# Japan

# 8 Financial Institutions made an estimated USD\$ 16,589 million (JPY 1,991,490 million<sup>a</sup>) available to 26 nuclear weapon producing companies since January 2012.

### Introduction

This document contains country specific information from the 2015 Don't Bank on the Bomb report. It includes financial institutions operating in the country that have published policies banning or limiting investment in nuclear weapons producers. Also included is the list of financial institutions that have significant financing relationships with one or more of the nuclear weapons producers identified in the report. There is also a brief summary of the nuclear weapons related work of each of the identified producers. For more detail, see the full report or go to the www.DontBankOnTheBomb.com website.

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The financial institutions identified include banks, pension funds, sovereign wealth funds, insurance companies and asset managers. They have provided various types of financial services to nuclear weapon companies including loans, investment banking and asset management.

All sources of financing provided since 1 January 2012 to the companies listed were analysed from annual reports, financial databases and other sources. The financial institutions which are most significantly involved in the financing of one or more nuclear weapon companies are shown here. See the full report for both a summary and full description of all financial institutions which are found to have the most significant financing relationships with one or more of the selected nuclear weapon companies, by means of participating in bank loans, by underwriting share or bond issues and/or by share- or bond holdings (above a threshold of 0.5% of all outstanding shares or bonds).

For more information on loans, investment banking, and asset management, please refer to the website.

# Hall of Fame and Runners-up

To identify financial institutions with a policy on nuclear weapons, we research a variety of sources: NGO reports, screening-agency information, financial institutions' reports and websites, information from campaigners and other public sources. For practical reasons, the scope of this report is limited to those financial institutions that have an investment policy or a summary of that policy in English. The list of institutions in the Hall of Fame is therefore not exhaustive. We welcome additions from those able to provide them.

The financial institutions for which a nuclear weapons policy was actually found, were grouped in two categories. Financial institutions with a clear and comprehensive nuclear weapons exclusion policy are included in the "Hall of Fame", while financial institutions whose nuclear weapons policy is less strict or clear are included in the "Runners-up" category. This is not a comprehensive list, and others may exist in the country. To be included in the Hall of Fame, the nuclear weapons policy of the financial institution must meet the following criteria:

- The financial institution has published its policy and/or a summary of it;
- The policy excludes investments in nuclear weapon companies (withdrawing past investments and avoiding future investments)
- The policy has an 'all-in' comprehensive scope:
  - o no exceptions for any types of nuclear weapon companies
  - o no exceptions for any types of activities by nuclear weapon companies
  - o no exceptions for any type of financing or investment by the financial institution

Financial institutions whose nuclear weapon policy does not meet all of the above criteria are included in the "Runners-up" category. For more on the report methodology, see the website.

# Hall of Fame institutions

No financial institutions were identified with a clear and comprehensive nuclear weapons exclusion policy.



# Runners-up institutions operating in Japan

### 1. ABN Amro (the Netherlands)

We commend ABN Amro for adopting a public policy on nuclear weapons. We recommend ABN Amro extend its policy to all companies, regardless of their country of origin. In addition, ABN Amro should apply its policy to cover all financial products the bank offers, including passively managed funds. Furthermore, ABN Amro should apply its policy to assets managed by external parties. We look forward to engaging with ABN Amro, so a strong and comprehensively applied policy may be listed in the Hall of Fame in a future update of this report.

Website:	Twitter:	Facebook:
http://www.abnamro.com/	@ABNAMRO	https://www.facebook.com/abnamro

# 2. Aegon (the Netherlands)

This is the first time an AEGON policy appears in this report. We commend AEGON for adopting a public policy on nuclear weapons. We recommend AEGON apply its policy to nuclear weapon producing companies regardless of their country of origin. It should also apply the policy to all financial products including all asset classes in jurisdictions outside the Netherlands and apply its policy to all assets managed for customers globally. We look forward to engaging with AEGON, so a strong and comprehensively applied policy may be listed in the Hall of Fame in a future update of this report.

Website: Twitter: Facebook: http://www.aegon.com/Home/ @AEGON https://www.facebook.com/Aegon

# 3. Barclays (United Kingdom)

This is the first time the Barclays policy appears in this report. We commend Barclays for adopting a public policy on nuclear weapons. We recommend Barclays apply its policy to all activities of nuclear weapon producing companies, and not limit it to project financing. Barclays should exclude investment in all types of nuclear weapons associated companies, including those involved in maintenance and specifically designed delivery systems. In addition, Barclays should expand the scope of its policy to cover all financial products it offers, including on behalf of third parties. We look forward to engaging with Barclays, so a strong and comprehensively applied policy may be listed in the Hall of Fame in a future update of this report.

Website:	Twitter:	Facebook:
http://www.home.barclays/	@barclays	https://www.facebook.com/Barclays

### 4. BBVA (Spain)

This is the first time the BBVA policy appears in this report. We commend BBVA for adopting a public policy on nuclear weapons, We recommend BBVA exclude all nuclear weapon producers regardless of their country of origin. Also, it should expand the scope of its policy to cover all financial products it offers, including all assets managed We look forward to engaging with BBVA, so a strong and comprehensively applied policy may be listed in the Hall of Fame in a future update of this report.

Website:	Twitter:	Facebook:
http://www.bbva.com/	@bbva	https://www.facebook.com/GrupoBBVA

### 5. BNP Paribas (France)

We commend BNP Paribas for adopting a public policy on nuclear weapons. We recommend BNP Paribas exclude all companies involved in nuclear weapon programs, regardless of their country of origin. In addition, BNP Paribas should apply its exclusion policy to all financial products and services it offer, including asset management activities and third party investments and cover old as well as new



financing agreements. We look forward to engaging with BNP Paribas, so a strong and comprehensively applied policy may be listed in the Hall of Fame in a future update of this report.

Website: Twitter: Facebook: http://www.bnpparibas.com/ @BNPPARIBAS NET https://www.facebook.com/bnpparibas.net

# 6. Commerzbank (Germany)

We commend Commerzbank for adopting a public policy on nuclear weapons. We recommend Commerzbank apply its policy to all nuclear weapon producers, including companies whose involvement in controversial weapons constitutes only a small part of their activities. Furthermore, Commerzbank's should apply its exclusion policy to all financial products it offers, including assets managed. We look forward to engaging with Commerzbank, so a strong and comprehensively applied policy may be listed in the Hall of Fame in a future update of this report.

Website: Twitter: Facebook: https://www.commerzbank.de @commerzbank https://www.facebook.com/commerzbank

# 7. Crédit Agricole (France)

We commend Crédit Agricole for adopting a public policy on nuclear weapons. We recommend Crédit Agricole exclude investments in all companies associated with the production of specifically designed components necessary for nuclear weapons. Furthermore, Crédit Agricole should apply its policy to all of its financial products, including all assets managed. We look forward to engaging with Crédit Agricole, so a strong and comprehensively applied policy may be listed in the Hall of Fame in a future update of this report.

Website: Twitter: Facebook: http://www.credit-agricole.fr/ Facebook.com/CreditAgricole

### 8. Credit Suisse (Switzerland)

We commend Credit Suisse for adopting a public policy on nuclear weapons in line with the provisions of the Swiss Materials Act. We recommend Credit Suisse develop policy expanding on the current interpretation of the Swiss Materials Act and exclude the financing of nuclear weapon producing companies as a whole, instead of only the activities related to nuclear weapons. Furthermore, Credit Suisse should apply its policy to all of its financial products, including assets managed. We look forward to engaging with Credit Suisse, so a strong and comprehensively applied policy may be listed in the Hall of Fame in a future update of this report.

Website: Twitter: Facebook: https://www.credit-suisse.com/

@CreditSuisse https://www.facebook.com/creditsuisse

#### 9. ING (the Netherlands)

We commend ING for adopting a public policy on nuclear weapons. We recommend ING exclude all activities of nuclear weapon producing companies, regardless of the relative proportion of nuclear weapons related activities of the company. ING should apply its exclusion policy comprehensively to all its markets, including in the US and to all its financial products, including funds following an index. We look forward to engaging with ING, so a strong and comprehensively applied policy may be listed in the Hall of Fame in a future update of this report.

Website: Twitter: Facebook: http://www.ing.com/ @ING\_News https://www.facebook.com/ING



# 10. Intesa Sanpaolo (Italy)

This is the first time the Intesa Sanpaolo policy appears in this report. We commend Intesa Sanpaolo for adopting a public policy on nuclear weapons. We recommend Intesa Sanpaolo apply its exclusion policy to companies regardless of their country of origin. Intesa Sanpaolo should expand its policy to cover all types of nuclear weapon producing companies including those that produce specifically designed delivery systems. It should apply its policy to all financial products including all asset classes. Intesa Sanpaolo is strengthening the application of its exclusion policy and we look forward to assess progress made in that respect in next year's report. We look forward to engaging with Intesa Sanpaolo, so a strong and comprehensively applied policy may be listed in the Hall of Fame in a future update of this report.

Website: Twitter: Facebook: http://www.intesasanpaolo.com/ @intesasanpaolo https://www.facebook.com/intesasanpaologroup?fref=ts

# 11. Rabobank (the Netherlands)

We commend Rabobank for adopting a public policy on nuclear weapons. We recommend Rabobank apply its policy to all financial products, including all passively managed funds . We look forward to engaging with Rabobank, so a strong and comprehensively applied policy may be listed in the Hall of Fame in a future update of this report.

Website: Twitter: Facebook: https://www.rabobank.com/ @Rabobank http://www.facebook.com/rabobank

# 12. Royal Bank of Canada (RBC) (Canada)

We commend RBC for adopting a public policy on nuclear weapons. We recommend RBC apply its policy to all financial products including investment banking and asset management activities. Moreover, RBC should apply the policy to all nuclear weapon producing companies, including those involved in maintenance and modernisation. We look forward to assessing RBC's update of its nuclear weapons policy and engaging with RBC, so a strong and comprehensively applied policy may be listed in the Hall of Fame in a future update of this report.

Website: Twitter: Facebook: www.rbc.com/ @RBC https://www.facebook.com/rbc

### 13. Royal Bank of Scotland (RBS) (United Kingdom)

This is the first time the Royal Bank of Scotland policy appears in this report. We commend RBS for adopting a public policy on nuclear weapons. We recommend RBS exclude all activities of nuclear weapon producing companies . Moreover, RBS should apply its exclusion policy to all financial products including assets managed and should terminate existing investments in nuclear weapons associated companies currently in its portfolio. We look forward to engaging with RBS, so a strong and comprehensively applied policy may be listed in the Hall of Fame in a future update of this report.

Website: Twitter: Facebook: www.rbs.com/ @RBSGroup https://www.facebook.com/royalbankofscotland

# 14. Standard Chartered (United Kingdom)

This is the first time the Standard Chartered policy appears in this report. We commend Standard Chartered for adopting a public policy on nuclear weapons. We recommend Standard Chartered apply its policy to all of its financial products, including investments for its own account investments on behalf of third parties. Standard Chartered should also apply the policy to all nuclear weapon producing companies, including those only involved in joint ventures. We look forward to engaging with Standard Chartered, so a strong and comprehensively applied policy may be listed in the Hall of Fame in a future update of this report.



Website: Twitter: Facebook: https://www.sc.com/ @StanChart https://www.facebook.com/StandardChartered

# 15. UniCredit (Italy)

We commend UniCredit for adopting a public policy on nuclear weapons. We recommend UniCredit all activities of nuclear weapon producing companies. In addition, UniCredit should apply the policy to all financial products, including those managed by its subsidiary Pioneer. We look forward to engaging with UniCredit, so a strong and comprehensively applied policy may be listed in the Hall of Fame in a future update of this report.

Website: Twitter: Facebook: https://www.unicreditgroup.eu | @UniCredit\_PR | https://www.facebook.com/UniCreditItalia

# Hall of Shame institutions based in Japan

This section contains the results of our research into which financial institutions are financially involved with the nuclear weapon producing companies identified in the report. For the full methodology, see the website. Each section provides the following information for each financial institution:

• The types of financial relations which the financial institution has with one or more nuclear weapon companies (loans, investment banking and asset management).

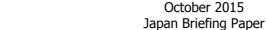
Financial institution	Amount in USD in millions	Amount in JPY in millions <sup>b</sup>
Chiba Bank	20	2,455
Mitsubishi UFJ Financial	7588	910,937
Mizuho Financial	3133	376,104
Nomura	5	591
Orix Corporation	1974	236,922
Sumitomo Mitsui Financial	3633	436,096
Sumitomo Mitsui Trust	41	4,935
The Dai-Ichi Life Insurance Company	195	23,450

### 1. Chiba Bank

Chiba Bank has made an estimated US\$ 20 million available to the nuclear weapons companies listed in this report since January 2012.

Chiba Bank provided loans for an estimated amount of US\$ 20 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2012 or maturing after August 2015.

<sup>&</sup>lt;sup>b</sup> Exchange rate: 1 USD = 120.051 JPY, 1 October 2015





### Loans provided by Chiba Bank

Company		Est. participation of this bank (US\$ mIn)		Maturity date
Aecom	750	20	7-6-2013	7-6-2018

Source: Thomson ONE Banker, "Loans", viewed in August 2015.

### 2. Mitsubishi UFJ Financial

Mitsubishi UFJ Financial has made an estimated US\$ 7,588 million available to the nuclear weapons companies listed in this report since January 2012.

Mitsubishi UFJ Financial provided loans for an estimated amount of US\$ 6,788 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2012 or maturing after August 2015.

### Loans provided by Mitsubishi UFJ Financial

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Aecom	1,050	158	13-7-2011	13-7-2016
Aecom	600	120	23-9-2011	30-9-2016
Aecom	700	35	14-10-2011	19-10-2016
Aecom	1,000	50	14-10-2011	19-10-2016
Aecom	750	150	7-6-2013	7-6-2018
Aecom	655	39	16-12-2013	19-12-2018
Aecom	961	58	16-12-2013	19-12-2018
Aecom	39	2	16-12-2013	19-12-2018
Aecom	1,050	105	29-1-2014	29-1-2019
Aecom	1,925	154	11-8-2014	17-10-2019
Aecom	1,188	95	11-8-2014	17-10-2021
Aecom	1,050	105	11-8-2014	17-10-2019
Aecom	1,050	105	11-8-2014	17-10-2019
Aecom	500	40	11-8-2014	17-10-2019
Aerojet Rocketdyne	100	8	30-5-2014	30-5-2019
Aerojet Rocketdyne	200	15	30-5-2014	30-5-2019
Airbus Group	4,345	163	14-3-2011	14-4-2016
Airbus Group	3,797	134	14-10-2014	14-10-2019
Babcock & Wilcox	700	32	22-5-2012	8-6-2017
Babcock & Wilcox	600	36	11-5-2015	11-5-2020
BAE Systems	3,161	132	8-12-2010	8-12-2015
BAE Systems	3,269	131	12-12-2013	12-12-2018
Bechtel	1,000	100	14-6-2013	14-6-2018
Bechtel	2,000	200	14-6-2013	14-6-2018



Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Bechtel	2,000	200	19-9-2014	17-10-2019
Bechtel	1,000	100	19-9-2014	17-10-2019
Boeing	2,300	42	5-11-2011	10-11-2016
Boeing	2,473	90	23-9-2014	15-10-2015
Boeing	2,473	90	23-9-2014	16-10-2019
CH2M Hill	600	120	6-12-2010	7-12-2015
CH2M Hill	900	135	19-4-2012	19-4-2017
CH2M Hill	1,100	220	22-3-2014	30-1-2019
Finmeccanica	3,181	191	28-7-2010	21-9-2015
Finmeccanica	3,001	150	9-7-2014	9-7-2019
Finmeccanica	2,212	153	6-7-2015	6-7-2020
Fluor	1,200	90	14-12-2010	14-12-2015
Fluor	1,800	270	7-11-2012	9-11-2017
Fluor	1,700	255	28-5-2014	28-5-2019
Fluor	1,800	270	28-5-2014	28-5-2019
General Dynamics	1,000	35	14-7-2011	14-7-2016
Honeywell International	2,800	62	17-3-2011	31-3-2016
Honeywell International	4,000	73	18-11-2013	10-12-2018
Huntington Ingalls Industries	489	27	23-9-2013	6-11-2018
Huntington Ingalls Industries	650	35	23-9-2013	6-11-2018
Huntington Ingalls Industries	1,250	71	13-7-2015	13-7-2020
Jacobs Engineering	1,160	139	23-3-2012	23-3-2017
Jacobs Engineering	1,140	62	7-2-2014	7-2-2019
Jacobs Engineering	460	39	7-2-2014	7-2-2019
Jacobs Engineering	460	55	5-3-2015	5-3-2020
Jacobs Engineering	1,140	137	5-3-2015	5-3-2020
Larsen & Toubro	47	5	27-8-2013	1-6-2018
Larsen & Toubro	59	7	27-8-2013	1-8-2017
Larsen & Toubro	64	7	27-8-2013	1-6-2018
Larsen & Toubro	100	11	27-8-2013	1-6-2018
Larsen & Toubro	100	11	27-8-2013	1-6-2018
Lockheed Martin	1,500	85	14-8-2014	14-8-2019
Moog	900	49	18-3-2011	18-3-2016
Moog	900	70	28-3-2013	28-3-2018
Moog	1,100	110	22-5-2014	22-5-2019
Northrop Grumman	575	22	31-3-2011	24-1-2017
Northrop Grumman	650	24	31-3-2011	24-1-2016
Northrop Grumman	500	13	18-8-2012	3-9-2013
Orbital ATK	400	14	9-9-2010	7-10-2015



Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Orbital ATK	600	21	9-9-2010	7-10-2015
Orbital ATK	200	13	3-9-2012	3-9-2017
Orbital ATK	250	25	8-10-2013	1-11-2020
Orbital ATK	1,010	67	8-10-2013	1-11-2018
Orbital ATK	700	47	8-10-2013	1-11-2018
Orbital ATK	150	15	24-6-2014	24-12-2018
Raytheon	1,400	76	13-12-2011	13-12-2016
Safran	2,122	121	18-11-2010	8-12-2015
Safran	1,320	198	21-10-2011	21-10-2016
Serco	1,159	72	21-2-2012	28-3-2017
Serco	714	45	12-3-2015	12-3-2019
Textron	1,000	100	30-9-2013	4-10-2018
Textron	500	50	23-1-2014	23-1-2019
Thales	1,979	108	17-12-2010	17-12-2015
Thales	1,835	122	19-12-2014	19-12-2019

Source: Thomson ONE Banker, "Loans", viewed in August 2015.

Mitsubishi UFJ Financial underwrote bond issuances for an estimated amount of US\$ 800 million to the nuclear weapon companies since January 2012 (see table below).

# Underwriting of bond issuances by Mitsubishi UFJ Financial

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Aecom	800	80	17-9-2014	15-10-2022
Aecom	800	80	17-9-2014	15-10-2024
Airbus Group	640	64	20-10-2014	29-10-2029
Boeing	350	10	30-4-2013	15-11-2018
Boeing	300	15	28-10-2014	30-10-2021
Boeing	300	9	28-10-2014	30-10-2024
Boeing	250	9	28-10-2014	30-10-2017
Boeing	250	6	18-2-2015	1-3-2025
Boeing	250	8	18-2-2015	1-3-2035
Boeing	250	12	18-2-2015	1-3-2045
Fluor	500	34	18-11-2014	15-12-2024
General Dynamics	900	39	1-11-2012	15-11-2017
General Dynamics	1,000	43	1-11-2012	15-11-2022
General Dynamics	500	21	1-11-2012	15-11-2042
Huntington Ingalls Industries	600	34	17-11-2014	15-12-2021



Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Lockheed Martin	750	14	12-2-2015	1-3-2025
Lockheed Martin	500	9	12-2-2015	1-3-2035
Lockheed Martin	1,000	18	12-2-2015	1-3-2045
Moog	300	23	18-11-2014	1-12-2022
Northrop Grumman	850	26	28-5-2013	1-6-2018
Northrop Grumman	1,050	32	28-5-2013	1-8-2023
Northrop Grumman	950	29	28-5-2013	1-6-2043
Northrop Grumman	600	60	3-2-2015	15-4-2045
Orbital ATK	300	50	22-10-2013	1-10-2021
Textron	250	25	23-1-2014	1-3-2021
Textron	350	35	23-1-2014	1-3-2024
Textron	350	19	23-10-2014	1-3-2025

Source: Thomson ONE Banker, "Bond and share issue underwritings", viewed in August 2015.

# 3. Mizuho Financial

Mizuho Financial has made an estimated US\$ 3,133 million available to the nuclear weapons companies listed in this report since January 2012.

Mizuho Financial provided loans for an estimated amount of US\$ 2,730 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2012 or maturing after August 2015.

### **Loans provided by Mizuho Financial**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Aecom	700	35	14-10-2011	19-10-2016
Aecom	1,000	50	14-10-2011	19-10-2016
Aecom	500	43	2-3-2012	2-3-2013
Aecom	655	39	16-12-2013	19-12-2018
Aecom	961	58	16-12-2013	19-12-2018
Aecom	39	2	16-12-2013	19-12-2018
Aecom	1,925	77	11-8-2014	17-10-2019
Aecom	1,188	59	11-8-2014	17-10-2021
Aecom	1,050	47	11-8-2014	17-10-2019
Aecom	500	20	11-8-2014	17-10-2019
Airbus Group	4,345	163	14-3-2011	14-4-2016
Airbus Group	3,797	134	14-10-2014	14-10-2019
BAE Systems	3,269	131	12-12-2013	12-12-2018
Boeing	2,300	42	5-11-2011	10-11-2016
Boeing	2,473	90	23-9-2014	15-10-2015



Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Boeing	2,473	90	23-9-2014	16-10-2019
Engility	393	79	23-4-2014	9-5-2020
Engility	250	50	23-4-2014	9-5-2021
Engility	50	10	23-4-2014	9-5-2019
General Dynamics	1,000	35	14-7-2011	14-7-2016
Honeywell International	2,800	62	17-3-2011	31-3-2016
Honeywell International	3,000	129	30-3-2012	2-4-2017
Honeywell International	4,000	73	18-11-2013	10-12-2018
Huntington Ingalls Industries	1,250	125	13-7-2015	13-7-2020
Larsen & Toubro	200	100	17-12-2012	17-12-2019
Larsen & Toubro	47	5	27-8-2013	1-6-2018
Larsen & Toubro	59	7	27-8-2013	1-8-2017
Larsen & Toubro	64	7	27-8-2013	1-6-2018
Larsen & Toubro	100	11	27-8-2013	1-6-2018
Larsen & Toubro	100	11	27-8-2013	1-6-2018
Lockheed Martin	1,500	90	26-8-2011	26-8-2016
Lockheed Martin	1,500	120	14-8-2014	14-8-2019
Northrop Grumman	500	13	18-8-2012	3-9-2013
Northrop Grumman	1,775	355	29-8-2013	29-8-2018
Northrop Grumman	1,600	320	19-6-2015	8-7-2020
Orbital ATK	400	14	9-9-2010	7-10-2015
Orbital ATK	600	21	9-9-2010	7-10-2015
Orbital ATK	200	13	3-9-2012	3-9-2017

Source: Thomson ONE Banker, "Loans", viewed in August 2015.

Mizuho Financial underwrote bond issuances for an estimated amount of US\$ 399 million to the nuclear weapon companies since January 2012 (see table below).

### **Underwriting of bond issuances by Mizuho Financial**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mIn)	Issue date	Maturity date
Boeing	350	10	30-4-2013	15-11-2018
Boeing	300	9	28-10-2014	30-10-2021
Boeing	300	15	28-10-2014	30-10-2024
Boeing	250	9	28-10-2014	30-10-2017
Boeing	250	14	18-2-2015	1-3-2025
Boeing	250	8	18-2-2015	1-3-2035
Boeing	250	8	18-2-2015	1-3-2045



Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Fluor	500	5	18-11-2014	15-12-2024
General Dynamics	900	39	1-11-2012	15-11-2017
General Dynamics	1,000	43	1-11-2012	15-11-2022
General Dynamics	500	21	1-11-2012	15-11-2042
Honeywell International	300	10	18-11-2013	1-12-2023
Honeywell International	700	23	18-11-2013	17-11-2015
Lockheed Martin	750	14	12-2-2015	1-3-2025
Lockheed Martin	500	9	12-2-2015	1-3-2035
Lockheed Martin	1,000	18	12-2-2015	1-3-2045
Northrop Grumman	850	26	28-5-2013	1-6-2018
Northrop Grumman	1,050	32	28-5-2013	1-8-2023
Northrop Grumman	950	29	28-5-2013	1-6-2043
Northrop Grumman	600	60	3-2-2015	15-4-2045

Source: Thomson ONE Banker, "Bond and share issue underwritings", viewed in August 2015.

Mizuho Financial owns or manages bonds of the nuclear weapon companies for an amount of US\$ 5 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

### **Bondholdings managed by Mizuho Financial**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	3	0.52	31-12-2014
MOOG	United States	2	0.60	31-12-2014

Source: Thomson Eikon, "Bond ownership: most recent filings", viewed in August 2015.

#### 4. Nomura

Nomura has made an estimated US\$ 5 million available to the nuclear weapons companies listed in this report since January 2012.

Nomura owns or manages bonds of the nuclear weapon companies for an amount of US\$ 5 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

### **Bondholdings managed by Nomura**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	5	0.88	31-1-2015

Source: *Thomson Eikon*, "Bond ownership: most recent filings", viewed in August 2015.

### 5. Orix Corporation

Orix Corporation has made an estimated US\$ 1,974 million available to the nuclear weapons companies listed in this report since January 2012.



Orix Corporation owns or manages shares of the nuclear weapon companies for an amount of US\$ 1,952 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

### **Shareholdings managed by Orix Corporation**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	36	0.76	31-3-2015
Fluor	United States	99	1.29	30-6-2015
General Dynamics	United States	331	0.73	30-6-2015
Huntington Ingalls Industries	United States	228	4.17	30-6-2015
Lockheed Martin	United States	621	1.06	30-6-2015
Raytheon	United States	638	2.16	30-6-2015

Source: Thomson ONE Banker, "Share ownership: most recent filings", viewed in August 2015.

Orix Corporation owns or manages bonds of the nuclear weapon companies for an amount of US\$ 21 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

### **Bondholdings managed by Orix Corporation**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Huntington Ingalls Industries	United States	15	1.16	31-1-2015
MOOG	United States	6	2.00	31-1-2015

Source: Thomson Eikon, "Bond ownership: most recent filings", viewed in August 2015.

#### 6. Sumitomo Mitsui Financial

Sumitomo Mitsui Financial has made an estimated US\$ 3,633 million available to the nuclear weapons companies listed in this report since January 2012.

Sumitomo Mitsui Financial provided loans for an estimated amount of US\$ 3,023 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2012 or maturing after August 2015.

### Loans provided by Sumitomo Mitsui Financial

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Aecom	600	40	23-9-2011	30-9-2016
Aecom	700	35	14-10-2011	19-10-2016
Aecom	1,000	50	14-10-2011	19-10-2016
Aecom	750	20	7-6-2013	7-6-2018
Aecom	655	39	16-12-2013	19-12-2018



Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mIn)	Closing date	Maturity date
Aecom	961	58	16-12-2013	19-12-2018
Aecom	39	2	16-12-2013	19-12-2018
Aecom	1,050	39	29-1-2014	29-1-2019
Aecom	1,925	77	11-8-2014	17-10-2019
Aecom	1,188	59	11-8-2014	17-10-2021
Aecom	1,050	47	11-8-2014	17-10-2019
Aecom	500	20	11-8-2014	17-10-2019
Airbus Group	4,345	76	14-3-2011	14-4-2016
Airbus Group	3,797	134	14-10-2014	14-10-2019
Babcock & Wilcox	700	32	22-5-2012	8-6-2017
BAE Systems	3,161	132	8-12-2010	8-12-2015
BAE Systems	3,269	131	12-12-2013	12-12-2018
Bechtel	1,000	120	19-9-2014	17-10-2019
Boeing	2,300	42	5-11-2011	10-11-2016
Boeing	2,473	90	23-9-2014	15-10-2015
Boeing	2,473	90	23-9-2014	16-10-2019
Finmeccanica	3,181	191	28-7-2010	21-9-2015
Finmeccanica	3,001	100	9-7-2014	9-7-2019
Finmeccanica	2,212	90	6-7-2015	6-7-2020
General Dynamics	1,000	35	14-7-2011	14-7-2016
Honeywell International	2,800	62	17-3-2011	31-3-2016
Honeywell International	4,000	73	18-11-2013	10-12-2018
Huntington Ingalls Industries	489	27	23-9-2013	6-11-2018
Huntington Ingalls Industries	650	35	23-9-2013	6-11-2018
Jacobs Engineering	460	39	7-2-2014	7-2-2019
Larsen & Toubro	200	100	17-12-2012	17-12-2019
Larsen & Toubro	47	5	27-8-2013	1-6-2018
Larsen & Toubro	59	7	27-8-2013	1-8-2017
Larsen & Toubro	64	7	27-8-2013	1-6-2018
Larsen & Toubro	100	11	27-8-2013	1-6-2018
Larsen & Toubro	100	11	27-8-2013	1-6-2018
Lockheed Martin	1,500	90	26-8-2011	26-8-2016
Lockheed Martin	1,500	35	14-8-2014	14-8-2019
Northrop Grumman	575	22	31-3-2011	24-1-2017
Northrop Grumman	650	24	31-3-2011	24-1-2016
Northrop Grumman	1,500	129	8-9-2011	8-9-2016
Northrop Grumman	500	13	18-8-2012	3-9-2013
Orbital ATK	250	14	8-10-2013	1-11-2020
Orbital ATK	1,010	17	8-10-2013	1-11-2018



Company	Total value (US\$ mln)		Closing date	Maturity date
Orbital ATK	1,010	17	8-10-2013	1-11-2018
Orbital ATK	700	12	8-10-2013	1-11-2018
Orbital ATK	700	12	8-10-2013	1-11-2018
Orbital ATK	150	7	24-6-2014	24-12-2018
Raytheon	1,400	76	13-12-2011	13-12-2016
Serco	1,159	72	21-2-2012	28-3-2017
Serco	714	45	12-3-2015	12-3-2019
Textron	1,000	75	30-9-2013	4-10-2018
Textron	500	25	23-1-2014	23-1-2019
Thales	1,979	88	17-12-2010	17-12-2015
Thales	1,835	122	19-12-2014	19-12-2019

Source: Thomson ONE Banker, "Loans", viewed in August 2015.

Sumitomo Mitsui Financial underwrote bond issuances for an estimated amount of US\$ 610 million to the nuclear weapon companies since January 2012 (see table below).

# Underwriting of bond issuances by Sumitomo Mitsui Financial

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mIn)	Issue date	Maturity date
Aecom	800	80	17-9-2014	15-10-2022
Aecom	800	80	17-9-2014	15-10-2024
Boeing	350	10	30-4-2013	15-11-2018
Boeing	300	9	28-10-2014	30-10-2021
Boeing	300	9	28-10-2014	30-10-2024
Boeing	250	18	28-10-2014	30-10-2017
Boeing	250	6	18-2-2015	1-3-2025
Boeing	250	13	18-2-2015	1-3-2035
Boeing	250	8	18-2-2015	1-3-2045
Fluor	500	18	18-11-2014	15-12-2024
General Dynamics	900	39	1-11-2012	15-11-2017
General Dynamics	1,000	43	1-11-2012	15-11-2022
General Dynamics	500	21	1-11-2012	15-11-2042
Honeywell International	300	10	18-11-2013	1-12-2023
Honeywell International	700	23	18-11-2013	17-11-2015
Huntington Ingalls Industries	600	34	17-11-2014	15-12-2021
Lockheed Martin	750	14	12-2-2015	1-3-2025
Lockheed Martin	500	9	12-2-2015	1-3-2035
Lockheed Martin	1,000	18	12-2-2015	1-3-2045



Company	Total value (US\$ mln)	At thic hank	Issue date	Maturity date
Northrop Grumman	850	26	28-5-2013	1-6-2018
Northrop Grumman	1,050	32	28-5-2013	1-8-2023
Northrop Grumman	950	29	28-5-2013	1-6-2043
Textron	250	19	23-1-2014	1-3-2021
Textron	350	26	23-1-2014	1-3-2024
Textron	350	19	23-10-2014	1-3-2025

Source: Thomson ONE Banker, "Bond and share issue underwritings", viewed in August 2015.

### 7. Sumitomo Mitsui Trust

Sumitomo Mitsui Trust has made an estimated US\$ 41 million available to the nuclear weapons companies listed in this report since January 2012.

Sumitomo Mitsui Trust provided loans for an estimated amount of US\$ 41 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2012 or maturing after August 2015.

### **Loans provided by Sumitomo Mitsui Trust**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Larsen & Toubro	47	5	27-8-2013	1-6-2018
Larsen & Toubro	59	7	27-8-2013	1-8-2017
Larsen & Toubro	64	7	27-8-2013	1-6-2018
Larsen & Toubro	100	11	27-8-2013	1-6-2018
Larsen & Toubro	100	11	27-8-2013	1-6-2018

Source: Thomson ONE Banker, "Loans", viewed in August 2015.

# 8. The Dai-Ichi Life Insurance Company

The Dai-Ichi Life Insurance Company has made an estimated US\$ 195 million available to the nuclear weapons companies listed in this report since January 2012.

The Dai-Ichi Life Insurance Company owns or manages bonds of the nuclear weapon companies for an amount of US\$ 195 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

#### **Bondholdings managed by The Dai-Ichi Life Insurance Company**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Lockheed Martin	United States	60	0.65	31-3-2015
Northrop Grumman	United States	42	0.64	31-3-2015
Raytheon	United States	54	1.00	31-3-2015
Textron	United States	40	1.35	31-3-2015

Source: *Thomson Eikon*, "Bond ownership: most recent filings", viewed in August 2015.



# **Nuclear weapon producing Companies**

This report identifies 26 companies operating in France, India, Italy, the Netherlands, the United Kingdom and the United States that are significantly involved in maintaining and modernising the nuclear arsenals of France, India, the United Kingdom and the United States. **This is not an exhaustive list.** These companies are providing necessary components and infrastructure to develop, test, maintain and modernise nuclear weapons. The contracts these companies have with nuclear armed countries are for materials and services to keep nuclear weapons in their arsenals. In other nuclear-armed countries –Russia, China, Pakistan and North Korea – the maintenance and modernization of nuclear forces is carried out primarily or exclusively by government agencies.

### **Aecom (United States)**

Aecom provides professional technical and management support services and is part of the joint venture that manages the Nevada National Security Site (NNSS), previously known as the Nevada Test Site, a key fixture in the US nuclear weapons infrastructure.

### **Aerojet Rocketdyne**

Aerojet Rocketdyne, formerly known as GenCorp is involved in the design, development and production of land- and seabased nuclear ballistic missile systems for the United States. It is currently producing propulsion systems for Minuteman III and D5 Trident nuclear missiles.

### **Airbus Group (The Netherlands)**

Airbus is a Dutch company that produces and maintains the M51 submarine-launched nuclear missiles for the French navy. Through joint venture MBDA, Airbus is also providing medium-range air-to-surface missiles to the French air force.

#### **Babcock & Wilcox (United States)**

Babcock & Wilcox manages and operates several US nuclear weapons facilities including the Lawrence Livermore National Laboratory, Los Alamos National Laboratory, and Nevada National Security Site (NNSS), previously known as the Nevada Test Site, each of which are engaged in various aspects of nuclear warhead modernisation.

### **BAE Systems (United Kingdom)**

BAE Systems is involved in the US and UK Trident II (D5) strategic weapons system programmes. It is also the prime contractor for the US Minuteman III Intercontinental Ballistic Missile (ICBM) system. BAE Systems is also part of the joint venture providing medium-range air-to-surface missiles for France.

#### **Bechtel (United States)**

Bechtel manages the Los Alamos and Lawrence Livermore national laboratories in the US, which play an important role in the research, design, development and production of nuclear weapons. It also leads the joint venture for management and operation of the Y-12 National Security Complex in Tennessee and the Pantex Plant in Texas.

#### **Boeing (United States)**

Boeing is involved in the maintenance of the Minuteman III nuclear intercontinental ballistic missiles in the US arsenal. It also provides the US and UK Trident II (D5) with maintenance, repair, and rebuilding and technical services.

#### **CH2M Hill (United States)**

CH2M Hill is one of the joint venture partners in National Security Technologies (NSTec) that manages the Nevada National Security Site (NNSS), previously known as the Nevada Test Site, a key fixture in the US nuclear weapons infrastructure.

### **Engility Holdings (United States)**

In February 2015, Engility acquired US-based TASC. It is involved in the research and development for the Solid Rocket Motor Modernization Study of the Minuteman III system for the US arsenal.

### Finmeccanica (Italy)

Finmeccanica is involved in the design, development and delivery of two Transporter Erector Replacement Vehicles to support the US Intercontinental Ballistic Missile (ICBM) Minuteman III-fleet. It is also involved in the joint venture that supplies medium-range air-to-surface missiles for the French arsenal.

#### Fluor (United States)

Fluor is the lead partner responsible for the management and operation of the US Department of Energy's Savannah River Site and Savannah River National Laboratory, the only source of new tritium for the US nuclear arsenal.

#### **General Dynamics (United States)**

General Dynamics provides a range of engineering, development, and production activities to support to US and UK Trident II Strategic Weapons Systems. It is also involved in the guidance systems of the Trident II (D5) nuclear missiles of the US Navy.

#### **Honeywell International (United States)**

Honeywell International manages and operates the National Security Campus where an estimated 85% of the non-nuclear components for US nuclear weapons are produced. It is also involved in tritium production at the Savannah River Site and produced components for integrated circuits for the Trident II (D5) nuclear missiles of the US arsenal.



# **Huntington Ingalls Industries (United States)**

Huntington Ingalls Industries is involved in management of the US nuclear arsenal, and tritium production at the Savannah River Site, the only source of new tritium for the US nuclear arsenal.

#### **Jacobs Engineering (United States)**

Jacobs Engineering Group is involved in the joint venture AWE-ML, which manages the UK Atomic Weapons Establishment, that designs, manufactures and maintains nuclear warheads for the UK.

#### Larsen & Toubro (India)

Larsen & Toubro is also responsible for developing the launcher system for the nuclear-capable shortrange surface-to-air Akash missile system for the Indian nuclear arsenal.

#### **Lockheed Martin (United States)**

Lockheed Martin is responsible for the construction of the Trident II (D5) nuclear missiles for the US and UK. It is also involved in the production and maintenance of the Minuteman III nuclear intercontinental ballistic missiles for the US. It is part of the joint venture AWE-ML, which manages the UK Atomic Weapons Establishment, that designs, manufactures and maintains nuclear warheads for the UK.

#### **MOOG (United States)**

Moog develops launch vehicle and strategic missile controls for the Minuteman III and Trident (D5) missiles for the US nuclear arsenal.

#### **Northrop Grumman (United States)**

Northrop Grumman is involved with production and maintenance of the Minuteman III nuclear Intercontinental Ballistic Missiles (ICBM) for the US nuclear arsenal. It also provides support for the Trident II (D5) system for the US and the UK. It is also part of the joint venture that manages the Nevada National Security Site (NNSS), previously known as the Nevada Test Site, a key fixture in the US nuclear weapons infrastructure.

#### **Orbital ATK (United States)**

Orbital ATK (formerly known as ATK or Alliant Techsystems) produces rocket propulsion systems for Trident II submarine launched ballistic missiles.

Orbital ATK is also responsible for refurbishing all three solid propellant stages of the Minuteman III Intercontinental Ballistic Missile (ICBM) for the US. It is also involved in the joint venture for management and operation of the Y-12 National Security Complex in Tennessee and the Pantex Plant in Texas.

#### **Raytheon (United States)**

Raytheon is involved in a project to stretch the lifecycle of the guidance systems of the Trident II (D5) nuclear missiles of the US Navy. It is also involved in studies in support of the new W80-4 Long-Range Standoff missile for the US arsenal.

#### Safran (France)

Safran is part of a joint venture to build M51 submarine-launched nuclear missiles for the French navy, which each deliver multiple warheads. Its subsidiaries Snecma and Sagem provide the propulsion and navigation systems for these missiles.

#### Serco (United Kingdom)

Serco owns a one-third share in the joint venture AWE-ML, which runs the UK Atomic Weapons Establishment. It is responsible for manufacturing and maintaining the nuclear warheads for UK arsenal.

#### **Textron (United States)**

Textron designs and builds re-entry vehicles for the US Minuteman III inter-continental ballistic missile (ICBM).

#### **Thales (France)**

Thales is part of a joint venture to build the M51 submarine-launched nuclear missiles for the French navy

#### Walchandnagar Industries (India)

Walchandnagar Industries Limited supplies infrastructure and facilities for the production of the surface-to-air short-range Akash missile and the launching systems for Agni and Akash missiles for the Indian arsenal. It also manufactures the main thrust motor casing segment for the intercontinental ballistic Agni-V missile.

