DON'T BANK ON THE BOMB

A Global Report on the Financing of Nuclear Weapons Producers



October 2014





Utrecht, October 2014

PAX strives to achieve the highest level of accuracy in reporting. However, at this point, there is still a marked lack of official information available in the public domain about the use, production, transfer and stockpiling of nuclear weapons, as well as about investments in companies that produce nuclear weapons. The information in this report therefore reflects official information available in the public domain known to PAX. We welcome comments, clarifications, and corrections from governments, companies, financial institutions and others, in the spirit of dialogue, and in the common search for accurate and reliable information. If you believe you have found an inaccuracy in our report, or if you can provide additional information, please contact us: snyder@paxforpeace.nl or vanderzeijden@paxforpeace.nl or vanderzeijden@paxforpeace.nl

Principal Authors

Susi Snyder (PAX, the Netherlands)
Wilbert van der Zeijden (PAX, the Netherlands)

Research by

Susi Snyder (PAX, The Netherlands)
Wilbert van der Zeijden (PAX, The Netherlands)
Suzanne Oosterwijk (PAX, The Netherlands)
Barbara Kuepper (Profundo, the Netherlands)
Michel Riemersma (Profundo, the Netherlands)
Joeri de Wilde (Profundo, the Netherlands)
Merel van Sommeren (Profundo, the Netherlands)
Ward Warmerdam (Profundo, the Netherlands)
Jan Willem van Gelder (Profundo, the Netherlands)

Our thanks

Adessium Foundation, Swiss Federal Department of Foreign Affairs, Ray Acheson, Roos Boer, Suzanne van den Eynden, Barbara Happe, Beatrice Fihn, Hans Kristensen, Thomas Küchenmeister, Josefin Lind, Magnus Løvold, Frank Slijper, Miriam Struyk, Daniela Varano, Krista van Velzen, Tim Wright and all financial institutions who provided answers to our questions about their policies and all those who use this report as a tool to delegitimise, outlaw and eliminate nuclear weapons.

İSBN 978-90-70443-81-8

About PAX

PAX means peace. Together with people in conflict areas and concerned citizens worldwide, PAX works to build just and peaceful societies across the globe. PAX brings together people who have the courage to stand for peace. Everyone who believes in peace can contribute. We believe that all these steps, whether small or large, truly matter and will contribute to a just and peaceful world

About İCAN

ICAN is a global campaign coalition working to mobilize people in all countries to inspire, persuade and pressure their governments to initiate and support negotiations for a treaty banning nuclear weapons. ICAN is comprised of more than 300 partner organisations in over 90 countries. More information about ICAN can be found at: www.ICANw.org

About Profundo

Profundo is an economic research consultancy analysing commodity chains, financial institutions and corporate social responsibility issues. It works predominantly for environmental, human rights and development organisations in the Netherlands and abroad. www.profundo.nl

The full report and more information can be found at: www.DontBankontheBomb.com

Since January 2011, 411 different investors have made an estimated 402 billion US Dollars available to the nuclear weapon industry. That is the core finding of the 2014 Don't Bank on the Bomb report.

The nuclear armed nations spend a combined total of more than USD 100 billion on their nuclear forces every year. This money goes towards assembling new warheads, modernising old ones, and building missiles, launchers and the supporting technology to use them. While the majority of that comes from taxpayers in the nuclear armed countries, this report shows that private sector investors from many non-nuclear armed countries also provide financing that enables the production, maintenance and modernisation of nuclear arsenals.

In the past year, declassified information and new publications have shown how close the world has come to seeing the use of nuclear weapons.1 At the same time, a greater international focus has been brought on the devastating humanitarian consequences of the weapons on all populations, should they ever be used again.2 The stigma of continued possession of nuclear weapons is growing, as nuclear weapons are increasingly seen as illegitimate components of any national arsenal.

Since the 2013 Don't Bank on the Bomb report, investments in companies that are involved in the production of nuclear weapons has increased by nearly 89 billion USD, and there are an additional 114 financial institutions investing. It is difficult to pinpoint one particular reason for this increase, as several factors are involved.

One is a very technical issue. Recent restructuring of global financial databases Thomson One and Bloomberg have provided orders of magnitude more information about investments. Due to this, some previously unknown and/or underreported loans have now come to the surface. Another factor could be that the end of the financial crisis is causing an increase in contracts for producing companies and a subsequent increase in the need for private financing of development and production work.

We emphasise that, at this point, there is still a lack of official information in the public domain about the production of nuclear weapons and investment in nuclear weapon producers. That is why the information in this report is by no means exhaustive. The methodology of the report is explained in detail in each chapter.

With this report, PAX, together with partners in the International Campaign to Abolish Nuclear Weapons (ICAN), aims to increase transparency about the financing behind the bomb, and stimulate support for the stigmatisation, outlawing and elimination of nuclear weapons.

Lewis, P et al (2014): Too close for Comfort - Cases of near use of near nuclear use and policy options, Chatham House Reports, London (UK)

Fihn, B (editor) (2013): Unspeakable Suffering - The humanitarian impact of nuclear weapons, Reaching Critical Will, Geneva (Switzerland); Government of Norway First Conference on the Humanitarian Impact of Nuclear Weapons; Government of Mexico Second Conference on the Humanitarian Impact of Nuclear Weapons, etc.

How to read Don't Bank on the Bomb 2014

Two documents

The 2014 Don't Bank on the Bomb Report consists of two separate documents:

This Executive Summary provides a quick overview of global investments in nuclear weapons producing companies and of the conclusions drawn. The Don't Bank on the Bomb 2014 Report provides all the details of the investments of 411 financial institutions in 28 identified producing companies. The report also provides profiles of the 28 nuclear weapons producing companies and the profiles of financial institutions in the Hall of Fame and Runners-Up categories. Research definitions, methodology and analysis of the data are found in the main report as well.

Both documents were prepared based on research conducted by Profundo, an economic research consultancy analysing commodity chains, financial institutions and corporate social responsibility issues. The methodology used for each piece of the report is explained in detail at the beginning of each chapter.

Changes from the 2013 report

Recommendations by campaigners, examination of existing exclusion lists used by some financial institutions and further research led to the following changes in 2014:

- EADS has changed its name to Airbus Group.
- SAIC has split into two companies- SAIC and Leidos. SAIC is no longer associated with nuclear weapons while Leidos is.
- Bharat Electronics has been removed as the radar systems they produce cannot be verified as specific to nuclear capable missiles.
- Finmeccanica was out of the 2013 report, as its earlier contracts had expired. However, new contracts bring it back into the report in 2014.
- Rolls-Royce and Babcock International are no longer included as further research indicates that the parts they produce for the UK Royal Navy are not key components specifically designed for delivering Trident missiles.
- Raytheon, TASC and Textron have been included as research indicates recent contracts for the production of key components for nuclear weapons.
- The 2013 Don't Bank on the Bomb report provided information about 27 nuclear weapon producers, whereas 28 are included in 2014.

The resulting list of companies compiled in this report is <u>not exhaustive</u>. It is an attempt to identify the privately owned companies that are currently most involved in the nuclear weapon industrial complex.

Limitations of the report

This report does not provide a fully comprehensive overview of all involvements of financial institutions in the nuclear weapon industry. The selection of financial institutions is limited by the fact that the report uses a threshold. Only share and bond holdings larger than 0.5% of the total number of outstanding shares of one or more of the nuclear weapon producing companies are listed. The reason for this is practical: a threshold of 0.1% for example would have resulted in a report profiling nearly 3,000 financial institutions.

The selection of financial institutions in the Hall of Fame and Runners-Up categories is not comprehensive. Only institutions with a (summarized) policy published in English are eligible and the search for institutions with similar policies is ongoing. Information provided by institutions themselves, their clients or readers of this report is welcome.

Summary findings

411 financial institutions involved significantly

Looking at the period starting January 2011, 411 banks, insurance companies, pension funds and asset managers from 30 countries were found that invest significantly in the nuclear weapon industry. 254 are based in North America, 94 are based in Europe, 47 are based in Asia, 10 in the Middle East, 5 in the Pacific, and one is based in Africa.

28 producing companies

Don't Bank on the Bomb 2014 identifies 28 companies involved in the production, maintenance, and modernisation of nuclear weapons. The 28 are companies based in France, Germany, India, the Netherlands, the United Kingdom and the United States.

402 billion USD invested

In total, more than USD 402 billion was made available to the nuclear weapon producing companies by the investors listed in the report. These investors assisted with share and bond issuances, owned or managed shares and bonds or provided loans to nuclear weapon producing companies between January 2011 and September 2014.

The top 10 investors alone, provided more than USD 175 billion to the identified nuclear weapon producers. With the exception of French BNP Paribas, all in the top 10 are based in the US. The top 3: State Street, Capital Group and Blackrock, have more than 80 billion USD combined invested in the producers named in this report.

In Europe, the most heavily invested are BNP Paribas (France), Royal Bank of Scotland (United Kingdom) and Barclays (United Kingdom). In Asia, the biggest investors are Mitsubishi UFJ Financial (Japan), Sumitomo Mitsui Financial (Japan), and the Life Insurance Corporation of India.

Positive examples: The Hall of Fame

Don't Bank on the Bomb 2014 also profiles financial institutions that have adopted, implemented and published a policy that comprehensively prevents any financial involvement in nuclear weapon producing companies. Eight financial institutions have a public policy that is comprehensive in scope and application. These are identified in the Hall of Fame. The financial institutions in the Hall of Fame are based in Italy, The Netherlands, Norway and Sweden. The Hall of Fame is comprised of a mix of ethical banks, government managed and private institutions. By highlighting these financial institutions, we aim to show that institutions can and do decide to ban investments in the nuclear weapon industry.

Inside the debate: Runners-up

Don't Bank on the Bomb highlights 27 more financial institutions that have taken the step to exclude nuclear weapons producers from their investments, but whose policy is not all-inclusive in preventing financial involvement with nuclear weapon companies. The Runners-up category is quite broad in definition and offers a place to some financial institutions that are almost eligible for the Hall of Fame, but also to some institutions with a policy that contains loopholes that still allow for considerable sums of money to be invested in nuclear weapon producers. These policies demonstrate the ongoing debates financial institutions are engaged in today.

Challenging the Nuclear Weapon İndustry

All the words in the world cannot prevent a nuclear catastrophe from happening. All of the good intentions and plans and meetings of diplomats or heads of state and governments will not guarantee that nuclear weapons are never used again. The only way to do that is to outlaw and eliminate nuclear weapons once and for all. Stigmatising these inhumane and indiscriminate weapons will help.

Divestment sends a clear signal "not with my money, not in my name". Divestment makes it clear to companies that as long as they are associated with nuclear weapons programmes they will be considered illegitimate themselves, and a bad investment. Divestment efforts can have an impact on defence contractors, the financial sector and governments. Divestment most often occurs as a result of pressure by the clients of financial institutions - ordinary people- who believe their money should represent their own moral or ethical standards.

Over the past few years, divestment efforts around the nuclear weapons industry have revitalised the issue in the press and for the public. This is leading to more financial institutions that put their money where their principles are- enacting policies banning investment in nuclear weapons producers. By doing so, they diminish available investment capital and they promote the further stigmatisation of nuclear weapons. The ultimate aim of divestment is to get nuclear weapons producing companies to withdraw from the nuclear weapons industry completely.

Publicising policies that ban investment in nuclear weapons producers can generate a ripple effect on other financial institutions in a country or across a sector. This is what has happened with some of the financial institutions in the Hall of Fame and Runners-up of this report. They have informed, and discussed, amongst one another, ways to strengthen their policies against investment in nuclear weapons. Through divestment discussions, the nuclear weapons issue has been raised in an entirely new sector of society.

Exclusions by financial institutions have a stigmatising effect and can convince company directors to decide to reduce reliance on nuclear weapons contracts and expand into other areas. While it is unlikely that divestment by a single financial institution would create sufficient pressure on a company for it to end its involvement in nuclear weapons work, divestment by even a few institutions based on the same ethical objection can have a significant impact on a company's strategic direction.

Governments too are starting to raise the issue of investment in nuclear weapons. During sessions of the UN General Assembly Open-ended Working Group to develop proposals to take forward multilateral nuclear disarmament negotiations for the achievement and maintenance of a world without nuclear weapons, the issue of divestment was raised and participants "discussed the role of the public and private sectors".³

During the 2014 nuclear Non Proliferation Treaty (NPT) Preparatory Committee meeting, quite a few States raised concerns about the billions of US dollars allocated towards modernisation of nuclear arsenals – especially at a time of significantly shrinking national budgets. Brazil's Ambassador Pedro Motta Pinto Coelho said it clearly:

Nuclear disarmament is also a socioeconomic imperative. Even in spite of the current global financial constraints, nuclear-weapon States (NWS) continue to invest large sums in order to maintain and modernize their nuclear arsenals. It is estimated that half the amount annually invested in nuclear arsenals would be enough to achieve internationally agreed development goals on poverty reduction, including the Millennium Development Goals (MDGs) by 2015.⁴

Report of the Open-ended Working Group to develop proposals to take forward multilateral nuclear disarmament negotiations for the achievement and maintenance of a world without nuclear weapons. (A/68/514) http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N13/506/11/PDF/N1350611.pdf?OpenElement last-viewed 7 August 2014.

⁴ Statement by H.E. Ambassador Pedro Motta Pinto Coelho, Permanent Representative of Brazil to the Conference on Disarmament, 28 April 2014. http://reachingcriticalwill.org/images/documents/Disarmament-fora/npt/prepcom14/statements/28April Brazil.pdf last accessed 7 August 2014.

References were made by a number of States to the idea of public/private partnerships to stop financing nuclear weapons modernisation. While not explicitly talking about divestment, the idea of diverting funds from nuclear weapons into other areas (primarily development) was supported by many States.

There are a number of actions governments can take that can help create and maintain a nuclear weapons free world. Governments can stigmatize nuclear weapons and demonstrate support to outlaw and eliminate them by calling for divestment from nuclear weapons producers. They can enact national legislation to outlaw investment. Governments, especially those in existing nuclear weapons free zones, can also express their concern about investment and declare their interpretation of those nuclear weapons free zone treaties to include a responsibility not to invest.

It is time to start negotiations on a treaty that will outlaw the use, development, production, stockpiling, transfer, acquisition, deployment, and financing of nuclear weapons, as well as assistance with these acts under any circumstances.

Experience from the Cluster Munitions Convention shows the importance of understanding why outlawing assistance is important. PAX research has shown that the prohibition on assistance can and will be interpreted to include financing the production of illegitimate weapons. Nine countries have national legislation specifically prohibiting investment in cluster munitions producers, while another 27 countries have national statements clearly interpreting the prohibition on assistance to include financing.5

States in existing nuclear weapons free zones could declare similar understandings from their own free zone treaties. For example,

- In the Latin American Nuclear-Weapon-Free Zone Treaty: Nations must not take any action "to assist or encourage" the development or manufacture of nuclear weapons inside or outside the zone.6
- In the South Pacific Nuclear Free Zone Treaty: Nations must not do anything "to assist or encourage the manufacture" of nuclear weapons by any other nation, whether it is in the zone or not.7
- In the African Nuclear-Weapon-Free Zone Treaty: Nations must not "take any action to assist or encourage the research on, development, manufacture [...] of any nuclear explosive device".8
- In the Southeast Asian Nuclear-Weapon-Free Zone Treaty: Nation must "refrain from engaging in, encouraging or authorizing, directly or indirectly, [...] manufacture [...] of any nuclear weapon".9

Additionally, some nations have enacted domestic legislation prohibiting companies from facilitating the manufacture of nuclear weapons. For example, in Australia it is a crime for a person or company to commit "any act or thing to facilitate the manufacture, production, acquisition or testing" of nuclear weapons anywhere in the world. 10 There is similar legislation in New Zealand. In both countries a company is also prohibited from providing services, including lending money, to another company if it "believes or suspects, on reasonable grounds, that the services will or may assist a weapons of mass destruction program".11

For the first time in decades we have a real opportunity to significantly advance the nuclear disarmament agenda through the development of a treaty banning nuclear weapons. Additional stigmatization by prohibiting investments will help to generate public awareness and interest in outlawing and eliminating nuclear weapons once and for all.

Stop Explosive Investments, "Legislation", http://www.stopexplosiveinvestments.org/legislation, last accessed 4 September 2014.

Treaty for the Prohibition of Nuclear Weapons in Latin America, opened for signature 14 February 1967. Article 1(2).

South Pacific Nuclear Free Zone Treaty, opened for signature 6 august 1985, article 3(c).

African Nuclear-Weapon-Free-Zone Treaty, opened for signature 11 April 1996, article 3(c)

Treaty on the Southeast Asia Nuclear Weapon-Free Zone, opened for signature 15 December 1995, article 3(4)(b)

¹⁰ South Pacific Nuclear Free Zone Treaty Act 1986, Commonwealth, s.13.

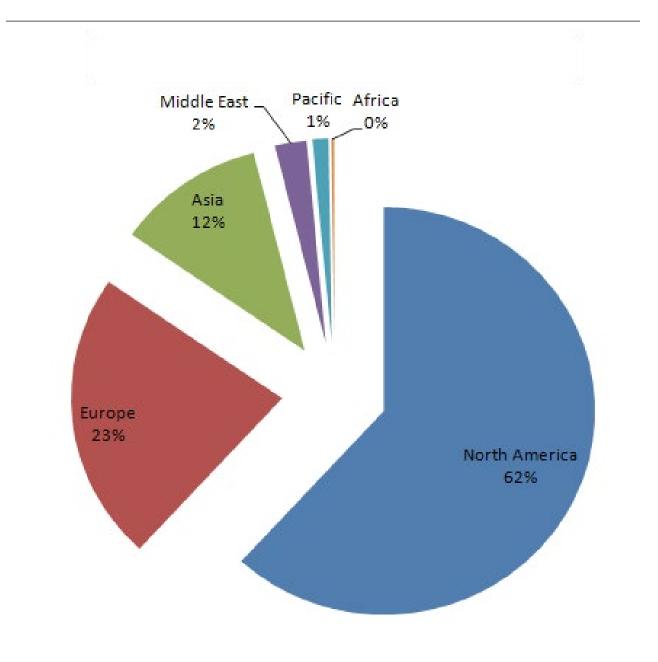
¹¹ Weapons of Mass Destruction (Prevention of Proliferation) Act 1995, Commonwealth, s. 11

Summary Tables

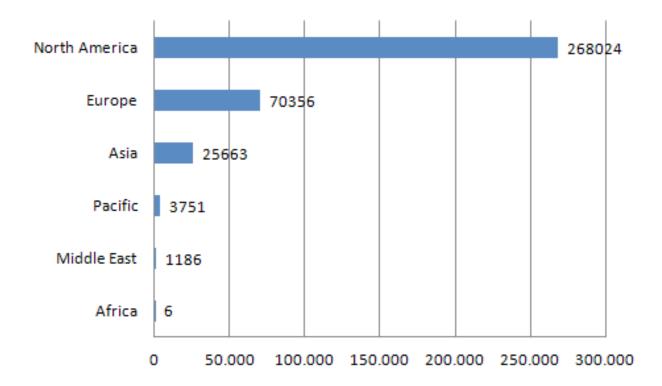
Financial institutions in the Hall of Shame, per country

Country	Financial Institutions 2014	Financial Institutions 2013	Change
Australia	5	6	-1
Austria	1	1	-
Bahrain	1	2	-1
Belgium	2	1	+1
Canada	15	9	+6
China	4	3	+1
Denmark	1	1	-
France	13	9	+4
Germany	12	8	+4
Hong Kong	1	1	-
India	24	20	+4
Indonesia	1	1	-
Ireland	0	1	-1
Israel	1	1	-
Italy	11	2	+9
Japan	6	5	+1
Kuwait	2	3	-1
Libya	2	0	+2
Lichtenstein	1	0	+1
The Netherlands	2	4	-2
Norway	2	2	-
Saudi Arabia	1	1	-
Singapore	2	2	-
South Africa	1	1	-
Spain	4	2	+2
Sweden	3	3	-
Switzerland	7	4	+3
Taiwan	9	9	-
United Arab Emirates	3	2	+1
United Kingdom (including Bermuda, Guernsey and Jersey)	35	27	+8
United States	239	166	+73
Total	411	297	+114

Financial İnstitutions per region



Total Invested per region, in USD Millions.



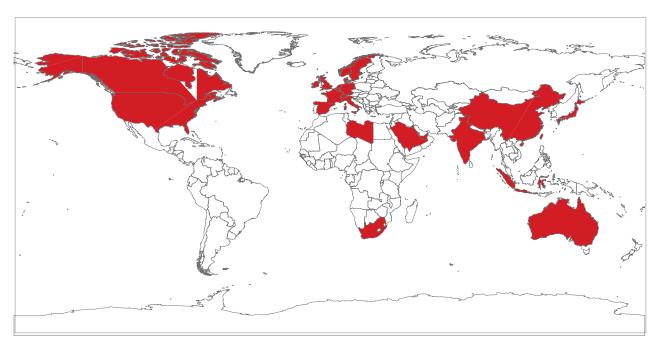
The Hall of Fame

ASN Bank	The Netherlands
Banca Etica	Italy
Folksam	Sweden
Philips Pension Fund	The Netherlands
PNO Media	The Netherlands
SNS Reaal	The Netherlands
Storebrand Group	Norway
Triodos Bank	The Netherlands

Runners-Up

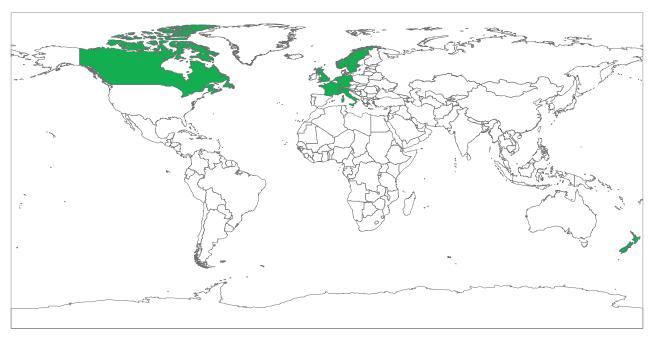
ABN Amro	The Netherlands
Achmea	The Netherlands
BNP Paribas	France
Commerzbank	Germany
The Co-operative Bank	United Kingdom
Crédit Agricole	France
Credit Suisse	Switzerland
Delta Lloyd Group	The Netherlands
DNB	Norway
Fonds de Compensation	Luxembourg
Government Pension Fund	Norway
ING	The Netherlands
KLP	Norway
NIBC	The Netherlands
Nordea	Sweden
New Zealand Superannuation Fund	New Zealand
Pensioenfonds APF	The Netherlands
Pensioenfonds Horeca & Catering	The Netherlands
PGGM	The Netherlands
Rabobank	The Netherlands
Royal Bank of Canada	Canada
SEB	Sweden
Spoorwegpensioenfonds	The Netherlands
SPOV	The Netherlands
Swedbank	Sweden
UniCredit	Italy
Van Lanschot	The Netherlands

Mapping the Hall of Shame



The map above illustrates the locations of financial instituions invested in nuclear weapons producers.

Mapping Financial İnstitution Policies

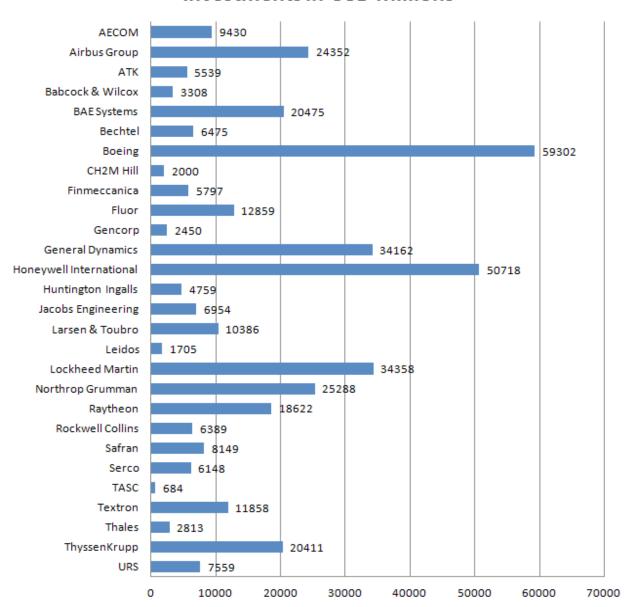


The map above illustrates the locations of financial instituions with policies related to nuclear weapons.

Nuclear Weapons Producing Companies

This report identifies 28 companies operating in France, Germany, 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, Israel, the United Kingdom and the United States. This is not an exhaustive list. These companies are providing necessary 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 modernisation of nuclear forces is carried out primarily or exclusively by government agencies.

Investments in USD Millions



This report covers two main types of nuclear weapons companies- manufacturers and service providers. Manufacturers produce the key components necessary to maintain and modernise nuclear arsenals. Service providers are contracted to maintain specially designed equipment and the technological know-how to modernise and manufacture nuclear weapons and to pick up the pace should a new arms race emerge. Some companies, like Babcock & Wilcox are involved in both service provision and manufacturing of key components.

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.

Airbus Group (The Netherlands)

In May 2014, EADS (European Aeronautic Defence and Space Company) changed its name to Airbus. It is a Dutch company that produces and maintains submarine-launched nuclear missiles for the French navy, and is part of a joint venture that built nuclear missiles for the French air force.

ATK (United States)

ATK (Alliant Techsystems) produces rocket propulsion systems for Trident II submarine launched ballistic missiles. ATK was also responsible for refurbishing the Minuteman III intercontinental ballistic missiles to keep them operational until at least 2030.

Babcock & Wilcox (United States)

Babcock & Wilcox manages and operates several US nuclear weapons facilities including the Y-12 National Security Complex, Savannah River Site, Kansas City Plant, Los Alamos National Laboratory, Pantex Plant and Sandia National Laboratories 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 and US guided missile submarine attack weapons system programmes. It is also the prime contractor for Minuteman III Intercontinental Ballistic Missile (ICBM) system.

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 is also involved in the Y-12 National Security Complex in Tennessee where nuclear weapons are produced.

Boeing (United States)

Boeing is involved in the maintenance of the Minuteman III nuclear intercontinental ballistic

missiles in the US arsenal. It is responsible for guidance, flight controls, secure codes, weapons systems testing and engineering.

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.

Finmeccanica (İtaly)

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.

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.

GenCorp (United States)

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.

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 supports the manufacturing of detonator assemblies. It is also involved in tritium production at the Savannah River Site and in simulated nuclear testing and the life-extension programme for the US navy's Trident II nuclear missiles.

Huntington İngalls İndustries (United States)

Huntington Ingalls Industries is involved in management of the US nuclear arsenal, and tritium production at the Savannah River Site, the only sources 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 (İndia)

Larsen & Toubro is involved in designing and building the Advanced Technology Vessel, the future nuclear-armed submarine of the Indian navy. It is also responsible for developing the launcher system for the nuclear-capable surfaceto-air Akash missile system

Leidos (United States)

Leidos (formerly part of SAIC) provides technical and programmatic support for US nuclear weapons maintenance, life extension, and weapons system modifications. It also provides strategic command, control and communications system engineering and technical services in support of the Nuclear C3 System.

Iockheed Martin (United States)

Lockheed Martin is involved in the production and maintenance of nuclear weapons for both the United States and United Kingdom. Among other things, it is responsible for the production of submarine-launched Trident II D5 nuclear missiles.

Northrop Grumman (United States)

Northrop Grumman is a joint venture partner responsible for maintaining the Nevada National Security Site (NNSS), previously known as Nevada Test Site. It also provides ongoing support to the Trident II (D5) Underwater Launcher System and Advanced Launcher Development Program for both the US and the UK.

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 also has a contract to design a communications system for command and control of nuclear-armed bombers.

Rockwell Collins (United States)

Rockwell Collins is involved in the US Minuteman Modernization Program Upgrade. company was selected to improve the satellite communications capacity of the Minuteman

Launch Control Centers.

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.

TASC (United States)

TASC is involved in the research and development for the Solid Rocket Motor Modernization Study of the Minuteman III system for the US arsenal.

Textron (United States)

Textron designs and builds the US Air Force's operational inter-continental ballistic missile (ICBM) re-entry vehicles.

Thales (France)

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

ThyssenKrupp (Germany)

ThyssenKrupp is building the Dolphin submarines for the Israeli army, according to Israeli design specifications, including, according to various media reports, land-attack and cruise missiles capable of carrying nuclear warheads.

URS (United States)

URS is a responsible for managing the nuclear and other technically complex operations for the Los Alamos and Lawrence Livermore National Laboratories in the US. URS is also providing electronics systems support for the Trident system for the US Navy.

Financial İnstitutions in the Hall of Shame

The following overview presents the types of financial relationships that financial institutions have with the nuclear weapon producers identified in this report.

Investor	Country	AECOM	Airbus Group	ATK	Babcock & Wilcox	BAE Systems	Bechtel	Boeing	CH2M	Finmeccanica	Fluor	
A.K. Group	India											
Aberdeen Asset Management	United Kingdom					S						
ABP	Netherlands					S						
Abrams Bison Investments	United States											
Abu Dhabi Investment Authority	United Arab Emirates											
Acciona	Spain											
Adage Capital Management	United States							S				
Addison Clark Management	United States											
Advisors Asset Management	United States											
Aetna	United States										В	
Affiliated Managers Group	United States			S								
Aflac	United States											
AJO	United States			S								
Alfried Krupp von Bohlen und Halbach-Stiftung	Germany											
Allianz	Germany			S	S	В					S	
Allstate Corporation	United States					В					В	
Altius Finserv Private	India											
Alyeska Investment Group	United States	S		S								
Amalgamated Bank of Chicago	United States			L								
American Century Companies	United States			S		S		S				
American Family Mutual Insurance	United States											
American Financial Group	United States										В	
American International Group	United States					В					В	
American National Financial Group	United States										В	
American National Insurance	United States											

Key:

L= Financial Institution has participated in at least one bank loan of the company since January 2011. Si= Financial Institution has participated in at least one share issue of the company since January 2011. S= Financial Institution owns or manages at least 0.5% of the company's shares at the most recent filing date Bi= Financial Institution has participated in at least one bond issue of the company since January 2011. B= Financial Institution owns or manages at least 0.5% of the company's bonds at the most recent filing date.

Gencorp	General Dynamics	Honeywell International	Huntington Ingalls	Jacobs Engineering	Larsen & Toubro	Leidos	Lockheed Martin	Northrop Grumman	Raytheon	Rockwell Collins	Safran	Serco	TASC	Textron	Thales	ThyssenKrupp	URS
					Bi												
												S					
											S						
	S																
					S												
															S		
		S															
						S											
						S											
S			S	S						S	S						S
	В								В								
			S					S									S
																S	
		В	В					BS	В		В	S					
	В					В		В	В	В				В			
					Bi												
		_								_				_			
		S				_		_		S				S			S
	В					В		В	В	В							
			_				-		-								
		В	В			В	S	В	S	В				В			
						D		D.						D.			
						В		В						В			

American United Mutual Insurance United States Ameritas Mutual United States Ameritas Mutual United States Anchor Financial & Accounting United States Annima Italy Anchor Financial & Accounting Anthor Financial & Accounting Anthor Financial & Accounting Anthor Financial & Accounting Anthor Financial & Accounting Antima Italy ANZ Australia United States S S Argent Financial United States United States S Argent Financial United States S Arremis Investment Management United States United States S Arremis Investment Management United States United States United States United States United States Basca Corp United States United S	Investor	Country	AECOM	Airbus Group	АТК	Babcock & Wilcox	BAE Systems	Bechtel	Boeing	CH2M	Finmeccanica	Fluor	
Ameritas Mutual Anchor Financial & Accounting United States Anchor Financial & Accounting United States ACR Capital Management United States United States Argent Financial Argent Financial Arrowd Associates United States Artemis Investment Management United States Artemis Investment Management United States Associated Banc-Corp United States United States United States Associated Banc-Corp United States United States Associated Banc-Corp United States Associated Banc-Corp United States Associated Banc-Corp United States Bankow United States Bankow United States Bankow United States Bankow United States Bankow United States Bankow United States Bankow United States Bankow United States Bankow United States Bankow United States Bankow United States Bankow United States Bankow United States Bankow United States Bankow Bankow United States Bankow United States Bankow Banca Popolare di Sondrio Banca Popolare di Sondrio Banca Popolare of Sondrio Banca Popolare of Sondrio Banca Popolare of Sondrio Banca Popolare of Sondrio Bankow Bankow United States L Bankow Bankow Bankow United States L Bankow Bankow Bankow United States L Bankow Bankow Bankow Bankow United States L Bankow Bankow Bankow Bankow United States Bankow Bankow Bankow Bankow Bankow Bankow Ba	American United Mutual Insurance	United States										В	
Anima Italy S S S S S S S S S S S S S S S S S S S	Ameriprise Financial	United States				S	S						
Anima Italy S ANZ Australia L L L BIL BIL BIL AQR Capital Management United States S S S Argent Financial United States S Argent Financial United States S Artemis Investment Management United States S Artemis Investment Management United States United Sta	Ameritas Mutual	United States											
ANZ Australia L L L BIL BIL BIL AQR Capital Management United States S S S Argent Financial United States Arrowd Associates United States S S Artemis Investment Management United States S S Artemis Investment Management United States S S Artemis Investment Management United States S S Artemis Investment Management United States S S Artemis Investment Management United States S S S S S S S S S S S S S S S S S S S	Anchor Financial & Accounting	United States											
Argent Financial United States S S S S S S S S S S S S S S S S S S S	Anima	Italy									S		
Argent Financial United States S S S S S S S S S S S S S S S S S S S	ANZ	Australia	L	L			L		Bi L			Bi L	
Artonis Investment Management Artemis Investment Management United States Associated Banc-Corp United States Associated Banc-Corp United States Auto-Owners Insurance United Kingdom AXA France S BS S B Axis Bank India Ballie Gifford & Co United Kingdom Banca Carrige Banca Popolare di Sondrio Banca Popolare Emilia Romagna Bank Hapoalim Israel Bank of China Bank of Communications China China Bank of New York Mellon United States L United States L L Bank of New York Mellon United States L Bance Mone Mel New York Mellon United States L Bance And New York Mellon L Bance And New York Mellon L Bance And New York Mellon L Bance And New York Mellon United States L Bance And New York Mellon L Bance And New York Mellon L Bance And New York Mellon L Bance And New York Mellon L Bance And New York Mellon L Bance And New	AQR Capital Management	United States	S		S								
Artemis Investment Management Artisan Partners United States Associated Banc-Corp United States L Auto-Owners Insurance United States Aviva United Kingdom AXA France S B Axis Bank India Baillie Gifford & Co United Kingdom Banca Carige Italy	Argent Financial	United States											
Artisan Partners Associated Banc-Corp United States L Auto-Owners Insurance United States Auto-Owners Insurance United States Aviva United Kingdom AXA France S B Axis Bank India Baillie Gifford & Co United Kingdom Banca Carige Italy Banca Popolare Emilia Romagna Italy Banch Hapoellim Israel United States L Bank of America United States L Bank of Communications China Bank of New York Mellon United States L L L L L L L L L L L L L	Arovid Associates	United States			S								
Associated Banc-Corp United States L B B B B B B B B B B B B B B B B B B	Artemis Investment Management	United Kingdom					S						
Atlanta Life Financial Auto-Owners Insurance Auto-Owners Insurance United Kingdom AXA France S BS S BS AXIS Bank India Baillie Gifford & Co United Kingdom Banca Carige Italy Banca Monte dei Paschi di Siena Italy Banca Popolare di Sondrio Italy Banca Popolare Emilla Romagna Italy Banca Popolare Emilla Romagna Italy Banca Popolare Emilla Romagna Italy Banca Popolare Emilla Romagna Italy Banca Popolare Emilla Romagna Italy Banch United States L Bank Hapoalim Israel United States Bi LS Bi	Artisan Partners	United States											
Auto-Owners Insurance Aviva United Kingdom AXA France S BS S B Axis Bank India Baillie Gifford & Co United Kingdom Banca Carige Italy	Associated Banc-Corp	United States			L								
AXA France S BS S B BS S B BS B BS B BS B BS B B	Atlanta Life Financial	United States											
AXA France S B B B Axis Bank Baillie Gifford & Co United Kingdom Banca Carige Italy L L Banca Monte dei Paschi di Siena Italy L L Banca Popolare di Sondrio Italy L L Banca Popolare Emilia Romagna Italy L L Banca Popolare Emilia Romagna Italy L L Banco de Sabadell Spain L L Bank of America United States L Bi L Bi L L Bi L S L Bi L Bi L S Bi L Bi L	Auto-Owners Insurance	United States										В	
Axis Bank India Baillie Gifford & Co United Kingdom Banca Carige Italy L Banca Monte dei Paschi di Siena Italy Banca Popolare di Sondrio Italy Banca Popolare Emilia Romagna Italy Banco de Sabadell Spain L Banch Hapoalim Israel L Bank of America United States Bi LS LSi Bi LS L Bi L L Bi LS L Bi L Bi	Aviva	United Kingdom											
Baillie Gifford & Co Banca Carige Italy Banca Monte dei Paschi di Siena Italy Banca Popolare di Sondrio Italy Banca Popolare Emilia Romagna Italy Banco de Sabadell BancPlus United States L Bank Apopolim Israel United States Bi LS Bi LS Bi LS Bi L Bi	AXA	France	S				BS		S			В	
Banca Carige Italy L Banca Monte dei Paschi di Siena Italy L Banca Popolare di Sondrio Italy L Banca Popolare Emilia Romagna Italy L Banco de Sabadell Spain L BancPlus United States L Bank Happalim Israel L Bank of America United States Bi L S L Si Bi L S L Bi L L Bi L Bi L S Bi L S Bi L S Bank of Communications China L Bank of East Asia Hong Kong Bank of New York Mellon United States L Bance Sabadell L Bank of New York Mellon United States L Si Bi L Si L S	Axis Bank	India											
Banca Monte dei Paschi di Siena Italy Banca Popolare di Sondrio Italy Banca Popolare Emilia Romagna Italy Banco de Sabadell Spain L BancPlus United States L Bank Hapoalim Israel L Bank of America United States Bi L S L Si Bi L S L Bi L L Bi L Bi L B	Baillie Gifford & Co	United Kingdom											
Banca Popolare di Sondrio Italy L Banca Popolare Emilia Romagna Italy L Banco de Sabadell Spain L BancPlus United States L Bank Hapoalim Israel L Bank of America United States Bi L S L Si Bi L S L Bi L Bi L Bi L Bi	Banca Carige	Italy									L		
Banca Popolare Emilia Romagna Italy Banco de Sabadell Spain L BancPlus United States L Bank Hapoalim Israel United States Bi L S L Si Bi L S L Bi L L Bi L S L Bi L S L Bi L S L Bi L S L Bi L S L Bi L S L Bi L S Bi L S L Bi L S L Bi L S Bi L S L Bi L S L Bi L S Bi L S L Bi L S Bi L S L Bi L S Bi L S L Bi L S Bi L S L Bi L S Bi L S L Bi L S Bi L S L Bi L S Bi L S L Bi L S Bi L S L Bi L S Bi L S L Bi L S Bi L S L Bi L S Bi L S L Bi L S Bi L S L Bi L S Bi L S Bi L S L Bi L S Bi L S L Bi L S L Bi L S L Bi L S L Bi L S L Bi L S L Bi L S L Bi L S L Bi L S L Bi L S L Bi L S L Bi L Bi	Banca Monte dei Paschi di Siena	Italy									L		
Banco de Sabadell Spain L BancPlus United States L Bank Hapoalim Israel United States Bi L S Bi L Bi L Bi L Bi L Bi L Bi L Bi L Bi	Banca Popolare di Sondrio	Italy									L		
Bank Hapoalim Israel United States Bi L S	Banca Popolare Emilia Romagna	Italy									L		
Bank Happalim Israel United States Bi L S L Bi L Bi L S Bi L S L Bi L S Bi L	Banco de Sabadell	Spain			L								
Bank of America United States Bi L S L Bi L Bi L S L Bi L Bi L S Bi L S	BancPlus	United States			L								
Bank of China China L Bank of Communications China L Bank of East Asia Hong Kong United States L Banner Bank United States L Barclays United Kingdom L L L L L L L L L L L L L L L L L L L	Bank Hapoalim	Israel			L								
Bank of Communications China L Bank of East Asia Hong Kong Bank of New York Mellon United States L S Bi LS S Banner Bank United States L L LS L Bi L Bi L Bi L Bi L	Bank of America	United States	Bi L S	L Si	Bi L S	L	Bi L	L	Bi L S	L	Bi L	Bi L S	
Bank of East Asia Hong Kong Bank of New York Mellon United States Banner Bank United States Barclays United Kingdom L L L Bi L Bi L Bi L Bi L Bi L	Bank of China	China							L		L		
Bank of New York Mellon United States L S Bi LS S Bi LS S Bi LS L Barclays United States L L LS L Bi L Bi L Bi L	Bank of Communications	China	L										
Banner Bank United States L Barclays United Kingdom L L L LS L Bi L Bi L Bi L	Bank of East Asia	Hong Kong											
Barclays United Kingdom L L L LS L Bi L Bi L Bi L	Bank of New York Mellon	United States			L		S		Bi L S			S	
	Banner Bank	United States			L								
	Barclays	United Kingdom	L	L			LS	L	Bi L		Bi L	Bi L	
BayernLB Germany L Bi L	BayernLB	Germany		L					Bi L				
BB&T Corporation United States L L L	BB&T Corporation	United States	L		L	L							
Beck, Mack & Oliver United States S	Beck, Mack & Oliver	United States										S	

Gencorp	General Dynamics	Honeywell International	Huntington Ingalls	Jacobs Engineering	Larsen & Toubro	Leidos	Lockheed Martin	Northrop Grumman	Raytheon	Rockwell Collins	Safran	Serco	TASC	Textron	Thales	ThyssenKrupp	URS
			В			В				В				В			
S	S	S	В	S			BS	В	BS								
										В							
												S					
	Bi L	Bi L		L	L		Bi	Bi L	Bi			L				L	
В						S		S									
														S			
				S						S		S					S
						_				S							
						В				_							
			-		В	-			D. C.	В					S		
			В		D:	В		S	BS	В		S					S
					Bi							c					
												S					
	D: / C	D: L C	1.6	1.6			D: / C	D: L C	D: / C		D: C:	Bi L		D: /			D: I
L	RI F 2	Bi L S	LS	LS		S	RI L 2	Bi L S	Bi L S		Bi Si	Si		Bi L		L	Bi L
		L												L			
														L			
S	Bi L S	Bi L S	S	S		S	S	Bi L S	Bi S	S		S		Bi L S			
	Bi L	Bi L		L	Bi Si			Bi L	Bi			Bi L	L				L
								L								Bi L	
								L									L

Investor	Country	AECOM	Airbus Group	АТК	Babcock & Wilcox	BAE Systems	Bechtel	Boeing	CH2M	Finmeccanica	Fluor	
Becker Capital Management	United States				S							
Bessemer	United States											
BlackRock	United States	S	S	S	S	S		S		S	S	
Blue Cross Blue Shield Association	United States											
Blue Harbour Group	United States				S							
BlueMountain Capital Management	United States											
BMO Financial	Canada	L										
BNP Paribas	France	Bi L	L		L	Bi L	L	Bi L	L	Bi L	Bi L	
Boston Mutual Life Insurance	United States										В	
Boston Private Financial	United States				S							
Brown Advisory	United States										S	
Burgundy Asset Management	Canada				S							
Caisse de dépôt et placement du Québec	Canada											
Calamos Asset Management	United States											
California First National Bancorp	United States			L								
California Public Employees' Retirement System	United States										S	
Capital Group	United States		S			S		S				
Capital One Financial Corporation	United States											
Capstone Investment Advisors	United States											
Carlson Capital	United States											
Carlyle Group	United States											
Carmignac Gestion	France										S	
Cascade Bancorp	United States			L								
Central Bank of Libya	Libya	L										
Central Pacific Financial Corporation	United States			L								
Century Operating Corporation	United States											
Cevian Capital	Sweden											
Charles Schwab	United States											
Chesapeake Partners Management	United States											
Chiba Bank	Japan	L										
Chubb	United States											
CI Financial	Canada											
Citadel Group	United States											
Citigroup	United States		L	L		L	L	Bi L		Bi L	Bi L	
City National Corporation	United States											
CNO Financial	United States					В						
Comerica	United States	L		L	L							

Gencorp	General Dynamics	Honeywell International	Huntington Ingalls	Jacobs Engineering	Larsen & Toubro	Leidos	Lockheed Martin	Northrop Grumman	Raytheon	Rockwell Collins	Safran	Serco	TASC	Textron	Thales	ThyssenKrupp	URS
										S							
S	BS	S	BS	S	S	S	S	BS	S	S	S	S		S		S	S
					В												
В			S					c									
		Bi L	3	L				S Bi L	Bi		L				Ві В	Bi L	L
		J, L		_				J. L	D,		_				U1 U	DI E	_
						S				S							
							S										
				S													
																	S
	S	S		S			S	S		S		S		S			
								L									
S																	
S														_			
				-										S			
				S	S												
				S													
																S	
								S									
S																	
								В									
			В														
														S			
Bi L		Bi L	L		Si		Bi L	Bi L	Bi L		Bi Si			Bi L	Bi	Bi L	Bi L
L														S			L
								В						В			
							L	L									L

Investor	Country	AECOM	Airbus Group	АТК	Babcock & Wilcox	BAE Systems	Bechtel	Boeing	CH2M	Finmeccanica	Fluor	
Commerzbank	Germany		L			L		Bi L		Bi L		
Commonwealth Bank of Australia	Australia		L			L						
Corpbay Financial Services	India											
Country Trust Bank	United States	S										
Cowen	United States											
CPP Investment Board	Canada											
Creative Solution Services	United States											
Crédit Agricole	France	L	L Si S		L	L	L	Bi L		Bi L S	Bi L	
Crédit Mutuel	France		L	L		L				L		
Credit Suisse	Switzerland		L			Bi		Bi L			Bi	
Crestview Partners	United States										В	
D.E. Shaw & Co.	United States			S	S							
D.F. Dent & Company	United States											
Danske Bank	Denmark											
Darashaw	India											
Davis Advisors	United States											
DBS	Singapore		L					L				
DePrince Race & Zollo	United States											
Deutsche Bank	Germany		LS			Bi L S		Bi L		Bi		
Dimensional Fund Advisors	United States	S		S						S		
Discovery Capital Management	United States			S								
DNB	Norway											
DNCA Finance	France									S		
Drexel Hamilton	United States											
DZ Bank	Germany		L									
E.SUN Financial	Taiwan	L		L								
Earnest Partners	United States											
Eastern Bank	United States			L								
Eaton Vance	United States							S				
Edelweiss Financial Services	India											
EdgePoint Investment Group	Canada											
Edmond de Rothschild	France											
Epoch Investment Partners	United States					S		S				
Equator Securities	Indonesia											

Gencorp	General Dynamics	Honeywell International	Huntington Ingalls	Jacobs Engineering	Larsen & Toubro	Leidos	Lockheed Martin	Northrop Grumman	Raytheon	Rockwell Collins	Safran	Serco	TASC	Textron	Thales	ThyssenKrupp	URS
												L				Bi L Si S	
		L			L							L					
					Bi												
	Bi																
						S											
В																	
		L					Bi L		Bi		BLS	L			Bi S	Bi L	S
											Bi L					L	
	Bi		L		Si			Bi L	Bi L								
S			S			S				S							
		L		S				Bi L								L	
		_			Bi			2.2									
														S			
		L										L		L			
																	S
В		Bi L			Bi		L	Bi L	Bi S				L	L	Bi	Bi L Si	
S			S	S		S		S				S					S
		L															
								Bi			В				S		
								S								L	
																	L
			S														S
В			В	S													
					Bi												
				S											c		
										S					S		
					Bi												

AECOM Airbus Group ATK Babcock & Wilcox CH2M CH2M Finmeccanica	
Equirus Capital India	
Erste Bank Austria L	
Evercore United States S	
Export Development Canada Canada	
Farallon Capital Management United States	
Ferguson Wellman Capital Management United States	
Fidelity Investments United States S S S B S S	S
Fidelity Worldwide Investment United Kingdom (Bermuda)	
Fifth Third Bancorp United States L L	
Financière de l'Echiquier France	
Findlay Park Partners United Kingdom	
First Eagle Investment Management United States S	
First Manhattan United States	
First Niagara Financial United States L	
First Pacific Advisors United States	
First Trust Advisors United States S S	
FirstRand South Africa	
Franklin Resources United States S	
Fubon Group Taiwan L	
GAM Holding Switzerland	
Gamco Investors United States	
GenCorp, Inc. Retirement Savings Plan United States	
General Electric United States L	
General Insurance Corporation of India India	
Genworth Financial United States	В
Geode Capital Management United States S S S S	S
GIC Singapore	
Glenhill Capital Management United States	
Glenview Capital Management United States S	
Global Atlantic Financial United Kingdom (Bermuda) B	
Goldman Sachs United States L Si S Bi L Bi L Bi	S
Gosha Trading United States	
Gotham Asset Management United States S	
Grantham, Mayo, Van Otterloo United States S	

Gencorp	General Dynamics	Honeywell International	Huntington Ingalls	Jacobs Engineering	Larsen & Toubro	Leidos	Lockheed Martin	Northrop Grumman	Raytheon	Rockwell Collins	Safran	Serco	TASC	Textron	Thales	ThyssenKrupp	URS
					Si												
	S	S															
					L												
										S							
L B S	S	S	BS	S		S					S	S		S			S
	<u> </u>	3	0.3	3		3					<u> </u>						
												S		S			S
			L											L			
												S					
				S													
В			В			_	S	S									
						S				S							
	В																
	Б		S														S
					Bi												
	S	S	S				S	S			S	S		S		S	
											В						
S		S												S			
S																	
	В	В							В	В							
					S												
						В	В							В			
B S	S	S	S	S	S		S	S	S	S		S		S			S
S					3							3					
	Bi	Bi L			Si		Bi L	Bi L						BiLS		L	
						S											
			S														

Investor	Country	AECOM	Airbus Group	АТК	Babcock & Wilcox	BAE Systems	Bechtel	Boeing	CH2M	Finmeccanica	Fluor	
Greenlight Capital	United States				S							
Groupe BPCE	France		L		S			Bi				
Grupo BBVA	Spain	Bi L	L		L			Bi L		Bi L		
Grupo Santander	Spain		L					Bi L		Bi L	Bi	
Gruppo BPM	Italy									L		
Guardian Life Insurance Company of America	United States										В	
Guggenheim Capital	United States											
Gulf Bank	Kuwait											
Gulf International Bank	Bahrain											
Hancock Holding	United States				L							
Hartford Financial Services	United States							В				
Helaba	Germany		L									
Henderson Group	United Kingdom											
Hirzel Capital Management	United States											
Hotchkis & Wiley	United States											
Housing Development Finance Corporation	India											
HSBC	United Kingdom	Bi L	L						L	Bi L	L	
HSH Nordbank	Germany											
Hua Nan Financial	Taiwan	L		L								
Huntington Bancshares	United States							L				
ICAP	India											
ICICI Bank	India							Bi				
IDFC	India											
Illinois Mutual Life Insurance	United States										В	
Impala Asset Management	United States										S	
Industrial and Commercial Bank of China	China		L					L				
ING Group	Netherlands		L								Bi L	
International Value Advisors	United States											
Intesa Sanpaolo	Italy		L					Bi L		Bi L	Bi	
Invesco	United States				S	S					S	
Invest AD	United Arab Emirates											
IONIC Capital Management	United States											
Jacobs Levy Equity Management	United States											
Jana Partners	United States											
Janus Capital Group	United States				S			S				

Gencorp	General Dynamics	Honeywell International	Huntington Ingalls	Jacobs Engineering	Larsen & Toubro	Leidos	Lockheed Martin	Northrop Grumman	Raytheon	Rockwell Collins	Safran	Serco	TASC	Textron	Thales	ThyssenKrupp	URS
																	S
	S										LS			В	Bi		
	Bi L	Bi L														L	
	L	L														L	
			S														
			В							S							S
								L									
									L								
В										В				В			
												L				L	
												S					
S																	
			В														
					Bi S												
		Bi L		L	Bi L Si						L	L			Bi	Bi L	L
																L	
					Bi												
					Bi												
					Bi												
		L				D.				<u> </u>							
		В				В				В					S		
		Bi L						Bi L	L	S					3	L	
BS	S	S		S				S	S			S		S			
		-		-				-	L			-		-			
B S																	
			S														
																	S
			S	S			S	S	S	S							

India JPMorgan Chase United States Jupiter Fund Management United States KRC Group Belgium KRC Group Belgium KRC Group Belgium KRC Group Belgium KRC Group Belgium KRC Group Belgium KRC Group Belgium KRC Group Belgium KRC Group Belgium KRC Group Belgium KRC Group Belgium KRC Group United States KRENPA Capital Management United States KRENPA Capital Management United States L	Investor	Country	AECOM	Airbus Group	АТК	Babcock & Wilcox	BAE Systems	Bechtel	Boeing	CH2M	Finmeccanica	Fluor	
Lighter Fund Management United Kingdom S S S	JM Financial	India											
Kansas City Life Insurance Group Belgium Kecley Asset Management United States Kennedy Capital Management United States Keycorp United States Keycorp United States L Keycorp United States L Kiff Germany L Kingstown Capital Management United States S Kingstown Capital Management United States S Kingstown Capital Management United States S Kollberg Kravis Roberts & Co United States Kotal Mahindra Bank Kollada Kotal Mahindra Bank Kotal Mahindra Bank Konalite States Kotal Mahindra Bank Konalite States Kotal Mahindra Bank Litter Employees Welfare Foundation Land Bank of Talwan Lauson Kroeker Investment Management United States Lazard United States Lazard United States Legal & General United Mingdom S Legal & General United States Liberty Mutual insurance United States Liberty Mutual insurance United States Liberty Mutual insurance United States B Liberty Mutual insurance United States B Liberty Mutual insurance United States B Liberty Mutual insurance United States B Liberty Mutual insurance United States B Liberty Mutual insurance United States B Liberty Mutual insurance United States B Liberty Mutual insurance United States B Liberty Mutual insurance United States B Liberty Mutual insurance United States B Liberty Mutual insurance United States B Liberty Mutual insurance United States B Liberty Mutual insurance United States B Licensia Corporation of India Licensia Sanking Group United States B Londy Abset Management United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States S Licensy Partners United States S Longview Partners United States B Longview Partners United States S Licensy Partners United States S Licensy Partners United States S Licensy Partners United States S Licensy Partners United States S Licensy Partners United States S Licensy Partners United States S Licensy Partners Licensy Partne	JPMorgan Chase	United States	Bi L S	L	L	L	Bi L	L	Bi L	L	Bi L	Bi B S	
Kecley Asset Management Vulted States Kennody Capital Management Vulted States Keycorp United States L Keycorp United States L Keycorp United States L Kinw Kinw Germany L Kingstown Capital Management United States S Kingstown Capital Management United States S Kingstown Capital Management United States S Kingstown Capital Management United States S Korlak Mahindra Bank Korlak Mahindra Bank India Kuwait Investment Authority Kuwait Lawoon Kroeker Investment Management United States Lazard United States Lazard United States Legal & General Legal & General United Mingdom S Legal & General United States United States B S United States Legal Management United States United States Legal Management United Mingdom S Lucary S United States Lowano Kroeker Investment Management United States United States B S United States B S Legal & General United States Lowano Kroeker Investment Management United States Lowano Kroeker Investment Management United States B S Lowano United States B United Mingdom L B B B Lowano S Lowano Corporation of India United States Lowano Corporation United States Lowano Corporation United States Lowand Corporation United States Lowano Corporation United State	Jupiter Fund Management	United Kingdom					S						
Keeley Asset Management Kennedy Capital Management United States Keycorp United States L KIW Germany L Kingstown Capital Management United States S Kohlburg Krawis Roberts & Co United States Korak Mahindra Bank India Kuwait Investment Authority Kuwait Land Bank of Taiwan Lawson Kroeler Investment Management United States Layson Kroeler Investment Management United States Layson Kroeler Investment Management United States Layson Kroeler Investment Management United States Layson Kroeler Investment Management United States Layson Kroeler Investment Management United States Layson Kroeler Investment Management United States Legal & General United States Legal & General United States B Libyan Investment Authority Libya Libyan Investment Authority Libya Life Insurance Corporation of India Lincon National Corporation United States Libyan Investment Authority Libya India Lionshye Capital Management United States Loeve Corporation United States B Looge Hill Capital United States B Lombard Odier Darier Hentsch Switzerland Lombard Odier Darier Hentsch Lombard Odier Darier Hentsch Lombard Odier Darier Hentsch United States Lombard Odier Darier Hentsch United States Lombard Odier Darier Hentsch United States Lombard Odier Darier Hentsch United States Lombard Odier Darier Hentsch United States Lombard Odier Darier Hentsch United States Lombard Odier Darier Hentsch United States Lombard Odier Darier Hentsch United States Lombard Odier Darier Hentsch United States Lombard Odier Darier Hentsch United States Lombard Odier Darier Hentsch United States Lombard Odier Darier Hentsch United States Billong United States Lombard Odier Darier Hentsch United States Lombard Odier Darier Hentsch United States Billong United States Lombard Odier Darier Hentsch United States Lombard Odier Darier Hentsch United States S Billong United States Billong United States Lombard Odier Darier Hentsch United States S S	Kansas City Life Insurance Group	United States										В	
Keycorp United States L L L KIW Germany L Kingstown Capital Management United States L Kingstown Capital Management United States S Kingstown Capital Management United States S Kingstown Capital Management United States S Kingstown Capital Management United States S Kingstown Capital Management United States S Kingstown Capital Management United States S Kingstown Capital Management United States S Kingstown Capital Management United States S LEXT Employees Welfare Foundation India Lawson Kroeker Investment Authority Kuwait S Laward United States S Lazard United States S Lazard United States S Legal & General United Kingdom S Legal & General United Kingdom S Legal Mason United States B Libyan Investment Authority Libya S Library Mutual Insurance United States B Library Mutual Insurance United States B Library Mutual Insurance United States S Library Mutual Insurance United States S Library Mutual Insurance United States B Library Mutual Insurance United States B Library Mutual Insurance United States B Library Mutual Insurance United States B Library Mutual Insurance United States B Library Mutual Insurance United States B Library Mutual Insurance United States B Library Mutual Insurance United States B Library Mutual Insurance United States B Library Mutual Insurance B Library Mutual Insurance United States B Library Mutual Insurance B Library Mutual Insurance B Library Mutual Insurance B Library Mutual Insurance B Library Mutual Insurance B Library Mutual Insurance B Library Mutual Insurance B Library Mutual Insurance B Library Mutual Insurance B Library Mutual Insurance B Library Mutual Insurance B Library Mutual Insurance B Library Mutual Insurance B Library Mutual Mutual B Library Mutual Mutual B Library Mutual Mutual B Library Mutual Mutual B Library Mutual Mutual B Library Mutual Mutual B Library Mutual Mutual B Library Mutual Mutual B Library Mutual Mutual B Library Mutual Mutual B Library Mutual Mutual B Library Mutual Mutual B Library Mutual	KBC Group	Belgium											
Keycorp United States L L L L KWW Germany L Kingstown Capital Management United States S S S S S S S S S S S S S S S S S S S	Keeley Asset Management	United States											
Kingstown Capital Management United States S Kingstown Capital Management United States S Kohlberg Kravis Roberts & Co United States Kohlberg Kravis Roberts & Co United States Kohlberg Kravis Roberts & Co United States Kohlberg Kravis Roberts & Co United States Kohlberg Kravis Roberts & Co United States Kotak Mahindra Bank India Kuwalt Investment Authority Kwalt S Later Employees Welfare Foundation Land Bank of Taiwan Land Bank of Taiwan Lawson Kroeker Investment Management United States Lawson Kroeker Investment Management United States Lawson United States B S Liberty Mutual Insurance United States B S Liberty Mutual Insurance United States B S Liberty Mutual Insurance United States B S Liberty Mutual Insurance United States B S Liberty Mutual Insurance United States B S Liberty Mutual Insurance United States B S Liberty Mutual Insurance United States B Liberty Mutual Insurance United States B Liberty Mutual Insurance United States B Liberty Mutual Insurance United States B Liberty Mutual Insurance United States B Liberty Mutual Insurance United States B Liberty Mutual Insurance United States B Liberty Mutual Insurance United States B Liberty Mutual Insurance United States B Liberty Mutual Insurance United States B Liberty Mutual Insurance United States B Liberty Mutual Insurance United States B Liberty Mutual Insurance United States Liberty Mutual Insurance B Liberty Mutual Insurance United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners Longview Partners Longview P	Kennedy Capital Management	United States											
Kringstown Capital Management United States Kohlberg Kravis Roberts & Co United States Kotak Mahindra Bank Kuwati Investment Authority Kuwati Investment Authority Land Bank of Talwan Lawson Kroeker Investment Management Liawson Kroeker Investment Management United States Liberty Mutual Insurance United States Libyan Investment Authority Libyan Corporation of India Lincoln National Corporation United States Libors Capital Management United States B B B B B B B B B B B B B B B B B B B	Keycorp	United States	L		L								
Knights of Columbus United States Kohlberg Kravis Roberts & Co United States Kotak Mahindra Bank India Kuwait Investment Authority Kuwait L&T Employees Welfare Foundation India Land Bank of Taiwan Lawson Kroeker Investment Management United States Lazard United States LEBW Germany Legal & General United Kingdom S Liberty Mutual Insurance United States B S Liberty Mutual Insurance United States B S Liberty Mutual Insurance United States B S Liberty Mutual Insurance United States B S Libor Mutual Insurance United States B S Libor Mutual Insurance United States B Libor Mutual Insurance United States B S Liberty Mutual Insurance United States B S Libor Mutual Insurance United States B S Libor Mutual Insurance United States B S Libor Mutual Insurance United States B B Libor Mutual Insurance United States B B Libor Mutual Insurance United States B Libor Mutual Insurance United States B Libor Mutual Insurance United States B Libor Mutual Insurance United States B Libor Mutual Insurance United States B Libor Mutual Insurance United States B Libor Mutual Insurance United States B Libor Mutual Insurance United States B Libor Mutual Insurance United States B Libor Mutual Insurance B Libor Mutual Insurance United States B Libor Mutual Insurance B Libor Mutual Insurance B Libor Mutual Insurance B Libor Mutual Insurance B Libor Mutual Insurance B Libor Mutual Insurance B Libor Mutual Insurance B Libor Mutual Insurance B Libor Mutual Insurance B Libor Mutual Insurance B B Libor Mutual Insurance B Libor Mu	KfW	Germany		L									
Kohlberg Krawis Roberts & Co Kotak Mahindra Bank India Kuwait Investment Authority Kuwait Lat Employees Welfare Foundation India Land Bank of Taiwan Lawson Kroeker Investment Management United States Lazard United States Lega Mason United Kingdom Lega Mason United States Uliberty Mutual Insurance United States Ulibyan Investment Authority Libya S Libery Mutual Corporation of India Lincoln National Corporation United States Lincofy Capital Management United States B Lincofy Capital Longuie Asset Management United States Longview Partners United States S Longview Partners United States Longview Partners United States Longview Partners United States S Longview Partners United States Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners United States Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners United States S Longvie	Kingstown Capital Management	United States				S							
Kuwait Investment Authority Kuwait Kuwait Investment Authority Kuwait Kuwait Investment Authority Kuwait Kuwait Investment Authority Kuwait Land Bank of Taiwan Taiwan L Lawson Kroeker Investment Management United States Lazard United States LBBW Germany Legal & General United Kingdom S Liberty Mutual Insurance United States Libyan Investment Authority Libya Life Insurance Corporation of India Lincoln National Corporation United States S LUNITED States S LUNGEY Capital Management United States Lodge Hill Capital United States Lows Corporation United States Lows Corporation United States Lows Corporation United States Lows Corporation United States Lombard Odier Darier Hentsch Longview Partners United States Longycew Partners United States Longola United States	Knights of Columbus	United States										В	
Kuwait Investment Authority L&T Employees Welfare Foundation Land Bank of Taiwan Lawson Kroeker Investment Management Liazard Lazard United States LBBW Germany Legal & General United Kingdom Legg Mason United States Liberty Mutual Insurance United States Libyan Investment Authority Libya Libya Life Insurance Corporation of India Lincoln National Corporation United States LionEye Capital Management United States Loyds Banking Group United States Lows Corporation United States Lows Corporation United States Lows Corporation United States Lows Corporation United States Lows Corporation United States Lombard Odier Darier Hentsch Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States Longview Partners United States S Licon Abbett & Co United States S Licon Abbett & Co United States S Licon Abbett & Co United States S Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners United States Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners United States S Longview Partners Longview Partners United States S Longview Partners Longview Partners Longview Partners Longview Partners Longview Partners Longview Partners Longview Partners Longview	Kohlberg Kravis Roberts & Co	United States											
LaT Employees Welfare Foundation India Land Bank of Taiwan Lawson Kroeker Investment Management Lawson Kroeker Investment Management Lazard United States LBBW Germany Legal & General United Kingdom Legg Mason United States Liberty Mutual Insurance United States Libyan Investment Authority Libya Life Insurance Corporation of India Lincoln National Corporation United States LionEye Capital Management United States S LKP Group India Lloyds Banking Group United Kingdom L Bi L Bi L Bi L Bi Lodge Hill Capital United States Loews Corporation United States B Lomyto Saset Management United States B Longview Asset Management United States Longview Partners United Kingdom Loop Capital United States S Longview Partners United Kingdom Loop Capital United States Longview Partners United Kingdom Loop Capital United States S S S S S S S S S S S S S	Kotak Mahindra Bank	India											
Land Bank of Talwan Lawson Kroeker Investment Management United States	Kuwait Investment Authority	Kuwait					S						
Lazard United States LBBW Germany Legal & General United Kingdom S Legg Mason United States B Liberty Mutual Insurance United States Libyan Investment Authority Libya S Life Insurance Corporation of India India Lincoln National Corporation United States S Libye Capital Management United States S LiOdge Hill Capital United States B Lodge Hill Capital United States B Lombard Odier Darier Hentsch Switzerland United States B Longview Asset Management United States B Longview Partners United States B Long Capital United States B Long Bi L Bi L Bi L Longview Asset Management United States B Long Sitzerland B Long Sitzerl	L&T Employees Welfare Foundation	India											
Lazard United States LBBW Germany Legal & General United Kingdom S Liberty Mutual Insurance United States B Libyan Investment Authority Libya S Life Insurance Corporation of India Lincoln National Corporation United States B LIONEY Capital Management United States S LIONEY Capital Management United States S LONG Banking Group United Kingdom L Bi L Bi L Bi L Bi L Lodge Hill Capital United States B Lows Corporation United States B Lows Corporation United States B Lows Corporation United States B Lows Corporation United States B Lows Corporation United States B Lows Corporation United States B Lows Corporation United States B Lows Corporation United States B Lows Corporation United States B Longview Asset Management United States Longview Partners United Kingdom Loop Capital United States B Lord, Abbett & Co United States S	Land Bank of Taiwan	Taiwan			L								
Legal & Germany Legal & General United Kingdom S Legg Mason United States B S Liberty Mutual Insurance United States Libyan Investment Authority Libya S Life Insurance Corporation of India Lincoln National Corporation United States B LionEye Capital Management United States S LKP Group India Lloyds Banking Group United Kingdom L Lodge Hill Capital United States Loews Corporation United States B Lombard Odier Darier Hentsch Switzerland Longview Asset Management United States United States Longview Partners United States Loop Capital United States United States S Longview Partners United States S Lord, Abbett & Co United States S	Lawson Kroeker Investment Management	United States											
Legal & General United Kingdom S S Legg Mason United States B S Liberty Mutual Insurance United States B S Libyan Investment Authority Libya S S Life Insurance Corporation of India India S S Lincoln National Corporation United States B S LionEye Capital Management United States S S LKP Group India S S Lloyds Banking Group United Kingdom L Bi L L Bi L Bi Lodge Hill Capital United States B S	Lazard	United States											
Ligg Mason United States B B B Cliberty Mutual Insurance United States B Clibyan Investment Authority Libya Life Insurance Corporation of India Lincoln National Corporation United States B ClionEye Capital Management United States S Cloyds Banking Group India Lloyds Banking Group United Kingdom L Cloyds Banking Group United States B Combard Odier Darier Hentsch Switzerland Longview Asset Management United States United States Longview Partners United States United States S Composition United States S Composition United States S Composition Switzerland Switzerland Switzerland Longview Partners United States S Composition Switzerland Sw	LBBW	Germany											
Liberty Mutual Insurance Libya	Legal & General	United Kingdom					S						
Libyan Investment Authority Libya Life Insurance Corporation of India Lincoln National Corporation United States B LionEye Capital Management United States LKP Group India Lloyds Banking Group United Kingdom L Bi L Bi L Bi Lodge Hill Capital United States Loews Corporation United States B Lombard Odier Darier Hentsch Longview Asset Management United States Longview Partners United States Lord, Abbett & Co United States S S S S S S S S S S S S S	Legg Mason	United States		В								S	
Life Insurance Corporation of India Lincoln National Corporation United States B LionEye Capital Management United States S LKP Group India Lloyds Banking Group United Kingdom L Bi L Bi L Bi Lodge Hill Capital United States Loews Corporation United States B Lombard Odier Darier Hentsch Switzerland Longview Asset Management United States United States Longview Partners United States United States S Longview Partners United States S Lord, Abbett & Co United States S	Liberty Mutual Insurance	United States					В						
Lincoln National Corporation United States S LionEye Capital Management United States S LKP Group India Lloyds Banking Group United Kingdom L Bi L Bi Lodge Hill Capital United States Loews Corporation United States B Lombard Odier Darier Hentsch Switzerland Longview Asset Management United States United Kingdom Longview Partners United States S Lord, Abbett & Co United States S	Libyan Investment Authority	Libya									S		
LionEye Capital Management LKP Group India Lloyds Banking Group United Kingdom L Bi L Bi L Bi L Bi L Bi L Bi L Bi L Bi L Bi L Bi L Lodge Hill Capital United States Loews Corporation United States Lombard Odier Darier Hentsch Switzerland Longview Asset Management United States United States Longview Partners United Kingdom Loop Capital United States S United States S Lord, Abbett & Co United States	Life Insurance Corporation of India	India											
LKP Group Lloyds Banking Group United Kingdom L Bi L Bi L Bi L Bi L Bi L Bi L Bi L Bi L Bi L Lodge Hill Capital United States Loews Corporation United States Lombard Odier Darier Hentsch Switzerland Longview Asset Management United States United Kingdom Loop Capital United States S United States S United States S United States S	Lincoln National Corporation	United States					В						
Lloyds Banking Group United Kingdom L Bi L L Bi L	LionEye Capital Management	United States				S							
Lodge Hill Capital United States Loews Corporation United States Lombard Odier Darier Hentsch Switzerland Longview Asset Management United States Longview Partners United Kingdom Loop Capital United States Lord, Abbett & Co United States	LKP Group	India											
Loews Corporation United States B Lombard Odier Darier Hentsch Switzerland Longview Asset Management United States Longview Partners United Kingdom Loop Capital United States S United States S	Lloyds Banking Group	United Kingdom		L			Bi L	L	Bi L			Bi	
Longview Asset Management United States Longview Partners United Kingdom Loop Capital United States S United States S	Lodge Hill Capital	United States											
Longview Asset Management United States Longview Partners United Kingdom Loop Capital United States Lord, Abbett & Co United States	Loews Corporation	United States					В						
Longview Partners United Kingdom Loop Capital United States Lord, Abbett & Co United States S	Lombard Odier Darier Hentsch	Switzerland											
Loop Capital United States Bi Lord, Abbett & Co United States S	Longview Asset Management	United States											
Lord, Abbett & Co United States S	Longview Partners	United Kingdom											
	Loop Capital	United States							Bi				
LSV Asset Management United States S S S	Lord, Abbett & Co	United States				S							
	LSV Asset Management	United States	S		S		S						

Gencorp	General Dynamics	Honeywell International	Huntington Ingalls	Jacobs Engineering	Larsen & Toubro	Leidos	Lockheed Martin	Northrop Grumman	Raytheon	Rockwell Collins	Safran	Serco	TASC	Textron	Thales	ThyssenKrupp	URS
					Si												
B L	Bi L	Bi L S	LS		S		Bi L	Bi L S	Bi L	В		L Si		Bi L	S	L Si	S
												L					
S S																	
																L	
S																	
														В			
													L				
					Bi												
					S												
S																	
В	Bi	S															
																L	
В В		S							S			S					S
В		3							3	В							3
					S												
	В	В				В		В	В	В							
	Bi L	L		L	Bi		Bi L	Bi L	Bi			L					
S	DI E	-		_			DIE	D1 E	J.			-					
						В								В			
					В												
	S																
												S					
n	C		D	c													
В	S		В	S		S		S	S								S
																	<u> </u>

Investor	Country	AECOM	Airbus Group	АТК	Babcock & Wilcox	BAE Systems	Bechtel	Boeing	CH2M	Finmeccanica	Fluor	
Luminus Management	United States				S							
Lyrical Partners	United States	S										
M&T Bank Corporation	United States											
Macquarie Group	Australia											
Madison Investment	United States											
MainFirst Holding	Switzerland											
Majedie Asset Management	United Kingdom					S				S		
Man Group	United Kingdom											
Manning & Napier	United States											
Manulife Financial	Canada		В			В		В				
Marathon Asset Management	United Kingdom					S						
Marsico Capital Management	United States											
MassMutual Financial	United States		S			В						
Mata Securities India	India											
Matthews International Capital Management	United States											
Mayo Capital Partners	United States											
Mediobanca Banca di Credito Finanziario	Italy											
Mediolanum	Italy									В		
Mega Financial	Taiwan	L										
Mercator Asset Management	United States					S						
MetLife	United States					В		В				
MFP Investors	United States											
Millennium Management	United States				S							
Mischler Financial Group	United States											
Mitsubishi UFJ Financial	Japan	Bi L	L	Bi L	L	L	L	Bi L	L	L	Bi L	
Mizuho Financial	Japan		L	L		L		Bi L				
Modern Woodmen of America	United States										В	
Mondrian Investment Partners	United Kingdom											
Morgan Stanley	United States	Bi L	L Si	LS		Bi L		Bi L		Bi		
National Bank of Abu Dhabi	United Arab Emirates					L		L				
National Financial Partners	United States											
National Life Group	United States											
Nationwide	United States											
Neuberger Berman	United States							S				
New India Assurance	India											
New Jersey Department of the Treasury	United States				S							

Gencorp	General Dynamics	Honeywell International	Huntington Ingalls	Jacobs Engineering	Larsen & Toubro	Leidos	Lockheed Martin	Northrop Grumman	Raytheon	Rockwell Collins	Safran	Serco	TASC	Textron	Thales	ThyssenKrupp	URS
L																	L
								S	S								
				S						S							
																S	
			S														
																S	
								В									
	S																
	<u> </u>					В	В		В				L	В			
					Bi												
					В												
						S											
																L	
																	L
														_			
S									В					В			
3																	
								Bi									
L	Bi L	Bi L	L	L	L		Bi	Bi L	L		L	L		Bi L		L	L
	Bi L	Bi L			L		Bi L	Bi L					L				L
												S					
Bi L		Bi L S	S			S	Bi	Bi L	Bi S		Bi Si			Bi L		L	Bi L
	L							L				L					
																	S
						В				В							
						В		В									
	S													S			
					S												
																	S

Investor	Country	AECOM	Airbus Group	ATK	Babcock & Wilcox	BAE Systems	Bechtel	Boeing	CH2M	Finmeccanica	Fluor	
New Mountain Capital	United States											
New York Life Insurance Company	United States					В		BS			S	
New York State Common Retirement Fund	United States			S								
NewSouth Capital Management	United States											
Norddeutsche Landesbank	Germany											
Norges Bank	Norway	S								S	S	
Northern Trust	United States	LS		LS	L			LS	L		S	
NorthPointe Capital	United States											
Northwestern Mutual Life Insurance	United States					В		В				
Och-Ziff Capital Management Group	United States											
Oddo & Cie	France											
Ohio National Mutual	United States											
Ohio Public Employees Retirement System	United States											
Old Mutual	United Kingdom			S								
Ontario Teachers' Pension Plan Board	Canada											
Oppenheimer Holdings	United States											
Opus Capital Management	United States	S										
Orbis Group	United Kingdom (Bermuda)											
Orix Corporation	Japan										S	
OxFORD Asset Management	United Kingdom											
Pacific Mutual	United States					В					В	
Peconic Partners	United States										S	
Pekin Singer Strauss Asset Management	United States										В	
Pennant Capital Management	United States											
People's United Financial	United States			L								
Piper Jaffray	United States											
Platinum Asset Management	Australia											
PNC Financial Services	United States			L	L							
Point72 Asset Management	United States			S								
Polar Capital Holdings	United Kingdom	S										
Poplar Forest Capital	United States	S										
Power Financial Corporation	Canada	S										
Primecap	United States	S	S									
Principal Financial	United States	S	В									
Protective Life Corp	United States										В	
Prudential	United Kingdom					BS		В				

Gencorp	General Dynamics	Honeywell International	Huntington Ingalls	Jacobs Engineering	Larsen & Toubro	Leidos	Lockheed Martin	Northrop Grumman	Raytheon	Rockwell Collins	Safran	Serco	TASC	Textron	Thales	ThyssenKrupp	URS
																	S
В	В		В			В			В	В							
			S														S
S																	
																L	
			S		S	S				S					S	S	S
\$	LS	LS	S	LS		S	LS	LS	LS	S				LS			LS
S	D.																
	B S	В					В		В								
	3										S						
						В											
S																	
S	S	S	S					S	S								S
														S			
В			В														
												S					
			BS				S		S								
S																	
								В						В			
			S														
								Bi									
				S													
	Bi L		L					Bi L						Bi L			
										_							
	S							S		В							S
		S		S		n			C								
B S						В			S B	S B				В			
						В		В	В	ט		S		B S			
						U		U	D			J		0.3			

Investor	Country	AECOM	Airbus Group	ATK	Babcock & Wilcox	BAE Systems	Bechtel	Boeing	CH2M	Finmeccanica	Fluor	
Prudential Financial	United States	S				В		BS			BS	
Pzena Investment Management	United States	S										
Raymond James Financial	United States			L								
RE Investment Corporation	United States											
Regions Financial	United States			L								
Reinhart Partners	United States				S							
Reliance Capital	India											
Renaissance Technologies	United States											
RHJ International	Belgium	S										
Riyad Bank	Saudi Arabia							L				
Royal Bank of Canada	Canada		L	Bi L		L		Bi L				
Royal Bank of Scotland	United Kingdom		L			Bi L	L	Bi L	L	Bi L		
Royal Capital Management	United States											
Ruane, Cunniff & Goldfarb	United States											
Ruffer	United Kingdom											
Sammons Enterprises	United States											
Sanders Capital	United States											
Sasco Capital	United States											
Schafer Cullen Capital Management	United States											
Schroders	United Kingdom				S	S						
Scotia Bond	Canada											
Scotiabank	Canada	Bi L			L						Bi	
Seizert Capital Partners	United States											
Sentry Insurance	United States											
Serco Group Plc Employee Benefit Trust	United Kingdom											
Shelter Mutual Insurance	United States											
Siemens Financial Services	Germany			L								
Silchester International Investors	United Kingdom					S						
Silverback Asset Management	United States											
Silvercrest Asset Management	United States											
SinoPac Holdings	Taiwan	L										
Skandinaviska Enskilda Banken	Sweden		L			L						
Skytop Capital Management	United States											
Smith Asset Management Group	United States											
Snow Capital Management	United States											
Société Générale	France		L Si			L		Bi		Bi L		
SPA Group	India											

Gencorp	General Dynamics	Honeywell International	Huntington Ingalls	Jacobs Engineering	Larsen & Toubro	Leidos	Lockheed Martin	Northrop Grumman	Raytheon	Rockwell Collins	Safran	Serco	TASC	Textron	Thales	ThyssenKrupp	URS
	В	В	S				В	S	BS	В				В			
																	S
																	S
			S			S											
L																	
			S		S												
			3														
	L								L								
		Bi L					Bi L						L		В		
	Bi L	Bi L	L	L	L		L	Bi L	Bi			Bi L				Bi L	L
S																	
				S								S					
	S						S										
								В									
	S																
									S								
									S								
						S					S	S					
								Bi									
	Bi L	L	L	L				Bi L	Bi L								_
																	S
						В											
						В						S					
			L			ט											
В																	
				S													
																Bi L	
S																	
			S														
														S			
		Bi L									L Si				Bi	L	
					Bi												

Investor	Country	AECOM	Airbus Group	АТК	Babcock & Wilcox	BAE Systems	Bechtel	Boeing	CH2M	Finmeccanica	Fluor	
StanCorp Financial	United States											
Standard Chartered	United Kingdom	L						Bi L			Bi	
Standard Life	United Kingdom											
Starboard Value	United States				S							
State Administration for Foreign Exchange	China											
State Bank of India	India	L		L								
State Farm	United States										В	
State Street	United States	S		S	S	S		LS			S	
Steel Partners Holdings	United States											
Stifel Financial	United States			L								
Sumitomo Mitsui Financial	Japan	Bi L	L	L	L	L		Bi L		L		
Sumitomo Mitsui Trust	Japan											
Sun Life Financial	Canada					В					S	
Sunrise Partners	United States											
SunTrust Banks	United States			Bi L							S	
Svenska Handelsbanken	Sweden											
Swiss Re	Switzerland											
Swisscanto Holding	Switzerland											
Symetra Financial	United States					В						
Synovus Financial Corporation	United States			L								
T. Rowe Price	United States				S			S				
Taiwan Business Bank	Taiwan	L										
Taiwan Cooperative Financial	Taiwan	L										
Taiwan Financial Holding	Taiwan	L										
Thales SA Employees Stock Ownership Plan	France											
The London Company of Virginia	United States			S								
The Phoenix Companies	United States											
The Travelers Companies	United States										В	
Thrivent Financial	United States										S	
TIAA-CREF	United States			S		В		BS			В	
Tiger Management	United States											
Toronto-Dominion Bank	Canada		L		L	L						
Trimaran Capital Partners	United States			L								
Trust Investment Advisors	United States											
Two Sigma Investments	United States	S		S								
UBI Banca	Italy									L		
UBS	Switzerland		L Si S			LS		Bi L			Bi	

Gencorp	General Dynamics	Honeywell International	Huntington Ingalls	Jacobs Engineering	Larsen & Toubro	Leidos	Lockheed Martin	Northrop Grumman	Raytheon	Rockwell Collins	Safran	Serco	TASC	Textron	Thales	ThyssenKrupp	URS
										В							
		Bi L			Bi												
												S					
												S					
					Bi												
	В	В						В	В	В				В			
S	S	S	BS	S		S	S	LS	S	S		S		S			S
S																	
	D: 1	D: 1					D. 1	D: 1						D: 1			
	Bi L	Bi L	L	L	L		Bi L	Bi L	L			L		Bi L		L	L
В		S	В		L		S	S				S		В			
В В		3	ь				3	3				3		ь			
Bi L	Bi L		L					Bi L						L			L
	L		_					2.2									
	В																
											В						
								В	В								
														L			
S		S		S					S			S		B S			
								L									
								L									
															S		
						В											
	В					В				В							
			S	S													
S	BS	S	BS		S		В	BS	BS	BS				S			
S	_,																
	Bi L	Bi L	L	L				Bi L									
					D:												
			S	S	Bi	S											
			3	3		3											
		Bi	В				Bi L		Bi		Si			L			
		51	D .				DI L		<i>0</i> 1		31						

Investor	Country	AECOM	Airbus Group	ATK	Babcock & Wilcox	BAE Systems	Bechtel	Boeing	CH2M	Finmeccanica	Fluor	
UniCredit	Italy		L							Bi L		
United Fire Group	United States										В	
Unum Group	United States					В						
US Bancorp	United States	L		Bi L	L			Bi L	L		L	
USS Investment Management	United Kingdom					S						
UTI Asset Management	India											
ValueAct Holdings	United States											
Vanguard	United States	S	S	S	S	S		BS		S	BS	
Veritas Asset Management	United Kingdom											
Viel & Cie.	France											
Viking Global Investors	United States		S									
Voya Financial	United States										S	
VP Bank Group	Liechtenstein											
W.T.B. Financial	United States	S										
Waddell & Reed Financial	United States							S				
Water Street Capital	United States											
Wedge Capital Management	United States											
Wellington Management	United States	S										
Wells Fargo	United States	Bi L		Bi L	LS	L		Bi L	L		Bi	
Western & Southern Mutual	United States			S								
Westpac Banking	Australia		L					L				
White Mountains Insurance	United Kingdom (Bermuda)											
William Blair & Company	United States											
Williams Capital Group	United States							Bi				
Winslow Asset Management	United States											
Winton Capital Management	United Kingdom											
Woodford Investment Management	United Kingdom											
Woodmen of the World and/or Omaha Woodmen Life Insurance Society	United States											
Yes Bank	India											

Gencorp	General Dynamics	Honeywell International	Huntington Ingalls	Jacobs Engineering	Larsen & Toubro	Leidos	Lockheed Martin	Northrop Grumman	Raytheon	Rockwell Collins	Safran	Serco	TASC	Textron	Thales	ThyssenKrupp	URS
		L						Bi L								Bi L	
			В			В	В		В					В			
L	Bi L	L	L	L			Bi L	Bi L	L					Bi L			L
					S												
										S							
S	BS	B S	BS	S	S	BS	BS	S	BS	BS	S	S		S	S	S	S
							S										
					Bi												
																Si	
				S													
S																	
			S														S
	S	S		S			S	S	S		S			S			
Bi L	Bi L S	Bi L	LS	L			Bi L	Bi L	Bi					Bi L			Bi L
								В	В								
		L															L
		В							В	В							
				S													
	Bi	Bi						Bi						Bi			
S																	
						S		s									
												S					
						В											
					Bi												

DON'T BANK ON THE BOMB

A Global Report on the Financing of Nuclear Weapons Producers

Executive Summary
October 2014



