



OFFICE OF INSPECTOR GENERAL
EXPORT-IMPORT BANK
of the UNITED STATES


Report on Portfolio Risk and Loss Reserve Allocation Policies

September 28, 2012

OIG-INS-12-02



To: Fred P. Hochberg, President & Chairman
Alice Albright, Executive Vice President & Chief Operating Officer
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From: Mark Thorum 
Assistant Inspector General for Inspections & Evaluations

Subject: Report on Portfolio Risk and Loss Reserve Allocation Policies
OIG-INS-12-02

Date: September 28, 2012

I am pleased to provide you with a copy of the final evaluation report issued by the Office of Inspector General (OIG) Portfolio Risk and Loss Reserve Allocation Policies Inspection and Evaluation Report (OIG-INS-12-02), dated September 28, 2012

We found that:

- Ex-Im Bank lacks a systematic approach to identify, measure, price, and reserve for its portfolio risk.
- Ex-Im Bank lacks formal policies and procedures for its loss reserve forecasting model which clearly define roles and responsibilities, and provide for independent validation of the model's integrity.
- Ex-Im Bank does not conduct portfolio stress testing in a systematic manner to assess potential exposures under challenging economic conditions.
- Ex-Im Bank does not self-impose portfolio concentration sub-limits or thresholds either by industry, geography, or asset class as internal guidance to inform management on risk and determine exposure fees in new transactions.
- Ex-Im Bank's current risk management framework and governance structure are not commensurate with the size, scope, and strategic ambitions of the institution.

In total, we made seven recommendations to improve Ex-Im Bank's loss reserve allocation and portfolio risk management policies and to bring Ex-Im Bank in line with best practices. Management concurred with four of the seven findings and recommendations; three remain open.

We appreciate the courtesies and cooperation provided to the OIG staff during the process. If you have any questions about this report, please call me at 565-3908.

Attachment



Report on Portfolio Risk and Loss Reserve Allocation Policies

Inspection and Evaluation Report OIG-INS-12-02

September 28, 2012

Why We Did This Report

Ex-Im Bank Office of Inspector General (OIG) evaluated Ex-Im Bank's loss reserve allocation and portfolio risk mitigation policies to determine whether Ex-Im Bank's policies are sufficient to support its current and long-term growth objectives, while providing an adequate cushion for future credit losses. Ex-Im Bank's portfolio has grown by 65% since 2008.

As an export credit agency, Ex-Im Bank faces a diverse spectrum of risks including credit risk, interest rate risk, portfolio concentration risk, foreign-currency risk, and operational risk. Moreover, over the past five years, Ex-Im Bank has experienced rapid portfolio growth, emerging risk trends, and changes in the composition of its portfolio against the back drop of a difficult economic environment.

Our Approach

Our evaluation benchmarks Ex-Im Bank's loss reserve and portfolio risk mitigation policies with private industry best practices, other federal credit agencies, as well as U.S. and international regulatory guidance for systemically-important banking institutions.

What We Found

- Ex-Im Bank lacks a systematic approach to identify, measure, price, and reserve for its portfolio risk.
- Ex-Im Bank lacks formal policies and procedures for its loss reserve forecasting model which clearly define roles and responsibilities, and provide for independent validation of the model's integrity.
- Ex-Im Bank does not conduct portfolio stress testing in a systematic manner to assess potential exposures under challenging economic conditions.
- Ex-Im Bank does not self-impose portfolio concentration sub-limits or thresholds either by industry, geography, or asset class as internal guidance to inform management on risk and determine exposure fees in new transactions.
- Ex-Im Bank's current risk management framework and governance structure are not commensurate with the size, scope, and strategic ambitions of the institution.

What We Recommend

- Develop a systematic approach to identifying, measuring, pricing, and reserving for portfolio risk, including the use of qualitative risk factors in its loss reserve model.
- Conduct stress testing at least annually to understand how its portfolio would react to different economic scenarios and determine whether loss reserves are adequate under those scenarios.
- Implement soft portfolio concentration sub-limits to inform future pricing, risk management decisions, and business development strategies.
- Create the position of Chief Risk Officer to oversee the design and implementation of an agency-wide risk management function, including development of an over-arching risk management policy.

For additional information, contact the Office of the Inspector General at (202) 565-3939 or visit www.exim.gov/oig.

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EXECUTIVE SUMMARY

Export-Import Bank of the United States (Ex-Im Bank or Ex-Im) is an independent federal agency and wholly-owned government corporation whose mission is to aid export financing to maintain or create U.S. jobs. Ex-Im Bank's Charter authorizes it to engage in "general banking business" (except that of currency circulation). Its core financing programs are direct loans, export credit guarantees, working capital guarantees, and export credit insurance. The Charter requires "reasonable assurance of repayment" for all Ex-Im Bank transactions, which are backed by the full faith and credit of the U.S. Government. Ex-Im Bank has functioned on a self-sustaining basis since 2009, covering its operational costs and provisioning for expected losses through loan loss reserves, funded by the fees and interest it charges its customers.

As an export credit agency, Ex-Im Bank faces a diverse spectrum of risks including credit risk, portfolio concentration risk, foreign-currency risk, interest rate risk, and operational risk. Moreover, over the past five years, Ex-Im Bank has experienced significant portfolio growth, emerging risk trends, and changes in the composition of its portfolio against the backdrop of a challenging economic environment and a bid to increase export credit in support of President Obama's National Export Initiative.¹ Therefore, it is of significant importance that Ex-Im Bank has a robust risk management and governance framework to achieve long-term success, operate on a self-sustaining basis, and protect U.S. taxpayers from severe portfolio losses.

To begin addressing these risk management issues, Ex-Im Bank Office of Inspector General (OIG) evaluated Ex-Im Bank's loss reserve allocation and portfolio risk management policies. The overall objective of our evaluation was to determine whether Ex-Im Bank's loss reserve and portfolio risk management policies are sufficient to support its long-term growth objectives, while providing an adequate cushion for future credit losses.²

Our evaluation found that Ex-Im Bank should strengthen its loss reserve methodology and forecasting model as well as its overall risk management governance framework. First, we found that although Ex-Im Bank actively manages its credit risks through loss reserve provisioning based on risk ratings of individual transactions, it lacks a systematic approach to identify, measure, mitigate, and reserve for its portfolio risk (the sum credit risk of all Ex-Im Bank obligations) based on both quantitative and qualitative or "environmental" risk factors. Traditionally, Ex-Im Bank's loss reserve methodology has been based solely on quantitative factors (historical data) and has excluded qualitative or "environmental" risk factors to account for portfolio risk, such as the significant levels of concentrations in its portfolio (single obligor and industry concentrations), and changes in the composition of the portfolio. As a result, Ex-Im Bank's loss reserve methodology may have resulted in the systematic under-reserving and underpricing of the portfolio risk.

¹ On January 27, 2010, President Obama announced the National Export Initiative with the goal of doubling exports by 2015. Ex-Im Bank's President is part of the Export Promotion Cabinet, in charge of developing and coordinating the implementation of the NEI. See Executive Order 13534, which can be found at <http://www.whitehouse.gov/the-press-office/executive-order-national-export-initiative>.

² Section III contains additional details on the evaluation's objectives, scope, and methodology.

Second, although Ex-Im Bank has made substantial progress in refining its loss reserve forecasting model, Ex-Im has not independently validated the model. Moreover, due to historical deficiencies in Ex-Im Bank's data reporting systems, the model has not included certain empirical data about the performance of restructured and potentially impaired assets. As a result, the reliability of model's forecasting ability may have been potentially reduced.

Third, we found that Ex-Im Bank does not perform portfolio stress testing or establish portfolio concentration sub-limits. Consequently, Ex-Im may not be able to determine how its portfolio would react to different market conditions, determine whether loss reserves are adequate under such scenarios, or effectively manage concentration risk.

Finally, we believe that Ex-Im Bank's current risk management framework and governance structure are not commensurate with the size, scope, and strategic ambitions of the institution. For example, while Ex-Im Bank has a Credit Risk Officer, it lacks an official responsible for managing the full spectrum of risks facing Ex-Im Bank, such as a Chief Risk Officer, or an over-arching risk management policy that integrates these risks and incorporates portfolio management best practices.

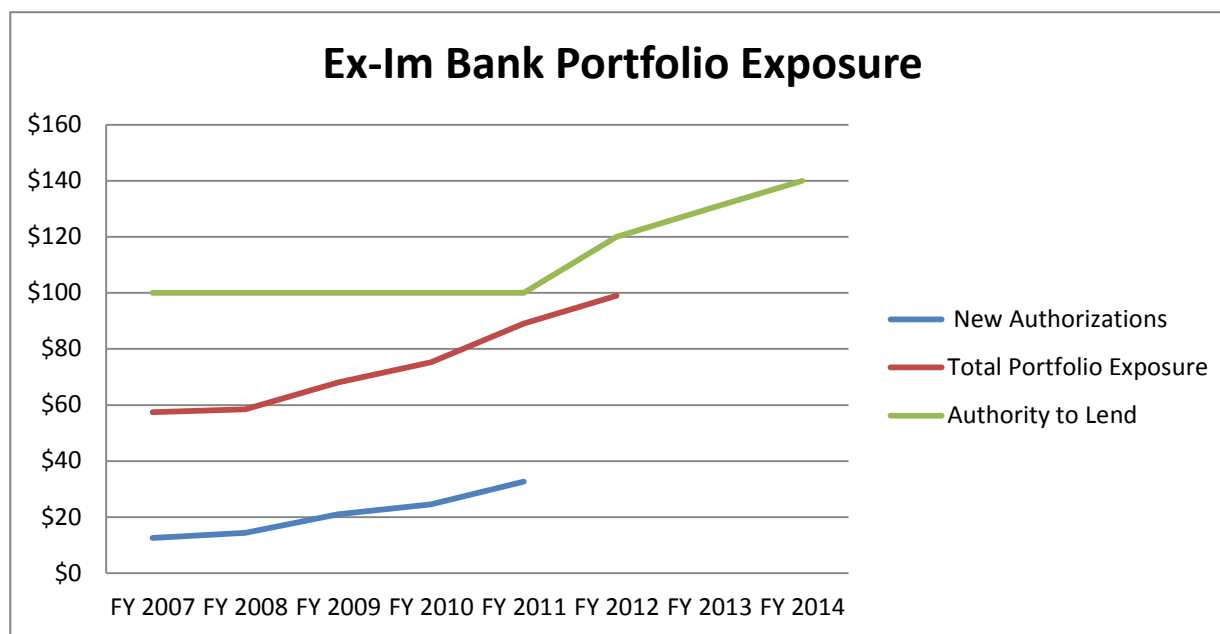
As part of our evaluation, we benchmarked Ex-Im Bank's policies with private industry best practices, other federal credit agencies, as well as U.S. and international regulatory guidance for systemically-important banking institutions. In doing so, we recognize that the operational objectives, risk appetites, and financial drivers of these diverse institutions may differ substantially. Moreover, we note that U.S. and international banking regulatory guidance does not specifically apply to Ex-Im Bank. Nevertheless, in our view, benchmarking Ex-Im Bank with private sector practices, peer agencies, and U.S. and international regulatory guidance provides insight on best practices related to risk management. In light of these best practices, we made several recommendations to address our findings. In general, we recommend that Ex-Im Bank should:

- Develop a systematic approach to identifying, measuring, pricing, and reserving for portfolio risk, including the use of qualitative or environmental risk factors in its loss reserve model.
- Conduct stress testing at least annually to understand how its portfolio would react to different economic scenarios and determine whether loss reserves are adequate under those scenarios.
- Implement soft portfolio concentration sub-limits to inform future pricing, risk management decisions, and business development strategies.
- Create the position of Chief Risk Officer to oversee the design and implementation of an agency-wide risk management function, including development of an over-arching risk management policy.

I. Background

Ex-Im Bank is the official export-credit agency of the United States. Its mission is to support the financing of U.S. goods and services in international markets, thus promoting job creation in the United States. Ex-Im Bank accomplishes this task by assuming the credit and country risks that private sector financial institutions are unable or unwilling to accept. As a federal agency, Ex-Im Bank's transactions are backed by the full faith and credit of the U.S. Government. Therefore, Ex-Im Bank must safeguard taxpayer resources by ensuring a reasonable assurance of repayment.

Ex-Im Bank's principal programs are loan guarantees, direct loans, export credit insurance, and working capital guarantees. In the past five years, Ex-Im Bank has witnessed a substantial increase in these programs with total new authorizations growing 160 percent from \$12.6 billion in Fiscal Year (FY) 2006 to \$32.7 billion for FY 2011.³ Similarly, total portfolio exposure has grown by 24 percent to \$99 billion as of May 2012, compared to \$75.2 billion in September 30, 2010. In addition, with the reauthorization of Ex-Im Bank's Charter in May 2012, Ex-Im Bank's authority to extend credit has been increased from \$100 to \$120 billion.⁴ This credit cap will be raised to \$130 billion in FY 2013 and \$140 billion in FY 2014, provided Ex-Im Bank meets certain criteria - including a default rate of less than two percent and certain reporting requirements.



Source: Ex-Im Bank Annual Reports

³ Ex-Im Bank Authorizes \$3.4 Billion in Financing at Fiscal Year-End Supporting Over 20,000 U.S. Jobs, September 30, 2011, Ex-Im Bank Press Release, <http://www.exim.gov/pressrelease.cfm/5BFB12B0-CCF4-B6E4-0546FC19AA3BE72D/>.

⁴ Export-Import Bank Reauthorization Act of 2012, H.R. 2072, 112th Cong (2011)

Ex-Im Bank Loss Reserve Process

Ex-Im Bank determines and calculates its finance programs' costs and loss reserve provisions for expected losses, known as subsidy costs, in accordance with the Federal Credit Reform Act of 1990 and guidance offered by the Office of Management and Budget (OMB) Circular A-11 (Part 5-Federal Credit). This function is performed by Ex-Im Bank's Office of the Chief Financial Officer. Ex-Im Bank's process for determining the loan loss allowance for each fiscal year involves assessing the repayment risk of each individual transaction, which includes both commercial and political risk factors, then calculating the loss reserve based on the percentage of loss associated with the risk level assigned to the credit. Ex-Im Bank re-estimates expected loss rates annually to account for actual activity and changes in the financial and economic factors that affect repayment prospects over time. In general, this loss reserve model process is retrospective in nature and based on quantitative, historical loss data.

Ex-Im Bank's Risk Trends

As a federal credit agency, Ex-Im Bank is exposed to a variety of risks, including credit risk,⁵ political risk,⁶ portfolio concentration risk,⁷ foreign-currency risk,⁸ and interest rate risk.⁹ Indeed, it has been frequently noted that a financing institution's main business is that of managing risk. In the last five years, Ex-Im Bank's risk trends have changed in several ways, including a decline in total loss reserves, an increase in impaired assets compared to its total loss reserves, increased portfolio concentrations, and a migration from sovereign to private sector exposure. Specifically:

- Decline in loss reserves: The last three years have witnessed a decline in the total loss reserves for loans, claims, guarantees, and insurance commitments. In FY 2010, the total loss reserve was \$5.1 billion or 6.8 percent of total exposure. In FY 2011, it had declined to \$4.1 billion or 4.6 percent of total exposure. As of March 31, 2012, the loss reserves stood at \$4.05 billion or 4.4 percent of total exposure.

⁵ Credit Risk is the risk that an obligor may not have sufficient funds to repay its debt or may be unwilling to pay even if sufficient funds are available.

⁶ Political risk is the risk that payment may not be made to Ex-Im Bank, its guaranteed lender, or its insured party. This may result from the expropriation of the obligor's property, war, or inconvertibility of the obligor's currency into U.S. dollars.

⁷ Portfolio concentration risk reflects the risk of the credit portfolio composition as opposed to risks related to specific obligors.

⁸ Foreign exchange risk stems from an appreciation or depreciation in the value of the foreign currency in relation to the U.S. dollar. As Ex-Im Bank reports in U.S. dollars, it must adjust the dollar equivalent of the outstanding foreign currency balances as well as the reserves held against these assets. As of March 31, 2012, Ex-Im Bank had guaranteed over 100 foreign currency transactions with a total outstanding balance of \$9.8 billion or 10.9 percent of total exposure.

⁹ Because Ex-Im Bank provides fixed-rate financing via its direct loan program, Ex-Im Bank incurs interest rate risk with respect to the medium- and long-term programs. Interest rate risk reflects the potential for interest rates to rise after rate setting by Ex-Im Bank on the authorization date, but prior to actual funding under the facility.

For comparison purposes, Basel III sets a new target capital ratio of 7.0 percent to be phased in from January 2013 through to January 2019. The new requirement consists of a core component of 4.5 percent plus a new buffer of a further 2.5 percent to reserve for unforeseen losses. Banks whose capital falls within the buffer zone will face restrictions on paying dividends and discretionary bonuses, so the rule sets an effective floor of 7 percent.¹⁰

- **Impaired assets:** An impaired asset is defined as any credit that is in payment default or with an internal risk rating, known as the Budget Cost Level (BCL), of 9 or higher on a scale of 1 to 12, the riskiest of all credits. The 2009-2010 period witnessed an increase in Ex-Im Bank's impaired asset ratio. Defined as the ratio of impaired assets to loss reserves, the ratio increased from 74 percent in FY2009 to 85 percent in FY2010. With the write-off of \$774.5 million of impaired assets related to Paris Club restructurings, the ratio declined to 67 percent for FY2011. As of Quarter II FY 2012, the ratio stood at 69 percent.

Ex-Im Bank typically reported impaired assets, but it stopped reporting in the second quarter of FY 2011, as it is not required to do so under applicable federal accounting standards ¹¹

- **Portfolio concentration risk:** Ex-Im Bank's portfolio is subject to concentration risk on three fronts: by country, industry, or obligor (debtor). Ex-Im Bank's country risk exposure remains concentrated in two geographic regions: Asia (36.9 percent) and Latin America (22.1 percent). These regions accounted for 59 percent of the total portfolio in FY 2011. Credit exposure is highly concentrated by industry as well, with three industries – aircraft (48 percent), manufacturing (14 percent), and oil and gas (12 percent) – accounting for 74 percent of total exposure in FY 2011. Of the three industries, aircraft had risen to 51 percent of total exposure as of March 31, 2012. Finally, single borrower concentrations are also significantly high when measured against total reserves. For example, Ex-Im Bank's five largest, individual obligor exposures amount to \$17.2 billion or 430 percent of total reserves as of March 31, 2012. See Appendix A, Tables 2-4.
- **Shift from sovereign to private exposure:** Credits guaranteed by foreign governments, or sovereign transactions, are less risky because the foreign government guaranteeing the transaction will step in to repay the credit if the original borrower defaults on its obligations. In the last several years, Ex-Im Bank has experienced a shift in its exposure from such sovereign transactions to transactions with private borrowers. Specifically, between FY 2007 and FY 2011, private exposure has steadily increased from 58 percent to 69 percent of Ex-Im

¹⁰ Basel III is a global regulatory standard on capital adequacy, stress testing, and market liquidity risk agreed upon by the members of the Basel Committee on Banking Supervision in 2010-11. U.S. banks will transition to Basel III with the implementation of the Dodd-Frank Wall Street Reform and Consumer Protection Act. For more information, see <http://www.bis.org/publ/bcbs189.pdf>.

¹¹ OCFO management was advised in 2011 by Deloitte, the independent public accounting firm that conducts the agency's financial statement audit, that Ex-Im Bank was not obligated to publish total impaired assets in its annual report under applicable federal accounting standards.

Bank's total exposure. This shift in exposure increases Ex-Im Bank's inherent portfolio risk by increasing Ex-Im Bank's exposure to credits not guaranteed by foreign governments. See Appendix A, Table 1.

II. Findings and Recommendations

Finding A: Ex-Im Bank lacks a systematic approach to identify, measure, price, and reserve for its portfolio risk.

Congress and OMB have created a framework used by federal credit agencies to calculate and measure risk and program subsidy cost. This risk measurement approach has been codified by the Federal Credit Reform Act (FCRA) of 1990, and implemented through OMB Circular A-136 (financial reporting requirements), OMB Circular A-11 (the primary guidance for calculating program costs associated with its transactions), and OMB Circular A-129 (credit default policy guidance). Recognizing the agencies' expertise and responsibilities for administering their respective programs, OMB has delegated to the agencies, subject to OMB's review and approval, the responsibility for developing the models and assumptions used to calculate program costs.¹² In general, this framework focuses on managing individual credit risks by assigning a risk rating to each transaction and reserving based on an expected loss reserve model that relies mostly on historical data analysis.¹³

Neither FCRA nor OMB, however, provide specific guidance on measuring and managing risk at the portfolio level or the use of qualitative or "environmental" risk factors to account for such risk in estimating losses. Portfolio risk can be defined as the maximum amount of loss in the value of a credit portfolio within a specified time frame and confidence level. It is largely determined using the individual asset volatilities and the aggregate asset correlations (the degree to which assets tend to behave in relation to each other) in the credit portfolio.

Studies have shown that if financial assets are correlated (either positively or negatively), the probability-weighted loss of each loan calculated separately and then added together would not yield the same result as calculating the probability-weighted loss of a portfolio containing the same loans. For example, a negative correlation between two assets could result in lower total losses as the volatility of one helps to offset the volatility of the other. Conversely, highly correlated asset and industry classes in the portfolio could result in higher volatility and higher losses. Therefore, it is important that financial institutions are able to measure and mitigate portfolio risk to manage portfolio volatility in the case of different economic scenarios.

Best Practices on Portfolio Risk Measurement and Use of Qualitative Risk Factors

International banking guidance has established the principle that banks should not only manage individual credit risks, but also inherent risks at the portfolio level. In its *Principles for the Management of Credit Risk*, the Basel Committee on Banking Supervision (BCBS), an international forum for regular cooperation on banking supervisory matters (including the Federal Reserve), states:

¹² For more information see http://www.whitehouse.gov/sites/default/files/omb/assets/a11_current_year/s185.pdf.

¹³ See Appendix B for a more detailed discussion of this framework.

“Banks must have in place a system for monitoring the overall composition and quality of its credit portfolio. Traditionally, banks have focused on oversight of contractual performance of individual credits in managing their overall credit risk. While this focus is important, banks also need to have in place a system for monitoring the overall composition and quality of the various credit portfolios. This system should be consistent with the nature, size, and complexity of the bank’s portfolios.”¹⁴

In addition, the importance of qualitative or “environmental” risk factors to account for portfolio risk in estimating loss reserves has been underscored by U.S. banking regulators. In a 2006 policy statement on the allowance for loan and lease losses (ALLL), U.S. banking regulators stated:

“Estimated credit losses should reflect consideration of all significant factors that affect collectability of the portfolio as of the evaluation date. Normally, an institution should determine the historical loss rate for each group of loans with similar risk characteristics in its portfolio based on its own loss experience for loans in that group. While historical loss experience provides a reasonable starting point for the institution’s analysis, historical losses, or even recent trends in losses, do not by themselves form a sufficient basis to determine the appropriate level for the ALLL. *Management should also consider those qualitative or environmental factors that are likely to cause estimated credit losses associated with the institution’s existing portfolio to differ from historical loss experience.*”¹⁵ (Emphasis added.)

The policy statement also advises financial institutions to adjust the historical loss experience for the effects of such qualitative or environmental factors, such as the effect of any concentrations of credit and changes in the level of such concentrations. Indeed, the Office of the Comptroller of the Currency (OCC) has cited excessive concentrations of credit - “pools of exposure” - as a key factor in banking crises and failures noting that “when exposures in a pool are sensitive to the same economic, financial, or business development, that sensitivity, if triggered, may cause the sum of the transactions to perform as if it were a single, large exposure.” Therefore, the OCC advises that management implement “internal processes designed to identify, measure, monitor, and control concentrations of credit” and that such analysis be addressed in a bank’s ALLL.¹⁶

¹⁴ Basel Committee on Banking Supervision, “Principles for the Management of Credit Risk”, September 2000, p. 16. This document can be found online at <http://www.bis.org/publ/bcbs75.pdf>.

¹⁵ Interagency Policy Statement on the Allowance for Loan and Lease Losses. The Office of the Comptroller of the Currency, the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, and the Office of Thrift Supervision, National Credit Union Administration redrafted their 1993 policy statement on the allowance for loan and lease losses (ALLL) to ensure consistency with generally accepted accounting principles and recent supervisory guidance. This document can be found at <http://www.federalreserve.gov/boarddocs/srletters/2006/SR0617a1.pdf>.

¹⁶ OCC, “Concentrations of Credit” December, 2011. This document can be found at <http://www.occ.gov/publications/publications-by-type/comptrollers-handbook/Concentration-HB-Final.pdf>.

Interviews conducted with foreign export credit agencies confirm the practice of identifying and measuring portfolio risk and adjusting loss reserve models to reflect a balance of quantitative and qualitative risk factors.¹⁷

FCRA Guidance Focuses Loss Reserve Provisioning Based on Individual Assets and Historical Data

Ex-Im Bank calculates the probability-weighted loss of each transaction separately, following a “bottom-up” approach to risk measurement as prescribed by FCRA. Ex-Im estimates the potential credit loss associated with each new credit based on the historical performance of similar assets. The credit loss is defined as the net present value of estimated loan, guarantee, and insurance defaults less subsequent estimated recoveries. Management re-estimates the net credit loss of post credit-reform transactions annually in accordance with OMB guidelines and Statement of Federal Financial Accounting Standards (SFFAS) 18. The re-estimates adjust the allowance for credit losses to account for actual activity and changes in financial and economic factors that affect repayment prospects over time.

This approach measures risk from an individual asset perspective but fails to address the incremental risks at the portfolio level. It presupposes no interaction among assets or credit risks within the portfolio during times of severe financial stress. Co-variance among assets, or the degree to which two distinct assets move together in any given economic scenario, and other qualitative or environmental risk factors, such as concentration risks, pose additional risks to Ex-Im Bank’s portfolio that are not presently identified and measured. As a consequence, they are not adequately priced or reserved for.

Ex-Im Bank’s Loss Reserve Model Does Not Take Into Account Qualitative Risk Factors

In addition, Ex-Im Bank has historically not included qualitative or environmental risk factors in its loss reserve analysis or expected-loss credit model, nor has it adjusted its loss reserve model to reflect the potential impact of these factors in a systematic manner. The model utilizes an Excel-based, linear regression analysis that builds upon Ex-Im Bank’s historical loss and recovery experience for each risk rating and product line. Under an expected loss approach, provisions are set aside to cover the expected loss before evidence of impairment. In this case, provisioning does not depend on any evidence of deterioration in credit quality and is unrelated to the actual occurrence of losses. Ex-Im Bank establishes a loss allowance through a provision charged to earnings. Subsequent write-offs are then charged against the allowance, while recoveries are credited back to the allowance.

Ex-Im Bank’s loss ratio can be defined as the percentage loss that Ex-Im can expect for each dollar of loan disbursement or guarantee provided. Expressed as an equation, it can be defined as the following:

$$\text{Loss Ratio (LR)} = \text{Loss Given Default (LGD)} \times \text{Probability of Default (PD)}$$

¹⁷ ECA respondents included Export Development Canada (EDC), SACE, Euler Hermes (Germany), Ex-Im Bank, Finnvera (Finland), Atradius (Netherlands), UK Export Finance (formerly ECGD), Export-Import Bank of Korea (K-Exim), Export Guaranty and Insurance Corporation (EGAP) (Czech Republic), EKF (Denmark), EKN (Sweden).

The model relies on three key components: the probability of default, loss given default, and predictor intervals.

- **Probability of Default (PD):** The PD can be defined as the probability that an obligor will default in its payment obligations as contractually stipulated in a financing document during a specified period. The probability of a default by a given obligor can be estimated from a historical database of actual defaults using common statistical techniques such as linear regression, or estimated from market price data for credit default swaps, bond prices, etc. Another frequently used technique is to examine the historical loss experience of external credit ratings such as Standard and Poor's and Moody's.

Ex-Im Bank's loss reserve model estimates the PD based on historical data, as of the prior fiscal year, for each Budget Cost Level (BCL) rating¹⁸ and for each of the following four product lines: long-term guarantees, medium-term guarantees, medium-term insurance, and short-term insurance. As there is insufficient empirical evidence to estimate the PDs for long-term and medium-term loans, Ex-Im Bank's model uses the loss experience for the medium- and long-term guarantee programs as proxies.

- **Loss given default (LGD):** LGD can be defined as the credit loss incurred if an obligor defaults in its payment obligations. The loss amount is net of recoveries and discounted for the time value of money. It is dependent on both the cash flows from the borrower as well as the characteristics of the debt obligation including documentation, seniority, collateral (if any), etc. As with PD, the LGD is estimated for each BCL rating and for long- and medium-term guarantees, short- and medium-term insurance. The LGD for medium- and long-term loans are derived from the LGDs for medium- and long-term guarantees.
- **Predictor intervals (PI):** Predictor intervals are used to express the likelihood that a future observation (in Ex-Im Bank's case, the future probability of default of a new transaction with a given BCL rating) will fall within a pre-determined range of values, given empirical evidence. The range is defined by upper and lower bounds. Combined with a confidence level, the PI refers to the average predictive success of the model. For example, a 95 percent PI would imply that the future probability of default of a transaction with a given BCL rating would (on average) fall within these bounds, 95 percent of the time.

Given its increased loss experience in FY 2009 and the continuing uncertainty of the global financial crisis, Ex-Im Bank increased its predictor interval from the midpoint to 95 percent for FY 2011. However, for 2012, the combination of a 17.5 percent decrease in the number of claims in FY 2010 and further refinements to the loss reserve model led to management's decision to decrease the predictor interval for default from 95 percent to 85 percent across all product lines. Predictor interval levels were further reduced for FY 2013

¹⁸ As prescribed by OMB's Interagency Country Risk Assessment System (ICRAS), this is a rating that identifies the level of risk of each transaction in a sliding scale. This is further explained in Appendix B.

ranging from 70 percent for medium term guarantee and medium term insurance business to 80 percent for both short term insurance and long term guarantee business.

Currently, Ex-Im Bank's loss credit model does not include qualitative risk factors, such as co-variance among asset classes or portfolio concentration risks, to account for risk at the portfolio level in its loan loss reserves. In other words, Ex-Im does not reserve or price for the incremental risk deriving from its portfolio concentrations. For example, although aircraft transactions represent almost 51 percent of the total dollar out standings of Ex-Im Bank's balance sheet, each new airline transaction is structured and priced using the same criteria and minimum pricing guidelines as any other aircraft transaction. Best practices would suggest that an institution should take into account the incremental portfolio risk in its pricing criteria.

An important lesson learned from the 2008 financial crisis was that purely quantitative approaches to risk management were insufficient and that a more balanced approach that incorporates qualitative risk factors enhances a financial model's explanatory power and is generally preferable to purely quantitative approaches. With the benefit of hindsight, recent literature offers several explanations.

First, quantitative models may fail to capture the full extent of risk when the returns are not normally distributed. Indeed, certain key risks that reside in the tails of the distributions may be overlooked. Second, asset volatilities and correlations used in value-at-risk models are derived from empirical data that reflect "normal" market conditions. However, in times of a financial crisis, both volatility and correlation may increase substantially.

In addition, previously undetected correlations among asset classes and the behavior of market participants can lead to financial contagion during a severe crisis. Finally, as quantitative models rely on empirical data, they may fail to recognize structural shifts in the economy and financial markets. Based on the above factors, best practices now require portfolio managers to adopt a disciplined balance between quantitative and qualitative risk factors for their analysis.

Because Ex-Im Bank has not systematically identified and measured portfolio risk factors in its loss reserve model, it may have systematically underpriced and consequently under-reserved for these risks in its portfolio. This is of particular concern because, as noted above, the total allowance for losses for loans, claims, guarantees and insurance commitments has steadily decreased in the last three years. As of March 31, 2012, the allowance for losses stands at \$4.05 billion or 4.4 percent of total exposure down from \$5.1 billion or 6.8 percent of total exposure in FY 2010.

Recommendation:

- 1) Ex-Im Bank should develop a systematic approach to identifying, measuring, pricing, and reserving for portfolio risk, including the identification of appropriate qualitative risk factors to account and reserve for such risk. Ex-Im Bank should incorporate these factors into its loss allowance analysis both retrospectively and prospectively. The former will ensure that Ex-Im Bank has properly reserved for existing exposure while the later will address future exposure.

Management Response:

Ex-Im Bank agrees with the recommendation. Upon the conclusion of the FY 2011 audit, Ex-Im Bank evaluated the incorporation of qualitative factors to the components of the overall credit loss factors. Starting in December, 2011, Ex-Im Bank implemented a systematic approach on the development of Ex-Im's annual credit loss factors. These credit loss factors incorporate qualitative factors which include measuring and reserving for portfolio risk. It is currently under review by Ex-Im Bank's outside auditors and the OMB. As of September 18, 2012, Ex-Im Bank has not received OMB approval on these revised credit loss factors. Upon approval, Ex-Im Bank expects to implement these new credit loss factors in September 2012 as part of the annual re-estimate process.

Evaluation of Management's Response:

In periodic meetings with the Office of the Chief Financial Officer (OCFO), dating back to 2010, the OIG inquired about the exclusion of qualitative factors and the impairment that the absence of such may have on the loss reserve model's predictive capability and represented a departure from best practices. OIG understands that Ex-Im Bank received approval from OMB on September 25, 2012 to implement the revised credit loss factors. Management's proposed actions are responsive; therefore, the recommendation is resolved and will be closed upon completion and verification of the proposed actions.

Finding B: Ex-Im Bank lacks formal policies and procedures for its loss reserve forecasting model which clearly define roles and responsibilities and provide for independent validation of the model's integrity.

Best Practices on Model Risk Management

U.S. financial regulators¹⁹ have cited components of a sound model risk management program, including:

1. Sound model validation process, including the confirmation of conceptual soundness, ongoing monitoring, process verification and benchmarking; and ongoing review of assumptions and an outcomes analysis, including back-testing.
2. External validation of the model's integrity, which is designed to confirm a model's integrity and performance. Validation requires a degree of independence from model development and use. Ideally, validation should be undertaken externally by competent, impartial sources not responsible for developing the model.
3. A formal system of governance, which establishes an effective framework with defined roles and responsibilities for clear communication of model limitations and assumptions, as well as the authority to restrict model usage.

Ex-Im Bank's Loss Reserve Model Has Not Been Independently Validated and Does Not Include Data on Certain Risky Assets

Although Ex-Im Bank has made substantial progress in developing its own loss reserve forecasting model, the model's integrity has not been externally and independently validated and the historical exclusion of qualitative risk factors – coupled with prior modeling errors²⁰ – may have reduced the model's predictive capabilities. Moreover, Ex-Im Bank data reporting systems have not allowed for proper tracking of the performance of restructured and potentially vulnerable assets as a separate cohort over time.

While restructured assets with a BCL of 9 or higher (the riskiest assets) have been historically included in the list of impaired assets, Ex-Im Bank's data reporting system lacks the ability to separately monitor restructured assets with a resulting BCL of 8 or below which, according to Ex-Im Bank's internal rating system, represent a significant risk of loss

¹⁹ Both the Federal Reserve Board and the Office of Comptroller of the Currency provide guidance on model risk management. For example, see OCC 2011-12, "Supervisory Guidance On Model Risk Management." This guidance can be found online at <http://www.occ.gov/news-issuances/bulletins/2011/bulletin-2011-12a.pdf>. In addition, the Federal Reserve's Letter SR 09-01, "Application of the Market Risk Rule in Bank Holding Companies and State Member Banks," provides various standards for model validation and review and back-testing. This document can be found online at <http://www.federalreserve.gov/boarddocs/srletters/2009/SR0901.pdf>.

²⁰ For example, in a letter to the OIG dated December 6, 2011, OCFO management disclosed that a coding error was discovered in Ex-Im Bank's estimate model.

of interest and/or principal. As a result, empirical data on these risky assets have not been used in Ex-Im Bank's expected loss-reserve forecasting model, thereby potentially reducing the reliability of the model's forecasting ability.

Institutions conduct independent validations to avoid the use of partial or biased data that would impact the model's reliability and to assure the integrity of the model and the data used.

Recommendation:

- 2) Together with external subject matter experts, OCFO should design and implement a formal governance framework for the use of financial models. This framework should include policies and procedures for model-validation including external validation of the model's integrity, model ownership and testing.

Management Response:

Ex-Im Bank agrees with the recommendation. Upon the conclusion of the FY 2011 audit, Ex-Im began the process of designing and implementing a formal governance framework on Ex-Im Bank's financial models. As part of this process, in May 2012, Ex-Im Bank contracted with KPMG to review, assess, and evaluate Ex-Im Bank's qualitative factors developed this year. KPMG served as external subject matter experts providing review, analysis, and feedback. Consistent with the KPMG review, Ex-Im Bank will incorporate external validation of future financial models. It is also important to note that the overall model is currently under evaluation and review by both Ex-Im Bank's outside auditors as well as the Office of Management and Budget. This review occurs on an annual basis. Ex-Im Bank, as part of its efforts to continuously improve, will build and strengthen the formal governance framework related to the financial models.

Evaluation of Management's Response:

In periodic meetings with the OCFO, the OIG discussed external validation of Ex-Im Bank's loss reserve model by an independent external party. OCFO agreed to take this recommendation under advisement. Management's proposed actions are responsive; therefore, the recommendation is resolved and will be closed upon completion and verification of the proposed actions.

Finding C: Ex-Im Bank does not conduct portfolio stress testing in a systematic manner to assess potential exposures under challenging economic conditions.

Best Practices on Stress Testing

In its *Principles for the Management of Credit Risk*, BCBS states that banks “should take into consideration potential future changes in economic conditions when assessing individual credits and their credit portfolios, and should assess their credit risk exposures under stressful conditions.”

For the purposes of identifying best practices in portfolio risk management, the OIG interviewed a broad group of credit portfolio risk managers from foreign ECAs, U.S. federal agencies, and international financial institutions.²¹ The majority stated that they conduct stress testing on their portfolios on a regular basis. In addition, OIG interviewed senior management of the International Association of Credit Portfolio Managers (IACPM) to learn more about private sector best practices. As an international association focused on promoting best practices in credit portfolio management, IACPM has published a compilation of sound practices as observed by its member institutions.²²

IACPM states that an institution “should have a ‘top down’ stress testing process in place to analyze the impact of extreme economic events on the credit risk of the overall credit portfolio.” According to IACPM, the objective of stress testing measures is to “inform management about the portfolio’s sensitivity to risk factors.” Stress testing falls into two categories: scenario testing and sensitivity testing. Scenario testing “evaluates the impact of particular events (deemed as stressed) on a portfolio.” In this approach, “one defines the event, determines the impact on ‘stressed’ parameters such as PDs and LGDs” and computes a loss measure. In contrast, sensitivity stress tests are “generally statistical in nature” and “attempt to establish the impact of a change in one or more risk drivers or parameters on a portfolio.”²³

IACPM further notes that institutions “should supplement the ‘top down’ approach with a ‘bottom up’ stress testing process to measure the impact of adverse events on obligors, or set of obligors, with significant exposures in the credit portfolio.” This approach is particularly important for portfolios “that have high single-name concentrations” to determine the impact “of events or scenarios on specific exposures or obligors.” By testing for the potential impact of various risk factors on probabilities of default and loss given default, management can assess loss reserve adequacy under different scenarios.

²¹ ECA respondents included the official export credit agencies of Canada, Denmark, Finland, Germany, Italy, New Zealand, South Korea, Sweden, the Czech Republic, and the United Kingdom. U.S. federal agencies we contacted included the U.S. Department of Agriculture, Department of Energy, Small Business Administration, U.S. Agency for International Development, Millennium Challenge Corporation. Finally, we consulted the following three international institutions: the Inter-American Development Bank, the Multilateral Investment Guarantee Agency, and the Asian Development Bank.

²² *Sound Practices in Credit Portfolio Management*, International Association of Credit Portfolio Managers, November 2005. This publication can be found online at http://www.iacpm.org/about-us/IACPM_Sound_Practices.pdf.

²³ See *id.*

Finally, the Federal Reserve Board recently issued a Supervision and Regulation Letter, entitled “Guidance on Stress Testing for Banking Organizations with Total Consolidated Assets of More than \$10 Billion”, which provides guidance to banks on the importance of stress testing.²⁴ The guidance emphasizes the importance of stress testing “as an ongoing risk management practice that supports banking organizations’ forward-looking assessment of risks and better equips them to address a range of adverse outcomes.” Furthermore, the guidance states that an effective stress testing framework should:

- 1) Employ multiple conceptually sound stress testing activities.
- 2) Include exercises that are tailored to and sufficiently capture the banking organization’s exposures, activities, and risks.
- 3) Be forward-looking and flexible.
- 4) Include strong governance and effective internal controls.
- 5) Produce test results that are clear, actionable, well supported, and inform decision-making.

Ex-Im Bank Does Not Have a Systematic Approach to Stress Testing

Ex-Im Bank does not conduct portfolio stress testing in a systematic manner. As such, Ex-Im may not be able to determine whether it is adequately reserving for unforeseen market conditions. Stress testing would allow Ex-Im Bank to understand how its portfolio would react to market shocks, particularly given the significant portfolio and single obligor concentrations.

Recommendation:

- 3) Ex-Im Bank should develop a systematic approach to stress testing and should conduct stress testing at least annually as part of its re-estimate process.

Management Response:

Ex-Im Bank agrees with the recommendation. In the past, Ex-Im Bank has conducted ad-hoc stress tests. Ex-Im Bank is in the process of setting up a systematic approach to stress testing to be managed from our Portfolio Reporting and Analysis section within the Office of the Chief Financial Officer. Ex-Im Bank is currently developing this systematic approach which will be completed in early FY 2013. Under this approach, the first stress test will focus on the aircraft portfolio. Ex-Im Bank plans to do both a “top down” stress test and a “bottom up” stress test.

²⁴ Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, Office of the Comptroller of the Currency, “Guidance on Stress Testing for Banking Organizations with Total Consolidated Assets of More Than \$10 Billion,” Supervision and Regulation Letter SR 12-7, May 14, 2012. This publication can be found online at <http://www.federalreserve.gov/bankinforeg/srletters/sr1207a1.pdf>.

This approach is consistent with the International Association of Credit Portfolio Managers report entitled “Sound Practices in Credit Portfolio Management”. This stress test will be conducted in FY 2013.

Evaluation of Management’s Response:

Management’s proposed actions are responsive; therefore, the recommendation is resolved and will be closed upon completion and verification of the proposed actions.

Finding D: Ex-Im Bank does not self-impose portfolio concentration sub-limits either by industry, geography, or asset class as internal guidance to inform management on risk and determine exposure fees in new transactions.

Best Practices on Portfolio Sub-limits

IACPM states that an institution “should set limits that address concentrations and correlations within the portfolio.” Although “there is no ideal . . . the objective of a limits system is to allow an institution to manage its credit exposure in a way that affords protection from a single credit event [and] limits should be set around correlated positions or clusters of exposure within the portfolio. Such limits around correlated exposures are most often expressed in terms of limits by obligor group, industry, and region.”²⁵

The process to set limits “should take into account the size and the nature of the institution, its strategy, its credit appetite . . . its systems, and its existing level of portfolio diversification.” For institutions that have a variety of different credit exposures, an effective limits system, should include notional-based limits “supplemented by risk-based credit equivalent exposure systems to convert the wide variety of credit exposures into a single common exposure measure.”²⁶

Finally, the limits system should have a proper governance structure in which limits are “set and exceptions approved by a group other than the group whose responsibility it is to manage the portfolio.” The limits should be “viewed as thresholds rather than hard limits” and the breach of imposed limits should “prompt the appropriate discussion between risk managers, portfolio managers, the origination team, and, if necessary, the board as to, for example, the nature of the underlying exposure . . . and the outlook for the obligor, region, or sector.”²⁷

Ex-Im Bank’s Significant Portfolio Concentrations Indicate Necessity of Sub-Limits

Ex-Im Bank does not self-impose any portfolio sub-limits by obligor group, industry, or region. As noted above, single borrower concentrations are significantly high when measured against total reserves. For example, Ex-Im Bank’s five largest single borrower exposures amount to \$17.2 billion or 430 percent of total reserves as of March 31, 2012. Although not directly applicable, it is noteworthy that the one obligor amounts far exceed the 15 percent maximum threshold suggested by U.S. banking regulators.²⁸ Applying this

25 Sound Practices in Credit Portfolio Management, International Association of Credit Portfolio Managers, November, 2005. This publication can be found online at http://www.iacpm.org/about-us/IACPM_Sound_Practices.pdf.

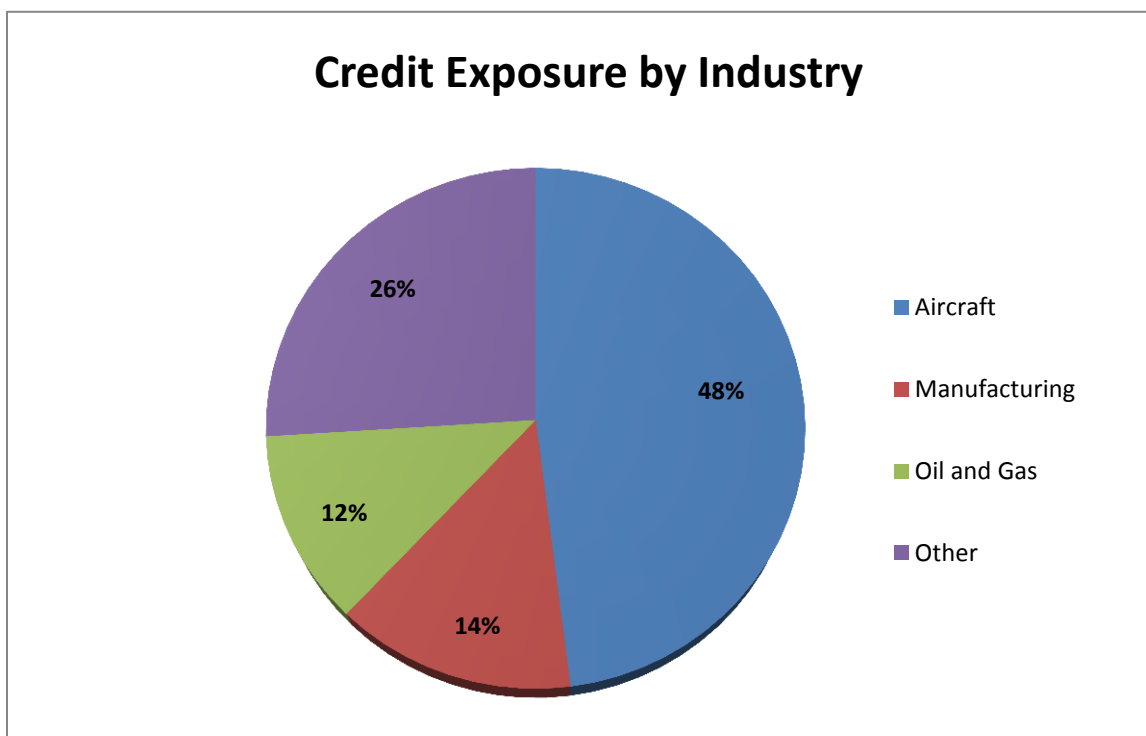
26 See id.

27 See id.

28 Pursuant to FDIC guidelines, “a national bank’s total outstanding loans and extensions of credit to one borrower may not exceed 15 percent of the bank’s capital and surplus, plus an additional 10 percent of the bank’s capital and surplus, if the amount that exceeds the bank’s 15 percent general limit is fully secured by readily marketable collateral.” For more information see, <http://www.fdic.gov/regulations/laws/rules/8000-7400.html>.

guideline, Ex-Im Bank's total one obligor exposure would be limited to approximately \$600 million per borrower or roughly \$3 billion in total for the top five.

Credit exposure is highly concentrated by industry as well with three industries (aircraft, 48 percent; manufacturing, 14 percent; and oil and gas, 12 percent) accounting for 74.4 percent of total exposure. Of the three, aircraft accounts for 48 percent of total exposure in FY 2011, rising to 51 percent as of March 31, 2012.



Finally, Ex-Im Bank's country risk exposure remains concentrated in two geographic regions, Asia (36.9 percent) and Latin America (22.1 percent). These regions account for 59 percent of the total portfolio at FY 2011.

Monitoring portfolio risk by imposing portfolio sub-limits would allow Ex-Im Bank to systematically identify and manage its credit exposure thresholds and have the appropriate discussions between the relevant business units to determine how to appropriately balance the portfolio. In addition, such sub-limits would inform management on how to determine exposure fees in transactions that would add to such concentration limits. As we noted above, for example, although aircraft transactions represent almost 51 percent of the total dollar out standings of Ex-Im Bank's balance sheet, each new airline transaction is structured and priced using the same criteria and minimum pricing guidelines as any other aircraft transaction without taking into account the incremental portfolio risk in its pricing criteria.

Sub-limits are not necessarily a mechanism to turn transactions away or to stop financing transactions involving concentration risk exposure. To the contrary, their intent is to allow Ex-Im Bank management to be more proactive in its risk management responsibilities and

to identify opportunities to diversify its portfolio by emphasizing under-represented sectors and countries consistent with Ex-Im Bank's Strategic Plan.

Recommendation:

- 4) Ex-Im Bank should implement soft portfolio concentration sub-limits based on industry, geography, or asset class as internal guidance to manage risk tolerance levels and return parameters. Once exposure fees are in place, these guidelines can inform future pricing, risk management decisions, and business development new transactions.

Management Response:

Ex-Im Bank disagrees with this recommendation to implement soft portfolio concentration sub-limits. While Ex-Im Bank understands that the private sector typically employs portfolio limits in its risk management function, doing so is inconsistent with the demand-driven nature of Ex-Im's mandate and business. Ex-Im Bank's long time policy has been to meet demand as long as it meets the requirement of a reasonable assurance of repayment. Any limits would impede Ex-Im Bank's ability to meet demand as well as adversely impact Ex-Im's competitiveness compared to other officially supported Export Credit Agencies. Ex-Im believes that the implementation of portfolio concentration limits whether soft or hard would result in Ex-Im Bank picking "winners and losers". Ex-Im Bank does not believe that this role is mandated by our governance structure (i.e. Authorization) which was approved by the Congress and signed by the President.

It is also important to note that the September 2012 implementation of the qualitative factors will assist Ex-Im Bank in identifying and managing the concentration issues noted in this recommendation.

Evaluation of Management's Response:

As mentioned in our report and conveyed separately to management, the intent of this recommendation is not to limit Ex-Im Bank's ability to meet its clients' demands, nor to adversely impact Ex-Im Bank's competitiveness compared to other officially supported ECAs. Rather, our recommendation to set "soft" limits or "informal thresholds" for portfolio concentration levels is designed to inform future pricing and portfolio risk management decisions by advising Ex-Im Bank's Board of Directors of the incremental portfolio exposure consequences of each new transaction.

OIG agrees that the 2012 implementation of qualitative factors will assist Ex-Im Bank in managing portfolio concentration issues. However, these factors are applied retrospectively to the existing portfolio and will not inform the Board on a timely basis.

Finally, we note that our interviews with other ECAs and federal agencies confirm the use of portfolio concentration limits as a pricing and risk management tool.

OIG respectfully requests that Ex-Im Bank management reconsider its response to this recommendation. In the interim, OIG will consider this point

as an “open” recommendation or “non-concurrence”. We look forward to further dialogue with Ex-Im Bank on this issue.

Finding E: Ex-Im Bank's current risk management framework and governance structure are not commensurate with the size, scope, and strategic ambitions of the institution.

Best Practices on Bank Risk Management

U.S. and international financial regulators have long recognized the importance of sound financial governance and risk management practices as critical to the long term viability of financial institutions. Indeed, in its Principles for enhancing corporate governance, the BCBS states:

“Banks should have an effective internal controls system and a risk management function (including a chief risk officer or equivalent) with sufficient authority, stature, independence, resources, and access to the board. Risk management generally encompasses the process of: identifying key risks to the bank; assessing these risks and measuring the bank’s exposure to them; monitoring the risk exposures and determining the corresponding capital needs on an ongoing basis; monitoring and assessing decisions to accept particular risks, risk mitigation measures and whether risk decisions are in line with the board-approved risk tolerance/appetite and risk policy . . .”²⁹

In particular, BCBS notes that “large banks and internationally active banks” should have a Chief Risk Officer (CRO), an “independent senior executive with distinct responsibility for the risk management function and the institution’s comprehensive risk management framework across the entire organization.” The CRO’s independence should be “paramount” and the CRO should have “sufficient stature, authority, and seniority within the organization.” Moreover, BCBS emphasizes that the “risk management function is responsible for identifying, measuring, monitoring, controlling or mitigating, and reporting on risk exposures’ including “all risks to the bank, on- and off-balance sheet and at a group-wide, portfolio, and business line level, and should take into account the extent to which risks overlap (e.g., lines between market and credit risks and between credit and operational risk are increasingly blurred).”

Ex-Im Bank Does Not Have An Effective Risk Management Function

During our evaluation, we identified the following deficiencies in Ex-Im Bank’s risk management function:

- Although Ex-Im Bank has a Credit Risk Officer, it lacks an official responsible for managing the full spectrum of risks facing Ex-Im and developing risk management strategies, and the requisite staff with the sufficient experience and qualifications needed to analyze and manage portfolio risk.

²⁹ Basel Committee on Banking Supervision, “Principles for enhancing corporate governance”, October 2010, p. 17. This document can be found online at <http://www.bis.org/publ/bcbs176.pdf>.

- The lack of an over-arching risk management policy that incorporates portfolio management best practices.
- The inability to track the performance of restructured assets over time as a separate cohort.

In particular, our evaluation also found the following examples that show a lack of transparency and governance regarding risk management:

- While Ex-Im Bank does track “Obligors of Concern”, it lacks a comprehensive credit metrics dashboard for senior management and the Board of Directors’ Audit Committee. Credit metrics dashboards are used by banks to summarize the most relevant risk metrics, call attention to key areas of concern, and identify and potentially mitigate the impact of arising credit risk concerns. Although total net losses are provided in monthly reports to senior management, certain credit metrics are missing from such reports. For example, OCFO no longer publishes the aggregate amount of its impaired assets in its quarterly reports as it has in prior years. Indeed, the ratio of impaired assets to current loss reserve cushion is not provided. This metric could provide an early warning signal of potential deterioration in the portfolio.
- Restructured transactions with Budget Cost Levels (BCL) ratings of 6-8 (an indication of the high risk of these transactions) are not currently included in the category of impaired assets. Because these BCL ratings imply a higher risk of loss, they should be tracked as a separate cohort to monitor performance and improve Ex-Im Bank’s empirical data.
- Ex-Im Bank does not seek input from credit policy staff when it restructures transactions and assigns a BCL risk rating. Currently, restructured transactions are assigned a BCL rating by the Asset Management Division portfolio manager. Best practices would suggest that credit policy should have direct participation in this process to avoid any conflict of interest.
- Ex-Im Bank’s limited definition of default may result in an understatement of Ex-Im Bank’s historical default experience. Ex-Im Bank’s Default Policy limits the definition to “the failure to make a required debt or premium payment on a timely basis” and does not include the “failure to comply with other conditions in the loan agreement”. Although Ex-Im Bank’s current default policies are compliant with public Generally Accepted Accounting Principles (GAAP), they do not subject troubled borrowers to the same scrutiny as under private sector GAAP.³⁰

30 For example, under Moody’s definition of default, a default is said to occur if there is a missed or delayed disbursement of interest and/or principal, including delayed payments made within a grace period; the company files for bankruptcy, administration, legal receivership, or other legal blocks to the timely payment of interest or principal; a distressed exchange occurs, i.e., the borrower offers banks/bondholders a new security or a package of securities that represent a diminished financial obligation.

Ex-Im Bank's asset management personnel actively tracks "obligors of concern", but the review is subjective in nature and not systematic. Moreover, Ex-Im Bank's current IT system does not automatically track compliance with the underlying requirements of the credit documentation, such as credit covenants, and is unable to provide an 'early warning' system for potentially vulnerable credits.

This may result in an understatement of Ex-Im Bank's historical default experience and exposure to potentially vulnerable credits because: (i) transactions that were restructured prior to a claim being paid to the guaranteed lender or the 180-day window with respect to a direct loan may not fall under the definition of a default; (ii) the definition of default used in the PD/LGD model focuses on payment default and typically excludes the violation of affirmative and certain negative covenants; (iii) the definition of payment default excludes other fees due to Ex-Im Bank such as commitment fees; and (iv) restructured deals that result in terms that are less favorable to Ex-Im Bank may be excluded from the definition of defaulted deals.

Ex-Im Bank's Growing Portfolio and Emerging Risk Trends Require a Strong Risk Management Function

As we discussed above, in the last five years, Ex-Im Bank's risk trends have changed in several ways, including a decline in total loss reserves, an increase in impaired assets compared to its total loss reserves, increased portfolio concentrations, and a migration from sovereign to private sector exposure. At the same time, total portfolio exposure has grown by 24 percent to \$99 billion as of May 2012, compared to \$75.2 billion in September 30, 2010. Moreover, Ex-Im Bank's authority to extend credit has been increased from \$100 to \$120 billion in FY 2012, and will be raised to \$130 billion in FY 2013, and \$140 billion in FY 2014 (provided Ex-Im Bank meets certain criteria). Given this record growth, Ex-Im Bank must have in place a robust risk management function to handle this increase in a prudent manner.

During periodic meetings with OCFO, the OIG discussed the above deficiencies as well as the need to improve both the reporting transparency and IT platform in order to implement risk management best practices. In addition, the OIG cited several examples of other federal agencies and institutions that have a CRO to oversee risk policy and strengthen the risk oversight function. These federal credit agencies and institutions include the Small Business Administration, the Overseas Oversea Private Investment Corporation, the U.S. Agency for International Development, the Millennium Challenge Corporation, the Department of Energy's Loan Programs Office, the Multilateral Investment Guarantee Agency (member of the World Bank Group), and the Inter-American Development Bank. In addition, the OIG shared the results of earlier research on the risk management practices of other foreign export credit agencies — most of whom have a CRO to manage the risk management function.³¹

31 ECA respondents included Export Development Canada (EDC), SACE, Euler Hermes, Ex-Im Bank, Finnvera, Atradius, UK Export Finance (formerly ECGD), Export-Import Bank of Korea (K-Exim), Export Guaranty and Insurance Corporation (EGAP), EKF, EKN.

OCFO responded that they would take these observations under advisement.

Recommendation:

- 5) Ex-Im Bank should create the position of CRO to oversee the design and implementation of an agency-wide risk management function. The CRO should have sufficient independence in the organizational structure from the business units whose activities and exposures it reviews. Working with Ex-Im Bank senior management and the Board of Directors, the CRO would be responsible for drafting, presenting, and then implementing approved key risk policies including a portfolio risk mitigation policy, a financial model governance policy, as well as broader financial governance issues.

Management Response:

Management disagrees with this recommendation. Ex-Im's current risk management architecture encompasses the functions noted above – but includes an important separation of duties between policy-setting and credit risk monitoring post closure. The broad functional divisions are as follows: the Credit Risk Management Division, under the leadership of an SVP, Ken Tinsley, is responsible for setting the broad credit policies for Ex-Im Bank as well as leading the ICRAS sovereign risk rating process and the engineering division. This division also reviews certain higher-risk transactions. Once a credit has been approved, responsibility for monitoring credit quality and repayment performance shifts to the OCFO, under the leadership of Ex-Im Bank's CFO, David Sena. The OCFO monitors changes in credit quality and determines adequate reserve levels.

The CFO and the SVP of Credit Risk Management serve as Co-Chairs of Ex-Im's Credit Policy Committee. This Committee sets broad Credit Policy, underwriting standards, reviews changes in ICRAS ratings and the Country Limitation Schedule, and studies "lessons learned" from Ex-Im Bank's monitoring division such that they can inform credit policy.

Evaluation of Management's Response:

Ex-Im Bank faces a broad spectrum of risks in fulfilling its strategic mission. Ex-Im Bank's approach to risk mitigation is largely fragmented and does not address the totality of enterprise risk, nor how these risks may interrelate. OIG believes that an independent, agency-wide risk assessment is required to help set agency wide risk tolerances and risk mitigation policies. OIG considers this recommendation as open or "non-concurrence".

Recommendation:

- 6) Ex-Im Bank's Board of Directors should amend its by-laws to include the oversight of an agency-wide risk management function covering the full range of credit, operational, and other risks.

Management Response:

Management disagrees with this recommendation. The role of the Board of Directors of Ex-Im Bank is set forth in the Charter and does not include the recommended oversight function. By way of the Charter, the President of

Ex-Im Bank has broad operational authority for the management of Ex-Im, including oversight of all of Ex-Im Bank's risk management functions – credit, operational, and other risks. The by-laws of Ex-Im Bank established an Audit Committee responsible for certain activities relating, among other things, to Ex-Im Bank's financial statements and independent accountants. In this capacity, the Audit Committee may undertake certain projects regarding risk management and communicate the findings therefrom to the Chairman and President of Ex-Im Bank.

By way of background, the sections of the by-laws relating to the Audit Committee were adopted prior to the appointment of an Inspector General for Ex-Im Bank and, as a result, no longer accurately reflect the duties which the Audit Committee should have. Having consulted earlier this year with Management, the Audit Committee nonetheless elected to keep the current by-laws as they are.

Evaluation of Management's Response:

OIG will consider this recommendation as open or "non-concurrence".

Recommendation:

- 7) Ex-Im Bank should review current risk metrics and reporting procedures with a view to enhance transparency and to better inform key stakeholders.

Management Response:

Ex-Im Bank does review current risk metrics and reporting procedures. Ex-Im Bank policy is to be transparent and open regarding our many procedures and policies. Ex-Im Bank will continue, in the future, to review current risk metrics and reporting procedures. For example, Ex-Im Bank develops and publishes an annual report which is reviewed and audited by Ex-Im Bank's external auditors. This annual report highlights many of Ex-Im Bank's current risk metrics and reporting procedures. Additionally, Ex-Im Bank, through the Audit Committee, will identify portfolio management best practices. This review, conducted by subject matter experts, is starting in September 2012. Consistent with the Re-Authorization Act of 2012, Ex-Im Bank has also developed a comprehensive default report which will be reported quarterly to key stakeholders. The first report is, as of September 18th 2012, currently under review awaiting clearance by the Office of Management and Budget. Ex-Im Bank expects to submit this report to key stakeholders later this month. These examples and other reviews are used as the basis for Ex-Im Bank's underlying philosophy to continuously seek ways to improve upon policies and procedures as well as to maintain transparency and better inform key stakeholders. Ex-Im Bank will continue these efforts now and in the future.

Evaluation of Management's Response:

OIG recognizes Ex-Im Bank's recent initiatives to improve current risk metrics and reporting procedures. Management's proposed actions are responsive; therefore, the recommendation is resolved and will be closed upon completion and verification of the proposed actions.

III. Evaluation Objectives, Scope, and Methodology

The purpose of this evaluation was to ascertain whether Ex-Im Bank's loss reserve allocation and portfolio risk mitigation policies are sufficiently robust to support its long-term growth objectives, while providing an adequate cushion for future credit losses. The need for a comprehensive review of these policies is driven in large part by Ex-Im Bank's significant asset growth over the past five years, changes in the composition of its product portfolio, the challenging economic environment, Congressional interest and the perceived absence of policies regarding portfolio risk measurement and mitigation. To this end, the objectives of the evaluation were:

- To review and assess Ex-Im Bank's loss reserve allocation and portfolio risk measurement policies in light of Ex-Im Bank's rapid asset growth, balance sheet trends, and the challenging economic environment.
- To review portfolio risk management best practices adopted by foreign ECA's, U.S. federal agencies, multilateral financial organizations, and private sector financial institutions and benchmark these best practices against Ex-Im Bank's policies and procedures.
- To highlight the areas where Ex-Im Bank performance departs from portfolio risk management best practices and to provide specific recommendations for future action.

Our research is informed by several principal sources: (i) a review of Ex-Im Bank's internal reporting systems and related management reports; (ii) interviews conducted with Ex-Im Bank staff, ECA peers, U.S. government agencies, and international financial agencies; (iii) a review of U.S. government accounting practices; and (iv) a review of current literature on private sector risk management practices as well as U.S. and international banking regulatory guidance.

Several points of inquiry guided the evaluation:

- What are Ex-Im Bank's policies and procedures to manage aggregate portfolio risk? Do these policies reflect best practices?
- Does Ex-Im Bank conduct scenario analysis on a systematic basis?
- What impact (if any) will Ex-Im Bank's unique portfolio characteristics and current balance sheet trends have on future loss reserve adequacy?
- To what extent do portfolio concentrations and co-variance among industry sectors and risk factors present incremental risk to Ex-Im Bank in the event of systemic market disruptions?
- How can Ex-Im Bank improve the predictive ability of its loss forecasting model? The scope of the evaluation consisted of three phases, each with specific deliverables.

Phase I: Planning, Research, Compliance

- Design and organize the program evaluation. Key deliverables include the scope, methodology, objectives, timetable, and points of inquiry.

Phase II: Research and Analysis

- Review Ex-Im Bank policies and procedures related to portfolio risk management and reserve allocation.
- Interview key Ex-Im Bank personnel including Credit Policy Group and OCFO.
- Interview other ECA's, U.S. federal agencies, and other financial entities to establish best practices.
- Research U.S. regulatory guidance from OMB and U.S. banking authorities.
- Research private sector best practices.

Phase III: Verification and Final Report

- Validate the results of the study.
- Produce a final report providing specific recommendations to Ex-Im Bank management

The OIG conducted this study during 2011 and 2012 in accordance with generally accepted inspection standards as defined by The Council of Inspectors General. Those standards require that we plan and perform the evaluation to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our evaluation objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our objectives.

APPENDIX A. SUMMARY OF EX-IM BANK BALANCE SHEET TRENDS AND RISK FACTORS

Table 1: Ex-Im Bank's Sovereign vs. Private Exposure

Exposure Type	FY 2007 Percentage Total	FY 2008 Percentage Total	FY 2009 Percentage Total	FY 2010 Percentage Total	FY2011 Percentage Total
Private	58.0	59.5	61.1	67.2	68.6
Sovereign	42.0	40.5	38.9	32.8	31.4
<i>Total</i>	<i>100.0%</i>	<i>100.0%</i>	<i>100.0%</i>	<i>100.0%</i>	<i>100.0%</i>

Source: U.S. Export-Import Bank Annual Report, 2011, p. 46

Table 2: Ex-Im Bank's Portfolio Exposure to Geographic Regions

Geographical Region	FY 2007 Percentage Total	FY 2008 Percentage Total	FY 2009 Percentage Total	FY 2010 Percentage Total	FY 2011 Percentage Total
Asia	41.8	40.9	41.6	36.8	36.9
Latin America & Caribbean	23.0	23.3	20.9	20.7	22.1
Europe	10.8	11.0	10.1	10.5	12.1
North America	8.4	8.8	9.0	10.3	10.5
Oceania	2.4	1.9	2.1	6.1	6.0
Africa	6.7	6.9	6.7	6.6	5.4
Other	6.9	7.2	9.6	9.0	7.0
<i>Total</i>	<i>100.0%</i>	<i>100.0%</i>	<i>100.0%</i>	<i>100.0%</i>	<i>100.0%</i>

Source: U.S. Export-Import Bank Annual Report, 2011, p. 46

Table 3: Ex-Im Bank's Portfolio Exposure to Industry Sector

Percentage of Portfolio	FY 2007	FY 2008	FY 2009	FY 2010	FY2011
Air Transport	44.5	47.3	48.8	47.0	48.2
Manufacturing	7.7	8.4	6.8	11.8	14.0
Oil and Gas	12.3	12.8	11.8	13.8	12.2
Power Projects	7.1	6.6	6.5	6.1	7.6
Other Sectors	28.4	24.9	26.1	21.3	18.0
<i>Total</i>	<i>100.0%</i>	<i>100.0%</i>	<i>100.0%</i>	<i>100.0%</i>	<i>100.0%</i>

Source: U.S. Export-Import Bank Annual Report, 2011, p. 46

Table 4: One Obligor Concentrations

Obligor	\$ Amount Exposure \$90bln	Exposure as Percentage of Total Assets	Exposure as Percentage of Total Reserves (\$4bln)
Pemex	\$5.1 billion	5.7%	127%
Ryanair	\$3.8 billion	4.2%	95%
Air India	\$3.6 billion	4.0%	90%
PNG LNG	\$3.0 billion	3.3%	75%
Reficar	\$2.7 billion	3.0%	67.5%

Source: U.S. Export-Import Bank Quarterly Report, March 31, 2012, p. 39-42

Table 5: Predictor Interval Levels per Product Line

Product	2009	2010	2011	2012	2013
Long Term Guarantee	N/A	unadjusted	95%	85%	80%
Medium Term Guarantee	N/A	unadjusted	95%	85%	70%
Medium Term Insurance	N/A	unadjusted	95%	85%	70%
Short Term Insurance	N/A	unadjusted	95%	85%	80%

Source: Internal Ex-Im Bank reports.

NB: Prior to FY 2011, Ex-Im Bank used the median score

APPENDIX B. FEDERAL CREDIT REFORM ACT & REGULATORY FRAMEWORK

Federal Credit Reform Act

Ex-Im Bank reports under generally accepted accounting principles (GAAP) in the United States applicable to federal agencies and is subject to the Federal Credit Reform Act of 1990 (FCRA). FCRA was passed by Congress to more accurately account for the present value costs of U.S. Government credit programs.

Ex-Im Bank calculates the probability-weighted loss of each transaction separately, following a “bottom up” approach to risk measurement framework as prescribed by the FCRA. According to management’s estimates, Post Credit Reform assets constitute over 95 percent of Ex-Im Bank’s total portfolio at FY2011. Ex-Im Bank’s financial statements are prepared in accordance with Office of Management and Budget (OMB’s) Circular A-136, Financial Reporting Requirements, revised as of October 27, 2011 issued by OMB. In addition, Ex-Im Bank uses OMB Circular A-11 as the primary guidance for calculating program costs associated with the its transactions, and OMB Circular A-129 for its default policy. These publications do not, however, provide specific guidance on portfolio risk matters.

Following OMB Circular A-11, Ex-Im Bank determines its program costs by calculating the net present value of expected cash inflows (receipts) and cash outflows (disbursements) related to new authorizations. Receipts typically comprise fees, loan principal and interest, while cash disbursements typically include claim payments and loan disbursements. A net outflow of expected funds results in a program cost or “subsidy”, while.” While a net inflow of expected funds results in a “negative subsidy.”

The FCRA requires measuring the fiscal year subsidy costs of finance programs by estimating the cost of each individual transaction on a net present value basis. Ex-Im Bank loans, guarantees, and insurance result in a positive subsidy cost, that is the Government incurs a cost for extending credits to customers, when the net present value of expected cash disbursements (such as claim payments) exceeds the expected cash receipts (such as fees or loan principal and interest payments), excluding administrative costs. Conversely, when the expected cash receipts exceed the net present value of expected cash disbursements the subsidy cost is negative, and the transactions generate a positive return to the Government.

Ex-Im Bank uses an expected loss credit model to determine the appropriate level of reserves needed to cover expected losses. The model utilizes an Excel-based, linear regression analysis that builds upon Ex-Im Bank’s historical loss and recovery experience for each risk rating and product line to determine the loss ratio (LR), the percentage loss that Ex-Im Bank can expect for each dollar of loan disbursement or guarantee provided. In general, Ex-Im Bank uses historical experience to estimate the probability of default as well as the loss given default. The probability of default (PD) is the likelihood that a transaction would go into default where the loss given default (LGD) gives the estimated loss, net of recoveries and expenses, if a default occurred. Multiplying PD times LGD gives the LR.

Interagency Country Risk Assessment System

A central component of the FCRA is the Interagency Country Risk Assessment System (ICRAS). ICRAS is used to determine a common sovereign and non-sovereign risk rating which all U.S. Government agencies must utilize for their cross-border loan, guarantee, and insurance programs. ICRAS ratings, also referred to as budget cost levels (BCLs), reflect the risk that foreign governments and enterprises will not repay their debts to the U.S. in the medium term. ICRAS rates countries on the basis of economic, political, and social variables.

Implementing ICRAS required Ex-Im Bank to transition from a cash to an accrual accounting basis. For each transaction Ex-Im Bank authorizes, a specific subsidy is calculated on the basis of the transaction's inherent risks. The subsidy component of a transaction is determined by the net present value of expected losses (i.e., costs) and fees (i.e., income) for that particular transaction. The former are largely determined by the ICRAS rating while the latter are largely determined by the Organization for Economic Co-operation and Development (OECD) Arrangements (OECD, 2011) rating. Under credit reform, OMB is responsible for determining the expected loss rates associated with each ICRAS risk rating and maturity level.

APPENDIX C. COMPARISON OF LOSS RESERVE METHODOLOGY

Approach Topic	Incurred Loss Model	Expected Loss Model	Fair Value-base Model	Dynamic provisioning
Initial determination of the effective interest rate(EIR)	Based on initial measurement and expected (contractual) cash flows (but ignoring future credit losses)	Base on initial measurement and expected cash flows (including future credit losses)	Base on initial measurement and expected cash flows (including future credit losses)	Base on credit risks over the full economic cycle (can relate to assets not yet held)
Trigger for impairment test	Required; indicator-based (i.e., evidence to support loss has been incurred)	No trigger (continual re-estimation of expected cash flows)	Both indicator and value-base possible Trigger is likely to be required	Agreed rules and automatic triggers for build-up and release of the provision
Measurement of revised carrying amount	Expected cash flows reflecting incurred losses discounted at the original EIR (for fixed rates instruments)	Continuously updated expected cash flows reflected expected losses discounted at the original EIR (for fixed rate instruments) No market adjustments Includes future credit losses	Fair value (if less than carrying amount) Including credit related changes (e.g., liquidity) in fair value	Formula driven, creating day-one losses. Competent authority to determine parameters
Reversals and related gains	Reversals required if triggered by event after recognition of impairment loss Up to amortized cost	Automatically by adjusting the expected cash flows (no trigger required) Upper limit is the full contractual cash flows discounted at the original EIR	Reversals possible Could be based on triggers or value recovery only	Declines in the provision shall be reflected as a value adjustment (recognized in P&L to offset losses in an economic downturn)

Source: IASB Agenda Paper 5A, "Comparison Between Possible Impairment Approaches", May 2009.

APPENDIX D. LIST OF ACRONYMS

ALLL	Allowance for Loan and Lease Losses
BCBS	Basel Committee on Banking Supervision
BCL	Budget Cost Level
CDS	Credit Default Swaps
COSO	Committee of Sponsoring Organizations of the Treadway Commission
ECA	Export Credit Agency
Ex-Im Bank	Export-Import Bank of the United States
FCRA	Federal Credit Reform Act of 1990
Federal Reserve	The Board of Governors of the Federal Reserve System
FDIC	Federal Deposit Insurance Corporation
FY	Fiscal Year
GAAP	Generally Accepted Accounting Principles
GAGAS	Generally Accepted Government Accounting Standards
IACPM	International Association of Credit Portfolio Managers
ICRAS	Interagency Country Risk Assessment System
LGD	Loss Given Default
LR	Loss Ratio
OCC	Office of the Comptroller of the Currency
OCFO	Office of the Chief Financial Officer
OIG	Office of Inspector General
OMB	U.S. Office of Management and Budget
PD	Probability of Default
PI	Predictor Interval

APPENDIX E. REFERENCES

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APPENDIX F. MANAGEMENT RESPONSE



EXPORT-IMPORT BANK
of the UNITED STATES

September 18, 2012

TO: Alice Albright, Chief Operating Officer

FROM: David M. Sena, SVP and Chief Financial Officer
Kenneth Tinsley, SVP and Chief Credit Risk Officer

RE: Management Response to OIG Report on Portfolio Risk and Loss
Reserves Allocation Policies

Please find attached the Bank's responses to the Office of Inspector General's Report on Portfolio Risk and Loss Reserve Allocation Policies. The recommendations in this report helped the Bank address Portfolio Risk to improve the Bank's Loss Reserve Allocation policies. Ex-Im Bank believes in continuous improvement, especially in this topic area. As can be ascertained from our responses to this Report, the Bank has already addressed a number of the OIG recommendations this year.

Please find a detailed response to the all recommendations in the OIG Report:

1] Recommendation:

Ex-Im Bank should develop a systematic approach to identifying, measuring, pricing, and reserving for portfolio risk, including the identification of appropriate qualitative risk factors to account and reserve for such risk. Ex-Im Bank should incorporate these factors into its loss allowance analysis both retrospectively and prospectively. The former will ensure that Ex-Im Bank has properly reserved for existing exposure while the later will address future exposure.

Management Response:

Ex-Im Bank agrees with the recommendation. Upon the conclusion of the FY 2011 audit, Ex-Im Bank evaluated the incorporation of qualitative factors as components to the overall credit loss factors. Starting in December, 2011, Ex-Im Bank

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implemented a systematic approach on the development of the Bank's annual credit loss factors. These credit loss factors incorporate qualitative factors which include measuring and reserving for portfolio risk. It is currently under review by the Bank's outside auditors and the Office of Management and Budget (OMB). As of September 18, 2012, Ex-Im Bank has not received OMB approval on these revised credit loss factors. Upon approval, the Bank expects to implement these new credit loss factors in September 2012 as part of the annual re-estimate process.

2] Recommendation:

Together with external subject matter experts, OCFO should design and implement a formal governance framework for the use of financial models. This framework should include policies and procedures for model-validation including external validation of the model's integrity, model ownership and testing.

Management Response:

Ex-Im Bank agrees with the recommendation. Upon the conclusion of the FY 2011 audit, Ex-Im began the process of designing and implementing a formal governance framework on the Bank's financial models. As part of this process, in May 2012, Ex-Im Bank contracted with KPMG to review, assess, and evaluate the Bank's qualitative factors developed this year. KPMG served as external subject matter experts providing review, analysis, and feedback. Consistent with the KPMG review, Ex-Im Bank will incorporate external validation of future financial models. It is also important to note that the overall model is currently under evaluation and review by both the Bank's outside auditors as well as the Office of Management and Budget. This review occurs on an annual basis. Ex-Im Bank, as part of its efforts to continuously improve, will build and strengthen the formal governance framework related to the financial models.

3] Recommendation:

Ex-Im Bank should develop a systematic approach to stress testing and should conduct stress testing at least annually as part of its re-estimate process.

Management Response:

Ex-Im Bank agrees with the recommendation. In the past, Ex-Im Bank has conducted ad-hoc stress tests. The Bank is in the process of setting up a systematic approach to stress testing to be managed from our Portfolio Reporting and Analysis section within the Office of the Chief Financial Officer. The Bank is currently developing this systematic approach which will be completed in early FY 2013.

Under this approach, the first stress test will focus on the aircraft portfolio. The Bank plans on doing both a “top down” stress test and a “bottom up” stress test. This approach is consistent with the International Association of Credit Portfolio Managers report entitled “Sound Practices in Credit Portfolio Management”. This stress test will be conducted in FY 2013.

4] Recommendation:

Ex-Im Bank should implement soft portfolio concentration sub-limits based on industry, geography, or asset class as internal guidance to manage risk tolerance levels and return parameters. Once exposure fees are in place, these guidelines can inform future pricing, risk management decisions, and business development new transactions.

Management Response:

Ex-Im Bank disagrees with this recommendation to implement soft portfolio concentration sub-limits. While Ex-Im Bank understands that the private sector typically employs portfolio limits in its risk management function, doing so is inconsistent with the demand-driven nature of Ex-Im’s mandate and business. The Bank’s long time policy has been to meet demand as long as it meets the requirement of a reasonable assurance of repayment. Any limits would impede the Bank’s ability to meet demand as well as adversely impact Ex-Im Bank’s competitiveness compared to other officially supported Export Credit Agencies. The Bank believes that the implementation of portfolio concentration limits whether soft or hard would result in the Bank picking “winners and losers”. The Bank does not believe that this role is mandated by our governance structure (i.e. Authorization) which was approved by the Congress and signed by the President.

It is also important to note that the September 2012 implementation of the qualitative factors will assist the Bank in identifying and managing the concentration issues noted in this recommendation.

5] Recommendation:

Ex-Im Bank should create the position of CRO to oversee the design and implementation of an agency-wide risk management function. The CRO should have sufficient independence in the organizational structure from the business units whose activities and exposures it reviews. Working with Ex-Im Bank senior management and the Board of Directors, the CRO would be responsible for drafting, presenting, and then implementing approved key risk policies including a portfolio risk mitigation policy, a financial model governance policy, as well as broader financial governance issues.

Management Response:

Management disagrees with this recommendation. Ex'Im's current risk management architecture encompasses the functions noted above – but includes an important separation of duties between policy-setting and credit risk monitoring post closure. The broad functional divisions are as follows: The Credit Risk Management Division, under the leadership of an SVP, Ken Tinsley, is responsible for setting the broad credit policies for the bank as well as leading the ICRAS sovereign risk rating process and the engineering division. This division also reviews certain higher-risk transactions. Once a credit has been approved, responsibility for monitoring credit quality and repayment performance shifts to the OCFO, under the leadership of the Bank's CFO, David Sena. The OCFO monitors changes in credit quality and determines adequate reserve levels.

The CFO and the SVP of Credit Risk Management serve as Co-Chairs of Ex-Im's Credit Policy Committee. This Committee sets broad Credit Policy, underwriting standards, reviews changes in ICRAS ratings and the Country Limitation Schedule, and studies "lessons learned" from the Bank's monitoring division such that they can inform credit policy.

6] Recommendation:

Ex-Im Bank's Board of Directors should amend its bylaws to include the oversight of an agency-wide risk management function covering the full range of credit, operational, and other risks.

Management Response:

Management disagrees with this recommendation. The role of the Board of Directors of the Bank is set forth in the Charter and does not include the recommended oversight function. By way of the Charter, the President of Eximbank has broad operational authority for the management of the Bank, including oversight of all of the Bank's risk management functions – credit, operational, and other risks. The Bylaws of the Bank established an Audit Committee responsible for certain activities relating, among other things, to the Bank's financial statements and independent accountants. In this capacity, the Audit Committee may undertake certain projects regarding risk management and communicate the findings therefrom to the Chairman and President of the Bank.

By way of background, the sections of the Bylaws relating to the Audit Committee were adopted prior to the appointment of an Inspector General for the Bank and, as a result, no longer accurately reflect the duties which the Audit Committee should

have. Having consulted earlier this year with Management, the Audit Committee nonetheless elected to keep the current By-Laws as they are.

7] Recommendation:

Ex-Im Bank should review current risk metrics and reporting procedures with a view to enhance transparency and to better inform key stakeholders.

Management Response:


Ex-Im Bank does review current risk metrics and reporting procedures. Ex-Im Bank policy is to be transparent and open regarding our many procedures and policies. The Bank will continue, in the future, to review current risk metrics and reporting procedures. For example, the Bank develops and publishes an annual report which is reviewed and audited by the Bank's external auditors. This annual report highlights many of the Bank's current risk metrics and reporting procedures. Additionally, the Bank, through the Audit Committee, will identify portfolio management best practices. This review, conducted by subject matter experts, is starting in September 2012. Consistent with the Re-Authorization Act of 2012, the Bank has also developed a comprehensive default report which will be reported quarterly to key stakeholders. The first report is, as of September 18th 2012, currently under review awaiting clearance by the Office of Management and Budget. The Bank expects to submit this report to key stakeholders later this month. These examples and other reviews are used as the basis for the Bank's underlying philosophy to continuously seek ways to improve upon policies and procedures as well as to maintain transparency and better inform key stakeholders. The Bank will continue these efforts now and in the future.

As you can see from the responses to the 7 recommendations, the Bank has made significant progress in addressing the recommendations. At your direction, we would be happy to review and update the OIG on our progress. Ex-Im Bank appreciates the open and collaborative nature of this report and looks forward to working with the OIG in the future on this topic area.

Cc: Fred Hochberg, President and Chairman, Export Import Bank of the U.S.

Acknowledgements

This report was prepared by Mark S. Thorum; Assistant Inspector General for Inspections and Evaluations; Office of Inspector General for the Export-Import Bank of the United States.



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