Congressional Research Service

MEMORANDUM March 25, 2013

To: Senate Energy and Natural Resources Committee
Attention: Tristan Abbey

Subject: **Export-Import Bank Financing of Liquefied Natural Gas-Related Transactions**

This memorandum responds to your request for analysis of project financing by the Export-Import Bank of the United States (Ex-Im Bank) for exports related to liquefied natural gas (LNG) projects.[1]

Overview of Ex-Im Bank[2]

Ex-Im Bank is the official export credit agency (ECA) of the U.S. government. It maintains finance and insurance programs to facilitate U.S. exports to developing and emerging economies, especially in circumstances where alternative financing is not available, to contribute to U.S. employment. Some Ex-Im Bank programs are used to counter officially-backed export credit financing offered by other countries. Ex-Im Bank's main programs are direct loans, export credit guarantees, working capital guarantees, and export credit insurance. Its activities are backed by the full faith and credit of the U.S. government, which adds a degree of stability to projects. In FY2012, Ex-Im Bank authorized 3,796 transactions for credit and insurance support, which amounted to $35.8 billion in authorizations for financing.[3]

Ex-Im Bank charges fees for its services and collects interest on its loans. It operates on a "self-sustaining" basis, using offsetting collections to cover its operations. As part of the annual appropriations process, Congress sets an upper limit on the level of the agency's financial activities.

The agency operates under a renewable charter, the Export-Import Bank Act of 1945 (P.L. 79-173), as amended. The charter, among other things, requires that all of Ex-Im Bank's financing have a reasonable assurance of repayment and directs the agency to supplement, and to not compete with, private sector capital. In the 112th Congress, legislation was passed to reauthorize Ex-Im Bank through FY2014 (P.L. 112-122).[4]

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[1] Information in this memorandum may be used to respond to other congressional requests or for CRS reports.

[2] See CRS Report R42472, *Export-Import Bank: Background and Legislative Issues*, by Shayerah Ilias Akhtar.

[3] Authorizations by Ex-Im Bank are approvals for financing. Ex-Im Bank does not disburse loans in "lump sums," but rather, as projects advance.

[4] See CRS Report R41829, *Reauthorization of the Export-Import Bank: Issues and Policy Options for Congress*, by Shayerah Ilias Akhtar.

Ex-Im Bank's programs are subject to certain congressional directives. The charter requires Ex-Im Bank to make available not less than 20% of its aggregate loan, guarantee, and insurance authority to finance exports directly by small business. The charter also requires it to promote the export of goods and services related to renewable energy sources. In recent years, appropriations language further has specified that Ex-Im Bank should make available not less than 10% of its aggregate credit and insurance authority for the financing of exports of renewable energy technologies or energy efficient end-use technologies. In addition, the charter directs Ex-Im Bank to promote the expansion of its financial commitments in sub-Saharan Africa, but does not include any quantitative target.

Trends in Ex-Im Bank Financing for LNG-Related Transactions[5]

Between FY1996 and FY2013 (to date), Ex-Im Bank has supported a total of 13 LNG-related transactions in other countries using structured and project finance, provided in the form of direct loans and/or loan guarantees (see **Table 1**). These transactions have been for projects in a mix of countries, with Qatar taking the lead in number of transactions (4), followed by Australia (2) and Trinidad & Tobago (2). Ex-Im Bank's largest transaction to date—for both LNG-related transactions as well as its overall activity—was a $3 billion direct loan for an LNG-related project in Papua New Guinea.

Table 1. Ex-Im Bank-Supported LNG-Related Transactions, FY1996-2013 (to date)

(Structured and Project Finance Transactions)

Fiscal Year Authorized	Project Obligor	Country	Principal U.S. Supplier	Financed Amount (Millions of U.S. Dollars)	Form of Financing	U.S. Exports
1996	Atlantic LNG	Trinidad & Tobago	Overseas Bechtel Inc.	$354[a]	Loan Guarantee	Export of equipment and services
1997	Qatargas LNG	Qatar	Mobil Oil Corporation	60	Loan Guarantee	Export of engineering and management services
1997	Oman LNG	Oman	Foster Wheeler Constrs. Inc.	250	Loan Guarantee	Export of cryogenic heat exchangers
1997	Ras Laffan	Qatar	Mobil Oil Corporation	465	Loan Guarantee	Export of compressors and gas turbine drives
2000	Malaysia LNG	Malaysia	General Electric Co.	72[b]	Loan Guarantee	Export of gas turbines
2002	Nigeria LNG	Nigeria	General Electric Co. (principal); also Kellogg Brown and Root (KBR)	135	Loan Guarantee	Export of equipment and services for project to expand LNG production

[5] The discussion of Ex-Im Bank financing for LNG transactions uses data reported by the Ex-Im Bank to your office for the FY2006-FY2013 time period, with the assumption that FY2013 activity is current as of the date the information was shared with you (March 15, 2013). For a discussion of the global LNG market, see CRS Report R42074, *U.S. Natural Gas Exports: New Opportunities, Uncertain Outcomes*, by Michael Ratner, Paul W. Parfomak, and Linda Luther.

Fiscal Year Authorized	Project Obligor	Country	Principal U.S. Supplier	Financed Amount (Millions of U.S. Dollars)	Form of Financing	U.S. Exports
2005	Qatar Liquefied Gas Co. II	Qatar	KBR (principal); other exporters are Air Products & Chemicals Inc., ExxonMobil Development, and McDermott, International Inc.	405	Loan Guarantee	Export of engineering services for natural gas liquefaction plant and related offshore and onshore facilities
2006	Qatar Liquefied Gas Co. III	Qatar	ConocoPhillips (principal); other exporters include Air Products & Chemicals Inc. and General Electric Co.	404	Loan Guarantee	Export of installation and commissioning services to build LNG plant and related facilities
2008	Peru LNG	Peru	Chicago Bridge & Iron Co. N.V.	400	Direct Loan	Export of equipment and services for LNG project
2010	Papua New Guinea LNG	Papua New Guinea	KBR Inc. and 55+ other U.S. suppliers	3,000	Direct Loan and Loan Guarantee	Export of equipment and services for development of upstream natural gas fields, onshore and offshore pipe, and liquefaction plant
2012	Australia-Pacific LNG	Australia	Bechtel Power Corp. (principal); also ConocoPhillips	2,952[c]	Direct Loan	Export of engineering services for development of coal-seam natural gas fields, two gas transmission lines to a collection hub, LNG plant, and adjacent marine shipping export terminal
2013	BG Energy Holdings Ltd.	Trinidad & Tobago	McDermott International Inc. (principal); also 5 other U.S. suppliers	38	Direct Loan	Exports of equipment and services for project to construct and install gas compression system
2013	BG Energy Holdings Ltd.	Australia	Not specified	1,809	Direct Loan	For construction of natural gas facility
		Total		**$10,344**		

Source: Data from Ex-Im Bank, as reported to Senate Energy and Natural Resources Committee, as well as Ex-Im Bank annual reports (various years). Additional information about transactions from Ex-Im Bank press releases: Ex-Im Bank, "Ex-Im Bank Approves Project Financing for Sales to Latin America and the Caribbean," press release, September 30, 1996; Ex-Im Bank, "Ex-Im Bank Approves its Largest Private Sector Financing to Nigeria, $135 Million in U.S. Exports Will Help Expand Nigeria LNG Production," press release, September 30, 2002; Ex-Im Bank, "Ex-Im Bank $930 Guarantee Supports U.S. Exports to Build LNG Plan in Qatar," press release, November 18, 2004; Ex-Im Bank, "Ex-Im Bank Finances Qatargas 3 Liquid Natural Gas Complex," press release, December 15, 2005; Ex-Im Bank, "Ex-Im Bank Approves Nearly $3 Billion in Export Financing for U.S. Goods and Services to Australia Pacific LNG Project," press release, May 8, 2012; Ex-Im Bank, "Ex-Im Bank Approves $37.6 Million Loan for Gas Compression Export to Trinidad and Tobago; Supports 350 Jobs in Three States," press release, November 21, 2012; and Ex-Im Bank, "Ex-Im Bank Provides $1.8 Billion in Export Financing for Natural Gas Project in Australia," press release, December 28, 2012.

Notes: Details are provided for LNG export transactions when information is available from Ex-Im Bank press releases.

a. An Ex-Im Bank press release about the project reports the loan guarantee amount as $394 million. See Ex-Im Bank, "Ex-Im Bank Approves Project Financing for Sales to Latin America and the Caribbean," press release, September 30, 1996.

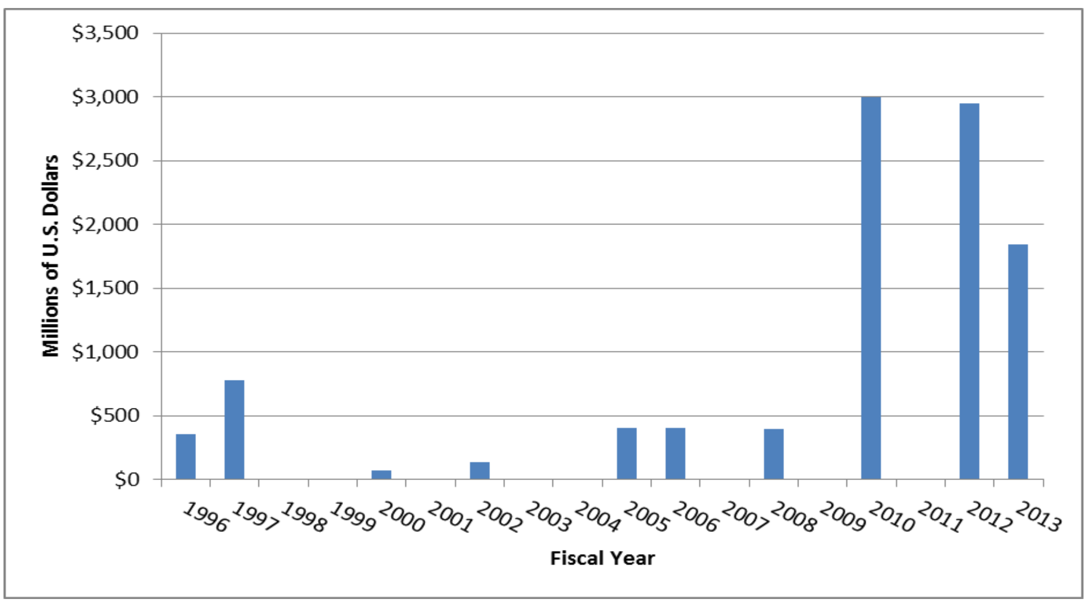
b. The FY2000 Ex-Im Bank annual report , in the "FY2000 Authorizations by Market" section, reports the loan guarantee amount as about $77 million.

c. The FY2012 Ex-Im Bank annual report, in the "FY2012 Authorizations by Market" section, reports the direct loan amount as $2,866 million.

In the eighteen years of the FY1996-2013 time period, Ex-Im Bank authorized at least one LNG-related transaction in 10 of the years (see **Figure 1**). In most years in which Ex-Im Bank was involved in supporting LNG-related projects, its authorizations were limited to one transaction. Exceptions were FY1997—during which Ex-Im Bank authorized two transactions in Qatar and one in Oman—and FY2013 (to date)—during which Ex-Im Bank authorized two transactions both by the same company (BG Energy Holdings Ltd.) but in different countries (Australia and Trinidad & Tobago). Years for which Ex-Im Bank did not report any such authorizations for financing LNG-related transactions were spread out. The largest gap in such authorizations has been a maximum of two years, such as the FY1998-1999 and the FY2003-2004 time periods.

Between FY1996 and FY2013, the amount of Ex-Im Bank financing authorized for LNG-related transactions has generally increased, possibly as the scale of the projects themselves has increased. Between FY1996 and FY1999, the authorized amount for each transaction was less than $500 million. Since FY2010, Ex-Im Bank has supported 4 LNG-related transactions (to date), 3 of which have been significantly larger in authorized financing than any other prior LNG-related transaction: $3 billion for a project in Papua New Guinea (FY2010); $2.95 billion for a project in Australia (FY2012); and $1.8 billion for another project in Australia (FY2013).

Figure 1. Ex-Im Bank Financing for LNG-Related Transactions, FY1996-2013



Source: Data from Ex-Im Bank, as reported to Senate Energy and Natural Resources Committee on March 15, 2013.

Note: Data for FY2013 are assumed to be current through March 15, 2013.

The share of total Ex-Im Bank activity represented by authorizations for financing LNG-related transactions has varied. From FY1996 to FY2010, Ex-Im Bank authorizations for LNG-related transactions represented less than 7% of the agency's total authorizations annually. In recent years, they have represented a larger share of total annual authorizations—about 12% of total FY2010 authorizations ($24.5 billion) and 8% of total FY2012 authorizations ($35.8 billion).[6]

Factors Affecting Ex-Im Bank Financing

Ex-Im Bank financing for LNG transactions can vary due to a range of factors, including: (1) the demand-driven nature of Ex-Im Bank financing; (2) increased demand for Ex-Im Bank financing following the recent international financial crisis; and (3) increased competitive pressures from foreign export credit agencies.

As a demand-driven agency, Ex-Im Bank can make financing available for certain purposes (such as exports by certain U.S. industries or exports to certain geographic areas), but U.S. businesses will only take advantage of Ex-Im Bank support if they have sufficient commercial interests in doing so and consider financing to be warranted. In the case of the natural gas industry, commercial prospects for LNG-related projects appear to be increasing, as estimates of the level of U.S. natural gas reserves have increased, the price of hydrocarbons has risen, and there is growing appetite in developing and emerging markets to build infrastructure to support LNG-related activities. Most LNG is sold on the basis of long-term contracts (often 20-30 years) that are required to finance the liquefaction facilities.[7] LNG transactions entail certain risks, for example, because they are often long-term in nature; the outcomes of natural gas development can be uncertain; and projects may be located in developing countries with political risks, such as of expropriation.[8]

LNG-related projects, such as the development of export terminals, often rely on financing, because of their tendency to be long-term and capital-intensive in nature. In some cases, commercial banks may be unwilling or unable to take on the risk of supporting the projects, and U.S. businesses consequently may seek support from Ex-Im Bank to help mitigate the risks of conducting such export transactions.

Demand for Ex-Im Bank financing also has grown in recent years in light of the international financial crisis that began in 2007 and the ensuing global economic downturn. The financial crisis led to a significant decline in export financing available from commercial banks, including the availability of long-term project financing. As a result, Ex-Im Bank witnessed a greater demand from U.S. exporters for its assistance to fill in the gaps in private sector financing. As part of its response, Ex-Im Bank has provided more authorizations for long-term financing, including for direct loans. For example, Ex-Im Bank reportedly has worked to increase access to direct loans by engaging with borrowers on a case-by-case basis to structure transactions to adapt to the current financial conditions.

Another element driving demand for Ex-Im Bank financing has been the changing international landscape. The growing number of players and volumes of export credit activity in the international export finance market have resulted in greater and varied competition for U.S. exporters, both from developed countries and from rising economic powers as they move up the value chain. U.S. companies are seeking Ex-Im Bank assistance to help level the playing field and counter the officially-backed export credit financing that their competitors receive from their ECAs.

[6] CRS analysis based on data from Ex-Im Bank annual reports, various years.

[7] CRS Report R42074, *U.S. Natural Gas Exports: New Opportunities, Uncertain Outcomes*, by Michael Ratner, Paul W. Parfomak, and Linda Luther.

[8] Philip R. Weems and Matt Solo, "Mitigating Expropriation Risk of Natural Gas Projects," King & Spalding, *Energy Newsletter*, July 2012, http://www.kslaw.com/library/newsletters/EnergyNewsletter/2012/July/article1.html.

Increased Use of Direct Loans for LNG Export Transactions

Ex-Im Bank has used both direct loans and loan guarantees to support LNG export transactions.

- **Loan guarantees** are a form of financing through which Ex-Im Bank guarantees a lender that, in the event of a payment default by the buyer, it will pay to the lender the outstanding principal and interest on the loan. Loan guarantees constitute the largest amount of Ex-Im Bank financing, by dollar value. Ex-Im Bank uses loan guarantees to assist U.S. exporters by protecting against the commercial and political uncertainty of exporting. Loan guarantees cover the repayment risk on the foreign buyer's debt obligations incurred in the purchase of U.S. exports. Ex-Im Bank charges the foreign borrower a fee to guarantee the loan in a variable amount based on the duration, amount, and risk characteristics of the transaction. Ex-Im Bank extends loan guarantees on a medium-to long-term basis (generally up to 10 years). Its loan guarantee to a foreign buyer is typically used for financing purchases of U.S. capital equipment and services. The comprehensive guarantee covers commercial and political risks for up to 85% of the U.S. contract value.[9]

- **Direct loans** are a form of financing through which Ex-Im Bank provides a loan to the foreign buyer of U.S. exports, generally for the purchase of capital-intensive goods such as commercial aircraft and mining equipment. Prior to the 1980s, Ex-Im Bank's direct lending program was its chief financing vehicle, which it used to finance capital-intensive exports such as commercial aircraft and nuclear power plants. In the past decade, demand for Ex-Im Bank direct loans has been limited, because commercial interest rates were low. However, with the recent international financial crisis, demand for Ex-Im Bank direct loans has been increasing again as commercial banks have retrenched from the long-term financing space. In order to fill the gap, Ex-Im Bank has been providing more support through direct loans.[10]

Between FY1996 and FY2007, Ex-Im Bank supported LNG-related transactions through loan guarantees. Starting with FY2008, the use of direct loans has been more common (see **Table 1** from above). Direct loans may be more attractive options for LNG-related export transactions because they "fix" more of the costs up-front. In contrast to loan guarantees, direct loans offer fixed-rate financing. Reducing this sort of variability can be important for long-term projects where costs can fluctuate and outcomes can be uncertain. In addition, the financial crisis has led to a shortfall in long-term financing, which often takes the form of direct loans, by commercial banks. In such a scenario, exporters of goods and services for LNG-related projects may be turning to Ex-Im Bank to cover the gap.

[9] For more information on Ex-Im Bank's loan guarantee program, see http://www.exim.gov/products/loanguarantee/.

[10] For more information on Ex-Im Bank's direct loan program, see http://www.exim.gov/products/direct-loan.cfm.