06	SWK UP	US8546161097	Regional	BBG000BTQV06	SWK UP	US8545021011
Regional	BBG000BTQWS4	SWK UB	US8546161097	Regional	BBG000BTQWS4	SWK UB	US8545021011
Regional	BBG000BTQS03	SWK UC	US8546161097	Regional	BBG000BTQS03	SWK UC	US8545021011
Regional	BBG000BTQYS0	SWK UM	US8546161097	Regional	BBG000BTQYS0	SWK UM	US8545021011
Regional	BBG000BTR2F3	SWK UL	US8546161097	Regional	BBG000BTR2F3	SWK UL	US8545021011
Regional	BBG000BTQYZ2	SWK UX	US8546161097	Regional	BBG000BTQYZ2	SWK UX	US8545021011
Regional	BBG000BTR0G6	SWK UO	US8546161097	Regional	BBG000BTR0G6	SWK UO	US8545021011
Regional	BBG000BTR1D7	SWK UD	US8546161097	Regional	BBG000BTR1D7	SWK UD	US8545021011
Regional	BBG000BTR3B5	SWK UF	US8546161097	Regional	BBG000BTR3B5	SWK UF	US8545021011
Regional	BBG000BTQWY7	SWK UT	US8546161097	Regional	BBG000BTQWY7	SWK UT	US8545021011
Regional	BBG000BTR511	SWK VK	US8546161097	Regional	BBG000BTR511	SWK VK	US8545021011
Regional	BBG000BTR4M1	SWK VJ	US8546161097	Regional	BBG000BTR4M1	SWK VJ	US8545021011

Mergers/Acquisitions

A buys B and B delists => The FIGI will not change for A or B - it will remain the same for each instrument. Example: Exxon Corp buys Mobil Corp. Mobil Corp delists. FIGI remains the same for both instruments. Reverse Mergers => The FIGI will not change on A or B - it will remain the same for each instrument. Example: Certegy Inc. (Company A) acquires Fidelity National Information Services, Inc. (Company B – a private company). Certegy then changes its name from Certegy Inc to Fidelity National Information Services Inc, while Company B is fully acquired. The FIGI remains the same for both instruments.

Name	Composite	What Happens?
	FIGI	
Certegy Inc	BBG000BK2F42	Acquires BBG000BVJ3X5 and then changes its name
		to Fidelity National Information Services, Inc.
Fidelity National	BBG000BVJ3X5	100% fully acquired into BBG000BK2F42
Information Services,		
Inc.		

A and B combine to form C => The FIGI will not change for A or B. A and B delist and their FIGIs remain the same. A new FIGI is created for the newly-formed company. Example: Glaxo Wellcome PLC and Smithkline Beecham Ltd form GlaxoSmithKline PLC.

Glaxo Wellcome PLC and Smithkline Beecham Ltd delist. The FIGIs remain the same for each instrument. A new FIGI is created for the newly-formed company GlaxoSmithKline PLC.

Spin-Offs

A spins off B. B is a new company => The FIGI remains the same for A and a new FIGI is allocated for the new company B

Example:

Altria Group Inc spins off Philip Morris International Inc. The FIGI remains the same for Altria Group Inc and a new FIGI is allocated for Philip Morris International Inc.

A spins off B. B is an existing company => The FIGI remains the same for A and B Example:

Altria Group Inc spins off Kraft Foods Inc. The FIGI remains the same for Altria Group Inc and Kraft Foods Inc.

When-Issued and When-Distributed Ticker Symbols

An instrument that is admitted to When Issued trading is traded before it has actually been issued. This may happen before the instrument makes its official appearance in Regular Way trading on an Trading Venue. In a more common scenario, however, shares may trade When-Issued alongside the shares that already trade Regular Way (Ex-Distribution shares often trade When-Issued in this way).

When Issued trading before issued =>

The Common Shares of Huntington Ingalls Industries Inc was spun off by Northrop Grumman Corp. The shares were initially listed for When Issued Trading. Once the spin-off was complete, the shares began to trade Regular Way. This was treated as a change of Ticker Symbol and all original FIGIs remain with the instrument.

	FIGI	Ticker Symbol	ISIN
Composite	BBG001KJ2HM9	HII-W US	US4464131063
Place of Listing	BBG001KTGG62	HII-W UN	US4464131063
Regional	BBG001KTGG99	HII-W UB	US4464131063
Regional	BBG001KTGG44	HII-W UC	US4464131063
Regional	BBG001KTGGL5	HII-W UD	US4464131063
Regional	BBG001KTGGQ0	HII-W UF	US4464131063
Regional	BBG001KTGGC5	HII-W UM	US4464131063
Regional	BBG001KTGGJ8	HII-W UO	US4464131063
Regional	BBG001KTGG71	HII-W UP	US4464131063
Regional	BBG001KTGGB6	HII-W UT	US4464131063
Regional	BBG001KTGGD4	HII-W UX	US4464131063
Regional	BBG001KTGGS8	HII-W VJ	US4464131063
Regional	BBG001KTGGT7	HII-W VK	US4464131063
Regional	BBG001KTGGR9	HII-W VY	US4464131063

Originally listed as When Issued: HII-W US

After the When Issued period ended and the instrument begins to trade Regular Way, this is simply a change to the Ticker Symbol and all original FIGIs remain unchanged.

	FIGI	Old Ticker Symbol		FIGI	New Ticker Symbol
Composite	BBG001KJ2HM9	HII-W US	Composite	BBG001KJ2HM9	HII US
Place of Listing	BBG001KTGG62	HII-W UN	Place of Listing	BBG001KTGG62	HII UN
Regional	BBG001KTGG99	HII-W UB	Regional	BBG001KTGG99	HII UB
Regional	BBG001KTGG44	HII-W UC	Regional	BBG001KTGG44	HII UC
Regional	BBG001KTGGL5	HII-W UD	Regional	BBG001KTGGL5	HII UD
Regional	BBG001KTGGQ0	HII-W UF	Regional	BBG001KTGGQ0	HII UF
Regional	BBG001KTGGC5	HII-W UM	Regional	BBG001KTGGC5	HII UM
Regional	BBG001KTGGJ8	HII-W UO	Regional	BBG001KTGGJ8	HII UO
Regional	BBG001KTGG71	HII-W UP	Regional	BBG001KTGG71	HII UP
Regional	BBG001KTGGB6	HII-W UT	Regional	BBG001KTGGB6	HII UT
Regional	BBG001KTGGD4	HII-W UX	Regional	BBG001KTGGD4	HII UX
Regional	BBG001KTGGS8	HII-W VJ	Regional	BBG001KTGGS8	HII VJ
Regional	BBG001KTGGT7	HII-W VK	Regional	BBG001KTGGT7	HII VK
Regional	BBG001KTGGR9	HII-W VY	Regional	BBG001KTGGR9	HII VY

When Issued Ticker (or When Distributed) Trading alongside Regular Way Trading =>

The When-Issued (or When-Distributed) instrument is set up for trading and is allocated its own FIGI. This FIGI continues to exist once the When-Issued instrument delists. There is no change to the FIGIs of the instruments trading Regular Way.

Note: This is regardless of whether a new CUSIP/ISIN is allocated or the original CUSIP/ISIN is applied to the When-Issued instrument.

Example: When-Issued shares of North Grumman Corp listed and trading along with the Primary Shares (Ticker NOC US with Composite FIGI BBG000BQ2C2).

	FIGI	Ticker	ISIN
		Symbol	
Composite	BBG001KWY998	NOC-W US	US6668071284
Place of Listing	BBG001KWY9F1	NOC-W UN	US6668071284
Regional	BBG001KWY9J7	NOC-W UB	US6668071284
Regional	BBG001KWY9C4	NOC-W UC	US6668071284
Regional	BBG001KWY9T6	NOC-W UD	US6668071284
Regional	BBG001KWY9Y0	NOC-W UF	US6668071284
Regional	BBG001KWY9L4	NOC-W UM	US6668071284
Regional	BBG001KWY9G0	NOC-W UP	US6668071284
Regional	BBG001KWY9K5	NOC-W UT	US6668071284
Regional	BBG001KWY9M3	NOC-W UX	US6668071284

The When-Issued shares delist and the FIGI continues to exist for the Composite level and for each Trading Venue.

Country Specific Corporate Actions

Hong Kong - Parallel Trading

Step 1: Temporary Ticker Symbol change from Ticker A to Ticker B along with ISIN change from A to B. The FIGI remains unchanged.

_	_	Ticker Symbol	ISIN		_	Ticker Symbol	ISIN
Composite	BBG000PFC6Z3	2312 HK	KYG2153Z1550	Composite	BBG000PFC6Z3	2987 HK	KYG2153Z1717
Regional	BBG000PFC745	2312 HK	KYG2153Z1550	Regional	BBG000PFC745	2987 HK	KYG2153Z1717

Step 2: Ticker Symbol change from Ticker B to Ticker A along with ISIN change from B to C. The FIGI remains unchanged. The listing of Temporary Shares will trade parallel with Primary Shares. The new listing of Temporary Shares gets allocated a new FIGI.

	FIGI	Ticker	ISIN		FIGI	Ticker	ISIN
		Symbol				Symbol	
Composite	BBG000PFC6Z3	2987 HK	KYG2153Z1717	Composite	BBG000PFC6Z3	2312 HK	KYG2153Z1634
Regional	BBG000PFC745	2987 HK	KYG2153Z1717	Regional	BBG000PFC745	2312 HK	KYG2153Z1634

Listing of Temporary Shares:

	FIGI	Ticker Symbol	ISIN
Composite	BBG002Q7H8	2987 HK	KYG2153Z1717
Regional	BBG002Q7H8	2987 HK	KYG2153Z1717

Step 3: Delisting of the Temporary Shares. The FIGI continues to exist unchanged.

Australia – Deferred Delivery

During Deferred Delivery, there will be a change to the Ticker Symbol and the ISIN. The Ticker Symbol changes from a 3-letter to a 5-letter symbol on the ex-date. The FIGI remains unchanged.

	FIGI	Ticker	ISIN		FIGI	Ticker	ISIN
		Symbol				Symbol	
Composite	BBG000BSY5T5	ABP AU	AU000000ABP9	Composite	BBG000BSY5T5	ABPDC AU	AU0000ABPD7
Regional	BBG000BSY622	ABP AT	AU000000ABP9	Regional	BBG000BSY622	ABPDC AT	AU0000ABPD7
Regional	BBG0027TWCW7	ABP AH	AU000000ABP9	Regional	BBG0027TWCW7	ABPDC AH	AU0000ABPD7

The day after the pay date, the Ticker Symbol and the ISIN revert back. The FIGI remains unchanged.

	FIGI	Ticker	ISIN		FIGI	Ticker	ISIN
		Symbol				Symbol	
Composite	BBG00BSY5T5	ABPDC AU	AU0000ABPD7	Composite	BBG00BSY5T5	ABP AU	AU000000ABP9
Regional	BBG00BSY622	ABPDC AT	AU0000ABPD7	Regional	BBG00BSY622	ABP AT	AU000000ABP9
Regional	BBG0027TWCW7	ABPDC AH	AU0000ABPD7	Regional	BBG0027TWCW7	ABP AH	AU000000ABP9

France – Temporary Lines for Acquisition

When an acquisition of a French company takes place, a different ISIN is allocated for the duration of the offer period. The FIGI remains unchanged.

		Ticker Symbol	ISIN			Ticker Symbol	ISIN
Composite	BBG000BWK469	TAM FP	FR0000035743	Composite	BBG000BWK469	TAM FP	FR0010903039
Regional	BBG000BWK4R6	TAM FP	FR0000035743	Regional	BBG000BWK4R6	TAM FP	FR0010903039

At the end of the offer period, the ISIN reverts back to the original ISIN. As above, the FIGI continues to remain unchanged.

	FIGI	Ticker	ISIN		FIGI	Ticker	ISIN
		Symbol				Symbol	
Composite	BBG000BWK469	TAM FP	FR0010903039	Composite	BBG000BWK469	TAM FP	FR0000035743
Regional	BBG000BWK4R6	TAM FP	FR0010903039	Regional	BBG000BWK4R6	TAM FP	FR0000035743

Equity Index

Please see <u>FIGI Allocation assignment</u> for a general overview of how FIGIs are assigned.

Ticker Change

The FIGI remains on the most active instance of an instrument. Therefore, The FIGI will stay under new ticker ABCDF below.

Example (Tickers Symbols used are not official - for example purposes only):

Ticker Symbol A	FIGI		Ticker Symbol B	FIGI
ABCDE <index></index>	BBGXXXXXXXY#	\rightarrow	ABCDF <index></index>	BBGXXXXXXXY#

Corporates and Preferreds

Please see <u>FIGI Allocation assignment</u> for a general overview of how FIGIs are assigned. Please see <u>Bloomberg Specific Information</u> for Bloomberg related functionality.

Debt Repurchase

A FIGI does not change as a result of a repurchase: the FIGI remains the same.

Symbol	Effective date of Debt	FIGI
	Repurchase	
BACR 4.5	10/12/2012	BBG000067J33
08/11/14		

Exchange Offer

A FIGI does not change as a result of an exchange offer: the FIGI remains the same on the current instrument, and the instrument that is issued in exchange for the original instrument is issued a separate FIGI.

Original Information	Exchanged Into
Symbol: NIHD 10	Symbol: NIHD 10
08/15/16	08/15/16
FIGI: BBG0009B2MB2	FIGI: BBG0000GQF92
Series: REGS	

Funged Issues

Fungible bonds have separate FIGIs prior to the funge date. After the funge date the amount outstanding is increased on the original bond, and the FIGI remains unchanged. The FIGI also remains unchanged with the funged bond even though it is no longer active.

Original Symbol	Fungible Information
Symbol: EUROF 4	Symbol: EUROF 4
10/27/21	10/27/21
FIGI: BBG0000M6405	FIGI: BBG0009B3V30
Series: EMTN	Series: OCT

ID number changes (non-FIGI)

When an issuer removes trading restrictions on an instrument, there is a corresponding ID change (CUSIP and ISIN). The FIGI remains the same and stays with the unrestrictive instrument.

Original ISIN	New ISIN after ID		
	Change		
Symbol: AMKR 6	Symbol: AMKR 6		
04/15/14	04/15/14		
ISIN: US031652AY63	ISIN: US031652AZ39		
FIGI: BBG00007B4P5	FIGI: BBG00007B4P5		

Preferred Exchange Symbol Changes

Exchange trading symbols frequently change for preferred instruments. The FIGI remains the same and remains with the instrument in perpetuity.

Original Exchange Symbol	New Exchange Symbol after Ticker Change		
Symbol: HIG 7.25 4/01/13	Ticker Symbol: HIG 7.25 4/01/13		
Exchange Symbol: HIGX	Exchange Symbol: HIGpA		
FIGI: BBG000002LS9	FIGI: BBG000002LS9		

Equity & Index Options

Please see <u>FIGI Allocation assignment</u> for a general overview of how FIGIs are assigned. Please see <u>Bloomberg Specific Information</u> for Bloomberg related functionality. The FIGI remains with the instrument and does not change as a result of a corporate action.

Ticker Symbol Change – also known as symbol conversions

The Composite-level and Trading Venue-level FIGI do not change as a result of a change of Ticker Symbol. **Delisting**

If an underlying equity is delisted alongside the options, the FIGIs continue to exist for the Composite level and Trading Venue level.

Acquisition

If the underlying is acquired and this results in the options moving to a new underlying, the FIGI move with the strikes. If the ticker symbols change for the option as a result, the FIGI remains the same, but the options adjust.

Merger

A merger usually results in adjusted options with new deliverables. The FIGI remains the same, but the options adjust.

Stock Split

Typically the strikes changes for Stock Splits. When the strike changes, the FIGI remains the same, but the options adjust for the split.

Reverse Stock Split

Typically the strikes change for Reverse Stock Split. When strikes change the FIGI remains the same, but the options adjust accordingly.

Distribution

This will likely result in adjusted options with new deliverables and/or new strikes. The FIGI remains the same, but the options adjust.

Cash Dividend

This will likely result in adjusted options with new deliverables. The FIGI remains the same, but the options adjust.

Stock Dividend

This will likely result in adjusted options with new deliverables. The FIGI remains the same, but the options adjust.

Spin-Off

This will likely result in adjusted options with possible new underlying and new deliverables. The FIGI remains the same, but the options adjust.

Equity Futures

Please see FIGI Allocation assignment for a general overview of how FIGIs are assigned.

The FIGI does not change as a result of a corporate action.

When the FIGI remains with the instrument

As a result of different corporate actions on the underlying equity, typically the deliverables of the equity futures will need to change. Stock splits, reverse stock splits, mergers, cash distributions, and cash dividends all constitute possible action on the futures.

Depending on the trading venue, either a new 'adjusted' instrument is created or the adjustment is made to the existing instrument.

When a new Adjusted Future is needed

As a result of various corporate actions, if a new 'adjusted' ticker symbol is created, the FIGI will not change and will move to this new 'adjusted' ticker symbol.

When an adjustment is made to an existing Ticker Symbol

As a result of various corporate actions, if an adjustment is made on a current instrument, the FIGI will not change. Any new futures contracts that are listed as a result of the underlying corporate action are new instruments and therefore are allocated a FIGI as they are added to the system.
BLOOMBERG SPECIFIC INFORMATION

FIGI Historical Coverage

Full coverage of the FIGI begins as of August 1, 2010. Any instrument that existed as of this date received a FIGI including expired/matured instruments as well as all active instruments.

Bloomberg Specific Information

Equities, Funds, and Warrants

General Information

Please see <u>FIGI Allocation assignment</u> for a general overview of how FIGIs are assigned. Please see the <u>Corporate Actions section</u> for how FIGIs are handled with corporate action events. Security Types Assigned a FIGI

General Category of Instrument	Security Type(s) Supported
Stock	Common Stock, Foreign Sh., Stapled Security,
	Tracking Stock, Misc., Ltd Part, MLP
Warrants	Equity WRT, Index WRT, Currency WRT, Cmdt Fut
	WRT, Cmdt Idx WRT, Indx Fut WRT, I.R. Fut WRT,
	Basket WRT, I.R. Swp WRT, Prfd WRT
Depositary Receipts	ADR, GDR, SDR, CDR, TDR, BDR, IDR, HDR, EDR,
	NVDR
Certificates	Dutch Cert, Participate Cert, German Cert, Belgium
	Cert, Swiss Cert, Austrian Crt, RDC
Funds	Open End Fund, Hedge Fund, Fund of Funds, Closed-
	End Fund, Mutual Fund, Pvt Eqty Fund, ETP, ETF,
	Managed Account, Savings Plan, FIDC
Receipts	Receipt, NY Reg Shrs
Certificados de Depósito Argentino	CEDEAR
Chess Depositary Interest	CDI
Bonds	Bond , Conv Bond (These are instruments that are
	duplicated on the Equity key from the Corp or Prfd
	keys to aid in pricing displays)
Investment Trusts	UIT, REIT
Units	Unit
Preference Shares	Preference
General Category of Instrument (cont'd)	Security Type(s) Supported (cont'd)
Rights	Right
Royalty Trusts	Royalty Trust
Savings Share	Savings Share
Security Lending	Sec Lending (Found in Greece and Asia)
Federal Deposit Insurance Corporation	FDIC

There will be two separate calcrout fields:

ID135 (ID_BB_GLOBAL) stores FIGIs for every unique Trading Venue code that exists in the Equity Database. This will include Composite-level FIGIs (ID145, COMPOSITE_ID_BB_GLOBAL) and Trading Venue-level FIGIs (ID135). ID145 stores a Composite-level FIGI only, regardless if a separate Trading Venue-level FIGI exists for the Composite-level FIGI in that country. To determine currently-allocated FIGIs, a user may reference field DS395 for LISTED_EXCH_OF_COMPOSITE. The field DS395 (LISTED_EXCH_OF_COMPOSITE) returns the two letter Trading Venue code, where available, for the local Trading Venues on which the security trades under its Composite FIGI.

The field DS291 (COMPOSITE_EXCH_CODE) returns the 2 letter Trading Venue code for the Composite-level FIGI.

For those clients who use the Bloomberg Terminal or subscribe to our back-office files, the Share Class-level FIGI is available in the following field: ID236 - ID_BB_GLOBAL_SHARE_CLASS_LEVEL.

If an instrument is sent to another Bloomberg Terminal user using EQPL<GO>, 2 <GO>, a new FIGI is generated for the receiver of the instrument.

A FIGI is not assigned to the old Ticker Symbol: any Ticker with a MARKET_STATUS (PR286) of TKCH is not assigned a FIGI.

Unlisted, Inactive, private, or non-active instruments default to the ID145 (COMPOSITE_ID_BB_GLOBAL) since a valid trading venue is no longer available. Both the ID135 (ID_BB_GLOBAL) and ID145 will be the same.

True Composite vs Non-True Composite Countries

A true composite is a generated composite country code that represents the totality of trading in a given country. True Composite country codes will carry the same FIGI and COMPOSITE FIGI. True composites will never carry the same composite country code as a local trading venue. Example: GR represents Germany, but there is no local exchange code where "GR" is represented.

These are the country codes where true composites exist:

Argentina (AR) Australia (AU) Brazil (BZ) Canada (CN) Chile (CI) China (CH) Colombia (CB) Croatia (CZ) Czech Republic (CP) Ecuador (ED) Egypt (EY) Germany (GR) India (IN) Japan (JP) Latvia (LR) MICEX (RM) OTC Composite (EO) Pakistan (PA) Romania (RO) Russia (RU)

South Korea (KS) Spain (SM) Switzerland (SW) U.A.E. (UH) United States (US) Venezuela (VC) Vietnam (VN) Non-True Composites: For all other countries, the listed exchange of the composite country code will equal the composite exchange code. In these instances, the FIGI and the COMPOSITE FIGI will be different to distinguish the trading venue from the composite FIGI level of assignment.

Example of a Non-True Composite:

"LN" Represents the United Kingdom Composite Country code and also represents the local exchange code for the London Stock Exchange.

MTF Specific Information

MTF Stands for Multilateral Trading Facility. They are trading systems that facilitates the exchange of instruments between multiple parties. These facilities are usually electronic systems. Traders submit orders electronically where matching software is used to pair buyers with sellers.

For most of the MTF Exchanges that Bloomberg covers, these are not linked directly to their expected composite exchange. For example, in most cases, Tradegate instruments are based in Germany, yet the Tradegate exchange does not fall under the German composite country code (GR).

Exchange Name (Exch code)		
Aquis Exchange (QX)	EuroTLX (TE)	Quotrix Exchange (QT)
Asset Match MT (A0)	HI-MTF (HM)	SIGMA X MTF (S1)
BATS Europe (EB)	ITG Posit (PO)	TOM MTF (MT)
Blink (K3)	Liquidnet (L3)	Tradegate (TH)
Blockmatch (B3)	NYSE ARCA Euro (NR)	Turquoise (TQ)
Chi-East (HE)	PEX (PX)	UBS MTF (S2)
Chi-X Europe (IX)	Quote MTF (QM)	
Equiduct (BQ)	Xetra Intl Mkt (GK)	

MTFs covered by Bloomberg (as of June 7th, 2016)

Bloomberg offers unique fields that map MTF Exchanges to their correlating instruments: ID241 (MTF_ASSC_MKT_COMP_ID_BB_GLOBAL) and ID242 (MTF_ASSC_MKT_PRIM_ID_BB_GLOBAL) ID241 - MTF Assc Mkt Comp Financial Instrument Global ID (MTF_ASSC_MKT_COMP_ID_BB_GLOBAL) For a Multilateral Trade Facility (MTF) traded instrument, this field contains the Composite-level Financial Instrument Global Identifier (FIGI) (ID135, ID_BB_GLOBAL) of the instrument in the country of its official place of listing. Where Composite Financial Instrument Global Identifier (ID145, COMPOSITE_ID_BB_GLOBAL) contains a Composite-level FIGI for that instrument traded on that MTF, ID241 allows linkage back to the Composite-level FIGI for that instrument for the country of the official place of listing of the instrument. ID242 - MTF Assc Mkt Prim Financial Instrument Global ID (MTF_ASSC_MKT_PRIM_ID_BB_GLOBAL) For a Multilateral Trade Facility (MTF) traded instrument, this field contains the Financial Instrument Global Identifier (FIGI) (ID135, ID_BB_GLOBAL) of the instrument traded on the exchange that is its official place of listing.

Please note, these fields are available on the Terminal and via Data License products, but are not available on OpenFIGI.com.

MTFs will follow a certain market. This would be the **associated market**. Each MTF will indicate this associated market by using the MIC (Market Identification Code) or the SEDOL. The SEDOL is meant to identify the market in which the security is listed/traded. It was to be a more granular identifier. However, since the MTF would take on the SEDOL of the associated market, you would then have a one-to-many relationship. This made it difficult for clients to know what the primary market was for the SEDOL and also put limits on the granularity of the SEDOL.

Example:

STM IM Equity is the primary listing of STMicroelectronics N.V. – SEDOL 5962343 STM FP Equity is a secondary listing of STMicroelectronics N.V. – SEDOL 5962332 MTFs for the listing of shares in Italy are using SEDOL 5962343. MTFs for the listing of shares in France are using SEDOL 5962332.

SEDOL 5962343:	SEDOL 5962332:
STM1 NQ	STM GK
STM IX	STM QM
STM1 EB	STM EB

There was no field to indicate the primary market of the SEDOL which would then give the relationship to the associated market.

Calc Rout Fields: With the creation of the calc rout fields ID241 and ID242, we now have the ability to show this relationship.

Benefits:

1) These fields will provide information/relationships to clients that did not previously exist. Clients can easily see what the associated market is for the MTF.

2) By creating this relationship using the FIGI as the return we can then market and promote the FIGI and for clients to move away from using the SEDOL.

3) In addition to the FIGI at the Exchange Level, the level of identification has outweighed the SEDOL in granularity.

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Please see <u>FIGI Allocation assignment</u> for a general overview of how FIGIs are assigned. Please see the <u>Corporate Actions section</u> for how FIGIs are handled with corporate action events. Security Types Assigned a FIGI:

General Category of	Security Type(s) Supported
Instrument	
Equity Index	Equity Index
Index (non-equity)	Index
Fixed Income	Fixed Income Index

Equity Index

There are certain instruments that are fed into Bloomberg by 3rd Party Providers. These instruments will not receive a FIGI if they are not databased within our system.

Non-Equity Index

FIGIs are not allocated to instruments created through the Bloomberg Terminal Function CIX<GO>

Corporates and Preferreds

Please see <u>FIGI Allocation assignment</u> for a general overview of how FIGIs are assigned. Please see the <u>Corporate Actions section</u> for how FIGIs are handled with corporate action events. Security Types Assigned a FIGI:

Asset Class	General Category of Instrument	Security Type(s) Supported
Corporates	Asset-Based	ASSET-BASED, ASSET-BASED BRIDGE , ASSET-BASED BRIDGE REV , ASSET-BASED BRIDGE TERM , ASSET-BASED DIP , ASSET-BASED DIP
		REV , ASSET-BASED DIP TERM , ASSET-BASED LOC , ASSET-BASED REV , ASSET-BASED TERM
Corporates	Bridges	BRIDGE , BRIDGE DELAY-DRAW , BRIDGE DELAY-DRAW TERM , BRIDGE DIP TERM , BRIDGE GUARANTEE FAC , BRIDGE ISLAMIC , BRIDGE ISLAMIC TERM , BRIDGE PIK , BRIDGE PIK REV , BRIDGE PIK TERM , BRIDGE REV, BRIDGE REV GUARANTEE FAC , BRIDGE TERM , BRIDGE VAT-TRNCH, ASSET-BASED BRIDGE, ASSET-BASED BRIDGE REV, ASSET-BASED BRIDGE TERM, DIM SUM BRIDGE TERM
Corporates	Australian	AUSTRALIAN
Corporates	Dim Sums	DIM SUM BRIDGE TERM , DIM SUM DELAY-DRAW TERM , DIM SUM REV , DIM SUM TERM
Corporates	Debtor-In- Possession	DIP, DIP DELAY-DRAW ISLAMIC TERM , DIP DELAY-DRAW PIK TERM , DIP DELAY-DRAW REV , DIP DELAY-DRAW TERM, DIP LOC , DIP PIK TERM , DIP REV, DIP SYNTH LOC , DIP TERM, ASSET-BASED DIP , ASSET-BASED DIP REV , ASSET-BASED DIP TERM, BRIDGE DIP TERM

Corporates	Delay-Draws	DELAY-DRAW, DELAY-DRAW ISLAMIC, DELAY-DRAW ISLAMIC LOC, DELAY-DRAW ISLAMIC TERM, DELAY-DRAW PIK TERM, DELAY- DRAW REV, DELAY-DRAW STANDBY TERM, DELAY-DRAW TERM, DELAY-DRAW TERM VAT-TRNCH, DIM SUM DELAY-DRAW TERM, DIP DELAY-DRAW ISLAMIC TERM, DIP DELAY-DRAW REV
Corporates	Domestics	DOMESTIC, DOMESTIC MTN
Corporates	Europeans	EURO MTN , EURO NON-DOLLAR, EURO-DOLLAR, EURO-ZONE
Corporates	Islamic	ISLAMIC, ISLAMIC GUARANTEE FAC, ISLAMIC LOC, ISLAMIC REV, ISLAMIC STANDBY, ISLAMIC STANDBY REV, ISLAMIC TERM, DIP DELAY-DRAW ISLAMIC TERM, DELAY-DRAW ISLAMIC, DELAY-DRAW ISLAMIC LOC, DELAY-DRAW ISLAMIC TERM, BRIDGE ISLAMIC, BRIDGE ISLAMIC TERM
Corporates	Payment-In-Kind	PIK , PIK REV , PIK SYNTH LOC, PIK TERM, BRIDGE PIK, BRIDGE PIK REV, BRIDGE PIK TERM, PIK SYNTH LOC
Corporates	Bulldogs	BULLDOG
Corporates	Canadian	CANADIAN
Corporates	Global	GLOBAL
Corporates	Guaranteed Facility	GUARANTEE FAC
Corporates	Letter of Credit	LOC, LOC GUARANTEE FAC , DIP SYNTH LOC, DIP LOC, DELAY-DRAW
		ISLAMIC LOC, ISLAMIC LOC, PIK SYNTH LOC
Corporates	Overdrafts	OVERDRAFT
Corporates	Private Placements	PRIV PLACEMENT
Corporates	Restructured Debt	RESTRUCTURD DEBT
Corporates	Revolvers	REV , REV GUARANTEE FAC , REV VAT-TRNCH , ASSET-BASED REV, DIP REV, STANDBY REV, BRIDGE REV, REV GUARANTEE FAC, ISLAMIC REV, REV VAT-TRNCH, ASSET-BASED DIP REV, DELAY-DRAW REV, PIK REV, SYNTH REV, DIM SUM REV, ASSET-BASED BRIDGE REV, BRIDGE PIK REV, BRIDGE REV GUARANTEE FAC, DIP DELAY- DRAW REV, ISLAMIC STANDBY REV
Corporates	Samurais	SAMURAI
Corporates	Shoguns	SHOGUN
Corporates	Standbys	STANDBY , STANDBY LOC , STANDBY REV, STANDBY TERM, DELAY- DRAW STANDBY TERM, ISLAMIC STANDBY, ISLAMIC STANDBY REV
Corporates	Synthetics	SYNTH LOC, SYNTH REV, SYNTH TERM, DIP SYNTH LOC, PIK SYNTH LOC
Corporates	Swinglines	SWINGLINE
Corporates	Terms	TERM, DELAY-DRAW TERM, BRIDGE TERM, PIK TERM, ISLAMIC TERM, DIP TERM, STANDBY TERM, ASSET-BASED TERM, DIP DELAY- DRAW TERM, TERM GUARANTEE FAC, TERM VAT-TRNCH, BRIDGE DELAY-DRAW TERM, DELAY-DRAW PIK TERM, DELAY-DRAW ISLAMIC TERM, DELAY-DRAW STANDBY TERM, DIM SUM TERM, DIP PIK TERM, DIP DELAY-DRAW PIK TERM, BRIDGE ISLAMIC TERM, SYNTH TERM, DELAY-DRAW TERM VAT-TRNCH, ASSET-BASED DIP TERM, BRIDGE DIP TERM, DIM SUM DELAY-DRAW TERM, DIP DELAY-DRAW ISLAMIC TERM, ASSET-BASED BRIDGE TERM, BRIDGE PIK TERM, DIM SUM BRIDGE TERM

Corporates	UK Gilt Stock	UK GILT STOCK
Corporates	US Domestic	US DOMESTIC
Corporates	US Non-Dollar	US NON-DOLLAR
Corporates	VAT Tranche	VAT-TRNCH, TERM VAT-TRNCH, REV VAT-TRNCH, BRIDGE VAT-
		TRNCH, DELAY-DRAW TERM VAT-TRNCH
Corporates	Yankee	YANKEE
Preferreds	Public	PUBLIC
Preferreds	Private	PRIVATE

US Government and Agency Instruments

If an instrument is sent to another Bloomberg Terminal user using PRPL3<GO>, 2 <GO>, a new FIGI is generated for the receiver of the instrument.

If an instrument is sent to another Bloomberg Terminal user using PPCR3<GO>, 3 <GO>, a new FIGI is generated for the receiver of the instrument.

Loans

Please see <u>FIGI Allocation assignment</u> for a general overview of how FIGIs are assigned. If an instrument is sent to another Bloomberg Terminal user using PPCR3<GO>, 3<GO>, a new FIGI is generated for the receiver of the instrument.

Money Markets

Please see <u>FIGI Allocation assignment</u> for a general overview of how FIGIs are assigned.

Security	Types	assigned	а	FIGI:
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Туре	Security Type
Accept Bancaria	ACCEPT BANCARIA
Bank Accept Bill	BANK ACCEPT BILL
Bankers Accept	BANKERS ACCEPT
Bill Of Exchange	BILL OF EXCHANGE
Brazil Generic	BRAZIL GENERIC
Brazilian CDI	BRAZILIAN CDI
Call Loans	CALL LOANS
Canadian	CANADIAN CP, CANADIAN CD

Certificate of Deposit	AUSTRALIAN CD, EURO CD, FINNISH CD, FRENCH CD, JUMBO CD, KOREAN CD, HONG KONG CD, INDIAN CD, NEGOTIABLE CD, MEDIUM TERM ECD, TAIWAN NEGO CD, STERLING CD, U.S. CD, YANKEE CD, YEN CD	
Collateralized Borrowing and		
Lending Obligation	CBLO	
Commercial Paper	AUSTRALIAN CP, BELGIUM CP, CAD INT BEAR CP, CALLABLE CP, CANADIAN CP, DUTCH CP, EURO CP, FINNISH CP, FLOATING CP, FRENCH CP, GERMAN CP, INDIAN CP, ISLAMIC CP, KOREAN CP, INDONESIAN CP, LEBANESE CP, MALAYSIAN CP, MEXICAN CP, MUNI CP, MUNI INT BEAR CP, NEW ZEALAND CP, PHILIPPINE CP, PORTUGUESE CP, SINGAPORE CP, STERLING CP, SWEDISH CP, TAIWAN CP, TAIWAN CP GUAR, THAILAND CP, U.S. CP, VENEZUELAN CP, U.S. INT BEAR CP, YEN CP	
Discount Fixbis (Fixed-Rate		
Investments at the BIS)	DISCOUNT FIXBIS	
Domestic Time Deposit	DOMESTC TIME DEP	
Euro Medium Term Note	EURO MTN	
Euro Structured Loan	EURO STRUCTRD LN	
Euro Time Depst	EURO TIME DEPST	
Fed Funds	FED FUNDS	
Currency Discount Note	FX DISCOUNT NOTE	
Interest Bearing Fixed-Rate		
Investments at the BIS	INT BEAR FIXBIS	
Islamic Ba	ISLAMIC BA	
Liquidity Note	LIQUIDITY NOTE	
Margin Term Deposits	MARGIN TERM DEP	
Mexican Pagare	MEXICAN PAGARE	
Monetary Bills	MONETARY BILLS	
Murabaha	MURABAHA	
Mx Cert Bursatil	MX CERT BURSATIL	
Neg Inst Deposit	NEG INST DEPOSIT	
Notes	BANK NOTE, COLLAT CALL NOTE, COMMERCIAL NOTE, CP-LIKE EXT NOTE, DEPOSIT NOTE, DISCOUNT NOTES, BEARER DEP NOTE, EXTEND COMM NOTE, EXTEND. NOTE MTN, MASTER NOTES, MED TERM NOTE, PROMISSORY NOTE, S.TERM LOAN NOTE	
Over/Night	OVER/NIGHT	
Plazos Fijos	PLAZOS FIJOS	
Provincial T-Bill	PROV T-BILL	
Repo	REPO	
Short Term Bn	SHORT TERM BN	
Short Term Dn	SHORT TERM DN	
Special Lmmk Pgm	SPECIAL LMMK PGM	

Taiwan Time Deposits	TAIWAN TIME DEPO
Term Deposits	TERM DEPOSITS
Variable Rate Demand	
Obligation	VAR RATE DEM OBL

Money Market Securities

If an instrument is sent to another Bloomberg Terminal user using MMPL5 <GO>, a new FIGI is generated for the receiver of the instrument.

Transactions that are executed on the Bloomberg Terminal function BOOM <GO> will generate two unique instruments, each with a different FIGI for the buyer and the seller.

Mortgages

Please see <u>FIGI Allocation assignment</u> for a general overview of how FIGIs are assigned. Security Types Assigned a FIGI:

Туре	Security Type
	ABS Auto, ABS Card, ABS Home, ABS Other, Agncy ABS
Asset Backed Securities	Home, Agncy ABS Other
Canadian	Canadian
Collateralized Loan Obligations	HB, CF, MV, SN
	Prvt CMO FLT, Prvt CMO INV, Prvt CMO IO, Prvt CMO
	Other, Prvt CMO PO, Prvt CMO Z, Agncy CMO FLT, Agncy
	CMO INV, Agncy CMO IO, Agncy CMO Other, Agncy CMO
Collateralized Mortgage Obligations	PO, Agncy CMO Z
Commercial Mortgage Backed	
Securities	Agncy CMBS, CMBS
	MBS 10yr, MBS 15yr, MBS 20yr, MBS 30yr, MBS ARM,
Mortgage Backed Securities	MBS balloon, MBS Other
Small Business Administration Pool	SBA Pool

Private Placements

FIGIs are allocated to instruments created using PRPL <GO> You have two choices when using PRPL <GO>

PRPL1 Mortgage Custom Security Add PRPL5 CMO Custom Security Add

Municipals

Please see <u>FIGI Allocation assignment</u> for a general overview of how FIGIs are assigned. Syndicates can directly request a deal ID and allocation of a FIGI upon deal creation in function NIB<GO>. Security Types assigned a FIGI:

Туре	Security Type
Original Issue Discount	FIXED, OID, ZERO COUPON, OID,
Munis	INTER. APPRECIATION, OID, OID ,
	FLOATING, OID, TAX CREDIT, OID, ADJ
	CONV. TO FIXED, OID, ADJUSTABLE,
	OID
Fixed	FIXED
Adjustable	ADJUSTABLE
Tax Credit	TAX CREDIT
Floating	FLOATING
Adjusted Convertible To	ADJ CONV. TO FIXED
Fixed	
Zero Coupon	ZERO COUPON
Intermediate Appreciation	INTER. APPRECIATION
Consumer Price Index Linked	CPI LINKED

Commodity/Index Futures, Commodity Spot Options and Options on Commodity Futures Please see <u>FIGI Allocation assignment</u> for a general overview of how FIGIs are assigned. User-defined option strategies created by Bloomberg Tradebook are not allocated a FIGI. Security Types assigned a FIGI:

Yellow Key(s)	Туре	Security Type
Commodity	Calendar Spread Option	Calendar Spread Option
Index	Commodity Index	Commodity Index
Index	Currency spot	Currency spot.
Commodity	Financial commodity future	Financial commodity future.
Commodity	Financial commodity option	Financial commodity option.
Index	Financial index future	Financial index future.
Index	Financial index option	Financial index option.
Index	Index Option	Index Option
Commodity	Physical commodity future	Physical commodity future.
Commodity	Physical commodity option	Physical commodity option.
Commodity	Physical commodity spot	Physical commodity spot.
Index	Physical index future	Physical index future.
Index	Physical index option	Physical index option.
Index	Spot index	Spot index.
Commodity and Index	Strategy Trade	Strategy Trade.

FX/FX Options

Please see FIGI Allocation assignment for a general overview of how FIGIs are assigned.

The Bloomberg Terminal function FXTF <GO> (World Currency Value) is used by terminal clients to locate currency ticker symbols. Ticker symbols are excluded from this function if they are not meant for client consumption and thus not allocated a FIGI.

Туре	Security Typ
Bank Bill	BANK BILL
Bankers Acceptance	BANKERS ACCEPTANCE
Caps & Floors	CAPS & FLOORS
Cash Rate	CASH RATE
Certificate of Deposits	CD
Commercial Paper	COMMERCIAL PAPER
Cross	CROSS
Currency future	Currency future.
Currency Options	Currency option.
Deposit	DEPOSIT
Fixing Rate	FIXING RATE
Forward Rate Agreements	FRA , CONTRACT FRA
	FORWARD , FORWARD CROSS, IMM FORWARD, NON-DELIVERABLE
Forwards	FORWARD, ONSHORE FORWARD
Money Market Call	MONEY MARKET CALL
Option Volatility	OPTION VOLATILITY
Promissory Note	PROMISSORY NOTE
REPOs	REPO
Return Index	RETURN IDX
Spots	SPOT , Currency spot.
Strategy Trades	Strategy Trade.
	SWAP , BASIS SWAP , BUTTERFLY SWAP , FWD SWAP , IMM SWAP , MUNI
	SWAP , INFLATION SWAP , NDF SWAP , NON-DELIVERABLE IRS SWAP, NON-
	DELIVERABLE OIS SWAP, PROPERTY SWAP, OVERNIGHT INDEXED SWAP,
Swaps	QUARTERLY SWAP, ONSHORE SWAP, SWAP SPREAD, MAC SWAPS
Swaption Volatility	SWAPTION VOLATILITY
Treasury Bill	TREASURY BILL
Volatility Derivative	VOLATILITY DERIVATIVE
& Others	OTHER

Security Types issued a FIGI:

Equity & Index Options

Please see <u>FIGI Allocation assignment</u> for a general overview of how FIGIs are assigned. Please see the <u>Corporate Actions section</u> for how FIGIs are handled with corporate action events.

Generation numbers

Eurex options have Generations assigned to them where they distinguish different options series by a generation number. This is something unique to Eurex only (although other exchanges may potentially adopt

this symbology method).

When Eurex first introduces options for an underlying, they will name them Generation 1 (G1). If there are any corporate action events on those (G1) options, they will then adjust those options (typically adjusting the contract sizes and/or strikes), but the Generation number will not change (remains the same for the life of those generation options).

Shortly following the corporate action event, Eurex will then list brand new (unadjusted) Generation 2 (G2) options. If another corporate action event happens again, they repeat the above process and then list unadjusted (G3) options, etc., etc.

Since the Generation number will never change, Eurex also allocates a Version Number which will change during corporate actions (starts out as 0 and will be increased by 1 for every corporate action event that specific generation series experiences).

Please also note the Bloomberg ticker for Eurex options will not require the G# in the ticker tail for the MOST RECENT (unadjusted) generation options. However, prior generation series options will require/display the G# in the Bloomberg ticker tail.

Examples:

Ticker	Explanation
VOD GR 06/19/15 P120	ticker does not require "G3" in the ticker tail since they are the most
Equity	recent (unadjusted) generation options listed (Version number = 0)
VOD GR 06/19/15 P123 G2	will require/display "G2" in the ticker tail since they are the PRIOR
Equity	(adjusted) generation series (Version Number = 1)

Time-Series Ticker Symbols

Additional Ticker Symbols are created by adding a "tail" to the end of the Base Ticker Symbol. Base Ticker Symbols are the conventional Ticker Symbols, and these together with subsequent "tail" Ticker Symbols are used to store multiple data types related to the same instrument. Each individual "tail" Ticker Symbol has its own FIGI.

Ticker Symbols are used as a basis for breaking down information for specific time periods when combined with a "tail" that represents the month and year, quarter and year, season and year, or calendar year. Tails consist of one or two characters that represent the month or season or quarter (e.g., using the letter Q and the numbers 1-4 to represent each quarter), followed by the last two digits of the year. For example: On the Bloomberg Terminal, entering MIDCQ Q110 <Index> HP <GO> will return Mid-Columbia prices for Quarter 1 2010 (Jan-March): this has been allocated FIGI BBG000XB4Q06.

On the Bloomberg Terminal, entering MIDCY 10 <Index> HP <GO> will return Mid-Columbia prices for Calendar Year 2010: this has been allocated FIGI BBG000X9NML6.

Month codes are as follows:

Jan = F, Feb = G, March = H, April = J, May = K, June = M, July = N, Aug = Q, Sept = U, Oct= V, Nov = X, Dec = Z. Season codes are as follows:

Summer = SU, Winter = WI.

On the Bloomberg Terminal, entering BTZ3S SU10 <Index> HP <GO> will return prices for Transco Zone 3 natural gas for April-Oct 2010 delivery: this has been allocated FIGI BBG000X9FZP2.

On the Bloomberg Terminal, entering BTZ3S WI0910 <Index> HP <GO> will return prices for Transco Zone 3 natural gas for Nov 2009-March 2010 delivery: this has been allocated FIGI BBG000X9G149.

ELUBM is the Base Ticker Symbol for UK Electricity Baseload Price. ELUBM J10 Index is the full ticker to access the related April 2010 data: this has been allocated FIGI BBG000XCHM45.