The value of the Legal Entity Identifier for the participants of the securities industry

Received (in revised form): 6th September, 2019

Gerard Hartsink

Chairman, Board of Directors, Global Legal Entity Identifier Foundation

Gerard Hartsink has been appointed by the Financial Stability Board in June 2014 as the first chairman of the GLEIF Board of Directors. He serves as member of the World Trade Board that has as objective to enable global trade with support of digital technologies. He is active in organisations promoting e-commerce (member of the Digital Economy Commission of the International Chamber of Commerce [ICC]) and e-governance (member of the Forum Standaardisatie of the Dutch government) and is Head of the Dutch delegation of ISO TC 307 Blockchain and DLT. He has broad experience in the payments, securities and forex industry. He has served as Chairman of CLS Bank International, the European Payments Council and the RMG of ISO 20022 and as Board member of SWIFT. LCH.Clearnet Group, Euroclear Netherlands and the Euro Banking Association (EBA). As former Senior Executive Vice President of ABN AMRO, he has over 30 years' experience in sales, product development, regulatory affairs, information management and operations.

ABSTRACT

The G20 initiated the Legal Entity Identifier (LEI) programme and endorsed in 2012 the Financial Stability Board (FSB) recommendations for the development of the global LEI system to uniquely identify parties that are engaged in financial transactions. The LEI is based on the ISO 17442 LEI standard. The LEI data is available free of charge for any user of the public and private sectors on www.gleif. org. GLEIF delivers also free-of-charge services about the direct and ultimate parent and/or

children of a legal entity. Several mapping services relevant for the securities industry are available. The FSB published in May 2019 its Peer Review Report with four sets of recommendations to increase the number of issued LEIs. The securities industry is an important segment of the private sector for the global LEI programme. In this paper, market participants are informed about the progress made in the implementation of the LEI programme and on the way toward global adoption — by self-regulation and/or regulation — for the benefit of investors and issuers.





Large and small investors are increasingly investing in asset classes issued by private and public issuers of multiple jurisdictions. Investors communicate with their banks or brokers electronically with dematerialised (digitalised) instruments of their investment portfolios. Private and public issuers of those instruments are, for corporate governance and regulatory, strategic and investor relations reasons, interested in the owners of their issued instruments.

Banks and brokers have a duty to inform and serve their issuers and their investors with high-quality securities services with correct and transparent data. A growing number of the investors are interested in the issuers of their instruments increasingly from multiple jurisdictions.



Gerard Hartsink

Chairman, Board of Directors, Global Legal Entity Identifier Foundation, St. Alban-Vorstadt 5, 4002 Basel, Switzerland E-mail: gerard.hartsink@gleif.org

Journal of Securities Operations & Custody Vol. 12, No. 1, pp. 29–40 Henry Stewart Publications, 1753–1802 The trading (on exchange and off exchange), clearing and settlement functions have a prominent role to ensure that the capital and money markets operate efficiently with a low operational risk profile. All market participants should understand who is who, who owns whom and who owns what at any time of the day.

The Heads of State and the governments of the Group of Twenty countries called on the Financial Stability Board (FSB) to take the lead for the appropriate framework, representing the public interest, for a global Legal Entity Identifier (LEI) to uniquely identify legally distinct entities that engage in financial transactions, and endorsed at the 2012 Los Cabos Summit the FSB recommendations for the development of the global LEI system (GLEIS) for parties to financial transactions.¹

In this paper, a report is given on the progress made by the LEI programme and how all market participants of the securities industry can benefit from the programme.

THE GLOBAL LEGAL ENTITY IDENTIFIER SYSTEM

The GLEIS has been designed as a broad public good for the benefit of the users of the public and private sectors. To realise this G20 objective, the FSB established two organisations:

a. The LEI Regulatory Oversight Committee (LEI ROC)² established in January 2013 to oversee the worldwide framework of identification of legal entities. The LEI ROC has 71 members and several observers from 50 countries. Its main tasks are oversight of the Global Legal Entity Identifier Foundation (GLEIF) and policy-making for legal entities for public purposes for the GLEIS.

b. GLEIF, a Swiss not-for-profit foun-dation,³ established in June 2014. The GLEIF Board has 18 members from 16 jurisdictions and of multiple industries. GLEIF cooperates with LEI issuers as partner to realise its mandate.

An LEI is a high-quality identifier of legal entities (based on the ISO 17442 LEI standard⁴), inclusive of the reference data of that legal entity. It is a 20-character alphanumeric code to uniquely identify legally distinct entities that engage in financial transactions.

The public sector has multiple roles and interests in identity management of market participants in the capital and money markets, such as issuer of public debt, promoter of regional integration of capital markets, supervisor and/or overseer of licensed firms, protector of the public interest for money laundering and protector of consumer interests. See the published LEI ROC overview of the current regulatory uses of the LEI.⁵

Market participants of the securities industry 'from issuer to investor' and all their service providers such as exchanges, central counterparties (CCPs), central securities depositories (CSDs), securities settlement systems (SSSs), trade repositories (TRs), rating agencies, data vendors, tech firms, etc. will benefit from the adoption of the LEI in their business processes in order to deliver and/or receive higher quality data of their counterparties in the securities process chain and/or lower their operational risks.

Global Legal Entity Identifier Foundation mandate and services

GLEIF has the mandate to deliver the LEI data services for the benefit of the users of the private and public sectors. The foundation delivers these services on its website⁶ that is available in 14 languages of the G20. GLEIF operates by its statutes, agnostic

to any particular commercial or political interest.

GLEIF is responsible for three main functions to execute its tasks:

- a. Rulemaking functions: maintain the legal and technical standards of the published Master Agreement⁷ with the LEI issuers
- b. Operational functions: deliver together with the LEI issuers — the LEI and LEI reference data services and other services
- Monitoring functions: monitor the compliance of the LEI issuers with the legal and technical requirements of the Master Agreement

GLEIF delivers on www.gleif.org the following services in 14 languages of the G20 that are free of charge with registration available for any user:

a. Data of legal entities

- a. Who is who: The Global LEI Index makes the LEI and the LEI reference data of over 1.4 million legal entities of over 200 jurisdictions available.
- b. Who owns whom: GLEIF delivers clarity on the direct and ultimate parent and/or children of a legal entity with an LEI based on the International Financial Reporting Standards (IFRS) or US Generally Accepted Accounting Principles (GAAP) accounting standard.

b. Tech support

- a. Search options are available for export of data in various formats (Excel, CSV, XML, JSON)
- b. Look-up API (application programming interface) provides users direct access in real time to the Global LEI Index to perform on-demand checks for changes to specific LEI records.

c. Statistics

a. LEI statistics with key facts of the global LEI population

b. Monthly Data Quality Reports of each LEI issuer

d. Registers

- a. Overview of LEI issuers: LEI issuers are accredited partners of GLEIF that signed the Master Agreement with GLEIF
- b. GLEIF Registration Authorities list with over 700 business and other registers
- c. ELF (Entity Legal Form) Register of the ISO 20275 ELF standard with over 2,300 legal forms (planned to be completed for all jurisdictions in December 2019)

Global Legal Entity Identifier Foundation mapping programmes⁸

GLEIF has established a free-of-charge certification process to ensure that organisations are able to map their own identifier to the LEI with the use of state-of-the-art methodologies and/or processes to do so accurately. GLEIF cooperates with market participants of any industry and public organisations (such as central banks) to develop mapping of their identifiers of organisations (legal entities) or of the owners of their object identifiers.

Market participants of the securities industry can benefit substantially from mapping the identifier of their customers to the LEI. Data vendors are already mapping the LEI to their identifier and including the LEI into their services, which is encouraged by GLEIF. The inclusion of the LEI data in their services is possible on the condition that their customers are not charged with additional fees for the LEI data because the LEI data is a public good made free of charge available to any user. GLEIF created a GLEIF Vendor Relationship Group⁹ with a charter and granted freedom to the participants of this group to publish their brand name on the GLEIF website.

- a. Business Identifier Code (BIC)-to-LEI mapping: In February 2018, GLEIF and SWIFT (as the Registration Authority of the ISO 9362 Business Identifier Code standard¹⁰) launched their cooperation for the mapping of BIC-to-LEI files. As of end of June 2019, there were about 21,000 mapped identifier pairs available for users. The remaining mappings will be delivered as soon as possible.
- b. International **Securities** Identification Number (ISIN)-to-LEI mapping: In April 2019, GLEIF, the Association of National Numbering Agencies (ANNA) as the Registration Authority of the ISO 6166 International Securities Identification Number standard launched the cooperation for the mapping of ISIN-to-LEI files. This initiative has been created to help improve the transparency of exposure by linking the issuer and its issued securities. By linking these two, ISO (International Organization for Standardization) standards users will be able to aggregate the data to get a clear view of the data for the securities exposure with an issuer and its related entities. Each ANNA member has to opt in with ANNA for the mapping programme. By end-June 2019, ANNA published that 12 of their members had opted in, which have issued together about 3.2 million ISIN numbers. This mapping service is also relevant for large and retail investors that are keen to understand the data of the legal entity of their investments having an ISO 6166 ISIN code.
- c. Market Identifier Codes (MIC)-to-LEI mapping: GLEIF and SWIFT, as Registration Authority of the ISO 10383 Market Identifier Codes, ¹¹ are reviewing the delivery of the mapping of the MICto-LEI standard at the latest in 2020. There are over 1,850 exchanges, trading platforms and trade reporting facilities in the MIC register.

REPORTS AND POLICIES OF THE FINANCIAL STABILITY BOARD AND LEI REGULATORY OVERSIGHT COMMITTEE

The LEI ROC has published so far two progress reports. Its progress report of 30th April, 2018, gives a comprehensive overview of use cases in which the LEI ROC also communicated that 'there could be between 200 and 400 million of eligible entities' for an LEI.¹²

The FSB published on 28th May, 2019, its Peer Review Report on the implementation of the LEI, which expressed that it remains committed to a broader use of the LEI globally. The FSB formulated the following four sets of recommendations to accomplish the G20's objective of a broader LEI adoption and included a reference to those recommendations in their FSB chairman's letter to the G20 leaders of 24th June, 2019. The FSB chair remarks that 'the regulatory uses of the LEI are multiple and the benefits can be substantial' and also that 'the LEI has far to go to meet the G20's objective of truly global LEI adoption'.

The four sets of FSB recommendations (summarised here) include several references to the securities industry:

- a. The FSB jurisdictions (the G20 jurisdictions plus Hong Kong, Singapore, the Netherlands and Switzerland) should follow up on the relevant Committee on Payment and Market Infrastructures and the International Organization of Securities Commissions (CPMI-IOSCO) guidance for the use of the LEI for TRs, should consider requiring the use by 'infrastructures' and should explore ways to communicate on LEI benefits through public outreach initiatives and, leading by example, especially issuers of public debt.
- b. The FSB will work with standardsetting bodies to facilitate the adoption of the LEI for all group entities and major counterparties of global systemically

- important financial institutions, as well as for the clearing members of CCPs and their ultimate parents.
- c. The relevant standard-setting bodies (Basel Committee on Banking Supervision [BCBS], CPMI, IOSCO) should review and consider to embed or enhance references to the LEI uses in their work. This could involve guidance on the inclusion of data on entities as well as promoting LEI use in securities transactions and cross-border payments.
- d. The LEI ROC and GLEIF should consider enhancements of the business model to lower the costs and administrative burden for registrants, raise awareness of the LEI and encourage voluntary adoption, and enhance the scope and usability of the relationship data (such as beneficial owners), including targeted LEI adoption campaigns for large multi-national firms.

The LEI ROC published several public policies for the GLEIS that have an impact for the securities industry:¹⁵

- a. Policy of 10th March, 2016, for the registration of relationship data of legal entities where the IFRS and US GAAP accounting principles have been chosen for the registration of ultimate parents, parents, children and ultimate children of legal entities in the GLEIS
- b. Policy of 30th October, 2018, for the registration of legal entity events (specific corporate actions) and of the data history in the GLEIS
- c. Policy of 20th May, 2019, with the definitions of relationships for investment funds and collective investment schemes and the registration in the GLEIS

The FSB published in its Peer Review Report of 28th May, 2019, a detailed overview, with 12 areas covered by published rules and regulations (of which six of the securities industry), of the FSB jurisdictions.

The LEI ROC published on 5th July, 2019, a list of 103 regulatory uses as of the end of June 2019.¹⁶

IMPLEMENTATION OF THE LEGAL ENTITY IDENTIFIER PROGRAMME IN THE SECURITIES INDUSTRY

The FSB concluded in its Peer Review Report that notwithstanding the progress made by over 1.4 million entities uniquely identified by an LEI in more than 200 countries, the LEI has far to go to meet the G20's objective.¹⁷ The FSB summarised that to capture the positive externalities and maximise the network effects for the market, more efforts should be made to promote LEI adoption and enhance the benefits to authorities and market participants from its use.

The LEI ROC chair persons published in February 2017 a paper 'Collective actions: Toward solving a vexing problem to build a global infrastructure for financial information', with the following three key elements of the LEI programme's success:

- a. Top-level support in governments and industry
- b. Close collaboration between the public and the private sectors
- c. Mix of legal tools: ie 'soft law' and moral suasion, local regimes, domestic regulation and private contracts

The implementation of the LEI programme will for any industry be a mixture of regulation and self-regulation to realise the benefits of the LEI programme for all participants of the securities industry and other industries.

In the securities industry, all market participants will need to review if the LEI has value for their own organisation. Will the implementation of the LEI programme result in less operational risks, less operational costs and better service and data for their customers? Industry associations tend to review also the impact for their function of the securities ecosystem but are mostly reacting on public consultations of the public sector on the LEI for regulatory purposes. The relevant industry associations have not yet developed a holistic view on how all market participants globally could benefit from the LEI programme in the interest of the issuers and investors. Such a holistic view should cover the end-to-end 'supply chain of securities' from issuer to investor.

Implementation actions for Legal Entity Identifier adoption by the public sector

The public sector participants have multiple roles and requirements for the LEI in the securities ecosystems, including as market participant, such as issuer of government bonds, and as supervisor or overseer.

- a. Issuer of government bonds. The FSB recommends that the FSB jurisdictions' issuers of public debt should lead by example to use the LEI.¹⁹ The first FSB jurisdictions started to do so, such as De Staat der Nederlanden (Dutch State Treasury Agency), which issues Dutch government bonds. Investors in these bonds have free-of-charge access to the LEI data of the issuer.
- b. Central Banks and their RTGS (Real Time Gross Settlement System), such as the Bank of England, that made the LEI mandatory for the participants of and for the messages to their new RTGS (such as for the settlement of the LCH payment leg transactions). Central banks have also started to use the LEI (and ISIN) for the collateral they receive from their licensed firms and are very keen that the ISIN-to-LEI mapping programme is completed as soon as possible.
- c. Legislation for regulatory reporting purposes for derivatives, securities and

- securities financing transactions as published in an overview of the LEI ROC.²⁰ With the collecting of LEI data of market participants and other data of the securities that are traded or cleared or included in TRs, supervisors and overseers are able to assess the market participants and the systemic risks in the securities ecosystem involved.
- d. Bank for International Settlements (BIS) BCBS Guidelines on the sound management of risks related to money laundering and financing of terrorism of June 2017 with a recommendation for the LEI for account opening and for correspondent banking.²¹ The Wolfsberg Group responded to it by publishing their Correspondent Banking Due Diligence Questionnaire, where the LEI is included in Article 10 of their questionnaire.²² The International Securities Services Association (ISSA) takes care of securities transaction processes including the LEI in their Financial Crime Compliance Sample Questionnaire.²³
- e. Statistical research. Central banks and securities regulators are using the LEI data also for research purposes. The Committee on Monetary, Financial and Balance of Payments Statistics has regular meetings with GLEIF and gives valuable feedback for the use of the LEI for statistical purposes.²⁴
- f. Consumer protection. The LEI is required for 'issuers of securities to the public or admitted on a regulated market situated or operating within a EU member state'.²⁵

In the FSB Peer Review Report, an overview of strategies for the LEI implementation per jurisdiction is presented with examples from the securities industry of FSB jurisdictions.²⁶

GLEIF has no mandate in its Statutes article 10 to influence legislation or rulemaking of the public sector. GLEIF is allowed to respond to public consultations to promote the LEI and publishes all its responses on the GLEIF website.²⁷

Implementation actions for Legal Entity Identifier adoption by the private sector

The focus of GLEIF's promotion of the LEI is on four parts of the private sector in cooperation with relevant industry organisations: (a) capital and money markets, (b) banking (trade finance, know your customer [KYC] and on-boarding customers), (c) supply chain with partners like GS1²⁸ and the International Chamber of Commerce, 29 and (d) digital economy (blockchain applications, certification authorities using the LEI in their certificates with the Certification Authority/Browser Forum³⁰ as partner, the LEI in machine-readable annual reports in iXBRL format including the LEI and digital signatures like the GLEIF Annual Report 2018;31 the iXBRL format was created in cooperation with XBRL International³²).

The GLEIF Board approved a research project with the support of a global management consulting firm in order to increase the number of issued LEIs substantially (from current 1.4 million issued LEIs to 40 million issued LEIs) so that a network effect will be created in several industries. The research project is aligned with the FSB recommendation in that the LEI ROC and GLEIF should 'consider enhancements to the business model to lower the cost and administrative burden for entities acquiring and maintaining an LEI'.33 One of the challenges is to engage more small- or medium-sized enterprises (SMEs). The research also takes into account the positive experiences of the Asian Development Bank regarding how the LEI enables Asian SMEs to join supply chains and access credit.³⁴

In this paper, only some relevant developments of market participants of the securities industry are reported.

- a. Issuers of shares and corporate The World Federation of bonds: Exchanges (WFE)³⁵ reports that there are 48,000 listed companies among the 250 WFE members. Many of the listed companies already have registered for an LEI for their listed legal entity and did also register several of their subsidiaries. These listed companies,36 like Citigroup Inc. (United States), Nestlé S.A. (Switzerland), Total SA (France) and A.P. Møller-Mærsk A/S (Denmark), also registered many of their subsidiaries because they see the value of the LEI programme for the business processes of their subsidiaries.
- b. Large Investors: Large investors appreciate the LEI data that is free of charge included in the services of the data vendor(s) they selected. Some large investors have given the feedback that they import also the LEI data directly from GLEIF for their business processes. In the FSB Peer Review Report, it is reported that the LEI will 'support transparency for the benefit of investors'. 37
- c. Investment Banks: Investment banks are active in several roles in the capital and money markets. They are very interested in the LEI programme not only because of regulatory reporting requirements but also because the LEI has value for their business processes with customers or with financial market infrastructures. GLEIF decided to create a GIFI Relationship Group to have a quarterly dialogue with the Global Systemically Important Banks (GSIBs) and Global Systemically Important Insurers (GSIIs) to understand the requirements for the GLEIF services.³⁸ Large investment banks are not only active in the capital and money markets but mention that the LEI is not only relevant for their securities transactions but also for their KYC duties, trade finance and cross-border payment business and for their correspondent banking services. They are connected to many Financial

- Market Infrastructures (FMIs). Inclusion of the LEI in the messages they receive from their counterparties for all their business operations will facilitate their liquidity, collateral and risk management.
- d. Retail Investors: Retail investor associations, such as the European Investors' Association,³⁹ appreciate the LEI programme and the free-of-charge LEI data for creating greater transparency for retail investors. In addition, the Shareholder Rights Directive II, with obligations for European Union (EU) issuers (with an LEI) for the annual general meeting (AGM) processes and for the intermediaries to collect the votes of shareholders, has as objective to encourage also longterm shareholders engagement of retail investors in the EU.40 The LEI data of the EU issuers (inclusive of the ISIN number) is publicly available and will increase transparency of the investments to consumers.
- e. Exchanges: The majority of the exchanges are interested in the LEI programme, but GLEIF did not receive any request so far to include the LEI for the use of their trading services. Some exchanges are interested in the LEI for their data services, and some have also decided to become an LEI issuer.⁴¹
- f. Financial Market Infrastructures (CSDs, CCPs, SSSs, TRs): The FSB Peer Review Report recommends that FSB jurisdictions should consider the use and timely renewal of the LEI for the identification of among more 'infrastructures'. 42 The FSB already clarified to the LEI ROC and GLEIF that the word 'infrastructures' means Financial Market Infrastructures. Several FSB jurisdictions started to legislate the use of the LEI for FMIs. The CPMI-IOSCO Principles of Financial Market Infrastructures (PFMIs) of April 2012 are used by the overseers of FMIs. 43 According to the PFMI Principle 22 Communication procedures

- and standards, an FMI should use, or at minimum, accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payments, clearing, settlement and recording. Each FMI is recommended to review how the LEI could be included in their rule book and services for the benefit of their customers (of which some are connected to many FMIs). GLEIF has approached all trade associations of the FMIs and offered to create an FMI stakeholder group.
- g. Securities Transactions: The FSB recommended standard bodies such as IOSCO and CPMI to embed references to the LEI in their work and to give guidance on the inclusion of the LEI use in securities transactions and cross-border payments.44 The SWIFT community has decided for a migration of the Message Transfer (MT) payment messages to ISO 20022 messages with a migration deadline of ultimo 2024.45 Such a decision is not (yet) taken for the securities messages (category 5 messages). The migration to ISO 20022 will support the inclusion of the LEI in the SWIFT messages. It will support the SWIFT members to manage their operational risks for anti-money laundering (AML) and combating the financing of terrorism (CFT) more effectively. The Association of Global Custodians has not yet taken a position on the migration of the SWIFT securities messages to ISO 20022 messages to be able to include the LEI.46

CONCLUSION

The G20 has taken the initiative to create the GLEIS in the public interest for parties engaged in financial transactions and mandated the FSB to take the lead in coordinating the work. The FSB established the LEI ROC and the GLEIF to make the LEI programme a reality.

The LEI data of legal entities is free of charge and registration available for any user of the public sector and of any industry of the private sector.

The securities industry is a prominent industry for the use of the LEI for all securities transactions by all market participants. Since June 2014 many issuers have already registered for an LEI and doing so more and more also for business processes of their subsidiaries that are not traded on exchanges. Investors (large and retail) have communicated to be very interested in the value of the LEI and in the mapping of the ISIN-to-LEI services of their investments.

The FSB Peer Review Report recommendations indicate what the next steps the securities industry in the 24 FSB jurisdictions and the standard-setting public organisations, such as the BCBS and IOSCO, that have a global reach, may expect.

The securities industry has a long history of self-regulation and has the potential to do so for the implementation of the LEI programme. This requires top-level support of all market participants. The inclusion of the LEI in the business processes of the securities industry is a logical choice for the future. The securities industry's approach for the LEI implementation could become that each FMI discloses if and when it will comply with the LEI programme or explain why it is not interested to do so. So far only the TRs have taken an active role in implementing the LEI as a follow up of regulatory requirements.

© Gerard Hartsink, 2019

REFERENCES AND NOTES

- (1) Point 44 of the G20 Leaders Declaration, Los Cabos, Mexico, 19th June, 2012, available at: http://www.g20.utoronto. ca/2012/2012-0619-loscabos.html (accessed 15th June, 2019).
- (2) The LEI ROC mandate, given by the Financial Stability Board, is described in

- the 'Charter of the regulatory oversight committee for the Global Legal Entity Identifier (LEI) System' of 5th November, 2012, available at: https://www.leiroc.org (accessed 15th June, 2019).
- (3) The GLEIF mandate, given by the Financial Stability Board, is described in the 'Statutes of the Global Legal Entity Identifier Foundation (GLEIF)' of 7th August, 2018 (second version of the 2014 Statutes), available at: https://www.gleif.org/en/about/governance (accessed 15th June, 2019).
- (4) The ISO 17442: 2012 Legal Entity Identifier (LEI) standard specifies the elements of an unambiguous legal entity identifier scheme to identify the legal entities for any financial transaction. The ISO 17442 standard has been revised in 2019. ISO standards are available via the ISO National Member. See more information at: https://www.iso.org/standard/59771.html (accessed 29th September, 2019).
- (5) An overview of regulatory uses of the LEI was published on 5th July, 2019, available at: https://www.leiroc.org/lei/uses.html (accessed 15th June, 2019).
- (6) GLEIF makes free-of-charge LEI data services available at: https://www.gleif.org/en (accessed 15th June, 2019).
- (7) The Master Agreement and its appendices define the contractual relation between the GLEIF and the LOU (LEI issuer) based on Swiss private law. Available at: https://www.gleif.org/en/about-lei/gleif-accreditation-of-lei-issuers/required-documents (accessed 15th June, 2019).
- (8) GLEIF has a free-of-charge certification process for (public and pirvate) organisations that want to map their identifier to the LEI. The mapped data could be published free of charge on www.gleif.org. The mapping programme is available at: https://www.gleif.org/en/lei-data/lei-mapping (accessed 15th June, 2019).
- (9) GLEIF has establised several stakeholder groups to facilitate a regular exchange of information to specific market segments such as with vendors of data. An overview

- is available at: https://www.gleif.org/en/lei-solutions/gleif-stakeholder-groups/gleif-vendor-relationship-group (accessed 15th June, 2019).
- (10) ISO Technical Committee 68 maintains the ISO 9362 Business Identifier Standard. More information is available at: https://www.iso9362.org (accessed 15th June, 2019).
- (11) ISO Technical Committee 68 maintains the ISO 10838 Market Identifier Standard. More information is available at: https://www.iso20022.org/10383/iso-10383-market-identifier-codes (accessed 15th June, 2019).
- (12) The LEI ROC published a progress report 'The Global LEI System and regulatory uses of the LEI' on 30th April, 2018, available at: https://www.leiroc.org/publications/gls/roc_20180502-1.pdf (accessed 15th June, 2019).
- (13) The Financial Stability Board published on 28th May, 2019, its Peer Review Report 'Thematic review on implementation of the Legal Entity Identifier'. It is available at: https://www.fsb.org/2019/05/thematic-review-on-implementation-of-the-legal-entity-identifier (accessed 29th Spetember, 2019).
- (14) The Financial Stability Board Chair's letter to the G20 leaders meeting in Osaka was published on 25th June, 2019, and is available at: https://www.fsb.org/2019/06/fsb-chairs-letter-to-g20-leaders-meeting-in-osaka/ (accessed 29th September, 2019).
- (15) The LEI ROC published several policies for the gloabl LEI system, such as its 'final policy on fund relationships in the Global LEI system'. All the LEI ROC policies are available at: https://www.leiroc.org/publications/gls/roc_20180502-1.pdf (accessed 15th June, 2019).
- (16) The LEI ROC's updated list of regulator uses of the LEI as of end-June 2019 is available (also in Excel format) at: https://www.leiroc.org/lei/uses.htm (accessed 29th September, 2019).
- (17) See Executive Summary on p. 1 on https://www.fsb.org/2019/05/thematic-review-on-implementation-of-the-legal-entity-identifier (accessed 15th June, 2019).

- (18) The ROC Chair Matt Reed's (and others) paper was published in the Office of Financial Research Brief Series on 2nd February, 2017, and is available at: https://www.financialresearch.gov/briefs/files/OFRbr_2017_01_LEI.pdf (accessed 15th June, 2019).
- (19) See Recommendation 1c on p. 4 on https://www.fsb.org/2019/05/thematic-review-on-implementation-of-the-legal-entity-identifier (accessed 15th June, 2019).
- (20) GLEIF publishes an overview of all 'regulatory use of the LEI' and the status of the rule inclusive a link to documentation of the issuer of the rule. The overview is available at: https://www.leiroc.org/lei/uses.htm (accessed 15th June, 2019).
- (21) See Annex 2: Correspondent banking and Annex 4: General guide to account opening on https://www.bis.org/bcbs/publ/d405.pdf (accessed 15th June, 2019).
- (22) See the Wolfsberg Group CBDDQ on http://www.wolfsberg-principles.com (accessed 15th June, 2019).
- (23) See the ISSA FCCSQ on http://www.issanet.org (accessed 15th June, 2019)
- (24) The Committee on Monetary, Financial and Balance of Payments Statistics (CMFB) has meetings with GLEIF, and the CMFB members are users of the LEI data for their statistical research. More information is available at: https://www.cmfb.org/(accessed 15th June, 2019).
- (25) The European Securities and Market Authority (ESMA) published on 9th October, 2017, a briefing on the Legal Entity Identifier with reference to several EU regulations and directives. The briefing is available at: https://www.esma.europa.eu/sites/default/files/library/esma70-145-238_lei_briefing_note.pdf (accessed 15th June, 2019).
- (26) See Annex 3 of the FSB Thematic Review on The Implementation of the Legal Entity Identifier of 28th May 2019, available at: https://www.fsb.org/2019/05/fsb-publishes-peer-review-of-implementation-of-the-legal-entity-identifier/ (accessed 9th October, 2019).

- (27) GLEIF publishes all its responses on consultations to public consultations with a reference to the organisation of the public consultation. All documentation is available at: https://www.gleif.org/en/about/consultation-responses (accessed 15th June, 2019).
- (28) GS1 it the global organisation that delivers standards for the retail, healthcare, transport and logistics sectors, including among more the barcode and the Global Location Number (GLN) code. More information is available at: https://www.gs1.org/(accessed 15th June, 2019).
- (29) ICC is a global business organisation of about 45 million companies (of which the majority are also exporters and importers) in more that 100 countries. More information is available at: https://iccwbo.org/ (accessed 15th June, 2019).
- (30) The Certification Authority/Browser Forum is a global forum of certification authorities and browser companies.

 More information is available at: https://cabforum.org/ (accessed 15th June, 2019).
- (31) The GLEIF Annual Report 2018 has been published in three formats: PDF, XBRL and iXBRL. See the iXBRL machine-readable report available at: https://www.gleif.org/en/newsroom/blog/gleif-pioneers-the-inclusion-of-leis-in-machine-readable-financial-reports-to-enhance-trust-through-identity-verification-and-easy-online-data-aggregation (accessed 15th June, 2019).
- (32) XBRL Iternational is the global organisation that provided the open data exchange standard for business reporting. More information is available at: https://www.xbrl.org/ (accessed 15th June, 2019).
- (33) See Recommendation 4 on p. 4 and p. 5 of the FSB Thematic Review on The Implementation of the Legal Entity Identifier of 28th May 2019, available at: https://www.fsb.org/2019/05/fsb-publishes-peer-review-of-implementation-of-the-legal-entity-identifier/ (accessed 9th October, 2019).
- (34) The Asian Development Banks (ADB) tested the value of the LEI for SME exporters in Far East countries. The ADB

- findings are publised in the blog 'How Legal Enity Identifiers will transform small businesses', available at: https://blogs.adb. org/blog/how-legal-entity-identifiers-will-transform-small-business-asia (accessed 29th September, 2019).
- (35) The World Federation of Exchanges is the global association of exchanges and clearing houses. More information is available at: http://www.world-exchanges.org (accessed 15th June, 2019).
- (36) Since the end of July 2019, the following LEI registrations have been available on www.gleif.org:
 - A. Citigroup Inc with 18 direct children and 867 ultimate children
 - B. Nestlé S.A. with 70 direct children and 110 ultimate children
 - C. Total SA with 23 children and 128 ultimate children
 - D. A.P. Møller-Mærsk A/S with 58 children and 61 ultimate children
- (37) See p. 28, point vii, of the FSB Thematic Review on The Implementation of the Legal Entity Identifier of 28th May 2019, available at: https://www.fsb.org/2019/05/fsb-publishes-peer-review-of-implementation-of-the-legal-entity-identifier/ (accessed 9th October, 2019).
- (38) See the charter of the GLEIF GIFI Relationship Group on https://www.gleif. org/en/lei-solutions/gleif-stakeholdergroups/gleif-gifi-relationship-group (accessed 15th June, 2019).
- (39) The European Investors Association is an European association representing the interest of (retail) investors in Europe.

 More information is available at: https://european-investors.eu (accessed 15th June, 2019).
- (40) The Shareholder Rights Directive for the European Union is available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32017L0828 (accessed 15th June, 2019).
- (41) Some of the LEI issuers are a function of an exchange. The complete overview of LEI issuers is available at: https://www.gleif.org/en/about-lei/get-an-lei-find-lei-issuing-organizations (accessed 15th June, 2019).

- (42) See Recommendation 1b on p. 4 of the FSB Thematic Review on The Implementation of the Legal Entity Identifier of 28th May 2019, available at: https://www.fsb.org/2019/05/fsb-publishes-peer-review-of-implementation-of-the-legal-entity-identifier/ (accessed 9th October, 2019).
- (43) The Principles for Financial Market Infrastructures of April 2012 are used by overseers of FMIs of the securities industry and available at: https://www.bis.org/cpmi/publ/d101a.pdf (accessed 15th June, 2019).
- (44) See Recommendation 3 on p. 5 of the FSB Thematic Review on The Implementation of the Legal Entity Identifier of 28th May 2019, available at: https://www.fsb.org/2019/05/fsb-publishes-peer-review-of-implementation-of-the-legal-entity-identifier/ (accessed 9th October, 2019).
- (45) SWIFT has decided to migrate the Cat 1, Cat 2 and Cat 9 payment messages to ISO 20022 messages among more to be
- able to include the LEI in the payment messages. This position is supported by the PMPG (Payment Market Practice Group) of SWIFT. The SMPG (Securities Market Practice Group) did not take a position for the Cat 5 securities messages so that the LEI could be included in ISO 20022 securities messages like what will take place for payment messages before 2015. More information on the LEI in payment messages is available at www.pmpg.info and for the migration to ISO 20022 messages at: https://www.swift.com/standards/iso-20022-migration-study/timeline (accessed 15th June, 2015).
- (46) The AGC is a group of the leading financial institutions that provide securities safekeeing services and asset servicing functions to primarily institutional cross-border investors worldwide. More information is available at: http://www.theagc.com/ (accessed 15th June, 2019).