
REFERENCE DATA USER GROUP

Entities and Funds Committee

White Paper

ENTITY AND FUND IDENTIFIERS

16 Jul 03

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Author:	Version:	Date:	Changes:
Simon Leighton -Porter	0.1	11 Feb 03	Original
Simon Leighton -Porter	0.2	20 Mar 03	1. Rename BEI as LEI. 2. Expanded assumptions and definitions section
Simon Leighton -Porter	0.3	25 Mar 03	Minor – issuing agency
Simon Leighton -Porter	0.4	22 Apr 03	Added “health warning”
Simon Leighton -Porter	0.5	16 Jul 03	Major rewrite - includes feedback from industry seminars and calls.



GLOBAL CLIENT & COUNTERPARTY DATA HIERARCHIES

WARNING:

This paper has been circulated purely as a discussion document and does not constitute a guide to market practice or policy. All feedback is warmly welcomed so please send your comments to simon.leightonporter@citigroup.com

1. Executive Summary

The aim of the RDUG Entities and Funds Committee is to develop a low-cost solution to the problem of identifying legal entities for securities market participants. In addition, for investment managers, there is a requirement to develop a link between the legal or business entity and underlying portfolios under management so that the new identifier can be used to improve the automated processing of allocations. An additional requirement exists to be able to link securities to their issuers for risk purposes.

The question of entity identifiers has been tackled before by ISO, SWIFT, GSTPA, Omgeo, CLS and others. Two basic types of solution have been proposed: 1) new identifiers based on the BIC format, 2) a brand new identifier. Previous initiatives ran into a problem of scope - make the scope too wide and the problem of identifier issuance, administration and control becomes too great: make the scope too narrow and it will never gain the critical mass to deliver the return on investment required. RDUG's task is to find a "Goldilocks" solution that is just right for all the likely participants.

RDUG's proposed solution conforms to option 1) and is based on the BIC format. It combines existing data structures and identifiers to create an industry standard client and counterparty data structure that will assist in pre-trading compliance procedures (KYC, AML etc), increase the efficiency of processing and improve risk management efficiency. It is dependent for its success on the agreement of industry participants, regulators and vendors to accept a common identifier format. The BIC has been chosen over other proprietary formats because of its global usage and compliance with ISO15022. As suggested by the previous proposals, RDUG believe that SWIFT is the best suited body to manage and control the issuance and update of entity identifiers.

The solution lends itself well to real-time enrichment of allocation and confirmation messages with SSIs by industry participants who do not currently use one of the proprietary SSI databases such as Alert and SID. The proposed identifier is designed to be fully compatible with these databases and RDUG would welcome the inclusion of the new identifiers within them.

This paper also looks at using the same identifier format, modified by use of a check digit, to link issuers and securities, but the practicalities of ever achieving such a linkage are daunting.



2. The Current Situation

2.1 Compliance and Identification

KYC and AML are becoming ever more important

The events of 9/11 and an increased determination on the part of governments to clamp down on money laundering, fraud and the flow of funds to terrorist organisations have placed an increased responsibility on all securities industry participants to improve their “know your client” (KYC) and anti-money laundering (AML) procedures. Typically, these procedures are done when starting a new counterparty relationship, when a counterparty or client changes ownership and also on a periodic update basis. It may seem obvious, but one of the keys to getting this right, and thereby avoiding regulatory sanctions and fines, is to make sure that your procedures are being directed against the correct business/legal entity of your counterparty.

Broker-dealers face the biggest problem....

The problem is most acute for broker dealers, who may have to carry out regulatory due diligence checks against many thousands of counterparties. Investment managers are better placed: most use 20 brokers or fewer, with a few exceptions their portfolios under management run into the tens or low hundreds and the associated number of custodial relationships is unlikely to exceed the mid teens. Global custodians and clearing banks are affected to a lesser extent than brokers. Stock exchanges, CSDs and other clearing organisations are also obliged to carry out regulatory checks on their participants. These, however, tend to be the bigger organisations that are overseen by national regulators and thus easier to check.

...but other participants are affected too

In most jurisdictions, where firms carry out KYC and AML checks against one another, there is rarely a need to identify the underlying investors such as the beneficiaries of a pension fund or the retail investors in collective investment vehicles (CIVs). Instead, it is the business entity on which compliance checks are made that is the main focus of this paper. Clearly, the business entity being checked will usually be only part of a larger hierarchy of entities within the parent organisation and we touch on the implications of this later on.

Data sources are often contradictory

When searching through the data sources available to cross-reference information on the counterparty, it soon becomes clear that there is little consistency in the use of identifiers. And where sources are sparse or do not reflect recent changes, it is often all too easy to misapply information to the wrong entity. Once again, brokers dealing with hedge funds, unregulated entities or entities in offshore jurisdictions are most at risk of getting things wrong.

FIX allocations will be a major driver

Not only do securities market participants need to be able to identify each other's business entities, they also need to be able to identify individual funds as part of the post-trade allocation process. The rapidly growing interest in the use of electronic allocation via FIX makes this need even more pressing, particularly for firms who do not use a proprietary fund data source such as Alert or SID.

Operational risk is a driver too

The Basel II accord and the recent G30 recommendations on operational risk have implications for entity identifiers too. A key requirement is the ability easily to group entities together in order to assess operational risk



exposure towards organisations composed of multiple legal and business entities.

Linking issuers to securities...

Another area of interest to risk managers is the ability to link securities on their Master Files to the issuers of those securities. Once again, this is a one-to-many relationship where one issuer can issue many securities. However, the question remains of what security identifier should be used to make the link back to the issuer – isin seems the best candidate but its use is far from universal. Using other identifiers such as RIC, cusip, sedol or even RDUG's proposed Unique Instrument Identifier would lead to a single underlying security having multiple links to its issuer – the logistics of achieving this are not for the faint-hearted.

...is a good idea but fraught with difficulties

Don't forget the small print

As part of the legal and compliance considerations involved in creating a new identifier structure we need to define its legal status as well as the risks and responsibilities affecting the identifiers' issuer and users. There is also a need to define which entities and types of entities should be eligible for the allocation of an identifier and under what circumstances should an identifier be withdrawn.

It is clear that all participants would benefit from a common identification system for business or legal entities that could be used by regulators, exchanges, data vendors and all parties to the settlement process. A common identifier would also help firms to carry out consistent grouping of their counterparties for risk purposes and to be able to link issuers to securities.

2.2 Earlier Work

2.2.1 ISO and SWIFT

IBEs and BEIs have been suggested before...

This is not the first time the problem has been tackled. In 1998, an ISO working group, TC 68/SC 2, was set up to address the creation of an International Business Entity Identifier (IBEI). A draft standard was created but did not receive the necessary support from the ISO membership and so the idea was dropped. SWIFT set up a parallel study and recommended the use of the BIC standard to create the Business Entity Identifier (BEI) as a short-term solution until the ISO IBEI was fully adopted.

...but ran into some not entirely unpredictable problems

When the ISO IBEI project was dropped, SWIFT continued their efforts independently and suggested the creation of a registration authority for IBEIs that would issue identifiers to financial institutions only (ie those in possession of a BIC). In 2001, a proposal was put before the SWIFT Board for SWIFT to act as the registration authority. The Board then looked again at plan a: - base the IBEI on the BIC (this had been TC 68/SC 2's preferred option in 1998), but the only problem was that this solution had earlier been rejected by SWIFT itself as likely to overwhelm the existing BIC scheme capacity.

Going round in circles...

...got everyone back to where they started

SWIFT then financed its own study into IBEIs to look into the need for such an additional identifier across its range of messages – payments, trade finance, treasury etc, that was not already covered by an existing identifier. It came to the conclusion that although a new one would help achieve STP, there would not be a huge demand for it and that a solution based on the

The securities industry was identified as needing a new identifier



BIC/BEI would suffice after all. However, the working group did recommend the creation of an identifier for the treasury and securities industries.

3. Institutional Securities Processing

3.1 Post-execution Processing

The “vanilla” industry model seems simple...

One of the reasons for creating a new identifier for business entities is that it will improve participants' post-execution trade processing capabilities and help the move towards STP. The biggest gains are to be found in the high-volume processing of equities, fixed income and exchange-traded derivatives where margins are low and manual processing is costly. In this basic model, an investment manager will place an order with a broker and once the order has been executed, sub-allocate it across a number of the portfolios they manage. The investment manager gives the broker and its global custodian the details of each allocation and they in turn instruct their local clearing agents (we're assuming the broker is not a self-clearer) to settle each allocation as a discrete trade at the relevant national/international settlement system. The broker sends the investment manager a confirmation— electronically, by fax and/or by post etc) and, as a final confidence check, the investment manager may “affirm” the contents of the broker's confirm. This area of activity – between order execution and the start of the settlement process is typically managed in what participants call the middle office.

...but STP remains an elusive goal for too many

What seems at first glance to be a fairly simple procedure and ought to be easy to automate, continues to cause major problems for all concerned: levels of automation are often low, data standards are inconsistent and common identifiers often a rarity. Numerous solutions have been proposed to the STP puzzle but with varying degrees of success – the most notable casualty being the Global Straight Through Processing (GSTP) initiative, whose demise left its participants nursing considerable losses and has dramatically reduced the appetite for expensive industry-wide initiatives. Proprietary solutions such as Omgeo's Oasys and CTM offerings go some way towards filling the STP gap by their use of common identifiers for the allocation and confirmation process. Details of funds, brokers and their respective settlement instructions are held on databases such as Alert and SID. The big advantage of such systems is that all participants use the same identifier for the same data entity and there is no need for bilateral data conversations along the lines of, “each time I send an allocation for my account ABC123, that refers to the Pacific Growth Fund.” Instead, each participant has an identifier that represents their firm (or part of their firm – this is important and we'll see why later), and in the case of investment managers, each *one* of these high-level identifiers is linked to *many* fund-level identifiers, each representing one of the investment manager's portfolios under management.

Proprietary identifiers achieve a degree of commonality...

However, proprietary infrastructures do not suit all industry participants and their use remains far from universal. In addition, the “one” side of the one-to-many relationship is not at the business entity level in these utilities: as with BICs, some firms have many ETC identifiers per business entity and others use the same identifier for many entities.



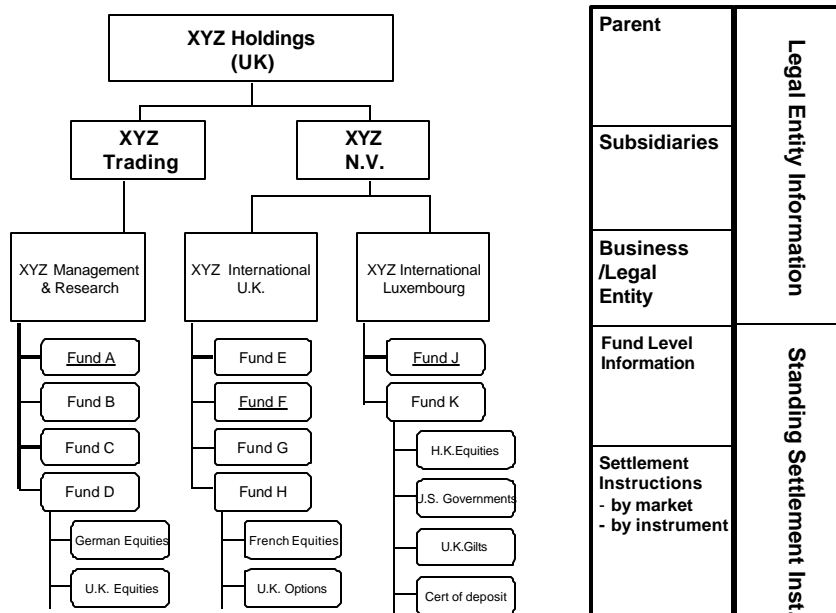
...so the RDUG solution should complement them and not compete

Any RDUG proposal for a common set of identifiers must be compatible with existing identifiers and not compete with them. It must also meet the key requirement of helping to improve STP for its users by identifying both the entity **and** any underlying funds. Without such identifiers, automation of the post-execution, pre -settlement process – via the use of FIX 4.4 “STP-Lite” for example - will be rendered extremely difficult.

3.2 Typical Entity Structure

The diagram below shows an example data structure for an investment manager. That said, the structure of the first 3 levels – parent, subsidiary and business/legal entity could also apply to brokers, custodians and clearers. The important point to bear in mind at *all* times when looking at a structure like this, is that only those things at or below the business entity level have any relevance to securities processing.

Client and Counter Party Data - illustrative



Source: Reuters

So who exactly are we trading with?

To make this statement clearer, it is worth spending a little time looking more closely at the order and allocation process from the point of view of an order placed by XYZ Investment Managers with a broker. Before they can place it, XYZ will have carried out AML and KYC procedures on the broker – let’s assume for simplicity that the broker only has 1 entity. In turn, the broker will have carried out similar procedures against each of XYZ Investment Manager’s business/legal entities. The key here is that these are the entities – XYZ Management and Research, XYZ International UK and XYZ International Luxembourg – with which the broker will be actually contracting as a result of the trade allocations process. It is **not** contracting with XYZ Trading, XYZ NV or any other higher-level grouping of XYZ for that matter, and that is why the KYC/AML process is not done at the subsidiary level in the example shown.



The hierarchy diagram above does not include such complications as hedge fund/prime broker relationships or outsourced back offices. However, we have found nothing in these relationships nor in their processing models which invalidate the RDUG proposition.

Pulling it all together

Although it may have been received by the broker from XYZ's central dealing desk, once the order has been executed, XYZ may, for example, allocate the order to 3 funds, one under each of its legal entities (funds are underlined above – A, F and J). The point here is that the legal contract is between the broker and XYZ's legal entities managing funds A, F and J. Also, the broker will need an identifier for each of these funds in order to be able to complete the confirmation process and send correct settlement instructions to their settlement agent. It may seem as though we're labouring the point, but it is here that compliance requirements - create an identifier for the entity you have a legal contract with - meet the processing requirements - create an identifier for the funds that the order is allocated to.

This gives us an opportunity to combine the legal/business entity identifier with an identifier for the funds it manages in a one-to-many relationship. The one-to-many relationship between funds and their settlement instructions already exists but will be included in later sections for clarity.

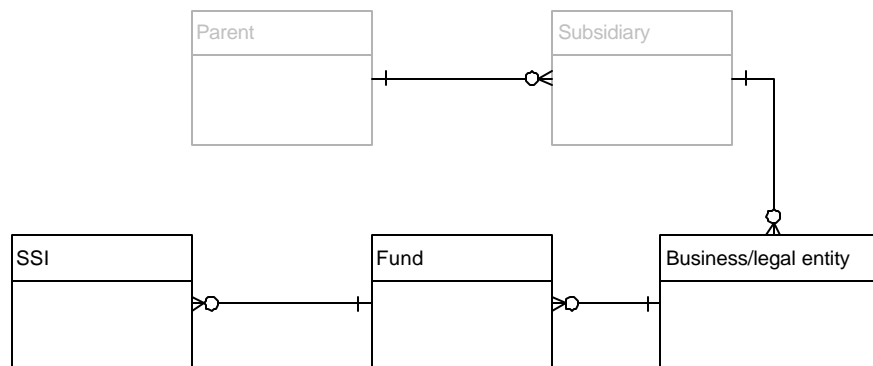
Why stop there?

It would be tempting to continue up the example hierarchy shown for XYZ but there are a number of reasons for not doing so. Everything 'above' the business/legal entity level is not relevant for processing or for KYC/AML procedures. In practice this means that different departments within any given firm (risk, CRM, financial reporting, credit, compliance etc) will want to create their own view of the counterparty to suit their own requirements. Also, the higher levels of firms' hierarchies are often already covered by such proprietary sources as D&B, and so RDUG sees no value in replicating this information. Linking to it would be an excellent idea but that is out of the scope of this paper

4. Towards a Solution

4.1 Simplified Structure

To summarise the above, in database terms we are trying to create this relational structure





4.2 Choice of Data Format

The BIC code looks a good candidate...

For an identifier to meet all participants' requirements and at the same time gain widespread acceptance it needs to be either an existing ISO identifier or capable of becoming one. It must also support the one-to-many relationship between entities and their funds and find global acceptability. The only format which readily meets these requirements is that used by the BIC code.

...but the mapping to entities is not straightforward

RDUG's original idea was to use the actual BIC code of the business/legal entity and link it to some kind of fund identifier. The only problem with this is that there is not a one-to-one relationship between entities and their BICs: some firms use one BIC to cover multiple entities and others assign more than one BIC to the same entity.

The BIC format contains a one-to-many relationship...

Despite this minor setback, we can still use the BIC *format* to represent a unique entity and its funds. The BIC is defined by ISO9362 as having the specification: 4!a2!a2!c[3!c], or in English:

Exactly 4 alphabetic characters, followed by exactly 2 alphabetic characters, followed by exactly 2 characters which can be alphabetic or digits: then, 3 optional characters which can be alphabetic or digits: ie 8 characters with an optional 3 more stuck on the end.

In normal use, this 8 + 3 format is mainly used to show the one-to-many relationship between banks and their branches, but it is ideally suited to our search for a similar identification scheme between entities and funds. The 8-character part of the BIC can be used to represent the *entity* and the 3-character trailer represents its *funds*. Using the new identifier, entities would be represented by the 8-character part only and each fund would be represented by 11 characters composed of the entity's identifier plus 3 characters to represent the fund.

...which we adapt to form the LEI and Fund LEI

It is vital to stress that this new identifier will **not** be a BIC but will merely use its format. To help distinguish it from existing identifiers, we are also proposing that the new 8-character identifier for entities should be called the Legal Entity Identifier (LEI) – this is to distinguish it from SWIFT's BEI proposal. The 11 character identifier for funds will be called the Fund LEI.

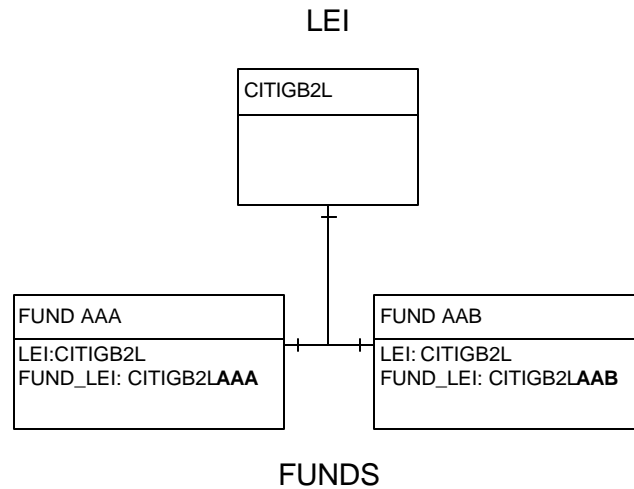
A rose by any other name

RDUG are not dogmatic about the suggested naming convention and would welcome suggestions for alternative names for what we have christened the LEI. Ideally, we would like the LEI to become the "IBEI" and the Fund LEI to become the "FIC" (Funds Identifier Code) if RDUG's solution finds favour with ISO/TC 68/SC 4.

Check digits are useful in more ways than one

To avoid confusion with BICs, the LEI should have a check digit in the 2!c part of its structure– the same is done for BICs which are not connected to the SWIFT network. The use of a check digit effectively limits the descriptive part of the LEI to 7 characters but we believe this will be enough. In addition, a different check digit could be used to show that the LEI was being used to link an issuer and its securities – we will cover this topic later.

Diagrammatically, the structure created for an investment manager's entities and funds looks like this:



Working with other data providers

There is no conflict between this new field and existing identifiers such as the Omgeo Acronym - Access Code pairing. For example, an existing Alert fund under Acronym BIGBANK1 with Access Code 123 might have a Fund LEI of BIGBNY21XYZ, and Alert could show both values.

Keeping things simple

It is also important to note that there would be no attempt to standardise fund identifiers across different fund managers. For example, if the Teacher's Pension Fund of Texas was managed by 2 fund managers, each would use their own distinct 3-character trailer as part of their Fund LEI. Similarly, when a fund's trustees remove the mandate from one fund-manager and give it to another, the receiving manager will assign the fund an new Fund LEI. This topic will be covered in more detail later on.

More complex structures do not break the model

As mentioned earlier, hedge fund/prime broker relationships and outsourced back office arrangements do not invalidate the LEI model. All of these entities can be represented within the proposed structure.

4.2.1 The Power of Three

Skip this bit if you find maths boring

To dispel any doubts that the 3-character trailer has sufficient flexibility to show all funds belonging to an individual entity there now follows a small mathematical diversion which you can quite happily skip without losing either the thread of the paper or the will to live.

If we make the very limiting assumption that no single character can repeat within the same 3-character group – ABC is allowed but AAB and AAA etc are not - then the number (P) of 3-letter groups (r) that can be created from 26 letters (n) can be calculated using the following formula:

$$P(n,r) = \frac{n!}{(n-r)!}$$

or in this example $P(n,r) = \frac{26!}{(26-3)!} = \mathbf{15,600}$ 3-letter groups.



If, in addition to using the letters A to Z, the numbers 0 to 9 are included, the available number of unique groups goes up to 42,840. We believe that fund managers are unlikely to have this number of funds under each entity.

5. LEI and STP

The LEI structure can help achieve STP

One of the main advantages of the LEI proposal is the ability of the new identifier to improve STP. Typically, brokers and investment managers immobilise data, including Standing Settlement Instructions (SSIs), on their counterparties within their processing infrastructures. If settlement instructions could be passed in real-time as part of the allocation and confirmation process this would greatly reduce the data maintenance effort for all parties and reduce the chance of trade failure. This has been one of the basic goals of Virtual Matching Utilities such as Omgeo's CTM and the now defunct GSTP.

FIX 4.4 needs a new identifier for post-execution messaging

Users of Omgeo and DTCC's products have access to Alert and SID which provide identifiers and real-time SSI enrichment capability. However, there are a large number of market participants who do not subscribe to these services and are looking at other means of electronic post-trade messaging, such as FIX and SWIFT, to achieve STP. As we mentioned earlier, in the absence of an agreed set of identifiers for participants and their funds, the only available option is a cumbersome bilateral exchange of identifiers. This problem was identified during the GSTP project and was a spur to some of the earlier efforts of ISO and SWIFT to find a solution. The problem has been brought back into the limelight by the advent of FIX 4.4 which greatly improves and simplifies the post-execution messaging options for those many FIX users whose processing starts with 21st century order processing via FIX and ends with 1970s allocation and confirmation processing via fax. The FIX STP-Lite proposal, of which more later, has the potential to achieve almost everything GSTP was trying to do, but at a fraction of the cost. The LEI structure could just be the key to unlocking this vast potential.

LEI looks like a very good candidate

5.1 STP-Lite

STP-Lite is generating much interest

This is a very brief introduction to a FIX-based STP proposal that we have called STP-Lite¹. It is already generating a great deal of interest in the securities industry.

Data structures and standards are key to its success

If all parties to a trade can agree on how to identify themselves to each other and the buy-side use the proposed Fund LEI model to identify their funds, there is no longer any need for the industry to use and maintain costly account and SSI databases. Instead, custodians would send fund managers a periodic update file (in ISO15022-compliant format) of basic SSI details which would be captured in a database within the buy-side's infrastructure. This would have the advantage of keeping the responsibility for SSI maintenance with the custodians but allow fund managers to enrich their allocation messages with up-to-date SSIs. With their smaller number of SSIs, broker-dealers would maintain their own SSI data with which they would enrich their confirmations. Both sides would match the other's SSIs for settlement channel compatibility, and if the match is successful, would then instruct for settlement. There would also be a major gain for sell-side

¹ See section 10



firms who would no longer have the maintenance overhead of maintaining multiple SSIs for each client fund. The key to the success of this flow will be strict adherence to agreed data standards.

6. Issuers and Securities

One of the questions addressed by RDUG was that of linking issuers to their securities, although it was given a lower priority than the linkage between investment managers' entities and their funds under management.

6.1 Possible Solution

Linking issuers to securities using the LEI structure...

Based on the same BIC-based 8 + 3 structure we saw earlier, the 8 - character LEI could be used to represent the issuer and the 11 -character identifier could be used to represent the one-to-many relationship between the issuer and securities. This 3-letter group might be called the *Security LEI*.

...looks likely to cause more problems than it solves

The major drawback with this approach is that, faced with an 11-character BIC-shaped identifier, it would be impossible to tell whether it referred to the relationship between an investment manager and its funds or an issuer and its securities.

To avoid this confusion, we could use different check digits for each of the 2 possible uses of the LEI. For example, if we used 9 as the check digit for investment managers and their funds and 8 for issuers and securities:

Check digits may be the answer...

CITIGB2**9**ABC would represent a fund manager's **fund** ABC

CITIU**KL 8**ABC would represent **security** ABC issued by the issuer represented by the first 7 characters of the LEI

...but there may be too many issuers for the LEI structure

As we saw earlier, 26 letters + 10 digits can be combined to produce 42,840 permutations of 3-character groups, so provided that no one issuer has issued more than this number of securities then the solution *should* be valid. Whether the 7 characters (strictly speaking 4+2+1) of the LEI would be enough to cover all the relevant issuers is quite another question. The administrative burden of tracking new issuers, new issues, corporate actions, redemptions and other amendments etc would be potentially enormous and throws into question the wisdom of trying to make the LEI perform the issuer-security linking role.

6.1.1 Underlying Security Identifiers

The administrative burden will be huge...

If we *do* decide to adopt this solution, the next problem is to link the 3-character code to the security. The problem is exacerbated by multiple places of settlement, listing and execution for the same security which give rise for multiple identifiers for the same underlying security. An RDUG solution has been proposed to this problem, but whatever solution is chosen, it will need an infrastructure that links it to the 3-character Security LEI.

...and the solution relies heavily on the consistent use of isin

However, there is no universal agreement yet on the format of the universal security identifier, in practice, linking it to such an identifier would create



more linkages than were strictly necessary. Given that our aim is to link the security and the issuer, there would be no need for a discrete linkage for every different combination of place of trade, listing and settlement. Ideally, there should be 1 linkage only – between the ISIN and the issuer. Sadly, use of ISIN is not universal and this is likely to be the one issue that makes the linkage impossible to achieve, let alone manage.

7. Administration and Control

7.1 Registration Agency

A central agency is required

There is no appetite in current market conditions for another costly global initiative – GSTP’s failure is too recent a memory. However, the issue, update and administration of new LEIs and Fund LEIs will need to be controlled centrally by a single registration and issuing agency.

SWIFT looks like the only viable choice but there are potential issues

Without pre-judging the outcome of any future debate, the obvious candidate is SWIFT. It has the global reach, its funding structure is already established and, most importantly, it already has the IT infrastructure for administering BICs. SWIFT has been suggested by previous studies but the main hurdles to overcome are those of return on investment and the capacity of a BIC-based system to cope with the potential demand. There is also the question of participation by non-SWIFT members.

Some ideas of how it might work

The proposed service would need to be available H24, and the buy-side must be able to request and receive new Fund LEIs within 24 hours. Although the creation, amendment and deletion of entities would be a relatively rare event, the administrative overhead would still be considerable. Changes to fund-level information would be more frequent and their dissemination could again be problematic: if a broker only trades for 5 of a large investment managers 500 funds, how do they restrict their updates to this small subset? A more fundamental question arises over whether participants should “pull” information about their counterparties from the central source or whether “push” broadcasts should be sent to all participants. Without second-guessing any future studies, the most sensible option seems to be for participants to take responsibility for “pulling” information, perhaps based on a custom search limited to a pre-defined group of entities.

Using a commercial vendor is not favoured

The only alternative to SWIFT would be to offer the proposal to a commercial vendor. This is unlikely to succeed for a number of reasons including lack of global reach, pricing and the danger of creating a monopoly provider.

8. Return on Investment

ROI must be there for all participants

In order to convince industry participants to adopt this solution, the RDUG needs to undertake a return on investment analysis for each of the interested groups. If successful this will be a powerful lobbying tool to encourage early adoption of LEIs.

9. Legal and Regulatory Considerations

Issue of LEIs must be subject to strict compliance procedures

One potential risk is that the possession of LEIs could confer a spurious respectability on money launderers and their like. Therefore, the issuing and



administrative authority will need strict vetting procedures prior to the issue of new LEIs. For regulated entities, one option would be for the requestor to provide proof of registration with a national regulator.

Regulators and exchanges etc could use LEIs if the ROI is there

One of the keys to the success of the RDUG proposal is the acceptance of LEIs by regulators and exchanges. It is likely that these bodies will welcome a global standard for identifying their member entities that does not conflict with existing identifiers, although there may be a reluctance to make the technology investment required to prepare their databases for the use of LEIs. Also, the adoption of the LEI structure directly addresses and number of the issues and action plans raised by the recently published G30 report, 'Global Clearing and Settlement, a Plan of Action.'

Radical food for thought

As a final thought, more to provoke discussion than anything else, the centralisation of entity information opens up some tempting opportunities. At present, each company does its own KYC, Patriot Act, AML etc checks on its counterparties. What this means in practice is that for example, the same investment manager will be compliance checked many times over by many brokers. Major efficiency gains would be had if the compliance check could be done once by a central organisation – which might even be the same one that is responsible for issuing and maintaining LEIs – and then offer the results to its subscribers. There are, however, a number of likely stumbling blocks:

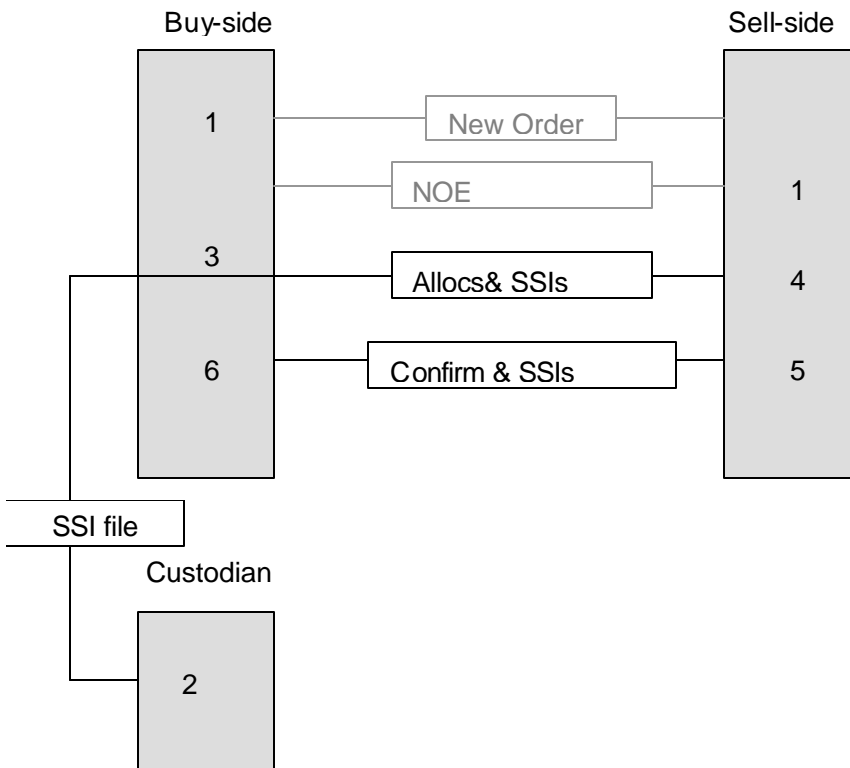
1. National regulators might well object that the 'outsourcing' of KYC, AML etc and the concomitant devolution of responsibility would weaken standards of compliance by regulated firms.
2. The risk faced by the central compliance checking agency would be huge in the event of error.
3. Standards of security, oversight and governance would need to be of the highest order.
4. Criminal or terrorist organisations would only need to target one organisation or group of individuals in order to gain regulatory respectability.

As with the other topics covered in this paper, RDUG warmly welcome any feedback on the centralised approach to compliance checking.



10. Appendix 1 – STP-Lite

This diagram shows a simplified STP flow using FIX for messaging and LEI for entity and fund identification.



1. Order and NOE flow is out of scope
2. Custodian sends periodic SSI update file to buy-side OMS database.
3. Buy-side sends allocations using Fund LEI to identify funds. Allocations are enriched with SSIs from OMS database.
4. Sell-side matches SSIs for settlement channel compatibility.
5. Sell-side sends confirms enriched with both parties' SSIs.
6. Buy-side matches complete trade and if match successful, instructs custodian and sends affirmation to sell-side. On receipt of affirmation, sell-side instructs its clearing agent.