508176717 10/17/2023

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT8223900

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DHIRAJ BAWADHANKAR	09/06/2016
PANAGIOTIS XYTHALIS	09/01/2016
JINGBIN YIN	09/01/2016
MOLANG DONG	09/10/2016
FATEEN SHARABY	09/01/2016
ROMIL PAREKH	09/06/2016
JALPAN SHAH	09/01/2016

RECEIVING PARTY DATA

Name:	CHICAGO MERCANTILE EXCHANGE INC.
Street Address:	20 SOUTH WACKER DRIVE
City:	CHICAGO
State/Country:	ILLINOIS
Postal Code:	60606

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16667407

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 3122910860

Email: jpadalino@lsk-iplaw.com, docket-us@lsk-iplaw.com

Correspondent Name: LEMPIA SUMMERFIELD KATZ LLC

Address Line 1: 20 SOUTH CLARK STREET

Address Line 2: SUITE 600

Address Line 4: CHICAGO, ILLINOIS 60603

ATTORNEY DOCKET NUMBER:	004672-15533B-US
NAME OF SUBMITTER:	JAMES L. KATZ
SIGNATURE:	/James L. Katz/
DATE SIGNED:	10/17/2023

PATENT 508176717 REEL: 065245 FRAME: 0896

Total Attachments: 15 source=Assignment#page1.tif source=Assignment#page2.tif source=Assignment#page3.tif source=Assignment#page4.tif source=Assignment#page5.tif source=Assignment#page6.tif source=Assignment#page7.tif source=Assignment#page8.tif source=Assignment#page9.tif source=Assignment#page10.tif source=Assignment#page11.tif source=Assignment#page12.tif source=Assignment#page13.tif source=Assignment#page14.tif source=Assignment#page15.tif

PATENT REEL: 065245 FRAME: 0897

WHEREAS, we, Dhiraj Bawadhankar, Panagiotis Xythalis, Jingbin Yin, Molang Dong, Fateen Sharaby, Romil Parekh, and Jalpan Shah (ASSIGNORS), are the inventors of certain inventions and improvements described in

- (1) United States patent application number 15/250,498, filed August 29, 2016, and titled "API FRAMEWORK FOR CLEARING NON-DELIVERABLE INTEREST RATE SWAPS," which application is identified by attorney docket number 006119.00533, and
- (2) United States provisional patent application number 62/211,473, filed August 28, 2015, and titled "FRAMEWORK FOR CLEARING NON-DELIVERABLE INTEREST RATE SWAPS," which application is identified by attorney docket number 006119.00517,

with applications (1) and (2) henceforth collectively referred to as "said applications" and with "inventions and improvements" referring to inventions and improvements described in any of said applications; and

WHEREAS

Chicago Mercantile Exchange Inc. 20 South Wacker Drive Chicago, Illinois 60606

(ASSIGNEE) desires to acquire the entire right, title and interest in and to said applications, inventions and improvements and any patents that may be granted on or as a result thereof in the United States of America (U.S.) and in any and all foreign countries:

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged.

We hereby assign, to the above named ASSIGNEE, its successors, assigns and legal representatives (NOMINEES), our entire right, title and interest in and to said applications (including the right to claim priority thereto), inventions and improvements throughout the world, and any and all patents, petty patents and utility model patents which may be granted therefor, and all continuations, continuations-in-part, divisions, reissues, extensions, renewals, and any non-provisional based on a provisional thereof (LETTERS PATENT).

And we further covenant and agree that we will without undue delay execute without further consideration all such papers as may be necessary to perfect the title to said applications, inventions and improvements, and LETTERS PATENT in the ASSIGNEE or its NOMINEES, and we agree to communicate to said ASSIGNEE or its NOMINEES all known facts respecting said applications, inventions, improvements, and LETTERS PATENT, to testify in any legal proceedings, to sign all lawful papers, and generally to do all things necessary to aid ASSIGNEE or its NOMINEES to obtain and enforce for their own benefit patent protection for said applications, inventions and improvements in any and all countries, all at the expense, however, of the ASSIGNEE or its NOMINEES;

And we authorize the ASSIGNEE or its NOMINEES to file in our name or their own, as appropriate, application for LETTERS PATENT in any and all countries of the world, and we authorize and request the Commissioner of Patents and Trademarks of the United States, and any proper official of any country, to issue to said ASSIGNEE or its NOMINEES any and all LETTERS PATENT for said applications, inventions and improvements, for their sole use, to the full end of the term for which such LETTERS PATENT may be granted;

And we hereby grant the attorneys at the law firm of Banner & Witcoff the power to insert into this document the filing date and application number of the above-reference U.S. patent application (1) once said filing date and application number are known.

0/6/2016	Fawadhankog
Date	Dhiraj Bawadhankar
Date	Panagiotis Xythalis
 Date	Jingbin Yin

Date	Molang Dong
Date:	Fateen Sharaby
 Date	Romil Parekh
Date	Jaipan Shah

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Date	Dhiraj Bawadhankar
9/1/2016	P-X-1
Date //	Panagiotis Xythalis
Date	Jingbin Yin

Date	Molang Dong
	Fateer Sharaby
Date	Romil Parekh
Date	Jalpan Shah

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Date	Panagiotis Xythalis
9/1/2016 Date	Jingbin Yin

Date	Molang Dong
Date	Fateen Sharaby
Date	Romil Parekh
9 1 2016 Date	Jalpan Shah

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Date	Dhiraj Bawadhankar
Date	Panagiotis Xythalis
 Date	Jingbin Yin

Page 2 of 3

Sep + 10 - 2016	my my
Date	Molang Dong
Date	Fateen Sharaby
Date	Romil Parekh
	Jalpan Shah

REEL: 065245 FRAME: 0909

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Date	Panagiotis Xythalis
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Page 2 of 3

Date	Molang Dong
Date	Fateen Sharaby
<u>ු 3 0 </u>	Romil Parekh
Date	Jalpan Shah