
Syndicated Loan FpML Requirements

Business Requirements Document
Version 1.43

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Business Requirements Working Groups

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Document History

Date	Version	Author	Changes
22-Feb-07	1.0	Bhavik Katira	Created initial document structure
25-Apr-07	1.1	Bhavik Katira	Updated with further information regarding business events and more detailed descriptions of the initiative in the introduction section.
30-Apr-07	1.2	Bhavik Katira	Updated with scope modifications following the LSTA working group meeting (25-Apr-07).
8-May-07	1.3	Bhavik Katira	Updated with Drawdown notice details from last LSTA working group meeting (25-Apr-07).
17-May-07	1.4	Bhavik Katira	Updated with Drawdown Notice changes and Rate Set introduction from the last LSTA meeting (9-May-07).
23-May-07	1.5	Bhavik Katira	Updated with further updates to Drawdown Notice and Rate Set notices. From the last LSTA meeting (23-May-07).
30-May-07	1.6	Bhavik Katira	Further updates from last LSTA meeting (23-May-07).
12-Jun-07	1.7	Bhavik Katira	Added initial interest payment section with interest period and interest accrual sub-sections (including graphs). Added principal repayment section. Updated the scope/phase matrix to include principal repayment and different fee types.
20-Jun-07	1.8	Bhavik Katira	Updated the principal repayment section.
9-Jul-07	1.9	Bhavik Katira	Updated 'drawdown' to 'contract'. Contract id required on notices for system level identification purposes. Lender remittance is included in the interest payment notice and principal repayment. Contract and commitment levels on the repayment notice are shown after the repayment has

			been taken into account.
13-Jul-07	1.10	Bhavik Katira	Creation of a common message content section for loan administration notices – mainly contains static instrument data. Updated all repayment sections to include one or more contracts. Addition of Unscheduled Mandatory and Voluntary Repayments section. Addition of On-Going Fee section.
16-Jul-07	1.11	Bhavik Katira	Addition of a notice summary section. More explicit definitions for the mandatory and voluntary principal repayments. Definition of different fee types within On-Going Fee message structure – fee type specific validation.
24-Jul-07	1.12	Bhavik Katira	Removal of lender contact information from common section. Removal of agent bank details from deal section. Inclusion of a generic deal and facility id types. Reference to only the current global commitment amount and the current contract amount within common. Mandatory liquid asset cost not known until the underlying interest rate is known. Update to the scheduled and unscheduled principal repayment diagrams. Documented the 2 nd offer process in the voluntary/mandatory repayment section. Noted that lenders can accept a portion of a repayment request – depending on credit agreement. Confirmation message to reflect this. Update to the on-going fee section – inconsistent requirements corrected. Added prepayment fee. Notice required is a specific requirement. Removed from common. Exchange rate and fixing moved from common to drawdown and rate set notices. Next interest payment date is associated with the high-level notice itself (not a business object). Removed currency from the remittance sections. Names are not required, Id and Types always required. Amounts throughout the doc assume a currency definition. The term 'contract' was made more specific in the spec to 'loan contract'
6-Aug-07	1.13	Bhavik Katira	Removed notice description from the spec. Not required for system to system interaction. Updated common section. Synchronized updates with XML schema. Updated repayment section to reflect the loan contract repayment 'n' times. Removed notice description. Removed references to currency where currency is not an independent field (otherwise it is assumed to be part of the amount field). Name shortening. Interest calculation method added to the interest payment notice (where the agent may pay based on pro-rata share on payment date).
8-Aug-07	1.14	Bhavik Katira	Differentiate between the interest rate fixing date and exchange rate fixing date in the rate set notice. Noted that an exchange rate shift can alter a commitment and/or utilization fee calculation. Repayment notice – changed the boolean for the acceptance into an enumerated type to clearly identify a partial acceptance for a repayment. Updated the on-going fee section – corrections from the previous version. Added the message, conversation and in reply to ids to the common section.
14-Aug-07	1.15	Bhavik Katira	Question of payment date on the drawdown notice. Question of date adjustment factors within the loan contract or deal/facility. Added one-off fee section.
5-Sept-07	1.16	Bhavik Katira	Answered questions introduced in v1.15. Updated the on-going fee section with LoanContract level details and fx rate schedules.

1-Oct-07	1.17	Bhavik Katira	Resynchronized the document with the latest version of the XSD design.
4-Oct-07	1.18	Bhavik Katira	Updates after the 4-Oct LSTA business working group. Date format note – International standard – dd-mmm-yyyy Currency should be ISO standard Question of rate fixing date, time & location...? Conditions precedent met flag added to drawdown notice Fee Day basis added
12-Oct-07	1.19	Bhavik Katira	Added the business validation rule for tenors on the underlying base rate – within the interest rate period block. Synchronized the loan contract identifier with the XSD to ensure that only the id is required. All non-static fields are also removed. Rate fixing date business validation added – the field is required and will be populated with the loan contract effective date in the case of Prime. Added commitment adjustment flag to the repayment notice. Added interest paid on repayment flag to the loan contract level of the repayment notice. Added initial version of a new flow for the loan contract request. This provides a full loan contract structure. Added a separate common facility position section. It can be optionally included in various notice messages. Added the initial commitment adjustment section.
27-Oct-07	1.20	Bhavik Katira	Enhanced the loan contract request section with a flow diagram and further details. Added more business validation rules in all sections. Updated fee rate in the one-off fee payment notice.
7-Jan-08 11-Feb-08 11-Mar-08	1.21	Bhavik Katira	Updated the scope table for more accurate Phase 2-4 details. Added PIK fields in current interest rate period and repayment notices. Created Phase 2 section. Removed interest paid on repayment flag from the facility-level repayment details. Removed prepayment fee amount from the repayment notice. Removed share loan contract amount from the loan contract repayment section. Made all global repayment amounts not required (in main notice sections). Removed lender facility position from repayment message (replaced by facility and loan contract position in header). Added a PIK period to the interest payment notice. Clarify margin definition (with respect to PIK). Added initial rollover section. Updated the scope table. L/C section added – L/C Issuance, L/C Balance
13-Mar-08	1.22	Bhavik Katira	Updated business scenarios and flows for L/C Issuance, L/C Balance, L/C cancellation. Update the common section (facility commitment position) to include LC balances.
6-May-08 12-May-08 19-May-08 28-May-08	1.23	Bhavik Katira	Note pertaining to the requirement of a business validation for non-mandatory deal/facility identifier fields. Addition of a non-mandatory exception flag in notice headers. Allowing message senders to flag exceptional events. Removal of all business validation sections. Note for validation of CUSIP and ISIN fields. Updated conditions precedent flag values. Repayment and loan contract currencies must always be stated since they could be different currencies. Already defined. Options between full and identifier L/C's in all notices. L/C fee is always denominated in L/C currency – added to validation s/s. L/C termination – L/C balance always goes to zero – added to validation s/s.

			<p>MLA updated to MCR (mandatory cost requirement).</p> <p>F/X rate is to be linked with the loan contract rather than just the interest period within a loan contract. It has also been converted to a schedule to allow multiple FX rates during the life of a loan contract.</p> <p>Global amounts in one-off fees should be made optional – they are not required in most scenarios.</p> <p>Added waiver, funding, upfront, facility extension to the one-off fee section.</p> <p>Remittance should always include currency - Pending.</p> <p>Fees are paid in facility currency (rather than loan contract currency) – updated validations s/s.</p>
2-Jun-08	1.24	Bhavik Katira	<p>Updated scope matrix: moved commitment adjustment to phase 3, moved 'loan underlyer' to phase 3, moved withholding tax to phase 3, added generic remittance details section.</p> <p>Synchronized all comments and data structures against the schema.</p> <p>Updated Basis Point Amount to Percentage.</p> <p>Introduced a new Pricing Change Notice section.</p> <p>Removed the draft sections for future phases – will be reintroduced later (when applicable).</p> <p>Introduced a new Lender Position Record structure.</p>
17-Jun-08	1.25	Bhavik Katira	<p>Updated remittance section priority in the scope matrix.</p> <p>Updated the pricing notice section: updated margin change section to interest rate period change section, introduced the loan contract identifier within the interest rate period change section, introduced an L/C change section.</p> <p>PIK note added.</p>
19-Jun-08	1.26	Bhavik Katira	<p>Updated the pricing change section to allow communication where there are no outstanding loans.</p> <p>Updated the business scenario on P36 – L/C accrual description.</p> <p>Added validation in the pricing change reflecting the population of at least one element in one of three arrays.</p> <p>Added pricing change reason code.</p> <p>L/C balance change updates.</p>
1-Jul-08	1.27	Bhavik Katira	<p>Added the initial version of the cash low and settlement section.</p> <p>Updated the position record section to reflect the separate snapshot and position history sections.</p> <p>Update the scope matrix: Lender position and snapshot.</p> <p>Update the annotations for the phase 2 data fields.</p>
1-Jul-08	1.28	Bhavik Katira	<p>Pricing change – reason code should not be required.</p> <p>Added support for the ability to publish multiple interest rate periods within the lender position history.</p> <p>Note for inclusion of a timestamp in lender position history message.</p> <p>Inclusion of multiple L/C's in a single pricing change message.</p> <p>Amended the pricing change section to include non-outstanding price movements.</p> <p>Combined the lender position snapshot and lender position history sections.</p> <p>Added the trading counterparty id as a field in the case of a lender commitment shift being caused by a secondary trade.</p>
9-Jul-08	1.29	Bhavik Katira	<p>Loan contract identifier should be required on the price change notice.</p> <p>Paydown and commitment decrease should be separate event types within the Lender Position.</p> <p>Change structure within the Lender Position History notice.</p>
23-Sept-08	1.30	Bhavik Katira	<p>Updated 'identifiers' to summary.</p> <p>Updated lender position record with extra fields at the lender position change level.</p>
7-Oct-08 17-Oct-08 11-Nov-08 13-Nov-08	1.31	Bhavik Katira	<p>Updated scope matrix to reflect new priorities/deliverables for phases 2-6.</p> <p>Updated one-off and on-going fee notices to contain a reference to an optional loan contract.</p> <p>Added an event id.</p> <p>Added the projected interest amount to the current interest rate period.</p>

17-Nov-08			<p>Created a choice for the beneficiary details within an LC. Added simple textual description of beneficiary.</p> <p>Created a secondary trading section as part of phase 3.</p> <p>Created a deal and facility object.</p> <p>Updated L/C correction scenario vs amendment.</p> <p>Removed borrower id from loan contract summary – inconsistent requirements.</p> <p>Corrected loan contract repayment to be consistent (loan contract summary was incorrectly stated).</p> <p>Expanded the coverage for lender position report.</p>
7-Jan-09 2-Feb-09 16-Feb-09 2-Mar-09	1.32	Bhavik Katira	<p>Remove price from deal trade.</p> <p>Amount not required on deal trade.</p> <p>Added Par Distressed Flag on deal trade.</p> <p>Added default flag to the Borrower (within Deal).</p> <p>Added a comment for Borrower Disclosure.</p> <p>Added a Borrower Consent flag.</p> <p>On Risk Until Date moved from deal trade to facility trade.</p> <p>Added Loan Contract level trading information.</p> <p>Added Delayed Compensation section.</p> <p>Added Trade Allocation section.</p>
4-Mar-08 9-Mar-09	1.33	Bhavik Katira	<p>Updated the trading business scenario.</p> <p>Updates from business working group from 4-Mar-08.</p> <p>Removed price form deal trade.</p> <p>Added agent/principal flag on facility trade and allocation levels.</p> <p>FX rates in the on-going fee notice – should they be there...? No</p>
10-Mar-09 11-Mar-09	1.34	Bhavik Katira	<p>Answered various questions around the trade settlement process</p>
3-Apr-09 8-Apr-09 14-Apr-09 21-Apr-09 28-Apr-09 1-May-09 4-May-09	1.35	Bhavik Katira	<p>Removed (deferred) the Lender Position History requirements.</p> <p>Added further assignment and funding memo requirements.</p> <p>Moved Lender Position Reconciliation to a later phase.</p> <p>Updated questions around the trading analysis.</p> <p>Updated the Deal/Facility requirements.</p> <p>Synchronized trade requirements document with schema design.</p> <p>Extended deal and facility structures.</p>
5-May-09 8-May-09 13-May-09 19-May-09 9-Jun-09	1.36	Bhavik Katira	<p>Removed governing law state, maturity date, borrower disclosure flag (from deal).</p> <p>Facility effective date not mandatory.</p> <p>Removed facility-level borrower and guarantor limits.</p> <p>Added a question for fee currency (extended facility description) and a question around the capture of the on-going facility fee schedule.</p> <p>Removed expected settlement date.</p> <p>Form of purchase not required on funding memo.</p> <p>Removed On Risk Until Date.</p> <p>Commitment Amount not required on the Assignment Agreement.</p> <p>Renamed Settled Amount to Settled Commitment Amount.</p> <p>Added effective date to the assignment agreement.</p> <p>Loan contract trade details required for all trading notices.</p> <p>Loan contract traded amount not required for the assignment agreement, settled amount set to mandatory.</p> <p>Added allocated selling counterparty (previously only buyer allocation counterparty captured).</p> <p>Added a design note around how to capture delayed compensation accrual schedules.</p> <p>Removed the delayed comp period (# days). This calculation should be based on the type of accrual.</p>

			<p>Added a delayed compensation payment notice embedded within the loan contract trade.</p> <p>Added a delayed comp on-going fee payment notice within the facility trade details section.</p> <p>Updated the trade settlement workflow diagram.</p>
9-Jun-09	1.37	Bhavik Katira	<p>Added expected settlement date (again).</p> <p>Commitment amount required for assignment agreement.</p>
21-Jul-09	1.38	Bhavik Katira	<p>Updated form of purchase (assignment-only scenarios).</p> <p>Delayed comp broken down by currency within the delayed compensation period.</p> <p>Added the definition of the delayed settlement period (specific date definition).</p> <p>Added 'trigger date' to the deal details. Outstanding question regarding whether it is required...?</p> <p>Price Change:</p> <p>Updated the pricing change notice section to reflect a previous decision – to remove interest rate periods. We had made a decision to represent the Margin Rate change only (but it was erroneously left in the spec).</p> <p>Updated the pricing change (margin rate change) to include the possibility of defining the loan contract summary.</p>
22-Jul-09 24-Jul-09 28-Jul-09 3-Aug-09 4-Aug-09	1.39	Bhavik Katira	<p>Complete redesign of the secondary trade representation.</p> <p>Introduction of Allocation Facility Trade and Multi Facility Trade structures.</p> <p>Representation of the Delayed Compensation at the single counterparty or allocated counterparty levels. Delayed compensation amount is now an array to cater for multi-currency scenarios.</p> <p>Inclusion of accrual schedules for interest, fee and LC components within the trade structure.</p> <p>Updated the scope matrix to include cancellation messages. Business group agrees that this is high priority.</p> <p>Removed share loan contract amount from the interest accrual period within the interest accrual period structure (requirements inconsistent with schema).</p>
4-Aug-09 8-Aug-09 15-Aug-09 7-Sep-09 23-Sep-09 5-Oct-09	1.40	Bhavik Katira	<p>Scope: modification messages also in Phase 3.</p> <p>Added flags to determine mandatory/voluntary & scheduled/unscheduled repayments. Should we make these required – in which case the message structure will not be backwardly incompatible...?</p> <p>L/C issuance update: add an optional participation amount.</p> <p>L/C termination: balance change on termination.</p> <p>Added a Version field within the header section. Will enable modification ability. Is this enough or do we also require additional flags etc...? Also the version and the eventId are both optional but are core fields going forward – should we make them required...?</p> <p>Created a choice block on the main facility header section so we can either define a summarized version of the header (as we do in previous versions) or we can define the full deal object (which contains a full facility description).</p> <p>Added optional syndication lead to the facility details section. This together with Agent is now part of a 'deal roles' model (backwardly compatible).</p> <p>Created a 'facility roles' model for consistency.</p> <p>Contact structure created, added to header section.</p> <p>Facility default periods added to the facility object.</p> <p>Termination date added to the facility (if facility terminates prior to facility maturity).</p> <p>Expiry date added to the facility (last date of a drawdown).</p> <p>Borrower consent field added.</p> <p>Loan Contract Id –been made optional. It seems that there may be scenarios where system implementations may not be able to support an actual id field for loan contract trade objects.</p> <p>Optional breakage cost claim date added to repayment structure.</p> <p>Created a cancellation message structure.</p>
Multiple updates 5-Oct-2009 until	1.41	Bhavik Katira	<p>Cash flow section: Single payer and payee with a money amount currently exists, need to document/design new structures on requirements submitted by BarCap. E.g. receiver/correspondent payee details.</p> <p>Comment around business process variations. We need to be able to satisfy modifications and</p>

23-Feb-2010			<p>cancellations.</p> <p>Facility Notice Updates:</p> <p>Added effective date to the message header section. Added modification flag to the header section. Added Deal & Facility representation on the facility notice section.</p> <p>Moved the deal, facility, loan contract full object descriptions to Section 5. Cash flow representation included.</p> <p>Added the description of fields which would be required on a summary notice header.</p> <p>Updated drawdown notice with new fields added to the schema (optional global drawdown amount).</p> <p>Updated drawdown requirements to include an optional drawdown payment section (makes the message more flexible – can be used in drawdown situations where no payment occurs).</p> <p>On-going Fee Payment notice updated to denote the fact that we allow optional Loan Contract or L/C summary detail. This allows us to capture fees at the contract level.</p> <p>A note was added to the rollover message regarding relationships between old and new loan contracts.</p> <p>Additional question around position amounts in the on-going fee section.</p> <p>Note added regarding tiered pricing structures (within the facility section).</p> <p>Question regarding tiered on-going fee payments. Should we represent it...?</p> <p>Paydown interest flag introduced in the interest payment notice. Also a question on whether there are other design options.</p> <p>Pricing change notice – should we introduce the concept of having the ability to re-define the pricing matrix in this notice...? Some notes added.</p> <p>Some notes added in the drawdown notice with respect to representing PIK using this notice structure.</p> <p>Synchronized the deal structure in the schema with the requirements.</p> <p>Synchronized the facility structure in the schema with the requirements.</p> <p>Synchronized the loan contract structure in the schema with the requirements. Added PIK details.</p> <p>Extended interest notice to include PIK scenarios.</p> <p>Commitment adjustment notice added to the requirements and synchronized to the schema design.</p>
15-Mar-2010	1.42	Bhavik Katira	<p>Updated TOC to include commitment adjustment section.</p> <p>Started a section to describe which specific electronic messages are required to be communicated for specific business events. Simple events will require one electronic message per business event and more complex events will require multiple messages (Section 2.2).</p> <p>L/C Issuance Fee is a separate fee that is provided to the issuing bank. It can be a flat or an accrual fee. Added to the LC fee section.</p> <p>Document the Breakage fee and the L/C issuance fee in the one-off fee section.</p> <p>Synchronized the on-going fee section in the Facility structure with the schema. Added the tiered fee pricing matrix in both also. Added a note to add business validation for 0-100% coverage.</p> <p>Added a PIK period section within the loan contract structure.</p> <p>Updated the interest payment notice to better handle cash accrual vs PIK payments.</p> <p>Requirements synchronized with schema.</p> <p>Deal Trade: added Actual Settlement Date, added When Issued Flag, added Breakage Cost Flag, added Delayed Compensation Flag, renamed Par Distressed Flag to Loan Trade Doc Type and updated it to a text list type (rather than a flag).</p> <p>Abbreviated the values within the Accrual Settlement types.</p>
16-Mar-2010 22-Mar-2010	1.43	Bhavik Katira	<p>Price on the repayment notice for repayments not made at par.</p> <p>Loan contract changes: interest rate or PIK rate or both must be defined. The balance of the loan contract can also be defined as the outstanding borrowing, pik amount or both.</p> <p>Loan contract: margin – documented that margin can be positive and negative whereas MCR, all-in rate, interest rate must all be positive (based on business working group feedback).</p> <p>Note to add the interest component types in the delayed comp section within a facility trade.</p>

			<p>Added Commitment Amount structure which describes the funded vs unfunded portions of the utilization amounts to all messages where the commitment amount is stated. This common structure applies to trading and notification notices.</p> <p>Added trade and settled amount on the facility trade structure.</p> <p>Added the utilized and unutilized trade proceeds onto the facility trade structure.</p> <p>Actual sttl date moved from facility trade to allocated facility trade (there is also an actual sttl date on the deal trade level, used where there are no allocations).</p> <p>Added loan contract trade structure updates: added loan contract borrowing, pre-trade PIK and post-trade PIK amounts.</p>
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1 Introduction

The LSTA began an initiative to improve the efficiency within the commercial lending business in the form of the Agent Bank Communications Working Group, whose primary aim is to decrease dependency on the exchange of manual (paper, email, facsimile) notifications between market participants.

The approach taken by the working group is to define a single set of standards (data formats and business protocols) facilitating electronic communications between these participants.

The standardization will also potentially promote creation of a single "clearance" node for secure exchange of loan information between participants, as is seen in many other markets.

1.1 Purpose

This is a business-focused document that aims to specify message content and the business process that would take place between any two communicating counterparts (agents, lenders and/or trading counterparties) in this industry.

The goal is to provide enough business input for a technical message and process design to be created. The main deliverables are:

- A standardized dictionary of market terms
- Business events, messages, notifications, instrument structure together with their data content requirements
- Business flows for the scenarios in which the events, notifications or instrument data will be transmitted

1.2 Background

Currently most of the communications are performed through email- and fax-based notifications among participants.

1.3 Scope

The scope of this document is to cover data exchange formats for various types of loan related information exchange. This can be in the form of business events, notifications or transmission of underlying instrument/static data.

Figure 1 (below) illustrates the types of data structures that this group will be tackling together with an outline of how the analysis may be phased (the shaded section shows the current phase under design).

What are the drivers for the ordering of message types within phases...?

- Volume of transactions of a particular type. The more volume, the more immediate benefit the industry will receive.
- Complexity of transactions. The more complex it is to enter a particular event, the more time is taken in order for the recipient to enter it – an electronic solution would help in this scenario.
- Dependency. Certain notices may be dependent on the group defining other message types.

	FpML Version	Business Life Cycle				Supporting Data			
		Origination	Syndication	Loan Administration ⁽¹⁾	Secondary Trading	Instrument Data ⁽²⁾	Static Data	Communication	Cash Flow
Phase 1	4.4 (Aug 2008)			1. Drawdown Notice 2. Rate Reset 3. Interest Payment 4. Principal Repayment - Scheduled, Unscheduled Mandatory and Unscheduled Voluntary Repayments 5. On-going Fee Payment 6. One-off Fee Payment		1. Credit agreement definition (basic deal fields, facility fields). 2. Core drawdown details	1. Borrower data 2. Agent bank data 3. Lender data		
Phase 2	4.5 (Feb 2009)			1. Simple Rollover: - conversion, increase, decrease - no splits or combinations 2. Complex Rollovers (splits and combinations) 3. Letter of Credit Events: - Issuance, Balance Shift, Conversion to funded loan 4. Pricing change notice		1. Extend deal, facility and loan contract definitions.			
Phase 3					1. Trade confirmation 2. Assignment Agreement 3. Funding memo	1. Extend deal, facility and loan contract definitions.	1. Trading counterparty data	1. Cancellation message(s) for all notification types 2. Modification message(s) for all notification types.	
Phase 4				1. PIK / PIK Toggle		1. Facility sub-limits. 2. Extend deal, facility and loan contract definitions.		1. Loan request/response - Unscheduled repayment voting - Breakage cost determination	1. Cash flow object for a single set of business events 2. Withholding tax representation. 3. Generic remittance (reuse Settlement object from FpML)
Phase 5		1. Summary of Credit Agreement at closing 2. Conditions precedent notice		1. Lender position reconciliation object 2. Commitment Adjustment		1. Integration of extended product structure with current FpML loan underlyer (as used within loan derivatives). 2. Extend deal, facility and loan contract definitions.			1. Netting of cash flows based on multiple sets of business events
Phase 6			1. Position allocation 2. Upfront fee payment 3. Upfront fee payment confirmation			1. Credit agreement amendment 2. Extend deal, facility and loan contract definitions.		1. Public vs Private tagging	

Figure 1 : Scope and Phased Approach for Business Requirements

1.4 References

None defined as yet.

1.5 Syndicated Loan Market Terms

One of the first tasks that the working group will have to agree upon is the naming conventions that will prevail in the language. It will be important to present to the market associations (LSTA, LMA etc.), a market-wide consensus on the naming of various business terms. These terms will then be used in order to define the "tags" or "data holders" within the language. E.g. the working group will need to decide the name of the underlying instrument as either a "Credit Agreement" or a "Deal".

The working document is captured separately by the LSTA in a spreadsheet format at the moment.

Points to Note:

- This naming does not preclude institutions from using other names within their own domains but does mean that any inter-institution messaging must be performed using this single naming specification.
- A good way to think about this task is to imagine all of the nouns that should be used in order to describe the business.
- In order to make the actual data human-readable, the FpML standard tries to use actual legal terms (as they appear in legal documentation e.g. <Margin>250</Margin>) to name the tags within the language. This means that a business person could actually take an XML-based output and understand the information contained in it just by reading it.

Parent Category	Sub Category	LSTA Market Term	Description
Instrument Data	Deal	Deal Name / Credit Agreement	The agreement entered into between the borrower, the lenders, the agent, and other financial parties that describes the terms and conditions of the loan being made to the borrower and the obligations and requirements for the borrower, its related entities (if any), and the lenders.
Instrument Data	Deal	Deal Commitment Amount / Commitment	The amount of credit that lenders have collectively agreed to provide to a borrower under a credit agreement.
Instrument Data	Deal	Credit Agreement Date	The execution date of the Credit Agreement.
Deal	Facility	Facility Name	
Deal	Facility	Effective Date	The date specified in an agreement as the date upon which the terms of that contract will take place.
Deal	Facility	Maturity Date	
Deal	Notices	Conditions Precedent	The conditions precedent in a credit agreement are in essence a simplified closing list. They specify what the borrower must deliver to the lenders (or the administrative agent), what actions it must take, and what other circumstances must exist in order for credit to be available.
Deal	Notices	Credit Agreement Amendment	
Facility	Facility Fee	Commitment Fee	In a revolving credit agreement, the fee paid by borrowers on unused commitments. On term loans, this fee, which applies to the amount of a commitment that has not yet been drawn down, is typically referred to as a "ticking fee".
Facility	Facility Fee	Utilization Fee	
Facility	Facility Fee	Facility Fee	A fee that is paid on a facility's entire committed amount, regardless of usage; it is often charged on revolving credits to investment grade borrowers instead of a commitment fee because these facilities typically have a competitive-bid option (CBO) that allows a borrower to solicit the best bid from its syndicate group for a given borrowing. The lenders that do not lend under the CBO are still paid for their commitment.
Facility	Notices	Expected On-going Fee Payment	
Facility	Notices	Commitment Adjustment	
Roles	Lender	Lender Name/Lender	An entity that extends credit to a borrower or borrowers pursuant to the terms of the credit agreement governing a credit facility.
Roles	Agent Bank	Agent Bank Name/Administrative Agent	The institution that performs the recordkeeping associated with a loan, handles the interest and principal payments to be made in connection with the loan, and generally monitors the ongoing administration of the loan.
Roles	Borrower	Borrower Name/Borrower	The entity that borrows funds under a credit agreement.
Roles	Broker	Broker Name	
Roles	Guarantor	Guarantor Name	The grantor of a guarantee or contingent agreement to purchase or otherwise to become contingently liable with respect to the debts or other obligations of another person.
Drawdown Data	Drawdown	Drawdown Amount	A drawing made by a borrower under a revolving credit facility or by a beneficiary of a letter of credit under that letter of credit.
Drawdown Data	Drawdown	Drawdown Currency	
Drawdown Data	Drawdown	Effective Date	
Drawdown Data	Drawdown	Maturity Date	
Drawdown Data	Drawdown	Rate Fixing Date	
Drawdown Data	Drawdown	Exchange Rate Fixing Date	
Drawdown Data	Drawdown	Margin	
Drawdown	Interest Rate	Interest Rate Type	A fixed interest rate meaning one that does not change or a floating rate interest rate which resets at specified intervals.
Drawdown	Interest Rate	Interest Rate	
Drawdown	Notices	Drawdown Notice	Notice provided by a Borrower to the Administrative Agent
Drawdown	Notices	Rate Reset	The reset of a certain interest rate at a specified interval.
Drawdown	Notices	Expected Interest Payment	
Drawdown	Notices	Payment	The Borrower's payment of all or a portion of the principal and/or interest amount of the advance made by the Lender.

Figure 2 : Example of Syndicated Loan Market Terms

2 Syndicated Loan Communication Protocol

2.1 Data Type Definitions

This section contains the main process and data definitions. Each message type is documented on the attribute level and should contain a full description of business validations that accompany it. For each message type we will need to describe three main pieces of information:

- The message data fields
- The business validations (e.g. what fields are mandatory, which are optional)
- The business flow within which the message(s) exists (i.e. what is the process within which this message will exist)

When describing the message data fields we will use a set of standard columns on a table that must be filled as follows: time

- Field Name: this should be the name of the field as required within the language.
- Data Type:
 - Text: plain text field (e.g. Borrower Name: Microsoft Corp.).
 - Alphanumeric: a mixture of letters and numbers (e.g. a Bloomberg Id: LN653725).
 - Number: a whole number (e.g. an Id: 657243).
 - Decimal: an exact number. The number of decimal places may also be noted in the field type.
 - Currency: a monetary value (e.g. Loan Contract Amount: 2500000). This definition assumes that a currency is associated (no need to type the currency field every time it is used in the specification). The currency list is the ISO standard currency list.
 - Percentage: a percentage amount (e.g. Margin: 2.5%).
 - Date: a date in the consistent form of dd-mmm-yyyy (e.g. 08-Feb-2007).
 - Date/Time: the time (with zone) in addition to a standard date.
 - Text List: a choice within a list of pre-defined textual values (e.g. Interest Rate Type: LIBOR | PRIME | EURIBOR | etc...).
 - Number List: a choice within a list of pre-defined numerical values.
 - Flag: either Yes or No.
 - Complex: this refers to the situation where a more complex sub-message is required.
- Required: Is this field required in the message or is it optional.
- Comments: Additional information that should be passed onto the technical committee.

Questions/Comments:

1. There is an outstanding issue regarding standardized business processing. E.g. in a rollover situation, when is a loan contract a 'new' contract...? We need to design business processes and see whether participants are able to either follow similar processes. The likelihood is that different agent banks will process similar events in different ways. Going back to the rollover example above, our rollover message must be able to handle both existing and new loan contracts so that agent banks can model these scenarios in either way.

2.2 Electronic Message Business Scenarios (Work in Progress)

This section provides the reader with a quick overview of what FpML message types are expected to be generated when a particular loan business events occur. It is important that not only the electronic data structures but also the overall message workflow map appropriately to a well-defined business workflow.

The table below defines the electronic messages that market participants should be generating as a result of particular business events taking place.

The FpML Messages column shows the following: Step#: [(#Messages) * Message Type]

Step#: Each step is numbered. The assumption is that all steps need to be completed in order to communicate the business event.

#Messages: This is the number of messages within a single step. If no numeration of shown then we assume that only ONE message is required to be sent. Other options include e.g. (2) – two messages, (1..n) – one or more, (2..n) – 2 or more.

Message Type: The name of the notice type being sent in a particular step.

The Message Validation Notes describe the various validations applicable to each step. Each step can have more than one validation.

Loan Business Event	FpML Messages Step#: [#Msgs * Msg Type]	Message Validation Notes Step#: (Validation description)
Drawdown Events		
New drawdown	1: [Drawdown Notice]	1: (drawdownEventType = Drawdown) 1: (drawdownPayment : Required)
Initial rate set	1: [Rate Set Notice]	1: (drawdownEventType = Rate Set) 1: (drawdownPayment : Not Required)?
Interest Payment Events		
Cash interest payment on a single loan contract (at the end or in the middle of a loan contract period).	1: [Interest Payment Notice]	1: (interestPayment.amount : Required)
Cash interest payment on 'n' loan contracts within a single or multiple facilities.	1: [1..n * Interest Payment Notices]	1: (interestPayment.amount : Required)
PIK capitalization on a single loan contract.	1: [Interest Payment Notice]	1: (interestPayment.pikAmount : Required) 1: (interestAccrualSchedule.pikPeriod : Required)
Cash payment and PIK capitalization on a single loan contract.	1: [Interest Payment Notice] 2: [Interest Payment Notice]	1: (interestPayment.amount : Required) 2: (interestPayment.pikAmount : Required) 2: (interestAccrualSchedule.pikPeriod : Required)
Principal Repayment Events		
Repayment on a single loan contract.	1: [Repayment Notice]	1: (repayment.loanContractRepayment : only 1 allowed)
Repayments on 'n' loan contracts within a single facility.	1: [Repayment Notice]	1: (repayment.loanContractRepayment : 'n' allowed)
Repayments on 'n' loan contracts across 'x' facilities.	1: [1..x * Repayment Notices]	1: (repayment.loanContractRepayment : 'n' allowed) for each of 'x' repayment messages
Facility Fee Events		
On-going fee payment (either facility, commitment, utilization or L/C)	1: [On-Going Fee Notice]	1: (feePayment.feeType must match with corresponding feeAccrualSchedule.xxxPeriod)
'n' on-going fee payments (either facility, commitment, utilization or L/C per notice)	1: [1..n * On-Going Fee Notices]	1: (feePayment.feeType must match with corresponding feeAccrualSchedule.xxxPeriod)
Single one-off fee payment	1: [One-Off Fee Notice]	-

Rollover Events	Can contain any loan contract events including Conversion, Increase, Decrease, Split or Combination.	
Single facility rollover with no repayment (regardless of how many loan contracts are rolling).	1: [Rollover Notice] 2: [1..n * Drawdown Notices (one for every new or increase in a loan contract)]	2: (drawdownPayment : Not Required if no cash flow)
Multiple ('n') facility rollovers.	1: [1..n * Rollover Notices] 2: [1..n * Drawdown Notices (one for every new or increase in a loan contract)]	2: (drawdownPayment : Not Required if no cash flow)
Single or multiple loan contract rollover with repayment.	1: [1 * Rollover Notice] 2: [1..n * Drawdown Notices (one for every new or increase in a loan contract)]	2: (priorLoanContracts.repayment and priorLoanContracts.facilityRepayment must be populated)
Loan Business Event	Expected FpML Messages	Message Validation Notes
Letter of Credit Events		
Single L/C issuance	1: [L/C Issuance Notice]	-
Single L/C balance shift	1: [L/C Balance Shift Notice]	-
Single L/C amendment	1: [L/C Amendment Notice]	-
Single L/C conversion to funded loan	1: [L/C Balance Shift Notice] 2: [Drawdown Notice]	1: (lcDrawFlag : Required and set to 'True')
Single L/C Termination	1: [L/C Termination Notice]	-
Multiple L/C Events (any of the above)	-	(1 message per L/C is required)
Pricing Change Events		
Margin Change on a Single Loan Contract	1: [Price Change Notice]	TBD
Margin Change on 'n' Loan Contracts (but not a re-pricing of all loan contracts on the facility)	1: [1..n * Price Change Notices]	TBD
Margin Change on ALL Loan Contracts (same effective date and same new margin rate)	1: [Price Change Notice]	TBD
'Tiered' Fee Matrix Change	1: [Price Change Notice]	TBD
Commitment Adjustment Events		
Facility Limit Change (no cash movement)	1: [Commitment Adjustment Notice]	TBD
Cash Flow Events		
Net Cash Flow for 'n' Business Events	1: [Net Cash Flow Notice]	TBD
Trading Events		
Trade confirmation	TBD	TBD
Assignment agreement	TBD	TBD
Funding memo	TBD	TBD

3 Loan Administration Notices – Phase 1

3.1 Common Data Sections for Loan Administration Notices

There is a fair amount of common static and reference data that is embedded within Loan Administration Notices. This allows for certain instrument details to be shared between agent banks and lenders (especially when new lenders are present). Since these sections if included are predominantly the same, these details have been captured here.

We have extended the table below to capture a new type of Summary Notification Header. The summary notice can be used where the notification is not necessarily related to a o pre-defined set of business loan events. We designate the contents of the Summary Notice Header by tagging a (S) in the 'required' column.

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Message Header			Generic fields used to aid the efficient flow of messages between any two parties.
Message Id	Alphanumeric	Y (S)	A unique identifier for the specific message.
Conversation Id	Alphanumeric	N (S)	The unique identifier (name) for the conversation (session), this message is within. A conversation identifier is usually assigned by the initiator of a conversation. Conversations may only be initiated and terminated. Joining conversations has the effect of initiating new conversations. Conversations cannot be split; this instead has the effect of parallel activities on the same conversation or the initiation of a new conversation. Each message belongs to only one conversation.
In Reply To	Alphanumeric	N (S)	A copy of the unique message identifier (within its own coding scheme) to which this message is responding.
Sent By	Alphanumeric	Y (S)	The unique identifier (within its coding scheme) for the originator of a message instance.
Sent To	Alphanumeric	N (S)	A unique identifier (within its coding scheme) indicating an intended recipient of a message.
Copy To	Alphanumeric	N (S)	A unique identifier (within the specified coding scheme) giving the details of some party to whom a copy of this message will be sent for reference.
Creation Timestamp	Date/Time	Y (S)	The date and time (on the source system) when this message instance was created.
Expiry Timestamp	Date/Time	N (S)	The date and time (on the source system) when this message instance will be considered expired.
Event Id	Alphanumeric	Y (S)	An id referring to the underlying business event that caused the creation of this message.
Version	Number	Y (S)	A version number to help monitor later versions of the same message (relating to the same business event id).
Modification Flag	Flag	N (S)	Defines whether the notification is a new message or a new notification. Ideally, when a modification is sent out, the Event Id should match a previous version of the same message.
Notice Details			Fields which are common to all notification messages within the syndicated loan industry.
Notice Date	Date	Y (S)	The date on which the notice was generated.
Effective Date	Date	N	The effective date related to the business event.
Agent Bank Type	Alphanumeric	Y	The type associated with Id.
Agent Bank Id	Alphanumeric	Y	A reference to the agent bank for the given deal.
Agent Bank Name	Text	N	Name of the agent bank.
Borrower Id Type	Alphanumeric	Y	The type associated with Id.
Borrower Id	Alphanumeric	Y	A reference to the borrower against the associated loan contract(s).
Borrower Name	Text	N	Name of the borrower.
Lender Id Type	Alphanumeric	Y	The type associated with Id.

Lender Id	Alphanumeric	Y	A reference to the lender(s) associated with the associated loan contract(s).
Lender Name	Text	N	Name of the lender.
Exception Flag	Flag	N	A flag which can be set by the message sender in order to signify an exceptional business event.
Comments	Text	N (S)	A free-form, manually entered field which will be used by users directly for additional information.
Notice Type			
Notice Type	Text List	Y	Name of the notice type (e.g. Drawdown Notice).

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
There should be an option to either represent full loan objects or just summary objects:			MUST represent either: (Deal + Facility) OR (Deal Summary + Facility Summary)
Deal	Deal		Full description available in Section 5.
Deal Summary	Deal Summary		The reference to an agreement entered into between the borrower, the lenders, the agent, and other financial parties that describes the terms and conditions of the loan being made to the borrower and the obligations and requirements for the borrower, its related entities (if any), and the lenders. List of Ids should include at least CUSIP (if exists) and system Id of the system that generates the notice.
Deal Name	Text	N	Usually defined as Legal Borrower Name + Credit Agreement Date (mm/yyyy).
Deal Id Type	Alphanumeric	Y	There can be different id types applicable here. CUSIP is seen to be the chosen strategic solution.
Deal Id	Alphanumeric	Y	A deal id MUST be populated.
Credit Agreement Date	Date	N	The credit agreement date is the closing date (the date where the agreement has been signed) for the loans in the credit agreement. Funding of the facilities occurs on (or sometimes a little after) the Credit Agreement date.
Facility	Facility		Full description available in Section 5.
Facility Summary	Facility Summary		A reference to a single credit limit within a deal (also referred to in the secondary markets as a 'tranche'). The list of ids should include the value of the id and a system reference to denote which internal/external source created the id.
Facility Name	Text	N	The name by which the facility is referred to within the credit agreement.
Facility Id Type	Alphanumeric	Y	There can be different id types applicable here. CUSIP is seen to be the chosen strategic solution.
Facility Id	Alphanumeric	Y	A facility id MUST be populated.
Currency	Text List	N	Facility denomination currency.
Original commitment Amount	Currency	N	Original global commitment amount of the facility.
Loan Contract	Loan Contract		Full description available in Section 5 (only required for loan contract-level notices).
Loan Contract Summary			A set of fields used to uniquely identify a specific loan contract within a given facility (only required for loan contract-level notices).
Loan Contract Id Type	Alphanumeric	Y	There can be different id types applicable here.
Loan Contract Id	Alphanumeric	Y	A structure that can be used to store multiple identifiers for the loan contract. Each identifier has associated with it a scheme definition to tell the recipient the 'type' of the id.
Original Loan Contract Amount	Currency	N	The original amount associated with the loan contract in loan contract currency.
Global / Share Amount	Currency	N	The global and share amounts associated with the loan contract. This was added in phase 2 to create a more flexible structure (reference rollover section).

Maturity Date	Date	N	The maturity date of the loan contract. In the case of a PRIME-based loan, this field should be set to the maturity date of the facility.
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Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Agent Bank / Lender Remittance			Representation of remittance details within messages.
Account Id	Alphanumeric	Y	An account identifier. For example an Account number.
Account Name	Text	N	The name by which the account is known. Can be ABA, Swift, IBAN, Sort Code.
Account Beneficiary	Text	N	A reference to the party beneficiary of the account.

Please Note: All commitment amounts (whether global or lender share) contain optional elements describing the utilization of the facility. This is common structure shared across the schema from v5.1 of FpML onwards.

Facility Commitment Position			A structure which contains the position being held by the lender on both the facility and loan contract levels. This position information is from the message sender's viewpoint as of the date of the associated notice.
Prior Global Commitment Amount	Currency	N	The amount of principal commitment that was allocated to the lender within the facility (this is prior to any associated events).
Current Global Commitment Amount	Currency	Y	The amount of principal commitment currently allocated to the lender within the facility (this is after any associated events).
Prior Lender Commitment Amount	Currency	N	In the case of a business event which changes the lenders commitment level, this is the amount as of before the associated business event.
Current Lender Commitment Amount	Currency	Y	The current lender commitment level as of the time of the message creation.
Each commitment amount contains:			
Utilized global/lender share commitment amount	Currency	N	The utilized global commitment amount.
Funded global/lender share amount (of utilized amount)	Currency	N	The funded portion of the utilized commitment amount.
Unfunded global/lender share amount (of utilized amount)	Currency	N	The unfunded portion of the utilized commitment amount.
EITHER contains many...			
Loan Contract Position			A structure used to define all positions held by the lender at the loan contract level. This structure is designed to hold either some or all loan contracts.
Loan Contract Summary	Complex	Y	(see Loan Contract Summary section above)
Prior Global Loan Contract Amount	Currency	N	In the case of a business event which changes the global loan contract level, this is the amount as of before the associated business event.
Current Global Loan Contract Amount	Currency	Y	The current global loan contract level as of the time of the message creation.
Prior Lender Loan Contract Amount	Currency	N	In the case of a business event which changes the lenders loan contract level, this is the amount as of before the associated business event.
Current Lender Loan Contract Amount	Currency	Y	The current lenders loan contract level as of the time of the message creation.
OR can contain many...			
Letter of Credit Position			A structure used to define all positions held by the lender at the letter of credit level. This structure is designed to hold either some or all letter of credits.
LC Id Type	Alphanumeric	Y	There can be different id types applicable here.
LC Id	Alphanumeric	Y	An agent-bank controlled Id for purposes of uniquely identifying a specific contract.

Prior Global LC Amount	Currency	N	In the case of a business event which changes the global letter of credit level, this is the amount as of before the associated business event.
Current Global LC Amount	Currency	Y	The current global letter of credit level as of the time of the message creation.
Prior Lender LC Amount	Currency	N	In the case of a business event which changes the lenders letter of credit level, this is the amount as of before the associated business event.
Current Lender LC Amount	Currency	Y	The current lenders letter of credit level as of the time of the message creation.

There can be zero or more contacts associated with any message structure.

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Contact		N (S)	Contact information relating to a particular party. The contact plays a particular role.
Contact Name	Text	Y (S)	Full name of the contact.
Institution (Party) Reference	Text	Y (S)	Name of the institution. Should this point back to a party within the message...?
Contact Role	Text List	Y (S)	The role that this particular contact plays e.g. Closer, Loan Administrator etc. Need to define a full list of potential roles.
Email	Text	N (S)	Email address of the contact.
Telephone	Alphanumeric	N (S)	Telephone number of the contact.
Fax	Alphanumeric	N (S)	Fax number of the contact.

There must be one Generic Cash Flow associated with any message structure:

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Generic Cash Flow			
Payment Flag	Flag	Y	A flag to determine whether the cash flows described in this structure will result in explicit payments. If set to false, then it is assumed that a Net Cash Flow notice will be created separately.
Cash Flow	Cash Flow	N	A data structure which contains potential cash flow details. This structure is described in Section 6.

Questions

- Should the exchange rate be associated with the contract or the interest rate period...?
 - It's represented on the rate set notice and the drawdown notice. It is not represented in the common instrument data structure.
- Since we already have a start date and an end date defined, is it necessary to include the tenor...? If we have both then how does the information get validated...?
 - We don't have an end date for the interest rate period.
- Should there be any date adjustment factors represented in any one of these data types or is it out of scope for these set of notices...?
 - These are not required within the scope of the notices.
- Should the Rate Fixing Date be extended to include the Time and Location of fixing in addition to the date...? This is a requirement that has come from London.
 - The time and location are not required details based on feedback from the business group. This information does not value when communicating business event notices.
- Should we make the additional (non-Id) fields in the deal/facility identifiers mandatory fields...?
 - The electronic standard does not require the fields to be required, hence they should be left as optional. If implementations would like to ensure that the fields are populated (especially for the transition period), then business validations should be added to complement the schema design.
- How can the CUSIP and ISIN fields be validated to ensure correctness (in terms of structure of the field)...?
 - These fields should be validated in implementations. The standard does not include any rules for structure of Id fields (except for type definition).

3.2 Drawdown Notice

Scenario / High-level Business Process

As shown in Figure 3, the borrower will provide the agent bank with a written notice requesting a new drawdown against an existing facility. The agent will receive the notice and calculate the amount of principal due from each lender based on their respective share of the underlying utilized commitment.

A drawdown notice will be created by the agent bank for each of the lenders. Each of the lenders will receive it and make a payment to the agent bank. The agent bank will then make a single subsequent payment to the borrower.

Please note that the scenario also illustrates the situation where the agent bank may opt to make a payment to the borrower before payment from the lenders (this situation is a common occurrence in Europe).

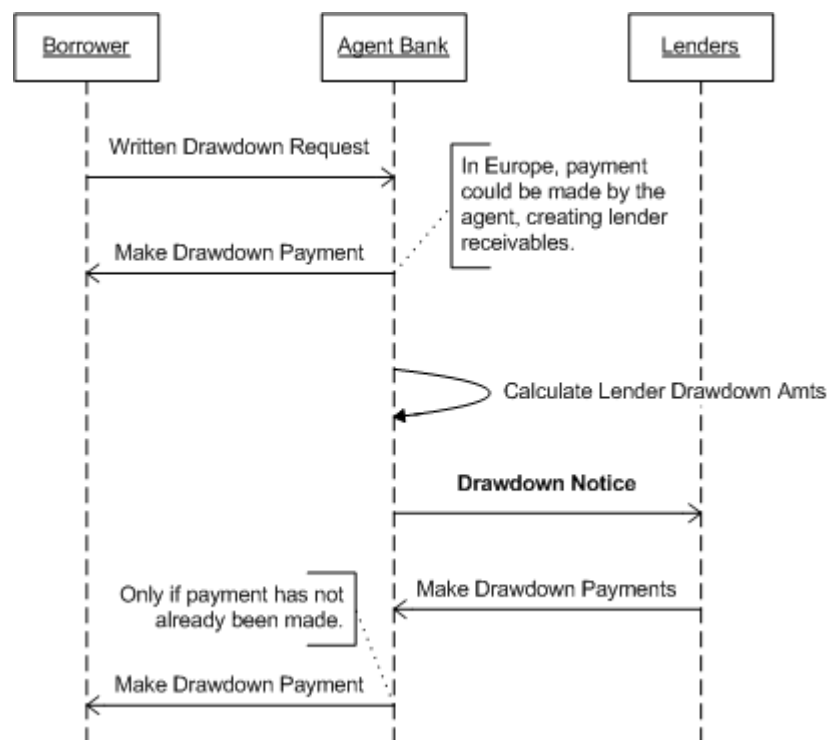


Figure 3 : Drawdown Notice Business Process

Questions

1. At what points in this flow is the borrower allowed to cancel the drawdown request...?
 - The borrower can change their mind, but if the funding has already taken place then there is a cost associated with unwinding the transaction.
2. If the agent bank sends out incorrect drawdown notice amounts, what should the "correction" message look like...?
 - It should look like the original notice but be depicted as a correction and the fundamental components of the notice are repeated.
3. It may be possible to use the conversation id, version id in order to systematically represent this.
4. Should we consider any circumstances where the lender can refuse to make a drawdown payment...?
 - Not a valid scenario based on the credit agreement.

Drawdown Notice Data Fields

The notification from the agent bank to lender that loan contract is requested by the borrower. A loan contract notice will be created by the agent bank for each of the lenders.

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Message Header			(see common section)
Notice Details			(see common section)
Notice Type			(see common section)
Deal Summary			(see common section)
Facility Summary			(see common section)
Loan Contract			(see common section)
Drawdown Notice Details			(see common section)
Drawdown Notice Event Type	Text List	Y	An enumeration that describes whether this message is a drawdown or a rate set notification. The same message structure is used for both, with some business validation differences. We have added a PIK Capitalization event type here.
Condition Precedent Met	Text List	N	An enumeration which describes whether the condition precedent have been met, not met or been waived. Please note: this field in not required since conditions precedent may not be applicable in certain scenarios.
Drawdown Payment		N	A structure used to describe the payment to be processed as part of the drawdown notice.
Payment Date	Date	Y	The date on which the principal payment is made by the lender to the agent bank. Usually defaults to the effective date of the loan contract.
Global Loan Contract Drawdown Amount	Currency	N	The global drawdown amount.
Share Loan Contract Drawdown Amount	Currency	Y	The amount of principal allocated to the lender for the given drawdown request. This is the same as the payment that must be made by the lender to satisfy the drawdown request. It is based on the share of the overall commitment that the lender is assigned.
Facility Commitment Position			(see common section)
Loan Contract Position			(see common section)

The drawdown payment structure is optional due to the fact that this notice should get used when there is no actual payment. An example of this is when we have rollover scenarios. No payments occur, but agent banks need to send out drawdown notices to notify lenders of the new loan contracts.

Can we add another option in the Drawdown Notice Event Type to capture PIK drawdown...? This is a scenario where the PIK capitalizes as a new facility. There will be no cash flows generated as a result.

Questions

- Does the agent bank know what the rate fix date is when the sending out the drawdown notice...?
 - Yes.
- Is the mandatory liquid asset cost known at the time of drawdown notice...?
 - No. It is based on the interest rate – there is a pre-defined algorithm that is used to calculate the MLA.
- Is there such thing as a margin set date...? When is the margin decided – drawdown notice time or rate set time...? (The thought is that the covenants within the credit agreement could potentially change the margin amount between drawdown notice and rate setting.)
 - Yes there is a margin set date. We will have to define a separate notice for the margin setting.
- Should a system to system communication protocol be concerned with lender contacts...? A streamlined process would assume that the destination system will manage their internal loan administration staff responsibilities.
 - A true system to system solution should not have the sender transmitting contact details. It is a non-required section within the specification.
- Is there a payment date associated with this notice. Should we explicitly state the date on which the share loan contract amount should be paid by the lender to the agent bank...?
 - We should include a payment date, in most cases it will default to the effective date on the loan contract.

3.3 Rate Set Notice

Scenario / High-level Business Process

At the time that the drawdown notice is sent out by the agent bank, the interest rate to be applied to the contract is not always known. The agent bank will therefore send out the drawdown notice without the interest rate information and then provide the interest rate details in a separate Rate Set Notice.

The advantage of separating these two notices is to provide the lender with as much advance notice as possible of the pending upcoming contract.

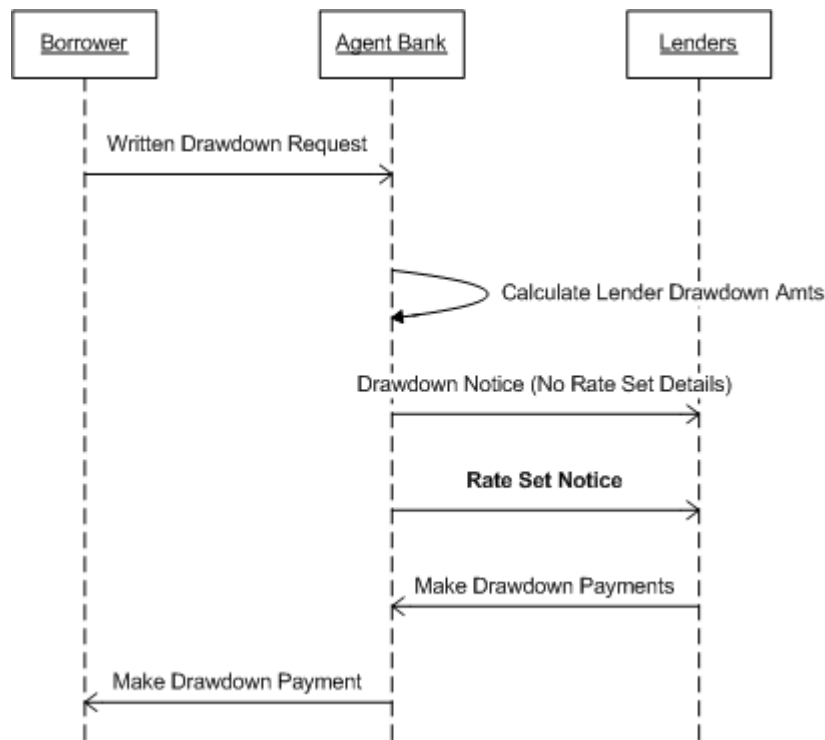


Figure 4 : Rate Set Notice Business Process

Rate Set Notice Data Fields

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Message Header			(see common section)
Notice Details			(see common section)
Notice Type			(see common section)
Deal Summary			(see common section)
Facility Summary			(see common section)
Loan Contract			(see common section)
Current Interest Rate Period			See Section 5.
Drawdown Notice Details			
Drawdown Notice Event Type	Text List	Y	This field is used to differentiate between a New Drawdown Event and a Rate Set Event. This tag can be used to drive validation differences between the two.
Drawdown Payment			The lender's portion of the drawdown payment.
Payment Date	Date	Y	Defaults to the effective date on the loan contract.
Share Loan Contract Amount	Currency	Y	The amount to be paid by the lender to the agent bank. This is based on the share of the overall commitment that the lender is assigned.
Facility Commitment Position			(see common section)
Loan Contract Position			(see common section)

3.4 Interest Payment Notice

Scenario / High-level Business Process

The agent bank will request that the borrower makes an interest payment. The borrower will make a payment to the agent bank after which the agent bank will calculate each lender's interest amounts.

The interest calculation is performed for the life of the contract period and each lender is then subsequently paid based on their individual balances and the interest rate throughout the period.

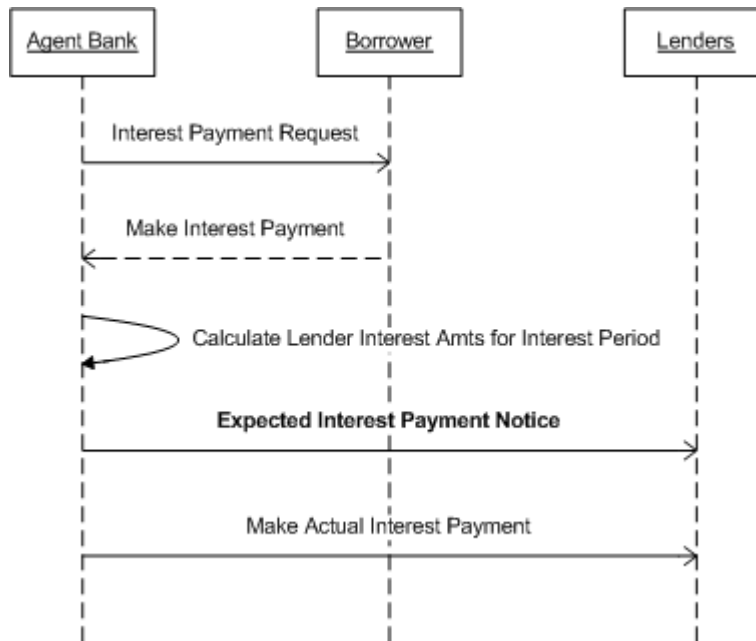


Figure 5 : Interest Payment Notice Business Process

Questions

1. Should a confirmation from the lenders be required for this notice type...?
 - No a confirmation is not required
2. Does the borrower always pay the agent before the agent makes payments to the lenders...?
 - These usually occur on the same day. But there is a 'clawback' clause within UK credit agreements.
3. **The assumption with the interest payment notice requirements as captured in this document, is that either cash or PIK can be represented within a single message but not both.**

Interest Payment Notice Data Fields

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Message Header			(see common section)
Notice Details			(see common section)
Notice Type			(see common section)
Deal Summary			(see common section)
Facility Summary			(see common section)
Loan Contract			See Section 5.
Interest Payment			A payment requested by the agent bank from each lender for the accrued interest amount for the given period and a given loan contract.
Interest Type	Text List	Y	Defines whether the interest payment was a cash payment or a capitalization.
Interest Payment Date	Date	Y	The date on which interest was paid to the lender by the agent bank.
Global Interest Payment/Capitalization Amt	Currency	N	Interest amount paid by the borrower to the agent bank.
Share Interest Payment/Capitalization Amt	Currency	Y	Interest amount paid to the specific lender.
Interest Calculation Method	Text List	Y	Defines the way in which the agent bank is allocating interest payments - can be (i) pro-rata at the time of the interest payment or (ii) based on the loan contract share throughout the interest period (which is the preferred method).
Interest Adjustment Amount	Currency	N	An adjustment that is being applied to the current interest payment. This adjustment could be applied in various scenarios e.g. there could have been partial interest payments between interest payment periods which would require adjustments to be applied at the end of a period.
Paydown Interest Flag	Flag	N	A flag used to denote the fact that the interest payment was related to a repayment which occurred.

Note: The paydown interest flag is a recent addition to the requirements. Also, the 'Lender Loan Contract Period' was updated to be a 'Interest Loan Contract Period'. The Interest Loan Contract Period specifically represents the portion of the loan contract which relates to the interest payment calculation (it could be the lenders position but it could also represent just the paydown portion, or in fact any other portion of the loan contract). The working group wanted a flag to denote whether the interest payment is in reference to a paydown or not. This could be potentially represented with the Interest Calc. Method but this should be discussed further.

Interest Accrual Schedule			A schedule that incorporates all sub-periods of an interest accrual calculation.
---------------------------	--	--	--

Within every Interest Payment Notice there can be one or more Interest Loan Contract Periods:

Accrual Loan Contract Period			A constant position period used to calculate interest accruals.
Start Date	Date	Y	Date on which the interest position period begins.
End Date	Date	Y	Date on which the interest position period ends.
Share Commitment Amount	Currency	N	
Share Loan Contract Amount	Currency	Y	Loan contract amount allocated to the interest calculation.

Within every Interest Payment Notice there can be either:

One or more Interest Rate Periods:

Interest Rate Period			(see common section)
Rate Fixing Date	Date	Y	(see common section)
Start Date	Date	Y	(see common section)
End Date	Date	Y	(see common section)

Interest Rate Type	Text List	Y	(see common section)
Interest Rate	Percentage	Y	(see common section)
Margin	Percentage	Y	(see common section)
Mandatory Liquid Asset Cost	Percentage	N	(see common section)
All In Rate	Number	Y	(see common section)
Interest Day Basis	Text List	Y	(see common section)
Tenor	Number	Y	(see common section)

Or one or more PIK Rate Periods:

PIK Rate Period			(see common section)
Start Date	Date	Y	(see common section)
End Date	Date	Y	(see common section)
PIK Margin	Percentage	Y	(see common section)

In this case, the borrower has the option of capitalizing (PIK) the interest on the loan.

Where the Interest Rate Period and the Lender Position Period are constant, an Interest Accrual Period is generated:

Interest Accrual Period			A period defined as having a constant interest rate within which the lender maintains a constant loan contract position.
Start Date	Date	Y	Start date of the interest accrual period.
End Date	Date	Y	End date of the interest accrual period.
Share Interest Accrual Amount	Currency	Y	The amount of interest accrued by the lender over the defined period.
Share PIK Accrual Amount	Currency	N	The amount of PIK (payment in kind) accrued by the lender over the defined period.

Thus, the Interest Accrual Period is affected by two major underlying factors:

- A change in the margin against the loan (represented by two or more interest periods)
- A change in the lenders position which causes a change in the lenders contract amount (represented by two or more lender position periods)

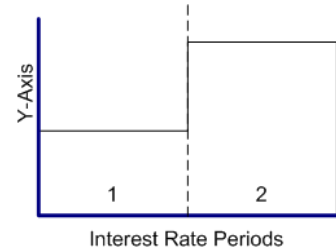
It is important that any single interest accrual period should be bounded by either one of these activities occurring.

Questions

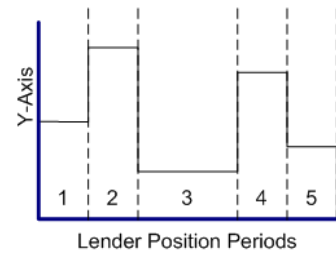
1. Is the tenor required within the Interest Rate Period section...?
 - Yes
2. Is the interest payment date the date on which the borrower paid the agent or when the agent paid the lender.
 - This is assumed to be the same date.
3. Is it absolutely necessary that the lender be communicated the contract balance shifts on the contract in the interest notice or is it sufficient that the agent bank simply provides the net interest amount...? In this case, another option would be to create another message type e.g. "interest period lender position" which can optionally be sent separately. This would be used as for reconciliation between the agent bank.
 - Yes, it would be prudent to send this information as the agent bank has this information at hand.

Since the interest payment notice is somewhat complex, the diagram below shows a diagrammatic representation of the business scenario (Figure 6).

There could be a shift in the margin rate during a single contract period.



The lender could also be buying and selling portions of the commitment (facility), which would cause shifts in the contract amount held by the lender during a single contract period.



This would result in the agent bank having to calculate many interest accrual periods for the life of the contract period. The sum of these accruals would be the interest amount which is due to the lender.

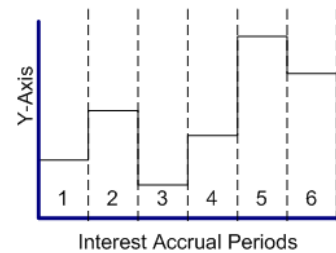


Figure 6 : Calculation of Interest Accruals

3.5 Scheduled Principal Repayment Notice

Scenario / High-level Business Process

The agent bank will request that the borrower makes a principal repayment. The borrower will make a payment to the agent bank after which the agent bank will calculate each lender's principal amount.

The principal calculation is performed based on the position that the lender is currently holding and each lender is then subsequently paid.

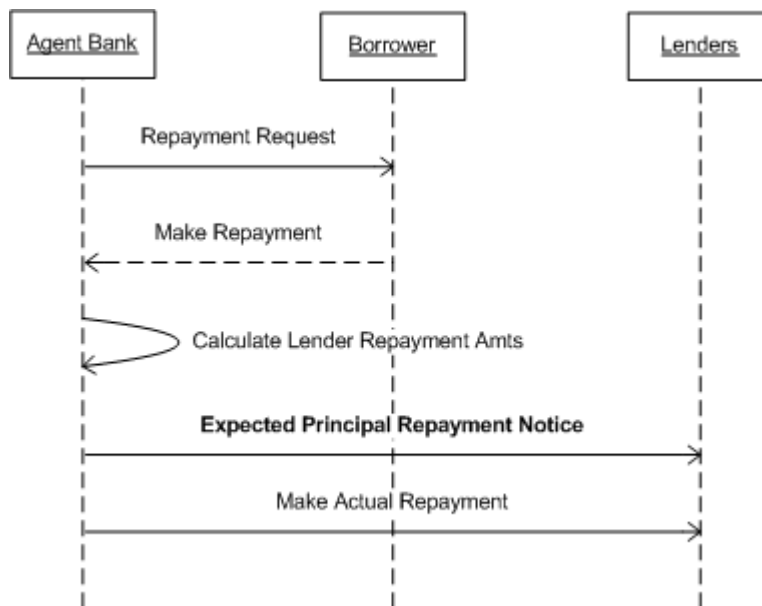


Figure 7 : Principal Repayment Notice Business Process

Questions

1. Should a confirmation from the lenders be required for this notice type...?
 - No.
2. Does the borrower always pay the agent before the agent makes payments to the lenders...?
 - Yes this is the case.

Scheduled Principal Repayment Notice Data Fields

Please note that these data fields are shared between the scheduled and unscheduled principal repayment types.

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Message Header			(see common section)
Notice Details			(see common section)
Notice Type			(see common section)
Deal Summary			(see common section)
Facility Summary			(see common section)
Facility Commitment Position			(see common section)
Loan Contract Position			(see common section)
Facility Repayment			Representation of a principal repayment shown at the facility level.
Mandatory Voluntary Flag	Flag	Y	Determines whether the repayment is mandatory or voluntary.
Scheduled Unscheduled Flag	Flag	Y	Determines whether the repayment was pre-determined based on a scheduled defined within the credit agreement.
Refusal Allowed	Flag	Y	Defines whether the lender has an option to accept or deny the payment.
Repayment Date	Date	Y	The date on which the principal repayment amount was paid to the lender by the agent bank.
Repayment Amount	Currency	N	Global principal amount paid by the borrower to the agent bank.
Share Repayment Amount	Currency	Y	Principal amount paid to the specific lender.
Repayment Price	Percentage	Y	Price at which the repayment occurred. Usually at par.
Commitment Adjustment Flag	Flag	Y	Defines whether the principal repayment will adjust the commitment level of the associated facility.
Breakage Cost Provider	Text List	N	Where breakage cost is applicable, this enumeration defines who is calculating it - agent bank or lender.
Breakage Cost Claim Date	Date	N	The date by which any breakage costs (if applicable) must be submitted by Lenders to the Agent

Within every Principal Repayment Notice there can be one or more contracts repaid.

Loan Contract Repayment			Representation of a principal repayment shown at the loan contract level.
Loan Contract Summary	Loan Contract Summary	Y	(see common section)
Loan Contract Repayment Amount	Currency	N	The global amount of principal repayment associated with this loan contract.
Share Loan Contract Repayment Amount	Currency	Y	The lender share amount of principal repayment associated with this loan contract.
Interest Paid on Repayment	Flag	Y	Defines whether interest is being paid together with the principal repayment (on repayment date).

Questions

- Do we need to communicate both the global and share prepayment fee amounts...?
 - Yes
- Is it possible to have a principal repayment against different contracts in different currencies...?
 - A single repayment will be in a single currency.

Should we include a prepayment fee flag in the repayment section (on the facility-level)...?

3.6 Unscheduled Mandatory & Voluntary Principal Repayment Notice

Scenario / High-level Business Process

Due to the nature of credit agreements, two additional categories of repayments can be made by the borrower, against any outstanding contracts:

- **Unscheduled Mandatory Principal Repayments.**
 - Mandatory repayments are the result of some kind of restructuring or change in the credit agreement which has had the effect of requiring a principal repayment (this could result in a pre-payment fee).
- **Unscheduled Voluntary Principal Repayments.**
 - Voluntary repayments are simply due to the borrowers desire to make a repayment (this also maybe subject to a pre-payment fee).

In both of the scenarios above, depending on the circumstance, the lender may have the option of either accepting or refusing the repayment (the lender also has the right to accept a portion of the repayment). It is up to the agent bank to communicate which repayments are optional from the lenders perspective.

It is also noted that the lender cannot choose which contract to accept. The agent bank makes a determination based on the acceptance levels and will ensure that contracts are reduced on a pro-rata basis amongst the accepting lenders.

It has been agreed that two-way communication for this event type has been re-prioritized to Phase 3 development. This section only describes the final notification that is made AFTER all votes for inclusion in a non-scheduled prepayment have been defined.

The message format for the unscheduled mandatory or voluntary principal repayment notice is the same as for the scheduled principal repayment notice. The field within the Notice Type section called Notice Confirmation Required will be set to "Yes" if a confirmation is required from the lender (confirmations to be defined at a later phase).

Questions

1. Can the lender opt to accept a fraction of the repayment amount...?
 - Yes. But cannot choose which share contracts they would like to have repaid.
2. Should we be capturing a prepayment fee with this transaction type...?
 - Yes.

3.7 On-Going Fee Payment Notice

Scenario / High-level Business Process

The agent bank will request that the borrower makes a fee payment in accordance with the credit agreement. The borrower will make a payment to the agent bank after which the agent bank will calculate each lender's fee amounts. It is important to note that these fees are all calculated based on facility level information.

The fee calculation is performed for the life of the contract period and each lender is then subsequently paid.

The fee types included in this specification are as follows:

- Commitment Fee: Calculated as a percentage of the unutilized portion of the facility.
- Utilization Fee: Calculated as a percentage of the utilized portion of the facility. This fee type is subject to banding rules – different portions of the utilization amount may be subject to different percentages.
- Facility Fee: Calculated as a percentage of the global commitment amount of a facility.
- Letter of Credit Fee: Calculated as a percentage of the outstanding Letter of Credit exposure within a facility.
- Breakage Fee: A fee associated with

It is important to note that the FX rate associated with a loan contract can have an effect on the fees charged. For the commitment and utilization fees, since they are calculated on the balance of the utilization, can fluctuate together with the FX rate. It will be important to capture the FX rate schedule in this scenario.

For more details on any of these terms or definitions, please refer to the associated Syndicated Loan Terms Dictionary.

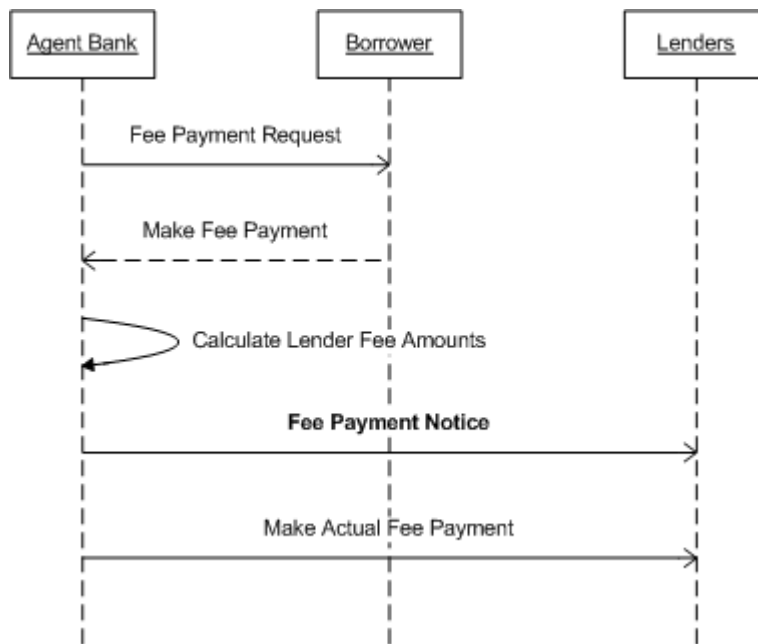


Figure 8: On-Going Fee Payment Notice

Questions/Comments

Even though it was previously stated that this notice is for facility-level fees, it has since been made flexible enough to capture fees at the Loan Contract and/or L/C level. An optional section was added in order to capture this.

On-going Fee Payment Notice Data Fields

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Message Header			(see common section)
Notice Details			(see common section)
Notice Type			(see common section)
Deal Summary			(see common section)
Facility Summary			(see common section)
Loan Contract Summary OR L/C Summary		N	(see common section)
Fee Payment			The details of a payment made by the borrower to the agent bank related to a given on-going facility fee.
Start Date	Date	Y	The start date against which the on-going fee is due.
End Date	Date	Y	The end date against which the on-going fee is due.
Fee Type	Text List	Y	Describes the type of the on-going fee.
Payment Date	Date	Y	The day on which the fee is paid by the borrower to the agent bank.
Currency	Text List	Y	Currency in which the fee payment is made.
Global Fee Payment	Currency	Y	Fee amount paid by the borrower to the agent bank.
Share Fee Payment	Currency	Y	Fee amount paid to the specific lender.
Fee Day Basis	Text List	N	The day count basis for the fee calculation period.

Fee Accrual Schedule			The details of the underlying elements that effect the calculation of a fee accrual.
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Within every On-Going Fee Payment Notice there MUST be:
EITHER one or more Lender Commitment Position Periods:

Lender Commitment Period			The minimal period within the entire fee period where both the lender and global commitment amounts remain constant. Only required for Facility Fee Type.
Start Date	Date	Y	Date on which the lender position period begins.
End Date	Date	Y	Date on which the lender position period ends.
Share Commitment Amt	Currency	Y	Lender share of the facility commitment amount.
Global Commitment Amt	Currency	N	Global level of the facility commitment amount.

OR one or more Lender Utilization Position Periods:

Lender Utilization Period			The minimal period within the entire fee period where both the lender and global utilization amounts remain constant. Only required for Utilization Fee Type.
Start Date	Date	Y	Date on which the utilized position period begins.
End Date	Date	Y	Date on which the utilized position period ends.
Share Utilization Amt	Currency	Y	Lender share of the facility utilization amount.
Global Utilization Amt	Currency	N	Global level of the facility utilization amount.

OR one or more Lender Unutilized Position Periods:

Lender Unutilized Period			The minimal period within the entire fee period where both lender and global unutilized amounts remain constant. Only required for Commitment Fee Type.
Start Date	Date	Y	Date on which the lender unutilized position period begins.
End Date	Date	Y	Date on which the lender unutilized position period ends.
Share Unutilized Amt	Currency	Y	Lender share of the unutilized amount within a given facility.
Global Unutilized Amt	Currency	N	Global level of the unutilized amount within a given facility.

OR one or more L/C Balance Periods:

L/C Balance Period			The minimal period within the entire fee period where both lender and global L/C balances remain constant. Only required for L/C Fee Type.
Start Date	Date	Y	Date on which the lender unutilized position period begins.
End Date	Date	Y	Date on which the lender unutilized position period ends.
Share Unutilized Amt	Currency	Y	Lender share of the unutilized amount within a given facility.
Global Unutilized Amt	Currency	N	Global level of the unutilized amount within a given facility.

AND one or more Fee Rate Periods:

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Fee Rate Period			The minimal period within the entire fee period where the fee rate remains constant.
Start Date	Date	Y	Date on which this fee rate begins.
End Date	Date	Y	Date on which this fee rate period ends.
Fee Rate	Percentage	Y	The fee rate applied to this period.

Thus when the Fee Rate Period and either the Lender, Lender Utilization, Lender Unutilized or LC Position Period are constant, a Fee Accrual Period is generated:

Fee Accrual Period			The period for within a fee accrual calculation where the fee rate and underlying position amount (commitment, utilization or unutilized) is constant.
Start Date	Date	Y	The start date of the accrual period.
End Date	Date	Y	The end date of the accrual period.
Global Fee Accrual	Currency	Y	The global value of the accrued fee amount.
Share Fee Accrual	Currency	Y	The lender share value of the accrued fee amount.

Thus, the Fee Accrual Period can be affected by four major underlying factors:

- A change in the fee rate against the loan (represented by two or more fee periods)
- A change in the lenders position which causes a change in the lenders commitment/utilization amount (represented by two or more lender position periods)
- A new borrowing made
- In some circumstances: A change in the FX rate (in the case of a multi-currency borrowing)

It is important that any single fee accrual period should be bounded by either one of these activities occurring.

Questions

1. Do we really need to capture the utilized and the unutilized amounts or can we calculate the unutilized from the utilized and commitment levels...?
 - We should not need to carry the unutilized amount in the message.
 - We later see that in the case of a commitment fee, we can transmit one single structure with just the unutilized amount rather than send both the lenders commitment level and the utilized portion. This seems to make sense in this scenario.
2. Is the business scenario such that multiple types of fees would be processed simultaneously...? I have represented the fee type in both the On-Going Fee section and also the Fee Accrual Period section depending on which way we model this situation.
 - Each fee type should be represented on a separate notice, so we do not need to repeat the fee type in the main body and in the details of the message.
3. The schema has the position amount as an optional element (within the underlying periods). Should these position amounts be optional or required...?
4. Are utilization fee payments themselves tiered...? I.e. when a fee is paid, can the first x% of it be paid at one rate and the additional x% of it paid at a different rate. Pending business working group feedback.

3.8 One-Off Fee Payment Notice

Scenario / High-level Business Process

There are cases where the borrower may be required to make a one-off fee payment. This will usually be based on a certain business event occurring. The rules as to how much is charged will be stated in the credit agreement. The only fee type covered in this section is:

- **Amendment Fee:** A fee charged to the borrower for an amendment being made to the originally agreed credit agreement. The fee is based on a rate (as stated in the agreement) applied to the current commitment level.
- **Waiver Fee:** This fee represents any fee paid by the borrower to the syndicate lenders/ agent bank for accepting /processing waiver request. Waiver request is sent by the borrower to obtain approval from the syndicate lenders for any of their requirement, which is outside the terms of the agreement.
- **Upfront Fee:** This fee is also known as Participation Fee, Arrangement Fee etc. This fee represents compensation to the members of the lending syndicate (and sometimes to institutional investors as well) in return for their commitment of capital.
- **Facility Extension Fee:** This fee represents any fee paid by the borrower to the syndicate lenders for extending an existing facility.
- **Funding Fee:** Fee associated with the funding requirements for given facility.
- **Breakage Fee:** A fee associated with an early repayment of a loan.
- **L/C Issuance Fee:** A fee paid to the issuing bank during the life of a Letter of Credit.

The process flow for this event is identical to the on-going fee payment. In addition, it should be noted that facility fees are always paid in facility currency.

One-Off Fee Payment Notice Data Fields

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Message Header			(see common section)
Notice Details			(see common section)
Notice Type			(see common section)
Deal Summary			(see common section)
Facility Summary			(see common section)
Loan Contract Summary		N	(see common section)
Fee Payment			The details of a payment made by the borrower to the agent bank related to a given one-off facility or loan contract fee.
Fee Type	Text List	Y	Describes the type of the one-off fee.
Effective Date	Date	Y	The date on which the fee is due.
Payment Date	Date	Y	The date on which the fee is paid by the borrower to the agent bank.
Global Fee Payment	Currency	N	Fee amount paid by the borrower to the agent bank.
Share Fee Payment	Currency	Y	Fee amount paid to the specific lender.

4 Loan Administration Notices – Phase 2

4.1 Rollover Notice

Scenario / High-level Business Process

Loans are usually based on an underlying rate (usually LIBOR). These quoted rates are usually of shorter tenor than the facility within which a particular loan is contained (e.g. 3 month LIBOR). These shorter tenor loans must undergo a rate reset process, which allows the lender to re-establish the underlying rate associated with the loan. This process is termed a 'rollover' within the syndicated loan market. During a rollover, it is possible that the borrower may:

- Repay principal
- Pay interest
- Combine or split multiple outstanding loans into a different borrowing configuration

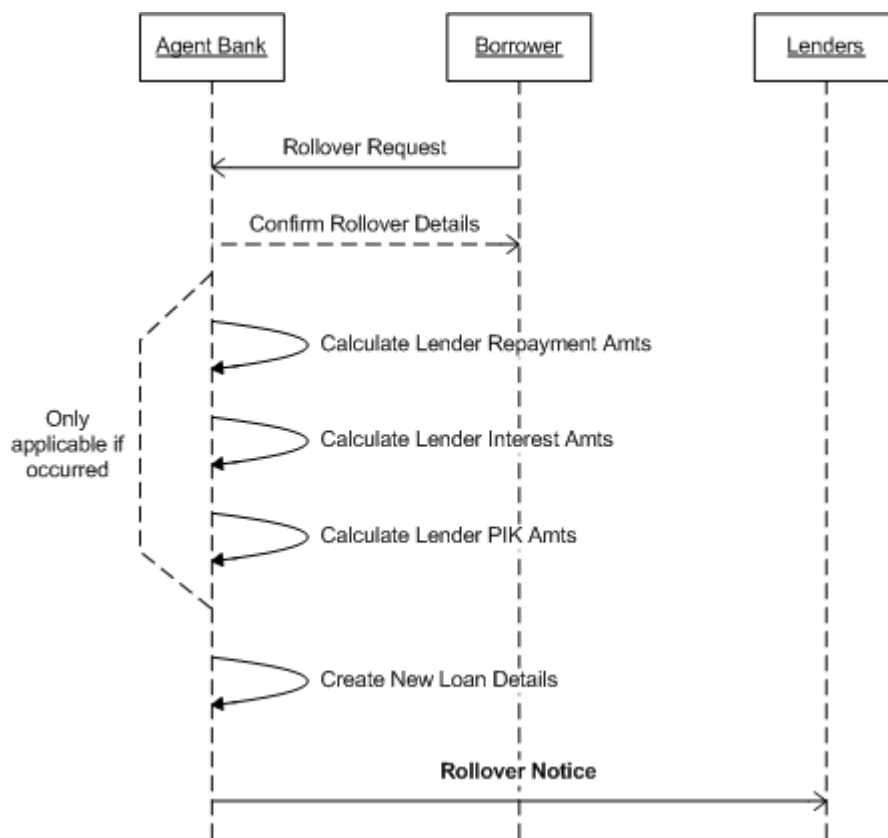


Figure 9: Loan Rollover Notice

Rollover Notice Data Fields

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Message Header			(see common section)
Notice Details			(see common section)
Notice Type			(see common section)
Deal Summary			(see common section)
Facility Summary			(see common section)
Facility Commitment Position			(see common section)
Loan Contract Position			(see common section)

Section 1: Each rollover can contain one or more maturing loan contracts. A maturing loan contract is comprised of the following:

Loan Contract Summary			(see common section)
Interest Payment			(see Interest Payment Notice)
Interest Accrual Schedule			(see Interest Payment Notice)

There may or may not be a physical repayment associated with the rollover. Therefore each rollover can contain either zero or exactly one repayment section.

The repayment (if it does exist) will contain a single facility repayment section:

Facility Repayment			(see Repayment Notice)
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And one or more Loan Contract Repayments:

Loan Contract Repayment			(see Repayment Notice)
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Section 2: Each rollover can contain one or more new loan contracts. A new loan contract is comprised of the following:

Loan Contract			(see common section)
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There may be an increase in the total amount of the outstanding loan contracts after the rollover is complete. In this case, there would need to be a drawdown payment. Therefore each rollover can contain either zero or one drawdown payment:

Drawdown Payment			(see Drawdown Notice)
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Due to the disjoint nature of the maturing and new loan contracts sections, it is possible to model both simple and complex rollover situations here. The connection between the old contracts and new ones are implicitly shown within the message.

Therefore, it is NOT possible to easily relate specific old contracts to specific new contracts. There is no relationship between any two old/new contracts. Re-iterating, the only 'renew' relationship that exists is the fact that all the loan contracts are shown within a single rollover structure.

4.2 Letter of Credit Issuance Notice

Scenario / High-level Business Process

There are certain types of facilities (usually revolvers) that can be utilized by letter of credits (LCs). In this case, the borrower is requesting that an LC be granted to a beneficiary (usually someone who does business with the borrower), thus protecting the beneficiary in the case where the borrower fails to make a payment to them, in their normal course of business.

In the event that the borrower fails to make a payment to the beneficiary, the beneficiary can immediately request funds from the issuing bank, and the issuing bank must then be reimbursed by either the borrower or the lenders. If the lenders decide to provide funding, then the LC is effectively transformed into a loan contract.

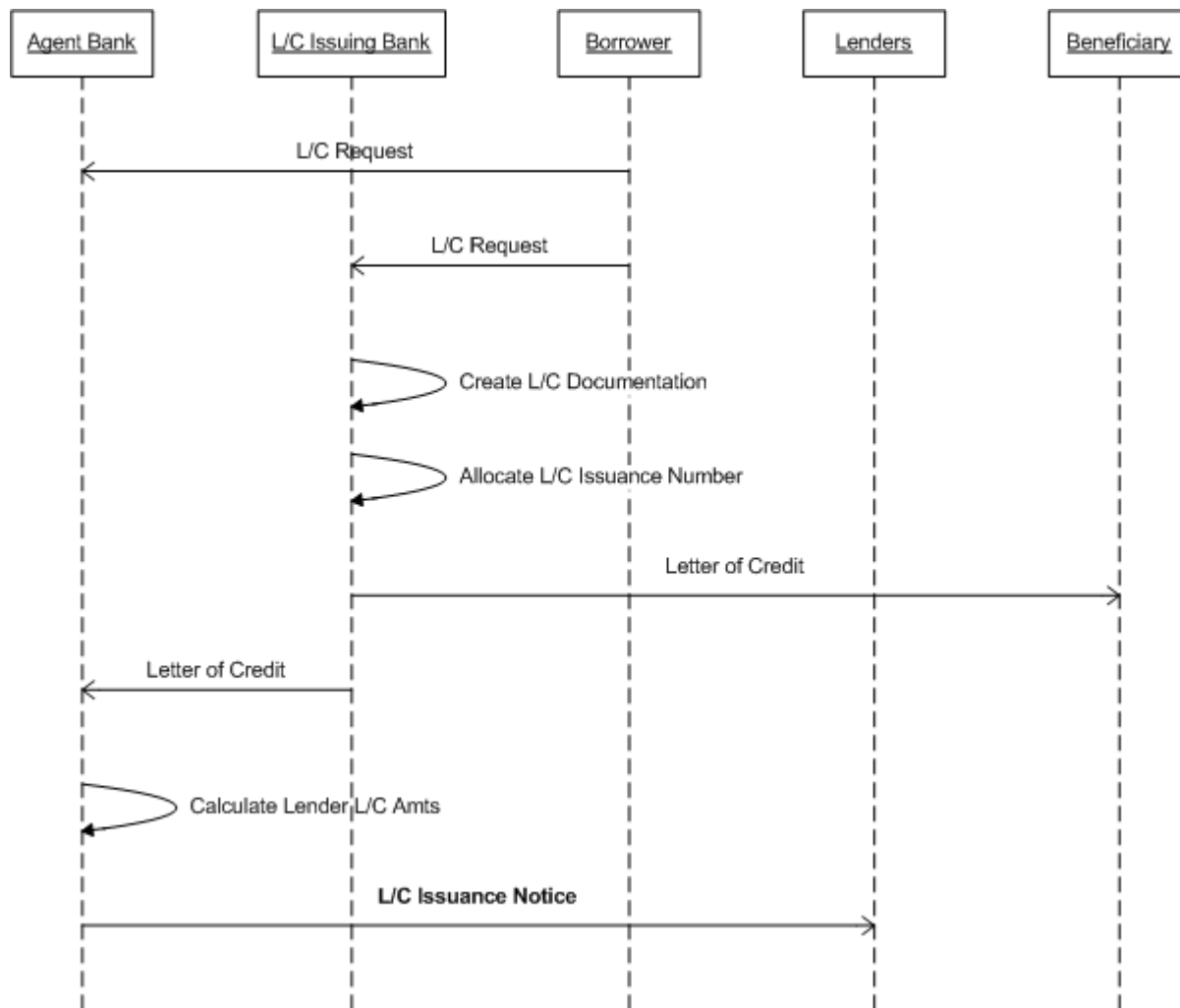


Figure 10: Letter of Credit Issuance Notice

In terms of the high-level process, the agent bank is responsible for communicating the intent of the borrower to both the LC issuing bank and the lenders. The issuing bank is responsible for creation of the LC contract and allocation of the LC number. Once this process is complete, the issuing bank issues the LC to the beneficiary. N.B. there can be many potential issuing banks stated at the deal level (on the credit agreement), but only one can issue a single L/C.

The lenders' shares are managed by the agent bank in the same way as any loan contract on the facility.

Letter of Credit Issuance Notice Data Fields

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Message Header			(see common section)
Notice Details			(see common section)
Notice Type			(see common section)
Deal Summary			(see common section)
Facility Summary			(see common section)
Facility Commitment Position			(see common section)
Loan Contract Position			(see common section)
Letter of Credit			(see common section)
LC Id Type	Alphanumeric	Y	The type associated with Id.
LC Id	Alphanumeric	Y	Can contain LC issuance number, CUSIP, ISIN etc...
Issuing Bank	Text	Y	The issuing bank associated with a particular L/C.
LC Type	Text List	Y	The type of the L/C.
LC Purpose	Text List	Y	The purpose associated with an L/C.
Borrower	Text	Y	The borrower against the L/C
Original LC Amount	Currency	Y	The original L/C amount at the time of issuance.
Global LC Amount	Currency	Y	The current value of the L/C amount at a global level (not specific to a given lender).
Effective Date	Date	Y	The effective date of the L/C issuance.
Expiry Date	Date	Y	The expiry date of the L/C.
FX Terms	Complex	N	The FX rate associated with the L/C.
Evergreen Option	Complex	N	An option allowing the borrower to extend the tenor of the LC.

For every L/C there can be one or more stated beneficiary, all of whom will be referenced within the L/C contract:

Beneficiary	Text	Y	The beneficiary associated with the L/C. This field may be referenced using id's but may also be referenced using plaintext fields (some agents do not necessarily store id's associated with the beneficiary).
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The main body of the message simply contains all the details of the letter of credit. Since this is unfunded utilization, there is no cash payment resulting.

Each letter of credit could have an evergreen option, the details of which are described below.

Evergreen Option			
Extension notice period	Number	N	The number of calendar days before the end of the LC that the borrower must state that they would not like to extend the LC.
Extension Period	Period	Y	The period that defines the extension.
Final Expiration Date	Date	Y	The final date on which the L/C will expire once it has been extended.

In an issuance notice, it is also required to state the lenders share of the L/C.

Letter of Credit Issuance			
Lender Share LC Amount	Currency	Y	The share of the L/C associated with a specific lender.

An important point raised is that the issuing banks have proprietary numbering schemes for LCs. This representation is not standardized across the market and this standard must be able to cope with alphanumeric schemes which can vary in length. The LC Id Type/LC Id fields should be able to accommodate the number, but in order to avoid confusion it is important to include the issuing bank which created it (two issuing banks may have similar number schemes).

Questions

1. Should the original amount of the LC be an optional field...?

4.3 Letter of Credit Balance Notice

Scenario / High-level Business Process

Throughout the life of a letter of credit, it is possible for the borrower to either increase or decrease the notional value of the LC. These balance changes are subject to the rules stated on the credit agreement. Once the global balance changes, it is important for the agent bank to communicate the position level shifts to each of the lenders. The issuing bank communicates the updated balance to the beneficiary.

Two main scenarios exist:

- The balance of the LC can shift on request from the borrower due to a change in the financing requirement between the borrower and the beneficiary of the LC. This does not result in any further cash flows but simply requires a restatement of the LC agreement.
- The LC balance of the LC can shift based on the fact that there has been a failure to pay on the part of the borrower to the beneficiary. The beneficiary draws funds against the LC, which results in the LC amount being reduced and a new loan drawing taking place. The LC reduction and new loan notional should match.

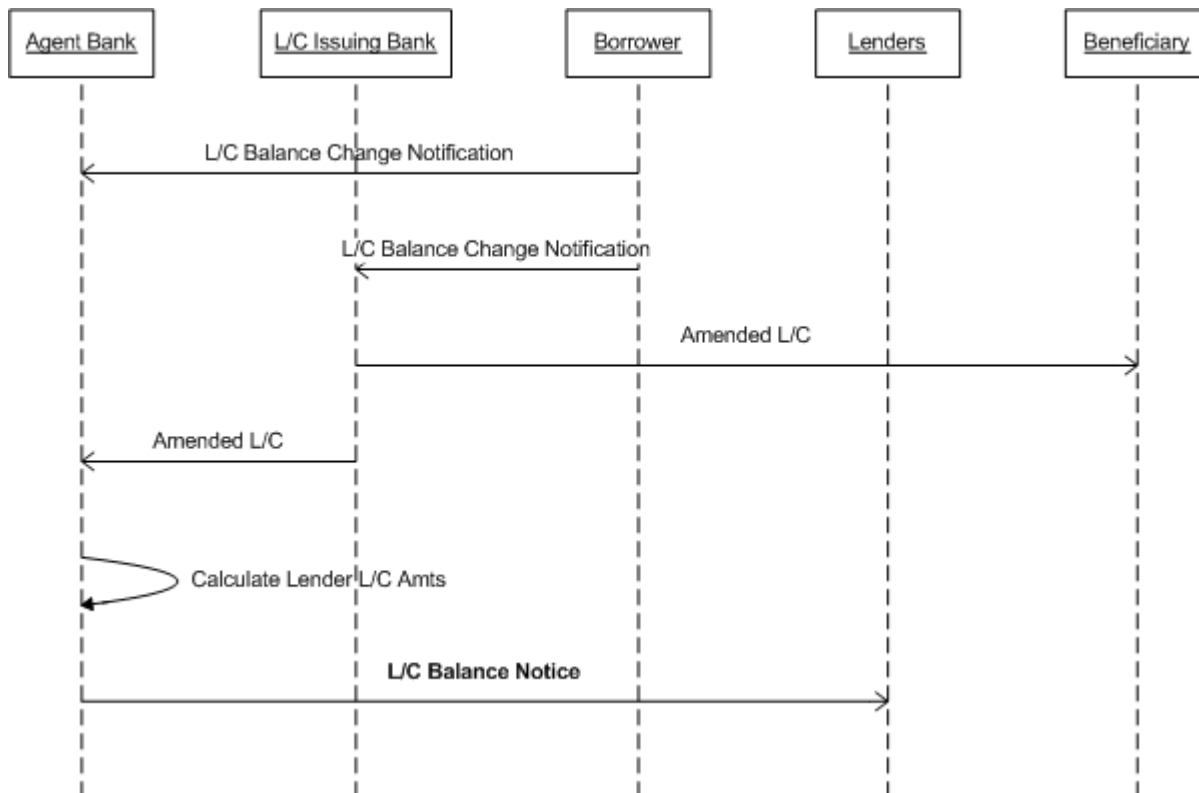


Figure 11: Letter of Credit Balance Notice

Letter of Credit Balance Notice Data Fields

In addition to the basic LC description fields, it is important for validation, to signify whether this is just a basic balance change or whether there will be a subsequent drawing against the LC reduction. A flag has been introduced to signify this.

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Message Header			(see common section)
Notice Details			(see common section)
Notice Type			(see common section)
Deal Summary			(see common section)
Facility Summary			(see common section)
Facility Commitment Position			(see common section)
Loan Contract Position			(see common section)
LC Balance			(see common section)
LC Id Type	Alphanumeric	Y	The type associated with Id.
LC Id	Alphanumeric	Y	Can contain LC issuance number, CUSIP, ISIN etc...
Issuing Bank	Text	Y	The issuing bank associated with an L/C.
Effective Date	Date	Y	Effective date of the balance change.
Prior Amount	Currency	Y	The global and lender share amount of the L/C before any associated balance change.
Current Amount	Currency	Y	The global and lender share amount of the L/C after any associated balance change.
Balance Change Amount	Currency	Y	The amount that the L/C has shifted by. Shown at both the global and share levels.
LC Draw Flag	Flag	Y	Set to false for a normal increase or decrease in the LC amount. An LC draw results in a reduction of the LC amount and signifies that a loan drawdown will take place in conjunction with this message.

Questions

- Is it possible for the borrower to reimburse the loan immediately or would the agent bank request funds from the lenders (in most cases)...?
 - Funds would be requested from the lenders in most cases.*
- Under what circumstances, if any, can the lenders refuse to pay the cash against the loan...?
 - This is a rare scenario. Maybe come back to this with exceptions.*
- Does the initial cash come from the issuing bank (once the beneficiary draws against the LC)...? Assumption is that the cash then gets reimbursed from either the borrower or the lenders via the agent bank. Is this correct...?
- Should there be a validation to ensure that the LC amount MUST reduce if the LC Draw flag is set to true...?
 - Yes.*

4.4 Letter of Credit Amendment Notice

Scenario / High-level Business Process

There can be numerous amendments to an LC contract. These need to be communicated to all lenders once the amendment has been agreed between the borrower and the issuing bank.

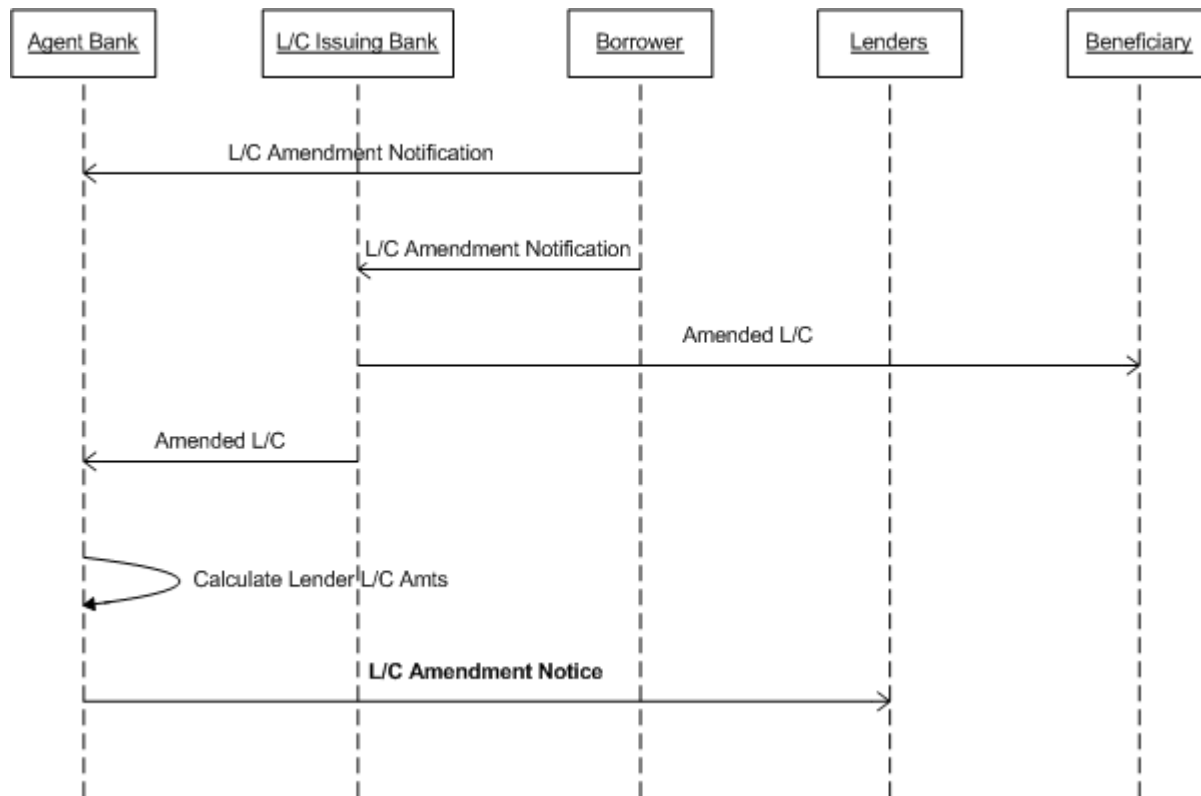


Figure 12: Letter of Credit Amendment Notice

Letter of Credit Amendment Data Fields

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Message Header			(see common section)
Notice Details			(see common section)
Notice Type			(see common section)
Deal Summary			(see common section)
Facility Summary			(see common section)
Facility Commitment Position			(see common section)
LC Position			The current position that a lender holds against a particular L/C
LC Amendment			A structure describing the way which an L/C contract has been amended.
Prior LC	Complex	Y	A full L/C description as of before the amendment.
Current LC	Complex	Y	A full L/C description as of after the amendment.
Effective Date	Date	Y	Effective date of the LC amendment.

It should be noted that L/C amendments are used for the scenario where there is a business events which has caused a shift in the L/C details. In the case where there is a correction to the L/C due to an incorrect set of details being sent out, the same L/C

notice would be sent out (same event Id but a different message Id) in its new correct form.

4.5 Letter of Credit Fee Notice

Scenario / High-level Business Process

Every letter of credit has an on-going fee associated with it. These fees are calculated in a similar fashion to the other on-going fees (Section 0 – Phase 1).

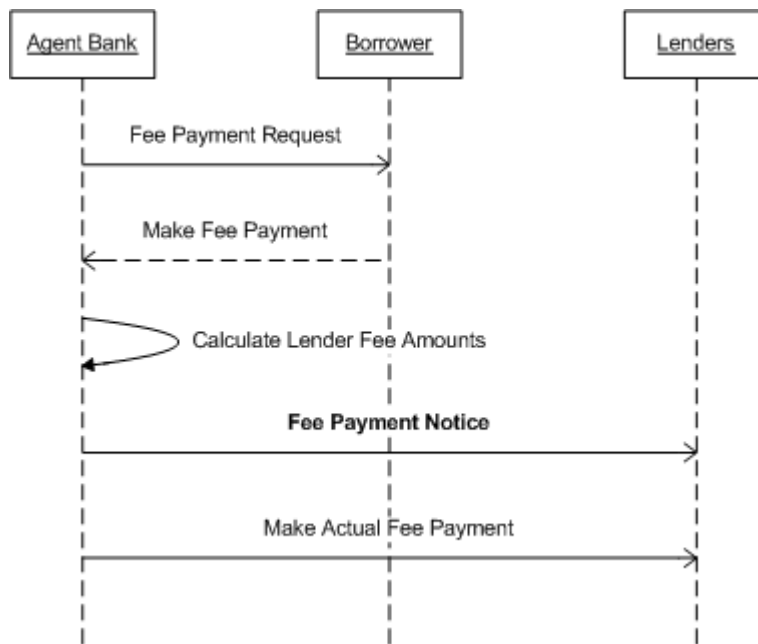


Figure 13: Letter of Credit Fee Notice

The fee is a basic accrual based on the daily outstanding amount on each individual L/C. It is paid on a frequency as defined in the credit agreement, in a similar fashion to other on-going fees. It should be noted that even though the calculation is affected at an individual L/C level, it is usually billed and paid at an aggregate L/C level.

Question

1. Does the issuing bank earn any L/C fees or are the fees paid to the lenders only...?
 - *The fees are based on the lenders which are providing L/C coverage.*
 - *3/2/2010 (LSTA business working group): The issuing bank can earn a separate 'LCIssuanceFee' which can be either a flat or an accruing fee. If accruing, then the accrual would be based on the balance of the Issuing Bank's Lender Share.*

Letter of Credit Fee Notice Data Fields

As mentioned previously, this message type is an extension of the on-going fee type from phase 1. Main header of the on-going fee message:

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Message Header			(see common section)
Notice Details			(see common section)
Notice Type			(see common section)
Deal Summary			(see common section)
Facility Summary			(see common section)
Fee Payment			(see on-going fee section)
Start Date	Date	Y	The start date of the L/C fee period.
End Date	Date	Y	The end date of the L/C fee period.
Fee Type	Text List	Y	The on-going fee type.
Payment Date	Date	Y	Date on which the fee was paid to the lender by the agent bank.
Currency	Text List	Y	Currency in which the fee payment is made.
Global Fee Payment	Currency	Y	Fee amount paid by the borrower to the agent bank.
Share Fee Payment	Currency	Y	Fee amount paid to the specific lender.
Fee Day Basis	Text List	N	The day basis associated with fees against this facility.

It should be noted that the L/C fee is always denominated in the currency of the underlying L/C itself. In addition, since this fee type is specific to a particular L/C, we need to be able to reference the L/C directly in the message. The on-going fee message is a 'facility notice' but it has been extended to contain a reference to either an L/C or a loan contract. Only a single L/C is referenced in a single message construct.

LC Summary	Data Type	Required?	Comments / Outstanding Issues / Questions
LC Id Type	Alphanumeric	Y	The type associated with Id.
LC Id	Alphanumeric	Y	Can contain LC issuance number, CUSIP, ISIN etc...
Issuing Bank	Text	Y	The issuing bank against a particular L/C.

In phase 1 we described three types of supporting position details:

- Lender commitment period (facility fee)
- Lender utilization period (utilization fee)
- Lender unutilized period (commitment fee)

The on-going fee message will now have the option of containing one or more Lender LC Position Periods

Lender L/C Position Period	Data Type	Required?	Comments / Outstanding Issues / Questions
Start Date	Date	Y	Date on which the L/C position period begins.
End Date	Date	Y	Date on which the L/C position period ends.
Share LC Amt	Currency	Y	The share L/C amount against a specific lender.
Global LC Amt	Currency	Y	The outstanding global amount of an L/C.

An additional fee type will have to be introduced, 'Letter of Credit Fee' and there will need to be some validation in order to ensure that the L/C position periods are populated when the fee type is letter of credit fee.

The above design can be used to capture an L/C fee or an L/C Issuance Fee (both accrual fees). The one-off fee message can be used to capture a flat L/C Issuance Fee.

4.6 Letter of Credit Termination Notice

Scenario / High-level Business Process

There are two business scenarios in which an L/C's can be terminated. They can either expire or be cancelled; both of these scenarios would be captured by this notice. A specific effective date must be communicated to ensure correct booking on the part of the lender.

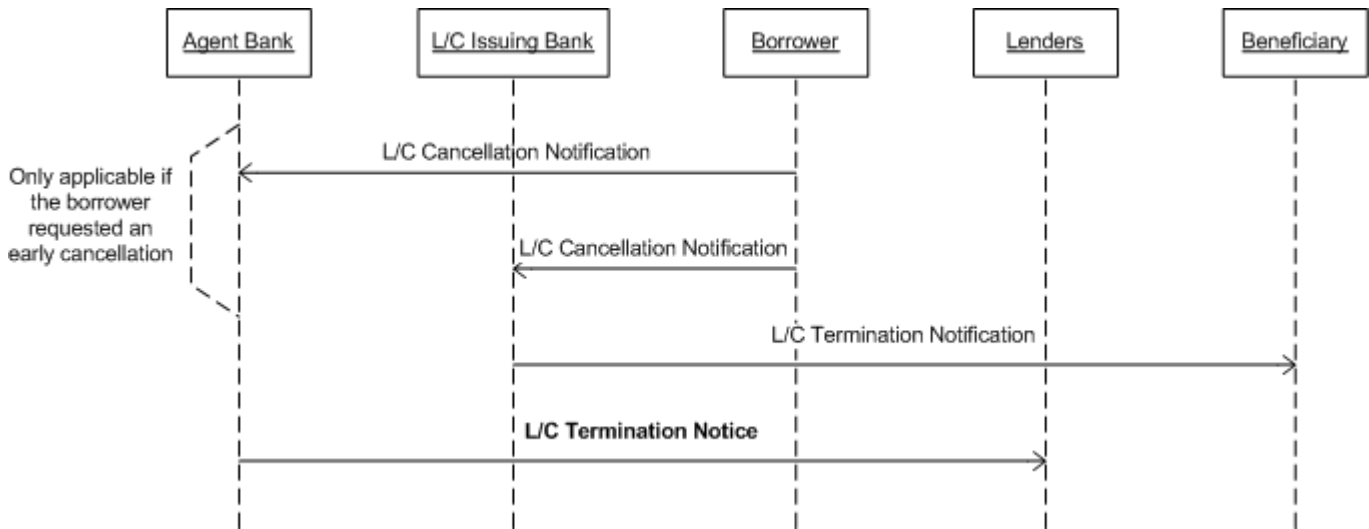


Figure 14: Letter of Credit Termination Notice

Letter of Credit Termination Data Fields

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Message Header			(see common section)
Notice Details			(see common section)
Notice Type			(see common section)
Deal Summary			(see common section)
Facility Summary			(see common section)
LC Summary			Summary of fields which describe a particular L/C.
LC Id Type	Alphanumeric	Y	The type associated with Id.
LC Id	Alphanumeric	Y	Can contain LC issuance number, CUSIP, ISIN etc...
Issuing Bank	Text	Y	The issuing bank associated with a letter of credit.
LC Termination			A structure describing the fields around an L/C termination business event.
Effective Date	Date	Y	Effective date of the termination. This is the date on which lenders should book the termination for the purposes of accrual calculations.
Expiry Flag	Flag	Y	Determines whether this event was created due to a natural expiration of the LC or an unscheduled cancellation.
Prior Amount	Currency	Y	Both position and global amount should be shown here.
Current Amount	Currency	N	Both position and global amount should be shown here. Will always be zero here.

Question

- Do we need the current amount here...? (it will always be zero in this case)
 - Can leave it there.

4.7 Pricing Change Notice

Scenario / High-level Business Process

During the lifetime of a credit agreement there are various factors that can affect the on-going margins and fees charged. Within the credit agreement, there are certain pricing matrices which govern these values. These matrices are usually based on underlying factors:

- Borrower's financial performance
- Covenants listed within the credit agreement
- A schedule documented within the credit agreement

The credit agreement usually states that the borrower must submit certain financials to the agent bank on a regular (pre-defined) basis. These financials are reviewed by the agent bank and can lead to pricing changes. This scenario refers to the communication of these potential pricing changes to the lender community.

To be clear, this notification is used for updates in the pricing for the following factors:

- Margins applied to all loan contracts within a given facility
- Value of facility-level fees with a given facility (this includes all fee types)

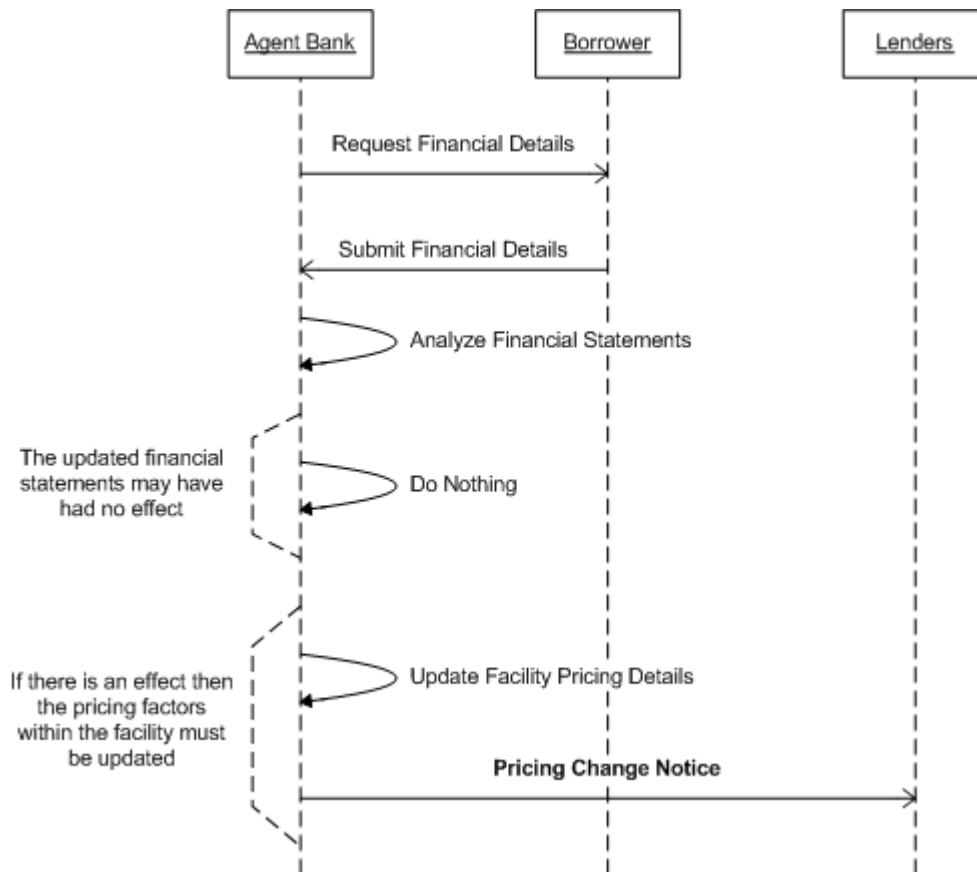


Figure 15: Pricing Change Notice Business Flow

Pricing Change Notice Data Fields

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Message Header			(see common section)
Notice Details			(see common section)
Notice Type			(see common section)
Deal Summary			(see common section)
Facility Summary			(see common section)
Pricing Change Reason	Text List	N	A set of textual descriptors allowing the investor to see the reason behind the price change. Values determined so far include: Borrower Financial Performance, Margin Schedule, Amendment/Waiver.

Each pricing change notice can contain one or more margin rate changes:

Margin Rate Change		N	
Margin Change Type	List	N	Defines the type of funded product for which the margin is being amended.
Loan Contract Summary	Complex	N	Defines a particular loan contract that is being re-priced.
Effective Date	Date	Y	Effective date of the change.
Prior Margin Rate	Percentage	Y	Value of the margin prior to a margin rate change.
Post Margin Rate	Percentage	Y	Value of the margin after a margin rate change.

Each pricing change notice can contain EITHER zero or more letter of credit rate changes or in the case that there are no outstanding L/C's only a single record will exist with the L/C identifier NOT populated:

Letter of Credit Rate Change		N	
L/C Summary	L/C Identifier	N	(see common section)
Effective Date	Date	Y	Effective date of the change of rate within a specific letter of credit.
Prior L/C Rate	Percentage	Y	L/C rate prior to the rate change.
Post L/C Rate	Percentage	Y	L/C rate after the rate change.

Business validations will need to be used in order to verify the contents on the above structure in the cases where there are either outstanding L/C's or not.

Each pricing change notice can contain zero or more facility fee rate changes:

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
On-Going Facility Fee Change		N	
Effective Date	Date	Y	Effective date of the change of the fee rate.
Fee Type	Text List	Y	(see on-going fee section)
Prior Fee Rate	Percentage	Y	Value of the fee rate prior to the rate change.
Post Fee Rate	Percentage	Y	Value of the fee rate after the rate change.

Note: The fee type field within the on-going facility fee change section cannot contain an L/C fee change. Also, there should be additional validation: even though none of the sub-structures are required, there must be at least one populated between the three, for the overall message to be valid.

Questions

- The assumption in this notice is that all loan contracts based on a specific underlying base rate will be re-priced at the new margin levels. Is this structure valid or should we explicitly state the margin change for each loan contract...?
 - We should explicitly state the margin at each contract level (updated the above structure).*

2. We could introduce a 'reason code' for the pricing change, if the business feels it is applicable...?
 - *Yes, the business would like to introduce one.*
3. Should there be a future representation of a PIK rate change...? Is it a separate schedule to the cash margin change...?
 - *Yes it should be represented as a separate schedule in a future version of the standards.*
4. *The pricing change notice currently covers margin changes. There could also be changes in the PIK rate (independent to the cash margin). Should we have a separate notice to cover these scenarios or extend this notice to cover PIK also...?*
5. *Should this notice be extended to cover changes in the pricing matrix...? I.e. if there is a stepped pricing structure defined in the credit agreement then this stepped pricing scheduled may get redefined. The design option is to have a choice between prior and post simple rates (as we currently capture) and prior and post pricing matrices.*

4.8 Commitment Adjustment Notice

Scenario / High-level Business Process

There are many scenarios where the commitment level of a facility can be adjusted. This adjustment may or may not be related to an actual cash flow occurring between the borrower and lenders. Drivers for commitment adjustments:

- Amortization schedule.
- PIK capitalization on an existing facility.
- << Document other business drivers here >>

<< Add a commitment adjustment sequence diagram here >>

Commitment Adjustment Notice Data Fields

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Message Header			(see common section)
Notice Details			(see common section)
Notice Type			(see common section)
Deal Summary			(see common section)
Facility Summary			(see common section)
Refusal Allowed Flag	Flag	Y	Can the lender refuse the commitment adjustment...?
Scheduled Flag	Flag	N	Defines whether the commitment adjustment was defined on the credit agreement.
Commitment Adjustment Type	Text List	Y	Increase or decrease.
Commitment Adjustment Amount	Currency	Y	Amount of the commitment adjustment on the global and lender share levels.
Current Commitment Amount	Currency	Y	The commitment amount after the adjustment has taken place. This is also defined at the global and lender share levels.

5 Instrument Extensions and Secondary Market Loan Trading – Phase 3

5.1 Deal and Facility Structures

Scenario / High-level Business Process

In order to support the need to more clearly define certain deal and facility information (e.g. for secondary transactions) it is necessary to introduce the expanded deal and facility structures. These will grow over time until we have a representation that can support the expected disclosure of the underlying asset in an electronic format.

Deal / Facility Data Fields

We now begin to describe the underlying deal/facility structure itself. For secondary trading, there is a requirement to potentially refer to more detailed information about the deal/facility than just the Id of the instrument (at least in today's market).

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Deal		Y	
Deal Id	Alphanumeric	Y	
Description	Text	N	A description of the associated credit agreement.
Agent Bank Type Id	Alphanumeric	Y	
Agent Bank Id	Alphanumeric	Y	
Primary Borrower Type Id	Alphanumeric	Y	
Primary Borrower Id	Alphanumeric	Y	
Syndication Bank Type Id	Alphanumeric	N	
Syndication Bank Id	Alphanumeric	N	
Original Deal Amount	Currency	N	The original global deal amount.
Maturity Date	Date	N	
Credit Agreement Date	Date	Y	The date associated with the credit agreement.
Trigger Date	Date	N	This is a date referred to in the delayed compensation documentation to define the date from which a syndication would be funded (and therefore delayed compensation would begin to be calculated). Is this always the same as the credit agreement date...?
Borrower disclosure flag	Flag	N	Defines whether any transactions within the specified deal should be disclosed to the borrower.
Governing Law Country	Text List	N	Used in Europe. Defines the jurisdiction governing this credit agreement. ISO standard list of countries...?

A deal can contain zero or more additional borrowers:

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Borrowers		N	
Borrower Type Id	Alphanumeric	Y	
Borrower Id	Alphanumeric	Y	
Borrower Name			

A deal can contain zero or more guarantors:

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Guarantors		N	
Guarantor Type Id	Alphanumeric	Y	
Guarantor Id	Alphanumeric	Y	
Guarantor Name			

A deal can contain one or more facilities:

Facility		Y	
Facility Id	Alphanumeric	Y	
Facility Description	Text	N	
Facility Type	Text List	Y	The type of facility being represented here. Choices so far include: Term, Revolver, Deposit Funded, Delayed Draw, Letter of Credit. Should Bankers Acceptance & Guarantee be included here...? Need to provide definitions for each of these.
Facility Legal Name	Text	Y	The actual legal name of the facility as stated in the credit agreement.
Current Commitment Amount	Currency	Y	The current global commitment amount for this facility.
Current utilized global commitment amount	Currency	N	The current utilized global commitment amount.
Current funded global amount (of utilized amount)	Currency	N	The funded portion of the global utilized commitment amount.
Current unfunded global amount (of utilized amount)	Currency	N	The unfunded portion of the global utilized commitment amount.
Multi Currency Flag	Flag	Y	Defines whether the facility is multi-currency or not.
Effective Date	Date	Y	The effective date associated with a facility.
Expiry Date	Date	Y	The date on which all drawdown transactions must be executed. Is the naming correct...? Should this field be required...?
Maturity Date	Date	N	The final maturity date associated with a facility.
Termination Date	Date	N	The date on which a facility may have unexpectedly been terminated. This would occur prior to the published maturity date.
Borrower Consent	Text List	N	Defines whether consent is required when trading this facility. No Consent Required Consent Always Required Consent granted if Buyer is already an LOR Consent granted if Buyer is an Affiliate of existing LOR Consent granted if Buyer is an approved fund of existing LOR Consent required from the existing pool of lenders (typically for a new Letter of Credit or Swing-line lenders)

A facility can contain zero or more additional borrowers:

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Borrowers		N	
Borrower Type Id	Alphanumeric	Y	
Borrower Id	Alphanumeric	Y	
Borrower Name	Text	N	

A facility can contain zero or more guarantors:

Guarantors		N	
Guarantor Type Id	Alphanumeric	Y	
Guarantor Id	Alphanumeric	Y	
Guarantor Name	Text	N	

A facility can contain zero or more on-going fee descriptions:

On-Going Fee		N	
Fee Type	Text List	Y	Describes the type of the on-going fee.
Effective Date	Date	Y	Start date of the rate associated with this fee type.
Fee Currency	Text List	N	Currency in which the fee payment is made. This field would ONLY be populated when the fee currency is NOT the same as the facility currency.
Fee Day Basis	Text List	N	The day count basis for the fee calculation period.

An on-going fee object can contain either one:

Fee Rate			
Fee Rate	Percentage	Y	The fee rate associated with the fee.

Or one or more tiered fee rate structures. This is mainly used for utilization fee where the fee is based on the % utilization within the facility.

Tiered Fee Rate			
Start Percentage	Percentage	Y	The lower limit of % utilization on the facility from which this fee type applies.
End Percentage	Percentage	Y	The upper limit of % utilization on the facility until which this fee type applies.
Fee Rate	Percentage	Y	The fee rate associated with the specific percentage bracket.

It is important to define business validation around the fact that there must be contiguous coverage from 0-100% in terms of the utilization fee rate definition.

A facility can contain zero or more facility default periods:

Facility Default Period		N	
Start Date	Date	Y	The start date of a facility default period.
End Date	Date	Y	The end date of a facility default period.
Default Flag	Flag	Y	When the flag is set to true, the facility is in default.

Questions:

- Should the fee description be described as a schedule (with start and end dates) or do we simply assume that the stated fee rate is the 'current' fee rate...?

The issue with a start date and end date is the fact that we are not describing a historical schedule in this scenario but rather a fee pricing matrix. This means we have to capture a future date schedule or utilization schedule etc. Need to figure out the best way to represent this.

- Further structure to yet be defined but that have been mentioned in the business working group include:

Pricing Matrix

As discussed in the working group meetings (Jan 2010). A tiered pricing matrix should be captured to describe utilization fee levels.

E.g. Utilization Fee Rate:

Percentage From: 33.3% Percentage To: 66.7% Fee Rate: .075000

Percentage From: 66.7% Percentage To: 100% Fee Rate: .150000

We could therefore add following: rangeStartPercent – Leverage ratio percentage for the start of a band; rangeEndPercent – Leverage ratio percentage for the end of a band.

This has been modeled as of v1.42.

Multi-Currency

Definition of what currencies are 'draw-able' on a multi-currency facility

5.2 Loan Contract Structures

Scenario / High-level Business Process

Loan contracts need to be extended to include the flowing pieces of information (required for trade settlement):

- PIK information. PIK travels for free in certain trading scenarios.
- Delayed compensation. It is calculated based on the interest accruals at the loan contract level. It is not part of the loan contract definition but is a cash flow based on the loan contract information.

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Loan Contract			A core structure describing a loan contract between borrower and lenders forming part or all of the credit line offered by a facility structure within a deal.
Loan Contract Summary	Complex	Y	Represents the Loan Contract Summary object.
Borrower Name	Text	N	Agent-specific name of the borrower. There could be multiple borrowers against a contract however the agents have been trying to promote the concept of an administrative borrower. Hence, only one shown in the field list.
Borrower Id Type	Text List	Y	The provider for the following Id.
Borrower Id	Alphanumeric	Y	A reference to the borrower against a loan contract.
Effective Date	Date	Y	The effective date of the loan contract. This is the date on which the funds are passed to the borrower.
Loan Contract Amount	Currency	N	The borrowing amount associated with the loan contract. The currency may or may not be the same as the facility currency. Validation: Either loan contract amt, PIK amt or both.
PIK Amount	Currency	N	The PIK amount associated with the loan contract. Validation: Either loan contract amt, PIK amt or both.
Conditions Precedent Met Flag	Flag	N	A flag defining whether conditions precedent have been met. Once met, the borrower can start drawing against the associated facility.
Conditions Precedent Met Comment	Text	N	A free text field defining the reasons why conditions precedent have not been met.
Interest Payment Tenor	Number	N	The frequency at which interest payments are made. As stated in the credit agreement.
Next Interest Payment Date	Date	N	The next interest payment is due on this date.
FX Rate Schedule in Loan Contract			Defines the exchange rate between the loan contract and facility currencies. This rate can be reset/redefined mid-period within an outstanding loan contract.
Start Date	Date	Y	Defines the dates for a single FX term period.
End Date	Date	Y	Defines the dates for a single FX term period.
Loan Contract Exchange Rate	Number	Y	Value of the exchange rate, in the case where the loan contract is in a different currency to the facility currency.
Exchange Rate Fixing Date	Date	Y	The date of which the (loan contract currency: facility currency) exchange rate was fixed.
Current Interest Rate Period	Interest Rate Period	N	A full definition of the accrual characteristics of a loan contract. This structure defines the underlying base rate as well as any additional margins and costs associated with the loan contract. Validation: Either interest rate, PIK rate or both must be defined.
Rate Fixing Date	Date	Y	The date on which the underlying interest rate is fixed. Note: This should default to the effective date of the loan contract in the case of a PRIME base rate.
Start Date	Date	Y	Date on which this interest period begins.
End Date	Date	Y	Date on which this interest period ends. Note: The end date, in the case of a PRIME-based loan contract, should default to the loan contract maturity date.
Floating Rate Index	Text List	Y	Defines the underlying base rate for this interest rate period.
Interest Rate	Positive	N	The actual interest rate, defined as a percentage.

	Percentage		
Margin	Percentage	N	The margin as stated in the credit agreement. There are confirmed use cases/scenarios where this value can be negative.
Mandatory Cost Rate	Positive Percentage	N	Charged as an additional cost for select European deals.
All In Rate	Positive Percentage	N	The actual percentage rate charged to the borrower. $(Interest\ Rate + Margin + MCR - PIK\ Rate) = All\ In\ Rate$. Confirm this calculation...
Interest Day Basis	Text List	N	The day count basis for the interest rate period.
Tenor	Number	N	The number of business days in the interest rate period.
Projected Interest Amount	Currency	N	Projected amount of interest that will be paid by the Agent bank at the end of the interest period.
Current PIK Rate Period	PIK Rate Period	N	This structure defines the characteristics of the PIK period. This schedule is independent of the loan contract accrual period. Validation: Either interest rate, PIK rate or both must be defined.
Start Date	Date	Y	Date on which this PIK period begins.
End Date	Date	Y	Date on which this PIK period ends. Is this ever defined...?
PIK Margin	Percentage	N	The margin associated with any portion of the loan contract which is due to be capitalized.

5.3 Loan Trading Notices

Scenario / High-level Business Process

The secondary market in the loan market has progressively grown over the years, in terms of notional assignments and participations. The process is heavily dependant on legal documentation being transferred and signed across the trading counterparties, as well as, the agent banks involved in the transaction. This section attempts to model these interactions with specific data structures. To begin with, Figure 16 provides an overview of the trading process as it currently exists.

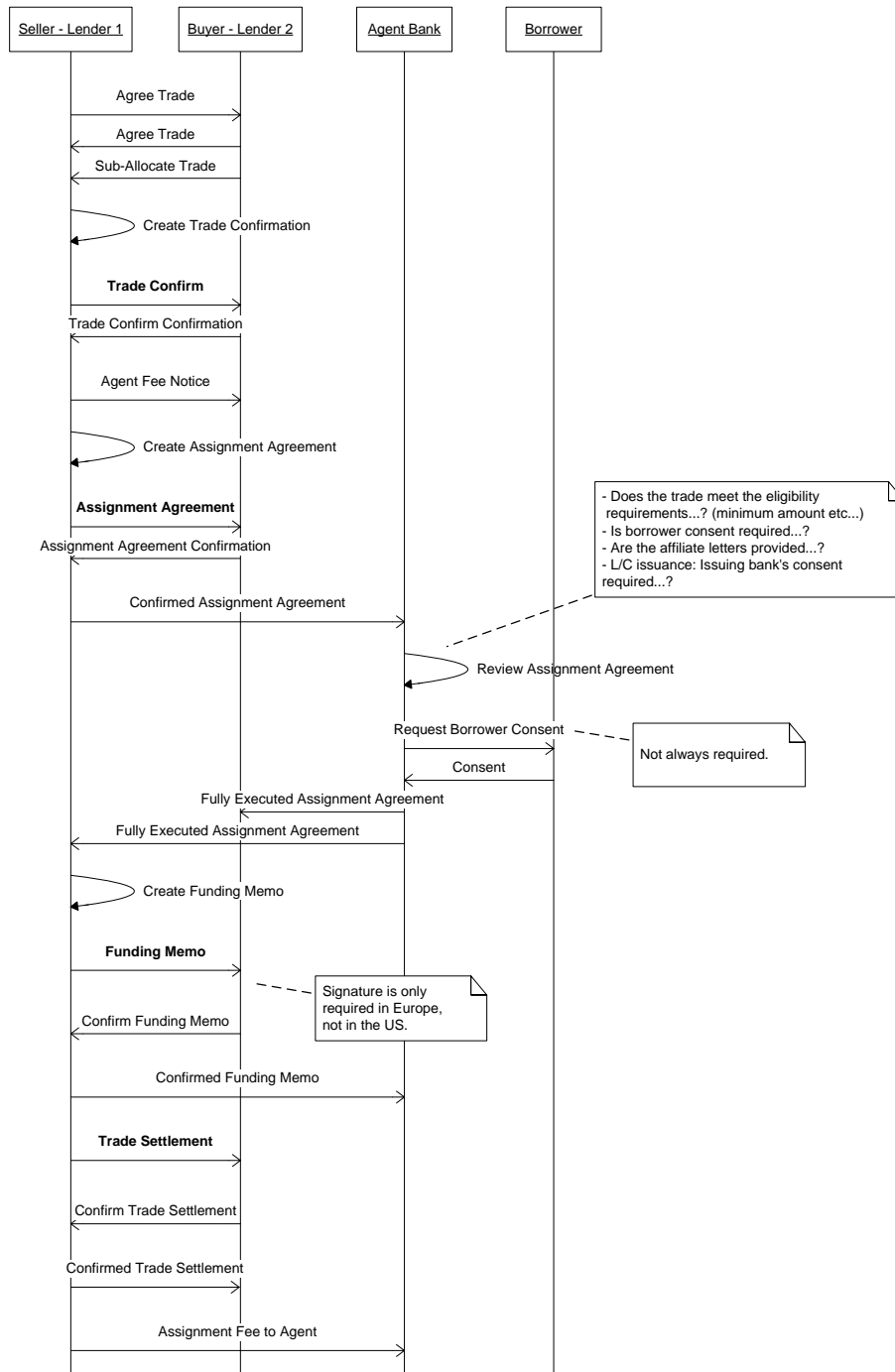


Figure 16: Secondary Market Loan Trading Process

The first documented communication occurs once the trade has been verbally agreed, in the form of a "trade confirmation". The

objective of the confirmation is to:

- Ensure that the underlying traded instrument is correctly identified.
- Ensure the economics of the secondary market trade are correctly captured.
- Set expectations on the trade settlement timing.
- Ensure that each legal entity in the trade is correctly identified.
- State the type of legal documentation that will be used to settle the trade.

The second stage involves communication with the agent bank, confirming that details of the pending transaction. The agent bank must 'sign-off' the transfer of ownership of the asset in question. This document is referred to as an 'assignment agreement'.

The final stage of the secondary trade occurs on the day of (or sometimes day before) the actual settlement date. The document, referred to as the Funding Memo, defines the outstanding loan contracts and the expected payment to be made to the selling counterparty. This payment is based on both the utilized and unutilized levels within the facility/facilities being bought.

Some basic assumptions regarding the trade structure:

- More than one facility can be traded within a single secondary trade.
- Each facility, which is traded, can be priced independently.
- There is one primary (main) buyer on the initial trade record but they are able to allocate portions of the trade to related counterparties during the settlement process.

Secondary Loan Trade Data Fields

This section describes the general structure of a secondary trade. The data fields table below shows how fields are related to each other and also which fields appear in which settlement document (according to the requirements spreadsheet provided by the business working group).

The table shows all the core economic and legal characteristics that are relevant to the successful settlement of a secondary trade. The assumption is that during the trade life-cycle, more fields (and sections) will become populated. The primary concern is to get the structure (relationship between sections) correct.

Data Field	Data Type	Confirm	Assign	Funding	Comments / Outstanding Issues / Questions
Message Header					(see common section)
Notice Details					(see common section)
Notice Type					(see common section)
Deal Summary / Deal (the deal object can provide details down to the loan contract level)					(see common section) A choice between Deal Summary and Deal. The sender has the option to embed full deal details in the case where they wish to communicate this to the receiver.
Deal Trade		Y	Y	Y	
Deal Trade Id Type	Alphanumeric	Y	Y	Y	The type associated with Id.
Deal Trade Id	Alphanumeric	Y	Y	Y	An id which refers to the secondary trade.
Buyer Counterparty Id Type	Alphanumeric	Y	Y	Y	The source of the buying counterparty id.
Buyer Counterparty Id	Alphanumeric	Y	Y	Y	An id which refers to the buying counterparty.
Buyer Counterparty Name	Text	N	N	N	
Buyer Principal Agent Flag	Flag	Y	Y	Y	A flag which defines whether the trading counterparty is acting as agent or principal.
Seller Counterparty Id Type	Alphanumeric	Y	Y	Y	The source of the selling counterparty id.

Seller Counterparty Id	Alphanumeric	Y	Y	Y	An id which refers to the selling counterparty.
Seller Counterparty Name	Text	N	N	N	
Seller Principal Agent Flag	Flag	Y	Y	Y	A flag which defines whether the trading counterparty is acting as agent or principal.
Trade Date	Date	Y	Y	Y	The trade date associated with the secondary market transaction.
Assignment Effective Date	Date	N	Y	Y	The date on which the assignment is made effective. Can this be represented at this level...?
Expected Settlement Date	Date	N	N	N	A projected settlement date (based on a default settlement period).
Actual Settlement Date	Date	N	N	Y	The date on which a transaction actually settles. This field can be used in the scenario where there are no allocations.
Trading Association	Text List	Y	N	N	Defines the trading association that governs the legal transfer documentation for this transaction. Choices will be LSTA, LMA.
Loan Trade Documentation Type	Text List	Y	N	N	Describes whether the trade is settling as a Par or a Distressed confirm. The field only appears on the trade confirm but then drives the legal documentation required to settle the trade.
Form Of Purchase	Text List	Y	Y	N	Assignment (LSTA/LMA), Participation (LSTA), Transfer Certificate (LMA), Transfer Agreement (LMA), Funded Participation (LMA), Funded/Risk Participation (LMA), Risk Participation (LMA), Risk to Funded Participation (LMA), Netting Agreement (LSTA/LMA).
Accrual Interest Type	Text List	Y	N	Y	Defines how interest is calculated and paid for the settlement period. Values include: SWOA: Settled without Accrued Interest SWA: Settled with Accrued Interest Flat: Trades Flat (no longer in requirements spreadsheet: Paid on Settlement Date, Discounted from Next Rollover Date, N/A)
Credit Docs Provided	Flag	Y	N	N	Defines whether credit documentation is to be provided during the settlement process.
When Issued Flag	Flag	Y	N	N	Defines whether the trade is a 'when issued' trade. This refers to a situation where the secondary trade is dependent on a primary structuring and syndication process to complete.
Breakage Cost Flag	Flag	Y	N	Y	Defines whether breakage costs are due on this loan trade transaction.
Delayed Compensation Flag	Flag	Y	N	Y	Defines whether delayed compensation is payable in the case where there is a delay in trade settlement.
Other Trade Terms	Text	N	N	N	Optional text that defines additional information regarding the trade.

List the type of one-off fees we can expect to represent within a deal trade object. The first that comes to mind is a **Transfer/Assignment Fee**.

Each deal trade contains one of two structures:

Either one multi facility trade:

Data Field	Data Type	Confirm	Assign	Funding	Comments / Outstanding Issues / Questions
Multi Facility Trade		N	N	Y	This structure should only be used when the trade is executed with a single counterparty.
Delayed Compensation Commencement Date	Date	N	N	N	The start date for a delayed compensation period.

Delayed Settlement Date	Date	N	N	N	The end date for a delayed compensation period.
Interest Accrual Type	Text List	N	N	Y	Determines the component of interest due to the buyer as a result of a delay in settlement. This applies to all loan contracts. Need to define the applicable interest components.
Delayed Comp Amount	Currency	N	N	N	The total amount of delayed compensation for the overall trade. This field needs to handle multi-currency situations.

Or one or more allocated facility trade:

Data Field	Data Type	Confirm	Assign	Funding	Comments / Outstanding Issues / Questions
Allocated Facility Trade		N	N	Y	This structure should only be used when the trade is executed with multiple counterparties.
Buyer Counterparty Id Type	Alphanumeric	Y	Y	Y	The source of the buying counterparty id.
Buyer Counterparty Id	Alphanumeric	Y	Y	Y	An id which refers to the buying counterparty.
Buyer Counterparty Name	Text	N	N	N	
Buyer Principal Agent Flag	Flag	Y	Y	Y	A flag which defines whether the trading counterparty is acting as agent or principal.
Multi Facility Trade	Multi Facility Trade	N	N	Y	The previously defined structure.
Actual Settlement Date	Date	N	N	Y	The date on which this allocation of the overall transaction actually settles.

Each multi facility trade structure contains zero or more:

One-Off Fee	One-off Fee	N	N	N	
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Each multi facility trade structure will also contain one or more facility trades:

Data Field	Data Type	Confirm	Assign	Funding	Comments / Outstanding Issues / Questions
Facility Trade		Y	Y	Y	
Facility Trade Id Type	Alphanumeric	Y	Y	Y	The type associated with Id.
Facility Trade Id	Alphanumeric	Y	Y	Y	
Facility Summary	Facility Summary	Y	Y	Y	
Trade Amount	Currency	Y	Y	Y	The facility trade amount associated with this transaction.
Price	Decimal	Y	N	Y	The price at which a facility trade is executed. Can we not represent this at the deal trade level...?
Settled Commitment Amount	Currency	N	Y	Y	The amount that settles at the end of a trade life cycle.

Do we need an upfront fee section within a Facility Trade...? (Or in a section above the facility trade)

Each facility trade contains zero or more loan contract trade details:

Data Field	Data Type	Confirm	Assign	Funding	Comments / Outstanding Issues / Questions
Loan Contract Trade		N	N	Y	
Loan Contract Trade Id Type	Alphanumeric	N	N	N	The type associated with Id. Not all systems will be equipped to be able to generate static loan contract trade id's – this field will therefore have to be optional.
Loan Contract Trade Id	Alphanumeric	N	N	N	

Loan Contract Summary	Loan Contract Summary	Y	Y	Y	
Loan Contract Trade Amount	Currency	Y	N	Y	The loan contract borrowing trade amount associated with this transaction. This refers to the actual outstanding amount of the loan contract which is being traded. Validation: Might be required in Europe.
Pre Trade PIK Amount	Currency	Y	N	Y	The pre-trade PIK amount being traded. This amount has already been 'PIK'd' before the trade date. It is included in all trade proceeds calculations.
Post Trade PIK Amount	Currency	Y	N	Y	The post-trade PIK amount being traded. This amount was 'PIK'd' after the trade date. It is not included in any trade proceeds calculations and effectively 'travels for free'.
Settled Amount	Currency	N	Y	Y	The loan contract amount that settles at the end of a trade life cycle.
Interest Accrual Schedule	Interest Accrual Schedule	N	N	N	A structure that defines the accruals associated with the traded portion of a loan contract (for full structure details see the Interest Payment Notice section).

Each facility trade contains zero or more letter of credit trade details:

Data Field	Data Type	Confirm	Assign	Funding	Comments / Outstanding Issues / Questions
Letter of Credit Trade		N	N	Y	
LC Trade Id Type	Alphanumeric	N	N	Y	The type associated with Id.
LC Trade Id	Alphanumeric	N	N	Y	
LC Summary	LC Summary	Y	Y	Y	
Trade Amount	Currency	Y	N	Y	The LC trade amount associated with this transaction.
LC Accrual Schedule	Fee Accrual Schedule	N	N	Y	The accrual schedule associated with the LC. This will define the low-level accrual components.

Questions

- When referring to the counterparty, what is the Principal...?
 - A trading counterparty can trade as Principal (themselves) or on behalf of another party (agent). The normal process is that trades are initially entered with an agent (e.g. on the buy-side) and once the initial trade confirmation is completed, the buy-side would enhance the trade confirmation with actual reallocation to the principal level. The trade confirmation can then be re-sent by the buyer.
 - When an assignment occurs, it needs to occur at the reallocated counterparty level. In effect, each principal (e.g. fund) becomes a lender of record.
- The funding memo requirements state that we should be capturing the Global Commitment and Purchase Amounts as of Trade Date and Settlement Date.
 - This is similar to the concept of reconciliation information for previous notification messages.
- Should we have the ability to capture more than one one-off fee in a single notice that can be associated with a trade...? If so, then what kind of fees should actually be associated with a trade...? There are upfront fees against the confirmation and other fee types on the funding memo.
 - The funding memo can detail Assignment, Consent and Waiver Fees.
- The delayed compensation schedule could be represented at the trade level (assuming all loan contracts will accrue compensation for the same period). In addition, we would require delayed compensation accruals at the loan contract level.
 - Delayed compensation would be broken out by interest accruals and fee accruals (each one represented separately). The delayed compensation period is constant for the entire transaction but each type of cash flow must be broken out.
- There are certain outstanding requirements based on the Funding Memo requirements yet to be modeled (refer to the original spreadsheet): PIK, Commitment reductions, Principal repayments, Utilization levels – do we really need to capture this or should we simply state the outstanding loan contracts (which when summed will provide the total utilization)...? Maybe multi-currency scenarios...? Utilization is in underlying currency...
- When in the trade life cycle is the 'seller' allowed to share deal documentation with the 'buyer'.

- Buyer and seller have a confidentiality agreement. Buyer can share the data with seller at trade confirmation stage. Agent can share deal data with a buyer (a new lender) once they become lender of record.*
7. We need to cover the scenario where there is a when-issued settlement period (extra field requirements?).
 8. In the case where we need to accrue against average LIBOR, can we simply state the avg LIBOR value in the notice or do we need to define the daily LIBOR rates also...?
 9. Unfunded and Funded amounts need to be represented, since calculations rely on this data (e.g. the purchase cost). Will the accrual schedules take care of this situation...?
 10. PIK capitalization goes free if capitalized after the trade date – funded total should not include this portion. But this should be represented...?

6 Loan Administration Messages – Phase 4

6.1 Net Cash Flow Notice

Scenario / High-level Business Process

Within the syndicated loan industry there are often scenarios where multiple business events occur simultaneously. There are also situations where one business event is triggered by another and will be communicated as a single cash flow; the rollover scenario is one of these examples where interest payments and principal repayments occur together frequently.

As well as the representation of multiple cash flows, another important piece of information which is communicated today between counterparties is their settlement (remittance) details. This may eventually be sourced from a single location but is currently communicated between counterparties at the moment.

It is important to note that the aim of the cash flow design is to reference related business events from a cash flow perspective and provide a generic view that allows either counterparty to see the resulting cash flow as well as the source and destination of the cash flow (payer and payee details). This is a slightly different scenario than 'netting' unrelated business events into a single cash flow for the purposes of a simpler cash management model.

The classic example here of related business events being triggered by a single underlying event is a rollover which triggers a principal repayment and an interest payment; an example of two unrelated events are a fee payment and an interest payment which are not triggered by an underlying event but can happen to fall on the same business day.

Net Cash Flow

Since this requirement is not a standalone requirement, it does not have a full header associated with it. This structure is planned to be used in conjunction with existing business event messages.

Data Field	Data Type	Required?	Comments / Outstanding Issues / Questions
Cash Flow		Y	Structure that describes the cash flow associated with a given set of transactions.
Payer Id	Alphanumeric	Y	The id of the payer of the cash flow.
Payer Id Type	Alphanumeric	Y	The source of the payer id.
Payee Id	Alphanumeric	Y	The id of the payee of the cash flow.
Payee Id Type	Alphanumeric	Y	The source of the payee id.
Payment Amount	Currency	Y	The amount of the payment.
Settlement Details		Y	Structure that describes the settlement details of the payee.
?			Need to check with ISDA team as to location of existing settlement details structure. Also confirm the introduction of the new settlement details structure.

The cash flow and settlement structure can have one or more business events associated with it:

Business Event		Y	Structure that describes the business events which triggered the cash flow to occur.
Business Event Id	Alphanumeric	Y	
Message Id	Alphanumeric	Y	
Loan Business Event Type	Text List	Y	

The business event type describes the various business events which have been covered so far in the specification. It will also extend in the future to cover business events that are introduced in later phases.

Questions

1. Do we want to represent underlying business events with different effective dates...?