

DEFAULT RATE REPORT

AS OF
SEPTEMBER 2016



FISCAL YEAR 2016 (Q3) DEFAULT EXPERIENCE
EXPORT-IMPORT BANK OF THE UNITED STATES

Table of Contents

EXECUTIVE SUMMARY	2
MISSION	
REAUTHORIZATION	
DEFAULT RATE	
DEFAULT RATE	3
CONGRESSIONAL INTENT	
DEFINED	
ACTIVE PORTFOLIO	
EXPOSURE	
DEFAULT RATE: BY SUB CATEGORY	
BY REGION	
BY PRODUCT LINE	
BY INDUSTRY	
BY KEY MARKETS	
BY MANDATE	
RISK RATING: BY MANDATE	
AGING REPORT	9
CREDITS IN ARREARS	
HISTORICAL DEFAULT RATE	10
HISTORICAL DEFAULT RATE	
COMPONENTS OF HISTORICAL DEFAULT RATE: CALCULATION	
CROSSWALK TO ACTIVE PORTFOLIO AND CURRENT EXPOSURE	
STRESS TESTS	11
WHAT IS STRESS TESTING?	
WHY IS STRESS TESTING IMPORTANT?	
HOW DOES STRESS TESTING WORK?	
EXIM BANK STRESS TESTING PROTOCOL	
EXIM BANK STRESS TESTING RESULTS	
EXIM BANK FUTURE STRESS TESTING	
APPENDIX	13
COMPONENTS OF DEFAULT RATE: DISBURSEMENTS	
COMPONENTS OF DEFAULT RATE: GROSS DEFAULTS	
COMPONENTS OF DEFAULT RATE: RECOVERIES AND EXPENSES	
COMPONENTS OF DEFAULT RATE: CALCULATION	
DEFAULTS: BY COUNTRY	
DEFINITIONS	19
MANDATES	20



Executive Summary

MISSION

The mission of the Export-Import Bank (“EXIM Bank” or “Bank”) is to enable U.S. companies of all sizes to turn export opportunities into sales that maintain and create U.S. jobs and contribute to a stronger national economy. The Bank achieves this mission by providing export financing through its loan, guarantee, and insurance programs in cases where the private sector is unable or unwilling to provide financing. EXIM Bank also steps in when financing support is necessary to level the playing field for U.S. exporters that are in competition with foreign companies supported by financing from their official foreign export credit agencies (ECA).

STATUTORY REQUIREMENT

On May 30, 2012, President Obama signed Public Law 112-122, the Export-Import Bank Reauthorization Act of 2012. Section 6 of the 2012 Reauthorization Act requires:

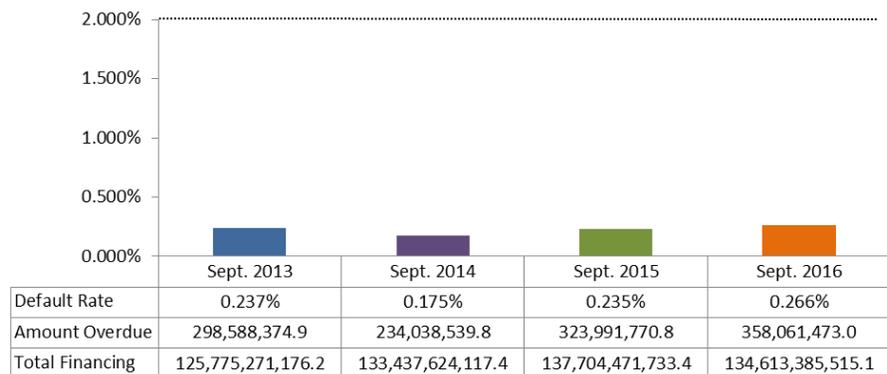
“(1) MONITORING OF DEFAULT RATES.—Not less frequently than quarterly, the Bank shall calculate the rate at which the entities to which the Bank has provided short-, medium-, or long-term financing are in default on a payment obligation under the financing, by dividing the total amount of the required payments that are overdue by the total amount of the financing involved.”

On December 4, 2015, the President signed Public Law 114-94, the Export-Import Bank Reform and Reauthorization Act of 2015, which reauthorized the Bank through 2019 and renewed this provision. As mandated, EXIM Bank will continue to report on its default rate, as defined in the section above, on a quarterly basis corresponding to the quarters of the fiscal year. This report is as of September 2016 and is based on annually audited financial data.¹

DEFAULT RATE

The default rate² of the Export-Import Bank through September 30, 2016, is **0.266 percent** as shown in Exhibit 1. This rate reflects a “total amount of required payments that are overdue” (claims paid on guarantees and insurance transactions plus loans past due) equal to \$358.1 million divided by a “total amount of financing involved” (disbursements) equal to \$134.6 billion.³ This financing amount is different from EXIM Bank’s current exposure because it includes repayments and excludes authorized amounts that have yet to disburse.

Exhibit 1: Default Rate



¹ The data used to produce this report is generated from a new financial management system and from the same source accounting systems that produced the Bank’s previous annual audited financial statements. Although the external auditors do not express an opinion on the effectiveness of the Bank’s systems, the data used to support the financial statements is tested for accuracy on a sample basis. The Bank has received an unqualified opinion since 1989 regarding the presentation of the Bank’s financial statements.

² This default rate is different than the default rates published in the annual Budget Appendix due to differing definitions. The reported rate in the Budget Appendix reflects projected defaults over the life of the loan while the default rate in this report reflects actual defaults at a particular point in time.

³ The default rate is based on disbursements (not authorized amounts) as a default cannot occur on a transaction that has been authorized but not yet disbursed.

Default Rate

CONGRESSIONAL INTENT

In discussions with the House Financial Service Committee (HFSC) related to the reauthorization requirement on the monitoring of the default rate, the committee members cited Chairman Hochberg's testimony as the type of information required by this authorization language. In his testimony on May 24, 2011 before the HFSC, the Chairman stated "as a result of our diligent review and management of credit, the Bank has a loan loss rate⁴ [default rate] of roughly 1.5 percent – well below most commercial banks." That testimony is based on the Bank's historical experience on overall financed disbursements compared to net claims which included both recoveries as well as expenses. This report is consistent with the Chairman's testimony as it related to the default rate.

DEFINED

Section 6 of the 2012 Reauthorization Act mandated that the EXIM Bank calculate the "default on a payment obligation... by dividing the total amount of the required payments that are overdue by the total amount of the financing involved." The "total amount of required

$$\text{Overdue Payments} = \text{Defaults Paid} + \text{Expenses} - \text{Recoveries}$$

$$\text{Total Financing} = \text{Disbursements (Active)}$$

payments that are overdue", representing the numerator, is defined as claims paid on guarantees and insurance transactions as well as unpaid past due installments on loans in the Bank's active portfolio. For guarantees and insurance transactions, upon default of a payment obligation⁵, EXIM Bank pays a claim to the guarantors or the insured parties. As this report is based on the Bank's portfolio through September 2016, all expenses incurred related to the Bank's recovery efforts are added to the amount overdue. Recoveries to that point reduce the amount overdue in connection to the specific claim paid or the loan in arrears. All recovered amounts are discounted to the time of claim payment or when the direct loan went into arrears. The "total amount of financing involved," the denominator, is defined as the disbursed⁶ financing under the Bank's programs to support U.S. exports. After a credit is approved, the value of the goods and services financed by EXIM Bank is recorded once they are delivered (or disbursed) to the buyer. Depending on the type of goods and services financed, the delivery (or disbursement) can occur over a period of years.

ACTIVE PORTFOLIO

EXIM Bank's credits have a defined repayment schedule that generally ranges from one year to fifteen years or more. Most credits have quarterly or semi-annual repayment terms; however, repayment terms can vary among EXIM Bank's programs and products. A disbursed loan, guarantee, or insurance policy that has a repayment schedule where the final repayment date is after the date of this report is included

Active Credit Example: A long term guarantee authorized in FY 2007 with a 10 year repayment term (the deal matures in FY 2017)

Inactive Credit Example: A long term guarantee in FY 1994 with a 10 year repayment term (the deal matured in FY 2004).

⁴ The loan loss rate does not include the fees that the Bank charges for the transaction that it finances.

⁵ Upon receipt of request for a claim payment by the lending institution, EXIM Bank performs claim procession functions.

⁶ Disbursements include loans, guarantees and insurance.

as part of the active portfolio. Any installment due within the repayment schedule up to the date of this report that has not been paid is considered to be in default.

On the Bank's active portfolio, a total of \$134.6 billion of goods and services⁷ have been delivered to foreign buyers of American-made products. These products are supported by EXIM Bank's loan, guarantees and insurance programs. Of this amount, the Bank has gross defaults of \$361.5 million, incurred expenses related to those payments of \$1.5 million, and recovered \$4.9 million for net defaults of \$358.1 million. This results in a default rate through the time period ending September 2016 equal to 0.266 percent.

EXPOSURE

EXIM Bank's exposure differs from the total financing amount because it includes repayments and authorized amounts that have yet to disburse. As of September 30, 2016, the Bank's exposure stood at \$87.3 billion. The Bank's Charter, as amended by the Export-Import Bank Reform and Reauthorization Act of 2015, stipulates that the Bank shall not have an exposure exceeding \$135.0 billion. Additionally, Section 6(A) of the Charter now requires that:

“(3) Freezing of lending cap if default rate is 2 percent or more. If the rate calculated under section 8(g)(1) is 2 percent or more for a quarter, the Bank may not exceed the amount of loans, guarantees, and insurance outstanding on the last day of that quarter until the rate calculated under section 8(g)(1) is less than 2 percent.”

As of September 30, 2016, the default rate is 0.266 percent, which is below the 2 percent threshold identified in Section 6(A) of the Charter. With the current default rate below 2 percent, EXIM Bank's current lending cap remains \$135.0 billion.

⁷ This includes local costs, capitalized interest during construction, and foreign content derived from co-financing and short-term commitments.



Default Rate

DEFAULT RATE: BY SUB CATEGORY

Section 6 of the 2012 Reauthorization Act requires:

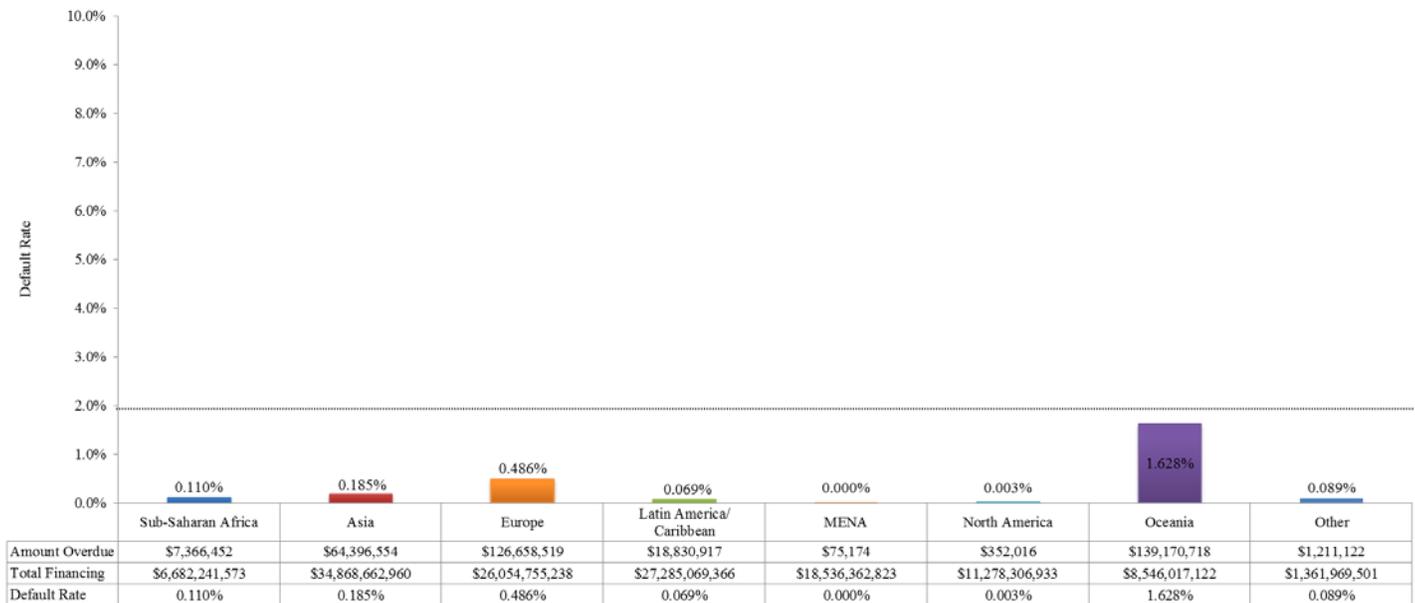
“(2) ADDITIONAL CALCULATION BY TYPE OF PRODUCT, BY KEY MARKET, AND BY INDUSTRY SECTOR; REPORT TO CONGRESS.—“

As mandated by the 2012 Reauthorization Act and defined above, EXIM Bank has calculated default rates based on each sub category as of September 30, 2016.

BY REGION

EXIM Bank breaks out its transactions into seven regions: Africa, Asia, Europe, Latin America/Caribbean, Middle East/North Africa (MENA), North America, Oceania, and other. As shown in Exhibit 2, EXIM Bank’s default rate is below 2 percent within each of these regions.

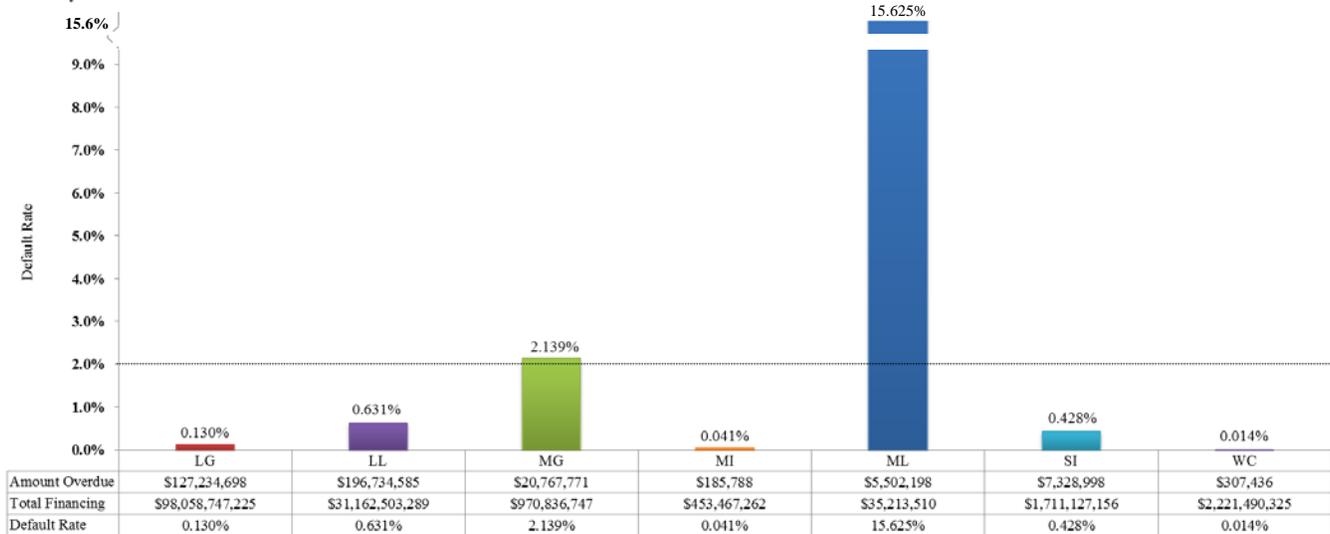
Exhibit 2: By Region



BY PRODUCT LINE

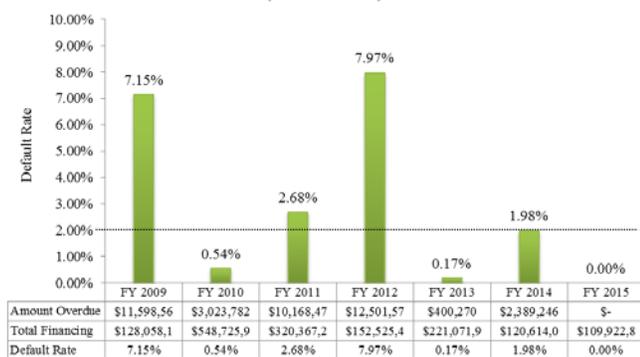
EXIM Bank’s loans, guarantees, and insurance program are broken out by separate product lines: Long Term Guarantees (LG), Long Term Loans (LL), Medium Term Guarantees (MG), Medium Term Insurance (MI), Medium Term Loans (ML), Short Term Insurance (SI) and Working Capital Guarantees (WC). In general, Short Term Insurance and Working Capital Guarantees transactions are less than 1 year, Medium Term Loan and Guarantee transactions are between 1 and 7 years and under \$10 million and finally, Long Term Loan and Guarantee transactions are over 7 years or over one year and \$10 million and above.

Exhibit 3: By Product Line



As shown in Exhibit 3, all products except the medium-term guarantee and loan programs have a default rate below 2 percent. The default rate in the medium-term loan program is high due to an overall low level of total financing and one default. In previous reports, the Bank’s default rate for the medium-term guarantees and insurance transactions were more than 2 percent. The Bank had and continues to take steps to improve the medium-term portfolio. First, the Bank has moved to using underwriting standards similar to those of the long-term portfolio, which includes but is not limited to requiring collateral. The Bank has also established a monitoring group for this portfolio to proactively restructure distressed deals and prevent defaults or enhance recoveries. Finally, the Office of the Inspector General has significantly increased actions against fraudulent cases. As a result of the Bank’s actions, the default rates for both Medium Term Guarantee and Medium Term Insurance products have declined from 7.13 percent and 9.40 percent, respectively, in June 2012, to 2.14 percent and 0.04 percent, respectively, as of September 30, 2016. Medium Term Guarantees and Insurance represent 1.06 percent of the total amount of EXIM Bank financing.

Exhibit 4: Medium Term Guarantees (Recent Cohorts)



Medium Term Insurance (Recent Cohorts)



The performance of the medium-term products can be attributed to high defaults three to seven years ago. After implementing the above-referenced changes in underwriting and monitoring practices, EXIM Bank has begun to see its medium-term portfolio’s default rate improve dramatically. For medium-term products, defaults normally occur by the third year. This means FY 2012 authorizations act as a good proxy for future trends in the medium-term products. As shown in Exhibit 4, for all transactions approved since FY 2012, the medium-term portfolio, including both active and matured transactions, default rates have, on average, dropped to approximately 2 percent except for a few cohorts slightly above the threshold.

BY INDUSTRY

EXIM Bank's four largest industries are: Air Transportation, Manufacturing, Oil & Gas, and Power Projects⁸. Although these sectors account for 88.4 percent of the total amount of EXIM Bank financing, they have experienced a default rate below 2 percent as shown in Exhibit 5.

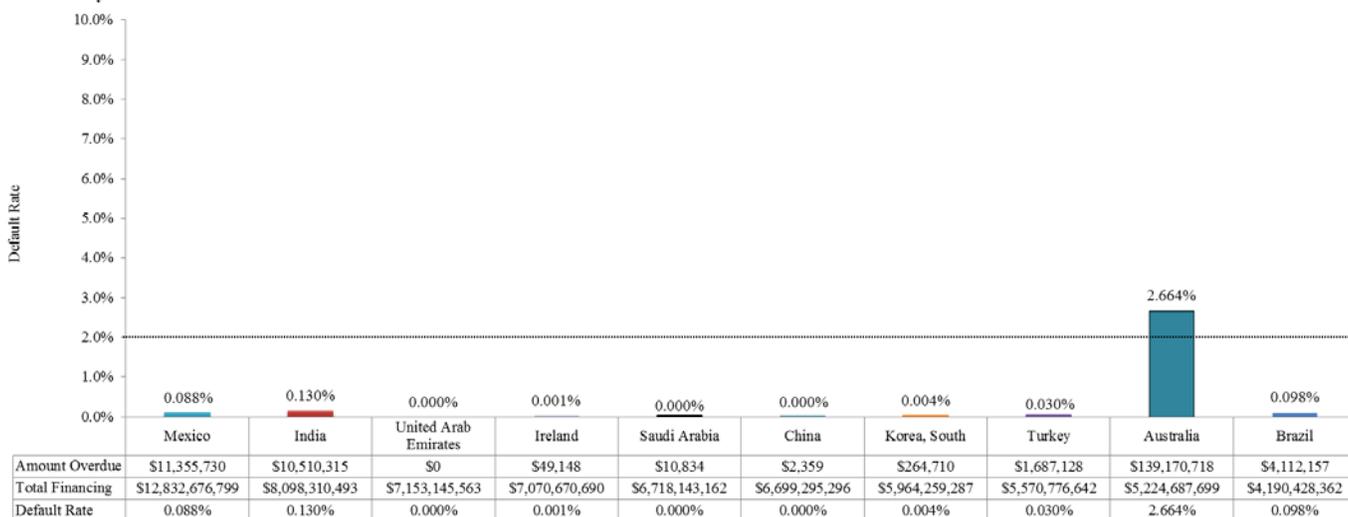
Exhibit 5: By Industry



BY KEY MARKETS

EXIM Bank has exposure in more than 162 countries as of September 30, 2016. As shown in Exhibit 6, the top ten markets, except for Australia, have experienced a default rate well below 2 percent.⁹

Exhibit 6: Key Markets



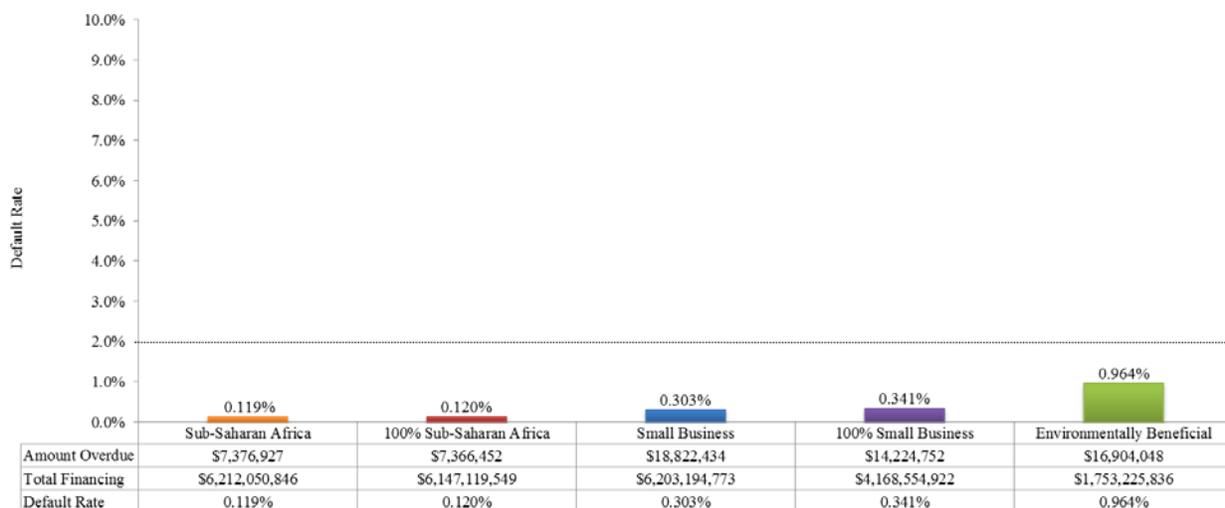
DEFAULT RATE: BY MANDATE

⁸ Formally named "Aircraft", "Mining – Oil & Gas" and "Utilities – Power Projects" respectively.

⁹ The 10 key markets reflect top ten markets by total financing.

EXIM Bank has congressional mandates to support Small Business, Environmentally Beneficial, and Sub-Saharan Africa transactions. These mandates account for 10.5 percent of the total amount of EXIM Bank financing. All mandates have experienced a default rate well below 2 percent as shown in Exhibit 7.

Exhibit 7: Mandates



Note: “Sub-Saharan Africa” and “Small Business” categories includes all transactions up to and including 100 percent while the “100% Sub-Saharan Africa” and “100% Small Business” categories only include transactions that are 100 percent.

RISK RATING: BY MANDATE

EXIM Bank risk rates its portfolio using a 1 – 11 budget cost level (BCL) scale. The ratings are based, in general, on a borrower’s (1) ability to make payments, as indicated by relevant economic factors and (2) willingness to pay, as indicated by payment record and political and social factors. Four categories, ratings 1 through 4, are roughly equivalent to “creditworthy” or “investment grade” private bond ratings. Three categories, ratings 9 to 11, are for countries either unable to pay fully, even with extended repayment periods, or currently unwilling to make a good faith effort. EXIM Bank does not use the BCL scale for the working capital and multi-buyer products as the Bank uses a portfolio analysis approach to evaluate these programs.

Using the BCL at time of authorization and based on the authorized amount, EXIM Bank’s active portfolio’s weighted average risk rating is 3.66, corresponding to an investment grade portfolio. In the chart below are the weighted average BCL for the various Bank mandates.

Category	Budget Cost Level
Sub-Saharan Africa	5.30
100% Sub-Saharan Africa	5.69
Small Business	3.24
100% Small Business	4.53
Environmentally Beneficial	3.77
Active Portfolio	3.66



Aging Report

AGING REPORT: SUMMARY

The Aging Report covers medium- and long-term credits that have principal payments in arrears that are not otherwise covered in the default rate. For insurance and guarantees, the aging report captures overdue principal payments for which the Bank has not paid a claim. Loan arrears account for principal payments that have been in arrears for less than 30 days. Principal payments that have been in arrears for more than 30 days are captured in the default rate. As of September 30, 2016, a total of approximately \$6.7 million in principal payments for medium- and long-term credits are in arrears. Approximately \$3.9 million in loan principal payments have been in arrears for less than 30 days.

76% of Insurance & Guarantee Arrears are Cured

Historically, a large majority of principal arrears are eventually cured (i.e. payment is received.) Since FY 2013, on average 76 percent of insurance and guarantee arrears have been cured.

CREDITS IN ARREARS

Guarantees & Insurance in Arrears		Loans in Arrears	
Days Overdue	Amount Overdue	Days Overdue	Amount Overdue
Less Than 30 Days	\$1,209,861	Less Than 30 Days	\$3,939,239
30 to 60 Days	\$252,966	30 to 60 Days	N/A
60 to 90 Days	\$753,531	60 to 90 Days	N/A
90 to 150 Days	\$563,039	90 Days or More	N/A
Total	\$2,779,397	Total	\$3,939,239

INSURANCE & GUARANTEES

As of September 30, 2016, \$2.8 million in principal payments for medium- and long-term insurance and guarantees are in arrears, and \$1.2 million worth of principal payments (or 18.7 percent of total arrears) is less than 30 days overdue.

DIRECT LOANS

As of September 30, 2016, \$3.9 million principal installments for active direct loans were in arrears for less than 30 days.

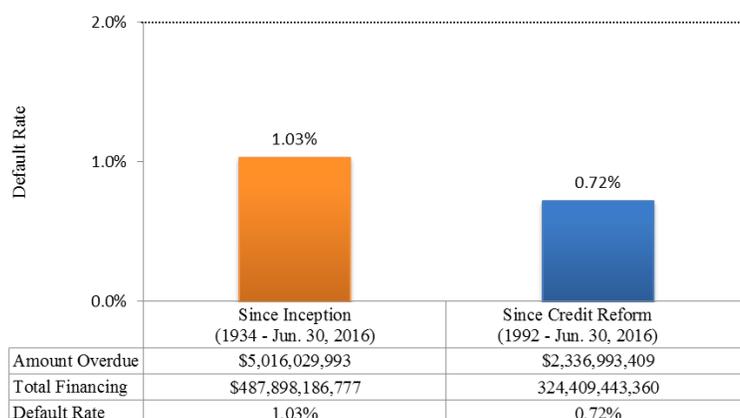
Historical Default Rates

HISTORICAL DEFAULT RATE

EXIM Bank was established in 1934. Since then, the Bank has disbursed \$487.9 billion in guarantees, insurance and direct loans. On all of EXIM Bank's disbursements, the Bank has defaults¹⁰ of \$13.5 billion and recoveries of \$8.4 billion, resulting in a historical default rate of 1.03 percent.

Looking at more recent experience, on credits authorized since 1992, the start of Federal Credit Reform Act (FCRA), the Bank has defaults of \$6.8 billion and recoveries of \$4.4 billion, resulting in a default rate of 0.72 percent. The Bank has historically collected more than 50 cents on the dollar for claims paid. EXIM Bank's historical default rates since 1934 and since 1992 are highlighted in Exhibit 8.

Exhibit 8: Historical Default Rate



COMPONENTS OF HISTORICAL DEFAULT RATE: CALCULATION

	Since Inception (1934 - Sept. 30, 2016)	Since Credit Reform (1992 - Sept. 30, 2016)
Total amount of required payments that are overdue	\$5,016,029,993	\$2,336,993,409
Defaults	13,459,726,058	6,766,519,092
Less Recoveries	8,443,696,065	4,429,525,683
Total amount of financing involved	\$487,898,186,777	\$324,409,443,360
Disbursements	487,898,186,777	324,409,443,360
Default Rate	1.03%	0.72%

¹⁰ This includes claims paid on guarantees and insurance transactions as well as direct loans in arrears and write-offs. It also includes non-discounted recovery amounts, but does not include any recovery expenses as that data was not available for this time frame.

Stress Tests

In addition to measuring the current default rate, EXIM Bank also examined the current portfolio to measure the future default rate under stressed scenarios. EXIM Bank performs regular stress testing of its portfolio to identify how the current portfolio may perform in the future under stressed scenarios. As the Basel Committee on Banking Supervision states, “Stress testing is an important risk management tool that is used by banks as part of their internal risk management.” The following section describes what stress testing is, why it is important, how to do stress testing, EXIM Bank stress test protocol, and recent results from EXIM Bank’s stress tests.

WHAT IS STRESS TESTING?

A simple definition of stress testing comes from the Federal Deposit Insurance Corporation in a Supervisory Insights article, where they say, “Stress testing is a forward-looking quantitative evaluation of stress scenarios that could impact a banking institution’s financial condition and capital adequacy.” The Federal Reserve has a similar definition where they state in their Guidance on Stress Testing for Banking Organizations with Total Consolidated Assets of More Than \$10 Billion, “For purposes of this guidance, stress testing refers to exercises used to conduct a forward-looking assessment of the potential impact of various adverse events and circumstances on a banking organization.” There are two main points from these definitions. First is that stress testing is forward-looking and second is that there are multiple stressed scenarios that could impact the current portfolio and current default rates.

WHY IS STRESS TESTING IMPORTANT?

EXIM Bank follows a formalized stress testing protocol. Consistent with Federal Reserve guidance, the Bank’s stress testing builds capacity to understand the Bank’s risks and the potential impact of stressful events and circumstances on the Bank’s financial condition. Stress testing is an important tool for portfolio management and risk mitigation. Furthermore, the International Monetary Fund in a paper about stress testing European banks, “Stress testing has become an essential and very prominent tool in the analysis of financial sector stability and development of financial sector policy.” The World Bank concurs with these other organizations when it states in a paper entitled Macroeconomic Stress Testing of Credit Risk, “Regular stress testing of the financial system is the main tool of macroprudential monitoring.” Finally, EXIM Bank’s Inspector General has opined on this subject and recommended that “EXIM Bank should develop a systematic approach to stress testing and should conduct stress testing at least annually as part of its re-estimate process.” Based on industry best practices and EXIM’s commitment to a comprehensive risk management framework the Bank has implemented a stress testing protocol.

HOW DOES STRESS TESTING WORK?

In a report by the International Association of Credit Portfolio Managers entitled, “Sound Practices in Credit Portfolio Management” there were two overarching recommendations for portfolio stress testing. The first was:

The 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.

The second recommendation was:



The institution should supplement the “top down” approach with a “bottom up” stress-testing process to measure the impact of adverse events on obligors, or sets of obligors, with significant exposures in the credit portfolio.

This paper was also cited in EXIM Bank Inspector General’s report on the Bank’s portfolio risk as a model to follow.

EXIM BANK STRESS TESTING PROTOCOL

EXIM Bank looked at different ways to perform both a top down analysis on the entire portfolio as well as a bottom up approach on certain sets of obligors. For the top down stress test the Bank decided to use a monte-carlo simulation approach, consistent with best practice. This approach allows the Bank to look at numerous scenarios. The Society of Actuaries in a report entitled Effective Stress Testing in Enterprise Risk Management cited that “the Monte Carlo simulation is one of the most widely used methods of stress testing.” This allows the Bank to use a forward looking approach that looks at numerous scenarios. The simulation takes every transaction in the Bank’s exposure and simulates whether it defaulted or not during the remainder of its term, based on the Bank’s most current loss rate model. In the default simulation, the total default amount less recoveries is calculated. This loss rate model has been recently reviewed by the Government Accountability Office and the Office of Management and Budget, as well as audited by Deloitte & Touche and KPMG. Each portfolio simulation takes every transaction and sums their respective default amounts. The total is the Bank’s loss for that simulation. The Bank then runs this same simulation 20,000 times to create a distribution of possible losses. There are a variety of outcomes and by creating a distribution it allows the Bank to look at the extreme tails of the distribution to see how the portfolio performs at its worst. This basically means that the Bank looked at 20,000 different lives of the portfolio. In some lives perhaps many more defaults occur than expected, others have fewer defaults than expected. By running so many different lives of the portfolio the Bank can isolate those times where many more defaults occur and look at the impact. The Bank is also able to put probabilities around the chance that these events could occur. Furthermore, the Bank looked at the results of these scenarios if NO recoveries occur. This is an extreme scenario as the Bank regularly collects more than 50 cents on the dollar for claims paid. Recoveries do take time and this scenario can show what the stressed default rate could reach with no recoveries, albeit temporarily.

Next, for the bottom-up approach, the Bank looked at some of its largest obligors and using applicable data from the Federal Reserve’s Comprehensive Capital Analysis and Review (CCAR) adverse and severely adverse scenarios. These scenarios were applied to the particular obligors and for the adverse scenario the average risk rating, which measure the risk of each obligor similar to a Moody’s or S&P credit rating but using a 1-8 scale. The Bank measured the impact on these obligors under the adverse and severely adverse scenario, resulting in a 1.2 notch and 2.5 notch downgrades, respectively. In effect, this would increase the riskiness for a typical transaction by 30 percent for adverse scenarios and 63 percent for severely adverse scenarios.

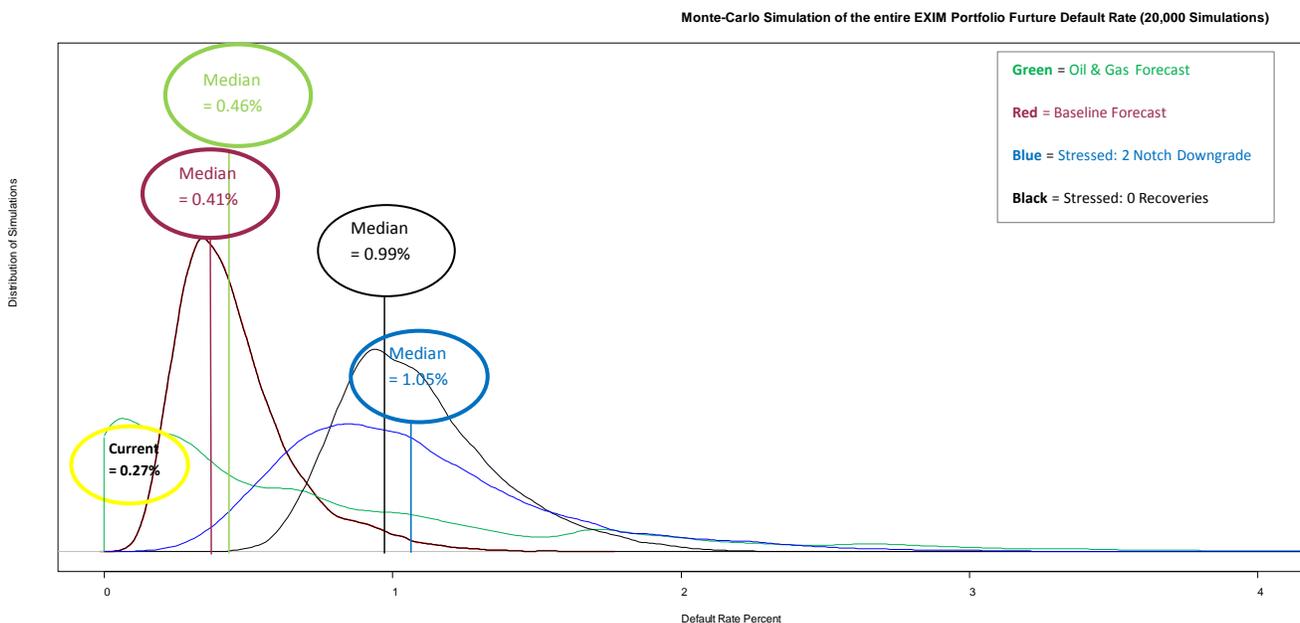
Next, the Bank ran another 20,000 trial simulations of the entire portfolio, but this time, based on the results of the obligor specific stress tests, each obligor was downgraded by two notches. This effectively moves an A1 rated credit to a Baa3 credit or a Baa3 to a Ba3 on the Moody’s scale. These various scenarios allow the Bank to look at its risk profile from a variety of perspectives and helps the Bank ascertain the current risk within the portfolio.



EXIM BANK STRESS TESTING RESULTS

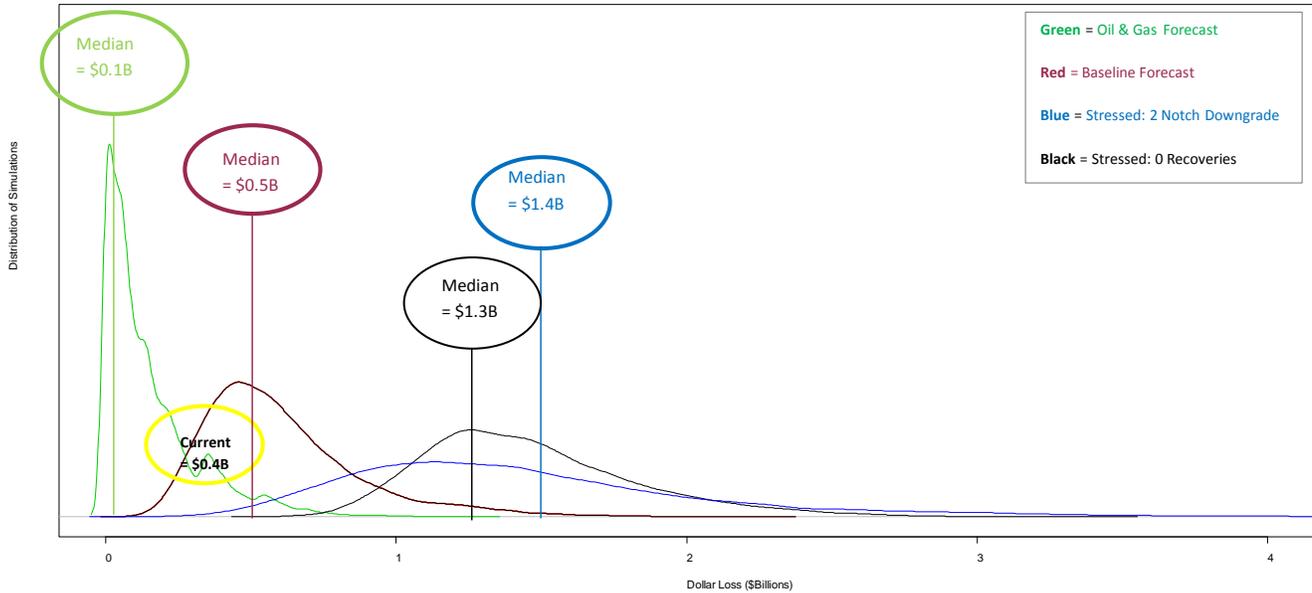
The results of the Bank's 20,000 trial monte-carlo simulation can be seen in the graph below. The default rate at the end of FY 2016 was 0.266 percent. Under the baseline forecast the median default rate for the current non-overdue portfolio is 0.41 percent with a 95 percent confidence level that it will be at 0.86 percent or lower. Under a stressed scenario where all of the ratings were downgraded by 2 notches, the median default rate would increase to 1.05 percent with a 95% confidence level that the default rate would be below 1.62 percent. Finally, under a stressed scenario where none of the defaults were ever recovered the median default rate would be 0.99 percent, with a 95 percent confidence level that it would be below 2.01 percent. The median values under each of the two stressed scenarios are still under 2 percent.

An addition to this year's stress test was the addition of stress testing the Oil & Gas portfolio. The entire Oil & Gas portfolio has a current default rate of 0.00 percent at the end of FY 2016. Under the baseline forecast for the current Oil & Gas portfolio the median default rate is 0.46 percent. This rate increases to 2.48 percent at the 95 percent confidence level.



In addition to calculating the percentages, which is on the same scale as the default rates discussed earlier in this report, the Bank calculated the total dollar loss of this distribution. The amount overdue for the portfolio at the end of FY 2016 is \$0.4 billion. Under the baseline forecast the median loss amount for the current non-overdue portfolio is \$0.5 billion. Under a stressed scenario where all of the ratings were downgraded by 2 notches, the median loss amount would increase to \$1.4 billion, and a stressed scenario where none of the defaults were ever recovered the median loss amount would be \$1.3 billion. For the Oil & Gas portfolio, the median loss amount would be \$0.1 billion.

Monte-Carlo Simulation of the entire EXIM Portfolio Future Default Rate (20,000 Simulations)



These results are comparable to the results from the last stress test performed at the end of FY 2015, given that the risk profile of the portfolio has not markedly changed year-over-year. The median under the baseline forecast in FY 2016 was 0.41 percent compared to 0.44 percent in FY 2015.

EXIM BANK FUTURE STRESS TESTING

EXIM Bank is committed to continuous improvement and is always looking to improve stress testing. The Bank stress tested the aircraft portfolio in FY 2014, the Asia portfolio in FY 2015, and the European portfolio Q2 FY 2016. The Bank will continue to look into other industries and regions where it has large exposures. The Bank used the definition of a large exposure from the Basel Committee’s Core Principles for Effective Banking Supervision. In those core principles the committee states, “ten per cent or more of a bank’s capital is defined as a large exposure.” The Bank will be able to see if certain industries or region have a higher risk profile in the tails of its distribution along with its expected default rate. The Bank is also looking into the impact of correlation within industries and regions it is concentrated. These tests will inform the Bank as to the extent of this impact on potential future losses. During the year the Bank will look for additional ways to improve its stress testing methodology. The Bank will continue to report the results of these future stress test scenarios to the U.S. Congress.



Appendix

COMPONENTS OF DEFAULT RATE: *DISBURSEMENTS*

Under the direct loan program the goods and services are financed directly by EXIM Bank. Funds are disbursed to the supplier to pay for the goods or services delivered to the buyer and a loan receivable with appropriate loss reserves are reflected on the Bank's books.

Under the guarantee and insurance programs, the private sector provides the financing and the transaction is guaranteed or insured by EXIM Bank. The guaranteed or insured party notifies EXIM Bank when a shipment of goods has occurred and EXIM Bank records a non-cash "disbursement" to reflect the value of the goods guaranteed by EXIM Bank. An appropriate loss reserve is also recorded on the Bank's books.

As of September 2016, on the Bank's active portfolio, a total of \$134.6 billion of goods and services have been delivered to foreign buyers and supported by EXIM Bank under the loan, guarantee and insurance programs.

COMPONENTS OF DEFAULT RATE: *GROSS DEFAULTS*

EXIM Bank pays claims honoring the terms of either the guarantee or the insured transaction. On EXIM Bank's active portfolio, the Bank has paid out \$159.2 million in defaults. For loans, all monies past due are considered defaults. As of September 2016, for the active portfolio, \$202.2 million is past due. This totals \$361.5 million in claims paid and overdue loans.

The gross default rate is derived from the amounts paid on guarantees and insurance transactions as well as past due loan installments divided by the amount disbursed. This rate does not include the money recovered or related recovery expenses. On the \$134.6 billion of disbursements, the Bank has gross defaults of \$361.5 million, resulting in a default rate of 0.269 percent.

COMPONENTS OF DEFAULT RATE: *RECOVERIES AND EXPENSES*

EXIM Bank has an active recovery group that seeks to recuperate on losses related to claim payments and non-performing loans. On EXIM Bank's active portfolio, the Bank has recovered \$4.9 million and incurred \$1.5 million of expenses related to the recovery process.¹¹ These recoveries, as well as fees collected from borrowers, are used to offset claims paid. The Bank expects to recover additional amounts on these transactions in future years.

COMPONENTS OF DEFAULT RATE: *CALCULATION*

Total amount of required payments that are overdue	\$358,061,473
Gross Defaults Paid	361,457,873
Expenses	1,475,130
Less Recoveries	4,871,530
Total amount of financing involved	\$134,613,385,515
Disbursements	134,613,385,515
Default Rate	0.266%

¹¹ For the purpose of calculation of the default rate, the amounts recovered are discounted to the time of claim payment.

DEFAULT RATE: BY COUNTRY

	<u>Financing</u>	<u>Claim Paid</u>	<u>Recovery</u>	<u>Expenses</u>	<u>Overdue</u>	<u>Default</u>
Asia	34,868,662,960	64,003,680	8,420	401,294	64,396,554	0.18%
Bangladesh	533,045,475	-	-	-	-	0.00%
Burma	4,813,980	-	-	-	-	0.00%
China	6,699,295,296	-	-	2,359	2,359	0.00%
Hong Kong	3,773,192,766	-	-	-	-	0.00%
India	8,098,310,493	10,458,223	8,420	60,512	10,510,315	0.13%
Indonesia	2,089,528,879	10,955,099	-	-	10,955,099	0.52%
Japan	278,771,940	-	-	-	-	0.00%
Kazakhstan	677,161,730	-	-	4,820	4,820	0.00%
Korea, South	5,964,259,287	-	-	264,710	264,710	0.00%
Malaysia	93,196,292	-	-	-	-	0.00%
Mongolia	344,788,297	-	-	-	-	0.00%
Pakistan	783,137,478	42,590,358	-	68,892	42,659,250	5.45%
Philippines	555,634,902	-	-	-	-	0.00%
Singapore	2,330,717,528	-	-	-	-	0.00%
Sri Lanka	60,355,006	-	-	-	-	0.00%
Taiwan	695,446,277	-	-	-	-	0.00%
Tajikistan	80,000,000	-	-	-	-	0.00%
Thailand	946,930,093	-	-	-	-	0.00%
Uzbekistan	78,359,556	-	-	-	-	0.00%
Vietnam	781,717,685	-	-	-	-	0.00%
Europe	26,054,755,238	129,036,309	2,508,288	130,498	126,658,519	0.49%
Albania	36,737,164	-	-	52,233	52,233	0.14%
Austria	222,357,605	-	-	-	-	0.00%
Azerbaijan	577,314,987	881,757	853,895	-	27,861	0.00%
Belgium	11,511,990	-	-	-	-	0.00%
Bulgaria	123,825,866	-	-	-	-	0.00%
Czech Republic	76,175,418	-	-	-	-	0.00%
Denmark	193,500	-	-	-	-	0.00%
France	66,465,322	-	-	-	-	0.00%
Germany	1,217,752,995	-	-	-	-	0.00%
Greece	1,709,105	-	-	-	-	0.00%
Hungary	68,520,000	-	-	-	-	0.00%
Ireland	7,070,670,690	-	-	49,148	49,148	0.00%
Italy	3,050,468	-	-	-	-	0.00%
Latvia	29,040	-	-	-	-	0.00%
Luxembourg	1,995,538,429	-	-	-	-	0.00%
Netherlands	1,354,689,308	-	-	-	-	0.00%
Norway	1,546,434,472	-	-	-	-	0.00%
Poland	479,798,734	-	-	-	-	0.00%
Romania	121,891,077	705,530	-	10,238	715,768	0.59%
Russia	1,525,611,296	-	-	-	-	0.00%
Serbia	1,281,900	-	-	-	-	0.00%

	<u>Financing</u>	<u>Claim Paid</u>	<u>Recovery</u>	<u>Expenses</u>	<u>Overdue</u>	<u>Default</u>
Slovak Republic	67,139,509	-	-	-	-	0.00%
Slovenia	8,555,516	-	-	-	-	0.00%
Spain	567,247,305	61,924,352	-	-	61,924,352	10.92%
Switzerland	78,147,103	-	-	-	-	0.00%
Turkey	5,570,776,642	1,694,868	26,618	18,879	1,687,128	0.03%
Ukraine	279,443,825	63,829,802	1,627,774	-	62,202,028	22.26%
United Kingdom	2,981,885,969	-	-	-	-	0.00%
Latin America/ Caribbean	27,285,069,366	19,451,358	821,547	201,106	18,830,917	0.07%
Argentina	160,153,017	-	-	-	-	0.00%
Aruba	500,551	-	-	-	-	0.00%
Barbados	4,489,561	-	-	-	-	0.00%
Brazil	4,190,428,362	4,176,808	128,580	63,929	4,112,157	0.10%
Cayman Islands	80,312,097	-	-	-	-	0.00%
Chile	3,091,034,108	1,654,902	468,686	24,702	1,210,918	0.04%
Colombia	3,360,472,634	676,347	-	-	676,347	0.02%
Costa Rica	94,975,966	-	-	-	-	0.00%
Dominican Republic	430,768,535	388,011	11,562	-	376,448	0.09%
Ecuador	63,887,506	-	-	-	-	0.00%
El Salvador	19,281,874	-	-	-	-	0.00%
Guatemala	10,459,929	435,746	-	-	435,746	4.17%
Guyana	21,284	-	-	-	-	0.00%
Honduras	193,618,759	681,501	121,749	-	559,752	0.29%
Jamaica	14,385,233	38,317	-	-	38,317	0.27%
Mexico	12,832,676,799	11,399,727	90,970	46,973	11,355,730	0.09%
Nicaragua	675,000	-	-	-	-	0.00%
Panama	1,109,959,541	-	-	47,756	47,756	0.00%
Paraguay	12,882,746	-	-	-	-	0.00%
Peru	805,131,574	-	-	9,608	9,608	0.00%
Trinidad And Tobago	116,435,503	-	-	-	-	0.00%
Uruguay	143,436,546	-	-	-	-	0.00%
Venezuela	533,409,922	-	-	8,139	8,139	0.00%
Virgin Islands (Br.)	15,672,320	-	-	-	-	0.00%
Middle East/ North Africa	18,536,362,823	114	-	75,060	75,174	0.00%
Algeria	211,268,826	-	-	-	-	0.00%
Bahrain	228,405,625	-	-	-	-	0.00%
Egypt	665,738,309	-	-	44,220	44,220	0.01%
Israel	811,689,615	-	-	-	-	0.00%
Jordan	90,000	-	-	-	-	0.00%
Kuwait	625,732,930	-	-	-	-	0.00%
Lebanon	299,061	-	-	-	-	0.00%
Morocco	1,033,507,141	64	-	-	64	0.00%

	<u>Financing</u>	<u>Claim Paid</u>	<u>Recovery</u>	<u>Expenses</u>	<u>Overdue</u>	<u>Default</u>
Oman	80,342,592	-	-	-	-	0.00%
Qatar	1,008,000,000	-	-	20,057	20,057	0.00%
Saudi Arabia	6,718,143,162	50	-	10,784	10,834	0.00%
United Arab Emirates	7,153,145,563	-	-	-	-	0.00%
North America	11,278,306,933	336,315	28,878	44,580	352,016	0.00%
Canada	3,541,457,397	-	-	44,580	44,580	0.00%
Private Export Funding Corp.	1,583,989,172	-	-	-	-	0.00%
United States	6,152,860,365	336,315	28,878	-	307,436	0.00%
Oceania	8,546,017,122	139,111,999	-	58,719	139,170,718	1.63%
Australia	5,224,687,699	139,111,999	-	58,719	139,170,718	2.66%
New Zealand	716,763,188	-	-	-	-	0.00%
Papua New Guinea	2,604,566,235	-	-	-	-	0.00%
Sub-Saharan Africa	6,682,241,573	8,306,975	1,504,396	563,873	7,366,452	0.11%
Angola	758,166,448	-	-	8,071	8,071	0.00%
Cameroon	86,051,330	-	-	-	-	0.00%
Ethiopia	2,467,409,156	-	-	-	-	0.00%
Gabon	10,762,005	-	-	-	-	0.00%
Ghana	583,496,210	1,489,526	6,905	117,569	1,600,189	0.27%
Kenya	1,374,560,623	-	-	46,458	46,458	0.00%
Mauritius	4,315,810	1,438,304	-	-	1,438,304	33.33%
Nigeria	182,063,391	-	-	-	-	0.00%
Senegal	34,937,108	5,379,146	1,497,491	391,775	4,273,430	12.23%
South Africa	1,174,811,074	-	-	-	-	0.00%
Tanzania	3,851,527	-	-	-	-	0.00%
Zambia	1,816,891	-	-	-	-	0.00%
Other	1,361,969,501	1,211,122	-	-	1,211,122	0.09%
Various - Insurance	1,361,969,501	1,211,122	-	-	1,211,122	0.09%
Grand Total	134,613,385,515	361,457,873	4,871,530	1,475,130	358,061,473	0.266%

Definitions

Active Portfolio – Maturity date is after the date of this report (transaction currently active)

Administrative Expenses – Expenses of the day-to-day operation of the Bank. Majority of expenses are compensation and benefits. Does not include program costs

Allowances – Accumulated provisions against which future loan write-offs would be made

Defaults – Payment from EXIM Bank to guaranteed or insured party plus unpaid past due loan installments

Default Rate – Defaults less recoveries plus expenses over total amount financed on active portfolio

Disbursements – Goods and services delivered to foreign buyers and supported by EXIM Bank under the loan, guarantee and insurance programs

Loan Arrears - Direct loan repayment currently overdue. For defaulted credits, this includes the entire amount outstanding. For rescheduled sovereign credits, this includes the underlying credits which are still active based upon the original payment terms

Nominal Discount Rates - A forecast of nominal or market interest rates for the current year based on the economic assumptions for the following Fiscal Year Budget as presented by the Office of Management and Budget in Circular A-94 Appendix C

Recoveries – Money recovered on guarantees and insurance that have defaulted and a claim has been paid out. For direct loans in arrears, this includes funds recovered after missed payments

Program Costs - Cost related to loan, guarantee, and insurance transactions where the fees are insufficient to cover prudent reserves

Mandates

Environmentally Beneficial Mandate (12 U.S.C. 635i-5(b)(1)) - “The Bank shall encourage the use of its programs to support the export of goods and services that have beneficial effects on the environment or mitigate potential adverse environmental effects...”

Small Business Mandate (12 U.S.C. 635(b)(1)(E)(v)) - “EXIM Bank shall make available, from the aggregate loan, guarantee, and insurance authority available to it, an amount to finance exports directly by small business concerns (as defined under section 3 of the Small Business Act) which shall be not less than 25 percent of such authority for each fiscal year.”

Sub-Saharan Africa Mandate (12 U.S.C. 635(b)(9)(a)) - “The Board of Directors of the Bank shall ...take prompt measures, consistent with the credit standards otherwise required by law, to promote the expansion of the Bank’s financial commitments in sub-Saharan Africa...”

