

HOW TO IDENTIFY ALL COMPANIES
WORLDWIDE. EXPERIENCE WITH
THE LEGAL ENTITY IDENTIFIER (LEI)

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Abstract

In response to the financial crisis that began in 2008, the Financial Stability Board (FSB) launched a global registration system for legal entities. The initiative aimed to create a unique identifier – the LEI (Legal Entity Identifier) – for each of the entities operating in the financial markets and to keep these codes updated. This document reviews the history of the process of establishing the system that manages this new code, as well as its governance and regulation. The benefits, limits and challenges of creating a global entity identification system that must be operational in markets and jurisdictions with different commercial regulations and uses in the management of this type of information are analysed. In this sense, it should be noted that having in place public administrative registries for identifying corporations is not standard practice in many countries and this affects the quality and coverage that can be achieved with a single global code such as the LEI.

Keywords: LEI, global identifier, world identifier, identification code, GLEIF, ROC, LOU, FSB recommendation, EMIR, LEI challenge.

JEL classification: C81, D04, F42, G28.

Resumen

Como respuesta a la crisis financiera iniciada en 2008, el Consejo de Estabilidad Financiera (FSB) puso en marcha un sistema mundial de registro de personas jurídicas. La iniciativa aspiraba a crear un código de identificación único para cada una de las entidades que operan en los mercados financieros, denominado en inglés código LEI (*Legal Entity Identifier*), y a mantener tales códigos actualizados. Este documento repasa la historia del proceso de constitución del sistema que gestiona este nuevo código, así como su gobernanza y regulación. Se analizan los beneficios, límites y retos que representa crear un sistema mundial de identificación de agentes que debe estar operativo en mercados y jurisdicciones con diferentes normativas mercantiles y usos en la gestión de este tipo de información. En este sentido, debe destacarse que la existencia de registros administrativos públicos donde se identifiquen las sociedades no constituye un estándar en muchos países, lo que afecta a la calidad y cobertura que puede alcanzarse con un código único mundial como el LEI.

Palabras clave: LEI, identificador global, identificador mundial, código de identificación, GLEIF, ROC, LOU, recomendación FSB, EMIR, *LEI challenge*.

Códigos JEL: C81, D04, F42, G28.

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1 History and aims of the LEI system

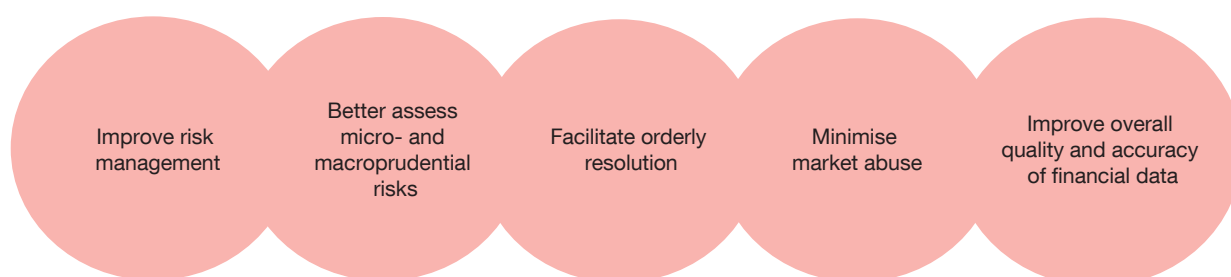
The collapse of Lehman Brothers in 2008 and the ensuing financial crisis highlighted the need for a global identifier that would enhance financial – and especially derivatives – market transparency. A unique code that would enable unequivocal identification of all legal entities conducting transactions in any markets, products or regions, and would allow the level of exposure of a financial institution or country to the loans and derivatives arranged with them to be assessed. This identifier would also enable unequivocal identification of all parties to transactions and of the ultimate beneficiary or person responsible in a corporate control chain (identifying the direct owner of the ultimate parent of subsidiaries belonging to a corporate group). For countries that issue a unique identifier (for physical and/or legal persons, such as France or Spain) the benefits of such a system for domestic and international trade and finance are evident. Indeed, the existence of these identifiers ensures that contracts are executed with the intended company, be they relating to loans, issue or purchase of securities, derivatives or any commercial transaction via an agreement of sale. However, in many other countries, such as the United States or Germany, such unique identifiers do not exist.

In consequence, at the G20 summit held in Los Cabos (Mexico) in June 2012, the heads of government and heads of state agreed to promote the development of a global legal entity identifier (LEI) and to “... encourage global adoption of the LEI to support authorities and market participants in identifying and managing financial risks”. The LEI was designed to meet the regulatory objectives set out in Figure 1. On the [recommendations of the Financial Stability Board \(FSB\)](#), in collaboration with the private sector the authorities created the Global LEI System framework which, by issuing LEIs, made it possible to uniquely identify legal entities that engage in financial transactions worldwide.

In November 2012, the central bank governors and finance ministers of the G20 countries, together with the FSB, established the Regulatory Oversight Committee (ROC)

Figure 1

REGULATORY OBJECTIVES DRIVING GREATER LEI ADOPTION



SOURCE: GLEIF.

THE ROC AND ITS ROLE AS SUPERVISOR OF UPIs, UTIs AND CDEs

Since it was first established in 2013 the ROC has supervised the organisation of the global legal entity identifier (LEI) system. With the aim of harnessing synergies, since 2020 and on the decision of the FSB and IOSCO (International Organization of Securities Commissions), the ROC also supervises the derivatives market identifiers, namely the UPI, UTI and CDE codes described below.

UPI (Unique Product Identifier). A 12-character code that uniquely identifies OTC derivatives worldwide, based on ISO 4914. Each UPI code is assigned to a set of data elements (the “reference data elements”) having specific values that together describe the product. The UPI reference data elements may be grouped into three categories: a) instrument type (for example, a forward or swap derivative contract); b) instrument characteristics (for instance, physical delivery or amortising); and c) information on the underlying instrument (such as the applicable indices). The Derivatives Service Bureau (DSB) is responsible for managing the issuance and maintenance of UPI codes, concentrating at one single agency the roles played by the GLEIF and the LOUs in the

case of the LEI codes. Accordingly, since late 2023, the DSB has been the sole global provider of UPI codes. The majority owner of the DSB is the Association of National Numbering Agencies (ANNA), which coordinates, among others, the agencies that assign ISIN securities codes (in Spain, the National Securities Market Commission (CNMV, by its Spanish acronym)).

UTI (Unique Transaction Identifier). A globally unique identifier for derivatives market transactions that allows the authorities to track changes in derivatives throughout their lifetime. It is based on an ISO standard and has up to 52 characters, consisting of the LEI of the issuing entity together with a unique code created by the entity.

CDEs (Critical Data Elements). Critical data elements of derivatives transactions that identify the counterparties involved in these transactions and their key features, such as collateral, margins, beneficiaries and counterparties, dates, prices and amounts, etc.

to supervise management of the LEI system. Subsequently, in 2014, the FSB founded the Global Legal Entity Identifier Foundation (GLEIF), supporting the candidates proposed by the ROC for its Board of Directors. The GLEIF is a non-profit organisation established to manage and disseminate the LEI and is supervised by the ROC. At present, just under a dozen international organisations and 60 individual countries, including Spain, are represented on the ROC, which in 2020 also assumed responsibility for the supervision of derivatives market identifiers. See Box 1 for more details on the expansion of the work of the ROC.

2 Benefits of the LEI

In 2020 the European Systemic Risk Board (ESRB)¹ recognised that the LEI contributed to the necessary monitoring of the level of interconnectedness between legal entities, both within the financial sector and between the financial and non-financial sectors. This helped to measure and manage the risk of contagion between legal entities, sectors and countries and was conducive to financial stability. Potential investors would also obtain benefits from the more widespread presence of firms with LEIs and access to the associated data, as this would reduce their information costs.

Increased use of LEIs will also produce benefits in statistical processes, given that a global identifier enables different databases to be combined and datasets from a range of sources to be incorporated. Legal entities in their various functions (such as reporting agents, creditors, debtors, securities issuers, investors, etc.) could be uniquely identified in the different data files, even beyond domestic borders, thus enhancing microdata consolidation and providing relevant and timely data for decision-making. In addition, knowing how multinational groups – be they European or global – are structured and having a unique identifier for their shareholders will help statisticians to reduce asymmetries between countries in external statistics (international investment position and balance of payments). By way of example, the LEI is already widely used within the Eurosystem in several registers and statistical datasets, such as in the analytical credit dataset AnaCredit, the Securities Holdings Statistics Database (SHSDB), the Centralised Securities Database (CSDB), money market statistical reporting (MMSR), the Register of Institutions and Affiliates Database (RIAD) and the credit registers and data of the European Market Infrastructure Regulation (EMIR). The latest reports issued by the GLEIF and the ROC also underline the advantages that global LEI codes will bring in the area of compliance with sustainability requirements (see Box 2).

Lastly, the growing use of LEIs, together with the other identifiers monitored by the ROC (unique product identifiers (UPIs) and unique transaction identifiers (UTIs)), will also help to prevent money laundering and monetary offences, as will the potential use of LEIs in cross-border payments.

¹ https://www.esrb.europa.eu/pub/pdf/recommendations/esrb.recommendation201126_on_identifying_legal_entities-89fd5f8f1e.en.pdf

USING THE LEI CODE TO UNDERPIN SUSTAINABILITY REPORTING

Another potential use case for LEI codes is for compiling sustainable finance data. These identifiers will render supply and value chains traceable (through the LEI codes of suppliers and customers of firms operating in different countries and jurisdictions), enabling estimation of greenhouse gas (GHG) emissions across the complete supply chain (“scope 3 emissions” in GHG data management system terminology). The value chain encompasses all activities, resources and relationships associated with a firm’s business model and the external environment in which it operates. These are activities related to a firm’s production of goods or provision of services, including development of the product or service and the use and elimination of that product, and all connected activities, in all pre- and post-trade relations.

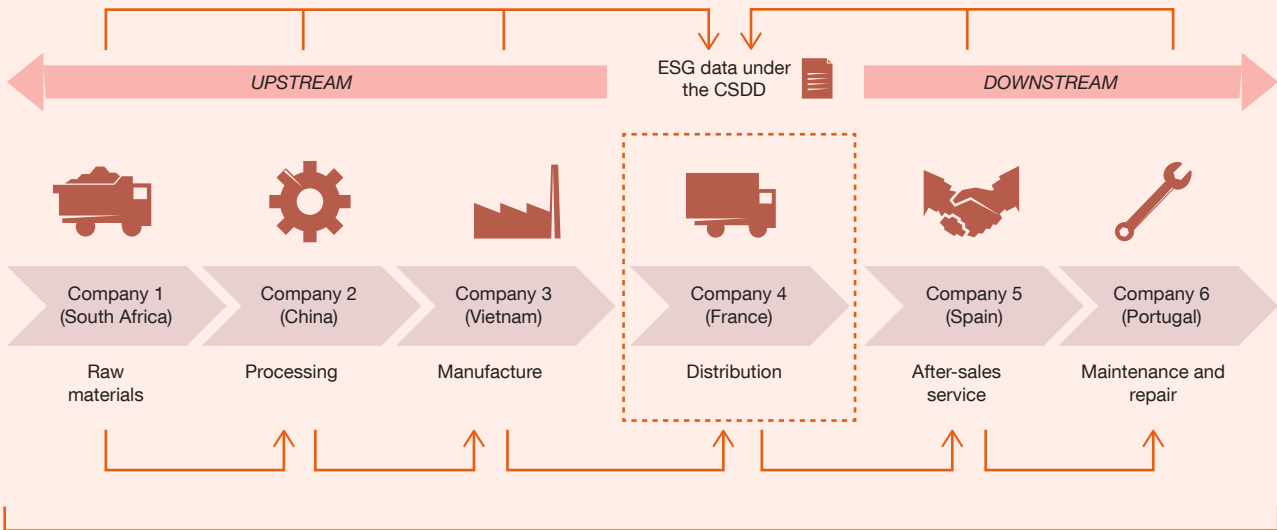
The ESG¹ data available along the value chain are important in various sustainability regulatory initiatives, especially in the [Proposal for a](#)

[Directive on Corporate Sustainability Due Diligence \(CSDD Directive\)](#), whose main aim is to ensure that firms take measures to identify, prevent, mitigate, bring to an end and remedy the adverse effects of their activities, or of the activities of their subsidiaries or value chains, on human rights and the environment. This will mean that firms will have to collect and prepare certain data on sustainability aspects of the firms with which they operate throughout their value chains. In consequence, the possibility of having a unique global identifier (the LEI) would considerably enhance the process of identifying and tracing such firms, especially beyond European borders where correct identification is more difficult.

In turn this will make it easier to monitor how green bond revenues are used, it will make green labels more trustworthy and, in consequence, it will reduce the reputational risk of greenwashing in green bond markets.

Figure 1
LEI CODE – VALUE CHAIN EXAMPLE

The importance of the LEI in the automotive industry value chain



The LEI code facilitates the correct identification of firms along the value chain, especially in the case of firms with international presence and trade relations in different geographical areas

SOURCE: Banco de España.

1 ESG data relate to environmental, social and governance issues reported by the different agents to reflect the impact and effect of firms’ activities on the natural environment, their social environment and their corporate governance.

3 How does the LEI System work?

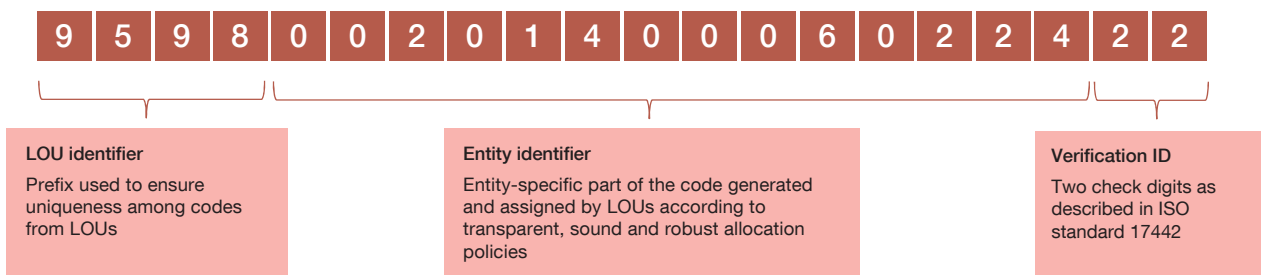
The LEI is a global unique 20-character, alphanumeric code based on the ISO 17442 standard and is used to provide unequivocal identification of legal entities.²

The Global Legal Entity Identifier System (GLEIS) was established to manage LEIs. This federated system consists of three tiers (see Figure 3):

- i. The Local Operational Units (LOUs) that issue LEI codes. They provide registration and renewal services to legal entities that wish to obtain or renew an LEI and they check, with the corresponding registration authorities (RAs), the reference data³ provided by the legal entities. An LOU can issue an LEI to legal entities in any jurisdiction where it is accredited to do so. In Spain, most LEI codes are issued by the Official Association of Mercantile and Property Registrars (CORPME by its Spanish acronym). In other countries they may be issued by a government agency or also by a commercial information firm.
- ii. The Global Legal Entity Identifier Foundation (GLEIF), a non-profit organisation established to manage, disseminate and extend LEI codes worldwide. In addition to accrediting⁴ the LOUs, it also performs various other functions, such as: (i) creating an application programming interface (API) free of charge for developers and users, which enables direct real-time access to the complete LEI data pool and provides

Figure 2

LEI STRUCTURE



SOURCE: Banco de España.

NOTE: For example, the Banco de España's LEI: 9598 00201400060224 22.

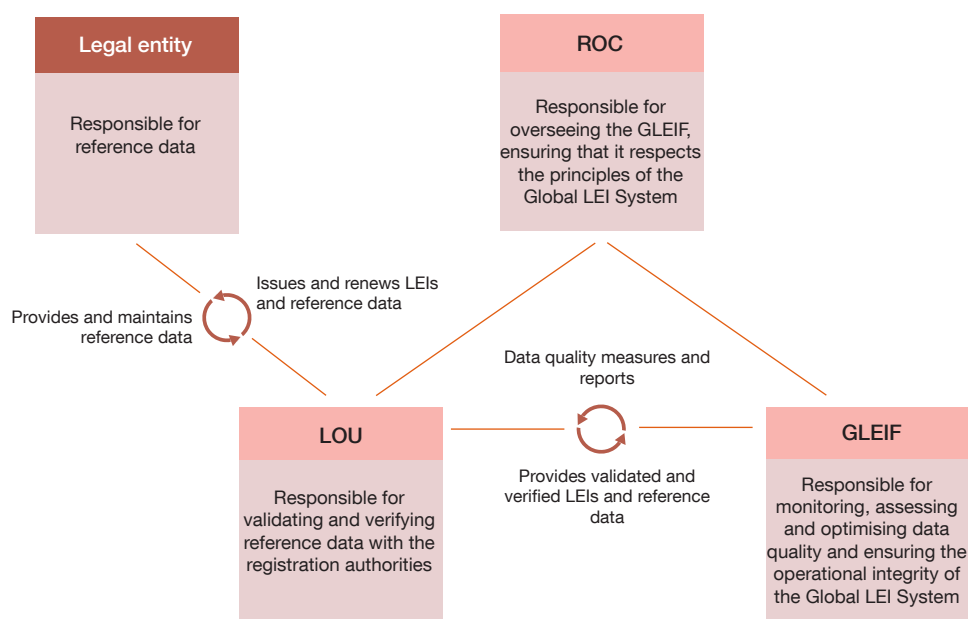
² However, both its purpose and its development have led to the LEI also being used to identify agents and institutions without independent legal status, such as sub-funds, trusts and certain government agencies, in their capacity as issuers and/or holders of securities, and even some natural persons in their capacity as economic agents, although in the latter case only in very specific cases and jurisdictions.

³ Key reference information that enables clear and unique identification of legal entities (see section 4.1 for more details).

⁴ Accreditation is the process whereby the GLEIF evaluates the suitability of organisations that seek to operate within the Global LEI System as issuers of LEIs (LOUs) and custodians of LEI reference data. All documentation and key information on the [accreditation process](#) may be found on the GLEIF website.

Figure 3

GLOBAL LEI SYSTEM



SOURCE: GLEIF and Banco de España.

highly efficient business-to-business consulting tools; (ii) daily issuing three sets of Golden Copy Files (which contain all the reference data of entities with an LEI); (iii) monitoring and ensuring LEI data quality, in collaboration with the Global LEI System members, to prevent duplicates; (iv) providing the LEI challenge facility whereby any third party can request a review of the data of any LEI, presenting some justification of an apparent error as evidence; (v) maintaining various lists, such as the list of RAs, legal jurisdiction codes, etc.; and (vi) providing a summary of current and proposed regulatory actions that include the use of the LEI.

- iii. The Regulatory Oversight Committee (ROC),⁵ a global group of public authorities established in 2012 to coordinate and supervise the Global LEI System. It comprises mainly central banks and financial market regulators, including the European Central Bank (ECB) and most European national central banks (including the Banco de España), the European Securities and Markets Authority (ESMA), the European Insurance and Occupational Pensions Authority (EIOPA) and the FSB and some of its committees, including the Committee on Payments and Market Infrastructures (CPMI). As the GLEIF’s supervisor, the ROC ensures that it abides by the principles of the Global LEI System.

How the LEI has developed has necessarily been conditioned by the range of national practices used to identify agents in different jurisdictions, and by the transnational

⁵ <https://www.leiroc.org/>

nature of multinational groups. In this respect, it was not possible to base the Global LEI System on national public registers, as in some parts of the world – mainly the English-speaking countries – there are no such registers. In consequence, the system was ultimately organised around the LOUs, which are entrusted with issuing LEIs and with compiling and uploading the reference data to the GLEIF centralised database. The LOUs are authorised to operate in the different jurisdictions according to their knowledge and experience (some providers, such as Bloomberg, offer their services almost worldwide, whereas CORPME operates in Spain and in some South American countries). The system functions, on the one hand, according to decentralised and competitive issuance principles between LOUs and, on the other, via centralised management by the GLEIF, which issues the Golden Copy free of charge on its website.

The Global LEI System is underpinned by two key principles:

- i. **Cost coverage**, based on free competition between LOUs, which aims to ensure that the price they charge for issuing LEI codes simply covers their costs. This includes covering the cost of the IT developments that the LOUs and the GLEIF implement to maintain and issue the identifiers, and the cost of checking the information provided by legal entities applying for LEI codes, which includes the LOUs establishing contact with an official register where the information may be checked. LEIs are valid for one year (“issued status”) and must be renewed annually, with payment of a renewal fee. If they are not renewed they become “lapsed”; this means that the associated reference data may not be up to date, as the annual check has not been made. This annual check partly justifies the annual renewal fee.⁶ Initially, the LOUs charged between €100 and €140 per year for their services, but competition has gradually driven down the new registration and annual renewal fees, which now stand at around €60 per year.⁷ Part of these fees (currently €10 per LEI) is transferred from the LOUs to the GLEIF to cover the cost of centralisation, quality control and data dissemination. These fees can be expected to continue to decline as more and more LEIs are issued worldwide, the competition between LOUs increases and, ultimately, bulk issuance by certain registers, to which we refer later in this paper, becomes the norm.
- ii. **Self-registration**, whereby only the entity seeking to receive an LEI code may apply for one. In other words, it is not possible to apply for an LEI code for a third party. This includes subsidiaries which cannot, for instance, apply for an LEI code for their parent company.⁸

6 Only partly. Renewal fees for firms that have undergone no major corporate changes in the year and have no shareholding relations with other companies (Level 2 relationships) should be commensurate with the almost zero effort required for annual review of their data.

7 The Committee on Monetary, Financial and Balance of Payments Statistics (CMFB) advocates the more widespread use of the LEI in Europe and urges that steps be taken to enable LEI codes to be issued and renewed at a minimum or even zero cost.

8 This is a particularly complex issue when a subsidiary seeks to obtain an LEI code, as it must also identify its parent company using the latter's LEI. If the parent company does not have an LEI, the applicant entity will be registered in the system but with a warning flag owing to the lack of information on the parent company.

THE LEI SYSTEM IS UNDER CONSTANT REVISION, WITH REVIEW OF THE POLICIES DEFINED BY THE ROC

The rules on application for and issuance of an LEI code are standardised and defined in the LEI system, along with the precise content of the identification data required. However, there are borderline cases or complex procedures that require clarification or adjustment of the “policies” established by the ROC for their subsequent application by the GLEIF and the LOUs. Recently – in 2019, for application by all the LOUs from 2021 onwards – the ROC’s policies were amended in three specific areas: a) identification of the relations between investment funds and their sub-funds; b) definition of legal entity events that must be registered in the system (such as liquidation and/or winding up); and c) identification of cases where LEIs may be used by government agencies without independent legal status or by natural persons (in a business capacity and only in certain jurisdictions). The first data following these most recent changes were compiled in 2022 and they are now beginning to be quality checked. These three cases illustrate how – ten years after the introduction of the Global LEI System – this complex process, which is still far from achieving a global reach, is still evolving. This box provides some additional details on the scope of these new policies.

Between 2016 and 2019 the ROC’s Committee on Evaluation Standards (CES) coordinated several working groups that studied the implementation of new policies that would enhance the GLEIS data. As a result, the following policies were approved:

- i. **The legal entity events policy**, which requires that any corporate action and its data history be registered in the GLEIS. Accordingly, any changes in an entity’s name, address or legal status, and any mergers, acquisitions, insolvencies, liquidations or winding up of companies, must be registered.
- ii. **The policy on fund relationships**, which aims to ensure that relationship data between entities (Level 2 relationships) are consistent throughout the GLEIS, focusing in particular on investment funds. The policy seeks to facilitate standardised collection of data on fund and sub-fund relationships worldwide.
- iii. **The policy on government entities**, which recommends that resident government entities and international organisations be identified using a specific classification, extending for this purpose the list of accounting rules used for consolidation which defines the Level 2 information to be supplied to the system, adapting it to the specificities of public accounting regulations.

The GLEIF has updated all the official documents (procedural guidelines to be used by the LOUs) and databases (adding new

fields) to facilitate the application of these new policies which affect investment fund relationships, legal entity events and government entities. The new policies entered into force in March 2022 and have been mandatory for all the LOUs from that date.

Regarding the LEI for natural persons, after clarifying in 2015 the conditions under which persons acting in a business capacity could obtain LEIs, the ROC has not extended the possibility of obtaining these identifiers to other types of persons, such as licence holders or persons authorised by a financial regulator. Ultimately, the ROC decided to discontinue all work on individuals, in light of the decision of the ISO Technical Committee (ISO/TC 68) to work on an ISO standard for an identifier for natural persons. In practice, only a few thousand natural persons acting in a business capacity have obtained LEI codes, under domestic regulations in certain jurisdictions (for example Germany and Luxembourg) where this was necessary.

The ROC has also recently reviewed and revised two aspects relating to the policy for reporting LEI parent relationship data (Level 2 data): a) the list of acceptable reasons for legal entities to opt out of providing information on the LEIs of their direct and ultimate parents; and b) the provisional national identifiers (PNIs) that were being used to ask LOUs to compile and provide to the regulators (on an experimental and temporary basis) information on parent companies that had not applied for an LEI code (and which were assigned a PNI by the LOU).

As regards the opt-outs, in 2022 the ROC decided to reduce, from nine to five, the number of categories that allowed LEIs to be issued without exhaustive checks of the identity of the applicant in a public register. Specifically, the ROC agreed to consolidate the five “Non-Public” categories – “Binding Legal Constraint”, “Legal Obstacles”, “Disclosure Detrimental”, “Detriment Not Excluded” and “Consent Not Obtained” – into one voluntary category dubbed “Non-Public”, leaving the other four categories – “Natural Person(s)”, “No LEI”, “No Known Person” and “Non-Consolidating” – as before. The ROC chose not to consolidate the “Non-Consolidating” and “No Known Person” opt-outs because each accounts for more than a quarter of the overall opt-outs.

In the case of the PNI codes, the ROC decided to discontinue the collection of metadata on parents without LEI codes (see Box 5 for a summary of the study performed in that respect by the Level 2 Data Working Group). Although the PNI data provide regulators with more Level 2 information on the parent companies of entities with an LEI, the ROC resolved that the efforts and resources needed to maintain the PNI codes should be redirected to ensure that there are other channels through which the entities themselves may provide quality data on their parent companies.

As regards where applications may be made, any LOU recognised by the GLEIF⁹ is authorised to issue LEIs to entities from other jurisdictions, provided the identity data are confirmed with a local official register or with the applicant entity itself (where there are no official registers). Moreover, even where there are official registers (as, for instance, in Spain), a firm may apply for an LEI code in another jurisdiction with lower fees, although this generates lower quality standards than when the code is applied for and maintained by the reference register (such as CORPME in Spain or INSEE in France).

The main achievement of the GLEIS system has been to create institutions that guarantee access to the identification data of over two million firms worldwide and to establish specific quality control processes and standards for ongoing improvements in LEI codes by means of a complex system that covers all jurisdictions, each with its own regulations and specific practices as regards administrative registers. All the system participants are involved in data quality management (discussed in detail in section 7 below): both the GLEIF and the ROC have established data quality working groups and the more than 30 LOUs worldwide have also committed to providing legal certainty to the identification of firms worldwide, using over 400 RAs to perform data checks.

The system is continuously under review (see Box 3), should it be necessary to issue new guidelines or modify the existing ones, all with a view to achieving optimal quality and uniformity.

⁹ The accreditation process is complex and demands that numerous suitability and service quality guarantee requirements are met. The GLEIF conducts regular reviews of LOUs and operates a quality control system (challenging exercise) and a breach alert system (escalation process) that may ultimately lead to an LOU being excluded from the system. High quality statistics regularly substantiate the optimal assessment of the work of CORPME, the Spanish LOU.

4 Data available

4.1 Data on each legal entity

The LEI system provides identifying data on a firm's most basic elements¹⁰ (known as reference data or Level 1 data) and also reveals whether it owns other firms or is itself a subsidiary of a parent (Level 2 data). In this second case, the direct and ultimate control relationships are based on the consolidation rules issued by the International Accounting Standards Board (IASB), i.e. the International Financial Reporting Standards (IFRS). Table 1 gives a summary of the information contained in the LEI system.

Table 1
LEVEL 1 AND LEVEL 2 DATA IN THE LEI SYSTEM (a)

Level 1 data
LEI
Official name (original, translated and transliterated)
Legal address of the entity
Address of the entity's headquarters
Legal jurisdiction region/country
Entity type (branch, fund, sole proprietorship, resident government entity, etc.)
Legal form
Managing LOU
Registration authority
Registration identifier/national identifier
Legal entity events and date (liquidation, mergers, etc.)
Dates of initial registration, latest update and next renewal
Other
Level 2 data
Subsidiary LEI
Parent LEI
Relationship type (based on IFRS consolidation rules)
Relationship status (active/inactive)
Managing LOU
Dates of initial registration, latest update and next renewal
Other

SOURCE: Banco de España.

a The full list appears on the GLEIF's website: [Level 1](#) and [Level 2](#).

¹⁰ The LEI guarantees uniqueness, which entails providing multiple data points to verify the information originally submitted by the firm in its own language (in Chinese characters, for example), as well as offering, where possible, an English translation and transliteration of that information. By transliteration, we refer to a phonetic approximation in English, not to a meaningful translation of a word (the transliteration of *maestro* would be *mystrow*, while the translation is *teacher*).

4.2 Databases available from the GLEIF. Mappings with other identifiers

The GLEIF publishes on its website the **Golden Copy** files, which provide information on LEI codes and related reference (Level 1) data. They also include a file – the **Relationship Record** – containing all the Level 2 data on a firm's direct and ultimate parent. Both tables can be downloaded from the GLEIF's website in several formats with either current or historical data. In addition, other downloadable data files are available on the GLEIF's website, such as the **BIC-to-LEI**¹¹ Relationship Files and the **ISIN-to-LEI**¹² Relationship Files. The website also hosts files relating to other identifiers that can be mapped to the LEI on a large scale, such as Standard & Poor's Global Company ID and SWIFT's Market Identifier Code (MIC).¹³

-
- 11** The Business Identification Code (BIC) (ISO 9362) is an international standard developed by the ISO for the identification of institutions in the financial services sector. It is a string of 8 to 11 characters that identifies the bank, country, location and branch.
- 12** The International Securities Identification Number (ISIN) (ISO 6166), is an international standard developed by the ISO for the unique identification of transferable securities at the international level. It consists of 12 alphanumeric characters.
- 13** The MIC (ISO 10383) is an international standard developed by the ISO to identify exchanges, trading platforms, regulated or unregulated markets and transaction reporting facilities, such as price sources and related information. It is a 4-digit code.

5 LEI codes in numbers

Before discussing concrete figures, it should be clarified that the system's official terminology differentiates between active and inactive codes (the latter relating to firms that are no longer legally registered or operational, whether as a result of winding-up, dissolution, acquisition by another firm, etc.) and, for active codes, between those that are issued and those that are lapsed, i.e. codes which have not been renewed and may, as a result, be affected by quality issues despite remaining active. Currently, almost 40% of codes are lapsed and this is one of the main problems facing the global system. As described below, both the ROC and the GLEIF are analysing the situation with a view to introducing measures that increase the renewal rate of LEIs in all jurisdictions.

At present¹⁴ there are 2,384,372 LEIs issued globally, of which 95% are active. As shown in Table 2, many of the countries with the most LEIs issued are in Europe: currently, eight of the ten countries with the most active LEIs are European. This is largely because, since 2017, ESMA (the European financial market regulator) has issued regulations (EMIR, the Markets in Financial Instruments Directive (MiFID) and the Markets in Financial Instruments Regulation (MiFIR)) requiring that firms that wish to operate in financial markets use the LEI.

Spain currently comes fifth in the global ranking of number of active LEIs. As shown in Tables 2 and 3, almost 150,000 Spanish firms have an active LEI, accounting for just over 6% of active LEIs worldwide. Nearly 75% of Spanish financial institutions already have an LEI, a figure that rises to 100% of credit institutions and investment funds and firms. The percentage is far lower among Spanish non-financial corporations (NFCs), around 10%¹⁵ at the time of writing.

Table 2

COUNTRIES WITH MOST ACTIVE LEIs

Country	Active LEI registration status			Total active LEIs
	Issued	Lapsed	Other	
United States	117,023	158,828	46	275,897
Germany	144,404	37,723	30	182,157
Italy	118,138	50,295	24	168,457
United Kingdom	75,643	102,792	31	178,466
Spain	88,505	56,925	49	145,479
Netherlands	92,045	35,776	90	127,911
India	103,855	19,954	78	123,887
France	64,658	48,601	15	113,274
Denmark	57,623	28,277	120	86,020

SOURCE: GLEIF Golden Copy public file (1 June 2023).

¹⁴ As at 1 June 2023.

¹⁵ Sources: The [INE database on the sectorisation scheme of the Spanish economy](#), published on the [Banco de España website](#) (available in English) and the [Golden Copy](#) published by the GLEIF.

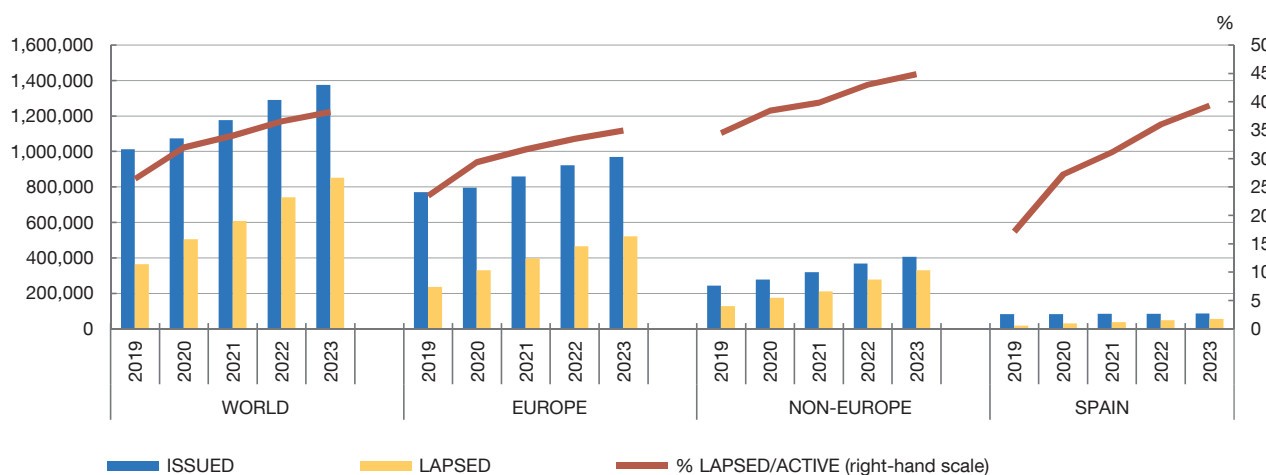
Table 3

LEIs BY STATUS

Entity status	Spain	Total worldwide	% Spain/total worldwide
Registration status			
Active	145,479	2,283,284	6.4
Issued	88,505	1,407,072	6.3
Lapsed	56,925	875,391	6.5
Pending archival	10	486	2.1
Pending transfer	39	335	11.6
Inactive	4,536	101,088	4.5
Retired	4,536	101,088	4.5
Total LEIs	150,015	2,384,372	6.3

SOURCE: GLEIF Golden Copy public file (1 June 2023).

Chart 1

NUMBER OF LEIs BY GEOGRAPHICAL AREA

SOURCE: Banco de España, drawing on GLEIF data.

The tables also provide some details on LEIs issued in Spain compared to the global total, broken down by their registration status. The renewal rate of LEIs in Spain is currently around 60%.

Most Spanish LEIs are issued by CORPME (87%), followed by Ubisecure (almost 6%) and EQS and WM Datenservice (around 2.5% each).

The number of LEIs has increased in the last four years at an average annual rate of 13%, although this growth has been easing, particularly so in 2023. However, as Chart 1 shows, lapsed LEIs have also increased as a percentage of active codes. In Spain, the ratio of lapsed to active LEIs is currently close to 40%, slightly above global and European levels. Section 8.1 sets out the measures that the GLEIF is taking to contain and reduce this high level of lapsed codes.

6 Current regulations requiring or promoting the issuance of LEI codes

As discussed in Section 2, the benefits of the existence and extension of LEI codes are manifold. Despite this, the fact that a price must be paid for the issuance and maintenance of the identifier means that firms do not apply for an LEI unless regulations require them to do so. As such, a critical mass of identifiers that would allow the advantages of a global unique identifier to be fully harnessed has not yet been reached. This section sets out the regulations and recommendations rolled out by the various standard-setting bodies on the use of the LEI.

6.1 Regulations on mandatory use of the LEI

Authorities in different jurisdictions have occasionally asserted their prerogative to require LEI use in their regulatory sphere, as in the case of the European derivatives market. The GLEIF monitors regulatory initiatives on the identification of legal entities around the world. The GLEIF website provides a periodically updated summary¹⁶ of current and forthcoming regulations, breaking them down by those that mandate LEI use and those that merely recommend it.

In the European Union (EU), EMIR, which entered into force on 16 August 2012 and was designed to regulate over-the-counter (OTC) derivatives and improve transparency and security in derivatives markets, required that derivatives counterparties in the EU have an LEI. The date from which LEI use was made mandatory under EMIR varies depending on the counterparty type, with financial counterparties, such as banks and insurance firms, being the first to be obliged to use it. For non-financial counterparties, the obligation to use the LEI was phased in depending on their classification. The scope of EMIR was such that it could have extra-territorial effect. In other words, two entities outside the European Economic Area (EEA) operating in the financial market could be affected by EMIR under certain circumstances.

Subsequently, in January 2018, MiFID II (Directive 2014/65/EU on markets in financial instruments) and MiFIR (Regulation (EU) No 600/2014 on markets in financial instruments) came into force, mandating the use of LEI codes in certain contexts. Both aimed to regulate markets in financial instruments and to improve transparency and investor protection in the EU. They affected investment firms, financial intermediaries and other entities involved in financial instrument transactions, requiring them to use the LEI from January 2018 to identify counterparties, report transactions and identify investment services customers.

The regulation obliged all legal entities wishing to operate in those financial markets to obtain an LEI, although without making annual renewal mandatory (i.e. an LEI may be lapsed).

Lastly, July 2020 saw the entry into force of the EU Securities Financing Transactions Regulation (SFTR), designed to improve the supervision and transparency of securities financing transactions (SFTs). One of the SFTR's key provisions is the mandatory use of the

¹⁶ <https://www.gleif.org/en/lei-solutions/regulatory-use-of-the-lei>

PROGRESS IN IMPLEMENTING THE RECOMMENDATIONS OF THE 2019 PEER REVIEW REPORT (JULY 2022)

Recommendation for FSB jurisdictions. The first recommendation called on FSB member jurisdictions to comply with the joint CPMI-IOSCO guidance, which urged authorities to: i) require LEI use to identify entities in data reported to trade repositories for OTC derivatives, which has been implemented by jurisdictions that had not already done so via regulation; ii) consider requiring the use and renewal of the LEI in reporting and disclosure frameworks (countries were later explicitly asked to provide information on their level of compliance in this area); and iii) explore new ways to promote further LEI adoption, to which countries have responded with the creation of new national (or other) implementation strategies intended to maximise the LEI's cross-sectoral benefits.

Recommendation for the FSB. The second recommendation called on the FSB to: i) explore the potential role of the LEI in its work (e.g. in resolution and financial innovation); ii) work with standard-setting bodies to facilitate LEI adoption for all group entities and major counterparties of global systemically important banks (G-SIBs) and provide support for the analysis of risk exposures and interdependencies; and iii) facilitate (alongside standard-setting and industry bodies) the effective implementation of the LEI system in cross-border payment messages. In this respect, the FSB gathered information on LEI use in its resolution and planning processes, noting that the LEI is used to identify internal group structures and assess risks, but that there are limitations, such as the lack of up-to-date LEIs and cross-jurisdictional differences in their implementation. The FSB has also issued recommendations to improve LEI adoption in cross-border payments and has explored the possibility of a global unique identifier (GUID) being used in such contexts, evaluating existing identifiers (including the LEI) for this purpose.

Recommendation for national and international standard-setting bodies. This third recommendation called upon the relevant standard-setting bodies (the Basel Committee on Banking Supervision, the CPMI, IOSCO and the International Association of Insurance Supervisors) and various international bodies (the International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development (OECD) and the World Bank) to review and consider different ways of embedding or enhancing references to the LEI in their work. This could include, for example, providing guidance on the inclusion of the LEI in data disclosures, as well as promoting LEI use in securities transactions and cross-border payments. With regard to this recommendation, the

initiatives taken by the IMF to use the LEI in its statistical work are noteworthy.

Recommendation for the ROC and the GLEIF. The fourth recommendation urged the ROC and the GLEIF to: i) consider improvements to the LEI business model to allow cuts to its issuing and renewal costs, as well as to the associated administrative burden; ii) improve data quality with a view to boosting confidence in and use of the LEI; (iii) work with industry and the public sector to raise awareness of the benefits of the LEI; and iv) improve the scope and usability of Level 2 data (on relationships between subsidiaries and parents). The ROC is responding to these recommendations with several initiatives that are described in its [Progress Report 2019-2021](#). First, it is attempting to meet GLEIS participants' operational concerns by issuing new policies, as detailed in Box 3. In addition, it has set up the Level 2 Data Working Group (L2WG) to explore innovative ways to enhance the Level 2 data quality and usability (specifically, by analysing data availability on group relationships in consolidated statements prepared in accordance with the IFRS and by checking whether use can be made of shareholder registers in jurisdictions where they exist). The ROC is also working with the GLEIF to improve the quality of GLEIS data by means of several initiatives: i) the Conformity Flag Working Group has developed a summary indicator of the quality of each LEI record; ii) the Data Quality Working Group has investigated issues in cooperation with the GLEIF to enhance the GLEIF data quality API, which was introduced in August 2021 and which LOUs must use before new records are published (by first performing a quality test on the new LEI code that is to be issued) or records are updated in the global data file hosted by the GLEIF; and iii) a Working Group on Vision and Strategy was created to look at possible changes to the GLEIS business model (e.g. price differentiation between Level 1 and Level 2 data is currently under review) and identify new applications for the LEI in other business areas. Lastly, the ROC is supporting the promotional work done by the GLEIF to encourage adoption of the LEI by means of the new initiatives under way (validation agents, digital certificates, bulk issuance of LEI by administrative registers) detailed in Section 8.2. The validation agent role enables financial institutions and other organisations involved in identity verification and validation to obtain and maintain LEIs for their customers in cooperation with LOUs. The role is designed to eliminate the duplication of processes between identify verification of a new banking customer (Know your Customer (KYC)) and LEI issuance, thereby leading to a more efficient issuance process.

LEI to identify the parties involved in SFTs. This means that financial institutions, investment funds and other participants in such transactions must obtain and use their counterparties' LEI and include it in their reporting.

In 2019 the FSB released a peer review of the LEI's implementation, which found that more needed to be done for the LEI to achieve broad adoption. The peer review made

recommendations for FSB jurisdictions, international organisations (IOSCO, the IMF and the OECD, among others) and LEI system members (the ROC and the GLEIF) to extend the coverage and use of LEI codes. In July 2022 the FSB analysed the progress made in the implementation of these recommendations (see Box 4). A further document on the progress made is expected by the end of 2024.

6.2 ESRB recommendation ESRB/2020/12

The General Board of the ESRB is of the opinion that systematic use of LEIs by entities engaging in financial transactions can contribute to the prevention and mitigation of systemic risks and to financial stability in the EU. To that end, it called for the introduction of an EU-wide legal framework that would allow legal entities engaging in financial transactions to be uniquely identified by means of the LEI and encourage more systematic LEI use in supervisory reporting and other public disclosures. Recommendation ESRB/2020/12, released to encourage LEI use in the EU, contains two specific recommendations: (i) Recommendation A, addressed to the European Commission, urging it to undertake, by 30 June 2023, the necessary actions to devise a single legal framework to allow legal entities engaging in financial transactions to be uniquely identified by means of the LEI and put the LEI to more systematic use; and (ii) Recommendation B, addressed to regulatory, supervisory, macroprudential and resolution authorities, urging them to take the necessary steps, as progress is made towards Recommendation A, to achieve compliance by 31 December 2021.

This recommendation was addressed to the Banco de España, in its capacity as designated authority, competent authority and resolution authority. Accordingly, to comply with the recommendation, it resolved to start including the LEI in the publicly available entity-level data on credit institutions and their groups available on its website (see the page on [primary public financial statements](#)).

7 Quality control in the LEI system

7.1 Data quality management¹⁷

The process of maintaining LEI data quality begins with the applicant. The entity must supply accurate data about itself in the process of self-registration. It is then the responsibility of the LOU to verify these data with the validating authority (a domestic mercantile register, for example) and issue an LEI compliant with the standards defined in the system's data quality requirements (i.e. one that contains all the data elements required in the Common Data Format (CDF)). Since 2023, LOUs have access to a new prior quality check application developed by the GLEIF to verify that all necessary data have been uploaded and verified.

Once an entity has obtained an LEI, the LOU sends it to the GLEIF for publication together with the institution's reference data. The annual LEI renewal process also ensures the data are high quality. While the entity is required to notify the LOU when changes occur in its data, the renewal process ensures that, at a minimum, the entity and the LOU review and re-validate the reference data annually.

Before an LEI record set is published, the reference data are subjected to the GLEIF's check for duplicates and data governance pre-check facilities. These two facilities represent the first quality gate and ensure that potential faulty data and duplicates are identified and inconsistencies remediated before the data enter the Global LEI System. The second quality gate guarantees that the files are compliant with the current technical standard and the appropriate format, as noted above.¹⁸

Once the data have been published, they are examined by the GLEIF's automated data quality checks on a daily basis. The results of these checks are monitored on the data quality dashboard, which enables interactive insights into each LEI record's data quality, and in the data quality reports, which provide the public with a monthly overview of the data quality performance at global and LOU level.

Lastly, the GLEIF provides users with the **LEI data challenge facility**, which allows anyone to request a review of the integrity, accuracy or completeness of certain data in an LEI record, and to submit evidence of the apparent or presumed lack of validity of any of the data on the firm in question. It also allows possible duplicate entries to be flagged. These challenges are sent to the LOUs, which liaise with the entity concerned and decide whether it is necessary to amend the data, to validate them and ensure they are a fair reflection of the entity.

¹⁷ <https://www.gleif.org/es/lei-data/gleif-data-quality-management>

¹⁸ The formats are defined in the CDF, which provides the specifications for the operational implementation of the ISO standard. Each reporting format is defined in a detailed specification document – XML schema definition (XSD) – which enforces a minimum data quality level in terms of the structure of the files reported, but does not guarantee the intrinsic quality of the data provided, which must be validated by other means.

A CLOSER LOOK AT TEMPORARY IDENTIFIERS (PROVISIONAL NATIONAL IDENTIFIERS FOR GROUPS WITHOUT AN LEI)

With the aim of improving the Level 2 (group structure) data, the GLEIF created a provisional code – the provisional national identifier (PNI) – that was assigned to a parent company when a subsidiary requested an LEI and could not provide Level 2 data because that parent company did not have an LEI. As a result, a PNI was assigned to the counterparty with basic reference data and a record of the link between the subsidiary's LEI code and the parent company's PNI.

In a study undertaken to check the quality of these pseudo-LEIs and their usefulness in improving the structure of corporate groups reported in the LEI's Level 2 data, in early 2021 the Banco de España added Level 1 and Level 2 PNI data to Level 2 LEI data and monitored the degree of improvement in group structures. The analysis took a deep dive into a Spanish industrial group to gain a more detailed understanding.

The study revealed some shortcomings in the quality of the PNI data – such as multiple PNIs assigned to the same parent firm or duplicate PNIs for different parents as a result of small variations in their names, as well as some discrepancies between the Level 1

and Level 2 PNI data – which meant that the parent firm could not be identified. Despite this, it was found that including PNI data in the group system had great potential, provided that some prior checks were carried out. Using PNI data would enhance the data of more than 5,000 of the 27,649 groups reporting Level 2 data. Furthermore, it would add to the system 53,741 new groups around the world, which would appear as isolated groups with no ties to group LEIs already recorded in the Level 2 database. These numbers were calculated by constructing the group structure from the reported Level 2 data of the ultimate parent, where available, and otherwise from reported data on the direct parent. However, as noted in Box 3, the ROC has decided to discontinue the collection of PNI metadata on parents without LEI codes because it was thought that the efforts and resources expended by the LOUs and the GLEIF in order to maintain these provisional codes should be redirected to ensure that the entities themselves could provide high-quality data on their parent companies. To this end, the L2WG has reoriented its analysis towards other ways to validate Level 2 data, using corporate groups' consolidated statements (which include a list of their subsidiaries) and shareholder disclosures reported in administrative records in some jurisdictions.

7.2 The GLEIF API is accessible free of charge to encourage LEI use

In autumn 2020, the GLEIF launched the GLEIF API, which gives developers access to the full LEI data search engine functionality, including filters, full-text and single-field searches and ownership relationship queries, and fuzzy matches of important data fields such as names and addresses. In addition to reference data, the API makes further related data available, e.g. lists of codes used and other identifiers that are mapped in the system, such as BIC or ISIN codes. All GLEIF API documentation, together with a demonstration application, is available free of charge on the GLEIF website.

7.3 Quality groups in the ROC and the GLEIF

To ensure that LEI-related data are complete, correct and up-to-date, the ROC set up a quality group that works with the GLEIF quality team and holds quarterly meetings to define objectives and priorities and monitor the different work streams.

This ongoing dialogue on data quality has led to the introduction of new quality controls by the GLEIF. In particular, the quality group is analysing issues that become apparent when focusing on a full LEI population rather than only on individual records, as well as potential quality defects that can be easily detected by looking at relationships within LEI reference data. In addition, the data quality API launched by the GLEIF to allow LOUs to perform quality checks prior to the issuance of a new LEI code is expected to be a key tool for continuously improving and supporting data quality.

The ROC has also developed, in close cooperation with the GLEIF, the conformity flag, a compliance indicator to gauge the extent to which LEI records are aligned with the ROC's policies. It can also be seen as an indirect indicator of the quality of LEI codes and is intended to incentivise entities and LOUs to improve the renewal rate. Entities that require an LEI code and use it in their transactions are unlikely to want their information flagged as "LEI non-compliant" in the system. The ROC is currently in discussion with the GLEIF and LOUs regarding a time frame for implementation of this indicator.

The ROC quality group collaborates with other groups that are also trying to improve the system's quality. In particular, in 2023 it is assisting an investigation into lapsed LEIs to determine whether there are specific reasons for this phenomenon. It has also cooperated with the ROC group that analyses the quality of Level 2 relationship data, in particular on the assessment of the provisional information that had been stored on parents that did not have a valid LEI code and had been assigned a provisional one (PNI data, discussed in Box 5).

7.4 First study by the quality group on national identifiers (the LEI-National ID Pairing Project)

Over the course of 2022, the quality group carried out a comparative study of the LEI data contained in the official GLEIF Golden Copy and those available on the same firms in the databases of the ROC's members. Specifically, the authorities on the ROC representing Japan, China, the United States (in this case, from two institutions, the Securities and Exchange Commission and the Board of Governors of the Federal Reserve System), Luxembourg, Italy and Spain participated in this exercise. To that end, the robustness of the mapping of the LEI code to the relevant national identifier available in the LEI Golden Copy was verified. The "relevant national identifier" refers to the one most commonly used in a jurisdiction. For instance, in Spain, the LEI code data were cross-checked against data relating to the Spanish tax identification number (NIF, by its Spanish abbreviation).¹⁹ The work was done flexibly, i.e. each member of the group decided which portion of the population of entities it would take for comparison (NFCs, commercial banks, financial institutions in the broadest sense, etc.), depending on the availability of data in its own database.

¹⁹ The NIF was used for most entities, although in the case of investment funds, for example, in which a legal entity with a single NIF may create several funds and have multiple unique CNMV codes, the latter were used.

8 Present challenges facing the LEI code

Several parts of the system need to be improved; they are described here in accordance with the guidelines established in the 2019 FSB peer review mentioned earlier. These guidelines entail initiatives to improve both the quality and the global coverage of the LEI codes, to increase their use in international trade and in financial entities' transactions (in KYC processes to identify new customers), and to foster bulk issuance of LEI codes by registers themselves in jurisdictions that have official registers with unique national identifiers. Some of these initiatives have been driven by national and international regulatory bodies (such as the ESRB), while others stem from the GLEIF, such as the development of a digital strategy mapping LEI codes to firms' electronic signatures and verification of corporate credentials, and to the digital annual accounts format (XBRL in general, or the ESMA-approved ESEF electronic format in Europe). Lastly the ROC members interact with the system participants, promoting actions that encourage a broader use of LEI codes, such as reductions in issuance and renewal costs. Box 6 details other challenges facing the GLEIS whose solutions are less well advanced than those described below.

8.1 Lapsed LEIs

Both the GLEIF and the ROC members are particularly concerned by the increase in lapsed LEIs, that is, in the number of entities that fail to renew their codes each year, and the impact this may have on the sustainability of the system. Annual paid renewal is the system's main method to ensure that the data are high quality and up to date, in an international setting that hampers data verification, given that in numerous jurisdictions commercial registers do not perform this task. At present, the non-renewal rate stands at 38%. According to the ROC members, the main causes of this problem are the cost of renewal and the fact that annual updates are not mandatory under the current rules. In consequence, the system overall needs to adopt measures in this respect. As this will take time, in the short term steps will be taken to encourage the LOUs with the lowest renewal rates to launch initiatives similar to those adopted by those with the highest renewal rates (such as the Danish, Swedish and Japanese LOUs).

The GLEIF considers that if the renewal rate were to fall below 50%, the system would be at risk. Accordingly, under the mandate received in the 2019 Peer Review, it has proposed fresh actions to increase the LEI's use potential and encourage its more widespread use and annual renewal. Such actions include conducting a survey among companies to learn the reasons for non-renewal, promoting together with the FSB the use of LEIs in cross-border payments, and working with investment funds to improve communication with them and encourage them to renew and update their codes each year. Lastly, the GLEIF suggests that the ROC members check their databases to verify how many entities are "lapsed" and analyse if they are operational, distinguishing those that are not operational from those that have ceased to exist (in which case their LEIs should appear as "retired" (inactive)). Members of the ROC's workstream on quality are currently preparing an analysis – set to be complete by March 2024 – of the reasons for lapsed LEIs and the consequent distinction between active and inactive firms.

CHALLENGES FACING THE GLEIS THAT ARE STILL AT THE PRELIMINARY STAGE

Trusts in the LEI system

One of the most controversial aspects in the GLEIS is the solution needed in some jurisdictions for entities without independent legal status that operate in the markets. In countries where this anomaly is resolved through the regulatory channel, preventing any entity that does not have the necessary legal status from operating in the markets, this may be unheard of, but the commercial law of some developed countries allows certain legal entities, such as trusts, among others, to operate in the financial markets. Hence the paradox that some entities, which in their home countries, such as the United States or Japan, are not included in administrative registers that validate their existence can, however, obtain an LEI. In many European jurisdictions such legal entities are not allowed to operate in the markets, and some ROC members complain that this domestic problem passes through to the international sphere, with the GLEIF and the LEI code having to fill the legal vacuum existing in those countries. Nevertheless, other ROC members value the fact that an attempt is at least made to identify these legal entities under the GLEIF system and thereby subject them to more control. This issue will be examined once the GLEIF concludes the ongoing comparative legal analysis.

Unconventional group structures

Another controversial issue – in this case arising in certain European jurisdictions – currently under discussion within the GLEIS is whether Level 2 data reporting should extend to group structures based on relationships that do not meet the current

official definition of a “group”. In the ROC’s policies, this definition is based on the existence of a consolidated group under the international accounting rules (IFRS). The case under study would entail including in the GLEIS a new type of corporate relationship, under the “Unconventional group structures” umbrella, as these are also legal entities without independent legal status.

The ROC’s assessment builds on examples of unconventional group structures, collected from the ROC members and the LOUs, detected in countries such as France, Austria, Germany, Switzerland and the United States. They include, for instance, certain banking groups that are organised by law as mutual groups. In these groups, the main deposit institutions are affiliated to a central institution that can take measures to guarantee their liquidity and solvency and can even adopt resolutions on mergers, transfers of assets and, where necessary, winding up. In other words, the central institution exerts legal, technical and financial control over management of the main deposit institutions, without, however, being invested in them, and can, therefore, prepare consolidated financial statements under IFRS rules. Accordingly, under the existing rules, these deposit institutions do not report having a parent to the GLEIS and they cannot, therefore, submit Level 2 data. Other similar cases of note are certain banks which the FSB classifies as G-SIBs. Under their domestic accounting regulations, they publish consolidated financial statements with the assembly of the main banks, plus the central institution, but they do not have independent legal status that would enable them to obtain a national identifier. This issue will require subsequent analysis by the ROC and the GLEIF.

8.2 Bulk issuance by administrative registers and the problem of paying for LEIs

The cost of issuance of LEIs could be a deterrent for companies whose business does not necessarily require an LEI. For this reason, the GLEIF has proposed that LEIs be issued in bulk by official administrative registers in those countries that have such registers and are interested in signing up to the project. The GLEIF is working to reach national agreements with central registers (such as Spain’s Mercantile Register) that would enable **bulk registration**, that is, bulk issuance of LEIs to all the firms in a country. This would reduce the cost payable and would eliminate the need for annual renewal by each individual firm, as this would be done automatically by the administrative register. But this is a complex initiative because it will entail a change in the system’s global policies; for instance, LEIs for firms that do not need Level 2 information (because they are not part of a group) could be issued at a lower cost. By way of example, an agreement has been reached for a pilot scheme whereby all firms in the Kingdom of Bhutan and Abu Dhabi will be issued an LEI code by their respective registers.

In any event, how the payments needed to cover the cost of issuing the codes and keeping the system up to date would be made would still have to be defined in each country. This cost includes the sum payable to the official administrative register that holds

the national data and to the entity that verifies the Level 2 data of other firms (in some cases, in other countries), in addition to the amount payable to the GLEIF for its services. Each country could adopt a different solution, with the fees being paid by the State, or by the firms that receive the LEI codes and use them, for instance, in their cross-border transactions, which is one of the chief advantages of the identifiers.

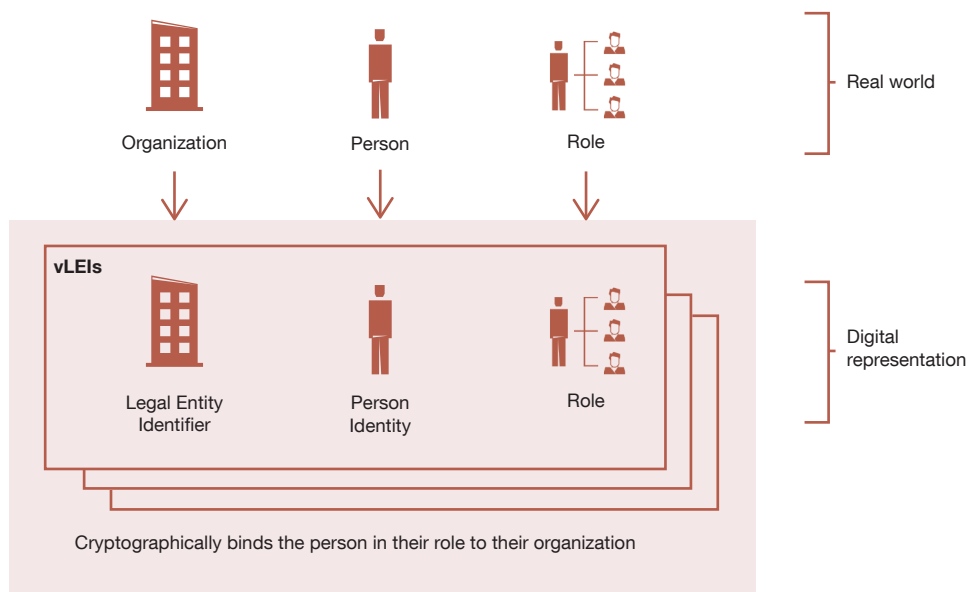
8.3 Digital LEIs or vLEIs

With a view to increasing the use of the LEI, the GLEIF deems it essential that the identifier be granted greater value, giving firms more reasons to use it. For this purpose, it has developed the digital LEI (verifiable LEI or vLEI), mapping LEI codes to digital certificates and certificates for electronic signature for corporate officers (credentials verifiable via *blockchain* or agreements with national certificate authorities). LEI codes play a fundamental role in the current digital world, as they provide entities with a unique global identifier. This is especially important in the identification of legal entities taking part in digital transactions. The vLEI system solves the problem of trust for legal entities worldwide, as it enables them to digitally confirm the identity of a provider that may be located thousands of miles away. This is a basic necessity in a digital community.

The GLEIF's digital strategy is based on embedding the LEI codes in digital certificates, combining the advantages of both: the LEI can provide unique identification of the certificate holder, and the certificate (encrypted) authentication of the LEI owner. The identification data supplied could include the position (role) of the person acting on behalf of the firm.

Figure 4

EMBEDDING THE LEI IN DIGITAL TOOLS – REPRESENTING ORGANISATIONS, PERSONS AND ROLES



SOURCE: GLEIF and Banco de España.

This would help and improve identification in cross-border business. For the benefit of Spanish users, the digital solution adopted for Spain would have to be compatible with those already being used in the country.

8.4 Using LEIs in cross-border payments

At the request of the G20, in a report published in July 2022 the FSB explored the potential benefits of the LEI being used in cross-border payment systems. The report examined the obstacles to broader LEI adoption and, according to a survey conducted by the authors, identified as the main barriers the cost, the administrative burden and the lack of incentives for voluntary adoption for market participants and end-users. It also highlighted the importance for this use that the LEIs have up-to-date data, as the data quality required for cross-border payments may differ from that required for other LEI use cases, such as systemic risk analysis.

Based on the information supplied by the ROC, the GLEIF, various market participants and other stakeholders, the report sets out the strategies designed to encourage LEI adoption for its use in cross-border payments. These strategies are summarised as follows: continuous improvements in the quality of the data associated with the LEI, to ensure that they are up to date;²⁰ the use of models (for instance, the validation agent model²¹ or the digital strategy model) to lower barriers such as costs, the administrative burden or a perceived lack of benefits; pursuit of a public communication and promotion campaign to raise the visibility of the LEI among non-financial sectors involved in cross-border payments; exploring standards to include the LEI in payment messages and informing financial institutions of possible uses of the LEI when transmitted in payment messages; exploring the use of the LEI in customer onboarding processes and, possibly, for customer authentication by public and private sector agents (the LEI can enable financial institutions to use KYC data from other financial institutions to improve the onboarding process); considering including the LEI in payment messages to identify beneficiaries and originators; urging FSB members to consider including an optional field for the LEI in the message formats used in wholesale payment systems;²² and mapping the LEI to national identifiers in their digital infrastructures to promote interoperability and facilitate automated reconciliation and validation.

20 It is considered that different updating mechanisms should be explored locally for cross-border payments in the event of corporate events, envisaging the introduction of the vLEI as a way to address this challenge, by formalising certain protocols, for instance requiring more frequent data updates. The report also notes the need to find solutions to achieve efficient interoperability between the LEI and existing identifiers to help reduce complexity, and the advisability of reducing the cost of obtaining the LEI.

21 Models could be explored where, similar to the validation agent model, the LEI is generated as a sub-product of other processes related to cross-border payments. The GLEIF could consider inviting banks to become validation agents for their customers that are more active in cross-border payments, for instance those that reach a certain level by value and/or number of cross-border payments per year.

22 FSB members could consider including an optional field for the LEI in routing message formats for wholesale payment systems, and possible migration to ISO 20022 messages, and as appropriate explore the scope to mandate use of the LEI for certain payment message types.

9 Conclusions

A unique global corporate identifier such as the LEI would yield major benefits, not only for world trade and finance but also for the authorities, giving them a better understanding of the economic and financial ties between companies worldwide. This would drive economic growth, providing greater security to customers, suppliers and investors, and would enhance financial stability, improving the information available to authorities to assess potential risks, vulnerabilities and spillovers. Moreover, the statistical information compiled would be much more accurate and timely.

The LEI is, therefore, a public good and the authorities are keen to encourage its use. More widespread LEI coverage would benefit all agents in their day-to-day trade and finance transactions. At present, more than two million firms worldwide have an LEI, but greater critical mass would be needed to maximise the benefits of this global identifier.

The LEI allocation system is based on the existing, highly disparate national register infrastructure. Many countries do not have a single centralised register or a national tax ID code (the equivalent of the Spanish NIF). This means there is no uniform allocation base.

Moreover, the system assumes that the cost of allocating an LEI and of monitoring firms' data – both basic data (their activity or address) and more complex data (their group structure) – should be borne by the firms requesting the identifiers. In addition, this is not a one-off cost, but must be paid periodically as the data are validated. In consequence, there is no clear incentive for firms to request LEIs and coverage is, in effect, more widespread in those regions where they are required by law.

There are three main ways whereby LEI use could be extended around the world, depending on the positions adopted by the different GLEIS participants. First, by regulations being issued by the competent authorities requiring that more firms – especially those involved in international trade – use LEIs. Second, by substantially reducing the cost of issuing and maintaining the identifiers, or even by making issuance free of charge for less complex, smaller or mainly domestically-oriented firms. Third, by increasing the benefits of LEI use for firms' trade and financial operations, inter alia by developing digital solutions. Various international bodies, particularly those involved in management of the LEI system, have opened up this debate and there are a number of initiatives currently on the table looking to explore these channels for extension of LEI use.

Acronyms and abbreviations

ANNA	Association of National Numbering Agencies (responsible, among others, for providing ISIN codes)
API	Application programming interface
BCBS	Basel Committee on Banking Supervision, the global body that brings together banking supervision authorities and is tasked with safeguarding the robustness of the financial system
CDE	Critical Data Elements (data elements of derivatives transactions). See Box 1
CDF	Common Data Format, which defines how LOUs should report LEIs and reference data
CES	Committee on Evaluation Standards: a ROC committee whose primary responsibility is to evaluate the adequacy of existing standards and protocols for GLEIS and to propose to the ROC Plenary revised or additional standards/protocols as necessary
CNMV	Spanish National Securities Market Commission
CPMI	Committee on Payments and Market Infrastructures
DSB-ANNA	Derivatives Service Bureau, a global numbering agency belonging to ANNA that is the sole service provider for UPIs
ECB	European Central Bank
EEA	European Economic Area, comprising 30 countries: the 27 EU Member States, plus Iceland, Liechtenstein and Norway
EIOPA	European Insurance and Occupational Pensions Authority, the competent supervisory authority on insurance and pensions in the EU
EMIR	European Markets Infrastructure Regulation (EU) No 648/2012 of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories
ESMA	European Securities and Markets Authority, an independent EU authority that helps safeguard the stability of the financial system by enhancing investor protection and promoting stable and orderly financial markets
ESRB	European Systemic Risk Board
FSB	Financial Stability Board
GLEIF	Global LEI Foundation, created by the FSB to implement the LEI and perform technical quality control
GLEIS	Global LEI System, comprising the ROC, the LOUs worldwide and the GLEIF
IASB	International Accounting Standards Board, a private body responsible for developing and approving international financial reporting standards (IFRS)
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
ISIN	International Securities Identification Number
ISO	International Organization for Standardization, a body primarily responsible for developing international technical standards
KYC	Know your customer
L2WG	Level 2 Data Working Group (on Level 2 data, i.e. subsidiary-parent relationships)
LEI	Legal Entity Identifier
LOU	Local operational unit, the local (public or private) entities that issue LEIs, based on the technical rules issued by the GLEIF
MiFID	Markets in Financial Instruments Directive, the European directive regulating the provision of investment services
OECD	Organisation for Economic Co-operation and Development
PNI	Provisional national identifier, <i>the</i> identifier issued to a parent company that does not have an LEI when one is required by a non-resident subsidiary that does have one
ROC	Regulatory Oversight Committee, a global body created by the FSB to oversee the LEI system and whose members are public institutions (mainly national central banks, but also securities market agencies)
UPI	Unique Product Identifier. See Box 1
UTI	Unique Transaction Identifier. See Box 1
vLEI	Verifiable LEI
XML	Extensible markup language

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