

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Udes Jha</td> <td>07/31/2013</td> </tr> <tr> <td>Jalpan Shah</td> <td>07/31/2013</td> </tr> <tr> <td>Dmitriy Glinberg</td> <td>07/26/2013</td> </tr> <tr> <td>Edmund Li</td> <td>07/19/2013</td> </tr> <tr> <td>Feliks Landa</td> <td>07/25/2013</td> </tr> </tbody> </table>		Name	Execution Date	Udes Jha	07/31/2013	Jalpan Shah	07/31/2013	Dmitriy Glinberg	07/26/2013	Edmund Li	07/19/2013	Feliks Landa	07/25/2013
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<table border="1"> <tr> <td>Name:</td> <td>Chicago Mercantile Exchange Inc.</td> </tr> <tr> <td>Street Address:</td> <td>20 South Wacker Drive</td> </tr> <tr> <td>City:</td> <td>Chicago</td> </tr> <tr> <td>State/Country:</td> <td>ILLINOIS</td> </tr> <tr> <td>Postal Code:</td> <td>60606</td> </tr> </table>		Name:	Chicago Mercantile Exchange Inc.	Street Address:	20 South Wacker Drive	City:	Chicago	State/Country:	ILLINOIS	Postal Code:	60606		
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CORRESPONDENCE DATA													
<p>Fax Number: 3122910864 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 312-291-0860 Email: jpadalino@lsk-iplaw.com Correspondent Name: Lempia Summerfield Katz LLC Address Line 1: One North LaSalle Street Address Line 2: Suite 2900 Address Line 4: Chicago, ILLINOIS 60602</p>													
ATTORNEY DOCKET NUMBER:	4672-13001AUS												
NAME OF SUBMITTER:	G. Christopher Braidwood												

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Signature:	/G. Christopher Braidwood/
Date:	08/01/2013
Total Attachments: 5 source=executed Assignment#page1.tif source=executed Assignment#page2.tif source=executed Assignment#page3.tif source=executed Assignment#page4.tif source=executed Assignment#page5.tif	

ASSIGNMENT

WHEREAS, Udesch Jha, Jalpan Shah, Dmitriy Glinberg, Edmund Li, and Feliks Landa, hereinafter called the "Assignors", have made the invention described in the United States patent application entitled PCA-BASED PORTFOLIO MARGINING, executed by Assignors on the same date as, or on a date prior to, this Assignment;

WHEREAS, CHICAGO MERCANTILE EXCHANGE INC., a corporation organized and existing under the laws of the State of Illinois, having a place of business at 20 South Wacker Drive, Chicago, IL 60606, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and the patent application identified above, and all patents which may be obtained for said invention, as set forth below;

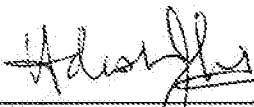
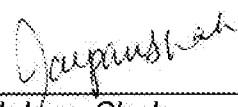
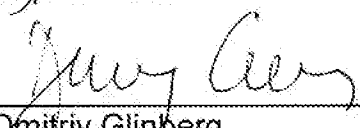
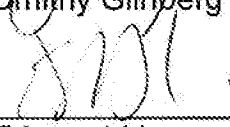
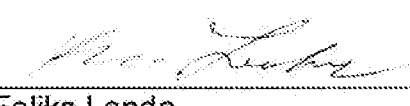
NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00), and other valuable and legally sufficient consideration, the receipt of which by the Assignors from the Assignee is hereby acknowledged, the Assignors have sold, assigned and transferred, and by these presents do sell, assign and transfer to the Assignee, the entire right, title and interest for the United States in and to the invention and the patent application identified above, and any patents that may issue for said invention in the United States; together with the entire right, title and interest in and to said invention and all patent applications and patents issuing therefrom in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals and extensions of any of the patent applications and patents defined above; together with the right to recover all damages, including, but not limited to, a reasonable royalty, by reason of past, present, or future infringement or any other violation of patent or patent application rights; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

The Assignors hereby covenant and agree, for both the Assignors and the Assignors' legal representatives, that the Assignors will assist the Assignee in the

prosecution of the patent application identified above; in the making and prosecution of any other patent applications that the Assignee may elect to make covering the invention identified above; in vesting in the Assignee like exclusive title in and to all such other patent applications and patents; and in the prosecution of any interference which may arise involving said invention, or any such patent application or patent; and that the Assignor will execute and deliver to the Assignee any and all additional papers which may be requested by the Assignee to carry out the terms of this Assignment.

The Commissioner of Patents and Trademarks is hereby authorized and requested to issue patents to the Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the Assignors have executed this agreement.

DATED:	<u>7/31/2013</u>	<u></u> Udes Jha
DATED:	<u>7/31/2013</u>	<u></u> Jalpan Shah
DATED:	<u>7/26/13</u>	<u></u> Dmitriy Glinberg
DATED:	<u>July 19, 2013</u>	<u></u> Edmund Li
DATED:	<u>7/26/13</u>	<u></u> Feliks Landa

STATE OF ILLINOIS)
) ss.
COUNTY OF COOK)

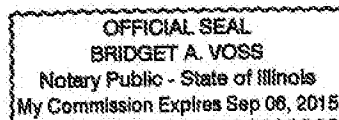
I, BRIDGET A. VOSS, a Notary Public in and for the County and State aforesaid, do hereby certify that Udesch Jha, personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instrument as his/her free and voluntary act for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and Notarial Seal, this
31 day of July, 2013.



Notary Public


My Commission Expires: September 6, 2015



STATE OF ILLINOIS)
) ss.
COUNTY OF COOK)

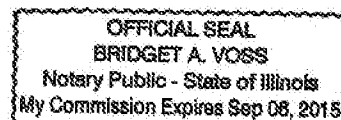
I, BRIDGET A. VOSS, a Notary Public in and for the County and State aforesaid, do hereby certify that Jalpan Shah, personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instrument as his/her free and voluntary act for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and Notarial Seal, this
31 day of July, 2013.



Notary Public

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STATE OF ILLINOIS)
) ss.
COUNTY OF COOK)

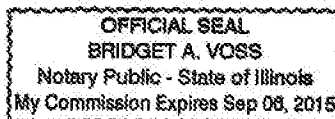
I, BRIDGET A. VOSS, a Notary Public in and for the County and State aforesaid, do hereby certify that Dmitriy Glinberg, personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instrument as his/her free and voluntary act for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and Notarial Seal, this
26 day of July, 2013.



Notary Public

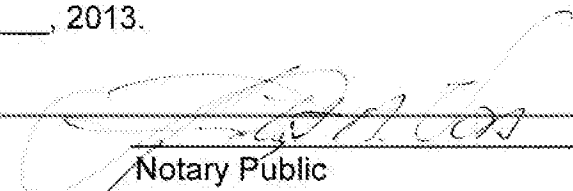
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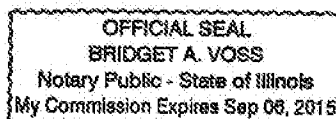
I, BRIDGET A. VOSS, a Notary Public in and for the County and State aforesaid, do hereby certify that Edmund Li, personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instrument as his/her free and voluntary act for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and Notarial Seal, this
19th day of July, 2013.



Notary Public


My Commission Expires: September 6, 2015



STATE OF ILLINOIS)
) ss.
COUNTY OF COOK)

I, BRIDGET A. VOSS, a Notary Public in and for the County and State aforesaid, do hereby certify that Feliks Landa, personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instrument as his/her free and voluntary act for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and Notarial Seal, this
25 day of July, 2013.



Notary Public

My Commission Expires: September 6, 2015

