

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3601952

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
MARKETAXESS HOLDINGS INC.	10/30/2015
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	JPMORGAN CHASE BANK, N.A.
<b>Street Address:</b>	10 SOUTH DEARBORN, FL. L2S
<b>Internal Address:</b>	LOAN AND AGENCY SERVICES GROUP
<b>City:</b>	CHICAGO
<b>State/Country:</b>	ILLINOIS
<b>Postal Code:</b>	60603
<b>PROPERTY NUMBERS Total: 3</b>	
<b>Property Type</b>	<b>Number</b>
Patent Number:	8527396
Patent Number:	8682777
Patent Number:	8392314
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(415)541-0506
<i>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.</i>	
<b>Phone:</b>	(415) 278-9063
<b>Email:</b>	catchoo@chapman.com
<b>Correspondent Name:</b>	CATHERINE CHOO
<b>Address Line 1:</b>	595 MARKET STREET, 26TH FLOOR
<b>Address Line 2:</b>	CHAPMAN AND CUTLER LLP
<b>Address Line 4:</b>	SAN FRANCISCO, CALIFORNIA 94105
<b>ATTORNEY DOCKET NUMBER:</b>	3609146
<b>NAME OF SUBMITTER:</b>	CATHERINE CHOO
<b>SIGNATURE:</b>	/catherine choo/
<b>DATE SIGNED:</b>	11/04/2015
This document serves as an Oath/Declaration (37 CFR 1.63).	
<b>Total Attachments: 7</b>	

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RECORDATION FORM COVER SHEET  
**PATENTS ONLY**

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

**1. Name of conveying party(ies)**

MarketAxess Holdings Inc.

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

**3. Nature of conveyance/Execution Date(s):**

Execution Date(s) October 30, 2015

- ☐ Assignment ☐ Merger  
☒ Security Agreement ☐ Change of Name  
☐ Joint Research Agreement  
☐ Government Interest Assignment  
☐ Executive Order 9424, Confirmatory License  
☐ Other \_\_\_\_\_

**2. Name and address of receiving party(ies)**

Name: JPMorgan Chase Bank, N.A.

Internal Address: Loan and Agency Services Group

Street Address: 10 South Dearborn, Floor L2S

City: Chicago

State: Illinois

Country: USA Zip: 60603

Additional name(s) & address(es) attached? ☐ Yes ☒ No

**4. Application or patent number(s):**

☐ This document is being filed together with a new application.

A. Patent Application No.(s)

See Schedule A attached hereto.

B. Patent No.(s)

See Schedule A attached hereto.

Additional numbers attached? ☒ Yes ☐ No

**5. Name and address to whom correspondence concerning document should be mailed:**

Name: Catherine Choo

Internal Address: Chapman and Cutler LLP

Street Address: 595 Market Street, 26th Floor

City: San Francisco

State: CA Zip: 94105

Phone Number: (415) 541-0500

Docket Number: \_\_\_\_\_

Email Address: catchoo@chapman.com

**6. Total number of applications and patents involved: 3**

**7. Total fee (37 CFR 1.21(h) & 3.41) \$ 0.00**

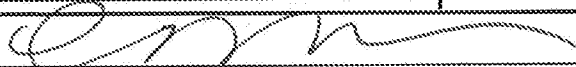
- ☐ Authorized to be charged to deposit account  
☒ Enclosed  
☐ None required (government interest not affecting title)

**8. Payment Information**

Deposit Account Number \_\_\_\_\_

Authorized User Name \_\_\_\_\_

**9. Signature:**



Signature

November 4, 2015

Date

Catherine Choo

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

7

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:  
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

**SCHEDULE A**  
**to**  
**PATENT RECORDATION FORM**

**PATENT REGISTRATIONS**

<b>Grantor</b>	<b>Patent Name</b>	<b>Patent Number</b>	<b>Issue Date</b>
MarketAxess Holdings Inc.	Claims focus on tie-breaking function when receiving multiple bids that are tied for best.	8,527,396	Issued Sep. 3, 2013
MarketAxess Holdings Inc.	Claims emphasize live display of submitted orders on a screen for purposes of matching and executing orders	8,682,777	Issued March 25, 2014
MarketAxess Holdings Inc.	Claims involve bond instrument trading where a 'workup' period is initiated between traders to facilitate the trade	8,392,314	Issued March 5, 2013

## PATENT SECURITY AGREEMENT

This PATENT SECURITY AGREEMENT (this “Agreement”), dated as of October 30, 2015, is made by MarketAxess Holdings Inc. (the “Grantor”), in favor of JPMorgan Chase Bank, N.A., as administrative agent for the Secured Parties defined in the Credit Agreement referred to below (in such capacity, the “Administrative Agent”).

### W I T N E S S E T H:

WHEREAS, pursuant to that certain Amended and Restated Credit Agreement dated as of October 30, 2015 (as amended, restated, supplemented or otherwise modified from time to time, the “Credit Agreement”) by and among the Grantor, as Borrower, the lenders from time to time party thereto (the “Lenders”) and the Administrative Agent, the Lenders have agreed to extend credit and make certain financial accommodations to the Grantor;

WHEREAS, the Lenders are willing to extend credit and make such financial accommodations under the Credit Agreement, but only upon the condition, among others, that the Grantor shall have executed and delivered to the Administrative Agent, for the benefit of the Secured Parties, that certain Amended and Restated Pledge and Security Agreement dated as of October 30, 2015 (as amended, restated, supplemented or otherwise modified from time to time, the “Security Agreement”); and

WHEREAS, pursuant to the Credit Agreement and the Security Agreement, the Grantor is required to execute and deliver to the Administrative Agent this Agreement;

NOW, THEREFORE, in consideration of the premises and mutual covenants herein contained and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Grantor hereby agrees as follows:

1. DEFINED TERMS. All capitalized terms used but not otherwise defined herein have the meanings given to them in the Security Agreement.

2. GRANT OF SECURITY INTEREST IN PATENT COLLATERAL. The Grantor hereby grants to the Administrative Agent, on behalf of and for the benefit of the Secured Parties, a continuing first priority security interest in all of the Grantor’s right, title and interest in, to and under the following, whether presently existing or hereafter created or acquired (collectively, the “Patent Collateral”):

- 2.1. all of its Patents, including those referred to on Schedule I hereto;
- 2.2. all reissues, divisions, continuations, renewals, extensions and continuations-in-part of the foregoing;
- 2.3. all income, royalties, damages, claims, and payments now or hereafter due or payable under and with respect thereto, including, without limitation, damages and payments for past and future infringements of the foregoing;
- 2.4. all rights to sue for past, present, and future infringements of the foregoing; and
- 2.5. all proceeds of the foregoing, including, without limitation, any claim by the Grantor against third parties for past, present or future infringement or dilution of any Patent.
- 2.6. Notwithstanding anything to the contrary contained in this Section 2, the security interest created by this Agreement shall not extend to any Excluded Property.

3. SECURITY AGREEMENT. The security interests granted pursuant to this Agreement are granted in conjunction with the security interests granted to the Administrative Agent pursuant to the Security Agreement. The Grantor hereby acknowledges and affirms that the rights and remedies of the Administrative Agent with respect to the security interest in the Patent Collateral made and granted hereby are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein. In the event of a conflict between the provisions of this Agreement and the Security Agreement, the Security Agreement shall control.

4. AMENDMENTS IN WRITING. None of the terms or provisions of this Agreement may be waived, amended, supplemented or otherwise modified except by an instrument in writing signed by the Administrative Agent and the Grantor.

5. TERMINATION. This Agreement shall continue in effect (notwithstanding the fact that from time to time there may be no Secured Obligations outstanding) until all of the Secured Obligations have been Paid in Full (or with respect to any outstanding Letters of Credit, (a) a deposit of cash or Cash Equivalent Investments, (b) cash collateralization in a manner consistent with Section 2.05(j) of the Credit Agreement, or (c) at the reasonable discretion of the Administrative Agent, a back up standby Letter of Credit satisfactory to the Administrative Agent has been delivered to the Administrative Agent) and the Commitments are terminated.

6. GOVERNING LAW. This Agreement and the rights and obligations of the parties hereto shall be governed by, and construed in accordance with, the laws of the State of New York.

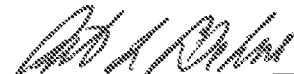
7. COUNTERPARTS. This Agreement may be executed in any number of counterparts and by the different parties hereto on separate counterparts and each such counterpart shall be deemed to be an original, but all such counterparts shall together constitute but one and the same Agreement. Receipt by telecopy or other electronic transmission (including "PDF") of any executed signature page to this Agreement shall constitute effective delivery of such signature page.

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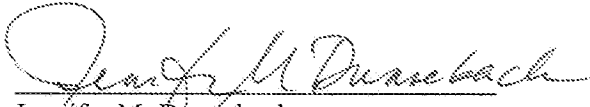
IN WITNESS WHEREOF, the Grantor has caused this Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

GRANTOR:

MARKETAXESS HOLDINGS INC.

By:   
Name: Antonio L. DeLise  
Title: Chief Financial Officer

**JPMORGAN CHASE BANK, N.A.,**  
as Administrative Agent

By:   
Name: Jennifer M. Donriebach  
Title: Vice President



**SCHEDULE I**  
**to**  
**PATENT SECURITY AGREEMENT**

**PATENT REGISTRATIONS**

<b>Grantor</b>	<b>Patent Name</b>	<b>Patent Number</b>	<b>Issue Date</b>
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**PATENT APPLICATIONS**

NONE