SWIFT's response to the Securities and Exchange Commission's proposed rule on

"Establishing the Form and Manner with which Security-Based Swap Data Repositories Must Make Security-Based Swap Data Available to the Commission"

(File No. S7-26-15)

22 February 2016

Mr Brent J. Fields
Secretary,
Securities and Exchange Commission,
100 F Street NE.
Washington, DC
20549–1090

22 February, 2016

Dear Mr Fields

Re: Establishing the Form and Manner with which Security-Based Swap Data Repositories Must Make Security-Based Swap Data Available to the Commission (File No. S7-26-15)

SWIFT[1] welcomes the Securities and Exchange Commission's proposed amendment to specify the form and manner with which security-based swap data repositories will be required to make security-based swap data available to the Commission, and we thank the Commission for providing the opportunity to submit comments.

SWIFT has long been a proponent of standardisation and appreciates the Commission's efforts to promulgate the use of standards in the security-based swap data repository ("SDR") area. Efforts to develop consistent reporting conventions will vastly improve data quality and cross-market and international data harmonisation, as originally envisioned by the G20[2].

Standards have a key role in financial regulation, particularly when regulation considers financial data. To be effective, such regulation needs to be implemented consistently; however consistency can only be achieved if all stakeholders share the same understanding of the meaning and purpose of that data. This is particularly true when data from multiple entities needs to be aggregated: without consistency at the source, it is impossible to guarantee the validity of data when combined – and potentially unsafe to draw conclusions from it.

SWIFT appreciates the Commission's recognition of the importance of data being made available in internationally recognised industry standards, and ensuring these are interoperable. Under the proposed rule, however, the Commission specifies that SDRs must use either the Financial products Markup Language (FpML) or the Financial Information eXchange Markup Language (FIXML) standards, but does not permit usage of the very widely used ISO 20022 standard.

We very much regret that the Commission does not include the ISO 20022 standard as an alternative. SWIFT believes that omitting to specify ISO 20022 in this proposed rule is a missed opportunity. This standard has already been widely adopted by the financial industry, and is increasingly being embraced by supervisors across the world as a preferred format for data reporting purposes. We therefore urge the Commission to consider

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1 SWIFT is a global member-owned cooperative and the world's leading provider of secure financial messaging services. We provide our community with a platform for messaging, standards for communicating and we offer products and services to facilitate access and integration; identification, analysis and financial crime compliance. Our messaging platform, products and services connect more than 11,000 banking and securities organisations, market infrastructures and corporate customers in more than 200 countries and territories, enabling them to communicate securely and exchange standardised financial messages in a reliable way. As their trusted provider, we facilitate global and local financial flows, support trade and commerce all around the world; we relentlessly pursue operational excellence and continually seek ways to lower costs, reduce risks and eliminate operational inefficiencies. Headquartered in Belgium, SWIFT's international governance and oversight reinforces the neutral, global character of its cooperative structure. SWIFT's global office network ensures an active presence in all the major financial centres.

2 G20 Leaders Statement: The Pittsburgh Summit - point 13, *Improving over-the-counter derivatives markets*: http://www.g20.utoronto.ca/2009/2009communique0925.html#system

including the ISO 20022 standard as an alternative in its proposed amendment, alongside FpML and FIXML. This would help ensure harmonisation within and across the international regulatory community. ISO 20022 has already been specified in respect of swaps and security-based swap data reporting elsewhere, and its usage in the United States would greatly facilitate the exchange of information between regulators across the world, as well as lowering the burden for those covered entities subject to reporting requirements in both the United States and in other jurisdictions.

ISO 20022

ISO 20022 is the open methodology for developing new financial messaging standards and for harmonising existing financial messaging standards. As an initiative of the International Organization for Standardization (ISO), ISO 20022 was conceived to harmonise the fragmented financial standards landscape, and can best be described as a 'recipe' for developing financial messaging standards. The main ingredients of this recipe are a development methodology, a registration process, and a centralised, machine-processable "e-Repository".

The ISO 20022 standard is being embraced by supervisors across the world as a preferred format for data reporting purposes because the data model which lies at the heart of the standard is the ideal reference point to help regulators, market overseers and reporting firms to harvest, aggregate and interpret data which is unambiguous, clear and equivalent irrespective of its source. ISO 20022 is particularly appropriate for use in regulatory initiatives because it is an open and transparently-governed standard that is platform-neutral, and free to access, implement, and extend. It provides a universally agreed language that can be shared by business, legal, and technical experts, greatly simplifying the interpretation and implementation of any regulation defined in that language.

Reporting requirements defined in terms of ISO 20022's unique conceptual Business Model and Business Process layer allow implementers to understand both the regulated financial concepts, and the contexts in which the regulation is applicable. The rigour and precision of the definitions found in the ISO 20022 business model make it a particularly apt resource to ensure that data elements specified in a regulatory reporting context are interpreted consistently by implementers. Moreover, once the data elements for a business process have been identified, it is straightforward to create a message definition that can be used to transport the data. In these definitions it is possible to distinguish between a baseline set of common details and national or regional additions, facilitating tailored reporting at national levels, as well as consistent reporting at global level.

In Europe, ISO 20022 has been specified for two significant regulations concerning swap and security-based swap data reporting. The updated Markets in Financial Instruments Directive ("MiFID2"), which is due to enter into force in January 2018, will expand on the data reporting regime specified under MiFID1 significantly in both scope and required content. One of the most significant changes between MiFID1 and MiFID2 relates to the reporting standard: in its review of the Directive, the European Securities and Market Authority (ESMA) assessed a number of standards, including FpML, ISO 20022, FIXML and XBRL, and concluded that the ISO 20022 format should be adopted for the development of reporting messages. The new MiFID2 obligations will require covered entities to submit their transaction information collected from multiple different sources, to supplement this with the complete information required for the additional data fields and to validate the data before transmission within the deadline set out in the Regulation.

Separately, ESMA is also considering specifying the use of ISO 20022 for the communication of swap and security-based swap trade data between trade repositories and the relevant authorities under the revised EMIR regulation. Whilst some of the elements required for security-based swap reporting by the Commission are not yet covered by the currently used and approved ISO 20022, a set of new elements and messages which *do* cover such instruments has recently been developed for the aforementioned MiFID2. For the ISO 20022

standard to be further enriched with new components, it will only require an update to the data dictionary, whereas in the case of FIXML and FpML, the update would apply to the standards themselves. Furthermore, updating a data model is considerably cheaper than updating a standard.

Industry Implementation of ISO 20022

ISO 20022 has also been widely adopted across the global financial industry for a variety of other purposes. There are around 200 ISO 20022 initiatives globally, ranging from live implementations to communities that are in the early stages of market consultation. Central banks and market infrastructures across the world are increasingly using the standard, with around 70 payments and securities clearing and settlement organisations implementing ISO 20022. In the United States, the Federal Reserve System has declared an intention to implement ISO 20022 for US payments, and the Depository Trust and Clearing Corporation (DTCC) is using it for its Corporate Actions service. In Asia, ISO 20022 is used by the Chinese domestic payments system, CNAPS. It is also used by the Japanese securities depository, JASDEC, the Singapore stock exchange (SGX), the Australian stock exchange (ASX), and it has been chosen as the standard for the forthcoming Australian real-time payments system. It is also the standard used for messaging by strategic initiatives such as the Single Euro Payments Area (SEPA) in Europe, the European Central Bank's (ECB's) TARGET2-Securities, and EBA (EURO1/STEP1). In addition, ISO 20022 standards have been developed across many financial business processes including retail and wholesale payments, foreign exchange, securities lending, repo transactions, collateral management, securities settlement and asset reconciliation. The ECB has selected ISO 20022 for the new reporting requirements on money market transactions in the euro area, and the Bank of England has chosen ISO 20022 for the reporting of sterling money market data. Further details on implementations of ISO 20022 around the world can be seen here.

Data Model

We have responded to several of the questions posed in the proposed amendment, and we have attached hereto a detailed mapping and gap analysis of the Commission's data model compared with the ISO 20022 methodology developed by our Standards experts[3]. We also include a recent information paper on standards and the use of ISO 20022 for regulatory reporting.

SWIFT appreciates the Commission's recognition of the importance of this rule and believes that the Commission has correctly identified the considerations that need to be taken into account in selecting these reporting standards. We strongly believe that ISO 20022 meets the considerations listed and therefore the Commission's objectives, whilst also ensuring harmonisation with the wider international regulatory community. We therefore respectfully urge the Commission to include it in the proposed amendment.

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[3] SWIFT plays an important role in standardisation, notably by creating and maintaining financial messaging standards and reference data standards. Use of standardised messages and reference data ensures that data exchanged between institutions is unambiguous and machine friendly, enabling efficient automation and so reducing industry costs and risk. In its role as a financial messaging standardiser, SWIFT's Standards group works with the financial community to define standards for these messages.
SWIFT Standards is neutral; most work is done pro-bono, in support of industry working groups such as the Payments Market Practice Group (PMPG), Securities Market Practice Group (SMPG) and Common Global Implementation (CGI). Beyond the definition of base standards, SWIFT Standards collaborates with these and other communities to define, formalise and publish market practice guidelines, which describe how messages should be used in particular business and regulatory contexts, and to specify common recommended implementations. SWIFT Standards helps financial organisations and regulators develop and use standards, as part of SWIFT's mission of supporting the continuous evolution and improvement of standards, as well as related products and tools.
SWIFT Standards has been part of the evolution of ISO 20022 from the beginning. SWIFT drafted the original specification as part of the ISO working group that developed the standard, and remains the single largest contributor of content. Under contract to ISO, SWIFT Standards also operates as the Registration Authority for ISO 20022, which maintains the technical infrastructure of the standard, ensures technical consistency, and publishes the content in a variety of formats.

SWIFT would be delighted to discuss this further with the Commission and would readily make ourselves available to do so, should the Commission be interested.

We hope this response proves useful in the Commission's assessment of this important rule.

Yours sincerely,

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Section C. Request for Comments

Q: The Commission has developed two interoperable schemas so that SDRs can make SBS transaction data available to the Commission using already existing standards in a form and manner that can be easily utilized by the Commission for analysis and aggregation. Are there other ways to provide for the representation of SBS transactions that could be easily utilized by the Commission? If so, what are they? What are their strengths and weaknesses?

A: Yes, the ISO 20022 standard, which has already been adopted for derivatives reporting in Europe, should also be specified in the proposed rule as a third option alongside FIXML and FpML. ISO 20022 an open and transparently-governed standard that is platform-neutral, and free to access, implement, and extend. As an initiative of the International Organization for Standardization (ISO), ISO 20022 was conceived to harmonise the fragmented financial standards landscape, and can best be described as a 'recipe' for developing financial messaging standards. The main ingredients of this recipe are a development methodology, a registration process, and a centralised, machine-processable "e-Repository".

ISO 20022 messages have been developed following the standard methodology across many financial business processes including retail and wholesale payments, foreign exchange, securities lending, repo transactions, collateral management, securities settlement and asset reconciliation, and central banks and market infrastructures across the world are now increasingly using the standard across these markets. The ISO 20022 standard is also being embraced by supervisors across the world as a preferred format for data reporting purposes because the data model which lies at the heart of the standard is the ideal reference point to help regulators, market overseers and reporting firms to harvest, aggregate and interpret data which is unambiguous, clear and equivalent irrespective of its source.

Q: Should the Commission require direct electronic access be provided by SDRs using only an FpML schema? Should the Commission require direct electronic access be provided by SDRs using only an FIXML schema? Is there another standard that the Commission should consider as acceptable? If so, which characteristics about that standard should make it acceptable to the Commission and how does that standard affect the Commission's ability to normalize, aggregate, and analyze the SBS data?

A: By providing a universally agreed language that can be shared by business, legal, and technical experts, ISO 20022 can greatly simplify the interpretation and implementation of regulations. Reporting requirements defined in terms of ISO 20022's conceptual Business Model allow implementers to understand both the regulated financial concepts, and the contexts in which the regulation is applicable. Once the data elements for a business process have been identified, it is straightforward to create message definitions that can be used to transport the data. In these definitions it is possible to distinguish a baseline set of common details to be shared by all implementers, and to extend the baseline to accommodate regional or national specificities.

In adopting ISO 20022 alongside FpML and FIXML, the Commission could re-use the messages (syntax, form and manner) that have been developed by the European Securities and Markets Association (ESMA) for the European Market Infrastructure Regulation (EMIR). This would accelerate implementation and greatly simplify the sharing and aggregation of data between the US and Europe. SWIFT would be delighted to organise a workshop in which the Commission's requirements can be mapped to the ISO 20022 data dictionary and existing messages.

Q: Are the FpML and FIXML standards sufficiently developed to require either one of them to be used by SDRs to provide access to the required SBS data? What factors or indicators should the Commission use to determine when an SBS-related standard has become sufficiently developed to require its use for providing the Commission with direct electronic access to SBS data?

A: We have attached a spreadsheet which maps the Commission's data requirement to the ISO 20022 data dictionary and highlighted any missing elements which could of course easily be added as part of the message modelling exercise.

Furthermore, the Standards Coordination Group (SCG) was established to align different standards used in the

financial industry into the broader framework of ISO 20022. Through participation in the SCG, each organisation responsible for a financial standard (FIX, FpML, SWIFT, XBRL, ISITC and FISD) has affirmed its commitment to the ISO 20022 methodology and business model in order to deliver alignment. All standardised financial business processes have been, or will be, incorporated in the ISO 20022 business model and the ISO 20022 methodology supports the creation of new ISO 20022-compliant messages to support each business process. Although ISO 20022 allows coexistence of legacy domain-specific syntaxes and protocols in certain circumstances to protect the investments of market participants, it lays the groundwork for a common financial messaging standard, and clearly communicates that direction to the entire industry.

Q: What would be the costs to an SDR to provide data in either FpML or FIXML standard? Are there other ways that SBS data should be provided to the Commission? Are there other standards that would cost less but still allow the Commission to similarly normalize, aggregate, and analyze the data?

ISO 20022 uses standard technology and is being widely deployed in the financial industry for transaction processing. The significant investments in technology and skills that financial firms are currently making to support the implementation of ISO 20022 could be re-used in a regulatory context, thereby reducing costs at the industry level.

ISO 20022 has already been specified in respect of swaps and security-based swap data reporting elsewhere in the world, and its usage in the United States would greatly facilitate the exchange of information between regulators across the world, as well as lowering the burden for those covered entities subject to reporting requirements in both the United States and in other jurisdictions.

Q: The Commission intends to incorporate validations into its schemas to help ensure the quality and completeness of the SBS data that SDRs make available to the Commission. Is there another effective mechanism that would help ensure completeness and still achieve similar or better aggregation and consistency results?

A: ISO 20022 message definitions include business validation which can be implemented in the technical environment and used in firms' testing to ensure that data is consistent and meets the format requirements before it is processed. The ISO 20022 methodology captures business rules which govern the structure of the data as part of the design process. These business rules can be checked by standards software to ensure that submitted data conforms to the rules. Rules can include conditional statements. For example, a conditional rule can require an exchange rate to be quoted when a currency conversion has taken place.

Q: How should the common data model support reporting requirements that do not yet have equivalents in FpML or FIXML, while preserving the ability to normalize, aggregate, and analyze the data? As discussed in Section II.B.2, the Commission's schemas would require specific extensions of existing FpML and FIXML reporting elements. Is there a better alternative? Specifically, how would the alternative affect SDRs, the Commission, and market participants?

A: As noted above, the ISO 20022 business model can be used to capture definitions of key concepts that are missing from current message standards. Such definitions can then be referenced from message definitions in FpML, FIXML or native-ISO 20022. This approach ensures that consistent meaning is attached to important concepts, no matter how they are expressed at a technical level. Specifically regarding the standardised identification of derivatives products, the ISO Technical Committee 68, the ISO committee responsible for financial services standards, has formed a study group to analyse and review requirements. FIX and ISDA are represented in this study group together with international experts from all parts of the world. We encourage the Commission to consider the outcome of this study group for the identification of derivatives products.

Section F: Request for Comments

Q: What additional information sources can the Commission use to calibrate the cost of setting up and implementing policies, procedures, and information systems to format and submit SBS transaction data in accordance with the Commission's schemas?

ESMA has adopted ISO 20022 messages for the revised EMIR reporting format. Most, if not all, of the SDRs that will register with the Commission are also registered Trade Repositories with ESMA. These repositories must implement ISO 20022 messages for EMIR reporting. Should the Commission also accept ISO 20022 messages, the additional implementation costs for the SDRs would be minimal.

Should the Commission adopt the same messages developed by ESMA for EMIR, there would be no additional cost. If changes are required to the existing messages the effort would be limited to modelling the changes to the messages and the evaluation and approval of the changes.

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Mapping and gap analysis of the Commission's data model compared with the ISO 20022 methodology

NOTE: nearly all fields have a direct mapping into ISO 20022 and, where not the case, the missing elements can be addressed during message modelling.

§ 901 Ref.	Common Data Model Concept	ISO 20022 Business Component	ISO 20022 Business Elements	ISO Data Type
(c)(1)	Product ID	AssetClassification	Asset	Asset
			AssetClassScheme	Set of Attributes
			ProductType	CodeList
		Security	Identification	ISIN
				Proprietary
(c)(1)(i)	Asset Class	Asset	AssetClassification	CFI
(c)(1)(i)	Underlying Reference Asset(s)	Asset	UnderlyingAsset	Asset
(c)(1)(i)	Underlying Reference Issuer(s)	AssetPartyRole	Issuer	LEI
(c)(1)(i)	Underlying Reference Index	Asset		
(c)(1)(ii)	Effective Date	Asset	EffectiveDate	ISODateTime
(c)(1)(iii)	Scheduled Termination Date	Asset	MaturityDate	ISODateTime
(c)(1)(iv)	Terms of any standardized fixed rate payments	Interest	PaymentDate	ISODateTime
			Amount	Currency and Amount
		InterestCalculation	InterestPeriod	
			CalculationDate	ISODateTime
			RateType	CodeList
			Rate	Percentage

(c)(1)(iv)	Frequency of any fixed rate payments	InterestCalculation	PaymentFrequency	CodeList
(c)(1)(iv)	Terms of any standardized floating rate payments	same components as terms of fixed rate		
		VariableInterest	BenchmarkReference	Security
			ResetDate	ISODateTime
(c)(1)(iv)	Frequency of any floating rate payments	InterestCalculation	PaymentFrequency	CodeList
(c)(1)(v)	Custom Swap Flag	TechnicalElement (message modelling)		
(c)(2)	The date and time, to the second, of execution, expressed using Coordinated Universal Time (UTC);	SecuritiesTrade	TradeDateTime	ISODateTime
(c)(3)	The price	SecuritiesTrade	TradePrice	Currency and Amount
(c)(3)	The currency in which the price is expressed	part of TradePrice		
(c)(3)	The amount(s) of any up-front payments	SecuritiesTrade	UpFrontPayment	Currency and Amount
				Sign
(c)(3)	The currenc(ies) of any up-front payments	part of UpFrontPayment amount		
(c)(4)	The notional amount(s)	SecuritiesTrade	NotionalAmount	Currency and Amount
(c)(4)	The currenc(ies) in which the notional amount(s) is expressed	Part of Amount		
(c)(5)	Inter-Dealer Swap Flag	SecuritiesTrade	TransactionType	CodeList
(c)(6)	Intention To Clear Flag	TechnicalElement (message modelling)		
(c)(7)	If applicable, any flags pertaining to the transaction that are specified in the policies and procedures of the registered SDR to which the transaction will be reported			

(d)(1)	The counterparty ID [on the reporting side]	SecuritiesTrade	ReportingParty	LEI
(d)(1)	The execution agent ID [on the reporting side], as applicable	SecuritiesTrade	PartyRole_ExecutingTrader	LEI
				AlternateID
(d)(1)	The counterparty ID [on the non-reporting side]	SecuritiesTrade	CountraFirm	LEI
				AlternateID
(d)(1)	The execution agent ID of each counterparty, as applicable	SecuritiesTrade	PartyRole_ExecutingTrader	LEI
				AlternateID
(d)(1)	[As applicable] the branch ID of the direct counterparty on the reporting side	SecuritiesTrade	TradePartyRole	
(d)(1)	[As applicable] the broker ID of the direct counterparty on the reporting side	SecuritiesTrade	TradePartyRole	
(d)(1)	[As applicable] the execution agent ID of the direct counterparty on the reporting side	SecuritiesTrade	TradePartyRole	
(d)(2)	[As applicable] the trader ID of the direct counterparty on the reporting side	SecuritiesTrade	TradePartyRole	
(d)(2)	[As applicable] the trading desk ID of the direct counterparty on the reporting side	SecuritiesTrade	TradePartyRole	
(d)(3)	the terms of any fixed or floating rate payments, or otherwise customized or non- standard payment streams	same components as terms of fixed rate		
(d)(3)	the frequency of any fixed or floating rate payments, or otherwise customized or non-standard payment streams	InterestCalculation	PaymentFrequency	CodeList
(d)(3)	the contingencies of any fixed or floating rate payments, or otherwise customized or non-standard payment streams			

(d)(4)	title of any master agreement	MasterAgreement	Description	
(d)(4)	the date of any master agreement	MasterAgreement	DateSigned	ISODateTime
(d)(4)	the title of any collateral agreement	CollateralAgreement	Description	
(d)(4)	the date of any collateral agreement	CollateralAgreement	DateSigned	ISODateTime
(d)(4)	the title of any margin agreement	CollateralAgreement	Description	
			MarginConvention	
(d)(4)	the date of any margin agreement	CollateralAgreement	DateSigned	ISODateTime
(d)(4)	the title of any other agreement	Agreement	Description	
(d)(4)	the date of any other agreement	Agreement	DateSigned	ISODateTime
(d)(5)	any additional data elements included in the agreement between the counterparties that are necessary for a person to determine the market value of the transaction;	Agreement	Properties_SubElements	
(d)(6)	the name of the clearing agency to which the security-based swap will be submitted for clearing	SecuritiesTrade	SecuritiesTradeSystemRole	
(d)(7)	whether they have invoked the exception in Section 3C(g) of the Exchange Act (15 U.S.C. 78c-3(g));	TechnicalElement (message modelling)		
(d)(8)	a description of the settlement terms	SecuritiesSettlement	Properties_SubElements	
(d)(8)	whether the security-based swap is cash- settled or physically settled	SecuritiesTransfer	PhysicalDelivery_Type	CodeList
(d)(8)	the method for determining the settlement value	SecuritiesSettlement	Properties_SubElements	
(d)(9)	The platform ID, if applicable	SecuritiesTrade	SecuritiesTradeSystemRole	
(d)(10)	Transaction ID	MessageModelling	SecurityBasedSwap status	CodeList
(d)(10)	the transaction ID of an allocated security-based swap	TradeIdentification	Properties_SubElements	UTI
				CommonId
				ProprietaryID

(d)(10)	the transaction ID of a terminated security-based swap	TradeIdentification	Properties_SubElements	UTI CommonId ProprietaryID
(d)(10)	the transaction ID of a novated security- based swap	TradeIdentification	Properties_SubElements	UTI CommonId ProprietaryID
(d)(10)	the transaction ID of an assigned security-based swap	TradeIdentification	Properties_SubElements	UTI CommonId ProprietaryID
(e)(1)(i)	A life cycle event, and any adjustment due to a life cycle event, that results in a change to information previously reported pursuant to paragraph (c), (d), or (i) of this section shall be reported by the reporting side [except that the reporting side shall not report whether or not a security-based swap has been accepted for clearing]	MessageModelling	Update flag	
(e)(1)(ii)	Acceptance for clearing			
(e)(2)	All reports of life cycle events and adjustments due to life cycle events shall, within the timeframe specified in paragraph (j) of this section, be reported to the entity to which the original security- based swap transaction will be reported or has been reported and shall include the transaction ID of the original transaction.	MessageModelling		
(f)	Time stamp, to the second, its receipt of any information submitted to it pursuant to paragraph (c), (d), (e), or (i) of this section.	MessageModelling	TimeStamp	ISODateTime

(g)	A transaction ID to each security-based swap, or establish or endorse a methodology for transaction IDs to be assigned by third parties.	TradeIdentification	Properties_SubElements	

Notes on modelling

Data elements defined in 901(c)(1)(i)-(v) = identification of the contract and the basic economic terms

If product ID allows pointing to the sub-elements of the contract : product ID is enough, else all sub-elements must be provided

“custom swap flag” : indicate when the information provided pursuant to Rules 901(c)(1)(i)-(iv) does not provide all of the material information necessary to calculate the price of a security-based swap.

Data elements defined in Rules 901(d)(1), 901(d)(2), 901(d)(9), 906(a), and 906(b)

Not all parties are eligible to LEI. When in scope of LEI = LEI but modelling also accept other IDs

901(d) 3 Based on 'custom swap flag'

Information paper

Standards – A Value Proposition for Regulators

Contents

About Standards

Norms, models, rules, measures, systems, principles, prescriptions or standards: at the heart of society itself you will always find a shared set of standards by which it lives, and through which it interacts with the world around it. Societies use standards to define objects and elements and how to perform certain key tasks. Without standards, processes become unreliable, outcomes uncertain; trade is impeded, and consumer interests are compromised. Not only do standards define what is and what isn't acceptable, but they also give the members of society a shared frame of reference by which they can understand each other and can consume each other's products and services.

Some of the most notable "standard" successes are visible across the world and evident in everyday life – the bar code, or the shipping container; the light bulb fitting or the screw thread.

"Decades ago, data were not as central to the world of financial services businesses as they are today. We now live in a world that is data-driven as never before. As data become increasingly important, momentum continues to build to find ways to make our data better— and that's where standards play a valuable role."

Linda Powell, Chief Data Officer, Office of Financial Research, U.S. Department of the Treasury, GS1 Global Forum 2014, Brussels, Belgium, 18 February 2014.

Rather less obvious are data or semantic standards, which can help consumers, businesses and public authorities to understand and engage with a far wider range of information, products and counterparts than ever before.

Data standards principally define the meaning and format of data exchanged. Semantic standards go a step further, to describe the meaning of business concepts and their relationships in a way that makes them understandable, both by humans and to some extent machines, thereby aiding automation and interoperability. At their best, semantic standards can act as a model of the business, allowing the user to map everything out and gain greater insights into how processes and actions should be organised.

Common data exchange standards have no competitive advantage for any one business or organisation, but can offer tremendous value to everyone in a given industry, its end consumers and its supervisors. By using a common set of data exchange standards, resources can be focused where value is best created — by addressing business and operational issues — instead of wasting valuable time and incurring costs to reformat and interpret data again and again.

Standardisation in the world of finance is less immediately evident in everyday life than the technical standardisation such as Internet Protocol (IP), that we may be used to, but it is just as important. With the growth in financial internationalisation and the explosion in data-driven financial activities, the importance of standardisation has recently come to the fore in a number of areas – most notably in financial communication or messaging schemes, which are the focus of this paper.

Financial messaging standards sit at the heart of virtually all economic activity, from executing the smallest retail transactions to managing massive global institutional businesses; they play a key role in enabling modern society to function effectively.

Nowhere is the cause of standards in financial messaging championed more enthusiastically than at SWIFT. Since its genesis in the 1970s, SWIFT has worked at removing ambiguity and incompatibility in how banks and financial institutions interact with each other, while simultaneously championing security and higher levels of automation.

"Mandating the use of ISO 20022 will enable greater automation and straight-through processing (STP), and a consistent messaging standard will help reduce data processing risks. For high-value transactions, errors can result in significant financial losses. ISO 20022 aligns well with our future developments and is a tool to help us future-proof our messaging, providing a consistent data structure across all our services and to all our different customer segments."

Mr Lai Kok Leong, Vice President of Post Trade Services at Singapore Stock Exchange (SGX).

The key components of a data standard are data element names, definitions, and formatting rules. Data standards often include information describing procedures, implementation guidelines, and usage requirements. Additionally, standards may specify data transfer protocols, or other information that facilitates and promotes widespread use.

Benefits of standards

- Improve data quality
- Increase data compatibility
- Lower costs
- Reduce operational risk
- Eliminate inefficiencies
- Facilitate data collection and data analysis
- Create new business opportunities

"Taxonomies sound boring but are actually really important. They involve things like naming conventions and data ordering: do you enter month-day-year like we do in the U.S., day-month-year as they do in Europe, or year-month-day as they do in Asia? Getting those kinds of simple things right can be the difference between data that is unreliable, and data that can identify a hidden financial vulnerability."

Commissioner Kara M. Stein, International Cooperation in a New Data-Driven World, Brooklyn Law School, International Business Law Breakfast Roundtable, 26 March 2015.

About SWIFT & Standards

SWIFT plays an important role in standardisation, notably by creating and maintaining financial messaging standards and reference data standards. Use of standardised messages and reference data ensures that data exchanged between institutions is unambiguous and machine friendly, enabling efficient automation and so reducing industry costs and risk.

Financial institutions send structured electronic messages to one another to perform common business processes, such as making payments or confirming trades. In its role as a financial messaging standardiser, SWIFT's Standards group works with the financial community to define standards for these messages.

These standards specify the data elements that can be included in the messages, document the meaning and format of those data elements and specify which of the data elements are mandatory, which are optional, and which are only required in specific business scenarios.

The message standards also describe the actions expected of the message receivers, and, because some business processes require several messages to be exchanged, they also specify the order in which messages should be sent and received.

SWIFT Standards acts as Registration Authority (RA) for several standards that define universal codes for common data items, or reference data. RAs are appointed by the International Organisation for Standardisation (ISO) to ensure the integrity of the reference data defined by ISO standards, and to publish the data in an accessible form for the benefit of the user community. Examples of such standards include the ISO 9362 Business Identifier Code (BIC - commonly referred to as the "SWIFT" code), which is used to identify parties, and the ISO 10383 Market Identifier Code (MIC), which is used to identify exchanges, trading platforms, regulated or non-regulated markets and trade reporting facilities.

SWIFT Standards also contributes to the formalisation and implementation of other reference data standards, notably the ISO 17442 Legal Entity Identifier (LEI), which is increasingly required for regulatory reporting purposes. Financial messaging standards specify these codes wherever possible to minimise the ambiguity of data.

SWIFT Standards works with the user community to specify and publish *Market Practice* - rules and best-practice advice on how standards should be deployed to meet particular business needs or to comply with regulation.

The SWIFT Standards group maintains several important message standards.

The SWIFT MT standard, for instance, is used for international payments, cash management, trade finance and treasury business. Working with the SWIFT community, SWIFT Standards operates the annual maintenance process for MT, which ensures that the standard evolves to meet changing market needs.

SWIFT Standards, under contract to ISO, also maintains two open messaging standards: ISO 15022, which is used for securities settlement and asset servicing, and ISO 20022, which is scoped to all financial industry processes. The role of ISO 20022 is twofold: it is a methodology for creating financial messaging standards, and it is a related body of content which includes definitions of common industry terms, and message definitions addressing an expanding range of business areas, including payments, cash management, treasury, cards and securities.

SWIFT Standards is neutral; most work is done pro-bono, in support of industry working groups such as the Payments Market Practice Group (PMPG), Securities Market Practice Group (SMPG) and Common Global Implementation (CGI). Beyond the definition of base standards, SWIFT Standards collaborates with these and other communities to define, formalise and publish market practice guidelines, which describe how messages should be used in particular business contexts, and to specify common recommended implementations.

The financial industry already depends on a number of important standards processes to enable efficiency in its communication infrastructure and to reduce associated costs.

"The financial industry runs on information and data. Although financial data are made up of innumerable complex and idiosyncratic components, a fundamental building block for analysis is reference data about companies, organisations, and firms (henceforth referred to collectively as entities). Reference data might include a number of things, but an essential component is a systematic structure or code that uniquely identifies entities and their legal relationships with parent companies and subsidiaries capable of tracking changes in these relationships over time and quickly incorporating information on newly created entities."

Creating a Linchpin for Financial Data: Toward a Universal Legal Entity Identifier, John A. Bottega and Linda F. Powell, July 2011.

Standards in Global Trade

The world of global trade has been transformed by standardisation. The most obvious changes can be witnessed in the physical supply chain, starting with the standardised shipping container and the incredible infrastructure of ships, ports, trucks and warehouses that has grown around it.

According to The Economist[1], in a set of 22 industrialised countries, containerisation led to a 320% rise in bilateral trade in the first five years after adoption and to a 790% increase over the first 20 years.

Less well-known is that these developments have been mirrored by standardisation in the financial supply chain; after all, for every movement of goods there will be a corresponding movement of money, and both need to be efficient if the system is to work optimally. Cross-border trade brings many challenges on the financial front, from foreign-exchange and settlement risk to issues of trust between geographically and culturally separate buyers and sellers. Several standards have evolved to enable the financial industry to help its customers overcome these challenges.

The *Documentary Credit* is one of the oldest financial instruments. It is an undertaking given by a bank on behalf of the buyer of goods guaranteeing that the seller will receive payment for the goods as long as there is compliance with the defined documentary requirements. An alternative payment method, the *Documentary Collection* is where the exporter receives payment from the importer in exchange for the underlying shipping documents via their respective banks. Other trade instruments include *Guarantees and Standby Letters of Credit*, which provide a legal means for sellers to recover funds if trade transactions do not proceed as planned.

SWIFT messaging standards include a suite of definitions specifically designed to automate processing of trade-finance instruments, both between banks, and between banks and their corporate customers. These are in addition to the SWIFT payments and treasury standards that are routinely used to support international trade.

In recent years, as communications technologies have improved and cross-border transactions have become routine for many businesses, the use of traditional trade finance, which relies on the exchange and manual checking of documents, has declined in favour of 'open account' relationships, where sellers effectively trust buyers to settle their accounts on receipt of goods. However, not all buyers and sellers are in optimal relationships in terms of risk and trust, and here the financial industry again has a role to play, intermediating between business partners and providing mechanisms to offset risks.

Again, given the network nature of global trade business, standards are required to ensure that banks and their customers can interoperate efficiently. The most recent standard to be developed in this context is the Bank Payment Obligation (BPO). This standard, based on ISO 20022 was developed jointly by SWIFT and the International Chamber of Commerce (ICC), and is quickly gaining traction as an enabler of safer global trade.

[1] "The humble hero: Containers have been more important for globalisation than freer trade", 18 May 2013, The Economist.

This is true for all financial communications, whatever the business domain or the communication network, and it applies whether the counterparties are financial institutions, clients, suppliers, market infrastructures or public authorities.

Many of the standards upon which the financial industry relies are governed by the International Organisation for Standardisation (ISO). ISO was formed in 1947, with a mission 'to facilitate the international coordination and unification of industrial standards'. Today ISO is a network of 163 national standards bodies, each of which represents ISO in its country. ISO manages 19,500 international standards in a wide variety of industries. The ISO organisation is based in Geneva and employs around 150 staff, but the wider organisation consists of 100,000 volunteers drawn from national standards bodies and industry 'liaison organisations', such as SWIFT. Industry specialisation is at the level of Technical Committees (TCs).

Standards are developed by expert users in the relevant industry; ISO oversees and facilitates the process, and publishes the results in the form of new or revised standards. New or revised standards are approved by ballot. Votes are cast by the national standards bodies represented on the relevant ISO TC.

Standards & Regulation

Standards have a role to play in facilitating efficiencies and understanding between market participants – and also play a key role in financial regulation. To be effective, regulation needs to be implemented consistently. When regulation considers financial data, consistency can only be achieved if all stakeholders share the same understanding of the meaning and purpose of that data. This is particularly true when data from multiple entities needs to be aggregated: without consistency at the source, it is impossible to guarantee the validity of data when combined, and somewhat unsafe to infer conclusions from it.

"Stronger and more consistent financial data standards will enhance financial stability by addressing a major deficiency that impairs decision-making. Data standards, when implemented appropriately, will promote data transparency, comparability, and quality, enabling aggregation of risks, financial stability monitoring, and better firm risk management."

OFR – Promoting Data Standards, OFR Annual Report 2012.

Identification is also key. The ability of financial institutions and their supervisors to uniquely and precisely identify instruments, counterparts and assets is critical to a wide array of essential business and risk-monitoring functions. Standard entity identifiers can be used to uniquely identify parties to financial transactions, whilst standard product identifiers can allow for comparability across financial products; without them uncertainty prevails.

Regulators have long used financial data from a variety of sources in their economic analysis of rules, risk assessment and market supervision initiatives; to support enforcement actions and compliance programs.

The need for clear accepted standards has been well understood by regulators for some time now and particularly since the progressive rise in market oversight activity underway before the emergence of the financial crisis in 2008. The G30 Report of 1993 laid some useful groundwork in risk analysis and mitigation measures, the EU-Commission-sponsored Giovannini Group identified specific, addressable barriers to European integration of securities clearing and settlement, and the drives toward effective single markets in European investment funds (ref UCITS), cash securities markets (ref MIFID), and Euro payments (ref SEPA) were already in full flight, as were US initiatives to increase the transparency of process accountability, amongst other things (ref Sarbanes Oxley).

"The lack of high-quality, consistent, and accessible data was a key source of risk in the financial crisis. Risk systems designed to assess counterparty risk, interconnections, and short-term funding were strained because, in part, the data they required and even the reports they generated lacked standards for basic data identifiers, elements, and terms. Regulators and policymakers were caught trying to aggregate information from disparate systems, each with proprietary naming conventions for counterparties and instruments. Differences in the amount and consistency of information on terms and conditions of the data meant that even when common transactions were identified, there was limited assurance that they could be compared with certainty."

OFR – Promoting Data Standards, OFR Annual Report 2012.

"The LEI promises a wide array of benefits. It is expected to save enormous sums that the financial industry spends on cleaning, mapping, and aggregating disparate data and on reporting data to regulators. Precise identification of counterparties would also give firms a clearer picture of their exposures in the marketplace. For financial regulators, such identification would provide insight into ways shocks can spread across financial markets and would help in identifying vulnerabilities in the financial system."

Linda Powell, Chief Data Officer, Office of Financial Research, U.S. Department of the Treasury at the GS1 Global Forum 2014, Brussels, Belgium, 18 February 2014.

All those involved in these initiatives at the time, recognised the need to harmonise data definitions as a necessary precursor to successful implementation of their visions. Indeed, some individual market silos managed to make some progress towards this goal (ISDA documentation and FpML for OTC derivatives, ISO 20022 for SEPA and Giovannini, etc) – but not enough.

The crisis magnified the scale and nature of the data consistency problem, and brought it into the open. Just as banks were trying to identify their counterparty risk, the lack of any authoritative data enabling unique and unambiguous identification of counterparties surfaced to an unprecedented degree. The 2008 financial crisis demonstrated the opacity and lack of understanding about the linkages between market participants and between assets. Both participants and regulators rapidly realised that as the system permits interconnectivities through complex transactions and products that cross jurisdictions, regulators and firms need tools to monitor and understand what is going on.

Both need a window into the highly complex linkages that tie firms together.

It was in direct response to this need that the ISO17442 Legal Entity Identifier (LEI) was created, and an issuance and governance structure incorporated around it. The LEI is a unique, 20-digit alpha-numeric code, which makes it possible to identify all the legal entities involved in a financial transaction. The LEI is designed to reduce costs in collecting, cleaning, and aggregating data, and in reporting data to regulators. The LEI also helps regulators better monitor and analyse threats to financial stability.

The LEI solves an important but still small part of the data consistency problem. Not only do entities need to be identified – but data reporting needs to be consistent. Post-crisis, much of the regulatory development has taken place under the umbrella of agreements reached by the G20 leaders at summit meetings since 2009 – agreements which have placed paramount importance on reporting. Although the G20 agreements are intended to foster a *global* approach to ensuring the soundness of financial markets, differences are emerging across markets around the timing, scope and content of regulatory reforms. Within some geographies, there are even differences emerging between markets. A plethora of reporting requirements have emerged since 2009, some focused on entities, others on products; some on markets, others on geographies. So In some cases reporting mechanisms and data sets have been specified, in others they have not.

"Data standards can increase efficiency and reduce costs for not only the industry, but also regulators. Developing a consistent reporting convention will improve data quality and cross-market and international data harmonisation as envisioned by the G20."

Keynote Address by Commissioner Scott D. O'Malia, The Future of Financial Standards – SWIFT Institute, SWIFT's Standards Forum, and the London School of Economics and Political Science, London, England, 25 March 2014.

For market participants, the ongoing slew of differing reporting requirements means significant changes in operational practice, business structure and reference data management to build an effective strategy for regulatory compliance. It can mean costly duplication, and increased scope for error. The outlook for market and prudential supervisors is little better; they face a patchwork of disparate reports, containing distinct but overlapping data sets, submitted in divergent formats.

Two problems clearly need to be addressed. Firstly, how to express requirements for monitoring information in a way that will yield clear, consistent and uniform data, with confidence that regulated entities and their supervisors will:

— Understand the required data definitions in a uniform way, and

— Provide reporting that reflects this uniform understanding.

Secondly, how to impose such requirements on an industry that is already struggling to maintain pace with the rate at which new directives, regulations and other authoritative requests for regular information present themselves?

Finally – assuming that there is no magic bullet that will bring about a solution to the above, what short-term measures can be adopted in the interim, to enable more effective oversight whilst respecting the overall need for market- and vendor-neutrality, in service of the public good?

In order that regulators can be confident about correct interpretation of requirements, and regulated institutions can be equally confident about correct interpretation of reports, the financial world needs a single, authoritative library of financial data definitions, to which data components of every relevant transaction can be traced.

This paper contends that this single standard set of definitions exists: ISO 20022 - the Universal Financial Industry Message Scheme. ISO 20022 defines the platform for the development of financial message standards. Its business modelling approach allows users and developers to represent financial business processes and underlying transactions in a formal but syntax-independent notation. These business transaction models are the "real" business standards.

About ISO 20022

ISO 20022 – "Universal financial industry message scheme" is the open methodology for developing new financial messaging standards and for harmonising existing financial messaging standards. ISO 20022 is an initiative of the International Organisation for Standardisation (ISO). ISO 20022 was conceived to harmonise the fragmented financial standards landscape, and can best be described as a 'recipe' for developing financial messaging standards. The main ingredients of this recipe are a development methodology, a registration process, and a centralised, machine-processable "e-Repository".

ISO 20022 is an open standard. It is not controlled by a single interest and is open to anyone in the industry who wants to participate. It is free for anyone to implement in any business or software environment, or on any network.

The first edition of the ISO 20022 standard was published in December 2004. In the ensuing decade the ISO 20022 Methodology has been applied to standardise data definition and messaging exchange across many financial business processes, including retail and wholesale payments, foreign exchange, securities lending, repo transactions, collateral management, securities settlement, asset reconciliation, and more.

Today, to avoid duplication of effort and to ensure that all new messages are consistently developed, ISO Technical committee 68 (Financial Services) requires that all financial message standardisation initiatives follow the ISO 20022 Methodology. Authoritative and clear semantic definitions of financial data have been at the core of the ISO 20022 standard since inception, and it is being adopted as the natural language of financial transactions by communities throughout the world. ISO 20022 aims to provide the financial industry with a common platform for the development of messages.

Today, multiple messaging standards are used in the financial services industry. To reduce friction and implementation costs, a Standards Coordination Group (SCG) was established to align these standards into a broader framework – ISO 20022. Through participation in the SCG, each organisation responsible for a financial standard (FIX, FpML, SWIFT, XBRL, ISITC and FISD) affirmed its commitment to the ISO 20022 methodology and business model as this framework.

All standardised financial business processes have been, or will be, incorporated in the ISO 20022 business model and the ISO 20022 methodology supports the creation of new ISO 20022-compliant messages to support each business process. Although ISO 20022 allows coexistence of legacy domain-specific syntaxes and protocols in certain circumstances to protect the investments of market participants, it lays the groundwork for a common financial messaging standard, and clearly communicates that direction to the entire industry.

Several proofs of concept have successfully demonstrated the technical feasibility and value of the ISO 20022 approach to domains where legacy syntaxes are still widely used.

Based on these successes, ISO TC 68, Working Group 5 has begun work on a new part of the ISO 20022 standard to formalise a semantic model for finance that will accelerate alignment of legacy standards to ISO 20022. This project will build upon the formal, machine-processable traces between the different levels in the ISO 20022 repository to make this tracing more open to other financial syntaxes.

Financial standards take a long time to get established, and even the best-designed standards take off only if they meet real and immediate needs in the market. For ISO 20022, that moment seems to have arrived. More than 70 major initiatives around the world have committed to ISO 20022, covering payments, cash management, treasury and securities.

In the context of regulatory reporting and data aggregation, it is critical that all reporting entities interpret the specification of the data to be reported in the same way. Without this consistency, data from different entities cannot be meaningfully compared or aggregated, and the policy goals of the regulation can become difficult or impossible to achieve. The more precisely each data element in a report is specified, the more likely it is that implementers of the regulation will submit consistent data – and the easier it is for the supervisory community to examine the data.

By providing a universally agreed language that can be shared by business, legal, and technical experts, ISO 20022 greatly simplifies the interpretation and implementation of any regulation defined in that language. Regulations defined in terms of ISO 20022's unique conceptual Business Model and Business Process layer allow implementers to understand both the regulated financial concepts, and the contexts in which the regulation is applicable.

ISO 20022 is also appealing to regulatory initiatives because it is an open and transparently governed standard that is platform neutral, and free to download, implement, and extend.

The financial industry already depends on a number of important standards processes to enable efficiency in its communication infrastructure and to reduce associated costs. This is true for all financial communications, whatever the business domain or the communication network, and it applies whether the counterparties are financial institutions, clients, suppliers, market infrastructures or public authorities.

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SWIFT Standards & ISO 20022

SWIFT Standards has been part of the evolution of ISO 20022 from the beginning. SWIFT drafted the original specification as part of the ISO working group that developed the standard, and remains the single largest contributor of content. Under contract to ISO, SWIFT Standards also operates as the Registration Authority for ISO 20022, which maintains the technical infrastructure of the standard, ensures technical consistency, and publishes the content in a variety of formats.

ISO 20022 & Regional/Global Adoption

ISO 20022 is being adopted globally across the financial industry. ISO 20022 standards have been developed across many financial business processes including retail and wholesale payments, foreign exchange, securities lending, repo transactions, collateral management, securities settlement and asset reconciliation, and central banks and market infrastructures across the world are now increasingly using the standard across these markets, with around 70 payments and securities clearing and settlement systems implementing ISO 20022.

For example, in the US the Fed has declared an intention to implement ISO 20022 for US payments and DTCC is using it for its Corporate Actions service. In Asia, ISO 20022 is used by the Chinese domestic payments system, CNAPS. It is also used by the Japanese securities depository, JASDEC, the Singapore stock exchange (SGX), the Australian stock exchange (ASX), and it has been chosen as the standard for the forthcoming Australian real-time payments system. ISO 20022 is also the standard used for messaging by strategic initiatives such as the Single Euro Payments Area (SEPA), the ECB's TARGET2-Securities, and upcoming migrations of TARGET2 and EBA (EURO1/STEP1).

At time of writing, the ISO 20022 Registration Authority (RA) is aware of around 200 ISO 20022 initiatives globally ranging from live implementations to communities that are in the early stages of market consultation. Many of these are detailed in the freely downloadable ISO 20022 Adoption mApp for iOS tablets that is published by the RA[2].

There are many reasons why financial market infrastructures (FMIs) in particular have become early adopters of ISO 20022. One is timescale: FMIs tend to plan with longer time horizons than other businesses, so the appeal of a well-managed, technically advanced and adaptable standard is obvious. A second is regulation: regulators understand that the services provided by FMIs provide critical steps relied upon by multiple parties across the finance sector and are likely, as a result, to require the use of ISO 20022 to drive safety, accessibility and efficiency in those processes.

For example, the European Central Bank has recommended that the Real Time Gross Settlement System (RTGS) built by the Eurosystem — TARGET2 — should adopt ISO 20022. This is partly to ensure that the payment leg of a securities transaction will be consistent with the ISO 20022-based settlement process defined for TARGET2-Securities (T2S), the single securities settlement system for Europe that is expected to begin operations in 2015.

As FMIs are at the forefront of ISO 20022 adoption, a third reason is the 'topology' of the relationship between FMIs and their customers. Standards are used in many types of business process, some of which are inherently 'many to many' — that is, they involve many peer organisations interacting with many others — rather than point to point.

A good example is foreign exchange market confirmations. Currencies are traded widely, with many counterparts involved. This makes it difficult for a new standard to displace an old one, whatever its technical merits, because of the difficulty of migrating a large and disparate user base. But FMIs can act as a catalyst for change, and an organising force in the adoption of ISO 20022.

Finally, FMIs are aware that their participants, such as global banks, have many other infrastructures with which they need to work. As responsible actors in the global financial system, they recognise that adopting the same ISO 20022 standard as their peers around the world can help to achieve greater safety and economies of scale at the global industry level.

The first FMIs to implement ISO 20022 were drawn from the payments industry. The European legislation that led to the creation of the Single Euro Payments Area (SEPA) mandates the use of ISO 20022 as a common format. By standardising information exchange in this way, ISO 20022 is making a crucial contribution

[2] Search for 'ISO 20022' in the Apple AppStore.

to achieving the SEPA goal of replacing national payments arrangements with an integrated system for euro payments (credit transfers and direct debits) across 28 member states of the European Union, the four members of the European Free Trade Area plus Monaco and San Marino.

Since the migration to SEPA began, a number of other ISO 20022-based initiatives have gone live in a variety of markets. They cover a range of payment schemes, from RTGS systems handling high-value payments, such as the India RTGS, to low-value payments systems, such as the STEP2 system operated by the Euro Banking Association. In addition, the New Payments Platform (NPP) proposed by the Reserve Bank of Australia specifies ISO 20022, as does the Canadian Payments Association, which operates the retail payments infrastructure in Canada.

The figure above is a screenshot from the ISO 20022 Adoption mApp, which contains information about ISO 20022 adoption worldwide. It is available free from the AppStore or from www.iso20022.org, as an IOS App or as a PDF.
The screen shows the number of active communities adopting ISO 20022 per country. Useful information on each initiative is available by "zooming in".

Conclusion

Standards, and the ISO 20022 standard in particular, are being adopted worldwide, to stabilise risk-bearing data exchange throughout the financial industry, to reduce costs, and to remove barriers to interoperability.

ISO 20022 messages are quickly becoming recognised as the natural transaction language of market infrastructures, which means that individual market participants are embedding them already into core transaction processing systems.

The data model which lies at the heart of ISO 20022 is a potential reference point to help regulators and market overseers to require, harvest and interpret data which is unambiguous, clear and equivalent from one source to another.

Reference data standards, such as the LEI, are used within and beyond financial messaging, to define the context within which transactions take place in a similarly uniform manner.

There are compelling reasons for the market oversight community to adopt and use standards, amongst which effective aggregation and comparison of data are prime examples.

Understanding how the application of standards can help the community requires some familiarity with the content, governance, real-world implementation and limitations of standards; and likewise, the standards community needs to learn about regulatory practices in order to provide relevant assistance.

SWIFT Standards exists to help financial organisations develop and use its financial messaging and reference data standards, and to learn about how such organisations operate as part of its mission of continuous evolution and improvement of standards, as well as related products and tools.

> "A great deal of work still needs to be done to ensure that the data reported by industry and collected by regulators will be as useful as possible, or we will be at risk of not achieving that goal. The data are fragmented, with many different trade repositories, within and across jurisdictions, collecting different kinds of information in different ways, keeping us from putting all of that information together to develop a full picture of the market. We need to roll up our sleeves and address any obstacles to making these data useful for market participants and for regulators who are monitoring financial stability."
>
> Testimony Of Acting Deputy Secretary And Under Secretary Of The Treasury Mary J. Miller Before The Senate Committee On Banking, Housing And Urban Affairs 6 February 2014.

As shown above, the rigour and precision of the definitions found in the ISO 20022 business model make it an excellent resource through which to ensure that data elements specified in a regulatory reporting context are interpreted consistently by implementers.

Moreover, once the data elements for a business process have been identified, it is straightforward to create a message definition that can be used to transport the data. In these definitions it is possible to distinguish a baseline set of common details and national or regional additions, facilitating tailored reporting at national or regional level, as well as the consistent reporting required at global level.

If the regulatory community is interested to use ISO 20022 as the methodology for developing financial messages and data sets, SWIFT Standards is ready:

- to provide orientation, education and training to help regulators understand the full potential value of messaging and reference data standards in their context;
- to host and participate in workshops to exchange information and ideas about where and how standards can be used to address core issues and concerns of the regulatory community, and
- to complete definitions as required in the existing business model and add any additional content required as a pro-bono contribution to market oversight, the end-users of the financial markets and ultimately, the common good.

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About SWIFT
SWIFT is a member-owned cooperative that provides the communications platform, products and services to connect more than 10,800 institutions in more than 200 countries. SWIFT enables its users to exchange automated, standardised financial information securely and reliably, thereby lowering costs, reducing operational risk and eliminating operational inefficiencies. SWIFT also brings the financial community together to work collaboratively to shape market practice, define standards and debate issues of mutual interest.

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