



## Background

The OCC has long permitted national banks, including the Bank, to act as a financial intermediary in customer-driven, perfectly matched, cash-settled derivative transactions on a wide range of reference assets and indices as part of its financial intermediation business.<sup>2</sup> Perfectly matched derivative transactions are financial arrangements involving exchanges of payments, with the Bank acting as a financial intermediary between customers, a traditional banking function. In these transactions the Bank first negotiates the type, size, and price of the transaction with the customer. Then, if the Bank reaches agreement with the customer, the Bank concurrently will execute an offsetting, perfectly matched transaction with a counterparty. The Bank's transactions with a counterparty will match all the economic terms of the transaction between the Bank and its customer (e.g., index, amount, maturity, and underlying reference asset or index). The Bank will not take an ownership interest in any asset or instrument underlying, or related to an index referenced in, a perfectly matched financial intermediation derivative transaction. Rather, these financial arrangements will settle in cash. These transactions assist customers in managing financial risks associated with a particular commodity, asset, or instrument and in meeting other financial needs.

The Bank now proposes to act as a financial intermediary in customer-driven, perfectly matched, cash-settled derivative transactions referencing risk indices related to large-scale natural catastrophe events as part of its customer-driven financial intermediation business. The Bank's proposed derivative transactions will be in the form of swaps, contractual exchanges of payment streams over time according to specified terms. For example, the Bank may offer swaps referencing an external risk index that reports financial damage estimates on a specific type of natural catastrophe over a specific time period, typically a calendar year. Under such an index swap, the swap counterparties will be obligated to make a contingent payment as calculated by a pre-defined formula if the reported level of financial damage as reflected in the index exceeds a certain amount.<sup>3</sup>

A catastrophe risk derivative, here in the form of a swap, is simply a contractual payment obligation that involves making payments based on the performance of indices that track parametric events<sup>4</sup> or report on financial damage related to the occurrence of a specific underlying catastrophe event. The payment obligations under these swaps, which have maximum exposures that are limited and ascertainable, exist regardless of the parties' actual exposure, if any, to the risk referenced in the swap. The parties' payment obligations are not

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<sup>2</sup> See, e.g., OCC Interpretive Letter No. 1065 (July 24, 2006); OCC Interpretive Letter No. 1059 (Apr. 13, 2006); OCC Interpretive Letter No. 1039 (Sept. 13, 2005).

<sup>3</sup> Like other financial derivatives, these swaps will have contingent payoffs linked directly or indirectly to the performance of certain reference indices calculated by third parties. The contracted for payment obligations and the triggering events will not bear any relationship to specific losses by any party to the contract.

<sup>4</sup> With respect to earthquakes, for example, the parametric events could be that the average ground movements recorded at pre-defined seismic observation stations exceed a pre-defined measurement.

contingent upon any person having actually suffered an economic loss as a result of a catastrophe trigger being tripped.<sup>5</sup>

The swaps generally will have an agreed notional amount representing the maximum payment under the swaps. The Bank, as an intermediary, will receive fees for arranging the exchange of contractual payment obligations between the swap counterparties. The reference indices for the swaps will include Property Claim Services (“PCS”) indices,<sup>6</sup> Eqecat indices,<sup>7</sup> and parametric indices.<sup>8</sup>

Under the proposal, the Bank will offer cash-settled swaps to customers to assist them in managing financial risks associated with catastrophe risk, and meeting other financial needs and related payment obligations. Customers may include pension plans, endowments, hedge funds, insurance companies and asset managers. These transactions may be used by customers as a cost effective means to diversify their investment portfolios. Customers also can use such swaps to hedge catastrophe risk or to take a position on the likelihood of a relevant catastrophe occurring during a specified period. The Bank represents that it will not be entering into these swap transactions with retail customers. Representative examples of the proposed transactions are described below.

Example 1: An investment fund has acquired significant exposure to the risk of flooding in the Gulf States by purchasing a sizeable quantity of catastrophe bonds<sup>9</sup> issued by flood insurers. The investment fund’s investment in the catastrophe bonds will lose half its value if financial damage caused by flooding in the Gulf States during the 2008 U.S. hurricane season exceeds a certain threshold. To mitigate that exposure, the Bank and the investment fund enter into a swap

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<sup>5</sup> Specifically, in its role as a financial intermediary the Bank proposes three structures for these swap transactions. The first structure references the performance of an underlying debt obligation, here a catastrophe bond, and effectively transfers the total economic return on the underlying bond to the swap counterparties. The other two structures operate in a manner similar to a binary credit default swap or index swap, essentially involving the receipt of a periodic fee by one swap counterparty in exchange for a contingent payment from the other swap party based on risk indices with respect to an underlying specified catastrophe event.

<sup>6</sup> PCS indices are based on the estimated economic consequences of specific natural catastrophe events, and used in industry-loss based transactions. PCS, an independent industry-recognized leader in providing estimation services, investigates reported risk events and determines the extent and type of damage, dates of occurrence, and geographic areas affected. See [http://www.iso.com/index.php?option=com\\_content&task=view&id=743&Itemid=617](http://www.iso.com/index.php?option=com_content&task=view&id=743&Itemid=617).

<sup>7</sup> Eqecat, Inc. is a global modeling agency specializing in natural catastrophe risk and modeled loss transactions; its indices track changes in the physical characteristics of natural catastrophes in specific locations over defined periods of time, such as ground movements. See <http://www.eqecat.com>. The Bank also may use services from Applied Insurance Research, [http://www.air-worldwide.com/\\_public/html/about\\_air.asp](http://www.air-worldwide.com/_public/html/about_air.asp); and Risk Management Solutions, <http://www.rms.com>, two other well-recognized natural catastrophe global modeling agencies.

<sup>8</sup> Parametric indices reflect measurements of the physical characteristics of specified natural catastrophe events, e.g., wind speeds. Parametric index-based transactions would use a combination of information points obtained from publicly available data. For example, the U.S. Dept. of Commerce National Climatic Data Center publishes information including wind speeds and precipitation for U.S. weather stations distributed throughout the country.

<sup>9</sup> A catastrophe bond is a debt instrument that is used to transfer risks from insurance or reinsurance companies to capital market participants, such as investment funds or institutional asset managers.

having a notional amount equal to 50% of the outstanding principal balance of the investment fund's catastrophe bond portfolio. The Bank simultaneously offsets the transaction by entering into a perfectly matched swap transaction with a third party customer. The Bank's role, for which it is paid a fee, is purely one of a financial intermediary between the financial positions of these two parties.

Example 2: An investment fund has expressed interest in diversifying its exposures and wants access to an uncorrelated asset class. The Bank's affiliate purchases a catastrophe bond which references the underlying risk of Japanese typhoons. If the specified events occur, the bond's principal will be written down in direct proportion to the extent the bond has exceeded the agreed threshold based on a catastrophe index underlying the bond. As compensation for this risk of principal loss, the bond will pay a floating rate of interest plus an agreed spread. The Bank's affiliate enters into a swap, in the form of a total return swap on the bond, with the Bank, which then simultaneously enters into an exactly offsetting swap with the investment fund. Under the terms of the swaps, the investment fund will receive all interest payments on the catastrophe bond (less certain fees) in exchange for the investment fund's obligation to pay an amount equal to the reduction in the catastrophe bond's principal if the catastrophe bond's loss threshold is tripped.<sup>10</sup> The Bank's role, for which it is paid a fee, is purely one of a financial intermediary between the financial positions of the parties

Example 3: A European insurer has insured houses across France. The main catastrophe risk to these houses would be from European windstorms, where the damage would be caused by high speed wind gusts. The insurer, based on expert analysis by an independent global modeling agency such as Eqecat, knows that severe home damage begins to occur at speeds above 80 kilometers per hour. The insurer enters into a swap with the Bank referencing an Eqecat index where the insurer pays a periodic fixed amount and in return obtains financial risk protection in the event actual wind speeds in France exceed a certain level during a defined period. The contingent payment owed, if any, will be calculated directly using a formula with reference to the Eqecat index. The Bank offsets the transaction with a perfectly matched transaction with a capital markets counterparty, such as a hedge fund. The transaction effectively reduces the insurer's financial exposure to the risks of windstorms.<sup>11</sup> The Bank's role, for which it is paid a fee, is purely one of a financial intermediary between the financial positions of the parties.

The Bank will manage legal, compliance, and counterparty credit risk in the transactions, in part, by the use of ISDA Master Agreements, including Credit Support Annexes, where appropriate, to evidence and govern the transactions.<sup>12</sup> The Bank will further manage credit risk with respect

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<sup>10</sup> We note that the underlying catastrophe bond may reference any of the traditional types of catastrophe loss thresholds, such as indemnity, industry loss, or parametric.

<sup>11</sup> The described transactions do not require that either party actually suffer any loss related to the underlying subject matter of the transaction in order to collect payment. The proposed swap structures with reference to risk indices, for example, relating to modeled losses and industry losses, are distinct financial contracts agreed to by the parties that operate according to their terms.

<sup>12</sup> The Bank represents that there currently is no industry standard form for confirming catastrophe risk derivatives, thus the Bank plans to use its own form that will substantively reflect similar information as is provided in ISDA

to its counterparties through approved credit lines. The Bank operates extensive credit risk management policies, which require counterparties, including affiliates,<sup>13</sup> to post collateral where appropriate. Those policies also will apply to the proposed transactions. Also, because the swaps will expose the Bank to operational risk under the Basel II Advanced Approaches rule, the operational risk data and assessment systems and operational quantification systems established by the Bank for that rule will need to include the risks posed by these swaps. All catastrophe risk derivative transactions will be subject to the Bank's Appropriateness Policy, and may be subject to review by the Bank's Reputation Risk Committee.<sup>14</sup>

The Bank states that its ability to engage in the proposed transactions will enable it to compete more effectively, deliver a complete suite of customer-driven products, and capitalize on its financial intermediation expertise. The Bank represents that it has identified two-way demand for catastrophe risk, and that in conducting this activity it will use the extensive financial intermediation knowledge and expertise that it has acquired in relation to other derivatives businesses. The major difference between the perfectly matched financial intermediation transactions currently engaged in by the Bank and the proposed activities is that the derivative transactions here will reference a designated type of event (e.g., hurricane or earthquake in a specific geography of a specific magnitude), and related risk indices that track specific parameters or financial data estimates.

The Bank represents that the terms and circumstances of all transactions between the Bank and its affiliates in conducting these transactions will be at least as favorable to the Bank as those prevailing at the time for comparable transactions between the Bank and similarly situated counterparties or will be such that the Bank, in good faith, would offer to, or that would apply to, such entities. The Bank states that it will comply with the requirements of sections 23A and 23B of the Federal Reserve Act, the Federal Reserve Board's Regulation W, and the Bank's policies designed to ensure compliance with these requirements when engaging in the proposed catastrophe risk derivative transactions.

## **II. Discussion**

For the reasons discussed below, based on the facts and representations provided by the Bank, we conclude that the bank may engage in the proposed customer-driven, perfectly matched, cash-settled derivative transactions referencing risk indices associated with designated types of natural events and catastrophes. Before the Bank may engage in the transactions the Bank must notify its EIC, in writing, of the proposed activities and must receive written notification of the EIC's supervisory no-objection. The no-objection is based on the EIC's evaluation of the

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confirmations used for other instruments. The Bank anticipates that during 2008, ISDA will develop standardized documentation for the trading of certain types of catastrophe risk derivatives.

<sup>13</sup> The Bank may act as financial intermediary in customer-driven, perfectly matched, cash-settled catastrophe risk derivative transactions where a counterparty is a Bank affiliate.

<sup>14</sup> The Bank will not assume market risk in connection with the proposed transactions since it will perfectly match all of the proposed catastrophe swap transactions.

adequacy of the Bank's risk measurement and management systems and controls to enable the Bank to engage in the proposed activities on a safe and sound basis, and the EIC's evaluation of any other supervisory considerations relevant to the proposal.

The proposed catastrophe risk derivatives are permissible for the Bank under OCC precedent finding national banks may engage in customer-driven derivative and index derivative transactions as permissible financial intermediation activity under 12 U.S.C § 24(Seventh). The OCC previously has concluded that national banks may engage in derivative and index derivative transactions and hedges, such as options, forwards, and swaps, as part of a bank permissible financial intermediation business.<sup>15</sup> These derivative and hedging activities involve exchanges of payments with the bank acting as a financial intermediary between customers, which is a traditional and permissible banking function. For example, a bank may enter into a swap transaction involving the exchange of fixed payments for payments based on a property index,<sup>16</sup> and then assume an offsetting swap position or hedge. In assuming an offsetting swap, the bank acts as a financial intermediary interposing itself between customers who initiate swaps and counterparties providing offsetting cash flows or returns. The derivative transactions assist bank customers in managing financial risks or meeting other financial needs.

Banks have long served as financial intermediaries between customers, most traditionally by taking deposits and making loans, to facilitate the flow of funds in the economy and meet various customer financial needs. National bank derivative activities may extend beyond traditional deposit taking and lending, but these activities are, at their essence, modern forms of financial intermediation. Through intermediated exchanges of payments, banks facilitate the flow of funds within our economy and serve important financial risk management and other financial needs of bank customers.<sup>17</sup>

Based on these principles, the OCC permitted national banks, in *MII Deposit*,<sup>18</sup> to hedge deposits linked to the S&P 500 index with futures contracts on that index as bank permissible financial intermediary activity. In Interpretive Letter No. 1065, the OCC concluded that national banks may engage as a financial intermediary in customer-driven, perfectly matched, cash-settled

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<sup>15</sup> See, e.g., OCC Interpretive Letter No. 1089 (Oct. 15, 2007); OCC Interpretive Letter No. 1081 (May 15, 2007); OCC Interpretive Letter No. 1079 (Apr. 19, 2007); OCC Interpretive Letter No. 1065 (July 24, 2006); and OCC Interpretive Letter No. 1039 (Sept. 13, 2005).

<sup>16</sup> See, e.g., OCC Interpretive Letter No. 1081, *supra*.

<sup>17</sup> The OCC has permitted national banks to engage in a variety of financial intermediation transactions, where a bank notifies its EIC, in writing, of the proposed activities and receives written notification of the EIC's supervisory no-objection. The no-objection is based on the EIC's evaluation of the adequacy of the Bank's risk measurement and management systems and controls to enable the Bank to engage in the proposed activities on a safe and sound basis, and the EIC's evaluation of any other supervisory considerations relevant to the particular proposal.

<sup>18</sup> Decision of the Office of the Comptroller of the Currency on the Request by Chase Manhattan Bank, N.A., to Offer the Chase Market Index Investment Deposit Account (Aug. 8, 1988) ("*MII Deposit*"); see also *Investment Company Institute v. Ludwig*, 884 F. Supp. 4 (D.D.C. 1995) (upholding the Comptroller's decision).

derivative transactions with payments based on indices related to a number of commodities.<sup>19</sup> Other indices the OCC has approved for national bank financial intermediary activity include transactions on equity indices, credit derivative indices, and inflation indices, among others.<sup>20</sup>

The Bank currently engages in a variety of financial intermediation transactions involving a wide range of reference assets and indices. In OCC Interpretive Letter No. 1039, the OCC determined that the Bank may engage in customer-driven, perfectly matched, cash-settled derivative transactions with payments tied to a range of reference assets and indices identified in that letter as part of bank permissible financial derivative transactions.<sup>21</sup> Similarly, in OCC Interpretive Letter Nos. 1081 and 1089, the OCC specifically determined that a national bank may engage in customer-driven, perfectly matched, cash-settled derivative transactions on property-related indices as bank permissible financial intermediation transactions.

On the basis of the legal analysis set forth in prior OCC interpretive letters, including OCC Interpretive Letter Nos. 1039, 1079, and 1081, we conclude that the Bank may act as a financial intermediary in customer-driven, perfectly matched, cash-settled derivative transactions referencing risk indices associated with designated types of natural events and catastrophes.<sup>22</sup> The proposed transactions involve payments analogous to those under swaps and other derivative transactions that the OCC has determined national banks may engage in as financial intermediaries. The expansion of the Bank's derivatives business to include the proposed activities is a natural extension of the Bank's financial intermediation businesses.

The Bank's role in the proposed transactions will be the same financial intermediation activity already approved by the OCC with respect to other types of risks and indices. The Bank will exchange payments with one customer and then exchange offsetting payments with another counterparty, based, in part, on the performance of a natural catastrophe risk-related index, rather than an already authorized index related to, for example, coal or property, but, still serving as a financial intermediary facilitating the flow of funds in the economy. By engaging in the described activities, the Bank will not be providing insurance in a state as principal, as generally

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<sup>19</sup> See OCC Interpretive Letter No. 1065, *supra* (derivative transactions on reference assets and related indices such as agricultural oils, grains, seeds, fibers, foodstuffs, livestock/meat products, wood products, plastics, fertilizer).

<sup>20</sup> See, e.g., OCC Interpretive Letter No. 949 (Sept. 19, 2002) (equity indices); OCC Interpretive Letter No. 1064 (July 13, 2006) (credit derivative index); and OCC Interpretive Letter No. 1079, *supra* (inflation indices).

<sup>21</sup> See OCC Interpretive Letter No. 1039, *supra* (derivative transactions on reference assets and related indices such as jet fuel, naphtha, ethane, propane, butane, coal, benzene, dairy cattle, coffee, rubber, cobalt, and freight). See also OCC Interpretive Letter No. 1040 (Sept. 15, 2005) (emissions allowances derivatives transactions).

<sup>22</sup> The Bank represents in limited circumstances that the Bank in a swap transaction may take physical delivery of an underlying catastrophe bond. However, the Bank would immediately deliver the bond to its hedge counterparty in return for a matching payment. Accordingly, the holding of the catastrophe bond (and offsetting position) may be viewed as a natural extension of and incidental to the Bank's permissible financial intermediation activity. See, e.g., OCC Interpretive Letter No. 1064 (July 13, 2006).

prohibited by section 302 of the Gramm-Leach Bliley Act of 1999 (“GLBA”).<sup>23</sup> The Bank’s role essentially is that of a middleman in arranging the exchange of payments related to financial contracts. The Bank also represents it will not enter into any catastrophe swap transactions with an insurer referencing losses on an insurer’s own policies.

The proposed transactions will not result in any substantive change in the type or nature of financial intermediation activities provided by the Bank, but only in its underlying basis (i.e., natural catastrophe risk-related instruments and indices). As illustrated above, the offering of these risk derivative products will enable bank customers to manage their exposure to catastrophe risk and meet other financial risk management needs. Accordingly, we conclude that the Bank’s proposed transactions constitute permissible financial intermediation activities, and therefore the Bank may engage in the proposed activities subject to safety and soundness requirements and a written no-objection from its EIC.

### **III. Safety and Soundness Requirements and EIC No-Objection**

For the Bank to permissibly engage in the proposed activities, the Bank's risk measurement and management capabilities must be of appropriate sophistication to ensure that the activity can be conducted in a safe and sound manner and in accordance with applicable law. Consequently, in order for the OCC to conclude that this activity is permissible for the Bank, the Bank must provide written notice of the proposed activities to its EIC and must demonstrate to the satisfaction of its EIC, that the Bank has established an appropriate risk measurement and management process for its proposed activity. As detailed further in the *OCC Handbook: Risk Management of Financial Derivatives*<sup>24</sup> and Banking Circular 277,<sup>25</sup> an effective risk measurement and management process includes board supervision, managerial and staff expertise, comprehensive policies and operating procedures, risk identification and measurement, and management information systems, as well as an effective risk control function that oversees and ensures the appropriateness of the risk management process. Consistent with 12 C.F.R. Part 3, Appendix C, Section 22(h), the Bank will establish and maintain operational risk data and assessment and operational quantification systems, and other appropriate management processes, reflecting the risk and controls over catastrophe swaps. The Bank’s risk control processes should include the Bank’s compliance with accounting, reporting, and capital as stipulated by the instructions for the Consolidated Reports of Condition and Income and generally accepted accounting principles.

In addition to a satisfactory risk management program, the Bank's process must include an

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<sup>23</sup> Pub. L. No. 106-102, 113 Stat. 1338, § 302 (Nov. 12, 1999). Section 302 does not apply to products that are not “insurance” under the section’s definition. *See* 15 U.S.C. § 6712(c). In particular, the proposed transactions fall within the plain meaning of a “qualified financial contract” (“QFC”) as defined in the Federal Deposit Insurance Act, and as specifically excluded from the GLBA’s section 302 definition of insurance. *See* 12 U.S.C. § 1821(e)(8)(D)(i) (QFCs include swap agreements). To the Bank’s knowledge, no state has treated the type of intermediary role envisioned for the Bank here as providing insurance as principal.

<sup>24</sup> OCC Handbook: *Risk Management of Financial Derivatives* (Jan. 1997).

<sup>25</sup> OCC Banking Circular No. 277 (Oct. 27, 1993).

independent compliance monitoring program to ensure ongoing compliance with the specific commitments made by the Bank relating to new derivatives activities, including the commitment to continue to conduct its financial intermediation activities as a customer-driven business. In addition, the compliance-monitoring program should ensure that the Bank has a supervisory framework that protects against manipulative practices of any kind. An adequate and effective compliance-monitoring program will include policies, training, independent surveillance and well-defined exception approval and reporting procedures.

The Bank may not commence the proposed activities unless and until its EIC concludes that the foregoing standards are met and provides a written supervisory no-objection to the Bank. Provided these standards are met, the Bank may commence the proposed activities.

#### **IV. Conclusion**

We conclude that the Bank may act as a financial intermediary in customer-driven, perfectly matched, cash-settled derivative transactions referencing risk indices associated with natural events as described above. Before the Bank may engage in the transactions, the Bank must notify its EIC, in writing, of the proposed activities and must receive written notification of the EIC's supervisory no-objection, based on the EIC's evaluation of the adequacy of the Bank's risk measurement and management systems and controls to enable the Bank to engage in the proposed activities on a safe and sound basis, and the EIC's evaluation of any other supervisory considerations relevant to the particular proposal. Our conclusions are specifically based on the Bank's representations and written submissions describing the facts and circumstances of the subject transactions. Any change in the facts or circumstances could result in different conclusions. If you have any questions concerning this letter, please contact Suzette H. Greco, Senior Counsel, Securities and Corporate Practices Division, at (202) 874-5210.

Sincerely,

*signed*

Julie L. Williams  
First Senior Deputy Comptroller  
And Chief Counsel