

# Taiwan

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**11 Financial Institutions  
made an estimated USD\$ 592 million (TWD 18,830 million<sup>a</sup>)  
available to 27 nuclear weapon producing companies since January 2013.**

## Introduction

This document contains country specific information from the 2016 Don't Bank on the Bomb update. Hall of Fame and Runners-up include financial institutions with headquarters in the country that have published policies banning or limiting investment in nuclear weapons producers. Hall of Shame are the 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](http://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 2013 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 bondholdings (above a threshold of 0.5% of all outstanding shares or bonds).

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<sup>a</sup> Exchange rate: 1 USD = 31,8081 TWD, 30 November 2016.

Figures presented are rounded up/down to the nearest dollar at the filing date. Commas (,) indicate thousands separators while periods (.) used as decimal points.

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

## Hall of Shame

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).

<i>Financial institution</i>	<i>Amount in USD millions</i>	<i>Amount in TWD millions<sup>b</sup></i>
<b>Cathay Life Insurance</b>	84	2,672
<b>E.SUN Financial</b>	135	4,294
<b>First Financial Holding</b>	20	636
<b>Fubon Group</b>	29	922
<b>Hua Nan Financial</b>	50	1,590
<b>Land Bank of Taiwan</b>	29	922
<b>Mega Financial</b>	120	3,817
<b>SinoPac Holdings</b>	20	636
<b>Taiwan Business Bank</b>	42	1,336
<b>Taiwan Cooperative Financial</b>	42	1,336
<b>Taiwan Financial Holding</b>	20	636

### Cathay Life Insurance (Taiwan)

Cathay Life Insurance (Taiwan) has made an estimated US\$ 84 million available to the nuclear weapons companies selected for this research project since January 2013.

Cathay Life Insurance (Taiwan) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 84 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 1** Bondholdings managed by Cathay Life Insurance

<b>Company</b>	<b>Country</b>	<b>Total value (US\$ mln)</b>	<b>% Outstanding</b>	<b>Filing date</b>
Fluor	United States	25	1.58	31-3-2016
General Dynamics	United States	15	0.50	31-3-2016
Raytheon	United States	29	0.55	31-3-2016
Textron	United States	15	0.53	31-3-2016

Source: Thomson Reuters Eikon, "Bond ownership: most recent filings", viewed in August 2016.

<sup>b</sup> Exchange rate: 1 USD = 31,8081 TWD, 30 November 2016.

## E.SUN Financial (Taiwan)

E.SUN Financial (Taiwan) has made an estimated US\$ 135 million available to the nuclear weapons companies selected for this research project since January 2013.

E.SUN Financial (Taiwan) provided loans for an estimated amount of US\$ 135 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 2** Loans provided by E.SUN Financial

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Closing date</b>	<b>Maturity date</b>
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
Orbital ATK	700	12	8-10-2013	1-11-2018
Orbital ATK	1,010	17	8-10-2013	1-11-2018

Source: *Thomson Reuters Eikon*, "Loans", viewed in July/August 2016; *Bloomberg*, "Loans", viewed in July/August 2016.

## First Financial Holding (Taiwan)

First Financial Holding (Taiwan) has made an estimated US\$ 20 million available to the nuclear weapons companies selected for this research project since January 2013.

First Financial Holding (Taiwan) 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 2013 or maturing after August 2016.

**Table 3** Loans provided by First Financial Holding

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Closing date</b>	<b>Maturity date</b>
Aecom	750	20	7-6-2013	7-6-2018

Source: *Thomson Reuters Eikon*, "Loans", viewed in July/August 2016; *Bloomberg*, "Loans", viewed in July/August 2016.

## Fubon Group (Taiwan)

Fubon Group (Taiwan) has made an estimated US\$ 29 million available to the nuclear weapons companies selected for this research project since January 2013.

Fubon Group (Taiwan) provided loans for an estimated amount of US\$ 29 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 4** Loans provided by Fubon Group

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Closing date</b>	<b>Maturity date</b>
Orbital ATK	700	12	8-10-2013	1-11-2018
Orbital ATK	1,010	17	8-10-2013	1-11-2018

Source: Thomson Reuters Eikon, "Loans", viewed in July/August 2016; Bloomberg, "Loans", viewed in July/August 2016.

## Hua Nan Financial (Taiwan)

Hua Nan Financial (Taiwan) has made an estimated US\$ 50 million available to the nuclear weapons companies selected for this research project since January 2013.

Hua Nan Financial (Taiwan) provided loans for an estimated amount of US\$ 50 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 5** Loans provided by Hua Nan Financial

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Closing date</b>	<b>Maturity date</b>
Aecom	750	20	7-6-2013	7-6-2018
Orbital ATK	700	12	8-10-2013	1-11-2018
Orbital ATK	1,010	17	8-10-2013	1-11-2018

Source: Thomson Reuters Eikon, "Loans", viewed in July/August 2016; Bloomberg, "Loans", viewed in July/August 2016.

## Land Bank of Taiwan (Taiwan)

Land Bank of Taiwan (Taiwan) has made an estimated US\$ 29 million available to the nuclear weapons companies selected for this research project since January 2013.

Land Bank of Taiwan (Taiwan) provided loans for an estimated amount of US\$ 29 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 6** Loans provided by Land Bank of Taiwan

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Closing date</b>	<b>Maturity date</b>
Orbital ATK	700	12	8-10-2013	1-11-2018
Orbital ATK	1,010	17	8-10-2013	1-11-2018

Source: Thomson Reuters Eikon, "Loans", viewed in July/August 2016; Bloomberg, "Loans", viewed in July/August 2016.

## Mega Financial (Taiwan)

Mega Financial (Taiwan) has made an estimated US\$ 120 million available to the nuclear weapons companies selected for this research project since January 2013.

Mega Financial (Taiwan) provided loans for an estimated amount of US\$ 120 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 7** Loans provided by Mega Financial

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Closing date</b>	<b>Maturity date</b>
Aecom	750	20	7-6-2013	7-6-2018
Aecom	39	2	16-12-2013	19-12-2018
Aecom	655	39	16-12-2013	19-12-2018
Aecom	961	58	16-12-2013	19-12-2018

Source: Thomson Reuters Eikon, "Loans", viewed in July/August 2016; Bloomberg, "Loans", viewed in July/August 2016.

## SinoPac Holdings (Taiwan)

SinoPac Holdings (Taiwan) has made an estimated US\$ 20 million available to the nuclear weapons companies selected for this research project since January 2013.

SinoPac Holdings (Taiwan) 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 2013 or maturing after August 2016.

**Table 8** Loans provided by SinoPac Holdings

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Closing date</b>	<b>Maturity date</b>
Aecom	750	20	7-6-2013	7-6-2018

Source: Thomson Reuters Eikon, "Loans", viewed in July/August 2016; Bloomberg, "Loans", viewed in July/August 2016.

## Taiwan Business Bank (Taiwan)

Taiwan Business Bank (Taiwan) has made an estimated US\$ 42 million available to the nuclear weapons companies selected for this research project since January 2013.

Taiwan Business Bank (Taiwan) provided loans for an estimated amount of US\$ 42 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 9** Loans provided by Taiwan Business Bank

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Closing date</b>	<b>Maturity date</b>
Aecom	750	20	7-6-2013	7-6-2018
Northrop Grumman	575	22	31-3-2011	24-1-2017

Source: Thomson Reuters Eikon, "Loans", viewed in July/August 2016; Bloomberg, "Loans", viewed in July/August 2016.

## Taiwan Cooperative Financial (Taiwan)

Taiwan Cooperative Financial (Taiwan) has made an estimated US\$ 42 million available to the nuclear weapons companies selected for this research project since January 2013.

Taiwan Cooperative Financial (Taiwan) provided loans for an estimated amount of US\$ 42 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 10** Loans provided by Taiwan Cooperative Financial

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Closing date</b>	<b>Maturity date</b>
Aecom	750	20	7-6-2013	7-6-2018
Northrop Grumman	575	22	31-3-2011	24-1-2017

Source: Thomson Reuters Eikon, "Loans", viewed in July/August 2016; Bloomberg, "Loans", viewed in July/August 2016.

## Taiwan Financial Holding (Taiwan)

Taiwan Financial Holding (Taiwan) has made an estimated US\$ 20 million available to the nuclear weapons companies selected for this research project since January 2013.

Taiwan Financial Holding (Taiwan) 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 2013 or maturing after August 2016.

**Table 11** Loans provided by Taiwan Financial Holding

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Closing date</b>	<b>Maturity date</b>
Aecom	750	20	7-6-2013	7-6-2018

Source: Thomson Reuters Eikon, "Loans", viewed in July/August 2016; Bloomberg, "Loans", viewed in July/August 2016.

## Nuclear weapon producing Companies

This report identifies 27 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 (USA)

Aecom provides professional technical and management support services and is part of joint ventures that manages the Nevada National Security Site (NNSS), previously known as the Nevada Test Site, as well as Lawrence Livermore (LLNL) and Los Alamos National Laboratories (LANL), key fixtures in the US nuclear weapons infrastructure.

### Aerojet Rocketdyne (USA)

Aerojet Rocketdyne, formerly known as GenCorp is involved in the design, development and production of land- and sea-based 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 M51.2 submarine-launched nuclear missiles for the French navy, it is also developing the M51.3. Through joint venture MBDA-Systems, Airbus is also providing medium-range air-to-surface missiles to the French air force.

### 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 (USA)

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 (USA)

Boeing is involved in 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.

### BWX Technologies (USA)

BWX Technologies (“BWXT”) formerly known as Babcock & Wilcox Company Babcock & Wilcox manages and through joint ventures 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.

### Charles Stark Draper Laboratory (USA)

Charles Stark Draper Laboratory (“Draper”) is the prime contractor for the Trident Life Extension (LE) boost guidance and is manufacturing the guidance system for the Trident missile system in use by the UK and the US.

### CH2M Hill (USA)

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 (USA)

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.

### Fluor (USA)

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 (USA)

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 (USA)

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 produced components for integrated circuits for the Trident II (D5) nuclear missiles which comprise part of the UK and US arsenals.

#### Huntington Ingalls Industries (USA)

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 (USA)

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 short-range surface-to-air Akash missile system for the Indian nuclear arsenal.

#### Leonardo - Finmeccanica (Italy)

Leonardo - Finmeccanica (previously "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.

#### Lockheed Martin (USA)

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 (USA)

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

#### Northrop Grumman (USA)

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 (USA)

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 (USA)

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 (USA)

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.