

# United States

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226 Financial Institutions  
made an estimated USD\$ 344 billion  
available to 27 nuclear weapon producing companies since January 2013.

## Introduction

This document contains country specific information from the 2016 Don't Bank on the Bomb update. Hall of Fame and Runners-up include financial institutions with headquarters in the country that have published policies banning or limiting investment in nuclear weapons producers. Hall of Shame are the financial institutions that have significant financing relationships with one or more of the nuclear weapons producers identified in the report. There is also a brief summary of the nuclear weapons related work of each of the identified producers. For more detail, see the full report or go to the [www.DontBankOnTheBomb.com](http://www.DontBankOnTheBomb.com) website.

This briefing paper includes:

Introduction .....	1
Hall of Shame .....	8
1. Academy Securities (United States).....	13
2. Adage Capital Management (United States).....	13
3. Affiliated Managers Group (United States).....	14
4. AJO (United States) .....	14
5. Allstate (United States) .....	14
6. Alyska Investment Group (United States) .....	15
7. Amalgamated Bank of Chicago (United States) .....	15
8. American Automobile Association (United States) .....	16
9. American Century Investments (United States).....	16
10. American Equity Investment Life Holding (United States) .....	16
11. American Family (United States).....	17
12. American Financial Group (United States).....	17
13. American International Group (AIG) (United States) .....	18
14. American National Insurance (United States).....	18
15. American United Mutual Insurance (United States) .....	19
16. Ameriprise Financial (United States).....	19
17. Analytic Investors (United States).....	20
18. Anchor Bolt Capital (United States) .....	20
19. Anthem (United States).....	20
20. Apto Partners (United States) .....	21
21. AQR Capital Management (United States) .....	21
22. Aristotle Capital Management (United States).....	22
23. Arrowstreet Capital (United States).....	22

24.	Artisan Partners (United States).....	22
25.	Associated Banc-Corp (United States) .....	23
26.	Assurant (United States) .....	23
27.	Auto-Owners Insurance (United States) .....	23
28.	Baird (United States) .....	24
29.	BancPlus (United States) .....	24
30.	Bank of America (United States) .....	24
31.	Bank of New York Mellon (United States) .....	29
32.	Banner Bank (United States) .....	32
33.	BB&T (United States).....	32
34.	Beck, Mack & Oliver (United States).....	33
35.	Becker Capital Management (United States).....	34
36.	Bessemer Group (United States).....	34
37.	BlackRock (United States) .....	34
38.	Blaylock Beal Van (United States) .....	36
39.	Blue Cross Blue Shield Association (United States) .....	36
40.	Blue Harbour Group (United States).....	36
41.	Boston Private (United States).....	37
42.	Cacti Asset Management (United States).....	37
43.	California First National Bancorp (United States).....	37
44.	Cantor Fitzgerald (United States) .....	38
45.	Capital Group (United States) .....	38
46.	Capital One Financial (United States) .....	39
47.	Carlson Capital (United States) .....	39
48.	Carlyle Group (United States) .....	40
49.	Cascade Bancorp (United States).....	40
50.	CastleOak Securities (United States) .....	41
51.	CAVU Securities (United States).....	41
52.	Central Mutual Insurance (United States) .....	42
53.	Central Pacific Financial Corporation (United States) .....	42
54.	Charles Schwab (United States).....	42
55.	Chesapeake Partners Management (United States).....	43
56.	Cigna (United States).....	43
57.	Citadel (United States) .....	43
58.	Citigroup (United States).....	44
59.	Citizens Bank & Trust (United States).....	48
60.	Citizens Financial Group (United States) .....	48
61.	City National Corporation (United States) .....	49
62.	CL King & Associates (United States) .....	49
63.	CNO Financial Group (United States).....	50
64.	Comerica (United States) .....	50

65.	Cooper Creek Partners Management (United States).....	50
66.	Corsair Capital Management (United States).....	51
67.	Cuna Mutual Group (United States).....	51
68.	D.E. Shaw & Co. (United States).....	51
69.	Dimensional Fund Advisors (United States) .....	52
70.	Divine Capital Markets (United States) .....	52
71.	Drexel Hamilton (United States) .....	53
72.	Earnest Partners (United States).....	54
73.	Eastern Bank (United States).....	54
74.	Eaton Vance (United States).....	54
75.	Employers Reassurance Corporation (United States) .....	55
76.	Evercore (United States) .....	55
77.	Federated Investors (United States).....	56
78.	Ferguson Wellman Capital Management (United States).....	56
79.	Fidelity Investments (United States) .....	57
80.	Fiera Capital (United States).....	58
81.	Fifth Third Bancorp (United States).....	58
82.	First Eagle Investment Management (United States).....	59
83.	First Horizon (United States) .....	59
84.	First Niagara Financial (United States).....	60
85.	First Trust Advisors (United States).....	60
86.	Focus Financial Partners (United States).....	61
87.	Foundation Asset Management (United States).....	61
88.	Franklin Resources (United States) .....	61
89.	Fred Alger & Company (United States).....	62
90.	GE Capital Services (United States).....	62
91.	General Re (United States).....	63
92.	Geode Capital Management (United States) .....	63
93.	GGCP (United States).....	64
94.	Glenmede (United States) .....	64
95.	Goldman Sachs (United States) .....	65
96.	Gotham Asset Management (United States) .....	68
97.	Goto Capital Markets (United States) .....	68
98.	Great Pacific Securities (United States).....	68
99.	Greenhaven Associates (United States) .....	69
100.	Greenlight Capital (United States).....	69
101.	Guggenheim Capital (United States) .....	69
102.	Guzman & Co (United States).....	70
103.	Hahn Capital Management (United States) .....	70
104.	Hancock Holding (United States) .....	71
105.	Hartford Financial Services (United States).....	71

106.	Huntington Bancshares (United States).....	72
107.	International Value Advisors (United States).....	72
108.	Janus Capital Group (United States).....	72
109.	JPMorgan Chase (United States).....	73
110.	Kennedy Capital Management (United States) .....	78
111.	KeyCorp (United States).....	78
112.	Kingstown Capital Management (United States).....	79
113.	Knights of Columbus (United States).....	79
114.	Kohlberg Kravis Roberts & Co (United States).....	80
115.	Lazard (United States) .....	80
116.	Lebenthal Holdings (United States) .....	81
117.	Legg Mason (United States) .....	81
118.	Leucadia National Corporation (United States).....	82
119.	Liberty Mutual Insurance (United States) .....	83
120.	Loews Corporation (United States).....	83
121.	Lone Pine Capital (United States).....	83
122.	Longview Asset Management (United States) .....	84
123.	Loop Capital (United States).....	84
124.	Lord, Abnett & Co (United States).....	85
125.	LSV Asset Management (United States).....	85
126.	Lyrical Partners (United States) .....	86
127.	M&T Bank (United States) .....	86
128.	Madison Investment (United States) .....	87
129.	Manning & Napier (United States).....	87
130.	Mark R. Shenkman Revocable Trust (United States).....	87
131.	MassMutual Financial (United States).....	88
132.	MetLife (United States) .....	88
133.	Mischler Financial Group (United States) .....	89
134.	Modern Woodmen of America (United States) .....	90
135.	Moog Pension Fund (United States) .....	90
136.	Morgan Stanley (United States) .....	90
137.	MSD Partners (United States) .....	94
138.	Mutual of Omaha (United States).....	94
139.	Muzinich & Co (United States) .....	94
140.	National Life Group (United States).....	95
141.	National Rural Electric Cooperative Association (United States).....	95
142.	National Western Life Insurance Company (United States) .....	95
143.	Nationwide Mutual Insurance (United States) .....	96
144.	Neuberger Berman (United States) .....	96
145.	New Jersey Department of the Treasury (United States) .....	96
146.	New Mountain Capital (United States).....	97

147.	New York Life Insurance (United States) .....	97
148.	New York State Common Retirement Fund (United States).....	98
149.	Newbrook Capital Advisors (United States) .....	98
150.	NewSouth Capital Management (United States) .....	98
151.	Northern Trust (United States) .....	99
152.	Northwestern Mutual Life Insurance (United States) .....	101
153.	Ohio Public Employees Retirement System (United States).....	101
154.	Old Republic International (United States).....	101
155.	O'Shaughnessy Asset Management (United States).....	102
156.	Pacific Mutual (United States).....	102
157.	People's United Financial (United States).....	103
158.	PNC Financial Services (United States) .....	103
159.	Poplar Forest Capital (United States).....	105
160.	Primecap Management (United States) .....	105
161.	Principal Financial Group (United States).....	105
162.	Private Capital Management (United States).....	106
163.	Prospector Partners (United States) .....	106
164.	Prudential Financial (US) (United States).....	107
165.	Pzena Investment Management (United States).....	108
166.	Raymond James Financial (United States) .....	108
167.	Regions Financial (United States).....	108
168.	Renaissance Technologies (United States).....	109
169.	RidgeWorth Capital Management (United States).....	110
170.	Royal Capital Management (United States).....	110
171.	Roystone Capital Management (United States) .....	110
172.	Ruane, Cunniff & Goldfarb (United States) .....	111
173.	S&T Bancorp (United States) .....	111
174.	Sanders Capital (United States) .....	111
175.	SAR Holding (United States).....	112
176.	Sasco Capital (United States).....	112
177.	Schafer Cullen Capital Management (United States).....	113
178.	Securian (United States) .....	113
179.	SEI (United States) .....	113
180.	Shapiro Capital Management (United States).....	114
181.	Siebert Brandford Shank Financial (United States) .....	114
182.	Siebert Capital (United States).....	115
183.	Silvercrest Asset Management Group (United States) .....	115
184.	Smith Asset Management Group (United States).....	115
185.	Snow Capital Management (United States).....	116
186.	Southern Farm Bureau Life Insurance (United States).....	116
187.	StanCorp Financial (United States).....	116

188.	State Farm (United States) .....	117
189.	State Fund (United States) .....	117
190.	State Street (United States).....	118
191.	State Teachers Retirement System of Ohio (United States) .....	119
192.	Steel Partners Holdings (United States).....	119
193.	Stephens (United States) .....	120
194.	Stifel Financial (United States).....	120
195.	Strategic Income Management (United States).....	120
196.	SunTrust (United States).....	121
197.	Synovus Financial Corporation (United States).....	122
198.	T. Rowe Price (United States).....	123
199.	Telsey Advisory Group (United States) .....	124
200.	The London Company of Virginia (United States) .....	124
201.	Thornburg Investment Management (United States).....	124
202.	Thrivent Financial (United States) .....	125
203.	TIAA-CREF (United States) .....	125
204.	Tortoise Holdings (United States) .....	127
205.	Travelers (United States) .....	127
206.	Trimaran Capital Partners (United States) .....	127
207.	Trust Investment Advisors (United States) .....	128
208.	Two Sigma Investments (United States).....	129
209.	UMB Financial Corporation (United States) .....	129
210.	US Bancorp (United States).....	129
211.	USAA Investment Management Company (United States) .....	133
212.	Vanguard (United States).....	133
213.	Victory Capital (United States).....	134
214.	Visium Asset Management (United States) .....	135
215.	Voya Financial (United States).....	135
216.	Vulcan Value Partners (United States).....	136
217.	Waddell & Reed (United States).....	136
218.	Wedge Capital Management (United States).....	136
219.	Wellington Management (United States) .....	137
220.	Wells Fargo (United States).....	138
221.	Western & Southern Financial (United States) .....	142
222.	White Mountains (United States) .....	142
223.	Williams Capital Group (United States).....	143
224.	Winslow Asset Management (United States).....	144
225.	WoodmenLife (United States).....	144
226.	Zeo Capital Advisors (United States) .....	144
	Nuclear weapon producing Companies.....	146

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

All sources of financing provided since 1 January 2013 to the companies listed were analysed from annual reports, financial databases and other sources. The financial institutions which are most significantly involved in the financing of one or more nuclear weapon companies are shown here. See the full report for both a summary and full description of all financial institutions which are found to have the most significant financing relationships with one or more of the selected nuclear weapon companies, by means of participating in bank loans, by underwriting share or bond issues and/or by share- or bondholdings (above a threshold of 0.5% of all outstanding shares or bonds).

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

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

## Hall of Shame

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

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

<i>Financial institution</i>	<i>Amount in USD millions</i>
<b>Academy Securities</b>	\$ 30
<b>Adage Capital Management</b>	\$ 482
<b>Affiliated Managers Group</b>	\$ 1,426
<b>AJO</b>	\$ 351
<b>Allstate</b>	\$ 288
<b>Alyeska Investment Group</b>	\$ 143
<b>Amalgamated Bank of Chicago</b>	\$ 29
<b>American Automobile Association</b>	\$ 4
<b>American Century Investments</b>	\$ 790
<b>American Equity Investment Life Holding</b>	\$ 177
<b>American Family</b>	\$ 366
<b>American Financial Group</b>	\$ 12
<b>American International Group (AIG)</b>	\$ 1,229
<b>American National Insurance</b>	\$ 112
<b>American United Mutual Insurance</b>	\$ 147
<b>Ameriprise Financial</b>	\$ 3,756
<b>Analytic Investors</b>	\$ 44
<b>Anchor Bolt Capital</b>	\$ 28
<b>Anthem</b>	\$ 2
<b>Apto Partners</b>	\$ 16
<b>AQR Capital Management</b>	\$ 1,197
<b>Aristotle Capital Management</b>	\$ 210
<b>Arrowstreet Capital</b>	\$ 71
<b>Artisan Partners</b>	\$ 505
<b>Associated Banc-Corp</b>	\$ 29
<b>Assurant</b>	\$ 14
<b>Auto-Owners Insurance</b>	\$ 35
<b>Baird</b>	\$ 39
<b>BancPlus</b>	\$ 29
<b>Bank of America</b>	\$ 25,024
<b>Bank of New York Mellon</b>	\$ 6,935
<b>Banner Bank</b>	\$ 29
<b>BB&amp;T</b>	\$ 690
<b>Beck, Mack &amp; Oliver</b>	\$ 53
<b>Becker Capital Management</b>	\$ 22
<b>Bessemer Group</b>	\$ 291



<b>BlackRock</b>	\$ 32,869
<b>Blaylock Beal Van</b>	\$ 45
<b>Blue Cross Blue Shield Association</b>	\$ 2
<b>Blue Harbour Group</b>	\$ 354
<b>Boston Private</b>	\$ 57
<b>Cacti Asset Management</b>	\$ 38
<b>California First National Bancorp</b>	\$ 29
<b>Cantor Fitzgerald</b>	\$ 6
<b>Capital Group</b>	\$ 28,677
<b>Capital One Financial</b>	\$ 274
<b>Carlson Capital</b>	\$ 24
<b>Carlyle Group</b>	\$ 123
<b>Cascade Bancorp</b>	\$ 29
<b>CastleOak Securities</b>	\$ 14
<b>CAVU Securities</b>	\$ 14
<b>Central Mutual Insurance</b>	\$ 1
<b>Central Pacific Financial Corporation</b>	\$ 29
<b>Charles Schwab</b>	\$ 794
<b>Chesapeake Partners Management</b>	\$ 27
<b>Cigna</b>	\$ 34
<b>Citadel</b>	\$ 195
<b>Citigroup</b>	\$ 17,521
<b>Citizens Bank &amp; Trust</b>	\$ 36
<b>Citizens Financial Group</b>	\$ 355
<b>City National Corporation</b>	\$ 108
<b>CL King &amp; Associates</b>	\$ 18
<b>CNO Financial Group</b>	\$ 31
<b>Comerica</b>	\$ 261
<b>Cooper Creek Partners Management</b>	\$ 8
<b>Corsair Capital Management</b>	\$ 37
<b>Cuna Mutual Group</b>	\$ 15
<b>D.E. Shaw &amp; Co.</b>	\$ 70
<b>Dimensional Fund Advisors</b>	\$ 999
<b>Divine Capital Markets</b>	\$ 19
<b>Drexel Hamilton</b>	\$ 140
<b>Earnest Partners</b>	\$ 51
<b>Eastern Bank</b>	\$ 106
<b>Eaton Vance</b>	\$ 63
<b>Employers Reassurance Corporation</b>	\$ 34
<b>Evercore</b>	\$ 10,843
<b>Federated Investors</b>	\$ 59
<b>Ferguson Wellman Capital Management</b>	\$ 40
<b>Fidelity Investments</b>	\$ 8,419
<b>Fiera Capital</b>	\$ 17
<b>Fifth Third Bancorp</b>	\$ 528

<b>First Eagle Investment Management</b>	\$ 879
<b>First Horizon</b>	\$ 23
<b>First Niagara Financial</b>	\$ 199
<b>First Trust Advisors</b>	\$ 2
<b>Focus Financial Partners</b>	\$ 97
<b>Foundation Asset Management</b>	\$ 16
<b>Franklin Resources</b>	\$ 5,753
<b>Fred Alger &amp; Company</b>	\$ 630
<b>GE Capital Services</b>	\$ 521
<b>General Re</b>	\$ 20
<b>Geode Capital Management</b>	\$ 3,238
<b>GGCP</b>	\$ 263
<b>Glenmede</b>	\$ 43
<b>Goldman Sachs</b>	\$ 9,842
<b>Gotham Asset Management</b>	\$ 81
<b>Goto Capital Markets</b>	\$ 3
<b>Great Pacific Securities</b>	\$ 17
<b>Greenhaven Associates</b>	\$ 524
<b>Greenlight Capital</b>	\$ 100
<b>Guggenheim Capital</b>	\$ 203
<b>Guzman &amp; Co</b>	\$ 14
<b>Hahn Capital Management</b>	\$ 46
<b>Hancock Holding</b>	\$ 68
<b>Hartford Financial Services</b>	\$ 248
<b>Huntington Bancshares</b>	\$ 1,615
<b>International Value Advisors</b>	\$ 92
<b>Janus Capital Group</b>	\$ 3,116
<b>JPMorgan Chase</b>	\$ 22,178
<b>Kennedy Capital Management</b>	\$ 16
<b>KeyCorp</b>	\$ 284
<b>Kingstown Capital Management</b>	\$ 57
<b>Knights of Columbus</b>	\$ 259
<b>Kohlberg Kravis Roberts &amp; Co</b>	\$ 686
<b>Lazard</b>	\$ 702
<b>Lebenthal Holdings</b>	\$ 62
<b>Legg Mason</b>	\$ 2,294
<b>Leucadia National Corporation</b>	\$ 508
<b>Liberty Mutual Insurance</b>	\$ 281
<b>Loews Corporation</b>	\$ 54
<b>Lone Pine Capital</b>	\$ 643
<b>Longview Asset Management</b>	\$ 4,378
<b>Loop Capital</b>	\$ 96
<b>Lord, Abbett &amp; Co</b>	\$ 258
<b>LSV Asset Management</b>	\$ 839
<b>Lyrical Partners</b>	\$ 110

<b>M&amp;T Bank</b>	\$ 558
<b>Madison Investment</b>	\$ 58
<b>Manning &amp; Napier</b>	\$ 18
<b>Mark R. Shenkman Revocable Trust</b>	\$ 18
<b>MassMutual Financial</b>	\$ 1,611
<b>MetLife</b>	\$ 1,117
<b>Mischler Financial Group</b>	\$ 130
<b>Modern Woodmen of America</b>	\$ 50
<b>Moog Pension Fund</b>	\$ 243
<b>Morgan Stanley</b>	\$ 9,439
<b>MSD Partners</b>	\$ 143
<b>Mutual of Omaha</b>	\$ 58
<b>Muzinich &amp; Co</b>	\$ 28
<b>National Life Group</b>	\$ 38
<b>National Rural Electric Cooperative Association</b>	\$ 70
<b>National Western Life Insurance Company</b>	\$ 96
<b>Nationwide Mutual Insurance</b>	\$ 165
<b>Neuberger Berman</b>	\$ 188
<b>New Jersey Department of the Treasury</b>	\$ 92
<b>New Mountain Capital</b>	\$ 68
<b>New York Life Insurance</b>	\$ 1,938
<b>New York State Common Retirement Fund</b>	\$ 20
<b>Newbrook Capital Advisors</b>	\$ 65
<b>NewSouth Capital Management</b>	\$ 95
<b>Northern Trust</b>	\$ 6,213
<b>Northwestern Mutual Life Insurance</b>	\$ 909
<b>Ohio Public Employees Retirement System</b>	\$ 7
<b>Old Republic International</b>	\$ 27
<b>O'Shaughnessy Asset Management</b>	\$ 41
<b>Pacific Mutual</b>	\$ 310
<b>People's United Financial</b>	\$ 106
<b>PNC Financial Services</b>	\$ 1,186
<b>Poplar Forest Capital</b>	\$ 48
<b>Primecap Management</b>	\$ 2,361
<b>Principal Financial Group</b>	\$ 436
<b>Private Capital Management</b>	\$ 12
<b>Prospector Partners</b>	\$ 40
<b>Prudential Financial (US)</b>	\$ 2,721
<b>Pzena Investment Management</b>	\$ 100
<b>Raymond James Financial</b>	\$ 47
<b>Regions Financial</b>	\$ 474
<b>Renaissance Technologies</b>	\$ 236
<b>RidgeWorth Capital Management</b>	\$ 43
<b>Royal Capital Management</b>	\$ 5

<b>Roystone Capital Management</b>	\$ 26
<b>Ruane, Cunniff &amp; Goldfarb</b>	\$ 249
<b>S&amp;T Bancorp</b>	\$ 24
<b>Sanders Capital</b>	\$ 239
<b>SAR Holding</b>	\$ 36
<b>Sasco Capital</b>	\$ 191
<b>Schafer Cullen Capital Management</b>	\$ 274
<b>Securian</b>	\$ 200
<b>SEI</b>	\$ 3
<b>Shapiro Capital Management</b>	\$ 78
<b>Siebert Brandford Shank Financial</b>	\$ 35
<b>Siebert Capital</b>	\$ 3
<b>Silvercrest Asset Management Group</b>	\$ 38
<b>Smith Asset Management Group</b>	\$ 44
<b>Snow Capital Management</b>	\$ 57
<b>Southern Farm Bureau Life Insurance</b>	\$ 15
<b>StanCorp Financial</b>	\$ 24
<b>State Farm</b>	\$ 855
<b>State Fund</b>	\$ 79
<b>State Street</b>	\$ 27,781
<b>State Teachers Retirement System of Ohio</b>	\$ 79
<b>Steel Partners Holdings</b>	\$ 68
<b>Stephens</b>	\$ 26
<b>Stifel Financial</b>	\$ 29
<b>Strategic Income Management</b>	\$ 7
<b>SunTrust</b>	\$ 1,712
<b>Synovus Financial Corporation</b>	\$ 411
<b>T. Rowe Price</b>	\$ 6,660
<b>Telsey Advisory Group</b>	\$ 16
<b>The London Company of Virginia</b>	\$ 564
<b>Thornburg Investment Management</b>	\$ 16
<b>Thrivent Financial</b>	\$ 171
<b>TIAA-CREF</b>	\$ 6,870
<b>Tortoise Holdings</b>	\$ 2
<b>Travelers</b>	\$ 294
<b>Trimaran Capital Partners</b>	\$ 13
<b>Trust Investment Advisors</b>	\$ 222
<b>Two Sigma Investments</b>	\$ 250
<b>UMB Financial Corporation</b>	\$ 65
<b>US Bancorp</b>	\$ 5,226
<b>USAA Investment Management Company</b>	\$ 70
<b>Vanguard</b>	\$ 27,943
<b>Victory Capital</b>	\$ 210
<b>Visium Asset Management</b>	\$ 6
<b>Voya Financial</b>	\$ 426

<b>Vulcan Value Partners</b>	\$ 493
<b>Waddell &amp; Reed</b>	\$ 283
<b>Wedge Capital Management</b>	\$ 59
<b>Wellington Management</b>	\$ 8,367
<b>Wells Fargo</b>	\$ 11,937
<b>Western &amp; Southern Financial</b>	\$ 191
<b>White Mountains</b>	\$ 462
<b>Williams Capital Group</b>	\$ 331
<b>Winslow Asset Management</b>	\$ 15
<b>WoodmenLife</b>	\$ 20
<b>Zeo Capital Advisors</b>	\$ 6

## 1. Academy Securities (United States)

Academy Securities (United States) has made an estimated US\$ 30 million available to the nuclear weapons companies selected for this research project since January 2013.

Academy Securities (United States) underwrote bond issuances for an estimated amount of US\$ 30 million to the nuclear weapon companies since January 2013 (see table below).

**Table 1 Underwriting of bond issuances by Academy Securities**

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Interest rate</b>	<b>Issue date</b>	<b>Maturity date</b>
Boeing	350	9	1.650	27-10-2015	30-10-2020
Boeing	400	4	3.375	16-5-2016	15-6-2046
Lockheed Martin	500	1	3.100	16-11-2015	15-1-2023
Lockheed Martin	500	1	4.500	16-11-2015	15-5-2036
Lockheed Martin	750	2	1.850	16-11-2015	23-11-2018
Lockheed Martin	1,250	3	2.500	16-11-2015	23-11-2020
Lockheed Martin	2,000	5	3.550	16-11-2015	15-1-2026
Lockheed Martin	2,000	5	4.700	16-11-2015	15-5-2046

Source: *Thomson Reuters Eikon*, "Bond and share issue underwritings", viewed in July/August 2016; *Bloomberg*, "Bond and share issue underwritings", viewed in August 2016.

## 2. Adage Capital Management (United States)

Adage Capital Management (United States) has made an estimated US\$ 482 million available to the nuclear weapons companies selected for this research project since January 2013.

Adage Capital Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 482 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 2 Shareholdings managed by Adage Capital Management**

<b>Company</b>	<b>Country</b>	<b>Total value (US\$ mln)</b>	<b>% Outstanding</b>	<b>Filing date</b>
General Dynamics	United States	213	0.53	31-3-2016
Raytheon	United States	269	0.74	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### **3. Affiliated Managers Group (United States)**

Affiliated Managers Group (United States) has made an estimated US\$ 1,426 million available to the nuclear weapons companies selected for this research project since January 2013.

Affiliated Managers Group (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 1,426 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 3 Shareholdings managed by Affiliated Managers Group**

<b>Company</b>	<b>Country</b>	<b>Total value (US\$ mln)</b>	<b>% Outstanding</b>	<b>Filing date</b>
BAE Systems	United Kingdom	383	1.73	1-6-2016
Huntington Ingalls Industries	United States	60	0.93	31-3-2016
Lockheed Martin	United States	418	0.63	31-3-2016
Orbital ATK	United States	94	1.85	31-3-2016
Safran	France	472	1.62	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### **4. AJO (United States)**

AJO (United States) has made an estimated US\$ 351 million available to the nuclear weapons companies selected for this research project since January 2013.

AJO (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 351 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 4 Shareholdings managed by AJO**

<b>Company</b>	<b>Country</b>	<b>Total value (US\$ mln)</b>	<b>% Outstanding</b>	<b>Filing date</b>
Huntington Ingalls Industries	United States	103	1.60	31-3-2016
Northrop Grumman	United States	248	0.70	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### **5. Allstate (United States)**

Allstate (United States) has made an estimated US\$ 288 million available to the nuclear weapons companies selected for this research project since January 2013.

Allstate (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 288 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 5 Bondholdings managed by Allstate**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	20	1.29	31-3-2016
General Dynamics	United States	20	0.69	31-3-2016
Lockheed Martin	United States	99	0.63	31-3-2016
Northrop Grumman	United States	61	0.96	31-3-2016
Orbital ATK	United States	16	2.27	31-3-2016
Raytheon	United States	52	0.96	31-3-2016
Textron	United States	20	0.68	31-3-2016

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

## 6. Alyeska Investment Group (United States)

Alyeska Investment Group (United States) has made an estimated US\$ 143 million available to the nuclear weapons companies selected for this research project since January 2013.

Alyeska Investment Group (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 143 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 6 Shareholdings managed by Alyeska Investment Group**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Orbital ATK	United States	67	1.31	31-3-2016
Textron	United States	77	0.78	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 7. Amalgamated Bank of Chicago (United States)

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

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

**Table 7 Loans provided by Amalgamated Bank of Chicago**

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

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

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

## 8. American Automobile Association (United States)

American Automobile Association (United States) has made an estimated US\$ 4 million available to the nuclear weapons companies selected for this research project since January 2013.

American Automobile Association (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 4 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 8 Bondholdings managed by American Automobile Association**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Orbital ATK	United States	4	0.56	31-3-2016

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

## 9. American Century Investments (United States)

American Century Investments (United States) has made an estimated US\$ 790 million available to the nuclear weapons companies selected for this research project since January 2013.

American Century Investments (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 790 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 9 Shareholdings managed by American Century Investments**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	5	0.52	31-3-2016
Boeing	United States	579	0.72	31-3-2016
Huntington Ingalls Industries	United States	43	0.67	31-3-2016
Textron	United States	163	1.66	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 10. American Equity Investment Life Holding (United States)

American Equity Investment Life Holding (United States) has made an estimated US\$ 177 million available to the nuclear weapons companies selected for this research project since January 2013.



American Equity Investment Life Holding (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 177 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 10 Bondholdings managed by American Equity Investment Life Holding**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BAE Systems	United Kingdom	39	0.63	31-3-2016
General Dynamics	United States	46	1.58	31-3-2016
Northrop Grumman	United States	32	0.50	31-3-2016
Raytheon	United States	40	0.74	31-3-2016
Safran	France	20	0.94	31-3-2016

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

## 11. American Family (United States)

American Family (United States) has made an estimated US\$ 366 million available to the nuclear weapons companies selected for this research project since January 2013.

American Family (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 366 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 11 Bondholdings managed by American Family**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
General Dynamics	United States	103	3.55	31-3-2016
Moog	United States	2	0.78	31-3-2016
Northrop Grumman	United States	146	2.28	31-3-2016
Orbital ATK	United States	5	0.74	31-3-2016
Raytheon	United States	110	2.05	31-3-2016

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

## 12. American Financial Group (United States)

American Financial Group (United States) has made an estimated US\$ 12 million available to the nuclear weapons companies selected for this research project since January 2013.

American Financial Group (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 12 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 12 Bondholdings managed by American Financial Group**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	12	0.77	31-3-2016

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

### 13. American International Group (AIG) (United States)

American International Group (AIG) (United States) has made an estimated US\$ 1,229 million available to the nuclear weapons companies selected for this research project since January 2013.

American International Group (AIG) (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 1,229 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 13 Bondholdings managed by American International Group (AIG)**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BAE Systems	United Kingdom	150	2.45	31-3-2016
Boeing	United States	108	1.01	31-3-2016
Fluor	United States	40	2.54	31-3-2016
General Dynamics	United States	70	2.42	31-3-2016
Honeywell International	United States	89	0.67	31-3-2016
Huntington Ingalls Industries	United States	9	0.72	31-3-2016
Leonardo-Finmeccanica	Italy	103	2.12	31-3-2016
Lockheed Martin	United States	265	1.68	31-3-2016
Moog	United States	3	0.92	31-3-2016
Northrop Grumman	United States	167	2.62	31-3-2016
Orbital ATK	United States	33	4.67	31-3-2016
Raytheon	United States	132	2.45	31-3-2016
Textron	United States	61	2.12	31-3-2016

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

### 14. American National Insurance (United States)

American National Insurance (United States) has made an estimated US\$ 112 million available to the nuclear weapons companies selected for this research project since January 2013.

American National Insurance (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 112 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 14 Bondholdings managed by American National Insurance**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	37	2.38	31-3-2016
General Dynamics	United States	23	0.78	31-3-2016
Raytheon	United States	31	0.58	31-3-2016
Textron	United States	21	0.72	31-3-2016

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

## 15. American United Mutual Insurance (United States)

American United Mutual Insurance (United States) has made an estimated US\$ 147 million available to the nuclear weapons companies selected for this research project since January 2013.

American United Mutual Insurance (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 147 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 15 Bondholdings managed by American United Mutual Insurance**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	46	2.98	31-3-2016
General Dynamics	United States	15	0.50	31-3-2016
Moog	United States	14	4.67	31-3-2016
Raytheon	United States	31	0.58	31-3-2016
Textron	United States	41	1.40	31-3-2016

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

## 16. Ameriprise Financial (United States)

Ameriprise Financial (United States) has made an estimated US\$ 3,756 million available to the nuclear weapons companies selected for this research project since January 2013.

Ameriprise Financial (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 3,368 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 16 Shareholdings managed by Ameriprise Financial**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BAE Systems	United Kingdom	630	2.84	2-5-2016
General Dynamics	United States	274	0.68	31-3-2016
Honeywell International	United States	1,356	1.59	31-3-2016
Lockheed Martin	United States	761	1.13	31-3-2016
Moog	United States	26	1.75	31-3-2016
Northrop Grumman	United States	289	0.81	31-3-2016
Orbital ATK	United States	33	0.64	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

Ameriprise Financial (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 388 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 17 Bondholdings managed by Ameriprise Financial**

<b>Company</b>	<b>Country</b>	<b>Total value (US\$ mln)</b>	<b>% Outstanding</b>	<b>Filing date</b>
Huntington Ingalls Industries	United States	18	1.48	31-3-2016
Lockheed Martin	United States	140	0.89	31-3-2016
Moog	United States	8	2.75	31-3-2016
Northrop Grumman	United States	176	2.76	31-3-2016
Orbital ATK	United States	15	2.20	31-3-2016
Safran	France	30	1.41	31-3-2016

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

## **17. Analytic Investors (United States)**

Analytic Investors (United States) has made an estimated US\$ 44 million available to the nuclear weapons companies selected for this research project since January 2013.

Analytic Investors (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 44 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 18 Shareholdings managed by Analytic Investors**

<b>Company</b>	<b>Country</b>	<b>Total value (US\$ mln)</b>	<b>% Outstanding</b>	<b>Filing date</b>
Huntington Ingalls Industries	United States	44	0.69	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## **18. Anchor Bolt Capital (United States)**

Anchor Bolt Capital (United States) has made an estimated US\$ 28 million available to the nuclear weapons companies selected for this research project since January 2013.

Anchor Bolt Capital (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 28 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 19 Shareholdings managed by Anchor Bolt Capital**

<b>Company</b>	<b>Country</b>	<b>Total value (US\$ mln)</b>	<b>% Outstanding</b>	<b>Filing date</b>
Aecom	United States	28	0.59	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## **19. Anthem (United States)**

Anthem (United States) has made an estimated US\$ 2 million available to the nuclear weapons companies selected for this research project since January 2013.

Anthem (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 2 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 20 Bondholdings managed by Anthem**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Moog	United States	2	0.59	31-3-2016

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

## 20. Apto Partners (United States)

Apto Partners (United States) has made an estimated US\$ 16 million available to the nuclear weapons companies selected for this research project since January 2013.

Apto Partners (United States) underwrote bond issuances for an estimated amount of US\$ 16 million to the nuclear weapon companies since January 2013 (see table below).

**Table 21 Underwriting of bond issuances by Apto Partners**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Boeing	250	3	18-2-2015	1-3-2035
Boeing	250	6	27-10-2015	30-10-2022
Boeing	400	8	16-5-2016	15-6-2026

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in July/August 2016; Bloomberg, "Bond and share issue underwritings", viewed in August 2016.

## 21. AQR Capital Management (United States)

AQR Capital Management (United States) has made an estimated US\$ 1,197 million available to the nuclear weapons companies selected for this research project since January 2013.

AQR Capital Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 1,197 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 22 Shareholdings managed by AQR Capital Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BWX Technologies	United States	54	1.56	31-3-2016
General Dynamics	United States	278	0.69	31-3-2016
Huntington Ingalls Industries	United States	196	3.05	31-3-2016
Northrop Grumman	United States	349	0.98	31-3-2016
Orbital ATK	United States	65	1.28	31-3-2016
Raytheon	United States	203	0.56	31-3-2016
Textron	United States	52	0.53	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 22. Aristotle Capital Management (United States)

Aristotle Capital Management (United States) has made an estimated US\$ 210 million available to the nuclear weapons companies selected for this research project since January 2013.

Aristotle Capital Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 210 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 23 Shareholdings managed by Aristotle Capital Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
General Dynamics	United States	210	0.52	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 23. Arrowstreet Capital (United States)

Arrowstreet Capital (United States) has made an estimated US\$ 71 million available to the nuclear weapons companies selected for this research project since January 2013.

Arrowstreet Capital (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 71 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 24 Shareholdings managed by Arrowstreet Capital**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BWX Technologies	United States	23	0.65	31-3-2016
Moog	United States	11	0.70	31-3-2016
Orbital ATK	United States	38	0.74	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 24. Artisan Partners (United States)

Artisan Partners (United States) has made an estimated US\$ 505 million available to the nuclear weapons companies selected for this research project since January 2013.

Artisan Partners (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 505 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 25 Shareholdings managed by Artisan Partners**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	157	2.09	31-3-2016
Jacobs Engineering	United States	213	4.01	31-3-2016

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Textron	United States	135	1.38	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 25. Associated Banc-Corp (United States)

Associated Banc-Corp (United States) has made an estimated US\$ 29 million available to the nuclear weapons companies selected for this research project since January 2013.

Associated Banc-Corp (United States) provided loans for an estimated amount of US\$ 29 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 26 Loans provided by Associated Banc-Corp**

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

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

## 26. Assurant (United States)

Assurant (United States) has made an estimated US\$ 14 million available to the nuclear weapons companies selected for this research project since January 2013.

Assurant (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 14 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 27 Bondholdings managed by Assurant**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	14	0.89	31-3-2016

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

## 27. Auto-Owners Insurance (United States)

Auto-Owners Insurance (United States) has made an estimated US\$ 35 million available to the nuclear weapons companies selected for this research project since January 2013.

Auto-Owners Insurance (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 35 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 28 Bondholdings managed by Auto-Owners Insurance**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	16	0.77	31-3-2016
Fluor	United States	20	1.25	31-3-2016

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

## 28. Baird (United States)

Baird (United States) has made an estimated US\$ 39 million available to the nuclear weapons companies selected for this research project since January 2013.

Baird (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 39 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 29 Shareholdings managed by Baird**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	39	0.52	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 29. BancPlus (United States)

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

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

**Table 30 Loans provided by BancPlus**

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

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

## 30. Bank of America (United States)

Bank of America (United States) has made an estimated US\$ 25,024 million available to the nuclear weapons companies selected for this research project since January 2013.



Bank of America (United States) provided loans for an estimated amount of US\$ 10,048 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 31** Loans provided by Bank of America

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Aecom	600	120	23-9-2011	30-9-2016
Aecom	700	70	14-10-2011	19-10-2016
Aecom	1,000	100	14-10-2011	19-10-2016
Aecom	750	150	7-6-2013	7-6-2018
Aecom	39	4	16-12-2013	19-12-2018
Aecom	655	66	16-12-2013	19-12-2018
Aecom	961	96	16-12-2013	19-12-2018
Aecom	1,050	105	29-1-2014	29-1-2019
Aecom	500	40	11-8-2014	17-10-2019
Aecom	1,188	95	11-8-2014	17-10-2021
Aecom	1,050	105	11-8-2014	17-10-2019
Aecom	1,925	154	11-8-2014	17-10-2019
Aerojet Rocketdyne	100	8	30-5-2014	30-5-2019
Aerojet Rocketdyne	200	15	30-5-2014	30-5-2019
Aerojet Rocketdyne	400	54	17-6-2016	17-6-2021
Aerojet Rocketdyne	350	61	17-6-2016	17-6-2021
Airbus Group	3,797	66	14-10-2014	14-10-2019
BAE Systems	3,269	131	12-12-2013	12-12-2018
Bechtel	975	195	27-7-2012	27-7-2017
Bechtel	1,000	150	14-6-2013	14-6-2018
Bechtel	2,000	300	14-6-2013	14-6-2018
Bechtel	1,000	150	19-9-2014	17-10-2019
Bechtel	1,000	200	19-9-2014	17-10-2019
Bechtel	2,000	300	19-9-2014	17-10-2019
Bechtel	1,000	48	7-6-2016	7-6-2021
Bechtel	1,500	72	7-6-2016	7-6-2021
Bechtel	500	150	7-6-2016	7-6-2021
Boeing	2,300	42	5-11-2011	10-11-2016
Boeing	2,473	125	23-9-2014	15-10-2015
Boeing	2,473	125	23-9-2014	16-10-2019
Boeing	2,465	125	4-11-2015	3-11-2016
Boeing	2,365	125	4-11-2015	3-11-2020
BWX Technologies	700	70	22-5-2012	8-6-2017
BWX Technologies	400	32	11-5-2015	11-5-2020
BWX Technologies	500	40	11-5-2015	11-5-2020
BWX Technologies	600	48	11-5-2015	11-5-2020

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Closing date</b>	<b>Maturity date</b>
CH2M Hill	900	72	19-4-2012	19-4-2017
CH2M Hill	1,100	220	22-3-2014	30-1-2019
Fluor	1,800	270	7-11-2012	9-11-2017
Fluor	1,700	255	28-5-2014	28-5-2019
Fluor	1,800	270	28-5-2014	28-5-2019
Fluor	1,700	121	25-2-2016	25-2-2021
Fluor	1,800	163	25-2-2016	25-2-2021
General Dynamics	1,000	125	21-6-2013	21-6-2018
General Dynamics	1,000	80	10-11-2015	10-11-2020
Honeywell International	3,000	129	30-3-2012	2-4-2017
Honeywell International	4,000	73	18-11-2013	10-12-2018
Honeywell International	4,000	190	10-7-2015	10-7-2020
Honeywell International	3,000	750	30-9-2015	28-9-2016
Honeywell International	1,500	65	29-4-2016	28-4-2017
Honeywell International	4,000	343	29-4-2016	29-4-2021
Huntington Ingalls Industries	489	27	23-9-2013	6-11-2018
Huntington Ingalls Industries	650	35	23-9-2013	6-11-2018
Huntington Ingalls Industries	1,250	125	13-7-2015	13-7-2020
Jacobs Engineering	1,160	155	23-3-2012	23-3-2017
Jacobs Engineering	460	61	7-2-2014	7-2-2019
Jacobs Engineering	1,140	152	7-2-2014	7-2-2019
Jacobs Engineering	460	61	5-3-2015	5-3-2020
Jacobs Engineering	1,140	152	5-3-2015	5-3-2020
Leonardo-Finmeccanica	3,001	100	9-7-2014	9-7-2019
Leonardo-Finmeccanica	2,212	90	6-7-2015	6-7-2020
Lockheed Martin	1,500	120	14-8-2014	14-8-2019
Lockheed Martin	2,500	230	9-10-2015	9-10-2020
Lockheed Martin	7,000	530	9-10-2015	7-10-2016
Moog	900	108	28-3-2013	28-3-2018
Moog	1,100	110	22-5-2014	22-5-2019
Moog	1,100	110	28-6-2016	28-6-2021
Northrop Grumman	575	22	31-3-2011	24-1-2017
Orbital ATK	200	20	3-9-2012	3-9-2017
Orbital ATK	250	25	8-10-2013	1-11-2020
Orbital ATK	700	47	8-10-2013	1-11-2018
Orbital ATK	1,010	67	8-10-2013	1-11-2018
Orbital ATK	150	15	24-6-2014	24-12-2018
Orbital ATK	800	46	29-9-2015	29-9-2020
Orbital ATK	1,000	57	29-9-2015	29-9-2020
Raytheon	1,400	280	13-12-2011	13-12-2016

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Raytheon	1,250	167	13-11-2015	13-11-2020
Serco	1,159	72	21-2-2012	28-3-2017
Serco	45	9	12-3-2015	12-12-2016
Serco	714	45	12-3-2015	12-3-2019
Textron	1,000	100	30-9-2013	4-10-2018
Textron	500	50	23-1-2014	23-1-2019

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

Bank of America (United States) underwrote share issuances for an estimated amount of US\$ 4,114 million to the nuclear weapon companies since January 2013 (see table below).

**Table 32 Underwriting of share issuances by Bank of America**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date
Airbus Group	492	492	4-4-2013
Airbus Group	2,987	597	9-4-2013
Airbus Group	2,987	597	9-4-2013
Airbus Group	166	166	1-8-2013
Safran	1,218	305	15-11-2013
Safran	1,153	1,153	3-3-2015
Safran	796	398	30-11-2015
Serco	270	135	1-5-2014
Serco	62	7	16-4-2015
Serco	62	12	16-4-2015
Serco	785	94	16-4-2015
Serco	785	157	16-4-2015

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in June/July 2016.

Bank of America (United States) underwrote bond issuances for an estimated amount of US\$ 4,216 million to the nuclear weapon companies since January 2013 (see table below).

**Table 33 Underwriting of bond issuances by Bank of America**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Aecom	800	80	17-9-2014	15-10-2022
Aecom	800	80	17-9-2014	15-10-2024
Aecom	800	80	30-10-2015	15-10-2022
Aecom	800	80	30-10-2015	15-10-2024
Airbus Group	1,209	242	14-6-2016	14-6-2021
BAE Systems	250	63	3-12-2015	7-10-2044

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Issue date</b>	<b>Maturity date</b>
BAE Systems	500	125	3-12-2015	15-12-2020
BAE Systems	750	188	3-12-2015	15-12-2025
Boeing	350	10	30-4-2013	15-11-2018
Boeing	250	9	28-10-2014	30-10-2017
Boeing	300	9	28-10-2014	30-10-2024
Boeing	300	25	28-10-2014	30-10-2021
Boeing	250	6	18-2-2015	1-3-2025
Boeing	250	8	18-2-2015	1-3-2035
Boeing	250	19	18-2-2015	1-3-2045
Boeing	250	8	27-10-2015	30-10-2022
Boeing	300	9	27-10-2015	30-10-2025
Boeing	350	25	27-10-2015	30-10-2020
Boeing	400	33	16-5-2016	15-6-2046
Boeing	400	36	16-5-2016	15-6-2026
Boeing	400	40	16-5-2016	15-6-2023
Fluor	500	150	18-11-2014	15-12-2024
Fluor	555	139	14-3-2016	21-3-2023
Honeywell International	300	10	18-11-2013	1-12-2023
Honeywell International	700	23	18-11-2013	17-11-2015
Honeywell International	837	180	15-2-2016	22-2-2028
Honeywell International	1,116	240	15-2-2016	22-2-2018
Honeywell International	1,116	240	15-2-2016	21-2-2020
Honeywell International	1,395	300	15-2-2016	22-2-2023
Huntington Ingalls Industries	600	60	17-11-2014	15-12-2021
Huntington Ingalls Industries	600	75	2-11-2015	15-11-2025
Leonardo-Finmeccanica	950	59	26-11-2013	19-1-2021
Leonardo-Finmeccanica	339	20	17-1-2014	19-1-2021
Lockheed Martin	500	40	12-2-2015	1-3-2035
Lockheed Martin	750	60	12-2-2015	1-3-2025
Lockheed Martin	1,000	80	12-2-2015	1-3-2045
Lockheed Martin	500	38	16-11-2015	15-1-2023
Lockheed Martin	500	38	16-11-2015	15-5-2036
Lockheed Martin	750	56	16-11-2015	23-11-2018
Lockheed Martin	1,250	94	16-11-2015	23-11-2020
Lockheed Martin	2,000	150	16-11-2015	15-1-2026
Lockheed Martin	2,000	150	16-11-2015	15-5-2046
Moog	300	40	18-11-2014	1-12-2022
Northrop Grumman	850	26	28-5-2013	1-6-2018
Northrop Grumman	950	29	28-5-2013	1-6-2043
Northrop Grumman	1,050	32	28-5-2013	1-8-2023

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Northrop Grumman	600	60	3-2-2015	15-4-2045
Orbital ATK	300	50	22-10-2013	1-10-2021
Orbital ATK	400	43	22-9-2015	1-10-2023
Raytheon	300	78	24-11-2014	15-12-2024
Raytheon	300	78	24-11-2014	15-12-2044
Safran	699	233	5-1-2016	31-12-2020
Textron	250	25	23-1-2014	1-3-2021
Textron	350	35	23-1-2014	1-3-2024
Textron	350	89	23-10-2014	1-3-2025
Textron	350	27	4-3-2016	15-3-2026

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in July/August 2016; Bloomberg, "Bond and share issue underwritings", viewed in August 2016.

Bank of America (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 6,646 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 34 Shareholdings managed by Bank of America**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Boeing	United States	626	0.76	31-3-2016
BWX Technologies	United States	22	0.64	31-3-2016
Fluor	United States	51	0.69	31-3-2016
General Dynamics	United States	970	2.42	31-3-2016
Honeywell International	United States	1,777	2.08	31-3-2016
Huntington Ingalls Industries	United States	46	0.71	31-3-2016
Jacobs Engineering	United States	35	0.66	31-3-2016
Lockheed Martin	United States	1,897	2.82	31-3-2016
Moog	United States	14	0.97	31-3-2016
Northrop Grumman	United States	378	1.06	31-3-2016
Orbital ATK	United States	56	1.11	31-3-2016
Raytheon	United States	773	2.12	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### 31. Bank of New York Mellon (United States)

Bank of New York Mellon (United States) has made an estimated US\$ 6,935 million available to the nuclear weapons companies selected for this research project since January 2013.

Bank of New York Mellon (United States) provided loans for an estimated amount of US\$ 872 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 35 Loans provided by Bank of New York Mellon**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Bechtel	1,000	20	7-6-2016	7-6-2021
Bechtel	1,500	30	7-6-2016	7-6-2021
Boeing	2,300	42	5-11-2011	10-11-2016
Boeing	2,473	30	23-9-2014	15-10-2015
Boeing	2,473	30	23-9-2014	16-10-2019
Boeing	2,465	30	4-11-2015	3-11-2016
Boeing	2,365	30	4-11-2015	3-11-2020
General Dynamics	1,000	46	10-11-2015	10-11-2020
Honeywell International	4,000	73	18-11-2013	10-12-2018
Honeywell International	4,000	60	10-7-2015	10-7-2020
Honeywell International	1,500	25	29-4-2016	28-4-2017
Northrop Grumman	1,500	129	8-9-2011	8-9-2016
Northrop Grumman	1,600	64	8-7-2015	8-7-2020
Orbital ATK	200	13	3-9-2012	3-9-2017
Orbital ATK	700	12	8-10-2013	1-11-2018
Orbital ATK	1,010	17	8-10-2013	1-11-2018
Orbital ATK	800	34	29-9-2015	29-9-2020
Orbital ATK	1,000	43	29-9-2015	29-9-2020
Raytheon	1,250	44	13-11-2015	13-11-2020
Textron	1,000	75	30-9-2013	4-10-2018
Textron	500	25	23-1-2014	23-1-2019

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

Bank of New York Mellon (United States) underwrote bond issuances for an estimated amount of US\$ 255 million to the nuclear weapon companies since January 2013 (see table below).

**Table 36 Underwriting of bond issuances by Bank of New York Mellon**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Boeing	350	10	30-4-2013	15-11-2018
Boeing	300	4	28-10-2014	30-10-2021
Boeing	300	4	28-10-2014	30-10-2024
Boeing	250	3	18-2-2015	1-3-2025
Boeing	250	3	18-2-2015	1-3-2035
Boeing	250	3	18-2-2015	1-3-2045
Boeing	250	4	27-10-2015	30-10-2022
Boeing	300	5	27-10-2015	30-10-2025
Boeing	350	5	27-10-2015	30-10-2020
Boeing	400	5	16-5-2016	15-6-2046

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Boeing	400	8	16-5-2016	15-6-2026
Boeing	400	9	16-5-2016	15-6-2023
Honeywell International	300	10	18-11-2013	1-12-2023
Honeywell International	700	23	18-11-2013	17-11-2015
Northrop Grumman	850	26	28-5-2013	1-6-2018
Northrop Grumman	950	29	28-5-2013	1-6-2043
Northrop Grumman	1,050	32	28-5-2013	1-8-2023
Raytheon	300	5	24-11-2014	15-12-2024
Raytheon	300	5	24-11-2014	15-12-2044
Textron	250	19	23-1-2014	1-3-2021
Textron	350	26	23-1-2014	1-3-2024
Textron	350	10	23-10-2014	1-3-2025
Textron	350	11	4-3-2016	15-3-2026

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in July/August 2016; Bloomberg, "Bond and share issue underwritings", viewed in August 2016.

Bank of New York Mellon (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 5,808 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 37 Shareholdings managed by Bank of New York Mellon**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	55	1.17	31-3-2016
Aerjet Rocketdyne	United States	12	1.16	31-3-2016
Airbus Group	The Netherlands	286	0.59	31-5-2016
BAE Systems	United Kingdom	343	1.55	26-4-2016
Boeing	United States	982	1.21	31-3-2016
BWX Technologies	United States	57	1.65	31-3-2016
Fluor	United States	73	0.98	31-3-2016
General Dynamics	United States	370	0.92	31-3-2016
Honeywell International	United States	1,368	1.59	31-3-2016
Huntington Ingalls Industries	United States	114	1.76	31-3-2016
Jacobs Engineering	United States	109	2.05	31-3-2016
Lockheed Martin	United States	588	0.86	31-3-2016
Moog	United States	19	1.23	31-3-2016
Northrop Grumman	United States	597	1.67	31-3-2016
Orbital ATK	United States	55	1.07	31-3-2016
Raytheon	United States	687	1.89	31-3-2016
Textron	United States	94	0.95	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### 32. Banner Bank (United States)

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

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

**Table 38 Loans provided by Banner Bank**

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

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

### 33. BB&T (United States)

BB&T (United States) has made an estimated US\$ 690 million available to the nuclear weapons companies selected for this research project since January 2013.

BB&T (United States) provided loans for an estimated amount of US\$ 563 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 39 Loans provided by BB&T**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Aecom	750	20	7-6-2013	7-6-2018
Aecom	39	2	16-12-2013	19-12-2018
Aecom	655	39	16-12-2013	19-12-2018
Aecom	961	58	16-12-2013	19-12-2018
Aecom	1,050	39	29-1-2014	29-1-2019
BWX Technologies	700	32	22-5-2012	8-6-2017
BWX Technologies	400	27	11-5-2015	11-5-2020
BWX Technologies	500	33	11-5-2015	11-5-2020
BWX Technologies	600	36	11-5-2015	11-5-2020
Huntington Ingalls Industries	1,250	71	13-7-2015	13-7-2020
Moog	1,100	63	28-6-2016	28-6-2021
Northrop Grumman	575	22	31-3-2011	24-1-2017
Orbital ATK	200	13	3-9-2012	3-9-2017
Orbital ATK	700	12	8-10-2013	1-11-2018
Orbital ATK	1,010	17	8-10-2013	1-11-2018



Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Orbital ATK	800	34	29-9-2015	29-9-2020
Orbital ATK	1,000	43	29-9-2015	29-9-2020

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

BB&T (United States) underwrote bond issuances for an estimated amount of US\$ 25 million to the nuclear weapon companies since January 2013 (see table below).

**Table 40 Underwriting of bond issuances by BB&T**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Huntington Ingalls Industries	600	25	2-11-2015	15-11-2025

Source: *Thomson Reuters Eikon*, "Bond and share issue underwritings", viewed in July/August 2016; *Bloomberg*, "Bond and share issue underwritings", viewed in August 2016.

BB&T (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 102 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 41 Shareholdings managed by BB&T**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Jacobs Engineering	United States	64	1.22	31-3-2016
Moog	United States	37	2.28	31-5-2016

Source: *Thomson Reuters Eikon*, "Share ownership: most recent filings", viewed in July 2016.

### 34. Beck, Mack & Oliver (United States)

Beck, Mack & Oliver (United States) has made an estimated US\$ 53 million available to the nuclear weapons companies selected for this research project since January 2013.

Beck, Mack & Oliver (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 53 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 42 Shareholdings managed by Beck, Mack & Oliver**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	53	0.71	31-3-2016

Source: *Thomson Reuters Eikon*, "Share ownership: most recent filings", viewed in July 2016.

### 35. Becker Capital Management (United States)

Becker Capital Management (United States) has made an estimated US\$ 22 million available to the nuclear weapons companies selected for this research project since January 2013.

Becker Capital Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 22 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 43 Shareholdings managed by Becker Capital Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BWX Technologies	United States	22	0.62	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### 36. Bessemer Group (United States)

Bessemer Group (United States) has made an estimated US\$ 291 million available to the nuclear weapons companies selected for this research project since January 2013.

Bessemer Group (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 291 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 44 Shareholdings managed by Bessemer Group**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	83	1.11	31-3-2016
Raytheon	United States	208	0.57	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### 37. BlackRock (United States)

BlackRock (United States) has made an estimated US\$ 32,869 million available to the nuclear weapons companies selected for this research project since January 2013.

BlackRock (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 32,032 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 45 Shareholdings managed by BlackRock**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	348	7.37	31-3-2016
Aerojet Rocketdyne	United States	115	10.95	31-3-2016
Airbus Group	The Netherlands	3,118	6.57	25-1-2016
BAE Systems	United Kingdom	1,507	6.69	1-6-2016
Boeing	United States	4,296	5.30	31-3-2016

<b>Company</b>	<b>Country</b>	<b>Total value (US\$ mln)</b>	<b>% Outstanding</b>	<b>Filing date</b>
BWX Technologies	United States	141	4.05	31-3-2016
Engility	United States	34	4.96	31-3-2016
Fluor	United States	424	5.66	31-3-2016
General Dynamics	United States	2,320	5.79	31-3-2016
Honeywell International	United States	5,060	5.91	31-3-2016
Huntington Ingalls Industries	United States	496	7.69	31-3-2016
Jacobs Engineering	United States	305	5.73	31-3-2016
Larsen & Toubro	India	253	1.21	30-6-2016
Leonardo-Finmeccanica	Italy	88	1.49	30-6-2016
Lockheed Martin	United States	4,072	6.04	31-3-2016
Moog	United States	159	10.58	31-3-2016
Northrop Grumman	United States	2,406	6.74	31-3-2016
Orbital ATK	United States	369	7.24	31-3-2016
Raytheon	United States	2,937	8.07	31-3-2016
Safran	France	2,507	8.82	15-6-2016
Serco	United Kingdom	55	3.53	26-4-2016
Textron	United States	713	7.27	31-3-2016
Thales	France	308	1.70	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

BlackRock (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 837 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 46 Bondholdings managed by BlackRock**

<b>Company</b>	<b>Country</b>	<b>Total value (US\$ mln)</b>	<b>% Outstanding</b>	<b>Filing date</b>
Aerojet Rocketdyne	United States	2	0.55	30-6-2016
BAE Systems	United Kingdom	34	0.55	31-3-2016
Boeing	United States	130	1.22	31-3-2016
Fluor	United States	11	0.71	30-6-2016
General Dynamics	United States	40	1.37	30-6-2016
Honeywell International	United States	85	0.64	30-6-2016
Huntington Ingalls Industries	United States	27	2.25	30-4-2016
Leonardo-Finmeccanica	Italy	102	2.11	30-6-2016
Lockheed Martin	United States	170	1.08	30-6-2016
Moog	United States	8	2.51	31-3-2016
Northrop Grumman	United States	125	1.96	30-6-2016
Raytheon	United States	68	1.26	30-6-2016
Textron	United States	15	0.53	30-6-2016
Thales	France	20	0.91	31-5-2016

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

### 38. Blaylock Beal Van (United States)

Blaylock Beal Van (United States) has made an estimated US\$ 45 million available to the nuclear weapons companies selected for this research project since January 2013.

Blaylock Beal Van (United States) underwrote bond issuances for an estimated amount of US\$ 45 million to the nuclear weapon companies since January 2013 (see table below).

**Table 47 Underwriting of bond issuances by Blaylock Beal Van**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Boeing	300	3	28-10-2014	30-10-2024
Boeing	250	3	18-2-2015	1-3-2045
Boeing	300	5	27-10-2015	30-10-2025
Boeing	400	9	16-5-2016	15-6-2023
Lockheed Martin	500	1	16-11-2015	15-1-2023
Lockheed Martin	500	1	16-11-2015	15-5-2036
Lockheed Martin	750	2	16-11-2015	23-11-2018
Lockheed Martin	1,250	3	16-11-2015	23-11-2020
Lockheed Martin	2,000	5	16-11-2015	15-1-2026
Lockheed Martin	2,000	5	16-11-2015	15-5-2046
Northrop Grumman	600	8	3-2-2015	15-4-2045

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in July/August 2016; Bloomberg, "Bond and share issue underwritings", viewed in August 2016.

### 39. Blue Cross Blue Shield Association (United States)

Blue Cross Blue Shield Association (United States) has made an estimated US\$ 2 million available to the nuclear weapons companies selected for this research project since January 2013.

Blue Cross Blue Shield Association (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 2 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 48 Bondholdings managed by Blue Cross Blue Shield Association**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	2	0.61	31-3-2016

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

### 40. Blue Harbour Group (United States)

Blue Harbour Group (United States) has made an estimated US\$ 354 million available to the nuclear weapons companies selected for this research project since January 2013.

Blue Harbour Group (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 354 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 49 Shareholdings managed by Blue Harbour Group**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BWX Technologies	United States	354	10.17	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

#### **41. Boston Private (United States)**

Boston Private (United States) has made an estimated US\$ 57 million available to the nuclear weapons companies selected for this research project since January 2013.

Boston Private (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 57 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 50 Shareholdings managed by Boston Private**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BWX Technologies	United States	57	1.64	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

#### **42. Cacti Asset Management (United States)**

Cacti Asset Management (United States) has made an estimated US\$ 38 million available to the nuclear weapons companies selected for this research project since January 2013.

Cacti Asset Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 38 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 51 Shareholdings managed by Cacti Asset Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Jacobs Engineering	United States	38	0.62	30-6-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

#### **43. California First National Bancorp (United States)**

California First National Bancorp (United States) has made an estimated US\$ 29 million available to the nuclear weapons companies selected for this research project since January 2013.

California First National Bancorp (United States) provided loans for an estimated amount of US\$ 29 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 52** Loans provided by California First National Bancorp

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

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

#### 44. Cantor Fitzgerald (United States)

Cantor Fitzgerald (United States) has made an estimated US\$ 6 million available to the nuclear weapons companies selected for this research project since January 2013.

Cantor Fitzgerald (United States) underwrote bond issuances for an estimated amount of US\$ 6 million to the nuclear weapon companies since January 2013 (see table below).

**Table 53** Underwriting of bond issuances by Cantor Fitzgerald

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Boeing	300	3	28-10-2014	30-10-2021
Boeing	250	3	18-2-2015	1-3-2025

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in July/August 2016; Bloomberg, "Bond and share issue underwritings", viewed in August 2016.

#### 45. Capital Group (United States)

Capital Group (United States) has made an estimated US\$ 28,677 million available to the nuclear weapons companies selected for this research project since January 2013.

Capital Group (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 28,677 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 54** Shareholdings managed by Capital Group

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Airbus Group	The Netherlands	3,141	6.41	29-4-2016
BAE Systems	United Kingdom	1,402	6.34	25-4-2016
Boeing	United States	8,712	10.76	31-3-2016
General Dynamics	United States	3,570	8.89	31-3-2016
Honeywell International	United States	553	0.64	31-3-2016
Leonardo-Finmeccanica	Italy	219	2.98	31-3-2016
Lockheed Martin	United States	8,703	12.90	31-3-2016

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Moog	United States	97	6.11	29-4-2016
Northrop Grumman	United States	1,479	4.13	31-3-2016
Orbital ATK	United States	47	0.92	31-3-2016
Raytheon	United States	190	0.52	31-3-2016
Safran	France	370	1.26	31-3-2016
Textron	United States	195	1.99	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 46. Capital One Financial (United States)

Capital One Financial (United States) has made an estimated US\$ 274 million available to the nuclear weapons companies selected for this research project since January 2013.

Capital One Financial (United States) provided loans for an estimated amount of US\$ 249 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 55** Loans provided by Capital One Financial

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Aecom	500	20	11-8-2014	17-10-2019
Aecom	1,188	59	11-8-2014	17-10-2021
Aecom	1,925	77	11-8-2014	17-10-2019
Huntington Ingalls Industries	1,250	71	13-7-2015	13-7-2020
Northrop Grumman	575	22	31-3-2011	24-1-2017

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

Capital One Financial (United States) underwrote bond issuances for an estimated amount of US\$ 25 million to the nuclear weapon companies since January 2013 (see table below).

**Table 56** Underwriting of bond issuances by Capital One Financial

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Huntington Ingalls Industries	600	25	2-11-2015	15-11-2025

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in July/August 2016; Bloomberg, "Bond and share issue underwritings", viewed in August 2016.

## 47. Carlson Capital (United States)

Carlson Capital (United States) has made an estimated US\$ 24 million available to the nuclear weapons companies selected for this research project since January 2013.

Carlson Capital (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 24 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 57 Shareholdings managed by Carlson Capital**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BWX Technologies	United States	24	0.70	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 48. Carlyle Group (United States)

Carlyle Group (United States) has made an estimated US\$ 123 million available to the nuclear weapons companies selected for this research project since January 2013.

Carlyle Group (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 117 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 58 Shareholdings managed by Carlyle Group**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Textron	United States	117	1.19	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

Carlyle Group (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 6 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 59 Bondholdings managed by Carlyle Group**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Orbital ATK	United States	6	0.90	31-3-2016

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

## 49. Cascade Bancorp (United States)

Cascade Bancorp (United States) has made an estimated US\$ 29 million available to the nuclear weapons companies selected for this research project since January 2013.

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



**Table 60 Loans provided by Cascade Bancorp**

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

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

## 50. CastleOak Securities (United States)

CastleOak Securities (United States) has made an estimated US\$ 14 million available to the nuclear weapons companies selected for this research project since January 2013.

CastleOak Securities (United States) underwrote bond issuances for an estimated amount of US\$ 14 million to the nuclear weapon companies since January 2013 (see table below).

**Table 61 Underwriting of bond issuances by CastleOak Securities**

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Issue date</b>	<b>Maturity date</b>
Boeing	300	5	27-10-2015	30-10-2025
Boeing	400	9	16-5-2016	15-6-2023

Source: *Thomson Reuters Eikon*, "Bond and share issue underwritings", viewed in July/August 2016; *Bloomberg*, "Bond and share issue underwritings", viewed in August 2016.

## 51. CAVU Securities (United States)

CAVU Securities (United States) has made an estimated US\$ 14 million available to the nuclear weapons companies selected for this research project since January 2013.

CAVU Securities (United States) underwrote bond issuances for an estimated amount of US\$ 14 million to the nuclear weapon companies since January 2013 (see table below).

**Table 62 Underwriting of bond issuances by CAVU Securities**

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Issue date</b>	<b>Maturity date</b>
Boeing	300	5	27-10-2015	30-10-2025
Boeing	400	9	16-5-2016	15-6-2023

Source: *Thomson Reuters Eikon*, "Bond and share issue underwritings", viewed in July/August 2016; *Bloomberg*, "Bond and share issue underwritings", viewed in August 2016.

## 52. Central Mutual Insurance (United States)

Central Mutual Insurance (United States) has made an estimated US\$ 1 million available to the nuclear weapons companies selected for this research project since January 2013.

Central Mutual Insurance (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 1 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 63 Bondholdings managed by Central Mutual Insurance**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Charles Stark Draper Laboratory	United States	1	2.22	31-3-2016

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

## 53. Central Pacific Financial Corporation (United States)

Central Pacific Financial Corporation (United States) has made an estimated US\$ 29 million available to the nuclear weapons companies selected for this research project since January 2013.

Central Pacific Financial Corporation (United States) provided loans for an estimated amount of US\$ 29 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 64 Loans provided by Central Pacific Financial Corporation**

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

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

## 54. Charles Schwab (United States)

Charles Schwab (United States) has made an estimated US\$ 794 million available to the nuclear weapons companies selected for this research project since January 2013.

Charles Schwab (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 794 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 65 Shareholdings managed by Charles Schwab**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	5	0.51	31-3-2016
BWX Technologies	United States	47	1.34	31-3-2016

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	41	0.55	31-3-2016
Huntington Ingalls Industries	United States	80	1.24	31-3-2016
Lockheed Martin	United States	371	0.55	31-3-2016
Moog	United States	10	0.64	31-3-2016
Raytheon	United States	240	0.66	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 55. Chesapeake Partners Management (United States)

Chesapeake Partners Management (United States) has made an estimated US\$ 27 million available to the nuclear weapons companies selected for this research project since January 2013.

Chesapeake Partners Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 27 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 66** Shareholdings managed by Chesapeake Partners Management

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	27	2.60	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 56. Cigna (United States)

Cigna (United States) has made an estimated US\$ 34 million available to the nuclear weapons companies selected for this research project since January 2013.

Cigna (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 34 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 67** Bondholdings managed by Cigna

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
General Dynamics	United States	26	0.88	31-3-2016
Moog	United States	4	1.28	31-3-2016
Orbital ATK	United States	5	0.67	31-3-2016

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

## 57. Citadel (United States)

Citadel (United States) has made an estimated US\$ 195 million available to the nuclear weapons companies selected for this research project since January 2013.

Citadel (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 195 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 68 Shareholdings managed by Citadel**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Raytheon	United States	195	0.54	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 58. Citigroup (United States)

Citigroup (United States) has made an estimated US\$ 17,521 million available to the nuclear weapons companies selected for this research project since January 2013.

Citigroup (United States) provided loans for an estimated amount of US\$ 12,989 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 69 Loans provided by Citigroup**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Aecom	700	70	14-10-2011	19-10-2016
Aecom	1,000	100	14-10-2011	19-10-2016
Aecom	39	4	16-12-2013	19-12-2018
Aecom	655	66	16-12-2013	19-12-2018
Aecom	961	96	16-12-2013	19-12-2018
Aerojet Rocketdyne	100	8	30-5-2014	30-5-2019
Aerojet Rocketdyne	200	15	30-5-2014	30-5-2019
Airbus Group	3,797	134	14-10-2014	14-10-2019
BAE Systems	3,269	131	12-12-2013	12-12-2018
Bechtel	975	146	27-7-2012	27-7-2017
Bechtel	1,000	150	14-6-2013	14-6-2018
Bechtel	2,000	300	14-6-2013	14-6-2018
Bechtel	1,000	120	19-9-2014	17-10-2019
Bechtel	1,000	150	19-9-2014	17-10-2019
Bechtel	2,000	300	19-9-2014	17-10-2019
Bechtel	1,000	48	7-6-2016	7-6-2021
Bechtel	500	67	7-6-2016	7-6-2021
Bechtel	1,500	72	7-6-2016	7-6-2021
Boeing	2,300	460	5-11-2011	10-11-2016
Boeing	2,300	690	29-9-2012	15-10-2017
Boeing	2,393	798	7-11-2013	6-11-2014
Boeing	2,453	818	7-11-2013	7-11-2018

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Boeing	2,473	175	23-9-2014	15-10-2015
Boeing	2,473	175	23-9-2014	16-10-2019
Boeing	2,365	175	4-11-2015	3-11-2020
Boeing	2,465	225	4-11-2015	3-11-2016
Fluor	1,800	270	7-11-2012	9-11-2017
Fluor	1,700	255	28-5-2014	28-5-2019
Fluor	1,800	270	28-5-2014	28-5-2019
Fluor	1,700	121	25-2-2016	25-2-2021
Fluor	1,800	163	25-2-2016	25-2-2021
Honeywell International	3,000	600	30-3-2012	2-4-2017
Honeywell International	4,000	800	18-11-2013	10-12-2018
Honeywell International	4,000	230	10-7-2015	10-7-2020
Honeywell International	3,000	750	30-9-2015	28-9-2016
Honeywell International	1,500	90	29-4-2016	28-4-2017
Honeywell International	4,000	800	29-4-2016	29-4-2021
Huntington Ingalls Industries	489	27	23-9-2013	6-11-2018
Huntington Ingalls Industries	650	35	23-9-2013	6-11-2018
Leonardo-Finmeccanica	3,001	100	9-7-2014	9-7-2019
Leonardo-Finmeccanica	2,212	90	6-7-2015	6-7-2020
Lockheed Martin	1,500	120	14-8-2014	14-8-2019
Lockheed Martin	2,500	230	9-10-2015	9-10-2020
Lockheed Martin	7,000	1,100	9-10-2015	7-10-2016
Northrop Grumman	1,500	150	8-9-2011	8-9-2016
Northrop Grumman	1,775	355	29-8-2013	29-8-2018
Northrop Grumman	1,600	213	8-7-2015	8-7-2020
Orbital ATK	700	12	8-10-2013	1-11-2018
Orbital ATK	250	14	8-10-2013	1-11-2020
Orbital ATK	1,010	17	8-10-2013	1-11-2018
Orbital ATK	150	7	24-6-2014	24-12-2018
Orbital ATK	800	46	29-9-2015	29-9-2020
Orbital ATK	1,000	57	29-9-2015	29-9-2020
Raytheon	1,400	76	13-12-2011	13-12-2016
Raytheon	1,250	167	13-11-2015	13-11-2020
Safran	2,744	183	4-12-2015	4-12-2020
Textron	1,000	100	30-9-2013	4-10-2018
Textron	500	50	23-1-2014	23-1-2019

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

Citigroup (United States) underwrote share issuances for an estimated amount of US\$ 348 million to the nuclear weapon companies since January 2013 (see table below).

**Table 70 Underwriting of share issuances by Citigroup**

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Issue date</b>
Larsen & Toubro	34	17	12-6-2014
Larsen & Toubro	26	26	26-2-2015
Safran	1,218	305	15-11-2013

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in June/July 2016.

Citigroup (United States) underwrote bond issuances for an estimated amount of US\$ 4,184 million to the nuclear weapon companies since January 2013 (see table below).

**Table 71 Underwriting of bond issuances by Citigroup**

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Issue date</b>	<b>Maturity date</b>
Aerojet Rocketdyne	460	115	18-1-2013	15-3-2021
BAE Systems	300	100	30-9-2014	7-10-2044
BAE Systems	800	267	30-9-2014	7-10-2024
BAE Systems	250	63	3-12-2015	7-10-2044
BAE Systems	500	125	3-12-2015	15-12-2020
BAE Systems	750	188	3-12-2015	15-12-2025
Boeing	350	35	30-4-2013	15-11-2018
Boeing	300	25	28-10-2014	30-10-2021
Boeing	300	25	28-10-2014	30-10-2024
Boeing	250	41	28-10-2014	30-10-2017
Boeing	250	8	18-2-2015	1-3-2035
Boeing	250	8	18-2-2015	1-3-2045
Boeing	250	28	18-2-2015	1-3-2025
Boeing	300	9	27-10-2015	30-10-2025
Boeing	350	11	27-10-2015	30-10-2020
Boeing	250	21	27-10-2015	30-10-2022
Boeing	400	10	16-5-2016	15-6-2023
Boeing	400	12	16-5-2016	15-6-2026
Boeing	400	28	16-5-2016	15-6-2046

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Issue date</b>	<b>Maturity date</b>
Charles Stark Draper Laboratory	50	25	29-1-2015	1-9-2030
Fluor	500	34	18-11-2014	15-12-2024
Fluor	555	9	14-3-2016	21-3-2023
Honeywell International	300	10	18-11-2013	1-12-2023
Honeywell International	700	23	18-11-2013	17-11-2015
Honeywell International	837	180	15-2-2016	22-2-2028
Honeywell International	1,116	240	15-2-2016	22-2-2018
Honeywell International	1,116	240	15-2-2016	21-2-2020
Honeywell International	1,395	300	15-2-2016	22-2-2023
Larsen & Toubro	200	67	9-9-2014	24-9-2019
Leonardo-Finmeccanica	950	59	26-11-2013	19-1-2021
Leonardo-Finmeccanica	339	20	17-1-2014	19-1-2021
Lockheed Martin	500	40	12-2-2015	1-3-2035
Lockheed Martin	750	60	12-2-2015	1-3-2025
Lockheed Martin	1,000	80	12-2-2015	1-3-2045
Lockheed Martin	500	75	16-11-2015	15-1-2023
Lockheed Martin	500	75	16-11-2015	15-5-2036
Lockheed Martin	750	113	16-11-2015	23-11-2018
Lockheed Martin	1,250	188	16-11-2015	23-11-2020
Lockheed Martin	2,000	300	16-11-2015	15-1-2026
Lockheed Martin	2,000	300	16-11-2015	15-5-2046
Northrop Grumman	850	57	28-5-2013	1-6-2018
Northrop Grumman	950	63	28-5-2013	1-6-2043
Northrop Grumman	1,050	70	28-5-2013	1-8-2023
Northrop Grumman	600	24	3-2-2015	15-4-2045
Orbital ATK	400	43	22-9-2015	1-10-2023
Raytheon	300	30	24-11-2014	15-12-2024
Raytheon	300	30	24-11-2014	15-12-2044
Textron	250	25	23-1-2014	1-3-2021
Textron	350	35	23-1-2014	1-3-2024

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Textron	350	22	23-10-2014	1-3-2025
Textron	350	85	4-3-2016	15-3-2026
Thales	389	56	13-3-2013	19-3-2021
Thales	648	93	13-3-2013	20-3-2018

Source: *Thomson Reuters Eikon*, "Bond and share issue underwritings", viewed in July/August 2016; *Bloomberg*, "Bond and share issue underwritings", viewed in August 2016.

## 59. Citizens Bank & Trust (United States)

Citizens Bank & Trust (United States) has made an estimated US\$ 36 million available to the nuclear weapons companies selected for this research project since January 2013.

Citizens Bank & Trust (United States) provided loans for an estimated amount of US\$ 36 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 72** Loans provided by Citizens Bank & Trust

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
BWX Technologies	600	36	11-5-2015	11-5-2020

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

## 60. Citizens Financial Group (United States)

Citizens Financial Group (United States) has made an estimated US\$ 355 million available to the nuclear weapons companies selected for this research project since January 2013.

Citizens Financial Group (United States) provided loans for an estimated amount of US\$ 355 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 73** Loans provided by Citizens Financial Group

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Aerojet Rocketdyne	350	23	17-6-2016	17-6-2021
Aerojet Rocketdyne	400	27	17-6-2016	17-6-2021
Moog	900	85	28-3-2013	28-3-2018
Moog	1,100	110	22-5-2014	22-5-2019
Moog	1,100	110	28-6-2016	28-6-2021



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

## 61. City National Corporation (United States)

City National Corporation (United States) has made an estimated US\$ 108 million available to the nuclear weapons companies selected for this research project since January 2013.

City National Corporation (United States) provided loans for an estimated amount of US\$ 108 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 74 Loans provided by City National Corporation**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Aecom	700	35	14-10-2011	19-10-2016
Aecom	1,000	50	14-10-2011	19-10-2016
Aerojet Rocketdyne	100	8	30-5-2014	30-5-2019
Aerojet Rocketdyne	200	15	30-5-2014	30-5-2019

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

## 62. CL King & Associates (United States)

CL King & Associates (United States) has made an estimated US\$ 18 million available to the nuclear weapons companies selected for this research project since January 2013.

CL King & Associates (United States) underwrote bond issuances for an estimated amount of US\$ 18 million to the nuclear weapon companies since January 2013 (see table below).

**Table 75 Underwriting of bond issuances by CL King & Associates**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Lockheed Martin	500	1	16-11-2015	15-1-2023
Lockheed Martin	500	1	16-11-2015	15-5-2036
Lockheed Martin	750	2	16-11-2015	23-11-2018
Lockheed Martin	1,250	3	16-11-2015	23-11-2020
Lockheed Martin	2,000	5	16-11-2015	15-1-2026
Lockheed Martin	2,000	5	16-11-2015	15-5-2046

Source: *Thomson Reuters Eikon*, "Bond and share issue underwritings", viewed in July/August 2016; *Bloomberg*, "Bond and share issue underwritings", viewed in August 2016.

### 63. CNO Financial Group (United States)

CNO Financial Group (United States) has made an estimated US\$ 31 million available to the nuclear weapons companies selected for this research project since January 2013.

CNO Financial Group (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 31 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 76 Bondholdings managed by CNO Financial Group**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Textron	United States	31	1.06	31-3-2016

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

### 64. Comerica (United States)

Comerica (United States) has made an estimated US\$ 261 million available to the nuclear weapons companies selected for this research project since January 2013.

Comerica (United States) provided loans for an estimated amount of US\$ 261 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 77 Loans provided by Comerica**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Aecom	600	40	23-9-2011	30-9-2016
Aecom	700	35	14-10-2011	19-10-2016
Aecom	1,000	50	14-10-2011	19-10-2016
Aecom	1,050	39	29-1-2014	29-1-2019
BWX Technologies	700	32	22-5-2012	8-6-2017
Lockheed Martin	16	6	30-4-2014	1-5-2015
Northrop Grumman	575	22	31-3-2011	24-1-2017
Orbital ATK	700	12	8-10-2013	1-11-2018
Orbital ATK	1,010	17	8-10-2013	1-11-2018
Orbital ATK	150	7	24-6-2014	24-12-2018

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

### 65. Cooper Creek Partners Management (United States)

Cooper Creek Partners Management (United States) has made an estimated US\$ 8 million available to the nuclear weapons companies selected for this research project since January 2013.

Cooper Creek Partners Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 8 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 78 Shareholdings managed by Cooper Creek Partners Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Engility	United States	8	1.19	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 66. Corsair Capital Management (United States)

Corsair Capital Management (United States) has made an estimated US\$ 37 million available to the nuclear weapons companies selected for this research project since January 2013.

Corsair Capital Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 37 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 79 Shareholdings managed by Corsair Capital Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Orbital ATK	United States	37	0.73	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 67. Cuna Mutual Group (United States)

Cuna Mutual Group (United States) has made an estimated US\$ 15 million available to the nuclear weapons companies selected for this research project since January 2013.

Cuna Mutual Group (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 15 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 80 Bondholdings managed by Cuna Mutual Group**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Safran	France	15	0.71	31-3-2016

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

## 68. D.E. Shaw & Co. (United States)

D.E. Shaw & Co. (United States) has made an estimated US\$ 70 million available to the nuclear weapons companies selected for this research project since January 2013.

D.E. Shaw & Co. (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 70 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 81 Shareholdings managed by D.E. Shaw & Co.**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	7	0.70	31-3-2016
BWX Technologies	United States	23	0.67	31-3-2016
Huntington Ingalls Industries	United States	39	0.61	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 69. Dimensional Fund Advisors (United States)

Dimensional Fund Advisors (United States) has made an estimated US\$ 999 million available to the nuclear weapons companies selected for this research project since January 2013.

Dimensional Fund Advisors (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 999 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 82 Shareholdings managed by Dimensional Fund Advisors**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	115	2.44	31-3-2016
Aerojet Rocketdyne	United States	28	2.69	31-3-2016
BWX Technologies	United States	49	1.40	31-3-2016
Engility	United States	20	2.94	31-3-2016
Fluor	United States	113	1.51	31-3-2016
Huntington Ingalls Industries	United States	57	0.89	31-3-2016
Jacobs Engineering	United States	133	2.50	31-3-2016
Moog	United States	57	4.91	31-3-2016
Northrop Grumman	United States	242	0.67	31-3-2016
Orbital ATK	United States	96	1.89	31-3-2016
Textron	United States	89	0.91	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 70. Divine Capital Markets (United States)

Divine Capital Markets (United States) has made an estimated US\$ 19 million available to the nuclear weapons companies selected for this research project since January 2013.

Divine Capital Markets (United States) underwrote bond issuances for an estimated amount of US\$ 19 million to the nuclear weapon companies since January 2013 (see table below).

**Table 83 Underwriting of bond issuances by Divine Capital Markets**

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Issue date</b>	<b>Maturity date</b>
Boeing	300	3	28-10-2014	30-10-2021
Boeing	250	3	18-2-2015	1-3-2025
Boeing	250	6	27-10-2015	30-10-2022
Boeing	400	8	16-5-2016	15-6-2026

Source: *Thomson Reuters Eikon*, "Bond and share issue underwritings", viewed in July/August 2016; *Bloomberg*, "Bond and share issue underwritings", viewed in August 2016.

## 71. Drexel Hamilton (United States)

Drexel Hamilton (United States) has made an estimated US\$ 140 million available to the nuclear weapons companies selected for this research project since January 2013.

Drexel Hamilton (United States) underwrote bond issuances for an estimated amount of US\$ 140 million to the nuclear weapon companies since January 2013 (see table below).

**Table 84 Underwriting of bond issuances by Drexel Hamilton**

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Issue date</b>	<b>Maturity date</b>
Boeing	300	3	28-10-2014	30-10-2024
Boeing	250	3	18-2-2015	1-3-2045
Boeing	350	9	27-10-2015	30-10-2020
Boeing	400	4	16-5-2016	15-6-2046
Lockheed Martin	500	3	12-2-2015	1-3-2035
Lockheed Martin	750	4	12-2-2015	1-3-2025
Lockheed Martin	1,000	5	12-2-2015	1-3-2045
Lockheed Martin	500	1	16-11-2015	15-1-2023
Lockheed Martin	500	1	16-11-2015	15-5-2036
Lockheed Martin	750	2	16-11-2015	23-11-2018
Lockheed Martin	1,250	3	16-11-2015	23-11-2020
Lockheed Martin	2,000	5	16-11-2015	15-1-2026
Lockheed Martin	2,000	5	16-11-2015	15-5-2046
Northrop Grumman	850	26	28-5-2013	1-6-2018
Northrop Grumman	950	29	28-5-2013	1-6-2043
Northrop Grumman	1,050	32	28-5-2013	1-8-2023
Northrop Grumman	600	8	3-2-2015	15-4-2045

Source: *Thomson Reuters Eikon*, "Bond and share issue underwritings", viewed in July/August 2016; *Bloomberg*, "Bond and share issue underwritings", viewed in August 2016.

## 72. Earnest Partners (United States)

Earnest Partners (United States) has made an estimated US\$ 51 million available to the nuclear weapons companies selected for this research project since January 2013.

Earnest Partners (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 51 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 85 Shareholdings managed by Earnest Partners**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Moog	United States	51	3.38	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 73. Eastern Bank (United States)

Eastern Bank (United States) has made an estimated US\$ 106 million available to the nuclear weapons companies selected for this research project since January 2013.

Eastern Bank (United States) provided loans for an estimated amount of US\$ 106 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 86 Loans provided by Eastern Bank**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Orbital ATK	700	12	8-10-2013	1-11-2018
Orbital ATK	1,010	17	8-10-2013	1-11-2018
Orbital ATK	800	34	29-9-2015	29-9-2020
Orbital ATK	1,000	43	29-9-2015	29-9-2020

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

## 74. Eaton Vance (United States)

Eaton Vance (United States) has made an estimated US\$ 63 million available to the nuclear weapons companies selected for this research project since January 2013.

Eaton Vance (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 25 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 87 Shareholdings managed by Eaton Vance**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Moog	United States	25	1.64	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

Eaton Vance (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 38 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 88 Bondholdings managed by Eaton Vance**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	27	7.91	30-4-2016
Orbital ATK	United States	11	1.56	31-1-2016

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

## 75. Employers Reassurance Corporation (United States)

Employers Reassurance Corporation (United States) has made an estimated US\$ 34 million available to the nuclear weapons companies selected for this research project since January 2013.

Employers Reassurance Corporation (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 34 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 89 Bondholdings managed by Employers Reassurance Corporation**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
General Dynamics	United States	34	1.18	31-3-2016

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

## 76. Evercore (United States)

Evercore (United States) has made an estimated US\$ 10,843 million available to the nuclear weapons companies selected for this research project since January 2013.

Evercore (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 10,843 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 90 Shareholdings managed by Evercore**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Boeing	United States	5,465	6.76	31-3-2016
General Dynamics	United States	3,166	7.88	31-3-2016
Honeywell International	United States	2,211	2.59	31-3-2016

Source: *Thomson Reuters Eikon*, "Share ownership: most recent filings", viewed in July 2016.

## 77. Federated Investors (United States)

Federated Investors (United States) has made an estimated US\$ 59 million available to the nuclear weapons companies selected for this research project since January 2013.

Federated Investors (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 37 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 91 Shareholdings managed by Federated Investors**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Huntington Ingalls Industries	United States	37	0.58	31-3-2016

Source: *Thomson Reuters Eikon*, "Share ownership: most recent filings", viewed in July 2016.

Federated Investors (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 22 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 92 Bondholdings managed by Federated Investors**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Textron	United States	22	0.76	31-3-2016

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

## 78. Ferguson Wellman Capital Management (United States)

Ferguson Wellman Capital Management (United States) has made an estimated US\$ 40 million available to the nuclear weapons companies selected for this research project since January 2013.

Ferguson Wellman Capital Management (United States) provided loans for an estimated amount of US\$ 40 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 93 Loans provided by Ferguson Wellman Capital Management**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Aerojet Rocketdyne	50	10	18-11-2011	18-11-2016
Aerojet Rocketdyne	150	30	18-11-2011	18-11-2016

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



## 79. Fidelity Investments (United States)

Fidelity Investments (United States) has made an estimated US\$ 8,419 million available to the nuclear weapons companies selected for this research project since January 2013.

Fidelity Investments (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 8,312 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 94 Shareholdings managed by Fidelity Investments**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	693	14.68	31-3-2016
Aerojet Rocketdyne	United States	94	8.94	31-3-2016
BAE Systems	United Kingdom	281	1.27	5-5-2016
Boeing	United States	1,178	1.45	31-3-2016
BWX Technologies	United States	377	10.82	31-3-2016
Engility	United States	76	11.03	31-3-2016
General Dynamics	United States	876	2.18	31-3-2016
Honeywell International	United States	1,497	1.76	31-3-2016
Huntington Ingalls Industries	United States	415	6.45	31-3-2016
Jacobs Engineering	United States	276	5.19	31-3-2016
Lockheed Martin	United States	462	0.68	31-3-2016
Moog	United States	167	11.11	31-3-2016
Northrop Grumman	United States	499	1.40	31-3-2016
Orbital ATK	United States	280	5.50	31-3-2016
Raytheon	United States	808	2.22	31-3-2016
Textron	United States	331	3.38	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

Fidelity Investments (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 107 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 95 Bondholdings managed by Fidelity Investments**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	3	0.96	30-4-2016
BAE Systems	United Kingdom	72	1.18	31-5-2016
Huntington Ingalls Industries	United States	15	1.24	30-4-2016
Orbital ATK	United States	17	2.40	30-4-2016

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

## 80. Fiera Capital (United States)

Fiera Capital (United States) has made an estimated US\$ 17 million available to the nuclear weapons companies selected for this research project since January 2013.

Fiera Capital (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 17 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 96 Bondholdings managed by Fiera Capital**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
General Dynamics	United States	17	0.59	31-3-2016

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

## 81. Fifth Third Bancorp (United States)

Fifth Third Bancorp (United States) has made an estimated US\$ 528 million available to the nuclear weapons companies selected for this research project since January 2013.

Fifth Third Bancorp (United States) provided loans for an estimated amount of US\$ 466 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 97 Loans provided by Fifth Third Bancorp**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Aecom	500	20	11-8-2014	17-10-2019
Aecom	1,050	47	11-8-2014	17-10-2019
Aecom	1,925	77	11-8-2014	17-10-2019
Aerojet Rocketdyne	350	21	17-6-2016	17-6-2021
Aerojet Rocketdyne	400	24	17-6-2016	17-6-2021
BWX Technologies	700	32	22-5-2012	8-6-2017
Huntington Ingalls Industries	489	27	23-9-2013	6-11-2018
Huntington Ingalls Industries	650	35	23-9-2013	6-11-2018
Moog	900	30	28-3-2013	28-3-2018
Orbital ATK	700	12	8-10-2013	1-11-2018
Orbital ATK	250	14	8-10-2013	1-11-2020
Orbital ATK	1,010	17	8-10-2013	1-11-2018
Orbital ATK	150	7	24-6-2014	24-12-2018
Orbital ATK	800	34	29-9-2015	29-9-2020
Orbital ATK	1,000	43	29-9-2015	29-9-2020
Textron	500	25	23-1-2014	23-1-2019

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

Fifth Third Bancorp (United States) underwrote bond issuances for an estimated amount of US\$ 63 million to the nuclear weapon companies since January 2013 (see table below).

**Table 98 Underwriting of bond issuances by Fifth Third Bancorp**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Huntington Ingalls Industries	600	34	17-11-2014	15-12-2021
Orbital ATK	400	20	22-9-2015	1-10-2023
Textron	350	9	23-10-2014	1-3-2025

Source: *Thomson Reuters Eikon*, "Bond and share issue underwritings", viewed in July/August 2016; *Bloomberg*, "Bond and share issue underwritings", viewed in August 2016.

## 82. First Eagle Investment Management (United States)

First Eagle Investment Management (United States) has made an estimated US\$ 879 million available to the nuclear weapons companies selected for this research project since January 2013.

First Eagle Investment Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 863 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 99 Shareholdings managed by First Eagle Investment Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Northrop Grumman	United States	565	1.58	31-3-2016
Orbital ATK	United States	298	5.85	31-3-2016

Source: *Thomson Reuters Eikon*, "Share ownership: most recent filings", viewed in July 2016.

First Eagle Investment Management (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 16 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 100 Bondholdings managed by First Eagle Investment Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	16	4.64	31-3-2016

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

## 83. First Horizon (United States)

First Horizon (United States) has made an estimated US\$ 23 million available to the nuclear weapons companies selected for this research project since January 2013.

First Horizon (United States) underwrote bond issuances for an estimated amount of US\$ 23 million to the nuclear weapon companies since January 2013 (see table below).

**Table 101 Underwriting of bond issuances by First Horizon**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Moog	300	23	18-11-2014	1-12-2022

Source: *Thomson Reuters Eikon*, "Bond and share issue underwritings", viewed in July/August 2016; *Bloomberg*, "Bond and share issue underwritings", viewed in August 2016.

## 84. First Niagara Financial (United States)

First Niagara Financial (United States) has made an estimated US\$ 199 million available to the nuclear weapons companies selected for this research project since January 2013.

First Niagara Financial (United States) provided loans for an estimated amount of US\$ 199 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 102 Loans provided by First Niagara Financial**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Moog	900	30	28-3-2013	28-3-2018
Moog	1,100	63	28-6-2016	28-6-2021
Orbital ATK	700	12	8-10-2013	1-11-2018
Orbital ATK	1,010	17	8-10-2013	1-11-2018
Orbital ATK	800	34	29-9-2015	29-9-2020
Orbital ATK	1,000	43	29-9-2015	29-9-2020

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

## 85. First Trust Advisors (United States)

First Trust Advisors (United States) has made an estimated US\$ 2 million available to the nuclear weapons companies selected for this research project since January 2013.

First Trust Advisors (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 2 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 103 Bondholdings managed by First Trust Advisors**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	2	0.70	31-5-2016

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

## 86. Focus Financial Partners (United States)

Focus Financial Partners (United States) has made an estimated US\$ 97 million available to the nuclear weapons companies selected for this research project since January 2013.

Focus Financial Partners (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 97 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 104** Shareholdings managed by Focus Financial Partners

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Jacobs Engineering	United States	97	1.83	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 87. Foundation Asset Management (United States)

Foundation Asset Management (United States) has made an estimated US\$ 16 million available to the nuclear weapons companies selected for this research project since January 2013.

Foundation Asset Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 16 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 105** Shareholdings managed by Foundation Asset Management

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Serco	United Kingdom	16	0.98	6-6-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 88. Franklin Resources (United States)

Franklin Resources (United States) has made an estimated US\$ 5,753 million available to the nuclear weapons companies selected for this research project since January 2013.

Franklin Resources (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 5,753 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 106** Shareholdings managed by Franklin Resources

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BAE Systems	United Kingdom	1,232	5.44	17-2-2016
Boeing	United States	626	0.77	31-3-2016
General Dynamics	United States	460	1.14	31-3-2016
Honeywell International	United States	689	0.81	31-3-2016
Huntington Ingalls Industries	United States	225	3.49	31-3-2016

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Larsen & Toubro	India	222	1.13	31-5-2016
Lockheed Martin	United States	746	1.09	31-3-2016
Northrop Grumman	United States	261	0.73	31-3-2016
Raytheon	United States	1,048	2.88	31-3-2016
Serco	United Kingdom	187	12.58	26-5-2016
Textron	United States	59	0.60	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 89. Fred Alger & Company (United States)

Fred Alger & Company (United States) has made an estimated US\$ 630 million available to the nuclear weapons companies selected for this research project since January 2013.

Fred Alger & Company (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 630 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 107 Shareholdings managed by Fred Alger & Company**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Honeywell International	United States	630	0.74	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 90. GE Capital Services (United States)

GE Capital Services (United States) has made an estimated US\$ 521 million available to the nuclear weapons companies selected for this research project since January 2013.

GE Capital Services (United States) provided loans for an estimated amount of US\$ 100 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 108 Loans provided by GE Capital Services**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Leonardo-Finmeccanica	3,001	100	9-7-2014	9-7-2019

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

GE Capital Services (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 421 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 109 Bondholdings managed by GE Capital Services**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Boeing	United States	95	0.89	31-3-2016
General Dynamics	United States	29	1.00	31-3-2016
Honeywell International	United States	108	0.81	31-3-2016
Northrop Grumman	United States	95	1.48	31-3-2016
Raytheon	United States	79	1.48	31-3-2016
Textron	United States	15	0.52	31-3-2016

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

## 91. General Re (United States)

General Re (United States) has made an estimated US\$ 20 million available to the nuclear weapons companies selected for this research project since January 2013.

General Re (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 20 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 110 Bondholdings managed by General Re**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
General Dynamics	United States	20	0.68	31-3-2016

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

## 92. Geode Capital Management (United States)

Geode Capital Management (United States) has made an estimated US\$ 3,238 million available to the nuclear weapons companies selected for this research project since January 2013.

Geode Capital Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 3,238 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 111 Shareholdings managed by Geode Capital Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	29	0.62	31-3-2016
Aerojet Rocketdyne	United States	7	0.69	31-3-2016
Boeing	United States	701	0.87	31-3-2016
BWX Technologies	United States	22	0.63	31-3-2016
Fluor	United States	61	0.82	31-3-2016
General Dynamics	United States	342	0.85	31-3-2016
Honeywell International	United States	726	0.85	31-3-2016

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Huntington Ingalls Industries	United States	55	0.86	31-3-2016
Jacobs Engineering	United States	44	0.83	31-3-2016
Lockheed Martin	United States	504	0.75	31-3-2016
Moog	United States	16	1.04	31-3-2016
Northrop Grumman	United States	298	0.83	31-3-2016
Orbital ATK	United States	32	0.63	31-3-2016
Raytheon	United States	319	0.88	31-3-2016
Textron	United States	82	0.84	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### 93. GGCP (United States)

GGCP (United States) has made an estimated US\$ 263 million available to the nuclear weapons companies selected for this research project since January 2013.

GGCP (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 260 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 112 Shareholdings managed by GGCP**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	141	13.43	31-3-2016
Moog	United States	11	1.97	31-3-2016
Textron	United States	108	1.11	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

GGCP (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 3 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 113 Bondholdings managed by GGCP**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	3	0.79	31-3-2016

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

### 94. Glenmede (United States)

Glenmede (United States) has made an estimated US\$ 43 million available to the nuclear weapons companies selected for this research project since January 2013.

Glenmede (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 43 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.



**Table 114 Shareholdings managed by Glenmede**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Orbital ATK	United States	43	0.84	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 95. Goldman Sachs (United States)

Goldman Sachs (United States) has made an estimated US\$ 9,842 million available to the nuclear weapons companies selected for this research project since January 2013.

Goldman Sachs (United States) provided loans for an estimated amount of US\$ 3,495 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 115 Loans provided by Goldman Sachs**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Airbus Group	3,797	66	14-10-2014	14-10-2019
BAE Systems	3,269	131	12-12-2013	12-12-2018
Boeing	2,300	42	5-11-2011	10-11-2016
Boeing	2,473	65	23-9-2014	15-10-2015
Boeing	2,473	65	23-9-2014	16-10-2019
Boeing	2,465	65	4-11-2015	3-11-2016
Boeing	2,365	65	4-11-2015	3-11-2020
Fluor	1,700	50	25-2-2016	25-2-2021
Fluor	1,800	50	25-2-2016	25-2-2021
Honeywell International	3,000	129	30-3-2012	2-4-2017
Honeywell International	4,000	73	18-11-2013	10-12-2018
Honeywell International	4,000	190	10-7-2015	10-7-2020
Honeywell International	3,000	750	30-9-2015	28-9-2016
Honeywell International	1,500	65	29-4-2016	28-4-2017
Honeywell International	4,000	343	29-4-2016	29-4-2021
Lockheed Martin	1,500	50	14-8-2014	14-8-2019
Lockheed Martin	2,500	150	9-10-2015	9-10-2020
Lockheed Martin	7,000	880	9-10-2015	7-10-2016
Northrop Grumman	1,500	129	8-9-2011	8-9-2016
Northrop Grumman	1,600	64	8-7-2015	8-7-2020
Textron	1,000	75	30-9-2013	4-10-2018

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

Goldman Sachs (United States) underwrote share issuances for an estimated amount of US\$ 1,491 million to the nuclear weapon companies since January 2013 (see table below).

**Table 116 Underwriting of share issuances by Goldman Sachs**

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Issue date</b>
Airbus Group	2,947	1,473	17-4-2013
Larsen & Toubro	34	17	12-6-2014

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in June/July 2016.

Goldman Sachs (United States) underwrote bond issuances for an estimated amount of US\$ 3,599 million to the nuclear weapon companies since January 2013 (see table below).

**Table 117 Underwriting of bond issuances by Goldman Sachs**

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Issue date</b>	<b>Maturity date</b>
Airbus Group	1,209	242	14-6-2016	14-6-2021
BAE Systems	300	100	30-9-2014	7-10-2044
BAE Systems	800	267	30-9-2014	7-10-2024
Boeing	350	35	30-4-2013	15-11-2018
Boeing	300	9	28-10-2014	30-10-2021
Boeing	300	9	28-10-2014	30-10-2024
Boeing	250	34	28-10-2014	30-10-2017
Boeing	250	6	18-2-2015	1-3-2025
Boeing	250	8	18-2-2015	1-3-2045
Boeing	250	21	18-2-2015	1-3-2035
Boeing	250	21	27-10-2015	30-10-2022
Boeing	300	29	27-10-2015	30-10-2025
Boeing	350	42	27-10-2015	30-10-2020
Boeing	400	10	16-5-2016	15-6-2023
Boeing	400	16	16-5-2016	15-6-2046
Boeing	400	36	16-5-2016	15-6-2026
Fluor	500	10	18-11-2014	15-12-2024
Fluor	555	9	14-3-2016	21-3-2023
Honeywell International	300	10	18-11-2013	1-12-2023
Honeywell International	700	23	18-11-2013	17-11-2015
Honeywell International	837	180	15-2-2016	22-2-2028
Honeywell International	1,116	240	15-2-2016	22-2-2018
Honeywell International	1,116	240	15-2-2016	21-2-2020
Honeywell International	1,395	300	15-2-2016	22-2-2023
Leonardo-Finmeccanica	950	59	26-11-2013	19-1-2021
Leonardo-Finmeccanica	339	20	17-1-2014	19-1-2021

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Lockheed Martin	500	100	12-2-2015	1-3-2035
Lockheed Martin	750	150	12-2-2015	1-3-2025
Lockheed Martin	1,000	200	12-2-2015	1-3-2045
Lockheed Martin	500	63	16-11-2015	15-1-2023
Lockheed Martin	500	63	16-11-2015	15-5-2036
Lockheed Martin	750	94	16-11-2015	23-11-2018
Lockheed Martin	1,250	156	16-11-2015	23-11-2020
Lockheed Martin	2,000	250	16-11-2015	15-1-2026
Lockheed Martin	2,000	250	16-11-2015	15-5-2046
Northrop Grumman	850	57	28-5-2013	1-6-2018
Northrop Grumman	950	63	28-5-2013	1-6-2043
Northrop Grumman	1,050	70	28-5-2013	1-8-2023
Northrop Grumman	600	24	3-2-2015	15-4-2045
Textron	250	19	23-1-2014	1-3-2021
Textron	350	26	23-1-2014	1-3-2024
Textron	350	22	23-10-2014	1-3-2025
Textron	350	19	4-3-2016	15-3-2026

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in July/August 2016; Bloomberg, "Bond and share issue underwritings", viewed in August 2016.

Goldman Sachs (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 1,249 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 118 Shareholdings managed by Goldman Sachs**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	81	1.08	31-3-2016
Honeywell International	United States	656	0.76	31-3-2016
Huntington Ingalls Industries	United States	65	1.01	31-3-2016
Jacobs Engineering	United States	32	0.60	31-3-2016
Moog	United States	40	2.63	31-3-2016
Northrop Grumman	United States	189	0.53	31-3-2016
Orbital ATK	United States	29	0.56	31-3-2016
Textron	United States	158	1.61	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

Goldman Sachs (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 8 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 119 Bondholdings managed by Goldman Sachs**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Moog	United States	8	2.67	31-10-2015

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

## 96. Gotham Asset Management (United States)

Gotham Asset Management (United States) has made an estimated US\$ 81 million available to the nuclear weapons companies selected for this research project since January 2013.

Gotham Asset Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 81 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 120 Shareholdings managed by Gotham Asset Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	48	0.65	31-3-2016
Huntington Ingalls Industries	United States	32	0.50	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 97. Goto Capital Markets (United States)

Goto Capital Markets (United States) has made an estimated US\$ 3 million available to the nuclear weapons companies selected for this research project since January 2013.

Goto Capital Markets (United States) underwrote bond issuances for an estimated amount of US\$ 3 million to the nuclear weapon companies since January 2013 (see table below).

**Table 121 Underwriting of bond issuances by Goto Capital Markets**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Boeing	300	3	28-10-2014	30-10-2021

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in July/August 2016; Bloomberg, "Bond and share issue underwritings", viewed in August 2016.

## 98. Great Pacific Securities (United States)

Great Pacific Securities (United States) has made an estimated US\$ 17 million available to the nuclear weapons companies selected for this research project since January 2013.

Great Pacific Securities (United States) underwrote bond issuances for an estimated amount of US\$ 17 million to the nuclear weapon companies since January 2013 (see table below).

**Table 122 Underwriting of bond issuances by Great Pacific Securities**

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Issue date</b>	<b>Maturity date</b>
Boeing	250	3	18-2-2015	1-3-2035
Boeing	250	6	27-10-2015	30-10-2022
Boeing	400	9	16-5-2016	15-6-2023

Source: *Thomson Reuters Eikon*, "Bond and share issue underwritings", viewed in July/August 2016; *Bloomberg*, "Bond and share issue underwritings", viewed in August 2016.

## 99. Greenhaven Associates (United States)

Greenhaven Associates (United States) has made an estimated US\$ 524 million available to the nuclear weapons companies selected for this research project since January 2013.

Greenhaven Associates (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 524 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 123 Shareholdings managed by Greenhaven Associates**

<b>Company</b>	<b>Country</b>	<b>Total value (US\$ mln)</b>	<b>% Outstanding</b>	<b>Filing date</b>
Airbus Group	The Netherlands	524	1.02	31-3-2016

Source: *Thomson Reuters Eikon*, "Share ownership: most recent filings", viewed in July 2016.

## 100. Greenlight Capital (United States)

Greenlight Capital (United States) has made an estimated US\$ 100 million available to the nuclear weapons companies selected for this research project since January 2013.

Greenlight Capital (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 100 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 124 Shareholdings managed by Greenlight Capital**

<b>Company</b>	<b>Country</b>	<b>Total value (US\$ mln)</b>	<b>% Outstanding</b>	<b>Filing date</b>
Aecom	United States	100	2.11	31-3-2016

Source: *Thomson Reuters Eikon*, "Share ownership: most recent filings", viewed in July 2016.

## 101. Guggenheim Capital (United States)

Guggenheim Capital (United States) has made an estimated US\$ 203 million available to the nuclear weapons companies selected for this research project since January 2013.

Guggenheim Capital (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 72 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 125 Shareholdings managed by Guggenheim Capital**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	38	0.51	31-3-2016
Jacobs Engineering	United States	34	0.63	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

Guggenheim Capital (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 131 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 126 Bondholdings managed by Guggenheim Capital**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerjet Rocketdyne	United States	2	0.72	30-4-2016
General Dynamics	United States	25	0.86	31-3-2016
Moog	United States	4	1.18	31-3-2016
Northrop Grumman	United States	43	0.67	31-3-2016
Orbital ATK	United States	4	0.61	31-3-2016
Raytheon	United States	34	0.63	31-3-2016
Safran	France	20	0.93	31-3-2016

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

## 102. Guzman & Co (United States)

Guzman & Co (United States) has made an estimated US\$ 14 million available to the nuclear weapons companies selected for this research project since January 2013.

Guzman & Co (United States) underwrote bond issuances for an estimated amount of US\$ 14 million to the nuclear weapon companies since January 2013 (see table below).

**Table 127 Underwriting of bond issuances by Guzman & Co**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Boeing	300	5	27-10-2015	30-10-2025
Boeing	400	9	16-5-2016	15-6-2023

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in July/August 2016; Bloomberg, "Bond and share issue underwritings", viewed in August 2016.

## 103. Hahn Capital Management (United States)

Hahn Capital Management (United States) has made an estimated US\$ 46 million available to the nuclear weapons companies selected for this research project since January 2013.

Hahn Capital Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 46 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 128 Shareholdings managed by Hahn Capital Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Jacobs Engineering	United States	46	0.86	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 104. Hancock Holding (United States)

Hancock Holding (United States) has made an estimated US\$ 68 million available to the nuclear weapons companies selected for this research project since January 2013.

Hancock Holding (United States) provided loans for an estimated amount of US\$ 68 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 129 Loans provided by Hancock Holding**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
BWX Technologies	700	32	22-5-2012	8-6-2017
BWX Technologies	600	36	11-5-2015	11-5-2020

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

## 105. Hartford Financial Services (United States)

Hartford Financial Services (United States) has made an estimated US\$ 248 million available to the nuclear weapons companies selected for this research project since January 2013.

Hartford Financial Services (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 248 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 130 Bondholdings managed by Hartford Financial Services**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	12	3.34	31-3-2016
BAE Systems	United Kingdom	36	0.58	31-3-2016
Boeing	United States	91	0.86	31-3-2016
Orbital ATK	United States	6	0.90	31-3-2016
Textron	United States	103	3.55	31-3-2016

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

## 106. Huntington Bancshares (United States)

Huntington Bancshares (United States) has made an estimated US\$ 1,615 million available to the nuclear weapons companies selected for this research project since January 2013.

Huntington Bancshares (United States) provided loans for an estimated amount of US\$ 1,615 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 131** Loans provided by Huntington Bancshares

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Boeing	2,393	798	7-11-2013	6-11-2014
Boeing	2,453	818	7-11-2013	7-11-2018

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

## 107. International Value Advisors (United States)

International Value Advisors (United States) has made an estimated US\$ 92 million available to the nuclear weapons companies selected for this research project since January 2013.

International Value Advisors (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 92 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 132** Shareholdings managed by International Value Advisors

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Thales	France	92	0.58	31-12-2015

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 108. Janus Capital Group (United States)

Janus Capital Group (United States) has made an estimated US\$ 3,116 million available to the nuclear weapons companies selected for this research project since January 2013.

Janus Capital Group (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 3,116 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 133** Shareholdings managed by Janus Capital Group

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Boeing	United States	876	1.08	31-3-2016
BWX Technologies	United States	109	3.14	31-3-2016



Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
General Dynamics	United States	217	0.54	31-3-2016
Honeywell International	United States	661	0.78	31-3-2016
Lockheed Martin	United States	478	0.71	31-3-2016
Northrop Grumman	United States	776	2.17	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 109. JPMorgan Chase (United States)

JPMorgan Chase (United States) has made an estimated US\$ 22,178 million available to the nuclear weapons companies selected for this research project since January 2013.

JPMorgan Chase (United States) provided loans for an estimated amount of US\$ 12,569 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 134** Loans provided by JPMorgan Chase

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Aecom	600	40	23-9-2011	30-9-2016
Aecom	750	20	7-6-2013	7-6-2018
Aecom	1,050	39	29-1-2014	29-1-2019
Aecom	500	40	11-8-2014	17-10-2019
Aecom	1,188	95	11-8-2014	17-10-2021
Aecom	1,050	105	11-8-2014	17-10-2019
Aecom	1,925	154	11-8-2014	17-10-2019
Aerojet Rocketdyne	100	8	30-5-2014	30-5-2019
Aerojet Rocketdyne	200	15	30-5-2014	30-5-2019
Aerojet Rocketdyne	350	35	17-6-2016	17-6-2021
Aerojet Rocketdyne	400	40	17-6-2016	17-6-2021
Airbus Group	3,797	66	14-10-2014	14-10-2019
BAE Systems	3,269	131	12-12-2013	12-12-2018
Bechtel	975	146	27-7-2012	27-7-2017
Bechtel	1,000	100	14-6-2013	14-6-2018
Bechtel	2,000	200	14-6-2013	14-6-2018
Bechtel	1,000	100	19-9-2014	17-10-2019
Bechtel	1,000	120	19-9-2014	17-10-2019
Bechtel	2,000	200	19-9-2014	17-10-2019
Bechtel	1,000	43	7-6-2016	7-6-2021
Bechtel	1,500	65	7-6-2016	7-6-2021
Boeing	2,300	460	5-11-2011	10-11-2016

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Closing date</b>	<b>Maturity date</b>
Boeing	2,300	690	29-9-2012	15-10-2017
Boeing	2,393	798	7-11-2013	6-11-2014
Boeing	2,453	818	7-11-2013	7-11-2018
Boeing	2,473	175	23-9-2014	15-10-2015
Boeing	2,473	175	23-9-2014	16-10-2019
Boeing	2,365	175	4-11-2015	3-11-2020
Boeing	2,465	225	4-11-2015	3-11-2016
BWX Technologies	700	70	22-5-2012	8-6-2017
BWX Technologies	400	32	11-5-2015	11-5-2020
BWX Technologies	500	40	11-5-2015	11-5-2020
BWX Technologies	600	48	11-5-2015	11-5-2020
CH2M Hill	900	135	19-4-2012	19-4-2017
CH2M Hill	1,100	220	22-3-2014	30-1-2019
General Dynamics	1,000	125	21-6-2013	21-6-2018
General Dynamics	1,000	80	10-11-2015	10-11-2020
Honeywell International	3,000	600	30-3-2012	2-4-2017
Honeywell International	4,000	800	18-11-2013	10-12-2018
Honeywell International	4,000	230	10-7-2015	10-7-2020
Honeywell International	1,500	90	29-4-2016	28-4-2017
Honeywell International	4,000	800	29-4-2016	29-4-2021
Huntington Ingalls Industries	489	49	23-9-2013	6-11-2018
Huntington Ingalls Industries	650	65	23-9-2013	6-11-2018
Huntington Ingalls Industries	1,250	125	13-7-2015	13-7-2020
Leonardo-Finmeccanica	3,001	100	9-7-2014	9-7-2019
Leonardo-Finmeccanica	2,212	23	6-7-2015	6-7-2020
Lockheed Martin	16	10	30-4-2014	1-5-2015
Lockheed Martin	1,500	120	14-8-2014	14-8-2019
Lockheed Martin	2,500	230	9-10-2015	9-10-2020
Lockheed Martin	7,000	880	9-10-2015	7-10-2016
Moog	900	108	28-3-2013	28-3-2018
Moog	1,100	110	22-5-2014	22-5-2019
Moog	1,100	110	28-6-2016	28-6-2021
Northrop Grumman	575	58	31-3-2011	24-1-2017
Northrop Grumman	1,500	150	8-9-2011	8-9-2016
Northrop Grumman	1,775	355	29-8-2013	29-8-2018
Northrop Grumman	1,600	213	8-7-2015	8-7-2020
Orbital ATK	200	13	3-9-2012	3-9-2017
Orbital ATK	700	12	8-10-2013	1-11-2018
Orbital ATK	250	14	8-10-2013	1-11-2020

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Orbital ATK	1,010	17	8-10-2013	1-11-2018
Orbital ATK	150	15	24-6-2014	24-12-2018
Orbital ATK	800	46	29-9-2015	29-9-2020
Orbital ATK	1,000	57	29-9-2015	29-9-2020
Raytheon	1,400	280	13-12-2011	13-12-2016
Raytheon	1,250	167	13-11-2015	13-11-2020
Serco	1,159	72	21-2-2012	28-3-2017
Serco	45	9	12-3-2015	12-12-2016
Serco	714	45	12-3-2015	12-3-2019
Textron	1,000	100	30-9-2013	4-10-2018
Textron	500	50	23-1-2014	23-1-2019
Textron	700	420	24-1-2014	23-1-2015

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

JPMorgan Chase (United States) underwrote share issuances for an estimated amount of US\$ 406 million to the nuclear weapon companies since January 2013 (see table below).

**Table 135 Underwriting of share issuances by JPMorgan Chase**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date
Serco	270	135	1-5-2014
Serco	62	7	16-4-2015
Serco	62	12	16-4-2015
Serco	785	94	16-4-2015
Serco	785	157	16-4-2015

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in June/July 2016.

JPMorgan Chase (United States) underwrote bond issuances for an estimated amount of US\$ 3,629 million to the nuclear weapon companies since January 2013 (see table below).

**Table 136 Underwriting of bond issuances by JPMorgan Chase**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Aecom	800	80	17-9-2014	15-10-2022
Aecom	800	80	17-9-2014	15-10-2024
Aecom	800	80	30-10-2015	15-10-2022
Aecom	800	80	30-10-2015	15-10-2024

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Issue date</b>	<b>Maturity date</b>
Airbus Group	558	93	26-6-2015	1-7-2022
Airbus Group	1,209	242	14-6-2016	14-6-2021
BAE Systems	250	63	3-12-2015	7-10-2044
BAE Systems	500	125	3-12-2015	15-12-2020
BAE Systems	750	188	3-12-2015	15-12-2025
Boeing	350	35	30-4-2013	15-11-2018
Boeing	250	9	28-10-2014	30-10-2017
Boeing	300	9	28-10-2014	30-10-2021
Boeing	300	25	28-10-2014	30-10-2024
Boeing	250	19	18-2-2015	1-3-2045
Boeing	250	21	18-2-2015	1-3-2035
Boeing	250	29	18-2-2015	1-3-2025
Boeing	250	8	27-10-2015	30-10-2022
Boeing	350	11	27-10-2015	30-10-2020
Boeing	300	21	27-10-2015	30-10-2025
Boeing	400	10	16-5-2016	15-6-2023
Boeing	400	12	16-5-2016	15-6-2026
Boeing	400	28	16-5-2016	15-6-2046
Charles Stark Draper Laboratory	50	25	29-1-2015	1-9-2030
Honeywell International	300	30	18-11-2013	1-12-2023
Honeywell International	700	70	18-11-2013	17-11-2015
Honeywell International	837	4	15-2-2016	22-2-2028
Honeywell International	1,116	6	15-2-2016	22-2-2018
Honeywell International	1,116	6	15-2-2016	21-2-2020
Honeywell International	1,395	7	15-2-2016	22-2-2023
Huntington Ingalls Industries	600	60	17-11-2014	15-12-2021
Huntington Ingalls Industries	600	75	2-11-2015	15-11-2025
Leonardo-Finmeccanica	950	59	26-11-2013	19-1-2021
Leonardo-Finmeccanica	339	20	17-1-2014	19-1-2021
Lockheed Martin	500	90	12-2-2015	1-3-2035
Lockheed Martin	750	135	12-2-2015	1-3-2025
Lockheed Martin	1,000	180	12-2-2015	1-3-2045
Lockheed Martin	500	63	16-11-2015	15-1-2023
Lockheed Martin	500	63	16-11-2015	15-5-2036
Lockheed Martin	750	94	16-11-2015	23-11-2018
Lockheed Martin	1,250	156	16-11-2015	23-11-2020
Lockheed Martin	2,000	250	16-11-2015	15-1-2026
Lockheed Martin	2,000	250	16-11-2015	15-5-2046
Moog	300	40	18-11-2014	1-12-2022

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Northrop Grumman	850	57	28-5-2013	1-6-2018
Northrop Grumman	950	63	28-5-2013	1-6-2043
Northrop Grumman	1,050	70	28-5-2013	1-8-2023
Northrop Grumman	600	126	3-2-2015	15-4-2045
Orbital ATK	400	43	22-9-2015	1-10-2023
Raytheon	300	78	24-11-2014	15-12-2024
Raytheon	300	78	24-11-2014	15-12-2044
Textron	250	25	23-1-2014	1-3-2021
Textron	350	35	23-1-2014	1-3-2024
Textron	350	22	23-10-2014	1-3-2025
Textron	350	85	4-3-2016	15-3-2026

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in July/August 2016; Bloomberg, "Bond and share issue underwritings", viewed in August 2016.

JPMorgan Chase (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 5,514 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 137 Shareholdings managed by JPMorgan Chase**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	112	2.38	31-3-2016
Airbus Group	The Netherlands	278	0.58	31-5-2016
BAE Systems	United Kingdom	155	0.70	25-4-2016
BWX Technologies	United States	54	1.53	31-3-2016
Engility	United States	4	0.62	31-3-2016
Fluor	United States	276	3.69	31-3-2016
General Dynamics	United States	243	0.61	31-3-2016
Honeywell International	United States	2,769	3.23	31-3-2016
Huntington Ingalls Industries	United States	99	1.53	31-3-2016
Moog	United States	20	1.35	31-3-2016
Northrop Grumman	United States	891	2.49	31-3-2016
Raytheon	United States	268	0.73	31-3-2016
Serco	United Kingdom	65	4.00	21-6-2016
Thales	France	280	1.53	31-5-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

JPMorgan Chase (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 60 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 138 Bondholdings managed by JPMorgan Chase**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	27	7.76	30-4-2016
Fluor	United States	9	0.58	30-4-2016
Orbital ATK	United States	24	3.45	30-4-2016

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

## 110. Kennedy Capital Management (United States)

Kennedy Capital Management (United States) has made an estimated US\$ 16 million available to the nuclear weapons companies selected for this research project since January 2013.

Kennedy Capital Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 16 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 139 Shareholdings managed by Kennedy Capital Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	16	1.53	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 111. KeyCorp (United States)

KeyCorp (United States) has made an estimated US\$ 227 million available to the nuclear weapons companies selected for this research project since January 2013.

KeyCorp (United States) provided loans for an estimated amount of US\$ 207 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 140 Loans provided by KeyCorp**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Aecom	600	40	23-9-2011	30-9-2016
Aerojet Rocketdyne	350	14	17-6-2016	17-6-2021
Aerojet Rocketdyne	400	16	17-6-2016	17-6-2021
BWX Technologies	400	27	11-5-2015	11-5-2020
BWX Technologies	500	33	11-5-2015	11-5-2020
Orbital ATK	800	34	29-9-2015	29-9-2020
Orbital ATK	1,000	43	29-9-2015	29-9-2020

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

KeyCorp (United States) underwrote bond issuances for an estimated amount of US\$ 20 million to the nuclear weapon companies since January 2013 (see table below).

**Table 141 Underwriting of bond issuances by KeyCorp**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Orbital ATK	400	20	22-9-2015	1-10-2023

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in July/August 2016; Bloomberg, "Bond and share issue underwritings", viewed in August 2016.

## 112. Kingstown Capital Management (United States)

Kingstown Capital Management (United States) has made an estimated US\$ 57 million available to the nuclear weapons companies selected for this research project since January 2013.

Kingstown Capital Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 57 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 142 Shareholdings managed by Kingstown Capital Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	57	5.44	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 113. Knights of Columbus (United States)

Knights of Columbus (United States) has made an estimated US\$ 259 million available to the nuclear weapons companies selected for this research project since January 2013.

Knights of Columbus (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 259 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 143 Bondholdings managed by Knights of Columbus**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	16	1.03	31-3-2016
General Dynamics	United States	24	0.83	31-3-2016
Honeywell International	United States	91	0.68	31-3-2016
Northrop Grumman	United States	49	0.76	31-3-2016
Raytheon	United States	30	0.56	31-3-2016
Textron	United States	50	1.72	31-3-2016

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

## 114. Kohlberg Kravis Roberts & Co (United States)

Kohlberg Kravis Roberts & Co (United States) has made an estimated US\$ 686 million available to the nuclear weapons companies selected for this research project since January 2013.

Kohlberg Kravis Roberts & Co (United States) provided loans for an estimated amount of US\$ 334 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 144 Loans provided by Kohlberg Kravis Roberts & Co**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Engility	50	10	23-4-2014	9-5-2019
Engility	250	50	23-4-2014	9-5-2021
Engility	393	79	23-4-2014	9-5-2020
Engility	585	195	12-11-2014	12-11-2015

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

Kohlberg Kravis Roberts & Co (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 353 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 145 Shareholdings managed by Kohlberg Kravis Roberts & Co**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Engility	United States	353	51.15	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 115. Lazard (United States)

Lazard (United States) has made an estimated US\$ 702 million available to the nuclear weapons companies selected for this research project since January 2013.

Lazard (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 702 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 146 Shareholdings managed by Lazard**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Honeywell International	United States	660	0.77	31-3-2016
Serco	United Kingdom	42	2.57	1-6-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.



## 116. Lebenthal Holdings (United States)

Lebenthal Holdings (United States) has made an estimated US\$ 62 million available to the nuclear weapons companies selected for this research project since January 2013.

Lebenthal Holdings (United States) underwrote bond issuances for an estimated amount of US\$ 62 million to the nuclear weapon companies since January 2013 (see table below).

**Table 147 Underwriting of bond issuances by Lebenthal Holdings**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Boeing	300	4	28-10-2014	30-10-2021
Boeing	300	4	28-10-2014	30-10-2024
Boeing	250	3	18-2-2015	1-3-2025
Boeing	250	3	18-2-2015	1-3-2035
Boeing	250	3	18-2-2015	1-3-2045
Boeing	250	4	27-10-2015	30-10-2022
Boeing	300	5	27-10-2015	30-10-2025
Boeing	350	5	27-10-2015	30-10-2020
Boeing	400	4	16-5-2016	15-6-2046
Boeing	400	8	16-5-2016	15-6-2026
Boeing	400	9	16-5-2016	15-6-2023
Lockheed Martin	500	3	12-2-2015	1-3-2035
Lockheed Martin	750	4	12-2-2015	1-3-2025
Lockheed Martin	1,000	5	12-2-2015	1-3-2045

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in July/August 2016; Bloomberg, "Bond and share issue underwritings", viewed in August 2016.

## 117. Legg Mason (United States)

Legg Mason (United States) has made an estimated US\$ 2,294 million available to the nuclear weapons companies selected for this research project since January 2013.

Legg Mason (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 1,877 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 148 Shareholdings managed by Legg Mason**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	65	1.37	31-3-2016
Aerojet Rocketdyne	United States	13	1.23	31-3-2016
Engility	United States	6	0.90	31-3-2016
Fluor	United States	719	9.61	31-3-2016
Honeywell International	United States	483	0.56	31-3-2016

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Jacobs Engineering	United States	34	0.64	31-3-2016
Orbital ATK	United States	75	1.47	31-3-2016
Raytheon	United States	481	1.32	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

Legg Mason (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 417 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 149 Bondholdings managed by Legg Mason**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	5	1.32	31-5-2016
Boeing	United States	118	1.11	31-3-2016
General Dynamics	United States	17	0.59	31-3-2016
Lockheed Martin	United States	92	0.58	31-3-2016
Northrop Grumman	United States	76	1.18	31-3-2016
Raytheon	United States	90	1.66	31-3-2016
Safran	France	20	0.94	31-3-2016

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

## 118. Leucadia National Corporation (United States)

Leucadia National Corporation (United States) has made an estimated US\$ 508 million available to the nuclear weapons companies selected for this research project since January 2013.

Leucadia National Corporation (United States) provided loans for an estimated amount of US\$ 508 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 150 Loans provided by Leucadia National Corporation**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Engility	585	195	12-11-2014	12-11-2015
Engility	60	20	25-11-2014	26-8-2019
Engility	150	75	25-11-2014	26-8-2021
Engility	435	218	25-11-2014	26-8-2020

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

## 119. Liberty Mutual Insurance (United States)

Liberty Mutual Insurance (United States) has made an estimated US\$ 281 million available to the nuclear weapons companies selected for this research project since January 2013.

Liberty Mutual Insurance (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 281 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 151 Bondholdings managed by Liberty Mutual Insurance**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Airbus Group	The Netherlands	84	0.97	31-3-2016
BAE Systems	United Kingdom	78	1.27	31-3-2016
Moog	United States	2	0.71	31-3-2016
Northrop Grumman	United States	49	0.77	31-3-2016
Orbital ATK	United States	9	1.28	31-3-2016
Raytheon	United States	59	1.09	31-3-2016

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

## 120. Loews Corporation (United States)

Loews Corporation (United States) has made an estimated US\$ 54 million available to the nuclear weapons companies selected for this research project since January 2013.

Loews Corporation (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 54 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 152 Bondholdings managed by Loews Corporation**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	10	0.64	31-3-2016
Textron	United States	44	1.52	31-3-2016

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

## 121. Lone Pine Capital (United States)

Lone Pine Capital (United States) has made an estimated US\$ 643 million available to the nuclear weapons companies selected for this research project since January 2013.

Lone Pine Capital (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 643 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 153 Shareholdings managed by Lone Pine Capital**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Northrop Grumman	United States	643	1.80	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 122. Longview Asset Management (United States)

Longview Asset Management (United States) has made an estimated US\$ 4,378 million available to the nuclear weapons companies selected for this research project since January 2013.

Longview Asset Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 4,378 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 154 Shareholdings managed by Longview Asset Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
General Dynamics	United States	4,378	10.90	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 123. Loop Capital (United States)

Loop Capital (United States) has made an estimated US\$ 96 million available to the nuclear weapons companies selected for this research project since January 2013.

Loop Capital (United States) underwrote bond issuances for an estimated amount of US\$ 96 million to the nuclear weapon companies since January 2013 (see table below).

**Table 155 Underwriting of bond issuances by Loop Capital**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Boeing	350	10	30-4-2013	15-11-2018
Boeing	300	4	28-10-2014	30-10-2021
Boeing	300	4	28-10-2014	30-10-2024
Boeing	250	3	18-2-2015	1-3-2025
Boeing	250	3	18-2-2015	1-3-2035
Boeing	250	3	18-2-2015	1-3-2045
Boeing	250	4	27-10-2015	30-10-2022
Boeing	300	5	27-10-2015	30-10-2025
Boeing	350	5	27-10-2015	30-10-2020
Boeing	400	4	16-5-2016	15-6-2046
Boeing	400	7	16-5-2016	15-6-2026
Boeing	400	9	16-5-2016	15-6-2023

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Huntington Ingalls Industries	600	25	2-11-2015	15-11-2025
Lockheed Martin	500	3	12-2-2015	1-3-2035
Lockheed Martin	750	4	12-2-2015	1-3-2025
Lockheed Martin	1,000	5	12-2-2015	1-3-2045

Source: *Thomson Reuters Eikon*, "Bond and share issue underwritings", viewed in July/August 2016; *Bloomberg*, "Bond and share issue underwritings", viewed in August 2016.

## 124. Lord, Abnett & Co (United States)

Lord, Abnett & Co (United States) has made an estimated US\$ 258 million available to the nuclear weapons companies selected for this research project since January 2013.

Lord, Abnett & Co (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 211 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 156 Shareholdings managed by Lord, Abnett & Co**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	113	2.40	31-3-2016
Jacobs Engineering	United States	41	0.76	31-3-2016
Orbital ATK	United States	57	1.12	31-3-2016

Source: *Thomson Reuters Eikon*, "Share ownership: most recent filings", viewed in July 2016.

Lord, Abnett & Co (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 47 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 157 Bondholdings managed by Lord, Abnett & Co**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	25	7.15	30-4-2016
Huntington Ingalls Industries	United States	12	1.04	30-4-2016
Orbital ATK	United States	10	1.44	30-4-2016

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

## 125. LSV Asset Management (United States)

LSV Asset Management (United States) has made an estimated US\$ 839 million available to the nuclear weapons companies selected for this research project since January 2013.

LSV Asset Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 839 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 158 Shareholdings managed by LSV Asset Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BAE Systems	United Kingdom	193	0.87	2-5-2016
Fluor	United States	228	3.05	31-3-2016
Huntington Ingalls Industries	United States	62	0.97	31-3-2016
Moog	United States	44	2.92	31-3-2016
Northrop Grumman	United States	312	0.87	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 126. Lyrical Partners (United States)

Lyrical Partners (United States) has made an estimated US\$ 110 million available to the nuclear weapons companies selected for this research project since January 2013.

Lyrical Partners (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 110 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 159 Shareholdings managed by Lyrical Partners**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	110	2.33	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 127. M&T Bank (United States)

M&T Bank (United States) has made an estimated US\$ 558 million available to the nuclear weapons companies selected for this research project since January 2013.

M&T Bank (United States) provided loans for an estimated amount of US\$ 558 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 160 Loans provided by M&T Bank**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Aecom	700	35	14-10-2011	19-10-2016
Aecom	1,000	50	14-10-2011	19-10-2016
Aerojet Rocketdyne	100	8	30-5-2014	30-5-2019
Aerojet Rocketdyne	200	15	30-5-2014	30-5-2019
Moog	900	120	28-3-2013	28-3-2018
Moog	1,100	220	22-5-2014	22-5-2019
Moog	1,100	110	28-6-2016	28-6-2021

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

## 128. Madison Investment (United States)

Madison Investment (United States) has made an estimated US\$ 58 million available to the nuclear weapons companies selected for this research project since January 2013.

Madison Investment (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 58 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 161 Shareholdings managed by Madison Investment**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Jacobs Engineering	United States	58	1.09	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 129. Manning & Napier (United States)

Manning & Napier (United States) has made an estimated US\$ 18 million available to the nuclear weapons companies selected for this research project since January 2013.

Manning & Napier (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 18 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 162 Bondholdings managed by Manning & Napier**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	18	1.18	31-5-2016

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

## 130. Mark R. Shenkman Revocable Trust (United States)

Mark R. Shenkman Revocable Trust (United States) has made an estimated US\$ 18 million available to the nuclear weapons companies selected for this research project since January 2013.

Mark R. Shenkman Revocable Trust (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 18 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 163 Bondholdings managed by Mark R. Shenkman Revocable Trust**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Moog	United States	11	3.83	31-3-2016
Orbital ATK	United States	7	0.94	31-3-2016

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

## 131. MassMutual Financial (United States)

MassMutual Financial (United States) has made an estimated US\$ 1,611 million available to the nuclear weapons companies selected for this research project since January 2013.

MassMutual Financial (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 1,153 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 164 Shareholdings managed by MassMutual Financial**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	26	0.54	31-3-2016
Airbus Group	The Netherlands	782	1.62	29-2-2016
Lockheed Martin	United States	345	0.52	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

MassMutual Financial (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 457 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 165 Bondholdings managed by MassMutual Financial**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	15	4.27	29-2-2016
BAE Systems	United Kingdom	46	0.75	31-3-2016
General Dynamics	United States	17	0.60	31-3-2016
Lockheed Martin	United States	130	0.82	31-3-2016
Moog	United States	10	3.39	31-12-2015
Northrop Grumman	United States	38	0.59	31-3-2016
Orbital ATK	United States	8	1.21	31-3-2016
Raytheon	United States	52	0.97	31-3-2016
Safran	France	75	3.53	31-3-2016
Textron	United States	66	2.26	31-3-2016

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

## 132. MetLife (United States)

MetLife (United States) has made an estimated US\$ 1,117 million available to the nuclear weapons companies selected for this research project since January 2013.

MetLife (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 1,117 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.



**Table 166 Bondholdings managed by MetLife**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BAE Systems	United Kingdom	117	1.92	31-3-2016
Boeing	United States	118	1.11	31-3-2016
Honeywell International	United States	115	0.87	31-3-2016
Lockheed Martin	United States	215	1.36	31-3-2016
Northrop Grumman	United States	238	3.74	31-3-2016
Orbital ATK	United States	22	3.08	31-3-2016
Raytheon	United States	147	2.73	31-3-2016
Safran	France	116	5.44	31-3-2016
Textron	United States	29	0.99	31-12-2015

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

### 133. Mischler Financial Group (United States)

Mischler Financial Group (United States) has made an estimated US\$ 130 million available to the nuclear weapons companies selected for this research project since January 2013.

Mischler Financial Group (United States) underwrote bond issuances for an estimated amount of US\$ 130 million to the nuclear weapon companies since January 2013 (see table below).

**Table 167 Underwriting of bond issuances by Mischler Financial Group**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Boeing	300	3	28-10-2014	30-10-2024
Boeing	250	3	18-2-2015	1-3-2045
Boeing	350	9	27-10-2015	30-10-2020
Boeing	400	4	16-5-2016	15-6-2046
Lockheed Martin	500	1	16-11-2015	15-1-2023
Lockheed Martin	500	1	16-11-2015	15-5-2036
Lockheed Martin	750	2	16-11-2015	23-11-2018
Lockheed Martin	1,250	3	16-11-2015	23-11-2020
Lockheed Martin	2,000	5	16-11-2015	15-1-2026
Lockheed Martin	2,000	5	16-11-2015	15-5-2046
Northrop Grumman	850	26	28-5-2013	1-6-2018
Northrop Grumman	950	29	28-5-2013	1-6-2043
Northrop Grumman	1,050	32	28-5-2013	1-8-2023
Northrop Grumman	600	9	3-2-2015	15-4-2045

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in July/August 2016; Bloomberg, "Bond and share issue underwritings", viewed in August 2016.

### 134. Modern Woodmen of America (United States)

Modern Woodmen of America (United States) has made an estimated US\$ 50 million available to the nuclear weapons companies selected for this research project since January 2013.

Modern Woodmen of America (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 50 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 168 Bondholdings managed by Modern Woodmen of America**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	25	1.61	31-3-2016
Safran	France	25	1.18	31-3-2016

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

### 135. Moog Pension Fund (United States)

Moog Pension Fund (United States) has made an estimated US\$ 243 million available to the nuclear weapons companies selected for this research project since January 2013.

Moog Pension Fund (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 243 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 169 Shareholdings managed by Moog Pension Fund**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Moog	United States	243	95.18	17-11-2015

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### 136. Morgan Stanley (United States)

Morgan Stanley (United States) has made an estimated US\$ 9,439 million available to the nuclear weapons companies selected for this research project since January 2013.

Morgan Stanley (United States) provided loans for an estimated amount of US\$ 2,211 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 170 Loans provided by Morgan Stanley**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Aecom	600	40	23-9-2011	30-9-2016
Aecom	1,050	39	29-1-2014	29-1-2019
Aecom	500	20	11-8-2014	17-10-2019

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Closing date</b>	<b>Maturity date</b>
Aecom	1,925	77	11-8-2014	17-10-2019
Aerojet Rocketdyne	50	10	18-11-2011	18-11-2016
Aerojet Rocketdyne	150	30	18-11-2011	18-11-2016
Aerojet Rocketdyne	50	13	16-8-2012	16-8-2017
Aerojet Rocketdyne	100	8	30-5-2014	30-5-2019
Aerojet Rocketdyne	200	15	30-5-2014	30-5-2019
Aerojet Rocketdyne	350	9	17-6-2016	17-6-2021
Aerojet Rocketdyne	400	11	17-6-2016	17-6-2021
Airbus Group	3,797	66	14-10-2014	14-10-2019
BAE Systems	3,269	131	12-12-2013	12-12-2018
Boeing	2,300	42	5-11-2011	10-11-2016
Boeing	2,473	65	23-9-2014	15-10-2015
Boeing	2,473	65	23-9-2014	16-10-2019
Boeing	2,465	65	4-11-2015	3-11-2016
Boeing	2,365	65	4-11-2015	3-11-2020
Honeywell International	3,000	129	30-3-2012	2-4-2017
Honeywell International	4,000	73	18-11-2013	10-12-2018
Honeywell International	4,000	76	10-7-2015	10-7-2020
Honeywell International	1,500	65	29-4-2016	28-4-2017
Honeywell International	4,000	343	29-4-2016	29-4-2021
Lockheed Martin	1,500	50	14-8-2014	14-8-2019
Lockheed Martin	2,500	75	9-10-2015	9-10-2020
Lockheed Martin	7,000	440	9-10-2015	7-10-2016
Northrop Grumman	575	22	31-3-2011	24-1-2017
Orbital ATK	700	12	8-10-2013	1-11-2018
Orbital ATK	250	14	8-10-2013	1-11-2020
Orbital ATK	1,010	17	8-10-2013	1-11-2018
Orbital ATK	150	7	24-6-2014	24-12-2018
Raytheon	1,250	44	13-11-2015	13-11-2020
Textron	1,000	75	30-9-2013	4-10-2018

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

Morgan Stanley (United States) underwrote share issuances for an estimated amount of US\$ 1,473 million to the nuclear weapon companies since January 2013 (see table below).

**Table 171 Underwriting of share issuances by Morgan Stanley**

Company	Issuer	Use of proceeds	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date
Airbus Group	EADS	Secondary	2,947	1,473	17-4-2013

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in June/July 2016.

Morgan Stanley (United States) underwrote bond issuances for an estimated amount of US\$ 2,768 million to the nuclear weapon companies since January 2013 (see table below).

**Table 172 Underwriting of bond issuances by Morgan Stanley**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Aecom	800	80	17-9-2014	15-10-2022
Aecom	800	80	17-9-2014	15-10-2024
Aecom	800	80	30-10-2015	15-10-2022
Aecom	800	80	30-10-2015	15-10-2024
Aerojet Rocketdyne	460	115	18-1-2013	15-3-2021
Airbus Group	679	75	13-5-2016	13-5-2026
Airbus Group	1,018	113	13-5-2016	13-5-2031
Boeing	350	35	30-4-2013	15-11-2018
Boeing	150	50	30-4-2013	3-11-2014
Boeing	250	9	28-10-2014	30-10-2017
Boeing	300	9	28-10-2014	30-10-2024
Boeing	300	25	28-10-2014	30-10-2021
Boeing	250	6	18-2-2015	1-3-2025
Boeing	250	8	18-2-2015	1-3-2035
Boeing	250	19	18-2-2015	1-3-2045
Boeing	250	8	27-10-2015	30-10-2022
Boeing	300	9	27-10-2015	30-10-2025
Boeing	350	25	27-10-2015	30-10-2020
Boeing	400	10	16-5-2016	15-6-2023
Boeing	400	16	16-5-2016	15-6-2046
Boeing	400	36	16-5-2016	15-6-2026
Honeywell International	300	30	18-11-2013	1-12-2023
Honeywell International	700	70	18-11-2013	17-11-2015
Honeywell International	837	17	15-2-2016	22-2-2028
Honeywell International	1,116	22	15-2-2016	22-2-2018
Honeywell International	1,116	22	15-2-2016	21-2-2020
Honeywell International	1,395	28	15-2-2016	22-2-2023
Leonardo-Finmeccanica	339	20	17-1-2014	19-1-2021

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Lockheed Martin	500	90	12-2-2015	1-3-2035
Lockheed Martin	750	135	12-2-2015	1-3-2025
Lockheed Martin	1,000	180	12-2-2015	1-3-2045
Lockheed Martin	500	63	16-11-2015	15-1-2023
Lockheed Martin	500	63	16-11-2015	15-5-2036
Lockheed Martin	750	94	16-11-2015	23-11-2018
Lockheed Martin	1,250	156	16-11-2015	23-11-2020
Lockheed Martin	2,000	250	16-11-2015	15-1-2026
Lockheed Martin	2,000	250	16-11-2015	15-5-2046
Northrop Grumman	850	26	28-5-2013	1-6-2018
Northrop Grumman	950	29	28-5-2013	1-6-2043
Northrop Grumman	1,050	32	28-5-2013	1-8-2023
Raytheon	300	8	24-11-2014	15-12-2024
Raytheon	300	8	24-11-2014	15-12-2044
Safran	275	137	7-4-2014	11-4-2024
Textron	250	19	23-1-2014	1-3-2021
Textron	350	26	23-1-2014	1-3-2024
Textron	350	89	23-10-2014	1-3-2025
Textron	350	19	4-3-2016	15-3-2026

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in July/August 2016; Bloomberg, "Bond and share issue underwritings", viewed in August 2016.

Morgan Stanley (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 2,986 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 173 Shareholdings managed by Morgan Stanley**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Boeing	United States	539	0.67	31-3-2016
BWX Technologies	United States	101	2.89	31-3-2016
Honeywell International	United States	1,173	1.38	31-3-2016
Huntington Ingalls Industries	United States	39	0.61	31-3-2016
Lockheed Martin	United States	395	0.59	31-3-2016
Northrop Grumman	United States	184	0.52	31-3-2016
Raytheon	United States	555	1.52	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### 137. MSD Partners (United States)

MSD Partners (United States) has made an estimated US\$ 143 million available to the nuclear weapons companies selected for this research project since January 2013.

MSD Partners (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 143 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 174 Shareholdings managed by MSD Partners**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Serco	United Kingdom	143	10.00	25-2-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### 138. Mutual of Ohama (United States)

Mutual of Ohama (United States) has made an estimated US\$ 58 million available to the nuclear weapons companies selected for this research project since January 2013.

Mutual of Ohama (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 58 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 175 Bondholdings managed by Mutual of Ohama**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	17	1.09	31-3-2016
Raytheon	United States	41	0.76	31-3-2016

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

### 139. Muzinich & Co (United States)

Muzinich & Co (United States) has made an estimated US\$ 28 million available to the nuclear weapons companies selected for this research project since January 2013.

Muzinich & Co (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 28 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 176 Bondholdings managed by Muzinich & Co**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Leonardo-Finmeccanica	Italy	28	0.58	30-11-2015

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

## 140. National Life Group (United States)

National Life Group (United States) has made an estimated US\$ 38 million available to the nuclear weapons companies selected for this research project since January 2013.

National Life Group (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 38 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 177 Bondholdings managed by National Life Group**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Safran	France	20	0.94	31-3-2016
Textron	United States	18	0.60	31-3-2016

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

## 141. National Rural Electric Cooperative Association (United States)

National Rural Electric Cooperative Association (United States) has made an estimated US\$ 70 million available to the nuclear weapons companies selected for this research project since January 2013.

National Rural Electric Cooperative Association (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 70 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 178 Shareholdings managed by National Rural Electric Cooperative Association**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BWX Technologies	United States	33	0.94	31-3-2016
Huntington Ingalls Industries	United States	37	0.58	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 142. National Western Life Insurance Company (United States)

National Western Life Insurance Company (United States) has made an estimated US\$ 96 million available to the nuclear weapons companies selected for this research project since January 2013.

National Western Life Insurance Company (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 96 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 179 Bondholdings managed by National Western Life Insurance Company**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	30	1.93	31-3-2016
General Dynamics	United States	15	0.52	31-3-2016

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Raytheon	United States	30	0.55	31-3-2016
Textron	United States	22	0.76	31-3-2016

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

### 143. Nationwide Mutual Insurance (United States)

Nationwide Mutual Insurance (United States) has made an estimated US\$ 165 million available to the nuclear weapons companies selected for this research project since January 2013.

Nationwide Mutual Insurance (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 165 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 180 Bondholdings managed by Nationwide Mutual Insurance**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Huntington Ingalls Industries	United States	22	1.81	31-3-2016
Northrop Grumman	United States	111	1.74	31-3-2016
Orbital ATK	United States	32	4.61	31-3-2016

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

### 144. Neuberger Berman (United States)

Neuberger Berman (United States) has made an estimated US\$ 188 million available to the nuclear weapons companies selected for this research project since January 2013.

Neuberger Berman (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 188 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 181 Shareholdings managed by Neuberger Berman**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Jacobs Engineering	United States	38	0.71	31-3-2016
Textron	United States	150	1.53	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### 145. New Jersey Department of the Treasury (United States)

New Jersey Department of the Treasury (United States) has made an estimated US\$ 92 million available to the nuclear weapons companies selected for this research project since January 2013.

New Jersey Department of the Treasury (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 92 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.



**Table 182 Shareholdings managed by New Jersey Department of the Treasury**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	52	1.10	31-3-2016
Orbital ATK	United States	40	0.79	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### 146. New Mountain Capital (United States)

New Mountain Capital (United States) has made an estimated US\$ 68 million available to the nuclear weapons companies selected for this research project since January 2013.

New Mountain Capital (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 68 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 183 Shareholdings managed by New Mountain Capital**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	68	1.45	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### 147. New York Life Insurance (United States)

New York Life Insurance (United States) has made an estimated US\$ 1,938 million available to the nuclear weapons companies selected for this research project since January 2013.

New York Life Insurance (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 1,938 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 184 Bondholdings managed by New York Life Insurance**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	70	20.18	31-3-2016
Airbus Group	The Netherlands	67	0.77	31-3-2016
BAE Systems	United Kingdom	132	2.15	31-3-2016
Boeing	United States	185	1.74	31-3-2016
General Dynamics	United States	166	5.72	31-3-2016
Honeywell International	United States	168	1.27	31-3-2016
Lockheed Martin	United States	196	1.24	31-3-2016
Moog	United States	34	11.42	31-3-2016
Northrop Grumman	United States	283	4.44	31-3-2016
Orbital ATK	United States	61	8.74	31-3-2016

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Raytheon	United States	289	5.37	31-3-2016
Safran	France	139	6.56	31-3-2016
Textron	United States	148	5.09	31-3-2016

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

## 148. New York State Common Retirement Fund (United States)

New York State Common Retirement Fund (United States) has made an estimated US\$ 20 million available to the nuclear weapons companies selected for this research project since January 2013.

New York State Common Retirement Fund (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 20 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 185 Shareholdings managed by New York State Common Retirement Fund**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Moog	United States	11	0.73	31-3-2016
Serco	United Kingdom	9	0.51	23-5-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 149. Newbrook Capital Advisors (United States)

Newbrook Capital Advisors (United States) has made an estimated US\$ 65 million available to the nuclear weapons companies selected for this research project since January 2013.

Newbrook Capital Advisors (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 65 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 186 Shareholdings managed by Newbrook Capital Advisors**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Orbital ATK	United States	65	1.28	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 150. NewSouth Capital Management (United States)

NewSouth Capital Management (United States) has made an estimated US\$ 95 million available to the nuclear weapons companies selected for this research project since January 2013.

NewSouth Capital Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 95 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 187 Shareholdings managed by NewSouth Capital Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	95	9.01	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 151. Northern Trust (United States)

Northern Trust (United States) has made an estimated US\$ 6,213 million available to the nuclear weapons companies selected for this research project since January 2013.

Northern Trust (United States) provided loans for an estimated amount of US\$ 1,724 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 188 Loans provided by Northern Trust**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Aecom	600	40	23-9-2011	30-9-2016
Aecom	750	20	7-6-2013	7-6-2018
Aecom	39	2	16-12-2013	19-12-2018
Aecom	655	39	16-12-2013	19-12-2018
Aecom	961	58	16-12-2013	19-12-2018
Aecom	1,050	39	29-1-2014	29-1-2019
Bechtel	1,000	28	7-6-2016	7-6-2021
Bechtel	1,500	42	7-6-2016	7-6-2021
Boeing	2,300	42	5-11-2011	10-11-2016
Boeing	2,473	35	23-9-2014	15-10-2015
Boeing	2,473	35	23-9-2014	16-10-2019
Boeing	2,465	35	4-11-2015	3-11-2016
Boeing	2,365	35	4-11-2015	3-11-2020
BWX Technologies	700	32	22-5-2012	8-6-2017
BWX Technologies	400	27	11-5-2015	11-5-2020
BWX Technologies	500	33	11-5-2015	11-5-2020
BWX Technologies	600	36	11-5-2015	11-5-2020
CH2M Hill	900	72	19-4-2012	19-4-2017
General Dynamics	1,000	46	10-11-2015	10-11-2020
Honeywell International	4,000	73	18-11-2013	10-12-2018
Honeywell International	4,000	120	10-7-2015	10-7-2020
Honeywell International	1,500	45	29-4-2016	28-4-2017
Huntington Ingalls Industries	1,250	71	13-7-2015	13-7-2020
Jacobs Engineering	1,140	62	7-2-2014	7-2-2019

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Lockheed Martin	1,500	35	14-8-2014	14-8-2019
Lockheed Martin	2,500	50	9-10-2015	9-10-2020
Moog	900	30	28-3-2013	28-3-2018
Moog	1,100	63	28-6-2016	28-6-2021
Northrop Grumman	575	22	31-3-2011	24-1-2017
Northrop Grumman	1,500	129	8-9-2011	8-9-2016
Orbital ATK	700	12	8-10-2013	1-11-2018
Orbital ATK	1,010	17	8-10-2013	1-11-2018
Orbital ATK	800	34	29-9-2015	29-9-2020
Orbital ATK	1,000	43	29-9-2015	29-9-2020
Raytheon	1,400	76	13-12-2011	13-12-2016
Raytheon	1,250	44	13-11-2015	13-11-2020
Textron	1,000	75	30-9-2013	4-10-2018
Textron	500	25	23-1-2014	23-1-2019

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

Northern Trust (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 4,489 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 189 Shareholdings managed by Northern Trust**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	35	0.73	31-3-2016
Aerojet Rocketdyne	United States	12	1.11	31-3-2016
Boeing	United States	1,004	1.24	31-3-2016
BWX Technologies	United States	29	0.84	31-3-2016
Engility	United States	6	0.93	31-3-2016
Fluor	United States	88	1.18	31-3-2016
General Dynamics	United States	460	1.14	31-3-2016
Honeywell International	United States	931	1.09	31-3-2016
Huntington Ingalls Industries	United States	59	0.91	31-3-2016
Jacobs Engineering	United States	64	1.20	31-3-2016
Lockheed Martin	United States	767	1.13	31-3-2016
Moog	United States	37	2.46	31-3-2016
Northrop Grumman	United States	416	1.17	31-3-2016
Orbital ATK	United States	51	1.00	31-3-2016
Raytheon	United States	432	1.19	31-3-2016
Textron	United States	99	1.01	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 152. Northwestern Mutual Life Insurance (United States)

Northwestern Mutual Life Insurance (United States) has made an estimated US\$ 909 million available to the nuclear weapons companies selected for this research project since January 2013.

Northwestern Mutual Life Insurance (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 909 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 190** Bondholdings managed by Northwestern Mutual Life Insurance

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BAE Systems	United Kingdom	124	2.03	31-3-2016
Boeing	United States	109	1.03	31-3-2016
General Dynamics	United States	74	2.54	31-3-2016
Honeywell International	United States	82	0.62	31-3-2016
Huntington Ingalls Industries	United States	13	1.04	31-3-2016
Lockheed Martin	United States	148	0.94	31-3-2016
Northrop Grumman	United States	148	2.31	31-3-2016
Orbital ATK	United States	23	3.21	31-3-2016
Raytheon	United States	79	1.47	31-3-2016
Safran	France	80	3.77	31-3-2016
Textron	United States	30	1.04	31-3-2016

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

## 153. Ohio Public Employees Retirement System (United States)

Ohio Public Employees Retirement System (United States) has made an estimated US\$ 7 million available to the nuclear weapons companies selected for this research project since January 2013.

Ohio Public Employees Retirement System (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 7 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 191** Shareholdings managed by Ohio Public Employees Retirement System

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	7	0.71	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 154. Old Republic International (United States)

Old Republic International (United States) has made an estimated US\$ 27 million available to the nuclear weapons companies selected for this research project since January 2013.

Old Republic International (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 27 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 192 Bondholdings managed by Old Republic International**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	19	1.25	31-3-2016
Huntington Ingalls Industries	United States	7	0.60	31-3-2016

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

## 155. O'Shaughnessy Asset Management (United States)

O'Shaughnessy Asset Management (United States) has made an estimated US\$ 41 million available to the nuclear weapons companies selected for this research project since January 2013.

O'Shaughnessy Asset Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 41 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 193 Shareholdings managed by O'Shaughnessy Asset Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	41	0.55	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 156. Pacific Mutual (United States)

Pacific Mutual (United States) has made an estimated US\$ 310 million available to the nuclear weapons companies selected for this research project since January 2013.

Pacific Mutual (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 310 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 194 Bondholdings managed by Pacific Mutual**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BAE Systems	United Kingdom	99	1.62	31-3-2016
Fluor	United States	38	2.41	31-3-2016
Northrop Grumman	United States	79	1.23	31-3-2016
Safran	France	53	2.47	31-3-2016
Textron	United States	42	1.43	31-3-2016

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

## 157. People's United Financial (United States)

People's United Financial (United States) has made an estimated US\$ 106 million available to the nuclear weapons companies selected for this research project since January 2013.

People's United Financial (United States) provided loans for an estimated amount of US\$ 106 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 195 Loans provided by People's United Financial**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Orbital ATK	700	12	8-10-2013	1-11-2018
Orbital ATK	1,010	17	8-10-2013	1-11-2018
Orbital ATK	800	34	29-9-2015	29-9-2020
Orbital ATK	1,000	43	29-9-2015	29-9-2020

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

## 158. PNC Financial Services (United States)

PNC Financial Services (United States) has made an estimated US\$ 1,186 million available to the nuclear weapons companies selected for this research project since January 2013.

PNC Financial Services (United States) provided loans for an estimated amount of US\$ 752 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 196 Loans provided by PNC Financial Services**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Bechtel	1,000	28	7-6-2016	7-6-2021
Bechtel	1,500	42	7-6-2016	7-6-2021
BWX Technologies	700	32	22-5-2012	8-6-2017
BWX Technologies	400	27	11-5-2015	11-5-2020
BWX Technologies	500	33	11-5-2015	11-5-2020
BWX Technologies	600	36	11-5-2015	11-5-2020
General Dynamics	1,000	46	10-11-2015	10-11-2020
Huntington Ingalls Industries	489	27	23-9-2013	6-11-2018
Huntington Ingalls Industries	650	35	23-9-2013	6-11-2018
Huntington Ingalls Industries	1,250	71	13-7-2015	13-7-2020
Moog	900	70	28-3-2013	28-3-2018
Moog	1,100	63	28-6-2016	28-6-2021

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Orbital ATK	200	13	3-9-2012	3-9-2017
Orbital ATK	700	12	8-10-2013	1-11-2018
Orbital ATK	250	14	8-10-2013	1-11-2020
Orbital ATK	1,010	17	8-10-2013	1-11-2018
Orbital ATK	150	7	24-6-2014	24-12-2018
Orbital ATK	800	34	29-9-2015	29-9-2020
Orbital ATK	1,000	43	29-9-2015	29-9-2020
Textron	1,000	75	30-9-2013	4-10-2018
Textron	500	25	23-1-2014	23-1-2019

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

PNC Financial Services (United States) underwrote bond issuances for an estimated amount of US\$ 253 million to the nuclear weapon companies since January 2013 (see table below).

**Table 197 Underwriting of bond issuances by PNC Financial Services**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Huntington Ingalls Industries	600	34	17-11-2014	15-12-2021
Huntington Ingalls Industries	600	25	2-11-2015	15-11-2025
Moog	300	23	18-11-2014	1-12-2022
Northrop Grumman	850	26	28-5-2013	1-6-2018
Northrop Grumman	950	29	28-5-2013	1-6-2043
Northrop Grumman	1,050	32	28-5-2013	1-8-2023
Orbital ATK	400	20	22-9-2015	1-10-2023
Textron	250	19	23-1-2014	1-3-2021
Textron	350	26	23-1-2014	1-3-2024
Textron	350	10	23-10-2014	1-3-2025
Textron	350	11	4-3-2016	15-3-2026

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in July/August 2016; Bloomberg, "Bond and share issue underwritings", viewed in August 2016.

PNC Financial Services (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 181 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 198 Shareholdings managed by PNC Financial Services**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Northrop Grumman	United States	181	0.51	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.



## 159. Poplar Forest Capital (United States)

Poplar Forest Capital (United States) has made an estimated US\$ 48 million available to the nuclear weapons companies selected for this research project since January 2013.

Poplar Forest Capital (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 48 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 199** Shareholdings managed by Poplar Forest Capital

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	48	1.01	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 160. Primecap Management (United States)

Primecap Management (United States) has made an estimated US\$ 2,361 million available to the nuclear weapons companies selected for this research project since January 2013.

Primecap Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 2,361 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 200** Shareholdings managed by Primecap Management

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	230	4.87	31-3-2016
Airbus Group	The Netherlands	1,231	2.40	31-3-2016
Honeywell International	United States	544	0.64	31-3-2016
Jacobs Engineering	United States	356	6.70	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 161. Principal Financial Group (United States)

Principal Financial Group (United States) has made an estimated US\$ 436 million available to the nuclear weapons companies selected for this research project since January 2013.

Principal Financial Group (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 212 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 201** Shareholdings managed by Principal Financial Group

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	7	0.69	31-3-2016
BWX Technologies	United States	25	0.71	31-3-2016
Fluor	United States	105	1.41	31-3-2016

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Moog	United States	11	0.72	31-3-2016
Orbital ATK	United States	64	1.25	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

Principal Financial Group (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 224 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 202 Bondholdings managed by Principal Financial Group**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	12	3.45	30-4-2016
BAE Systems	United Kingdom	41	0.68	31-3-2016
Boeing	United States	59	0.55	31-3-2016
Raytheon	United States	46	0.85	31-3-2016
Safran	France	48	2.26	31-3-2016
Textron	United States	18	0.61	31-3-2016

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

## 162. Private Capital Management (United States)

Private Capital Management (United States) has made an estimated US\$ 12 million available to the nuclear weapons companies selected for this research project since January 2013.

Private Capital Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 12 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 203 Shareholdings managed by Private Capital Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	12	1.17	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 163. Prospector Partners (United States)

Prospector Partners (United States) has made an estimated US\$ 40 million available to the nuclear weapons companies selected for this research project since January 2013.

Prospector Partners (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 40 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 204 Bondholdings managed by Prospector Partners**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Raytheon	United States	40	0.74	31-12-2015

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

## 164. Prudential Financial (US) (United States)

Prudential Financial (US) (United States) has made an estimated US\$ 2,721 million available to the nuclear weapons companies selected for this research project since January 2013.

Prudential Financial (US) (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 1,301 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 205 Shareholdings managed by Prudential Financial (US)**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Boeing	United States	1,174	1.45	31-3-2016
BWX Technologies	United States	19	0.54	31-3-2016
Engility	United States	3	0.51	31-3-2016
Huntington Ingalls Industries	United States	105	1.64	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

Prudential Financial (US) (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 1,420 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 206 Bondholdings managed by Prudential Financial (US)**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BAE Systems	United Kingdom	67	1.10	31-12-2015
Boeing	United States	327	3.07	31-3-2016
Fluor	United States	9	0.59	31-3-2016
General Dynamics	United States	43	1.48	31-3-2016
Honeywell International	United States	314	2.37	31-12-2015
Lockheed Martin	United States	239	1.52	31-3-2016
Northrop Grumman	United States	158	2.47	31-12-2015
Orbital ATK	United States	11	1.61	31-3-2016
Raytheon	United States	177	3.28	31-3-2016
Textron	United States	75	2.60	31-3-2016

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

## 165. Pzena Investment Management (United States)

Pzena Investment Management (United States) has made an estimated US\$ 100 million available to the nuclear weapons companies selected for this research project since January 2013.

Pzena Investment Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 100 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 207 Shareholdings managed by Pzena Investment Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	100	2.12	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 166. Raymond James Financial (United States)

Raymond James Financial (United States) has made an estimated US\$ 47 million available to the nuclear weapons companies selected for this research project since January 2013.

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

**Table 208 Loans provided by Raymond James Financial**

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

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

Raymond James Financial (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 18 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 209 Shareholdings managed by Raymond James Financial**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BWX Technologies	United States	18	0.51	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 167. Regions Financial (United States)

Regions Financial (United States) has made an estimated US\$ 474 million available to the nuclear weapons companies selected for this research project since January 2013.

Regions Financial (United States) provided loans for an estimated amount of US\$ 440 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 210 Loans provided by Regions Financial**

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Closing date</b>	<b>Maturity date</b>
Aerojet Rocketdyne	100	8	30-5-2014	30-5-2019
Aerojet Rocketdyne	200	15	30-5-2014	30-5-2019
Aerojet Rocketdyne	350	23	17-6-2016	17-6-2021
Aerojet Rocketdyne	400	27	17-6-2016	17-6-2021
BWX Technologies	400	27	11-5-2015	11-5-2020
BWX Technologies	500	33	11-5-2015	11-5-2020
Engility	60	20	25-11-2014	26-8-2019
Fluor	1,700	50	25-2-2016	25-2-2021
Moog	1,100	110	22-5-2014	22-5-2019
Orbital ATK	700	12	8-10-2013	1-11-2018
Orbital ATK	250	14	8-10-2013	1-11-2020
Orbital ATK	1,010	17	8-10-2013	1-11-2018
Orbital ATK	150	7	24-6-2014	24-12-2018
Orbital ATK	800	34	29-9-2015	29-9-2020
Orbital ATK	1,000	43	29-9-2015	29-9-2020

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

Regions Financial (United States) underwrote bond issuances for an estimated amount of US\$ 34 million to the nuclear weapon companies since January 2013 (see table below).

**Table 211 Underwriting of bond issuances by Regions Financial**

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Issue date</b>	<b>Maturity date</b>
Fluor	500	5	18-11-2014	15-12-2024
Fluor	555	9	14-3-2016	21-3-2023
Orbital ATK	400	20	22-9-2015	1-10-2023

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in July/August 2016; Bloomberg, "Bond and share issue underwritings", viewed in August 2016.

## **168. Renaissance Technologies (United States)**

Renaissance Technologies (United States) has made an estimated US\$ 236 million available to the nuclear weapons companies selected for this research project since January 2013.

Renaissance Technologies (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 236 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 212 Shareholdings managed by Renaissance Technologies**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	21	1.99	31-3-2016
BWX Technologies	United States	32	0.93	31-3-2016
Huntington Ingalls Industries	United States	174	2.70	31-3-2016
Moog	United States	9	0.61	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### 169. RidgeWorth Capital Management (United States)

RidgeWorth Capital Management (United States) has made an estimated US\$ 43 million available to the nuclear weapons companies selected for this research project since January 2013.

RidgeWorth Capital Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 43 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 213 Shareholdings managed by RidgeWorth Capital Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Orbital ATK	United States	43	0.84	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### 170. Royal Capital Management (United States)

Royal Capital Management (United States) has made an estimated US\$ 5 million available to the nuclear weapons companies selected for this research project since January 2013.

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

**Table 214 Shareholdings managed by Royal Capital Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	5	0.50	30-9-2015

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### 171. Roystone Capital Management (United States)

Roystone Capital Management (United States) has made an estimated US\$ 26 million available to the nuclear weapons companies selected for this research project since January 2013.

Roystone Capital Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 26 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 215 Shareholdings managed by Roystone Capital Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Orbital ATK	United States	26	0.52	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 172. Ruane, Cunniff & Goldfarb (United States)

Ruane, Cunniff & Goldfarb (United States) has made an estimated US\$ 249 million available to the nuclear weapons companies selected for this research project since January 2013.

Ruane, Cunniff & Goldfarb (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 249 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 216 Shareholdings managed by Ruane, Cunniff & Goldfarb**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Jacobs Engineering	United States	249	4.69	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 173. S&T Bancorp (United States)

S&T Bancorp (United States) has made an estimated US\$ 24 million available to the nuclear weapons companies selected for this research project since January 2013.

S&T Bancorp (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 24 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 217 Shareholdings managed by S&T Bancorp**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	24	0.51	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 174. Sanders Capital (United States)

Sanders Capital (United States) has made an estimated US\$ 239 million available to the nuclear weapons companies selected for this research project since January 2013.

Sanders Capital (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 239 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 218 Shareholdings managed by Sanders Capital**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
General Dynamics	United States	239	0.60	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 175. SAR Holding (United States)

SAR Holding (United States) has made an estimated US\$ 36 million available to the nuclear weapons companies selected for this research project since January 2013.

SAR Holding (United States) underwrote bond issuances for an estimated amount of US\$ 36 million to the nuclear weapon companies since January 2013 (see table below).

**Table 219 Underwriting of bond issuances by SAR Holding**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Boeing	300	3	28-10-2014	30-10-2024
Boeing	250	3	18-2-2015	1-3-2045
Boeing	300	5	27-10-2015	30-10-2025
Boeing	400	7	16-5-2016	15-6-2026
Lockheed Martin	500	1	16-11-2015	15-1-2023
Lockheed Martin	500	1	16-11-2015	15-5-2036
Lockheed Martin	750	2	16-11-2015	23-11-2018
Lockheed Martin	1,250	3	16-11-2015	23-11-2020
Lockheed Martin	2,000	5	16-11-2015	15-1-2026
Lockheed Martin	2,000	5	16-11-2015	15-5-2046

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in July/August 2016; Bloomberg, "Bond and share issue underwritings", viewed in August 2016.

## 176. Sasco Capital (United States)

Sasco Capital (United States) has made an estimated US\$ 191 million available to the nuclear weapons companies selected for this research project since January 2013.

Sasco Capital (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 191 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.



**Table 220 Shareholdings managed by Sasco Capital**

<b>Company</b>	<b>Country</b>	<b>Total value (US\$ mln)</b>	<b>% Outstanding</b>	<b>Filing date</b>
Raytheon	United States	191	0.52	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### **177. Schafer Cullen Capital Management (United States)**

Schafer Cullen Capital Management (United States) has made an estimated US\$ 274 million available to the nuclear weapons companies selected for this research project since January 2013.

Schafer Cullen Capital Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 274 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 221 Shareholdings managed by Schafer Cullen Capital Management**

<b>Company</b>	<b>Country</b>	<b>Total value (US\$ mln)</b>	<b>% Outstanding</b>	<b>Filing date</b>
Raytheon	United States	274	0.75	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### **178. Securian (United States)**

Securian (United States) has made an estimated US\$ 200 million available to the nuclear weapons companies selected for this research project since January 2013.

Securian (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 200 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 222 Bondholdings managed by Securian**

<b>Company</b>	<b>Country</b>	<b>Total value (US\$ mln)</b>	<b>% Outstanding</b>	<b>Filing date</b>
BAE Systems	United Kingdom	44	0.71	31-3-2016
Boeing	United States	70	0.66	31-3-2016
General Dynamics	United States	19	0.65	31-3-2016
Northrop Grumman	United States	39	0.62	31-3-2016
Textron	United States	28	0.97	31-3-2016

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

### **179. SEI (United States)**

SEI (United States) has made an estimated US\$ 3 million available to the nuclear weapons companies selected for this research project since January 2013.

SEI (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 3 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 223 Bondholdings managed by SEI**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	3	0.91	29-2-2016

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

## 180. Shapiro Capital Management (United States)

Shapiro Capital Management (United States) has made an estimated US\$ 78 million available to the nuclear weapons companies selected for this research project since January 2013.

Shapiro Capital Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 78 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 224 Shareholdings managed by Shapiro Capital Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BWX Technologies	United States	78	2.25	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 181. Siebert Brandford Shank Financial (United States)

Siebert Brandford Shank Financial (United States) has made an estimated US\$ 35 million available to the nuclear weapons companies selected for this research project since January 2013.

Siebert Brandford Shank Financial (United States) underwrote bond issuances for an estimated amount of US\$ 35 million to the nuclear weapon companies since January 2013 (see table below).

**Table 225 Underwriting of bond issuances by Siebert Brandford Shank Financial**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Boeing	250	3	18-2-2015	1-3-2025
Boeing	300	5	27-10-2015	30-10-2025
Boeing	400	9	16-5-2016	15-6-2023
Lockheed Martin	500	1	16-11-2015	15-1-2023
Lockheed Martin	500	1	16-11-2015	15-5-2036
Lockheed Martin	750	2	16-11-2015	23-11-2018
Lockheed Martin	1,250	3	16-11-2015	23-11-2020
Lockheed Martin	2,000	5	16-11-2015	15-1-2026

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Lockheed Martin	2,000	5	16-11-2015	15-5-2046

Source: *Thomson Reuters Eikon*, "Bond and share issue underwritings", viewed in July/August 2016; *Bloomberg*, "Bond and share issue underwritings", viewed in August 2016.

## 182. Siebert Capital (United States)

Siebert Capital (United States) has made an estimated US\$ 3 million available to the nuclear weapons companies selected for this research project since January 2013.

Siebert Capital (United States) underwrote bond issuances for an estimated amount of US\$ 3 million to the nuclear weapon companies since January 2013 (see table below).

**Table 226 Underwriting of bond issuances by Siebert Capital**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Boeing	300	3	28-10-2014	30-10-2021

Source: *Thomson Reuters Eikon*, "Bond and share issue underwritings", viewed in July/August 2016; *Bloomberg*, "Bond and share issue underwritings", viewed in August 2016.

## 183. Silvercrest Asset Management Group (United States)

Silvercrest Asset Management Group (United States) has made an estimated US\$ 38 million available to the nuclear weapons companies selected for this research project since January 2013.

Silvercrest Asset Management Group (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 38 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 227 Shareholdings managed by Silvercrest Asset Management Group**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Jacobs Engineering	United States	38	0.72	31-3-2016

Source: *Thomson Reuters Eikon*, "Share ownership: most recent filings", viewed in July 2016.

## 184. Smith Asset Management Group (United States)

Smith Asset Management Group (United States) has made an estimated US\$ 44 million available to the nuclear weapons companies selected for this research project since January 2013.

Smith Asset Management Group (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 44 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 228 Shareholdings managed by Smith Asset Management Group**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Huntington Ingalls Industries	United States	44	0.68	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### 185. Snow Capital Management (United States)

Snow Capital Management (United States) has made an estimated US\$ 57 million available to the nuclear weapons companies selected for this research project since January 2013.

Snow Capital Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 57 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 229 Shareholdings managed by Snow Capital Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Textron	United States	57	0.58	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### 186. Southern Farm Bureau Life Insurance (United States)

Southern Farm Bureau Life Insurance (United States) has made an estimated US\$ 15 million available to the nuclear weapons companies selected for this research project since January 2013.

Southern Farm Bureau Life Insurance (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 15 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 230 Bondholdings managed by Southern Farm Bureau Life Insurance**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Safran	France	15	0.71	31-3-2016

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

### 187. StanCorp Financial (United States)

StanCorp Financial (United States) has made an estimated US\$ 24 million available to the nuclear weapons companies selected for this research project since January 2013.

StanCorp Financial (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 24 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 231 Bondholdings managed by StanCorp Financial**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	18	1.19	31-3-2016
Moog	United States	2	0.78	31-3-2016
Orbital ATK	United States	4	0.51	31-3-2016

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

## 188. State Farm (United States)

State Farm (United States) has made an estimated US\$ 855 million available to the nuclear weapons companies selected for this research project since January 2013.

State Farm (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 855 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 232 Bondholdings managed by State Farm**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BAE Systems	United Kingdom	45	0.73	31-3-2016
Fluor	United States	72	4.61	31-3-2016
General Dynamics	United States	122	4.22	31-3-2016
Honeywell International	United States	188	1.42	31-3-2016
Lockheed Martin	United States	176	1.12	31-3-2016
Northrop Grumman	United States	78	1.21	31-3-2016
Raytheon	United States	175	3.25	31-3-2016

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

## 189. State Fund (United States)

State Fund (United States) has made an estimated US\$ 79 million available to the nuclear weapons companies selected for this research project since January 2013.

State Fund (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 79 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 233 Bondholdings managed by State Fund**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
General Dynamics	United States	16	0.54	31-3-2016
Raytheon	United States	64	1.18	31-3-2016

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

## 190. State Street (United States)

State Street (United States) has made an estimated US\$ 27,781 million available to the nuclear weapons companies selected for this research project since January 2013.

State Street (United States) provided loans for an estimated amount of US\$ 352 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 234 Loans provided by State Street**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Boeing	2,300	42	5-11-2011	10-11-2016
Boeing	2,473	38	23-9-2014	15-10-2015
Boeing	2,473	38	23-9-2014	16-10-2019
Boeing	2,465	25	4-11-2015	3-11-2016
Boeing	2,365	25	4-11-2015	3-11-2020
Lockheed Martin	1,500	50	14-8-2014	14-8-2019
Lockheed Martin	2,500	50	9-10-2015	9-10-2020
Northrop Grumman	575	22	31-3-2011	24-1-2017
Northrop Grumman	1,600	64	8-7-2015	8-7-2020

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

State Street (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 27,374 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 235 Shareholdings managed by State Street**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	125	2.64	31-3-2016
Aerjet Rocketdyne	United States	21	1.97	31-3-2016
BAE Systems	United Kingdom	407	1.84	1-6-2016
Boeing	United States	3,612	4.47	31-3-2016
BWX Technologies	United States	54	1.55	31-3-2016
Engility	United States	7	1.00	31-3-2016
Fluor	United States	373	5.00	31-3-2016
General Dynamics	United States	1,603	3.98	31-3-2016
Honeywell International	United States	3,215	3.76	31-3-2016
Huntington Ingalls Industries	United States	347	5.39	31-3-2016
Jacobs Engineering	United States	214	4.01	31-3-2016
Lockheed Martin	United States	11,335	16.80	31-3-2016
Moog	United States	39	2.58	31-3-2016

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Northrop Grumman	United States	3,988	11.16	31-3-2016
Orbital ATK	United States	140	2.75	31-3-2016
Raytheon	United States	1,499	4.11	31-3-2016
Serco	United Kingdom	17	1.07	1-6-2016
Textron	United States	378	3.84	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

State Street (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 54 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 236 Bondholdings managed by State Street**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Huntington Ingalls Industries	United States	7	0.58	31-5-2016
Northrop Grumman	United States	48	0.74	31-3-2016

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

## 191. State Teachers Retirement System of Ohio (United States)

State Teachers Retirement System of Ohio (United States) has made an estimated US\$ 79 million available to the nuclear weapons companies selected for this research project since January 2013.

State Teachers Retirement System of Ohio (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 79 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 237 Shareholdings managed by State Teachers Retirement System of Ohio**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	38	0.80	31-3-2016
Huntington Ingalls Industries	United States	41	0.64	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 192. Steel Partners Holdings (United States)

Steel Partners Holdings (United States) has made an estimated US\$ 68 million available to the nuclear weapons companies selected for this research project since January 2013.

Steel Partners Holdings (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 68 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 238 Shareholdings managed by Steel Partners Holdings**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	68	6.50	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### 193. Stephens (United States)

Stephens (United States) has made an estimated US\$ 26 million available to the nuclear weapons companies selected for this research project since January 2013.

Stephens (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 26 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 239 Shareholdings managed by Stephens**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Orbital ATK	United States	26	0.52	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

### 194. Stifel Financial (United States)

Stifel Financial (United States) has made an estimated US\$ 29 million available to the nuclear weapons companies selected for this research project since January 2013.

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

**Table 240 Loans provided by Stifel Financial**

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

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

### 195. Strategic Income Management (United States)

Strategic Income Management (United States) has made an estimated US\$ 7 million available to the nuclear weapons companies selected for this research project since January 2013.

Strategic Income Management (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 7 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.



**Table 241 Bondholdings managed by Strategic Income Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Orbital ATK	United States	7	1.00	30-4-2016

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

## 196. SunTrust (United States)

SunTrust (United States) has made an estimated US\$ 1,712 million available to the nuclear weapons companies selected for this research project since January 2013.

SunTrust (United States) provided loans for an estimated amount of US\$ 1,439 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 242 Loans provided by SunTrust**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Aecom	700	35	14-10-2011	19-10-2016
Aecom	1,000	50	14-10-2011	19-10-2016
Aecom	39	2	16-12-2013	19-12-2018
Aecom	655	39	16-12-2013	19-12-2018
Aecom	961	58	16-12-2013	19-12-2018
Aecom	500	20	11-8-2014	17-10-2019
Aecom	1,188	59	11-8-2014	17-10-2021
Aecom	1,925	77	11-8-2014	17-10-2019
Aerojet Rocketdyne	50	10	18-11-2011	18-11-2016
Aerojet Rocketdyne	150	30	18-11-2011	18-11-2016
Aerojet Rocketdyne	50	13	16-8-2012	16-8-2017
Aerojet Rocketdyne	100	13	30-5-2014	30-5-2019
Aerojet Rocketdyne	200	27	30-5-2014	30-5-2019
Aerojet Rocketdyne	400	54	17-6-2016	17-6-2021
Aerojet Rocketdyne	350	61	17-6-2016	17-6-2021
Bechtel	1,000	28	7-6-2016	7-6-2021
Bechtel	1,500	42	7-6-2016	7-6-2021
Boeing	2,473	30	23-9-2014	15-10-2015
Boeing	2,473	30	23-9-2014	16-10-2019
Engility	585	195	12-11-2014	12-11-2015
Huntington Ingalls Industries	489	49	23-9-2013	6-11-2018
Huntington Ingalls Industries	650	65	23-9-2013	6-11-2018
Northrop Grumman	575	22	31-3-2011	24-1-2017
Northrop Grumman	1,500	129	8-9-2011	8-9-2016

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Orbital ATK	200	20	3-9-2012	3-9-2017
Orbital ATK	250	25	8-10-2013	1-11-2020
Orbital ATK	700	47	8-10-2013	1-11-2018
Orbital ATK	1,010	67	8-10-2013	1-11-2018
Orbital ATK	150	15	24-6-2014	24-12-2018
Orbital ATK	800	46	29-9-2015	29-9-2020
Orbital ATK	1,000	57	29-9-2015	29-9-2020
Textron	500	25	23-1-2014	23-1-2019

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

SunTrust (United States) underwrote bond issuances for an estimated amount of US\$ 273 million to the nuclear weapon companies since January 2013 (see table below).

**Table 243 Underwriting of bond issuances by SunTrust**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Aerojet Rocketdyne	460	115	18-1-2013	15-3-2021
Boeing	300	4	28-10-2014	30-10-2021
Boeing	300	4	28-10-2014	30-10-2024
Boeing	250	3	18-2-2015	1-3-2025
Boeing	250	3	18-2-2015	1-3-2035
Boeing	250	3	18-2-2015	1-3-2045
Boeing	250	4	27-10-2015	30-10-2022
Boeing	300	5	27-10-2015	30-10-2025
Boeing	350	5	27-10-2015	30-10-2020
Huntington Ingalls Industries	600	34	17-11-2014	15-12-2021
Orbital ATK	300	50	22-10-2013	1-10-2021
Orbital ATK	400	43	22-9-2015	1-10-2023

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in July/August 2016; Bloomberg, "Bond and share issue underwritings", viewed in August 2016.

## 197. Synovus Financial Corporation (United States)

Synovus Financial Corporation (United States) has made an estimated US\$ 411 million available to the nuclear weapons companies selected for this research project since January 2013.

Synovus Financial Corporation (United States) provided loans for an estimated amount of US\$ 411 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 244 Loans provided by Synovus Financial Corporation**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Orbital ATK	700	12	8-10-2013	1-11-2018
Orbital ATK	1,010	17	8-10-2013	1-11-2018
Orbital ATK	800	34	29-9-2015	29-9-2020
Orbital ATK	1,000	43	29-9-2015	29-9-2020
Textron	500	25	23-1-2014	23-1-2019
Textron	700	280	24-1-2014	23-1-2015

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

## 198. T. Rowe Price (United States)

T. Rowe Price (United States) has made an estimated US\$ 6,660 million available to the nuclear weapons companies selected for this research project since January 2013.

T. Rowe Price (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 6,652 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 245 Shareholdings managed by T. Rowe Price**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	9	0.87	31-3-2016
Airbus Group	The Netherlands	322	0.63	31-3-2016
Boeing	United States	4,722	5.84	31-3-2016
BWX Technologies	United States	55	1.59	31-3-2016
Engility	United States	17	2.51	31-3-2016
Moog	United States	43	2.88	31-3-2016
Northrop Grumman	United States	202	0.57	31-3-2016
Serco	United Kingdom	35	2.07	23-5-2016
Textron	United States	1,245	12.70	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

T. Rowe Price (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 9 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 246 Bondholdings managed by T. Rowe Price**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Moog	United States	9	2.92	31-3-2016

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

## 199. Telsey Advisory Group (United States)

Telsey Advisory Group (United States) has made an estimated US\$ 16 million available to the nuclear weapons companies selected for this research project since January 2013.

Telsey Advisory Group (United States) underwrote bond issuances for an estimated amount of US\$ 16 million to the nuclear weapon companies since January 2013 (see table below).

**Table 247 Underwriting of bond issuances by Telsey Advisory Group**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Boeing	250	3	18-2-2015	1-3-2035
Boeing	250	6	27-10-2015	30-10-2022
Boeing	400	7	16-5-2016	15-6-2026

Source: *Thomson Reuters Eikon*, "Bond and share issue underwritings", viewed in July/August 2016; *Bloomberg*, "Bond and share issue underwritings", viewed in August 2016.

## 200. The London Company of Virginia (United States)

The London Company of Virginia (United States) has made an estimated US\$ 564 million available to the nuclear weapons companies selected for this research project since January 2013.

The London Company of Virginia (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 564 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 248 Shareholdings managed by The London Company of Virginia**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
General Dynamics	United States	292	0.73	31-3-2016
Orbital ATK	United States	272	5.35	31-3-2016

Source: *Thomson Reuters Eikon*, "Share ownership: most recent filings", viewed in July 2016.

## 201. Thornburg Investment Management (United States)

Thornburg Investment Management (United States) has made an estimated US\$ 16 million available to the nuclear weapons companies selected for this research project since January 2013.

Thornburg Investment Management (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 16 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 249 Bondholdings managed by Thornburg Investment Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	16	0.80	29-2-2016

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

## 202. Thrivent Financial (United States)

Thrivent Financial (United States) has made an estimated US\$ 171 million available to the nuclear weapons companies selected for this research project since January 2013.

Thrivent Financial (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 86 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 250 Shareholdings managed by Thrivent Financial**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BWX Technologies	United States	19	0.55	31-3-2016
Huntington Ingalls Industries	United States	67	1.04	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

Thrivent Financial (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 85 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 251 Bondholdings managed by Thrivent Financial**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
General Dynamics	United States	15	0.52	31-3-2016
Huntington Ingalls Industries	United States	10	0.81	31-5-2016
Northrop Grumman	United States	37	0.58	31-3-2016
Textron	United States	23	0.81	31-3-2016

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

## 203. TIAA-CREF (United States)

TIAA-CREF (United States) has made an estimated US\$ 6,870 million available to the nuclear weapons companies selected for this research project since January 2013.

TIAA-CREF (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 5,539 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 252 Shareholdings managed by TIAA-CREF**

<b>Company</b>	<b>Country</b>	<b>Total value (US\$ mln)</b>	<b>% Outstanding</b>	<b>Filing date</b>
Aecom	United States	44	0.93	31-3-2016
Aerojet Rocketdyne	United States	5	0.50	31-3-2016
BAE Systems	United Kingdom	130	0.58	15-4-2016
Boeing	United States	835	1.03	31-3-2016
BWX Technologies	United States	60	1.73	31-3-2016
Fluor	United States	51	0.68	31-3-2016
General Dynamics	United States	244	0.60	31-3-2016
Honeywell International	United States	1,695	1.98	31-3-2016
Huntington Ingalls Industries	United States	113	1.75	31-3-2016
Jacobs Engineering	United States	27	0.51	31-3-2016
Lockheed Martin	United States	764	1.12	31-3-2016
Moog	United States	18	1.17	31-3-2016
Northrop Grumman	United States	575	1.61	31-3-2016
Orbital ATK	United States	90	1.76	31-3-2016
Raytheon	United States	634	1.72	31-3-2016
Textron	United States	256	2.62	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

TIAA-CREF (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 1,332 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 253 Bondholdings managed by TIAA-CREF**

<b>Company</b>	<b>Country</b>	<b>Total value (US\$ mln)</b>	<b>% Outstanding</b>	<b>Filing date</b>
Airbus Group	The Netherlands	58	0.68	31-3-2016
BAE Systems	United Kingdom	125	2.04	31-3-2016
Boeing	United States	174	1.63	31-3-2016
Fluor	United States	76	4.86	31-3-2016
General Dynamics	United States	43	1.47	31-3-2016
Honeywell International	United States	101	0.76	31-3-2016
Huntington Ingalls Industries	United States	33	2.71	31-3-2016
Leonardo-Finmeccanica	Italy	72	1.48	31-3-2016
Lockheed Martin	United States	180	1.14	31-3-2016
Northrop Grumman	United States	221	3.46	31-3-2016
Orbital ATK	United States	30	4.23	31-3-2016
Raytheon	United States	78	1.44	31-3-2016
Safran	France	75	3.53	31-3-2016
Textron	United States	68	2.34	31-3-2016

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

## 204. Tortoise Holdings (United States)

Tortoise Holdings (United States) has made an estimated US\$ 2 million available to the nuclear weapons companies selected for this research project since January 2013.

Tortoise Holdings (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 2 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 254 Bondholdings managed by Tortoise Holdings**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	2	0.56	30-4-2016

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

## 205. Travelers (United States)

Travelers (United States) has made an estimated US\$ 294 million available to the nuclear weapons companies selected for this research project since January 2013.

Travelers (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 294 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 255 Bondholdings managed by Travelers**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Boeing	United States	89	0.84	31-3-2016
General Dynamics	United States	56	1.95	31-3-2016
Moog	United States	12	3.98	31-3-2016
Northrop Grumman	United States	46	0.72	31-3-2016
Orbital ATK	United States	12	1.69	31-3-2016
Raytheon	United States	58	1.08	31-3-2016
Textron	United States	20	0.70	31-3-2016

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

## 206. Trimaran Capital Partners (United States)

Trimaran Capital Partners (United States) has made an estimated US\$ 13 million available to the nuclear weapons companies selected for this research project since January 2013.

Trimaran Capital Partners (United States) provided loans for an estimated amount of US\$ 13 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 256 Loans provided by Trimaran Capital Partners**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Orbital ATK	200	13	3-9-2012	3-9-2017

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

## 207. Trust Investment Advisors (United States)

Trust Investment Advisors (United States) has made an estimated US\$ 222 million available to the nuclear weapons companies selected for this research project since January 2013.

Trust Investment Advisors (United States) underwrote bond issuances for an estimated amount of US\$ 222 million to the nuclear weapon companies since January 2013 (see table below).

**Table 257 Underwriting of bond issuances by Trust Investment Advisors**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Larsen & Toubro	5	5	7-1-2013	7-7-2014
Larsen & Toubro	5	5	26-3-2013	26-3-2015
Larsen & Toubro	25	25	26-6-2013	26-9-2013
Larsen & Toubro	41	41	26-6-2013	26-9-2013
Larsen & Toubro	4	4	27-6-2013	27-9-2013
Larsen & Toubro	17	9	11-10-2013	11-10-2016
Larsen & Toubro	8	2	20-3-2014	27-3-2024
Larsen & Toubro	2	1	3-6-2014	3-12-2015
Larsen & Toubro	3	1	3-6-2014	3-6-2016
Larsen & Toubro	12	12	21-8-2014	21-8-2016
Larsen & Toubro	21	21	21-8-2014	2-8-2016
Larsen & Toubro	2	1	27-8-2014	19-9-2016
Larsen & Toubro	2	1	27-8-2014	26-8-2016
Larsen & Toubro	8	3	27-8-2014	10-2-2016
Larsen & Toubro	83	28	27-8-2014	28-12-2015
Larsen & Toubro	16	16	29-1-2015	29-1-2025
Larsen & Toubro	8	8	21-7-2015	21-7-2017
Larsen & Toubro	15	15	9-9-2015	9-9-2025
Larsen & Toubro	15	3	13-4-2016	28-3-2018
Larsen & Toubro	15	3	13-4-2016	12-3-2019
Larsen & Toubro	15	3	13-4-2016	12-9-2019
Larsen & Toubro	15	3	13-4-2016	30-9-2019
Larsen & Toubro	15	3	13-4-2016	13-6-2019
Larsen & Toubro	15	3	13-4-2016	12-4-2019



Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Larsen & Toubro	15	3	13-4-2016	31-5-2019
Larsen & Toubro	4	1	24-5-2016	24-5-2019
Larsen & Toubro	4	1	24-5-2016	28-6-2019
Larsen & Toubro	10	3	29-6-2016	28-6-2019
Larsen & Toubro	10	3	29-6-2016	22-7-2019

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in July/August 2016; Bloomberg, "Bond and share issue underwritings", viewed in August 2016.

## 208. Two Sigma Investments (United States)

Two Sigma Investments (United States) has made an estimated US\$ 250 million available to the nuclear weapons companies selected for this research project since January 2013.

Two Sigma Investments (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 250 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 258 Shareholdings managed by Two Sigma Investments**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BWX Technologies	United States	27	0.76	31-3-2016
General Dynamics	United States	224	0.56	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 209. UMB Financial Corporation (United States)

UMB Financial Corporation (United States) has made an estimated US\$ 65 million available to the nuclear weapons companies selected for this research project since January 2013.

UMB Financial Corporation (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 65 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 259 Shareholdings managed by UMB Financial Corporation**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BWX Technologies	United States	34	0.96	31-3-2016
Orbital ATK	United States	32	0.62	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 210. US Bancorp (United States)

US Bancorp (United States) has made an estimated US\$ 5,226 million available to the nuclear weapons companies selected for this research project since January 2013.

US Bancorp (United States) provided loans for an estimated amount of US\$ 4,374 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 260**      **Loans provided by US Bancorp**

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Closing date</b>	<b>Maturity date</b>
Aecom	700	35	14-10-2011	19-10-2016
Aecom	1,000	50	14-10-2011	19-10-2016
Aecom	750	20	7-6-2013	7-6-2018
Aecom	39	2	16-12-2013	19-12-2018
Aecom	655	39	16-12-2013	19-12-2018
Aecom	961	58	16-12-2013	19-12-2018
Aecom	1,050	39	29-1-2014	29-1-2019
Aecom	500	20	11-8-2014	17-10-2019
Aecom	1,050	47	11-8-2014	17-10-2019
Aecom	1,925	77	11-8-2014	17-10-2019
Aerojet Rocketdyne	50	10	18-11-2011	18-11-2016
Aerojet Rocketdyne	150	30	18-11-2011	18-11-2016
Aerojet Rocketdyne	50	13	16-8-2012	16-8-2017
Aerojet Rocketdyne	100	13	30-5-2014	30-5-2019
Aerojet Rocketdyne	200	27	30-5-2014	30-5-2019
Aerojet Rocketdyne	350	28	17-6-2016	17-6-2021
Aerojet Rocketdyne	400	32	17-6-2016	17-6-2021
Bechtel	1,000	28	7-6-2016	7-6-2021
Bechtel	1,500	42	7-6-2016	7-6-2021
Boeing	2,300	42	5-11-2011	10-11-2016
Boeing	2,300	460	29-9-2012	15-10-2017
Boeing	2,473	60	23-9-2014	15-10-2015
Boeing	2,473	60	23-9-2014	16-10-2019
Boeing	2,465	60	4-11-2015	3-11-2016
Boeing	2,365	60	4-11-2015	3-11-2020
BWX Technologies	700	32	22-5-2012	8-6-2017
BWX Technologies	400	27	11-5-2015	11-5-2020
BWX Technologies	500	33	11-5-2015	11-5-2020
BWX Technologies	600	36	11-5-2015	11-5-2020
CH2M Hill	900	72	19-4-2012	19-4-2017
Fluor	1,800	180	7-11-2012	9-11-2017
Fluor	1,700	227	28-5-2014	28-5-2019
Fluor	1,800	240	28-5-2014	28-5-2019
Fluor	1,700	70	25-2-2016	25-2-2021

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Closing date</b>	<b>Maturity date</b>
Fluor	1,800	75	25-2-2016	25-2-2021
General Dynamics	1,000	46	10-11-2015	10-11-2020
Honeywell International	4,000	73	18-11-2013	10-12-2018
Honeywell International	4,000	120	10-7-2015	10-7-2020
Honeywell International	1,500	45	29-4-2016	28-4-2017
Huntington Ingalls Industries	489	27	23-9-2013	6-11-2018
Huntington Ingalls Industries	650	35	23-9-2013	6-11-2018
Huntington Ingalls Industries	1,250	125	13-7-2015	13-7-2020
Jacobs Engineering	1,160	139	23-3-2012	23-3-2017
Jacobs Engineering	460	39	7-2-2014	7-2-2019
Jacobs Engineering	1,140	62	7-2-2014	7-2-2019
Jacobs Engineering	460	55	5-3-2015	5-3-2020
Jacobs Engineering	1,140	137	5-3-2015	5-3-2020
Lockheed Martin	1,500	85	14-8-2014	14-8-2019
Lockheed Martin	2,500	150	9-10-2015	9-10-2020
Lockheed Martin	7,000	240	9-10-2015	7-10-2016
Moog	900	30	28-3-2013	28-3-2018
Moog	1,100	63	28-6-2016	28-6-2021
Northrop Grumman	575	22	31-3-2011	24-1-2017
Northrop Grumman	1,600	64	8-7-2015	8-7-2020
Orbital ATK	200	20	3-9-2012	3-9-2017
Orbital ATK	250	25	8-10-2013	1-11-2020
Orbital ATK	700	47	8-10-2013	1-11-2018
Orbital ATK	1,010	67	8-10-2013	1-11-2018
Orbital ATK	150	15	24-6-2014	24-12-2018
Orbital ATK	800	46	29-9-2015	29-9-2020
Orbital ATK	1,000	57	29-9-2015	29-9-2020
Raytheon	1,400	76	13-12-2011	13-12-2016
Raytheon	1,250	44	13-11-2015	13-11-2020
Textron	1,000	75	30-9-2013	4-10-2018

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

US Bancorp (United States) underwrote bond issuances for an estimated amount of US\$ 853 million to the nuclear weapon companies since January 2013 (see table below).

**Table 261 Underwriting of bond issuances by US Bancorp**

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Issue date</b>	<b>Maturity date</b>
Boeing	350	10	30-4-2013	15-11-2018
Boeing	300	9	28-10-2014	30-10-2021
Boeing	300	9	28-10-2014	30-10-2024
Boeing	250	6	18-2-2015	1-3-2025
Boeing	250	8	18-2-2015	1-3-2045
Boeing	250	13	18-2-2015	1-3-2035
Boeing	250	8	27-10-2015	30-10-2022
Boeing	300	9	27-10-2015	30-10-2025
Boeing	350	11	27-10-2015	30-10-2020
Boeing	400	12	16-5-2016	15-6-2026
Boeing	400	16	16-5-2016	15-6-2023
Boeing	400	16	16-5-2016	15-6-2046
Fluor	500	10	18-11-2014	15-12-2024
Fluor	555	9	14-3-2016	21-3-2023
Honeywell International	837	4	15-2-2016	22-2-2028
Honeywell International	1,116	6	15-2-2016	22-2-2018
Honeywell International	1,116	6	15-2-2016	21-2-2020
Honeywell International	1,395	7	15-2-2016	22-2-2023
Huntington Ingalls Industries	600	60	17-11-2014	15-12-2021
Huntington Ingalls Industries	600	75	2-11-2015	15-11-2025
Lockheed Martin	500	9	12-2-2015	1-3-2035
Lockheed Martin	750	14	12-2-2015	1-3-2025
Lockheed Martin	1,000	18	12-2-2015	1-3-2045
Lockheed Martin	500	16	16-11-2015	15-1-2023
Lockheed Martin	500	16	16-11-2015	15-5-2036
Lockheed Martin	750	24	16-11-2015	23-11-2018
Lockheed Martin	1,250	41	16-11-2015	23-11-2020
Lockheed Martin	2,000	65	16-11-2015	15-1-2026
Lockheed Martin	2,000	65	16-11-2015	15-5-2046
Moog	300	23	18-11-2014	1-12-2022
Northrop Grumman	850	26	28-5-2013	1-6-2018
Northrop Grumman	950	29	28-5-2013	1-6-2043
Northrop Grumman	1,050	32	28-5-2013	1-8-2023
Orbital ATK	300	50	22-10-2013	1-10-2021
Orbital ATK	400	43	22-9-2015	1-10-2023
Textron	250	19	23-1-2014	1-3-2021
Textron	350	26	23-1-2014	1-3-2024
Textron	350	19	23-10-2014	1-3-2025

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Textron	350	19	4-3-2016	15-3-2026

Source: *Thomson Reuters Eikon*, "Bond and share issue underwritings", viewed in July/August 2016; *Bloomberg*, "Bond and share issue underwritings", viewed in August 2016.

## 211. USAA Investment Management Company (United States)

USAA Investment Management Company (United States) has made an estimated US\$ 70 million available to the nuclear weapons companies selected for this research project since January 2013.

USAA Investment Management Company (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 70 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 262 Bondholdings managed by USAA Investment Management Company**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Fluor	United States	20	1.29	31-3-2016
Safran	France	35	1.65	31-3-2016
Textron	United States	15	0.52	30-4-2016

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

## 212. Vanguard (United States)

Vanguard (United States) has made an estimated US\$ 27,943 million available to the nuclear weapons companies selected for this research project since January 2013.

Vanguard (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 26,493 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 263 Shareholdings managed by Vanguard**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	322	6.83	31-3-2016
Aerojet Rocketdyne	United States	48	4.56	31-3-2016
Airbus Group	The Netherlands	676	1.40	31-3-2016
BAE Systems	United Kingdom	506	2.29	1-6-2016
Boeing	United States	4,925	6.09	31-3-2016
BWX Technologies	United States	283	8.14	31-3-2016
Engility	United States	15	2.16	31-3-2016
Fluor	United States	650	8.69	31-3-2016
General Dynamics	United States	2,440	6.08	31-3-2016
Honeywell International	United States	4,828	5.65	31-3-2016

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Huntington Ingalls Industries	United States	536	8.32	31-3-2016
Jacobs Engineering	United States	460	8.66	31-3-2016
Larsen & Toubro	India	137	0.67	31-5-2016
Leonardo-Finmeccanica	Italy	89	1.30	31-5-2016
Lockheed Martin	United States	3,938	5.84	31-3-2016
Moog	United States	117	7.79	31-3-2016
Northrop Grumman	United States	2,322	6.50	31-3-2016
Orbital ATK	United States	356	6.99	31-3-2016
Raytheon	United States	2,423	6.65	31-3-2016
Safran	France	403	1.38	31-5-2016
Serco	United Kingdom	33	1.48	2-3-2015
Textron	United States	810	8.27	31-3-2016
Thales	France	176	0.96	31-5-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

Vanguard (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 1,450 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 264 Bondholdings managed by Vanguard**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Boeing	United States	323	3.03	31-3-2016
Fluor	United States	70	4.51	31-12-2015
General Dynamics	United States	107	3.69	30-4-2016
Honeywell International	United States	302	2.27	31-3-2016
Lockheed Martin	United States	219	1.39	30-4-2016
Northrop Grumman	United States	133	2.08	30-4-2016
Raytheon	United States	235	4.37	31-3-2016
Textron	United States	61	2.11	30-4-2016

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

## 213. Victory Capital (United States)

Victory Capital (United States) has made an estimated US\$ 210 million available to the nuclear weapons companies selected for this research project since January 2013.

Victory Capital (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 210 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 265 Shareholdings managed by Victory Capital**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	64	6.03	31-3-2016
BWX Technologies	United States	49	1.40	31-3-2016
Engility	United States	25	3.62	31-3-2016
Jacobs Engineering	United States	73	1.37	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 214. Visium Asset Management (United States)

Visium Asset Management (United States) has made an estimated US\$ 6 million available to the nuclear weapons companies selected for this research project since January 2013.

Visium Asset Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 6 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 266 Shareholdings managed by Visium Asset Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	6	0.61	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 215. Voya Financial (United States)

Voya Financial (United States) has made an estimated US\$ 426 million available to the nuclear weapons companies selected for this research project since January 2013.

Voya Financial (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 224 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 267 Shareholdings managed by Voya Financial**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Orbital ATK	United States	75	1.47	31-3-2016
Textron	United States	149	1.52	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

Voya Financial (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 203 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 268 Bondholdings managed by Voya Financial**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Boeing	United States	94	0.88	31-3-2016
Honeywell International	United States	76	0.57	31-3-2016
Moog	United States	2	0.67	31-3-2016
Orbital ATK	United States	6	0.92	31-3-2016
Safran	France	25	1.18	31-3-2016

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

## 216. Vulcan Value Partners (United States)

Vulcan Value Partners (United States) has made an estimated US\$ 493 million available to the nuclear weapons companies selected for this research project since January 2013.

Vulcan Value Partners (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 493 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 269 Shareholdings managed by Vulcan Value Partners**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Boeing	United States	493	0.61	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 217. Waddell & Reed (United States)

Waddell & Reed (United States) has made an estimated US\$ 283 million available to the nuclear weapons companies selected for this research project since January 2013.

Waddell & Reed (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 283 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 270 Shareholdings managed by Waddell & Reed**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BAE Systems	United Kingdom	145	0.66	26-4-2016
Larsen & Toubro	India	138	0.77	31-12-2015

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 218. Wedge Capital Management (United States)

Wedge Capital Management (United States) has made an estimated US\$ 59 million available to the nuclear weapons companies selected for this research project since January 2013.



Wedge Capital Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 59 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 271 Shareholdings managed by Wedge Capital Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aecom	United States	45	0.95	31-3-2016
Moog	United States	14	0.96	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

## 219. Wellington Management (United States)

Wellington Management (United States) has made an estimated US\$ 8,367 million available to the nuclear weapons companies selected for this research project since January 2013.

Wellington Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 8,060 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 272 Shareholdings managed by Wellington Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
General Dynamics	United States	416	1.04	31-3-2016
Honeywell International	United States	3,444	4.03	31-3-2016
Lockheed Martin	United States	2,278	3.38	31-3-2016
Moog	United States	49	3.27	31-3-2016
Northrop Grumman	United States	665	1.86	31-3-2016
Raytheon	United States	1,208	3.32	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

Wellington Management (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 307 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 273 Bondholdings managed by Wellington Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
General Dynamics	United States	29	1.01	31-3-2016
Honeywell International	United States	78	0.59	31-3-2016
Lockheed Martin	United States	138	0.88	31-3-2016
Raytheon	United States	61	1.13	31-3-2016

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

## 220. Wells Fargo (United States)

Wells Fargo (United States) has made an estimated US\$ 11,937 million available to the nuclear weapons companies selected for this research project since January 2013.

Wells Fargo (United States) provided loans for an estimated amount of US\$ 6,302 million to the nuclear weapon companies (see table below). The table shows all loans closed since January 2013 or maturing after August 2016.

**Table 274** Loans provided by Wells Fargo

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Closing date	Maturity date
Aecom	600	40	23-9-2011	30-9-2016
Aecom	700	70	14-10-2011	19-10-2016
Aecom	1,000	100	14-10-2011	19-10-2016
Aecom	750	20	7-6-2013	7-6-2018
Aecom	39	4	16-12-2013	19-12-2018
Aecom	655	66	16-12-2013	19-12-2018
Aecom	961	96	16-12-2013	19-12-2018
Aecom	1,050	105	29-1-2014	29-1-2019
Aecom	500	20	11-8-2014	17-10-2019
Aecom	1,050	47	11-8-2014	17-10-2019
Aecom	1,188	59	11-8-2014	17-10-2021
Aecom	1,925	77	11-8-2014	17-10-2019
Aerojet Rocketdyne	50	10	18-11-2011	18-11-2016
Aerojet Rocketdyne	150	30	18-11-2011	18-11-2016
Aerojet Rocketdyne	50	13	16-8-2012	16-8-2017
Aerojet Rocketdyne	100	13	30-5-2014	30-5-2019
Aerojet Rocketdyne	200	27	30-5-2014	30-5-2019
Aerojet Rocketdyne	350	40	17-6-2016	17-6-2021
Aerojet Rocketdyne	400	45	17-6-2016	17-6-2021
BAE Systems	3,269	131	12-12-2013	12-12-2018
Bechtel	1,000	28	7-6-2016	7-6-2021
Bechtel	1,500	42	7-6-2016	7-6-2021
Boeing	2,300	42	5-11-2011	10-11-2016
Boeing	2,473	125	23-9-2014	15-10-2015
Boeing	2,473	125	23-9-2014	16-10-2019
Boeing	2,465	125	4-11-2015	3-11-2016
Boeing	2,365	125	4-11-2015	3-11-2020
BWX Technologies	700	70	22-5-2012	8-6-2017
BWX Technologies	400	32	11-5-2015	11-5-2020
BWX Technologies	500	40	11-5-2015	11-5-2020
BWX Technologies	600	48	11-5-2015	11-5-2020

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Closing date</b>	<b>Maturity date</b>
CH2M Hill	900	135	19-4-2012	19-4-2017
CH2M Hill	1,100	220	22-3-2014	30-1-2019
Fluor	1,700	85	25-2-2016	25-2-2021
Fluor	1,800	100	25-2-2016	25-2-2021
General Dynamics	1,000	125	21-6-2013	21-6-2018
General Dynamics	1,000	80	10-11-2015	10-11-2020
Honeywell International	4,000	73	18-11-2013	10-12-2018
Honeywell International	4,000	190	10-7-2015	10-7-2020
Honeywell International	1,500	65	29-4-2016	28-4-2017
Honeywell International	4,000	343	29-4-2016	29-4-2021
Huntington Ingalls Industries	489	49	23-9-2013	6-11-2018
Huntington Ingalls Industries	650	65	23-9-2013	6-11-2018
Huntington Ingalls Industries	1,250	125	13-7-2015	13-7-2020
Jacobs Engineering	1,160	155	23-3-2012	23-3-2017
Jacobs Engineering	460	61	7-2-2014	7-2-2019
Jacobs Engineering	1,140	152	7-2-2014	7-2-2019
Jacobs Engineering	460	61	5-3-2015	5-3-2020
Jacobs Engineering	1,140	152	5-3-2015	5-3-2020
Lockheed Martin	1,500	85	14-8-2014	14-8-2019
Lockheed Martin	2,500	150	9-10-2015	9-10-2020
Lockheed Martin	7,000	530	9-10-2015	7-10-2016
Moog	900	70	28-3-2013	28-3-2018
Moog	1,100	110	22-5-2014	22-5-2019
Moog	1,100	110	28-6-2016	28-6-2021
Northrop Grumman	575	58	31-3-2011	24-1-2017
Northrop Grumman	1,500	150	8-9-2011	8-9-2016
Northrop Grumman	1,775	355	29-8-2013	29-8-2018
Northrop Grumman	1,600	213	8-7-2015	8-7-2020
Orbital ATK	200	20	3-9-2012	3-9-2017
Orbital ATK	250	25	8-10-2013	1-11-2020
Orbital ATK	700	47	8-10-2013	1-11-2018
Orbital ATK	1,010	67	8-10-2013	1-11-2018
Orbital ATK	150	15	24-6-2014	24-12-2018
Orbital ATK	800	46	29-9-2015	29-9-2020
Orbital ATK	1,000	57	29-9-2015	29-9-2020
Raytheon	1,250	44	13-11-2015	13-11-2020
Textron	1,000	75	30-9-2013	4-10-2018
Textron	500	25	23-1-2014	23-1-2019

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

Wells Fargo (United States) underwrote bond issuances for an estimated amount of US\$ 2,007 million to the nuclear weapon companies since January 2013 (see table below).

**Table 275 Underwriting of bond issuances by Wells Fargo**

<b>Company</b>	<b>Total value (US\$ mln)</b>	<b>Est. participation of this bank (US\$ mln)</b>	<b>Issue date</b>	<b>Maturity date</b>
Aecom	800	80	17-9-2014	15-10-2022
Aecom	800	80	17-9-2014	15-10-2024
Aecom	800	80	30-10-2015	15-10-2022
Aecom	800	80	30-10-2015	15-10-2024
Aerojet Rocketdyne	460	115	18-1-2013	15-3-2021
Boeing	350	10	30-4-2013	15-11-2018
Boeing	250	9	28-10-2014	30-10-2017
Boeing	300	9	28-10-2014	30-10-2024
Boeing	300	15	28-10-2014	30-10-2021
Boeing	250	6	18-2-2015	1-3-2025
Boeing	250	8	18-2-2015	1-3-2035
Boeing	250	12	18-2-2015	1-3-2045
Boeing	250	8	27-10-2015	30-10-2022
Boeing	350	11	27-10-2015	30-10-2020
Boeing	300	14	27-10-2015	30-10-2025
Boeing	400	12	16-5-2016	15-6-2026
Boeing	400	16	16-5-2016	15-6-2046
Boeing	400	36	16-5-2016	15-6-2023
Fluor	500	18	18-11-2014	15-12-2024
Fluor	555	9	14-3-2016	21-3-2023
Honeywell International	300	10	18-11-2013	1-12-2023
Honeywell International	700	23	18-11-2013	17-11-2015
Honeywell International	837	17	15-2-2016	22-2-2028
Honeywell International	1,116	22	15-2-2016	22-2-2018
Honeywell International	1,116	22	15-2-2016	21-2-2020
Honeywell International	1,395	28	15-2-2016	22-2-2023
Huntington Ingalls Industries	600	60	17-11-2014	15-12-2021
Huntington Ingalls Industries	600	75	2-11-2015	15-11-2025
Lockheed Martin	500	40	12-2-2015	1-3-2035
Lockheed Martin	750	60	12-2-2015	1-3-2025
Lockheed Martin	1,000	80	12-2-2015	1-3-2045
Lockheed Martin	500	38	16-11-2015	15-1-2023
Lockheed Martin	500	38	16-11-2015	15-5-2036
Lockheed Martin	750	56	16-11-2015	23-11-2018

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Lockheed Martin	1,250	94	16-11-2015	23-11-2020
Lockheed Martin	2,000	150	16-11-2015	15-1-2026
Lockheed Martin	2,000	150	16-11-2015	15-5-2046
Moog	300	23	18-11-2014	1-12-2022
Northrop Grumman	850	57	28-5-2013	1-6-2018
Northrop Grumman	950	63	28-5-2013	1-6-2043
Northrop Grumman	1,050	70	28-5-2013	1-8-2023
Northrop Grumman	600	24	3-2-2015	15-4-2045
Orbital ATK	300	50	22-10-2013	1-10-2021
Orbital ATK	400	43	22-9-2015	1-10-2023
Raytheon	300	8	24-11-2014	15-12-2024
Raytheon	300	8	24-11-2014	15-12-2044
Textron	250	19	23-1-2014	1-3-2021
Textron	350	26	23-1-2014	1-3-2024
Textron	350	10	23-10-2014	1-3-2025
Textron	350	19	4-3-2016	15-3-2026

Source: Thomson Reuters Eikon, "Bond and share issue underwritings", viewed in July/August 2016; Bloomberg, "Bond and share issue underwritings", viewed in August 2016.

Wells Fargo (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 3,598 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 276 Shareholdings managed by Wells Fargo**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Boeing	United States	843	1.04	31-3-2016
BWX Technologies	United States	60	1.73	31-3-2016
Fluor	United States	57	0.75	31-3-2016
General Dynamics	United States	695	1.74	31-3-2016
Honeywell International	United States	532	0.62	31-3-2016
Huntington Ingalls Industries	United States	37	0.57	31-3-2016
Jacobs Engineering	United States	92	1.73	31-3-2016
Lockheed Martin	United States	651	0.97	31-3-2016
Northrop Grumman	United States	234	0.64	31-3-2016
Orbital ATK	United States	184	3.61	31-3-2016
Raytheon	United States	212	0.57	31-3-2016

Source: Thomson Reuters Eikon, "Share ownership: most recent filings", viewed in July 2016.

Wells Fargo (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 31 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 277 Bondholdings managed by Wells Fargo**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Moog	United States	12	4.00	31-5-2016
Orbital ATK	United States	19	2.66	31-5-2016

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

## 221. Western & Southern Financial (United States)

Western & Southern Financial (United States) has made an estimated US\$ 191 million available to the nuclear weapons companies selected for this research project since January 2013.

Western & Southern Financial (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 191 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 278 Bondholdings managed by Western & Southern Financial**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Lockheed Martin	United States	98	0.62	31-3-2016
Northrop Grumman	United States	35	0.55	31-3-2016
Orbital ATK	United States	14	1.98	31-3-2016
Raytheon	United States	45	0.83	31-3-2016

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

## 222. White Mountains (United States)

White Mountains (United States) has made an estimated US\$ 462 million available to the nuclear weapons companies selected for this research project since January 2013.

White Mountains (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 462 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 279 Bondholdings managed by White Mountains**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
BAE Systems	United Kingdom	111	1.81	31-3-2016
Boeing	United States	71	0.67	31-3-2016
Lockheed Martin	United States	84	0.53	31-3-2016
Northrop Grumman	United States	111	1.73	31-3-2016
Raytheon	United States	85	1.59	31-3-2016

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

## 223. Williams Capital Group (United States)

Williams Capital Group (United States) has made an estimated US\$ 331 million available to the nuclear weapons companies selected for this research project since January 2013.

Williams Capital Group (United States) underwrote bond issuances for an estimated amount of US\$ 331 million to the nuclear weapon companies since January 2013 (see table below).

**Table 280 Underwriting of bond issuances by Williams Capital Group**

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Boeing	350	10	30-4-2013	15-11-2018
Boeing	300	4	28-10-2014	30-10-2021
Boeing	300	4	28-10-2014	30-10-2024
Boeing	250	3	18-2-2015	1-3-2025
Boeing	250	3	18-2-2015	1-3-2035
Boeing	250	3	18-2-2015	1-3-2045
Boeing	250	8	27-10-2015	30-10-2022
Boeing	300	9	27-10-2015	30-10-2025
Boeing	350	11	27-10-2015	30-10-2020
Boeing	400	4	16-5-2016	15-6-2046
Boeing	400	7	16-5-2016	15-6-2026
Boeing	400	8	16-5-2016	15-6-2023
Honeywell International	300	10	18-11-2013	1-12-2023
Honeywell International	700	23	18-11-2013	17-11-2015
Honeywell International	837	4	15-2-2016	22-2-2028
Honeywell International	1,116	6	15-2-2016	22-2-2018
Honeywell International	1,116	6	15-2-2016	21-2-2020
Honeywell International	1,395	7	15-2-2016	22-2-2023
Lockheed Martin	500	3	12-2-2015	1-3-2035
Lockheed Martin	750	4	12-2-2015	1-3-2025
Lockheed Martin	1,000	5	12-2-2015	1-3-2045
Lockheed Martin	500	1	16-11-2015	15-1-2023
Lockheed Martin	500	1	16-11-2015	15-5-2036
Lockheed Martin	750	2	16-11-2015	23-11-2018
Lockheed Martin	1,250	3	16-11-2015	23-11-2020
Lockheed Martin	2,000	5	16-11-2015	15-1-2026
Lockheed Martin	2,000	5	16-11-2015	15-5-2046
Moog	300	23	18-11-2014	1-12-2022
Northrop Grumman	850	26	28-5-2013	1-6-2018
Northrop Grumman	950	29	28-5-2013	1-6-2043
Northrop Grumman	1,050	32	28-5-2013	1-8-2023

Company	Total value (US\$ mln)	Est. participation of this bank (US\$ mln)	Issue date	Maturity date
Textron	250	19	23-1-2014	1-3-2021
Textron	350	26	23-1-2014	1-3-2024
Textron	350	10	23-10-2014	1-3-2025
Textron	350	11	4-3-2016	15-3-2026

Source: *Thomson Reuters Eikon*, "Bond and share issue underwritings", viewed in July/August 2016; *Bloomberg*, "Bond and share issue underwritings", viewed in August 2016.

## 224. Winslow Asset Management (United States)

Winslow Asset Management (United States) has made an estimated US\$ 15 million available to the nuclear weapons companies selected for this research project since January 2013.

Winslow Asset Management (United States) owns or manages shares of the nuclear weapon companies for an amount of US\$ 15 million (see table below). Only holdings of 0.50% or more of the outstanding shares at the most recent available filing date are included.

**Table 281 Shareholdings managed by Winslow Asset Management**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Aerojet Rocketdyne	United States	15	1.42	31-3-2016

Source: *Thomson Reuters Eikon*, "Share ownership: most recent filings", viewed in July 2016.

## 225. WoodmenLife (United States)

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

WoodmenLife (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 20 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.

**Table 282 Bondholdings managed by WoodmenLife**

Company	Country	Total value (US\$ mln)	% Outstanding	Filing date
Safran	France	20	0.94	31-3-2016

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

## 226. Zeo Capital Advisors (United States)

Zeo Capital Advisors (United States) has made an estimated US\$ 6 million available to the nuclear weapons companies selected for this research project since January 2013.

Zeo Capital Advisors (United States) owns or manages bonds of the nuclear weapon companies for an amount of US\$ 6 million (see table below). Only holdings of 0.50% or more of the outstanding bonds at the most recent available filing date are included.



**Table 283 Bondholdings managed by Zeo Capital Advisors**

<b>Company</b>	<b>Country</b>	<b>Total value (US\$ mln)</b>	<b>% Outstanding</b>	<b>Filing date</b>
Moog	United States	6	1.87	30-4-2016

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

## Nuclear weapon producing Companies

This report identifies 27 companies operating in France, India, Italy, the Netherlands, the United Kingdom and the United States that are significantly involved in maintaining and modernising the nuclear arsenals of France, India, the United Kingdom and the United States. **This is not an exhaustive list.** These companies are providing necessary components and infrastructure to develop, test, maintain and modernise nuclear weapons. The contracts these companies have with nuclear armed countries are for materials and services to keep nuclear weapons in their arsenals. In other nuclear-armed countries –Russia, China, Pakistan and North Korea – the maintenance and modernization of nuclear forces is carried out primarily or exclusively by government agencies.

### Aecom (USA)

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

### Aerojet Rocketdyne (USA)

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

### Airbus Group (The Netherlands)

Airbus is a Dutch company that produces and maintains the M51.2 submarine-launched nuclear missiles for the French navy, it is also developing the M51.3. Through joint venture MBDA-Systems, Airbus is also providing medium-range air-to-surface missiles to the French air force.

### BAE Systems (United Kingdom)

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

### Bechtel (USA)

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

### Boeing (USA)

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

### BWX Technologies (USA)

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

### Charles Stark Draper Laboratory (USA)

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

### CH2M Hill (USA)

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

### Engility Holdings (USA)

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

### Fluor (USA)

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

### General Dynamics (USA)

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

### **Honeywell International (USA)**

Honeywell International manages and operates the National Security Campus where an estimated 85% of the non-nuclear components for US nuclear weapons are produced. It produced components for integrated circuits for the Trident II (D5) nuclear missiles which comprise part of the UK and US arsenals.

### **Huntington Ingalls Industries (USA)**

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

### **Jacobs Engineering (USA)**

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

### **Larsen & Toubro (India)**

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

### **Leonardo - Finmeccanica (Italy)**

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

### **Lockheed Martin (USA)**

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

### **MOOG (USA)**

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

### **Northrop Grumman (USA)**

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

### **Orbital ATK (USA)**

Orbital ATK (formerly known as ATK or Alliant Techsystems) produces rocket propulsion systems for Trident II submarine launched ballistic missiles. Orbital ATK is also responsible for refurbishing all three solid propellant stages of the Minuteman III Intercontinental Ballistic Missile (ICBM) for the US. It is also involved in the joint venture for management and operation of the Y-12 National Security Complex in Tennessee and the Pantex Plant in Texas.

### **Raytheon (USA)**

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

### **Safran (France)**

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

### **Serco (United Kingdom)**

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

### **Textron (USA)**

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

### **Thales (France)**

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

### **Walchandnagar Industries (India)**

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