

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
31 January 2008 (31.01.2008)

PCT

(10) International Publication Number  
**WO 2008/014354 A3**

- (51) International Patent Classification:  
G06Q 40/00 (2006.01)
- (21) International Application Number:  
PCT/US2007/074369
- (22) International Filing Date: 25 July 2007 (25.07.2007)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
60/833,095 25 July 2006 (25.07.2006) US
- (71) Applicant (for all designated States except US): CQGT, LLC [US/US]; 1050 17th Street, Suite 2000, Denver, Colorado 80265 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): MATHER, Timothy, S. [US/US]; Englewood, Colorado 80113 (US).
- (74) Agents: BAILEY, Robert A. et al.; Faegre & Benson LLP, 2200 Wells Fargo Center, 90 South Seventh Street, Minneapolis, Minnesota 55402 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, 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, IS, JP, KE, KG, KM, 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, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL,

[Continued on next page]

(54) Title: CHARTING WITH DEPTH OF MARKET VOLUME FLOW

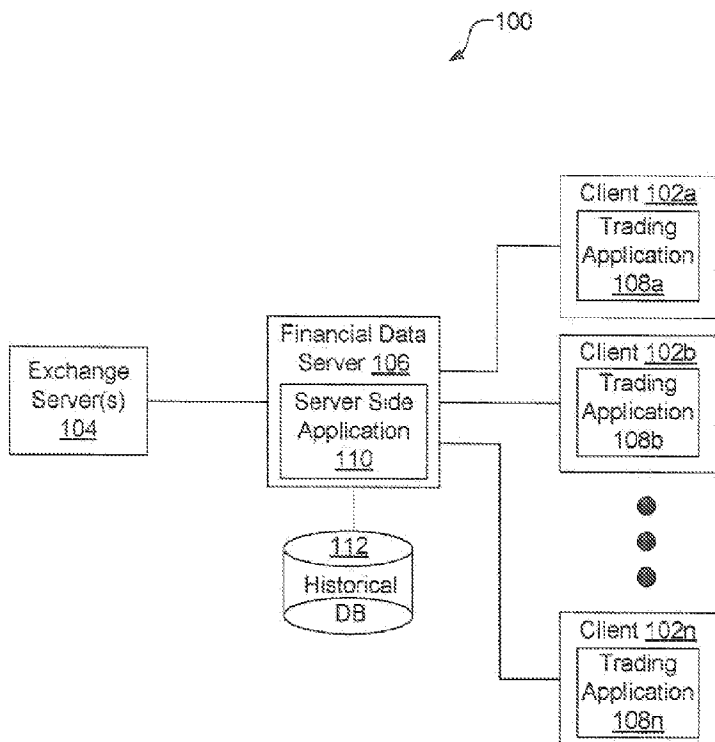


FIG. 1

(57) Abstract: Systems and methods are described for generating depth of market (DOM) volume flow charts. According to various embodiments, the DOM volume of a financial instrument is monitored. The DOM volume can include volume elements corresponding to bid order volume and/or ask order volume of orders for the financial instrument that are open on an electronic exchange. A DOM volume flow may then be computed, according to some embodiments, by evaluating a function of one or more elements of the DOM volume and/or a change in the DOM volume elements. Then, indicators of the computed DOM volume flow may be displayed on a chart.

WO 2008/014354 A3



---

PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM,  
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— *with international search report*

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

27 November 2008

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/US07/74369

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC: **G06Q 40/00(2006.01)**

USPC: 705/35  
 According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
 U.S. : 705/35

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 East Database

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category *        | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No.                          |
|-------------------|--|--|
| x,p<br>---<br>y,p | US 2006/0200405 A1 (Burns et al.) 7 September 2006 (07.09.2006)                    | 1,2, 16, 20-24, 26<br>-----<br>3-15, 17-19, 25 |
| ---<br>y          | US 2003/0023542 A1 (Kemp et al.) 30 January 2003 (30.01.2003)                      | -----<br>1-26                                  |
| ---<br>y          | US 2003/0009411 A1 (Ram et al.) 9 January 2003 (09.01.2003)                        | -----<br>1-26                                  |

Further documents are listed in the continuation of Box C.  See patent family annex.

| Special categories of cited documents:  |     |  |
|---|-----|--|
| "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 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  |     |  |
| "P" document published prior to the international filing date but later than the priority date claimed  | "&" | document member of the same patent family  |

|  |  |
|--|--|
| Date of the actual completion of the international search<br>12 August 2008 (12.08.2008) | Date of mailing of the international search report<br><b>14 AUG 2008</b> |
|--|--|

|   |   |
|---|---|
| Name and mailing address of the ISA/US<br>Mail Stop PCT, Attn: ISA/US<br>Commissioner for Patents<br>P.O. Box 1450<br>Alexandria, Virginia 22313-1450<br>Facsimile No. (571) 273-3201 | Authorized officer<br><i>James Kramer</i><br>Telephone No. 571-272-3600 |
|---|---|

**INTERNATIONAL SEARCH REPORT**

International application No.  
PCT/US07/74369

**C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| ---<br>y   | US 2006/0015436 A1 (Burns et al.) 19 January 2006 (19.01.2006)                     | -----<br>10, 18       |