

15 FSA048

Enhanced Mismatch Report

The purpose of this *data item* is to record details of an *ILAS BIPRU firm's* liquidity mismatch positions. .

Valuation

Except where outlined, a *firm* should follow the relevant provisions in the *EU CRR*. A *firm* not subject to the *EU CRR* should follow its applicable accounting standards.

All collateral, cash and related deposits segregated for the benefit of a *client* should be excluded from FSA048 irrespective of the accounting treatment used by the *firm*.

Currency

The reporting currency for this *data item* is whichever of the following currencies the *firm* chooses, namely USD (the United States Dollar), EUR (the euro), GBP (sterling), JPY (the Japanese Yen), CHF (the Swiss Franc), CAD (the Canadian Dollar) or SEK (the Swedish Krona).

Amounts should be entered in multiples of 1,000 of the relevant currency unit.

Completion in a material currency

Where a *firm* is completing this *data item* in a *material currency*, the *firm* should only report positions and flows denominated in the *material currency* in question. In the case of off balance sheet items reportable in Part 8 where contingent liabilities or commitments may be drawn in multiple currencies, a *firm* should report these in the base currency of that contingent liability or commitment. Any payments and receipts in the *material currency* resulting from foreign exchange and currency swap flows are reported on line 57. If this *data item* is not being reported in a *material currency*, line 57 is left blank.

Data elements

These are referred to by row first and then by column. So, *data element 2B* will be the element entered in row 2 and column B.

Completion

A *firm* should complete this *data item* and report cash flows in the relevant time bands based on their residual contractual maturity. Asset flows should be entered according to their latest maturity. Liability cash flows should be entered according to their earliest possible date of outflow. Any flows or balances between entities included within the scope of the return should be eliminated in accordance with generally accepted accounting principles.

FSA048 time bands are defined by the reporting date and the application of the 'modified following' market convention, ignoring the existence of any non-settlement weekdays (bank holidays) in any currency.

General

The completion table at the end of this chapter identifies the columns which should be populated in respect of each row of *data item* FSA048.

Part 1 Memo items

1 Non-dated capital resources

A *firm* should report here the amount of its *capital resources* which do not have a contractual maturity date, including, but not limited to, a call date. If any instrument comprising a *firm's capital resources* includes a put option for the holder or a call option for the issuer with a pre-determined step and call structure they should be reported in line 41 with a maturity date assuming the option is exercised. Any instrument where the *firm* has a perpetual open call option to buy back the instrument, with no underlying step up or predetermined call structure should be reported as non-dated capital resources.

A *firm* may use the most recent figures from its management accounts for the amount of reserves included within non-dated capital resources and update this *data element* on a monthly basis.

2 Bank of England liquidity facilities

A *firm* should report in this row the total of any secured transactions with the Bank of England.

The Bank of England conducts regular Open Market Operations to provide to the banking system the amount of central bank money needed to enable reserve-scheme members, in aggregate, to achieve their reserves targets and the Operational Standing Lending Facility to give certain banks a means to manage unexpected 'frictional' payments shocks. In *data element 2B*, a *firm* should report the cash received, if any, pursuant to the usage of these or similar Bank of England facilities.

The Bank of England operates facilities to provide liquidity insurance to the banking system, whereby a *firm* can exchange its own collateral for government bonds. In *data element 2C*, a *firm* should report the market value of government bonds it receives pursuant to such Bank of England facilities, if any, in exchange for the *firm's* own collateral.

The Bank of England may also operate other facilities whereby a *firm* may repo securities, distinct from Open Market Operations, such as longer-term repo operations, or operations in exchange for wider collateral. In *data element 2D*, a *firm* should report the cash, if any, received pursuant to the usage of such facilities.

3 Other central bank liquidity facilities

A *firm* should report in this row the total of any secured transactions with central banks other than the Bank of England, mapping such transactions to the following categories:

In *data element 3B*, a *firm* should report outstanding borrowings from other central banks in routine open market operations secured against narrow collateral.

In *data element 3C*, a *firm* should report the market value of any government bonds or other collateral of a comparable quality that it receives in exchange for the *firm's* lower quality collateral.

In *data element 3D*, a *firm* should report the cash received from all other central bank facilities, including those that are for a longer-term or against wider collateral than routine open market operations.

4 Prior period's peak intra-day collateral used for UK settlement and clearing systems

Firms that are direct participants of clearing and settlement systems within the U K should report here the peak amount of cash and collateral that they used on an intra-day basis to meet the requirements of clearing and settlement systems in the U K since their previous reporting date for this *data item*.

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A *firm* should note that the amount to be reported in this *data element* should be the minimum amount of collateral it would have needed to post in order to meet its actual payment and settlement obligations as mandated by the requirements of the system(s) in question. It is not, therefore, the amount of collateral that was in fact posted by the *firm* which could include significant over-collateralisation.

Direct participation in settlement systems does not include intra-day floating charges associated with facilities provided by custodians to facilitate securities settlement.

5 Prior period's peak intra-day collateral used for settlement and clearing systems outside the UK

Firms that are direct participants of clearing and settlement systems outside the United Kingdom should report here the peak amount of cash and collateral that they used on an intra-day basis to meet the requirements of clearing and settlement systems outside the *United Kingdom* since their previous reporting date for this *data item*.

A *firm* should note that the amount to be reported in this *data element* should be the minimum amount of collateral it would have needed to post in order to meet its actual payment and settlement obligations as mandated by the requirements of the system(s) in question. It is not, therefore, the amount of collateral that was in fact posted by the *firm* which could include significant over-collateralisation.

Direct participation in settlement systems does not include intra-day floating charges associated with facilities provided by custodians to facilitate securities settlement.

Part 2 Security, transferable whole-loan and commodity flows

In this part of the *data item* a *firm* should report the current unencumbered stock of securities and their flows based on contractual maturities in the following types of securities by asset class:

- (1) securities and commodities held on the *firm*'s own account;
- (2) securities and commodities held as *clients'* or other customers' assets in relation to which the *firm* has re-hypothecation rights;
- (3) securities and commodities held by the *firm* as collateral pursuant to a *margin agreement*; and,
- (4) transferable whole-loans held by the *firm* that meet the criteria set out below in relation to line 9

Contractual security flows will occur as a result of:

- (1) the settlement or maturity of own account securities or certain loans;
- (2) the settlement or maturity of a *repo*, reverse *repo*, securities loans or collateral swap; and
- (3) collateralised lending and borrowing transactions;

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A *firm* should report positions at their clean market value (i.e. excluding accrued interest) and assume the maturity date of any collateral is the latest contractual maturity date possible. For securities without contractual maturity dates, it should report a maturity flow in Column J ">5 years".

The inflow of securities or position balance should be positive while contractual outflow or maturity should be negative. For example, if a *firm* were to purchase a four month security with a market value excluding accrued interest of £100m that it held unencumbered as at the reporting date it would report +100,000 in Column A and -100,000 in column F of the appropriate row 6 to 17.

Own-account security flows (long positions):

Any own-account securities should be reported as a positive flow in Column A if unencumbered or on the settlement date of purchase as appropriate; and as a negative flow at maturity.

A corresponding cash outflow on settlement date and inflow on maturity date should be reported on line 23.

Own-account security flows (short positions):

Any short sale of a security should be treated as having a negative flow on the settlement date of the sale and a positive flow on the maturity date of the underlying security sold.

A corresponding cash inflow on settlement date and outflow on maturity date should be reported on line 23.

Repos, reverse repos, securities loans and collateral swaps:

Repos, reverse repos, securities loans and collateral swaps should be reported as inflows on the date securities are received and outflows on the date securities are delivered. A *firm* should report all such transactions involving own account, client and margin collateral.

Tri-party repo and tri-party reverse repo transactions should be treated in the same manner as all other *repo* and *reverse repo* transactions. For the purpose of this *data item*, any such trade where the cash provider can unilaterally change the collateral eligibility criteria should be treated as having an overnight maturity, irrespective of the stated contractual maturity of the transaction.

In the case of a tri-party reverse repo, where the collateral provider has an option over the nature of the collateral provided, firms should report the actual collateral held on the reporting date, then on the earliest effective date of substitution, report that collateral leaving and an inflow of substitution collateral on a "worst case" basis, and assume that position will then remain unchanged until the maturity date of the transaction. Repo transactions should be reported on the basis of the actual collateral posted for the direction of the transaction.

Where a *firm* enters into forward-starting reverse repo transactions against unspecified collateral that would be reportable in more than one row, it should in the case of reverse repos, assume that it will be delivered collateral, as qualifying, in the following order: lines 17; 9 and 12; 10; 13 to 15; 16; 11; 8; 7; and 6. On settlement it should allocate securities flows based on the collateral it receives.

For similar repo transactions it may assume it delivers any securities it holds unencumbered that are eligible.

In the case of reverse repos and repos corresponding cash outflows and inflows should be reported in lines 25 to 30 and lines 34 to 39 as appropriate.

Margin collateral:

A *firm* should report the net collateral received as margin in Column A if it is unencumbered, and not report a flow for its maturity. Any repos, reverse repos, securities loans or collateral swaps using margin collateral should be reported as outlined above.

Client collateral:

A *firm* should report any client collateral over which it has rehypothecation rights in Column A if it is unencumbered, and not report a flow for its maturity. Any repos, reverse repos, securities loans or collateral swaps using *client* collateral should be reported as outlined above.

In relation to rows 6 to 17, . The description of which securities or loans should be reported in each row is as follows:

6 Liquid assets buffer-eligible securities

A *firm* should report in this row the unencumbered balances and the contractual securities flows of any securities it holds that qualify for inclusion in its liquid assets buffer as defined in *BIPRU 12.7*.

7 Other high quality central bank, supranational and central government debt

A *firm* should report in this row the unencumbered balances and the contractual securities flows of any securities not reported in line 6 or 8 whose obligor is a central government, *multilateral development bank* or central bank whose credit rating maps to *credit quality step 2* or above in the *scale* published PRA for the purpose of Articles 111-141 of the *EU CRR* (the Standardised Approach to Credit Risk: mapping of the ECAs credit assessment to credit quality steps (Long term mapping)).

For the avoidance of doubt, any securities that are issued by an agency explicitly guaranteed by the US government and which qualify for inclusion in line 8 should be reported in that line and not in line 7.

8 US GSE/GSA securities

A *firm* should report in this row the unencumbered balances and the contractual securities flows of any senior securities that it holds issued by, or guaranteed by one or more of, the United States Government Sponsored Enterprises (GSEs) or Government Sponsored Agencies (GSAs).

For the purposes of this row, GSAs and GSEs include only the Federal Home Loan Banks, Federal National Mortgage Association (Fannie Mae), Federal Home Loan Mortgage Corporation (Freddie Mac), Government National Mortgage Association (Ginnie Mae), Federal Farm Credit Banks and the Federal Agricultural Mortgage Corporation (Farmer Mac).

9 Own-name securities and transferable whole-loans

A *firm* should report in this row (i) the unencumbered balances and contractual securities flows of any own-name covered bonds and asset-backed securities that it holds secured by the *firm's* assets where the credit rating of such *exposures* has a credit rating associated with *credit quality step 2* or above *scale* published for the purpose of Articles 111-141 of the *EU CRR* (the Standardised Approach to Credit Risk: mapping of the ECAs credit assessment to credit quality steps (Long term mapping)) or *credit quality step 1* in the case of short-term mapping (ii) the unencumbered balances and maturity flows of any whole-loans whose credit rating is associated with *credit quality step 2* or above in the *scale* published for the purpose of Articles 111-141 of the *EU CRR* (the Standardised Approach to Credit Risk: mapping of the ECAs credit assessment to credit quality steps (Long term mapping)) or *credit quality step 1* in the case of short-term mapping where such *exposures* are held

on the *firm's* balance sheet for which there is no operational or contractual impediment to their being transferred to a third party.

Any own-name securities or whole-loans that do not qualify for inclusion on line 9 should not be reported elsewhere in part 2. Any repo collateralised using own-name securities or whole-loans that do not qualify to be reported in part 2 should be reported as an unsecured borrowing in part 6.

10 High quality asset-backed securities

A *firm* should report in this row the unencumbered balances and contractual securities flows of any asset backed securities that it holds where the credit rating of such *exposures* is associated with *credit quality step 2 or above scale* published for the purpose of Articles 111-141 of the *EU CRR* (the Standardised Approach to Credit Risk: mapping of the ECAs credit assessment to credit quality steps (Long term mapping)) or *credit quality step 1* in the case of short-term mapping, provided that such *exposure* is the most senior tranche of the issuing *securitisation special purpose entity*. All asset backed securities that are not included in this row should be reported in row 17.

For avoidance of doubt, a *firm* should exclude any unencumbered balances and securities flows of covered bonds in this row.

11 High quality covered bonds

A *firm* should report in this row the unencumbered balances and contractual securities flows of all covered bonds, where the credit rating of such *exposures* is associated with *credit quality step 2 or above in the t scale* published for the purpose of Articles 111-141 of the *EU CRR* (the Standardised Approach to Credit Risk: mapping of the ECAs credit assessment to credit quality steps (Long term mapping)) or *credit quality step 1* in the case of short-term mapping.

For the avoidance of doubt, own-name covered bonds, and covered bonds issued by *group* entities should not be reported in this row, but in rows 9 and 12 respectively.

12 Securities issued by group entities

A *firm* should report in this row the unencumbered balances and security flows attributable to securities where the obligor of those securities forms part of the *firm's group* and where the issuing vehicle is excluded from the scope of the report. If the issuing vehicle is included in the scope of the report, the securities should be reported as own-name securities and reported on line 9, if:

- (1) the securities are own-name covered bonds or asset-backed securities; or
- (2) the credit rating of such *exposures* is associated with *credit quality step 2 or above in the t scale* published for the purpose of Articles 111-141 of the *EU CRR* (the Standardised Approach to Credit Risk: mapping of the ECAs credit assessment to credit quality steps (Long term mapping)) or *credit quality step 1* in the case of short-term mapping.

If (1) or (2) are not met the securities should be omitted from this report.

For avoidance of doubt, if a *firm* holds bonds issued by its *group*, the security flows attributable to them should be included only in this row, even if such security would otherwise qualify for inclusion in another row in Part 2.

13 High quality corporate bonds (UK credit institutions)

A *firm* should report in this row the unencumbered balances and contractual securities flows of all senior corporate bonds that it holds whose obligor is a credit institution incorporated in the *United Kingdom*, if the credit rating of such *exposures* is associated with *credit quality step 2* or above in the *scale* published for the purpose of Articles 111-141 of the *EU CRR* (the Standardised Approach to Credit Risk: mapping of the ECAs credit assessment to credit quality steps (Long term mapping)) or *credit quality step 1* in the case of short-term mapping.

For avoidance of doubt, a *firm* should not report in this row any balances or flows from securities whose obligor is a member of the *firm's group*.

14 High quality corporate bonds (non-UK credit institutions)

A *firm* should report in this row the unencumbered balances and contractual securities flows of all senior corporate bonds that it holds whose obligor is a credit institution not incorporated in the *United Kingdom*, if the credit rating of such *exposures* is associated with *credit quality step 2* or above in the *scale* published for the purpose of Articles 111-141 of the *EU CRR* (the Standardised Approach to Credit Risk: mapping of the ECAs credit assessment to credit quality steps (Long term mapping)) or *credit quality step 1* in the case of short-term mapping.

For avoidance of doubt, a *firm* should not report in this row any balances or flows from securities whose obligor is a member of the *firm's group*.

In addition a firm should include any securities whose obligor is a local government , state or municipality in this line, whose credit rating is associated with credit quality step 2 or above in the scale published for the purpose of Article 111-141 of the *EU CRR* (the Standardised Approach to Credit Risk: mapping of the ECAs credit assessment to credit quality steps (Long term mapping)) or credit quality step 1 in the case of short term mapping.

15 High quality corporate bonds (excluding credit institutions)

A *firm* should report in this row the unencumbered balances and contractual securities flows of all senior corporate bonds that it holds whose obligor is not a credit institution, if the credit rating of such *exposures* is associated with *credit quality step 2* or above in the *scale* published for the purpose of Articles 111-141 of the *EU CRR* (the Standardised Approach to Credit Risk: mapping of the ECAs credit assessment to credit quality steps (Long term mapping)) or *credit quality step 1* in the case of short-term mapping.

In addition a *firm* should include any securities whose obligor is a local government, state or municipality in this line, whose credit rating is associated with *credit quality step 2* or above in the *scale* published for the purpose of Articles 111-141 of the *EU CRR* (the Standardised Approach to Credit Risk: mapping of the ECAs credit assessment to credit quality steps (Long term mapping)) or *credit quality step 1* in the case of short-term mapping.

16 Equities included in major indices

A *firm* should report in this row the unencumbered balances and contractual securities flows of all equities that it holds to the extent they are constituents one or more of the relevant indices.

For the purposes of computing maturity, a *firm* should treat equity securities as if they were instruments with a contractual maturity greater than five years.

17 Other securities and commodities

A *firm* should report in this row unencumbered balances and the contractual securities flows of all other securities, commodities and exchange-traded funds that it holds not reported on lines 6 to 16 of this *data item*.

For the purposes of computing maturity, a *firm* should treat equity securities or commodities as if they were instruments with a contractual maturity greater than five years.

Part 3 Wholesale asset cash flows

In this Part of the *data item*, a *firm* should report the principal cash flows associated with its wholesale assets. Transactions which do not have a specific contractual maturity date should be entered in column A for rows 18 to 22 and column B for rows 25 to 30. Cash flows from outright sales, purchases and maturities associated with securities reported on line 6 may, at the *firm's* election, be reported either on line 25 or on line 23.

18 Designated money market funds

A *simplified ILAS BIPRU firm* should report in this row the balance of any funds it holds in a *designated money market fund*. *Firms* that are not *simplified ILAS BIPRU firms*, should report the balance of any funds held in a *designated money market fund* in row 31 below.

19 Liquid assets buffer-eligible central bank reserves and deposits

A *firm* should report in this row any closing balances placed on deposit or as reserves with a central bank, where such reserves or deposits are eligible for inclusion in a *firm's* liquid assets buffer as defined in *BIPRU 12.7*. Deposit placed or reserves maintained with other central banks should be reported in row 22.

20 Lending to group entities

A *firm* should report here all lending, except reverse repo transactions reportable in rows 25 to 30, on both a term and open-maturity basis to entities in that *firm's group*.

21 Lending to UK credit institutions

A *firm* should report here lending on both a term and open-maturity basis to all *credit institutions* incorporated in the *UK*, except reverse repo transactions reportable in rows 25 to 30. A *firm* should include any cash balances placed on deposit with its agents in payment or settlements systems if appropriate.

A *firm* should report cash flows based on their latest contractual maturity date.

22 Lending to non-UK credit institutions

A *firm* should report here lending on both a term and open-maturity basis to all *credit institutions* incorporated outside the *UK*, except reverse repo transactions reportable in rows 25 to 30. A *firm* should include any cash balances placed on deposit with its agents in payment or settlements systems and central bank deposits not reported in line 19, if appropriate.

23 Own account security cash flows

A *firm* should report here the cash flows, based on the contractual principal inflows, resulting from the maturity, forward sale or purchase of own account securities reportable in rows 6 to 8 & 10 to 17. Cash flows from outright sales, purchases and maturities associated with securities reported on line 6 may, at the *firm's* election, be reported here or on line 25.

Where a *firm* has written down the principal of a security it should report this written-down principal as the cash inflow.

A *firm* should report cash flows based on their latest contractual maturity date.

24 Notional flows of own-name securities and transferable whole-loans

A *firm* should report here the contractual principal cash flows that would be receivable by a third-party owner of any own-name covered bonds and asset-backed securities and transferable loans reported in line 9.

25 Reverse Repo (items reported in line 6)

A *firm* should report here all cash flows resulting from secured lending transactions where the flow of securities arising from the transactions is reported in line 6.

Cash flows from outright sales, purchases and maturities associated with securities reported on line 6 may, at the *firm's* election, be reported here or on line 23.

A *firm* should only report in this row any secured lending transactions where securities flows are reported in row 6.

26 Reverse Repo (items reported in lines 7 and 8)

A *firm* should report here all cash flows resulting from secured lending transactions where the flow of securities arising from the transactions is reported in rows 7 and 8.

A *firm* should only report in this row any secured lending transactions where securities flows are reported in rows 7 and 8.

27 Reverse Repo (items reported in lines 10 and 11)

A *firm* should report here all cash flows resulting from secured lending transactions where the flow of securities arising from the transactions reported in rows 10 and 11.

A *firm* should only report in this row any secured lending transactions where securities flows are reported in rows 10 and 11.

28 Reverse Repo (items reported in lines 13, 14 and 15)

A *firm* should report here all cash flows resulting from secured lending transactions where the flow of securities arising from the transactions is reported in row 13 to 15.

A *firm* should only report in this row any secured lending transactions where securities flows are reported in rows 13 to 15.

29 Reverse Repo (items reported in line 16)

A *firm* should report here all cash flows resulting from secured lending transactions where the flow of securities arising from the transactions is reported in row 16.

A *firm* should only report in this row any secured lending transactions where securities flows are reported in row 16.

30 Reverse Repo (items reported in lines 9, 12 and 17)

A *firm* should report here all cash flows resulting from secured lending transactions where the flow of securities arising from the transactions is reported in rows 9, 12 and 17.

A *firm* should only report in this row any secured lending transactions where securities flows are reported in rows 9, 12 and 17.

Part 4 Other asset cash flows

In this Part, a *firm* should report lending not reportable in Part 3. In column A, a *firm* should report any open maturity balances, or balances for which it does not have at the time of the reporting date information as to the term.

A *firm* should only report contractual principal repayments and treat all loans using their latest contractual maturity.

A *firm* is not required to update the amounts in rows 31 to 33 more frequently than monthly.

31 Non-retail lending exposures

A *firm* should report here the principal cash flows resulting from lending *exposures* that are not *retail exposures* not reported elsewhere in Parts 3 or 4. These assets represent loans to all enterprises.

32 Retail lending exposures

A *firm* should report here the principal cash flows resulting from all lending *exposures* that are *retail exposures*, provided that they are not reportable in line 33.

33 SSPE asset cash flows

A *firm* should report in here the principal cash flows of the underlying assets transferred to any *securitisation special purpose entities* (SSPEs), that are consolidated in the *firm's* consolidated financial statements and whose liabilities are reported on line 51.

Part 5 Repo cash flows

This part of the *data item* relates to the gross cash flows of secured or collateralised borrowing transactions which encumber the *firm's* securities or transferable whole-loans and/or those of its *clients* in relation to which the *firm* has re-hypothecation rights. This section is further sub-divided into rows 34 to 39 according to the security encumbered in these secured transactions.

34 Repo (items reported in line 6)

A *firm* should report here all cash flows resulting from secured borrowing transactions where the flow of securities arising from the transactions is reported in row 6.

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A *firm* should only report in this row any secured borrowing transactions where securities flows are reported in row 6.

35 Repo (items reported in lines 7 and 8)

A *firm* should report here all cash flows resulting from secured borrowing transactions where the flow of securities arising from the transactions is reported in rows 7 to 8.

A *firm* should only report in this row any secured borrowing transactions where securities flows are reported in rows 7 to 8.

36 Repo (items reported in lines 10 and 11)

A *firm* should report here all cash flows resulting from secured borrowing transactions where the flow of securities arising from the transactions is reported in rows 10 and 11.

A *firm* should only report in this row any secured borrowing transactions where securities flows are reported in rows 10 and 11.

37 Repo (items reported in lines 13, 14 and 15)

A *firm* should report here all cash flows resulting from secured borrowing transactions where the flow of securities arising from the transactions is reported in row 13 to 15.

A *firm* should only report in this row any secured borrowing transactions where securities flows are reported in rows 13 to 15.

38 Repo (items reported in line 16)

A *firm* should report here all cash flows resulting from secured borrowing transactions where the flow of securities arising from the transactions is reported in row 16.

A *firm* should only report in this row any secured borrowing transactions where securities flows are reported in row 16.

39 Repo (items reported in lines 9, 12 and 17)

A *firm* should report here all cash flows resulting from secured borrowing transactions where the flow of securities arising from the transactions is reported in rows 9, 12 and 17.

A *firm* should only report in this row any secured borrowing transactions where securities flows are reported in rows 9, 12 and 17.

Part 6 Wholesale liability cash flows

In this Part of the *data item*, a *firm* should report cash flows arising from wholesale liabilities not reported in Part 5. A *firm*'s wholesale liabilities are those liabilities not reported in Part 7.

Contractual cash flows related to any open-maturity, callable, puttable or extendable issuance should be analysed based on the earliest possible repayment date and reported in part 6 unless these instruments are perpetually callable (by the *firm*) and qualify as non-dated capital resources reported on line 1.

A *firm* should first assess whether a liability qualifies for reporting in row 44, then row 50, prior to assessing which other row a liability qualifies for.

Contractual cash flows from securities issued should be reported in one of lines 40 to 43 or 51. Contractual cash flows from deposits taken should be reported in one of lines 44 to 50.

40 Primary issuances – senior securities

A *firm* should report here the contractual cash flows of its vanilla senior unsecured debt securities, for the purposes of this row, vanilla means any debt security not reportable in row 41 to 43. A *firm* should include in this row any of its primary issuance that is government-guaranteed.

41 Primary issuances - dated subordinated securities

A *firm* should report here the contractual cash flows of its dated subordinated securities.

A *firm* should, however, exclude from this row any undated capital instrument that it issues. Issuance of this type should be reported in row 1 of this *data item*.

42 Primary issuance – structured notes

A *firm* should report here the contractual cash flows of its senior securities containing embedded derivatives.

43 Covered bonds

A *firm* should report here the contractual cash flows of its covered bonds excluding own-name covered bonds it holds for its own account and reports in line 9 of this *data item*.

44 Group entities

A *firm* should report here the contractual cash flows of its borrowing from other entities in its *group*, where such borrowings are not reported in lines 34 to 39.

To the extent the *rules* in the regulatory reporting part of the PRA Rulebook require a *firm* to report on a basis which includes other entities in its *group*, the *firm* should not report in this line borrowings from those *group* entities.

45 UK credit institutions

A *firm* should report here the contractual cash flows of its borrowing from other from *credit institutions* which are incorporated in the *United Kingdom*, where such borrowings are not reported in lines 34 to 44.

A *firm* should not include in this row unsecured cash deposits received from the Bank of England.

46 Non-UK credit institutions

A *firm* should report here the contractual cash flows of its borrowing from other from *credit institutions* which are not incorporated in the *United Kingdom*, where such borrowings are not reported in lines 34 to 44.

A *firm* should not include in this row unsecured cash deposits received from central banks other than the Bank of England.

47 Governments, central banks and supranationals

A *firm* should report here the contractual cash flows of its borrowing from central and local governments, local authorities, central banks and supra-nationals, where such borrowings are not reported in lines 34 to 44.

48 Non-credit institution financials

A *firm* should report here the contractual cash flows of its borrowing from financial entities which are not *credit institutions*, where such borrowings are not reported in lines 33 to 42.

This category would, for example, include unsecured borrowings from a *depositary* or an *investment manager*.

49 Non-financial large enterprises – Type A

A *firm* should report here the contractual cash flows of its borrowing from non-financial large enterprises, where such borrowings are not reported in lines 34 to 44, subject to the funds provider being Type A as assessed by the *firm* according to the guidance in *BIPRU 12.5*.

A non-financial large enterprise is, for the purpose of identifying depositors in rows 49 and 52 of this *data item*, any depositor-type not captured by rows 44 to 48 and 53 to 56.

50 Conditional liabilities pre-trigger contractual profile

A *firm* should report here the contractual cash flows of liabilities where early repayment can be triggered upon the occurrence of an event or events related to the financial health of the company, (for example, a downgrade of the *firm's* credit rating, or breach of a financial covenant). For avoidance of doubt, acceleration of payment obligations triggered by the *firm's* default does not, in and of itself, qualify a liability for inclusion in this line. A typical example of such liabilities is Guaranteed Investment Contracts (GICs).

Any liability with a trigger and which would otherwise be included in lines 40 to 49 should be included in this row and not any other row.

In addition to reporting in this line, a *firm* should further breakdown the liabilities where those triggers are dependent on its credit rating, in the appropriate *data element* on line 71.

51 SSPE liability cash flows

A *firm* should report here the contractual cash flows of liabilities issued by any *securitisation special purpose entities* (SSPEs) that are consolidated in the firm's consolidated financial statements. The maturity profile of the *firm's* assets contained in these SSPEs should be reported on row 33.

Part 7 Other liability cash flows

A *firm* should report in this section of the *data item*, cash flows related to other liabilities according to the following criteria.

52 Non-financial large enterprises – Type B

A *firm* should report here the contractual cash flows of its borrowing from non-financial enterprises, where such borrowings are not reported in lines 33 to 42, subject to the funds provider being Type B as assessed by the *firm* according to the guidance in *BIPRU 12.5*.

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A non-financial enterprise is, for the purpose of identifying depositors in rows 49 and 52 of this *data item*, any depositor-type not captured by rows 44 to 48 and 53 to 56.

53 SME deposits

A *firm* should report in this row all its deposits and account balances where the account holder is a *small or medium enterprise (SME)*. A *firm* should also report here deposits and account balances where the account holder is a partnership, a sole trader, or a charity which would be an SME if it were a company.

A non-EEA *firm* may use its local definition of an SME.

54 Retail Deposits – Type A

A *firm* should report in this row, its retail deposits that are Type A, as assessed by the *firm* according to the guidance for *ILAS BIPRU firms* and for *simplified ILAS firms* in *BIPRU 12.5.25G*.

A retail deposit is any deposit in a retail banking account or product type predominantly used by an individual or individuals acting outside their trade, industry or profession, and includes, in each case, savings bonds.

A *firm* should report all deposits in column A, unless the deposit is for a fixed term. In considering whether a deposit is fixed term, a *firm* should assume the immediate exercise of any notice period or other right of the depositor to claim the repayment of funds at the earliest possible repayment date.

55 Retail Deposits – Type B

A *firm* should report in this row, its retail deposits that are Type B, as assessed by the *firm* according to the guidance for *ILAS BIPRU firms* and for *simplified ILAS firms* in *BIPRU 12.5*.

A retail deposit is any deposit in a retail banking account or product type predominantly used by an individual or individuals acting outside their trade, industry or profession, and includes, in each case, savings bonds.

A *firm* should report all deposits in column A, unless the deposit is for a fixed term. In considering whether a deposit is fixed term, a *firm* should assume the immediate exercise of any notice period or other right of the depositor to claim the repayment of funds at the earliest possible repayment date.

56 Client / brokerage free cash

A *firm* should report here all cash balances which it has received from its prime brokerage/prime services *clients* and which are not segregated from the *firm*'s own assets. A *firm* should not include derivatives margin cash in this row.

Balances should be reported in Column A without regard to their contractual maturity.

Part 8 - Off balance sheet flows and balances

A *firm* should report commitments given and received and contingent liabilities in rows 57 to 69.

A *firm* should separate its commitments and contingent liabilities according to:

FSA048 definitions

- (i) stand-by facilities, which would typically be used to backstop outstanding debt of the borrower; and,
- (ii) other facilities which would typically be revolving loan facilities to corporate borrowers where utilisation rates will vary over time or letters of credit.

Unless either is reportable in rows 59 to 61, stand-by facilities provided should be reported in rows 62 or 63 and other facilities should be reported in row 64.

57 Principal FX cash flows (including currency swaps)

A *firm* should only make entries on this row where it is completing this *data item* on a non-consolidated *material currency* basis as defined in [SUP 16.], otherwise it should be left blank.

Where a *firm* is completing this *data item* on a *material currency* basis, it should report here all outright flows for its spot foreign exchange and foreign exchange forward transactions and all principal flows on any cross currency swaps, where those flows are payments or receipts of the *material currency* in which the *firm* is completing this *data item*.

For example, if a *firm* was completing this *data item* to show its contractual assets and liabilities denominated in *US dollars* and it had transacted a forward foreign exchange contract to **sell** \$75m against the **purchase** of an equivalent amount of another currency four months after the reporting date, it would enter -75,000 in column F and make no other entries.

58 Committed facilities received

A *firm* should report the balance of any undrawn committed facilities received which the PRA has permitted it to rely on for the purposes of meeting its *individual liquidity guidance*, as outlined in *BIPRU 12.9*.

Facilities of this kind received by the *firm* should be reported as a positive balance in the column of maturity. Facilities maturing in less than three months should be reported in Column A.

59 Secured facilities provided - liquidity buffer securities

A *firm* should report here the undrawn balance of all committed facilities where the borrower is contractually required to deliver securities eligible for inclusion in the *firm's* liquid assets buffer as defined in *BIPRU 12.7* and where the market value of those securities will exceed the amount of the loan drawn down.

Note a *firm* should only report committed facilities in this row if there is no impediment to using the securities deliverable under such borrowings for repo transactions.

60 Secured facilities provided - other securities

A *firm* should report here the undrawn balance of all committed facilities where the borrower is contractually required to deliver securities not eligible for inclusion in the *firm's* liquid assets buffer as defined in *BIPRU 12.7*.

Note a *firm* should only report committed facilities in this row if there is no impediment to using the securities deliverable under such borrowings for repo transactions.

61 Unsecured facilities provided - credit institutions

A *firm* should report here the balance of any undrawn committed financing facilities provided by the *firm* to *credit institutions* not reported on lines 59 and 60. Facilities of this kind provided to *credit institutions* should be reported as a negative balance.

62 Unsecured stand-by facilities provided - firm's SSPEs

A *firm* should report here undrawn balance of any committed stand-by facilities provided to the *firm's* SSPEs that are consolidated in its consolidated financial statements.

The assets and liabilities, if any, of these SSPEs will be reported on lines 33 and 51 respectively.

63 Unsecured stand-by facilities provided – entities other than credit institutions and firm's SSPEs

A *firm* should report here the undrawn balance of committed stand-by facilities to entities other than *credit institutions* and the *firm's* SSPE's. Facilities provided should be reported as a negative balance.

64 Unsecured facilities provided by firm's SSPEs to third parties

A *firm* should report here the undrawn balance of any committed facilities provided to third parties by SSPEs that are consolidated in its consolidated financial statements and whose assets and liabilities, if any, are reported on lines 33 and 51.

65 Unsecured facilities provided – entities other than credit institutions

A *firm* should report here the undrawn balance of other committed facilities provided to entities other than credit institutions.

Any facilities provided to *credit institutions* and/or secured against securities reportable in Part 2 of this *data item* should be reported on lines 59 to 61 as appropriate.

66 Overdraft and credit card facilities provided

A *firm* should report here the total balance of undrawn retail overdrafts and credit cards facilities provided to retail customers. Facilities provided should be reported as a negative balance.

67 Pipeline Lending Commitments

A *firm* should report here the total balance of any lending commitments to retail customers. A *firm* should only report contractual lending commitments which, if and when exercised, would be reportable in line 32.

68 Contingent obligations to repurchase assets financed through third parties

A *firm* should report here the balance of any of the *firm's* assets financed by third parties, where a *firm* has a contingent obligation to repurchase those assets triggered by deterioration in the *firm's* financial condition.

69 Other commitments and contingent facilities provided

A *firm* should report here all other undrawn commitments, guarantees and contingent liabilities not included elsewhere in Part 8.

Part 9 Downgrade triggers

For the purpose of rows 70 to 73, a *firm* should analyse and report, in the way described, in each of those rows any contractual outflows that would result from a downgrade of the *firm's* current long-term credit rating. A *firm* should consider downgrades of all its long-term counterparty, issuer and debt credit ratings.

A *firm* should assume that each *ECAI* that provides it with a long-term credit rating simultaneously downgrades that rating.

In addition a *firm* should consider the impact of a downgrade of its short-term credit rating. As *ECAs* may not publish when a specific downgrade of a *firm's* long-term credit rating would result in a downgrade of a *firm's* short-term credit rating, a *firm* should assume its short-term credit rating would be downgraded at the highest long-term rating specified by each agency as being consistent with publicly available information.

A *firm* should report such outflows on a non-cumulative basis in the appropriate column according to the severity of the downgrade that would cause such an outflow.

For the purpose of identifying which of columns B to K this Part of the *data item* a “notch” is the smallest discrete step by which a *firm's* long-term credit rating may be downgraded.

70 Asset put-backs from third parties

A *firm* should analyse and report here the outflows that may result from asset put-backs which would be triggered by a downgrade of its existing long and short-term credit rating according to the methodology outlined above.

The triggers for asset put-backs include but are not limited to:

- (1) as past originator of assets the downgrade of the *firm's* credit rating now precludes the continued financing of the assets in the structured vehicle;
- (2) as a swap provider against the assets placed in the vehicle the downgrade of the *firm's* credit rating now renders the *firm* ineligible to continue providing any *derivatives* (e.g. including but not limited to credit default swaps or total return swaps) to the structured vehicle. For the avoidance of doubt, if a *firm* was required to margin this exposure, it would be reported in line 70; and
- (3) the rating of the assets placed is linked to the rating of the *firm*; following a downgrade of the *firm* these assets are ineligible for continued financing by the third party vehicle.

71 Conditional Liabilities

A *firm* should analyse and report here the cash flow impact of a downgrade of its existing credit rating according to the methodology outlined above, on its conditional liabilities reported in row 50.

72 Over the counter (OTC) derivative triggers

A *firm* should analyse and report here any outflows that would be triggered by a downgrade of its credit rating according to the methodology outlined above.

A *firm* should include in this row the impact of increased collateralisation requirements and any termination payments.

73 Other contingent liabilities

A *firm* should report in this row, any other contractual outflows that would occur from the downgrade of its credit rating according to the methodology outlined above.

Part 10 Derivatives margining and exposure

Figures reported in rows 74 to 77 relate to any variation and initial margin given or received in respect of *derivatives* transactions. A *firm* should report together figures for own account and client accounts but exclude any margin (cash or collateral) segregated for the benefit of a *client* and any subsequent placement of segregated margin.

For each row, a *firm* should report:

- (1) In column B, the nominal amount of cash collateral given or received as initial plus variation margin;
- (2) In column C, the market value of collateral securities given or received as initial plus variation margin;
- (3) In column E, the initial margin paid or received;
- (4) In column G, the mark-to-market exposure of underlying *derivatives* transactions that are currently subject to margining for all or part of the exposure; and
- (5) In column H, the mark-to-market exposure of underlying *derivatives* transactions that are currently not subject to margining for any portion of the exposure.

Where a *firm* gives or receives initial margin on a net basis across *derivative* and non-*derivative* transactions, it should report the total amount in Column E without regard to the underlying transaction.

Margin and mark-to-market receivables should be reported with a positive sign while margin received and mark-to-market payables should be reported with a negative sign.

A *firm* should report the gross margin balances received or given by counterparty, e.g. if a *firm* transacts OTC derivatives with two counterparties, from one of which it has received cash collateral as margin of £25m and to the other of which it has paid cash collateral of margin to of £20m, it should report +20,000 in *data element* 72B and -25,000 in *data element* 74B, it should not report a net figure of -5,000 in 74B

74 OTC derivative margin given

A *firm* should report here cash and collateral margin given and mark-to-market on margined OTC *derivatives*.

75 Exchange traded margin given

A *firm* should report here cash and collateral margin given on exchange traded *derivatives*.

FSA048 definitions

76 OTC derivative margin received

A *firm* should report here cash and collateral margin received and mark-to-market on margined *OTC derivatives*.

77 Exchange traded margin received

A *firm* should report here cash and collateral margin received on exchange traded *derivatives*.

Part 11 Assets included in Part 2 held under re-hypothecation rights

Rows 78 to 89 relate to securities reported in Part 2 of this *data item*, held as *clients'* assets or net **derivatives** margin collateral received in relation to which the *firm* has re-hypothecation rights. Row 81 is intentionally left blank.

The definitions of securities reported in rows 78 to 89 are the identical to those in rows 6 to 17 inclusive.

Amounts in lines 78 to 89 should be reported as positive numbers.

FSA048 Enhanced mismatch report - Validation rules

Validation number	Data element		
1	2B	\geq	0
2	2C	\geq	0
3	2D	\geq	0
4	3B	\geq	0
5	3C	\geq	0
6	3D	\geq	0
7	4A	\geq	0
8	5A	\geq	0
9	6A	\geq	0
10	7A	\geq	0
11	8A	\geq	0
12	9A	\geq	0
13	10A	\geq	0
14	11A	\geq	0
15	12A	\geq	0
16	13A	\geq	0
17	14A	\geq	0
18	15A	\geq	0
19	16A	\geq	0
20	17A	\geq	0
21	18A	\geq	0
22	19A	\geq	0
23	31A+31C+31D+31E+31F+31G+31H+31I+31J	\geq	0

24	$32A+32C+32D+32E+32F+32G+32H+32I+32J$	\geq	0
25	$33A+33C+33D+33E+33F+33G+33H+33I+33J$	\geq	0
26	$52A+52C+52D+52E+52F+52G+52H+52I+52J$	\leq	0
27	$53A+53C+53D+53E+53F+53G+53H+53I+53J$	\leq	0
28	$54A+54C+54D+54E+54F+54G+54H+54I+54J$	\leq	0
29	$55A+55C+55D+55E+55F+55G+55H+55I+55J$	\leq	0
30	56A	\leq	0
31	$58A+58C+58D+58E+58F+58G+58H+58I+58J$	\geq	0
32	59A	\leq	0
33	60A	\leq	0
34	61A	\leq	0
35	62A	\leq	0
36	63A	\leq	0
37	64A	\leq	0
38	65A	\leq	0
39	66A	\leq	0
40	67A	\leq	0
41	68A	\leq	0
42	69A	\leq	0
43	Each cell in row 70 (70B to 70K)	\leq	0
44	Each cell in row 71 (71B to 71K)	\leq	0
45	Each cell in row 72 (72B to 72K)	\leq	0
46	Each cell in row 73 (73B to 73K)	\leq	0
47	74B	\geq	0
48	74C	\geq	0
49	74E	\geq	0
50	74G	\leq	0

FSA048 validations

51	74H	\leq	0
52	75B	\geq	0
53	75C	\geq	0
54	75E	\geq	0
55	76B	\leq	0
56	76C	\leq	0
57	76E	\leq	0
58	76G	\geq	0
59	76H	\geq	0
60	77B	\leq	0
61	77C	\leq	0
62	77E	\leq	0
63	78A	\geq	0
64	79A	\geq	0
65	80A	\geq	0
66	82A	\geq	0
67	83A	\geq	0
68	84A	\geq	0
69	85A	\geq	0
70	86A	\geq	0
71	87A	\geq	0
72	88A	\geq	0
73	89A	\geq	0

Cross validation rules for FSA047 and FSA048 (combined)

Validation number	Data element		
1	FSA048(6A) + FSA048(6B) + FSA047(6A+6B+6C+-----+6n) +FSA048(6F) +FSA048(6G)+FSA048(6H)+FSA048(6I) +FSA048(6J)-FSA048(78A)	=	0
2	FSA048(7A) + FSA048(7B) + FSA047(7A+7B+7C+-----+7n) +FSA048(7F) +FSA048(7G)+FSA048(7H)+FSA048(7I) +FSA048(7J)-FSA048(79A)	=	0
3	FSA048(8A) + FSA048(8B) + FSA047(8A+8B+8C+-----+8n) +FSA048(8F) +FSA048(8G)+FSA048(8H)+FSA048(8I) +FSA048(8J)-FSA048(80A)	=	0
4	FSA048(9A) + FSA048(9B) + FSA047(9A+9B+9C+-----+9n) +FSA048(9F) +FSA048(9G)+FSA048(9H)+FSA048(9I) +FSA048(9J)	=	0
5	FSA048(10A) + FSA048(10B) +FSA047(10A+10B+10C+-----+10n) +FSA048(10F)+FSA048(10G)+FSA048(10H)+FSA048(10I) +FSA048(10J)-FSA048(82A)	=	0
6	FSA048(11A) + FSA048(11B) +FSA047(11A+11B+11C+-----+11n) +FSA048(11F)+FSA048(11G)+FSA048(11H)+FSA048(11I) +FSA048(11J)-FSA048(83A)	=	0
7	FSA048(12A) + FSA048(12B) +FSA047(12A+12B+12C+-----+12n) +FSA048(12F)+FSA048(12G)+FSA048(12H)+FSA048(12I) +FSA048(12J)-FSA048(84A)	=	0
8	FSA048(13A) + FSA048(13B) +FSA047(13A+13B+13C+-----+13n) +FSA048(13F)+FSA048(13G)+FSA048(13H)+FSA048(13I) +FSA048(13J)-FSA048(85A)	=	0
9	FSA048(14A) + FSA048(14B) +FSA047(14A+14B+14C+-----+14n) +FSA048(14F)+FSA048(14G)+FSA048(14H)+FSA048(14I) +FSA048(14J)-FSA048(86A)	=	0
10	FSA048(15A) + FSA048(15B) +FSA047(15A+15B+15C+-----+15n) +FSA048(15F)+FSA048(15G)+FSA048(15H)+FSA048(15I) +FSA048(15J)-FSA048(87A)	=	0
11	FSA048(16A) + FSA048(16B) +FSA047(16A+16B+16C+-----+16n) +FSA048(16F)+FSA048(16G)+FSA048(16H)+FSA048(16I) +FSA048(16J)-FSA048(88A)	=	0
12	FSA048(17A) + FSA048(17B) +FSA047(17A+17B+17C+-----+17n) +FSA048(17F)+FSA048(17G)+FSA048(17H)+FSA048(17I) +FSA048(17J)-FSA048(89A)	=	0
13	FSA048(20A) + FSA047(20A+20B+20C+-----+20n) + FSA048(20F) + FSA048(20G) + FSA048(20H) + FSA048(20I) + FSA048(20J)	>=	0

FSA048 validations

14	FSA048(21A) + FSA047(21A+21B+21C+-----+21n) + FSA048(21F) + FSA048(21G) + FSA048(21H) + FSA048(21I) + FSA048(21J)	\geq	0
15	FSA048(22A) + FSA047(22A+22B+22C+-----+22n) + FSA048(22F) + FSA048(22G) + FSA048(22H) + FSA048(22I) + FSA048(22J)	\geq	0
16	FSA047(24A+24B+24C+-----+24n) + FSA048(24F) + FSA048(24G) + FSA048(24H) + FSA048(24I) + FSA048(24J)	\geq	0
17	FSA048(25B) + FSA047(25A+25B+25C+-----+25n) + FSA048(25F) + FSA048(25G) + FSA048(25H) + FSA048(25I) + FSA048(25J)	\geq	0
18	FSA048(26B) + FSA047(26A+26B+26C+-----+26n) + FSA048(26F) + FSA048(26G) + FSA048(26H) + FSA048(26I) + FSA048(26J)	\geq	0
19	FSA048(27B) + FSA047(27A+27B+27C+-----+27n) + FSA048(27F) + FSA048(27G) + FSA048(27H) + FSA048(27I) + FSA048(27J)	\geq	0
20	FSA048(28B) + FSA047(28A+28B+28C+-----+28n) + FSA048(28F) + FSA048(28G) + FSA048(28H) + FSA048(28I) + FSA048(28J)	\geq	0
21	FSA048(29B) + FSA047(29A+29B+29C+-----+29n) + FSA048(29F) + FSA048(29G) + FSA048(29H) + FSA048(29I) + FSA048(29J)	\geq	0
22	FSA048(30B) + FSA047(30A+30B+30C+-----+30n) + FSA048(30F) + FSA048(30G) + FSA048(30H) + FSA048(30I) + FSA048(30J)	\geq	0
23	FSA048(34B) + FSA047(34A+34B+34C+-----+34n) + FSA048(34F) + FSA048(34G) + FSA048(34H) + FSA048(34I) + FSA048(34J)	\leq	0
24	FSA048(35B) + FSA047(35A+35B+35C+-----+35n) + FSA048(35F) + FSA048(35G) + FSA048(35H) + FSA048(35I) + FSA048(35J)	\leq	0
25	FSA048(36B) + FSA047(36A+36B+36C+-----+36n) + FSA048(36F) + FSA048(36G) + FSA048(36H) + FSA048(36I) + FSA048(36J)	\leq	0
26	FSA048(37B) + FSA047(37A+37B+37C+-----+37n) + FSA048(37F) + FSA048(37G) + FSA048(37H) + FSA048(37I) + FSA048(37J)	\leq	0
27	FSA048(38B) + FSA047(38A+38B+38C+-----+38n) + FSA048(38F) + FSA048(38G) + FSA048(38H) + FSA048(38I) + FSA048(38J)	\leq	0
28	FSA048(39B) + FSA047(39A+39B+39C+-----+39n) + FSA048(39F) + FSA048(39G) + FSA048(39H) + FSA048(39I) + FSA048(39J)	\leq	0
29	FSA047(40A+40B+40C+-----+40n) + FSA048(40F) + FSA048(40G) + FSA048(40H) + FSA048(40I) + FSA048(40J)	\leq	0
30	FSA047(41A+41B+41C+-----+41n) + FSA048(41F) + FSA048(41G) + FSA048(41H) + FSA048(41I) + FSA048(41J)	\leq	0
31	FSA047(42A+42B+42C+-----+42n) + FSA048(42F) + FSA048(42G) + FSA048(42H) + FSA048(42I) + FSA048(42J)	\leq	0

FSA048 validations

32	FSA047(43A+43B+43C+-----+43n) + FSA048(43F) + FSA048(43G) + FSA048(43H) + FSA048(43I) + FSA048(43J)	<=	0
33	FSA048(44A) + FSA047(44A+44B+44C+-----+44n) + FSA048(44F) + FSA048(44G) + FSA048(44H) + FSA048(44I) + FSA048(44J)	<=	0
34	FSA048(45A) + FSA047(45A+45B+45C+-----+45n) + FSA048(45F) + FSA048(45G) + FSA048(45H) + FSA048(45I) + FSA048(45J)	<=	0
35	FSA048(46A) + FSA047(46A+46B+46C+-----+46n) + FSA048(46F) + FSA048(46G) + FSA048(46H) + FSA048(46I) + FSA048(46J)	<=	0
36	FSA048(47A) + FSA047(47A+47B+47C+-----+47n) + FSA048(47F) + FSA048(47G) + FSA048(47H) + FSA048(47I) + FSA048(47J)	<=	0
37	FSA048(48A) + FSA047(48A+48B+48C+-----+48n) + FSA048(48F) + FSA048(48G) + FSA048(48H) + FSA048(48I) + FSA048(48J)	<=	0
38	FSA048(49A) + FSA047(49A+49B+49C+-----+49n) + FSA048(49F) + FSA048(49G) + FSA048(49H) + FSA048(49I) + FSA048(49J)	<=	0
39	FSA048(50A) + FSA047(50A+50B+50C+-----+50n) + FSA048(50F) + FSA048(50G) + FSA048(50H) + FSA048(50I) + FSA048(50J)	<=	0
40	FSA048(51A) + FSA047(51A+51B+51C+-----+51n) + FSA048(51F) + FSA048(51G) + FSA048(51H) + FSA048(51I) + FSA048(51J)	<=	0

FSA048 validations