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61/788,539 15 March 2013 (15.03.2013) US
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
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[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR GCF REPO INDEX INSTRUMENT

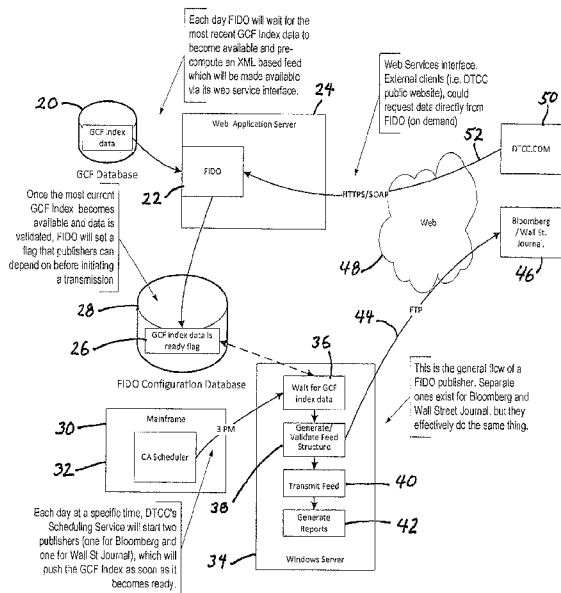


Figure 2

(57) Abstract: A method and system for a GCF repo swap transaction includes generating an index using a limited set of GCF contracts, and using the index value as a value in a GCF repo swap. The index value may be used as a variable or floating value in the swap, or may be used at the fixed value in the swap.

WO 2014/145546 A3



**Declarations under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

**(88) Date of publication of the international search report:**  
24 December 2014

**Published:**

- *with international search report (Art. 21(3))*

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2014/030337

**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:  
see extra sheet

1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  
1-2

**Remark on Protest**

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2014/030337

<p>A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - G06Q 40/00 (2014.01) USPC - 705/37 According to International Patent Classification (IPC) or to both national classification and IPC</p>																	
<p>B. FIELDS SEARCHED</p> <p>Minimum documentation searched (classification system followed by classification symbols) IPC(8) - G06Q40/00; G06Q40/06 (2014.01) USPC - 705/35, 37, 38</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched CPC - G06Q40/04; G06Q40/02 (2014.09)</p> <p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PatBase, Google Patents, Google Scholar</p>																	
<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p> <table border="1"> <thead> <tr> <th>Category*</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>US 2009/0099956 A1 (SKYRM) 16 April 2009 (16.04.2009) entire document</td> <td>1-2</td> </tr> <tr> <td>Y</td> <td>US 2007/0276744 A1 (BURKE) 29 November 2007 (29.11.2007) entire document</td> <td>1-2</td> </tr> <tr> <td>A</td> <td>US 2012/0150715 A1 (BOUDREAU et al) 14 June 2012 (14.06.2012) entire document</td> <td>1-2</td> </tr> <tr> <td>E, X</td> <td>US 2013/0191268 A1 (SKYRM) 25 July 2013 (25.07.2013) entire document</td> <td>1-2</td> </tr> </tbody> </table>			Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	Y	US 2009/0099956 A1 (SKYRM) 16 April 2009 (16.04.2009) entire document	1-2	Y	US 2007/0276744 A1 (BURKE) 29 November 2007 (29.11.2007) entire document	1-2	A	US 2012/0150715 A1 (BOUDREAU et al) 14 June 2012 (14.06.2012) entire document	1-2	E, X	US 2013/0191268 A1 (SKYRM) 25 July 2013 (25.07.2013) entire document	1-2
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<p><input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/></p>																	
<p>* Special categories of cited documents:</p> <table border="0"> <tr> <td>“A” document defining the general state of the art which is not considered to be of particular relevance</td> <td>“T” later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</td> </tr> <tr> <td>“E” earlier application or patent but published on or after the international filing date</td> <td>“X” document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td> </tr> <tr> <td>“L” document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</td> <td>“Y” document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</td> </tr> <tr> <td>“O” document referring to an oral disclosure, use, exhibition or other means</td> <td>“&amp;” document member of the same patent family</td> </tr> <tr> <td>“P” document published prior to the international filing date but later than the priority date claimed</td> <td></td> </tr> </table>			“A” document defining the general state of the art which is not considered to be of particular relevance	“T” later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	“E” earlier application or patent but published on or after the international filing date	“X” document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	“L” document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	“Y” document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	“O” document referring to an oral disclosure, use, exhibition or other means	“&” document member of the same patent family	“P” document published prior to the international filing date but later than the priority date claimed						
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<p>Date of the actual completion of the international search 29 September 2014</p>		<p>Date of mailing of the international search report 22 OCT 2014</p>															
<p>Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201</p>		<p>Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774</p>															

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2014/030337

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claims 1-2, drawn to a method for conducting a repo SWAP financial transaction.  
Group II, claim 3, drawn to a method for generating a repo index value.

The inventions listed as Groups I-II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the special technical feature of the Group I invention: determining a difference between the fixed rate and the variable rate: and in a computer, exchanging an amount based on the determined difference, between parties to the transaction as claimed therein is not present in the invention of Group II. The special technical feature of the Group II invention: flagging the index data as ready; receiving the index data in a server; generating a feed structure of the index data in the server: transmitting the index data in the feed structure to a publisher via a secure communication link as claimed therein is not present in the invention of Group I.

Groups I and II lack unity of invention because even though the inventions of these groups require the technical feature of a method comprising the steps of, in a computer, a Repo swap; a repo index value; a repo swap transaction, this technical feature is not a special technical feature as it does not make a contribution over the prior art.

Specifically, US 2012/0150715 A1 (BOUDREAUULT et al) 14 June 2012 (14.06.2012) teaches a method comprising the steps of, in a computer (computer implemented method, Para. 42 and Fig. 2); Repo swap (the trader 100 also enters into one or more tri-party repo transactions with the custodian bank 108, offering up collateral in support thereof, Para. 57); repo index value (the above-described repo loan transactions may include one or more of such index option box spreads, Para. 114); repo swap transaction (the custodian bank account 406 reflects a repo position resulting from a repo transaction facilitated by the custodian bank 108 between the market participant and a counterparty to the loan transaction, Para. 58).

Since none of the special technical features of the Group I or II inventions are found in more than one of the inventions, unity of invention is lacking.