### PATENT ASSIGNMENT

# Electronic Version v1.1

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| SUBMISSION TYPE:  |                           | NEW ASSIGNMENT | NEW ASSIGNMENT                                   |  |
|---|---------------------------|----------------|--|--|
| NATURE OF CONVEYANCE:   |                           | ASSIGNMENT     | ASSIGNMENT                                       |  |
| CONVEYING PARTY DATA  |                           |                |  |  |
| Ν   |                           | Name           | Execution Date                                   |  |
| Guy D Coughlan  |                           |                | 03/01/2007                                       |  |
| David Epstein   |                           |                | 03/01/2007                                       |  |
| Alen Sen Kay Ong  |                           |                | 03/01/2007                                       |  |
| RECEIVING PARTY DATA  |                           |                |  |  |
|   |                           |                |  |  |
| Name:   | JPMorgan Chase Bank, N.A. |                |  |  |
| Street Address:   | 270 Park Avenue           |                |  |  |
| City:   |                           |                |  |  |
| State/Country:  |                           |                |  |  |
| Postal Code: 10036  |                           |                |  |  |
| PROPERTY NUMBERS Total: 1   |                           |                |  |  |
| Property Type   |                           | Number         |  |  |
| Patent Number: 7840   |                           | 340468         | Number     89       168     04       200     200 |  |
|   |                           |                |  |  |
| CORRESPONDENCE DATA 80   Fax Number: (202)346-4444  |                           |                |  |  |
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| Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent     |                           |                |  |  |
| via US Mail.  |                           |                |  |  |
| Correspondent Name: Goodwin Procter LLP   |                           |                |  |  |
| Address Line 1:   901 New York Avenue NW     Address Line 4:   Washington, DISTRICT OF COLUMBIA 20001 |                           |                |  |  |
|   | Washingto                 |                |  |  |
|   | Washingto                 |                |  |  |
| ATTORNEY DOCKET   |                           | 72167.000614   |  |  |
|   | NUMBER:                   |                |  |  |
| ATTORNEY DOCKET   | NUMBER:                   | 72167.000614   |  |  |

## PATENT REEL: 028235 FRAME: 0084

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# JOINT ASSIGNMENT

WHEREAS, WE, Guy D. Coughlan, residing at 3 Crown Road, New Malden, Surrey, KT3 3UW, United Kingdom, David Epstein, residing at Flat 1, 46 Fitzroy Road, London, NW1 8TY, United Kingdom, and Alen Sen Kay Ong, residing at Flat 1, 63 Queen's Grove, London, NW8 6ER, United Kingdom, have invented certain new and useful improvements in and to the subject matter of:

### "SYSTEM AND METHOD FOR A RISK MANAGEMENT FRAMEWORK FOR HEDGING MORTALITY RISK IN PORTFOLIOS HAVING MORTALITY-BASED EXPOSURE"

described in an application for United States Letters Patent being executed simultaneously herewith, Attny. Dkt. 72167.000614; and which claims priority to U.S. Provisional Patent Application No. 60/888,120 (2/5/07), Confirmation No. 8332, under attorney docket number 72167.000614;

AND, WHEREAS, JPMorgan Chase Bank, N.A., having a place of business located at 270 Park Avenue, New York, 10036, USA (hereinafter "ASSIGNEE"), is desirous of acquiring certain rights to the improvements and under the application;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration, receipt of which is hereby acknowledged, we do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, our entire right, title and interest in and throughout the United States of America (including its territories and dependencies) and all countries foreign thereto in and to said improvements, said United States application, any other United States applications, including provisional, divisional, renewal, substitute, continuation, reexamination and reissue applications, based in whole or in part on said United States applications or in whole or in part on said improvements, any foreign applications, including international and regional applications, based in whole or in part on any of the aforesaid United States applications or in whole or in part on said improvements, and in and to any and all letters patent, including extensions thereof, of any country which have been or may be granted on any of the aforesaid applications or on said improvements or any parts thereof;

AND WE hereby authorize and request our agents, Hunton & Williams LLP, whose address is 1900 K Street, Suite 1200, Washington, DC 20006-1109, to insert hereon any identification necessary or desirable for recordation of this document, including the filing date and application number of said application when known.

AND WE hereby agree for ourselves and our heirs, executors and administrators to execute without further consideration any further documents and instruments which may be necessary, lawful and proper in the prosecution of said above-referenced application or in the preparation or prosecution of any continuing, substitute, divisional, renewal, reexamination or reissue application or in any amendments, extensions or interference proceedings, or other applications for patents of any region or country, that may be necessary to secure to ASSIGNEE its interest and title in and to said improvements or any parts thereof, and in and to said several patents or any of them;

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#### PATENT 72167.000614

AND WE hereby covenant for ourselves and our legal representatives, and agree with said ASSIGNEE, its successors and assigns, that we have granted no right or license to make, use, sell or offer to sell said improvements, to anyone except said ASSIGNEE, that prior to the execution of this deed, our right, title and interest in said improvements had not been otherwise encumbered, and that we have not and will not execute any instrument in conflict therewith;

AND WE do hereby authorize and request the Director of the United States Patent and Trademark Office to issue any and all letters patent which may be granted upon said United States applications, or upon said improvements or any parts thereof when granted, to said ASSIGNEE.

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

PATENT 72167.000614

Agreed and acknowledged:

1 MARCH 2007 Date

Witness Name

Guy & Coughlan Guy & Coughlan L.J. Woodley Witness Signature

Agreed and acknowledged:

<u>1-March-2007</u> Date

Korraine Hoodley Witness Name

David Epstein David Epstein Mart Hoodlay Witness Signature

PATENT 72167.000614

Agreed and acknowledged:

1 March 2007 Date

Lorrane Hoodley Witness Name

Alen Sen Kay Ong

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Witness Signature \_\_\_\_\_

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#### LIFEMETRICS PATENT ASSIGNMENT

**Robert J. Hall** has provided consulting services to J.P. Morgan Securities Ltd. (JPMSL) in connection with the "LifeMetrics" product offering;

JPMorgan Chase Bank, N.A. (JPMCB) is preparing several patent applications related to LifeMetrics, including "System and Method for a Risk Management Framework for Hedging Mortality Risk in Portfolios Having Mortality-Based Exposure" (Attny Dkt. 72167.000614) and "Creating and Trading Building Block Mortality Derivatives to Transfer and Receive Mortality Risk in a Liquid Market" (Attny Dkt. 72167.000615) ("LifeMetrics Patent Applications," to include any foreign counterpart or U.S. counterpart applications);

Watson Wyatt Ltd., employs Robert J. Hall, and has contracted with JPMSL to provide services for LifeMetrics;

**Robert J. Hall,** hereby assigns and transfers to JPMCB any and all rights, title, and interest in and any obligations (excepting the obligation to execute certain patent prosecution papers set forth below) that he may have with regards to said LifeMetrics Patent Applications, as acknowledged and ratified here by **Watson Wyatt Ltd.**;

**Robert J. Hall** and **Watson Wyatt Ltd.** hereby authorize and request our agents, Hunton & Williams LLP, whose address is 1900 K Street, Suite 1200, Washington, DC 20006-1109, to insert hereon any identification necessary or desirable for recordation of this document.

AND we hereby agree to execute without further consideration any further documents and instruments which may be proper in the prosecution of said above-referenced application(s).

Acknowledged and Agreed To:

28th February 2007

Mai that

**Robert J. Hall** 

28th February 2007

The that

Watson Wyatt Ltd

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**RECORDED: 05/18/2012**