BLACKROCK APEX MUNICIPAL FUND INC Form N-Q September 28, 2010 UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM N-Q

QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED MANAGEMENT INVESTMENT COMPANY

Investment Company Act file number 811-05227

Name of Fund: BlackRock Apex Municipal Fund, Inc. (APX)

Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809

Name and address of agent for service: Anne F. Ackerley, Chief Executive Officer, BlackRock Apex Municipal Fund, Inc., 55 East 52nd Street, New York, NY 10055.

Registrant s telephone number, including area code: (800) 882-0052, Option 4

Date of fiscal year end: 04/30/2011

Date of reporting period: 07/31/2010

Item 1 Schedule of Investments

Schedule of Investments July 31, 2010 (Unaudited)

County of Jefferson Alabama, RB, Series A: Ser	Municipal Bonds	Par (000)	Value
Series År. 525%. 1/01/13 \$ 435 \$ 417.617. 5.25%, 1/01/17 365 331.957 5.25%, 1/01/17 365 331.957 Alaska Industrial Development & Export 749.574 Alaska Industrial Development & Export 749.574 Ankar 1.0% 2.000 1.943.020 Arizona J.7% 2.000 1.943.020 Maricopa Commy DA Arizona, RB, 5 4.983 Series A. 376 900 698.292 Son King Apartments Project, 6.63%. 701/20 900 698.292 Son King Apartments Project, 5 4.983 4.983 Phoenkin IDA Arizona, Refunding RB, 305 939.638 Pina County IDA, RB, Arizona Charter 2.950 2.351.799 Pina County IDA, RB, Arizona Charter 305 939.638 Pina County IDA, RB, Arizona Charter 340 359.235 Solow, 1/01/32 1.425 1.294.741 1.947.741 University Medical Center, Cop., Arizona, RB, 350 594.220 6.842.826 Solow, 201/32 1.425	Alabama 0.4%		
5.25%, 1/01/13 \$ 435 \$ 417,617 5.25%, 1/01/17 365 749,574 Alaska 1.0% Alaska 1.0% 749,574 Alaska 1.0% 2,000 1,943,020 Arizona 3.7% 2,000 1,943,020 Arizona 3.7% 900 698,292 Maricopa County IDA Arizona, RB, 900 698,292 Series A: Arizona Refunding RB, 900 698,292 Sun King Apartments Project, 6,337,701/20 900 698,292 Sun King Apartments Project, 900 698,292 2,351,799 Pina Couru JDA, RB, Arizona Charter 935 939,638 Pina Couru JDA, RB, Arizona Charter 935 939,638 Pina Couru JDA, RB, Arizona Charter 900 460 469,922 Solver, L201/32 1,425 1,294,741 1,425 1,294,741 University Medical Center Corp. Arizona, RB, 749,574 500 504,220 6,842,826 California Statewide Communities 200,23 500 504,220 6,842,826	•		
5.25%, 1/01/17 365 331,957 749,574 Alaska Industrial Development & Export Alaska Industrial Development & Export Autority, IR, Swilliams Lymxs Alaska Cargoport, AMT, 800%, 501/23 2,000 1,943,020 Arizona 3.7% Arizona Charter Schools Project, 6,63%, 7/01/20 900 698,292 Saris &: Arizona Charter Schools Project, 6,63%, 7/01/20 900 698,292 San King Apartments Project, 6,63%, 7/01/20 900 698,292 San King Apartments Project, 6,00%, 1/01/10 5 4,983 Phoenk IDA Arizona, Refunding RB, 2,950 2,351,799 Prima County IDA, RB, Arizona Charter 365 7/01/21 Pina County IDA, RB, Arizona Charter 365 7/01/21 Schools Project, Rolling IDBB, 935 939,638 Tureson Electric Power, 5.75%, 9 360 5/9,231 Yurapid County IDA Arizona, RB, 540 5/9,231 37,921 <		\$ 435	\$ 417.617
749,574 Alaska 1.0% Alaska Industrial Development & Export Authority, RB, Williams Lynxs Alaska Cargoport, AMT, 8.00%, 501/23 2,000 Arizona 3.7% Maricopa County IDA Arizona, RB, Series A: Series A: 900 6.3%, 7/01/20 900 Series A: 900 Maricopa County IDA Arizona, RB, Series A: 900 Series A: 900 Maricopa County IDA Arizona, Refunding RB, America West Airlines Ine. Project, Autority, Refunding RB, America West Airlines Ine. Project, Autor, Aviol.23 2,950 America West Airlines Ine. Project, Autor, Series E, 7.25%, 701/20 935 Pima County IDA, Refunding IDRB, Truscon Electric Power, 5.75%, 901/23 935 Varyali Regional Medical Conter Corp. Arizona, RB, Varyani Regional Medical Conter, Corp. Arizona, RB, Varyani Regional Medical Conter, Series A, 6.00%, 8/01/33 500 Series A, 6.00%, 8/01/33 500 504,220 California Statewide Communities 500 504,220 Development Autority, Refunding RB, Project, Autority, Refunding RB, Project, Autority, Refunding RB, Project, Autor, NB, Yavapai Regional Medical Conter, Series A, 6.00%, 8/01/33 500 504,220 California Statewide Communities 500 504,220 <t< td=""><td></td><td></td><td></td></t<>			
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Authority, RB, Williams Lynxs Alaska Cargoport, AMT, 8.00%, 5/01/23 2,000 1,943,020 Arizona 3.7%	Alaska 1.0%		
Cargoport, AMT, 8.00%, 5/01/23 2,000 1,943,020 Arizona 3.7%	Alaska Industrial Development & Export		
Arizona 3.7% Arizona, RB, Series A: 4rizona Charter Schools Project, 6.63%, 70/1/20 900 698,292 Sun King Apartments Project, 6.03%, 70/1/20 900 698,292 Sun King Apartments Project, 5 4.983 6.00%, 11/01/10 5 4.983 Phoenix IDA Arizona, Refunding RB, America West Airlines Inc. Project, AMT, 6.30%, 4/01/23 2.950 2.351,799 Pima County IDA, RB, Arizona Charter Schools Project, Series E, 7.25%, 70/1/31 935 939,638 Pima County IDA, Refunding IDRB, 70/1/31 935 939,638 Pima County IDA, Refunding IDRB, 1,425 1,294,741 University Medical Center Corp., RB, Senior, 500 5004 579,231 Yavapai Regional Medical Center, Series A, 6.00%, 8/01/33 500 504,220 California 4.2% California 51kewide Communities 5004,220 6.842,826 California 4.2% California 51kewide Communities 5004,220 6.842,826 California 4.2% California 51kewide Communities 5005,10/01/39 885 887,965 <tr< td=""><td></td><td></td><td></td></tr<>			
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6.00%, 11/01/10 5 4,983 Phoenix IDA Arizona, Refunding RB, America West Airlines Inc. Project, AMT, 6.30%, 4/01/23 2,950 2,351,799 Pima County IDA, RB, Arizona Charter Schools Project, Series E, 7.25%, 7/01/31 935 939,638 Pima County IDA, Refunding IDRB, Tucson Electric Power, 5.75%, 9/01/29 460 469,922 Salt Verde Financial Corp., RB, Senior, 5.00%, 12/01/32 1,425 1,294,741 University Medical Corp. Arizona, RB, 6.25%, 7/01/29 540 579,231 Yavapai County IDA Arizona, RB, Yavapai Regional Medical Center, Series A, 6.00%, 8/01/33 500 504,220 California 4.2% California 4.2% California 540		900	098,292
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AMT, 6.30%, 4/01/23 2,950 2,351,799 Pima County IDA, RB, Arizona Charter Schools Project, Series E, 7.25%, 7/01/31 935 939,638 Pima County IDA, Refunding IDRB, Tucson Electric Power, 5.75%, 9/01/29 460 469,922 Salt Verde Financial Corp., RB, Senior, 5.00%, 12/01/32 1,425 1,294,741 University Medical Center Corp. Arizona, RB, 6.25%, 7/01/29 540 579,231 Yavapai Regional Medical Center, Series A, 6.00%, 8/01/33 500 504,220 6,842,826 California 4.2% California tatewide Communities Development Authority, Refunding RB: American Baptist Homes of the West, 6.25%, 10/01/39 885 887,965 Senior Living, Southern California, 7.00%, 11/15/29 400 432,864	Phoenix IDA Arizona, Refunding RB,		
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Schools Project, Series E, 7.25%, 935 939,638 Pima County IDA, Refunding IDRB, 701/31 935 939,638 Pima County IDA, Refunding IDRB, 700 460 469,922 Salt Verde Financial Corp., RB, Senior, 1,425 1,294,741 University Medical Center Corp. Arizona, 840 579,231 Yavapai County IDA Arizona, RB, 540 579,231 Yavapai County IDA Arizona, RB, 500 504,220 Series A, 6.00%, 8/01/33 500 504,220 California 1.2% California 1.2% California Statewide Communities Development Authority, Refunding 885 887,965 Senior Living, Southern California, 7.00%, 11/15/29 400 432,864		2,950	2,351,799
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9/01/29 460 469,922 Salt Verde Financial Corp., RB, Senior, 1,425 1,294,741 University Medical Center Corp. Arizona, 1,425 1,294,741 University Medical Center Corp. Arizona, 540 579,231 Yavapai County IDA Arizona, RB, 540 579,231 Yavapai County IDA Arizona, RB, 500 504,220 Yavapai Regional Medical Center, 500 504,220 Series A, 6.00%, 8/01/33 500 504,220 California 4.2% California Statewide Communities 500 504,220 Development Authority, Refunding 885 887,965 RB: 3885 887,965 Senior Living, Southern California, 7.00%, 11/15/29 400 432,864	Pima County IDA, Refunding IDRB,		,
Salt Verde Financial Corp., RB, Senior, 5.00%, $12/01/32$ 1,425 1,294,741 University Medical Center Corp. Arizona, RB, 6.25% , $7/01/29$ 540 579,231 Yavapai County IDA Arizona, RB, Yavapai Regional Medical Center, Series A, 6.00% , $8/01/33$ 500 504,220 6,842,826 California 4.2% California Statewide Communities Development Authority, Refunding RB: American Baptist Homes of the West, 6.25% , $10/01/39$ 885 887,965 Senior Living, Southern California, 7.00%, $11/15/29$ 400 432,864	Tucson Electric Power, 5.75%,		
5.00%, 12/01/32 1,425 1,294,741 University Medical Center Corp. Arizona, RB, 6.25%, 7/01/29 540 579,231 Yavapai County IDA Arizona, RB, Yavapai Regional Medical Center, Series A, 6.00%, 8/01/33 500 504,220 California 4.2% 6,842,826 California Statewide Communities Development Authority, Refunding RB: American Baptist Homes of the West, 6.25%, 10/01/39 885 887,965 Senior Living, Southern California, 7.00%, 11/15/29 400 432,864	9/01/29	460	469,922
University Medical Center Corp. Arizona, RB, 6.25%, 7/01/29 540 579,231 Yavapai County IDA Arizona, RB, Yavapai Regional Medical Center, Series A, 6.00%, 8/01/33 500 504,220 6,842,826 California 4.2% California Statewide Communities Development Authority, Refunding RB: American Baptist Homes of the West, 6.25%, 10/01/39 885 887,965 Senior Living, Southern California, 7.00%, 11/15/29 400 432,864			
RB, 6.25%, 7/01/29 540 579,231 Yavapai County IDA Arizona, RB, Yavapai Regional Medical Center, Series A, 6.00%, 8/01/33 500 504,220 6,842,826 6 6 California 4.2% California Statewide Communities Development Authority, Refunding RB: American Baptist Homes of the West, 6.25%, 10/01/39 885 887,965 Senior Living, Southern California, 7.00%, 11/15/29 400 432,864	,	1,425	1,294,741
Yavapai County IDA Arizona, RB, Yavapai Regional Medical Center, Series A, 6.00%, 8/01/33 500 504,220 6,842,826 California 4.2% California Statewide Communities Development Authority, Refunding RB: American Baptist Homes of the West, 6.25%, 10/01/39 885 887,965 Senior Living, Southern California, 7.00%, 11/15/29 400 432,864		540	570 221
Yavapai Regional Medical Center, 500 504,220 Series A, 6.00%, 8/01/33 500 6,842,826 California 4.2% 6,842,826 California Statewide Communities 200 6,842,826 Development Authority, Refunding RB: 885 887,965 American Baptist Homes of the 885 887,965 Senior Living, Southern California, 400 432,864		540	579,251
Series A, 6.00%, 8/01/33 500 504,220 6,842,826 6,842,826 California 4.2% California Statewide Communities Development Authority, Refunding RB: 885 American Baptist Homes of the 885 West, 6.25%, 10/01/39 885 Senior Living, Southern California, 400 7.00%, 11/15/29 400			
California 4.2% California Statewide Communities Development Authority, Refunding RB: American Baptist Homes of the West, 6.25%, 10/01/39 Senior Living, Southern California, 7.00%, 11/15/29 400	Series A, 6.00%, 8/01/33	500	504,220
California 4.2% California Statewide Communities Development Authority, Refunding RB: American Baptist Homes of the West, 6.25%, 10/01/39 Senior Living, Southern California, 7.00%, 11/15/29 400			6.842.826
California Statewide Communities Development Authority, Refunding RB: American Baptist Homes of the West, 6.25%, 10/01/39 885 887,965 Senior Living, Southern California, 7.00%, 11/15/29 400 432,864			3,312,020
Development Authority, Refunding RB: American Baptist Homes of the West, 6.25%, 10/01/39 885 887,965 Senior Living, Southern California, 7.00%, 11/15/29 400 432,864			
RB: American Baptist Homes of the West, 6.25%, 10/01/39 885 887,965 Senior Living, Southern California, 400 432,864			
American Baptist Homes of the 885 887,965 West, 6.25%, 10/01/39 885 887,965 Senior Living, Southern California, 400 432,864			
West, 6.25%, 10/01/39 885 887,965 Senior Living, Southern California, 400 432,864			
Senior Living, Southern California, 400 432,864		885	887,965
7.00%, 11/15/29 400 432,864	Senior Living, Southern California,		
1,440 1,569,816	7.00%, 11/15/29		
		1,440	1,569,816

Senior Living, Southern California, 7.25%, 11/15/41

7.25%, 11/15/41		
Municipal Bonds	Par (000)	Value
California (concluded)		
City of Fontana California, Special Tax		
Bonds, Refunding, Community		
Facilities District No. 22-Sierra,		
Series H, 6.00%, 9/01/34	\$ 1,000 \$	970,230
State of California, GO:	φ 1,000 φ	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
4.50%, 10/01/36	1,755	1,564,196
Various Purpose, 6.00%, 3/01/33	2,120	2,294,900
		2,271,700
		7,719,971
Colorado 2.9%		
Elk Valley Public Improvement Corp.,		
RB, Public Improvement Fee, Series		
A, 7.30%, 9/01/22	2,800	2,775,864
Plaza Metropolitan District No. 1	,	,,
Colorado, Tax Allocation Bonds, Tax		
Increment:		
Public Improvement Fee, 8.00%,		
12/01/25	2,000	2,080,560
Subordinate 8.13%, 12/01/25	500	457,670
		5,314,094
Connecticut 2.3%		
Harbor Point Infrastructure		
Improvement District, Tax Allocation		
Bonds, Harbor Point Project, Series		
A, 7.88%, 4/01/39	1,610	1,706,729
Mohegan Tribe of Indians of		
Connecticut, RB, Public Improvement,		
Priority Distribution:		
6.25%, 1/01/31	1,785	1,467,680
5.25%, 1/01/33 (a)	1,500	1,078,575
	-	4 050 084
		4,252,984
District of Columbia 2.3%		
District of Columbia, RB, Methodist		
Home District of Columbia, Series A:		(ca aa=
7.38%, 1/01/30	680	692,335
7.50%, 1/01/39	1,110	1,131,123
District of Columbia Tobacco		
Settlement Financing Corp.,		
Refunding RB, Asset-Backed, 6.50%,	800	(00.000
5/15/33	730	699,829
Metropolitan Washington Airports		
Authority, RB, CAB, 2nd Senior Lien,	0.770	1 (50 5 ()
Series B (AGC), 6.75%, 10/01/39 (b)	9,770	1,650,544
		1 172 021
		4,173,831

Portfolio Abbreviations

To simplify the listings of portfolio holdings in the Schedule of Investments, the names and descriptions of many of the securities have been abbreviated according to the following list:

ACA	ACA Financial Guaranty Corp.
AGC	Assured Guaranty Corp.
AMBAC	American Municipal Bond Assurance Corp.
AMT	Alternative Minimum Tax (subject to)
CAB	Capital Appreciation Bonds
EDA	Economic Development Authority
EDC	Economic Development Corp.
ERB	Education Revenue Bonds
GO	General Obligation Bonds
HDA	Housing Development Authority
IDA	Industrial Development Authority
IDRB	Industrial Development Revenue Bonds
MRB	Mortgage Revenue Bonds
NPFGC	National Public Finance Guarantee Corp.
RB	Revenue Bonds
TE	Tax Exempt
TIF	Tax Increment Financing

BLACKROCK APEX MUNICIPAL FUND, INC.

JULY 31, 2010

Municipal Bonds	Par (000)	Value
Florida 9.1%		
County of Miami-Dade Florida,		
Refunding RB, Miami International		
Airport, Series A-1, 5.38%, 10/01/41	\$ 360	\$ 366,322
Hillsborough County IDA, RB, AMT,		
National Gypsum Co.:		
Series A, 7.13%, 4/01/30	2,500	2,361,200
Series B, 7.13%, 4/01/30	1,560	1,473,389
Jacksonville Economic Development		
Commission, RB, Gerdau Ameristeel		
US Inc., AMT, 5.30%, 5/01/37	900	735,309
Jacksonville Economic Development		
Commission, Refunding RB, Florida		
Proton Therapy Institute, Series A,		
6.00%, 9/01/17	840	863,831
Lee County IDA Florida, RB, Series A,		
Lee Charter Foundation, 5.38%,		
6/15/37	1,810	1,489,594
Midtown Miami Community		
Development District, Special		
Assessment Bonds, Series A:		
6.00%, 5/01/24	1,370	1,336,079
6.25%, 5/01/37	1,350	1,295,743
Santa Rosa Bay Bridge Authority, RB,		
6.25%, 7/01/28	2,140	1,169,617
Sarasota County Health Facilities		
Authority, Refunding RB, Village On		
The Isle Project:		
5.50%, 1/01/27	590	543,803
5.50%, 1/01/32	550	496,238
Sumter Landing Community		
Development District Florida, RB,		
Sub-Series B, 5.70%, 10/01/38	1,615	1,311,073
Tampa Palms Open Space &		
Transportation Community		
Development District, RB, Capital		
Improvement, Richmond Place		
Project, 7.50%, 5/01/18	1,905	1,905,533
Tolomato Community Development		
District, Special Assessment Bonds,		
Special Assessment, 6.65%,		
5/01/40	1,850	1,521,532
		16,869,263
Georgia 4.0%		
City of Atlanta Georgia, Tax Allocation		
Bonds, Princeton Lakes Project,		
5.50%, 1/01/31	395	353,126
	1,375	1,484,395
	1,575	1, 10 1,070

County of Clayton Georgin, Tax Milocation Bonds, Ellewood Project, 7,508, 701/33 1,288,288 DeXalb County Hospital Authority Georgin, RB, DeKalb Medical Center Inc. Project, 6154, 901/40 1,805 1,820,415 Gainesville & Hall County Development Authority, Refunding BB, Aets Retirement Life Community, Series A.2, 6388, LUI539 645 673,786 Rockade County Development Authority, Refunding BB, Aets Retirement Life Community, Series A.2, 6388, LUI539 645 673,786 Rockade County Development Authority, Refunding BB, Aets Retirement View Paper Project, Series A.2, 6388, LUI539 76 Rockade County Development Authority, Refunding BB, Aets Retirement View Paper Project, Series A.2, 6388, LUI539 77 Rockade County Development Authority, Refunding BB, Aets Retirement View Paper Project, Series A.2, 6388, LUI539 78 Rockade County Development Authority, Refunding KB, Meter, Georgia (concluded) Ternitory Development Authority, Refunding KB, Meter, Goods, J.101/40 5 155 <u>5</u> 155, 526,943 Ternitory of Guant, GO, Series A: Goods, J.101/20 515 526,943 Ternitory of Guant, GO, Series A: Goods, J.101/20 250 259,620 G.758, L11/529 2404 471,772 440 471,	Clayton County Development Authority, RB, Delta Air Lines Inc. Project, Series A, 8.75%, 6/01/29		
Georgia, RB, DeKalb Medical Center 1,805	7.50%, 7/01/33	1,335	1,288,288
Gainesville & Hall County Development Authority, Refining RB, Acts 645 673,786 Reticement Life Community, Series A2, 663%, 11/15/39 645 673,786 Rockald County Development Authority, RB, Niv Spaper Project, 1.680 1.578,948 Municipal Bonds Par (900) Value 7.352,458 Municipal Bonds 1.680 1.578,948 Municipal Bonds 1.680 1.578,948 Municipal Bonds 0.000 Value Georgin concluded) Tomasville Hospital Authority, RB, Anticipal Contract State, John D. 7.352,458 Guan 1.5% 101/40 S 1.55 Guan 5.5% 100,000 7.352,458 Guan 1.5% 100,000 1.028,060 Corrent Count, GO, Series A: 515 526,943 Gordin, L1/5/29 250 259,029 Corrent Count, GO, Series A: 600%, 7.115/29 400 Corrent Count, GO, Series A: 515 526,943 Crittory of Guan, RB, Section 30, 250 259,029 City of Chicago Blinois, Refunding RB, Arrange Arthority, RB; 7,000 1,028,060	Georgia, RB, DeKalb Medical Center	1 805	1 820 415
Series A. 2, 63%, 11/13/39 645 673,786 Rockdale County Development 1,680 1,578,948 Municipal Bonds Per (000) Value Georgia (concluded) 1,680 1,578,948 Municipal Bonds Per (000) Value Georgia (concluded) 1,580,918 1,550,948 Anticipation Carificates, John D.D. 7,352,458 7,352,458 Guan 1.5% 155 5 153,500 Territory of Guan, GO, Series A: 7,352,458 7,352,458 Guan Covernment Waterworks 34thority, Refunding RB, Water, 515 526,943 Grentro of Guan, GO, Series A: 515 526,943 7,352,458 Guan L5% 250 250,620 6,75%, 11/15/19 250 250,620 G.75%, 11/15/19 250 250,620 6,75%, 11/15/19 440 471,778,441 Hinois 5.7% 11/15/29 1,000 1,028,060 2,2778,441 Hinois 5.7% 2,860 2,2120,862 2,50%, 1,01/29 2,200,822 2,200,822 2,200,822 2,200,822 <td< td=""><td>Gainesville & Hall County Development Authority, Refunding RB, Acts</td><td>1,805</td><td>1,820,415</td></td<>	Gainesville & Hall County Development Authority, Refunding RB, Acts	1,805	1,820,415
Series A, AMT, 6.13%, 1/01/34 1,680 1,578,948 Municipal Bonds (000) Value Georgia (concluded)	Series A-2, 6.63%, 11/15/39	645	673,786
Municipal Bonds (000) Value Georgia (concluded) Thomasville Hospital Authority, RB, Anticipation Certificates, John D. Archbold, 5.38%, 11/01/40 \$ 155 \$ 153,500 Archbold, 5.38%, 11/01/40 \$ 155 \$ 153,500 7,352,458 Guam Government Waterworks 7,352,458 7,352,458 Guam Government Waterworks 515 526,943 Authority, Kefunding RB, Water, 6,00%, 710/125 515 526,943 Coor%, 11/15/10 250 259,620 6.05%, 11/15/19 250 250,620 6.05%, 11/15/19 250 250,620 6.05%, 11/15/29 440 471,772 7,00%, 11/15/39 455 492,046 Territory of Guam, RB, Section 30, 2,778,441 1,000 Illinois 5.7% 1,000 1,028,060 City of Chicago Illinois, Refunding RB, American Airlings Inc. Project, 5.50%, 1201/29 2,800 2,120,862 Illinois Finance Authority, RB: Roosevell University Project, 6.50%, 401/44 1,700 1,776,160 Rush University Medical Center Obligation Group, Series A, 7,25%, 11/01/30 2,287,940 1000	Authority, RB, Visy Paper Project,	1,680	1,578,948
Thomasville Hospital Authority, RB, Anticipation Certificates, John D. Archbold, 5.3%, 11/01/40 S 15 <u>5</u> 153, 500 7,352,458 Guam 1.5% Guam Covernment Waterworks Authority, Refunding RB, Water, 6.00%, 7/01/25 515 526,943 Territory of Quam, GD, Series A: 6.00%, 11/15/29 250 259,620 6.75%, 11/15/29 440 471,757 7,00%, 11/15/29 440 471,757 7,00%, 11/15/29 1,000 1,028,060 2,778,441 Illinois 5.7% City of Chicago Illinois, Refunding RB, American Airlines Inc. Project, 5.50%, 12/01/30 2,860 2,120,862 Illinois Finance Authority, RB: Roosevelt University Project, 6.50%, 4/01/44 1,700 1,776,160 Rush University Medical Center Obligation Group, Series A, 7,25%, 11/01/30 2,000 2,287,940 Illinois Finance Authority, RB: CAB, Clare Water Tower, Series B, 0.42%, 5/15/01 615 7,152 Clare Water Tower, Series A, 7, 6,13%, 5/15/41 1,435 933,324 Frinedship Vilage of Schaumburg, 7,25%, 2/15/45 1,630 1,638,818 Primary Health Care Centers Program, 6.60%, 70/124 490 441,098	Municipal Bonds		Value
Thomasville Hospital Authority, RB, Anticipation Certificates, John D. Artibold, 5.38%, 11/01/40 \$ s 155 \$ 153,500 Guam 7,352,458 7,352,458 Guam 1.5% 7,352,458 Guam Covernment Waterworks 7,352,458 7,352,458 Authority, Refunding RB, Water, 6,00%, 7,01/25 515 526,943 Territory of Quam, GO, Series A: 250 259,620 6,07%, 11/15/29 440 471,772 7,00%, 11/15/29 440 471,772 7,00%, 11/15/29 1,000 1,028,060 2 2,778,441 1,000 1,028,060 2 2,778,441 1,000 1,028,060 2 2,778,441 1,000 1,028,060 2 2,778,441 1,000 1,028,060 2 2,778,441 1,000 1,028,060 2 2,778,441 1,000 1,028,060 2 2,860 2,120,862 2,100,862 Ellinois Finance Authority, RB: 605 7,152,05 2,100,862 Ellinois Finance Authority,	Georgia (concluded)		
Archbold, 5.38%, 11/01/40 \$ 155 \$ 153,500 7,352,458 Guam 1.5% Guam Covernment Waterworks Authority, Refunding RB, Water, 515 526,943 Territory of Guam, GO, Series A: 6.0%, 7/01/25 515 526,943 Territory of Guam, GO, Series A: 250 259,620 6.07%, 11/15/29 440 471,772 7.00%, 11/15/29 440 471,772 7.00%, 11/15/29 1,000 1,028,060 Z,778,441 Ilmiois 5.7% City of Chicago Illinois, Refunding RB, American Airlines Inc. Project, 2,860 2,120,862 S.0%, 12/01/30 2,860 2,120,862 Illinois Finance Authority, RB: 2,000 2,287,940 Roosevelt University Project, 6,55 7,152 CAB, Clare Water Tower, Series A, 7, 25%, 1,000 1,776,160 RB: 2,000 2,287,940 1,01/10/10 City of Chicago Illinois Finance Authority, RE CAB, Clare Water Tower, Series A, 7, 615	Thomasville Hospital Authority, RB,		
Guam 1.5% Guam Government Watervorks 315 Authority, Refunding RB, Water, 515 6.00%, 7/01/25 515 500%, 7/01/25 515 500%, 7/01/25 515 500%, 11/15/19 250 259, 620 6.75%, 11/15/19 6.00%, 11/15/19 440 7.00%, 11/15/19 440 7.00%, 11/15/39 440 7.00%, 11/15/39 455 Series A, 5.63%, 12/01/29 1,000 1.028,060 2.778,441 Ilinois 5.7% City of Chicago Illinois, Refunding RB, 2,778,441 Ilinois Finance Authority, RB: 2,860 Rossevelt University Project, 2,860 6.50%, 4/01/44 1,700 1,776,160 Rush University Medical Center 0bligation Group, Series A, 7,25%, 1/01/30 2,000 2,287,940 Ilinois Finance Authority, Refunding 8 CAB, Clare Water Tower, Series B, 0,42%, 5/15/50 (b) 615 7,152 Clare Water Tower, Series A, 7, 1,435 <		\$ 155	\$ 153,500
Guam Government Waterworks 515 526,943 Authority, Refunding RB, Water, 515 526,943 Co0%, 7/01/25 250 259,620 6.0%, 1115/19 250 259,620 6.75%, 1115/29 440 471,772 7.00%, 11/15/29 440 471,772 7.00%, 11/15/29 455 492,046 Territory of Guam, RB, Section 30, 1,000 1,028,060 Series A, 5.63%, 12/01/29 1,000 1,028,060 Linois 5.7% City of Chicago Illinois, Refunding RB, American Airlines Inc. Project, 5.50%, 12/01/30 2,860 2,120,862 Illinois Finance Authority, RB: 2000 2,287,940 Rosevelt University Project, 6.50%, 4/01/44 1,700 1,776,160 Rush University Medical Center 2,000 2,287,940 Obligation Group, Series A, 7, 25%, 1,610 1,435 11/01/30 2,000 2,287,940 110/01/30 RB: CAB, Clare Water Tower, Series B, 0,42%, 5/15/0 (b) 615 7,152 Clare Water Tower, Series A-7,<			7,352,458
Authority, Refunding RB, Water, 515 526,943 6.00%, 7/01/25 515 526,943 Ferritory of Guam, GO, Series A: 250 259,620 6.05% , 11/15/19 240 471,772 7.00% , 11/15/39 440 471,772 7.00% , 11/15/39 440 471,772 7.00% , 11/15/39 455 492,046 Territory of Guam, RB, Section 30, 1,000 1,028,060 Series A, 5.63%, 12/01/29 1,000 1,028,060 City of Chicago Illinois, Refunding RB, 2,778,441 Illinois 5.7% 2,860 2,120,862 City of Chicago Illinois, Refunding RB, 2,860 2,120,862 American Airlines Inc. Project, 2,860 2,120,862 5.5%, 12/01/30 2,860 2,120,862 Illinois Finance Authority, RB: 2,000 2,287,940 Illinois Finance Authority, Refunding 2,015,50 (b) 615 7,152			
$\begin{array}{llllllllllllllllllllllllllllllllllll$	Authority, Refunding RB, Water,	515	526,943
6.75%, 11/15/29 440 471,772 7,00%, 11/15/39 455 492,046 Territory of Guam, RB, Section 30, 30 1,000 1,028,060 Series A, 5.63%, 12/01/29 1,000 1,028,060 2,778,441 Illinois 5.7% City of Chicago Illinois, Refunding RB, American Airlines Inc. Project, 2,860 2,120,862 5.50%, 12/01/30 2,860 2,120,862 Illinois Finance Authority, RB: 700 1,776,160 Rosevelt University Project, 6,50%, 4/01/44 1,700 1,776,160 Rush University Medical Center 0bligation Group, Series A, 7,25%, 11/01/30 2,000 2,287,940 Illinois Finance Authority, Refunding RB, 8 7,152 7,152 CAB, Clare Water Tower, Series B, 615 7,152 Clare Water Tower, Series A-7, 615 7,152 Clare Water Tower, Series A-7, 1,435 933,324 Friendship Village of Schaumburg, 7,25%, 2/15/41 1,630 1,638,818 Primary Health Care Centers 7 1,630 1,638,818 Primary Health Care Centers 7 490	Territory of Guam, GO, Series A:	250	
7.00%, 11/15/39 455 492,046 Territory of Guam, RB, Section 30, 1,000 1,028,060 Series A, 5.63%, 12/01/29 1,000 1,028,060 Ulinois 5.7% City of Chicago Illinois, Refunding RB, American Airlines Inc. Project, 2,778,441 Solve, 12/01/30 2,860 2,120,862 Illinois Finance Authority, RB: 8 Roosevelt University Project, 6,50%, 4/01/44 1,700 1,776,160 Rush University Medical Center 0 0 2,287,940 Obligation Group, Series A, 7.25%, 11/01/30 2,000 2,287,940 Illinois Finance Authority, Refunding 8 8 8 CAB, Clare Water Tower, Series B, 0,42%, 5/15/50 (b) 615 7,152 Clare Water Tower, Series A-7, 1,435 933,324 5 Friendship Village of Schaumburg, 1,630 1,638,818 7 Primary Health Care Centers 7 1,630 1,638,818 7 Primary Health Care Centers 7 490 441,098 7			
Series A, 5.63%, 12/01/29 1,000 1,028,060 2,778,441 2,778,441 Illinois 5.7% 2,778,441 City of Chicago Illinois, Refunding RB, American Airlines Inc. Project, 5,50%, 12/01/30 2,860 2,120,862 Illinois Finance Authority, RB: 2,860 2,120,862 Rosevelt University Project, 6,50%, 4/01/44 1,700 1,776,160 Rush University Medical Center 0bligation Group, Series A, 7.25%, 11/01/30 2,000 2,287,940 Illinois Finance Authority, Refunding RB: 2,000 2,287,940 1,700 1,776,160 CAB, Clare Water Tower, Series B, 0,42%, 5/15/50 (b) 615 7,152 Clare Water Tower, Series A-7, 6,13%, 5/15/41 1,435 933,324 Friendship Village of Schaumburg, 7,25%, 2/15/45 1,630 1,638,818 7,25%, 2/15/45 Primary Health Care Centers 7,00 1,630 1,638,818 Primary Health Care Centers 490 441,098	7.00%, 11/15/39	455	492,046
Illinois 5.7% City of Chicago Illinois, Refunding RB, American Airlines Inc. Project, 5.50%, 12/01/30 2,860 2,120,862 Illinois Finance Authority, RB: 2 860 2,120,862 Roosevelt University Project, 6 6 6,30%, 4/01/44 1,700 1,776,160 Rush University Medical Center 0 2,000 2,287,940 Obligation Group, Series A, 7.25%, 11/01/30 2,000 2,287,940 Illinois Finance Authority, Refunding 8 8 2 CAB, Clare Water Tower, Series B, 0.42%, 5/15/50 (b) 615 7,152 Clare Water Tower, Series A-7, 6.13%, 5/15/41 1,435 933,324 Friendship Village of Schaumburg, 7.25%, 2/15/45 1,630 1,638,818 Friansty Health Care Centers 7 7 7 10,63%, 7/01/24 490 441,098		1,000	1,028,060
City of Chicago Illinois, Refunding RB, American Airlines Inc. Project, 2,860 2,120,862 Soosevelt University RB: 2,860 2,120,862 Roosevelt University Project, 1,700 1,776,160 Rush University Medical Center 1,700 2,287,940 Obligation Group, Series A, 7.25%, 2,000 2,287,940 Illinois Finance Authority, Refunding RB: 2,000 2,287,940 CAB, Clare Water Tower, Series B, 0.42%, 5/15/50 (b) 615 7,152 Clare Water Tower, Series A-7, 6.13%, 5/15/41 1,435 933,324 Friendship Village of Schaumburg, 7.25%, 2/15/45 1,630 1,638,818 Primary Health Care Centers Program, 6.60%, 7/01/24 490 441,098			2,778,441
American Airlines Inc. Project, 2,860 2,120,862 Illinois Finance Authority, RB: 700 7,76,160 Roosevelt University Project, 1,700 1,776,160 Rush University Medical Center 700 2,287,940 Obligation Group, Series A, 7.25%, 2,000 2,287,940 Illinois Finance Authority, Refunding 7,152 7,152 CAB, Clare Water Tower, Series B, 615 7,152 Clare Water Tower, Series A-7, 6,13%, 5/15/40 1,435 933,324 Friendship Village of Schaumburg, 7,25%, 2/15/45 1,630 1,638,818 Primary Health Care Centers 7 7 7 Program, 6.60%, 7/01/24 490 441,098 441,098	Illinois 5.7%		
Illinois Finance Authority, RB: 700 Roosevelt University Project, 1,700 6.50%, 4/01/44 1,700 Rush University Medical Center 1,700 Obligation Group, Series A, 7.25%, 2,000 11/01/30 2,000 RB: 2,000 CAB, Clare Water Tower, Series B, 615 0.42%, 5/15/50 (b) 615 7,152 Clare Water Tower, Series A-7, 6,13%, 5/15/41 1,435 933,324 Friendship Village of Schaumburg, 7,25%, 2/15/45 1,630 1,638,818 Primary Health Care Centers 7 7 7 Program, 6.60%, 7/01/24 490 441,098	American Airlines Inc. Project,	2 860	2 120 862
6.50%, 4/01/44 1,700 1,776,160 Rush University Medical Center 0bligation Group, Series A, 7.25%, 1 11/01/30 2,000 2,287,940 Illinois Finance Authority, Refunding 8 1 CAB, Clare Water Tower, Series B, 615 7,152 Clare Water Tower, Series A-7, 615 7,152 Clare Water Tower, Series A-7, 1,435 933,324 Friendship Village of Schaumburg, 7,25%, 2/15/45 1,630 1,638,818 Primary Health Care Centers 1 490 441,098	Illinois Finance Authority, RB:	2,000	2,120,002
Obligation Group, Series A, 7.25%, 11/01/30 2,000 2,287,940 Illinois Finance Authority, Refunding 2 2 RB: 2 2 2 CAB, Clare Water Tower, Series B, 615 7,152 O.42%, 5/15/50 (b) 615 7,152 Clare Water Tower, Series A-7, 6,13%, 5/15/41 1,435 933,324 Friendship Village of Schaumburg, 7,25%, 2/15/45 1,630 1,638,818 Primary Health Care Centers 700 441,098	6.50%, 4/01/44	1,700	1,776,160
Illinois Finance Authority, Refunding RB: CAB, Clare Water Tower, Series B, 0.42%, 5/15/50 (b) 615 7,152 Clare Water Tower, Series A-7, 6.13%, 5/15/41 1,435 933,324 Friendship Village of Schaumburg, 1,630 1,638,818 Primary Health Care Centers 1 1 Program, 6.60%, 7/01/24 490 441,098	Obligation Group, Series A, 7.25%,	2 000	2 287 940
0.42%, 5/15/50 (b) 615 7,152 Clare Water Tower, Series A-7, 1,435 933,324 6.13%, 5/15/41 1,435 933,324 Friendship Village of Schaumburg, 1,630 1,638,818 Primary Health Care Centers 1,630 1,638,818 Program, 6.60%, 7/01/24 490 441,098	Illinois Finance Authority, Refunding	2,000	2,201,910
6.13%, 5/15/41 1,435 933,324 Friendship Village of Schaumburg, 7.25%, 2/15/45 1,630 1,638,818 Primary Health Care Centers 701/24 490 441,098	0.42%, 5/15/50 (b)	615	7,152
7.25%, 2/15/45 1,630 1,638,818 Primary Health Care Centers 490 441,098	6.13%, 5/15/41	1,435	933,324
Program, 6.60%, 7/01/24 490 441,098	7.25%, 2/15/45	1,630	1,638,818
			,

Village of Lincolnshire Illinois, Special Tax Bonds, Sedgebrook Project,		
6.25%, 3/01/34 Village of Wheeling Illinois, Tax Allocation Bonds, North		
Milwaukee/Lake-Cook TIF Project, 6.00%, 1/01/25	750	696,008
		10,566,185
Indiana 1.2%		
Indiana Finance Authority, Refunding		
RB, Improvement, U.S. Steel Corp., 6.00%, 12/01/26	620	635,252
Indiana Health & Educational Facilities		, .
Financing Authority, Refunding RB,		
Community Foundation Northwest Indiana, 5.50%, 3/01/37	700	692,251
Vigo County Hospital Authority Indiana,	,	0,2,201
RB, Union Hospital Inc. (a):		
5.70%, 9/01/37	440	404,809
5.75%, 9/01/42	545	500,397
		2,232,709
Kentucky 0.4%		
Kentucky Economic Development		
Finance Authority, Refunding RB,		
Owensboro Medical Health System,		
Series A, 6.38%, 6/01/40	645	671,948

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BLACKROCK APEX MUNICIPAL FUND, INC.

JULY 31, 2010

Municipal Bonds	Par (000)	Value
Louisiana 1.1% Louisiana Local Government Environmental Facilities & Community Development Authority,		
RB, Westlake Chemical Corp. Projects, 6.75%, 11/01/32	\$ 2,000	\$ 2,068,520
- Maryland 1.8%		
Maryland EDC, RB, Transportation Facilities Project, Series A, 5.75%, 6/01/35	420	429,459
Maryland Health & Higher Educational Facilities Authority, RB, Washington Christian Academy, 5.50%, 7/01/38 Maryland Health & Higher Educational	410	176,300
Maryland Health & Higher Educational Facilities Authority, Refunding RB, Doctor s Community Hospital, 5.75%, 7/01/38	1,265	1,215,728
Maryland State Energy Financing Administration, RB, Cogeneration, AES Warrior Run, AMT, 7.40%,	1,203	1,213,726
9/01/19	1,500	1,500,600
		3,322,087
Massachusetts 1.4%		
Massachusetts Development Finance Agency, RB, First Mortgage, Overlook Communities, Series A, 6.25%,		
7/01/34 Massachusetts Development Finance	1,845	1,611,349
Agency, Refunding RB, Eastern Nazarene College, 5.63%, 4/01/19 Massachusetts Health & Educational	190	181,636
Facilities Authority, RB, Jordan Hospital, Series E, 6.75%, 10/01/33	850	848,411
		2,641,396
Michigan 2.7%		
Advanced Technology Academy, RB, 6.00%, 11/01/37 County of Wayne Michigan, GO,	625	570,462
Building Improvement, Series A, 6.75%, 11/01/39	375	397,868
Monroe County Hospital Finance Authority, Refunding RB, Mercy Memorial Hospital Corp. Obligation,		
5.50%, 6/01/35	1,260	1,055,552

6 6		
Royal Oak Hospital Finance Authority		
Michigan, Refunding RB, William Beaumont Hospital, 8.25%, 9/01/39	2,575	3,074,756
		5,098,638
Missouri 1.0%		
Kansas City IDA Missouri, RB, First		
Mortgage, Bishop Spencer, Series A, 6.50%, 1/01/35	1.000	902,040
Kirkwood IDA Missouri, RB, Aberdeen	1,000	902,040
Heights, Series A, 8.25%, 5/15/39	945	967,075
	-	1,869,115
Multi-State 0.3%		
MuniMae TE Bond Subsidiary LLC,		
7.50%, 6/30/49 (a)(c)(d)	663	614,575
Municipal Bonds	Par (000)	Value
Nevada 0.2%		
County of Clark Nevada, Special		
Assessment Bonds, Special Improvement District No. 142, Local		
Improvement, 6.38%, 8/01/23	\$ 370 \$	355,337
New Hampshire 0.4%		
New Hampshire Health & Education		
Facilities Authority, RB, Catholic		
Medical Center, 5.00%, 7/01/36	835	720,956
New Jersey 7.5%		
New Jersey EDA, RB, Continental		
Airlines Inc. Project, AMT:	2.050	2 005 (59
6.63%, 9/15/12 6.25%, 9/15/29	3,050 1,000	3,095,658 952,300
New Jersey EDA, Refunding RB, Newark	1,000	,552,500
Airport Marriott Hotel, 7.00%,		
10/01/14	1,500	1,506,810
New Jersey Educational Facilities Authority, Refunding RB, University of		
Medicine & Dentistry, Series B:		
7.13%, 12/01/23	670	787,491
7.50%, 12/01/32	1,065	1,222,833
New Jersey Health Care Facilities		
Financing Authority, RB, Pascack Valley Hospital Association, 6.63%,		
7/01/36 (e)(f)	1,870	19
New Jersey Health Care Facilities		
Financing Authority, Refunding RB,		
St. Joseph s Healthcare System,	1 (90	1 744 042
6.63%, 7/01/38 New Jersey Transportation Trust Fund	1,680	1,744,243
Authority, RB, CAB, Transportation		
System, Series C (AMBAC), 5.05%,		
12/15/35 (b)	2,760	618,820

BLACKROCK APEX MUNICIPAL FUND, INC.	JULY 31, 2010	
51165 C, 0.0072, 0.01720		567,705
7.63%, 12/01/32 Series C, 6.80%, 6/01/28	1,730 350	1,748,926 367,763
British Airways Plc Project, AMT,	1 720	1 7 40 00 4
8/01/28 (d)	720	755,424
International Airport, AMT, 8.00%,		
American Airlines Inc., JFK		
Agency, RB:		
New York City Industrial Development	2,000	2,334,380
Metropolitan Transportation Authority, RB, Series 2008-C, 6.50%, 11/15/28	2,000	2,334,380
3/01/29	1,000	997,520
St. Francis Hospital, Series B, 7.50%,		
Development Agency New York, RB,		
Dutchess County Industrial		
4/01/42	1,710	1,754,169
Dunkirk Power Project, 5.88%,		
Development Agency, RB, NRG		
Chautauqua County Industrial	005	102,510
6.38%, 7/15/43	685	702,570
Corp., RB, Barclays Center Project,		
New York 6.4% Brooklyn Arena Local Development		
		14,007,185
	-	
5.00%, 6/01/41	2,080	1,364,168
4.50%, 6/01/23	2,965	2,714,843
Cobacco Settlement Financing Corp. Jew Jersey, Refunding RB, Series 1A:		

Municipal Bonds	Par (000)	Value
New York (concluded)		
New York City Industrial Development Agency, RB: (concluded)		
Special Needs Facilities Pooled		
Program, Series C-1, 6.50%,		
7/01/24	\$ 830	\$ 793,688
New York Liberty Development Corp.,		
RB, National Sports Museum Project,	(20)	
Series A, 6.13%, 2/15/19 (e)(f)	630	6
New York Liberty Development Corp., Refunding RB, Second Priority, Bank		
of America Tower at One Bryant Park		
Project, 6.38%, 7/15/49	520	543,442
New York State Dormitory Authority,		
RB, North Shore-Long Island Jewish		
Health System, Series A, 5.50%,		
5/01/37	1,000	1,033,580
Yonkers Industrial Development Agency New York, RB, Sarah Lawrence		
College Project, Series A, 6.00%,		
6/01/41	850	890,868
		11,922,336
North Carolina 1.7%		
North Carolina Medical Care Commission, Refunding RB, First		
Mortgage, Deerfield, Series A, 6.13%,		
11/01/38	3,230	3,238,947
		, ,
Ohio 1.6%		
Buckeye Tobacco Settlement Financing		
Authority, RB, Asset-Backed, Senior		
Series A-2: 5.13%, 6/01/24	1,110	927.327
6.50%, 6/01/47	2,685	2,082,271
	_,	_,
		3,009,598
Pennsylvania 7.2%		
Allegheny County Hospital		
Development Authority, Refunding		
RB, Health System, West Penn,		
Series A, 5.38%, 11/15/40	2,885	2,141,593
Bucks County IDA, RB, Ann s Choice Inc.		
Facility, Series A, 6.13%, 1/01/25	1,160	1,138,726
Cumberland County Municipal		
Authority, RB, Diakon Lutheran, 6.38%, 1/01/39	2,510	2,576,364
0.3070, 1101137	2,310	2,570,504

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Lancaster County Hospital Authority,		
RB, Brethren Village Project, Series A:	47	- 470.145
6.25%, 7/01/26 6.50%, 7/01/40	47 67	,
Montgomery County IDA Pennsylvania,	67	0.00,010
MRB, Whitemarsh Continuing Care,		
6.25%, 2/01/35	1,70	0 1,374,841
Pennsylvania Higher Educational		, ,
Facilities Authority, Refunding RB,		
Allegheny Delaware Valley Obligation,		
Series A (NPFGC), 5.88%, 11/15/21	47	0 458,419
Philadelphia Authority for Industrial		
Development, RB, AMT:		
Commercial Development, 7.75%,	2.00	2 002 540
12/01/17	3,00	3,003,540
	Par	
Municipal Bonds	(000)	Value
Pennsylvania (concluded)		
Philadelphia Authority for Industrial		
Development, RB, AMT: (concluded)		
Subordinate, Air Cargo, Series A, 7.50%, 1/01/25	\$ 1,60) ¢ 1551970
7.30%, 1/01/25	\$ 1,60	0 \$ 1,551,872
		12 202 012
		13,382,813
Puerto Rico 1.1%		
Puerto Rico Public Buildings Authority,		
Refunding RB, Series Q, 5.63%,		
7/01/39	98	5 1,007,468
Puerto Rico Sales Tax Financing Corp.,		,,
RB, First Sub-Series A, 6.50%, 8/01/44	1,00	0 1,108,440
		2,115,908
Rhode Island 0.8%		
Central Falls Detention Facility Corp.,	1.75	1 507 107
Refunding RB, 7.25%, 7/15/35	1,75	0 1,507,187
Sauth Caralina 0.407		
South Carolina 0.4% Connector 2000 Association Inc., RB,		
CAB, Senior Series B, 10.61%,		
1/01/14 (b)(e)(f)	1,07	5 144,373
South Carolina Jobs-EDA, Refunding	1,07	5 111,575
RB, Palmetto Health, 5.50%,		
8/01/26	67	677,296
		821,669
Tennessee 0.1%		
Shelby County Health Educational &		
Housing Facilities Board, RB, Village		
at Germantown, 6.25%, 12/01/34	24	5 212,528
Texas 11.1%	2.05	5 0.000 072
Bexar County Health Facilities	2,05	5 2,089,873
Development Corp., RB, Army		

Retirement Residence Project, 6.20%, 7/01/45		
Brazos River Authority, Refunding RB,		
Texas Utility Co., Series, AMT, 7.70%,		
4/01/33	2,530	1,347,301
Central Texas Regional Mobility	· · ·	, , ,
Authority, RB:		
CAB, 7.48%, 1/01/28 (b)	1,000	329,830
CAB, 7.78%, 1/01/33 (b)	2,150	487,469
CAB, 7.79%, 1/01/34 (b)	4,000	852,680
Senior Lien, 5.75%, 1/01/25	450	457,830
City of Houston Texas, RB, Special		
Facilities, Continental Airlines,		
Series E, AMT, 6.75%, 7/01/21	1,865	1,855,619
Danbury Higher Education Authority		
Inc., RB, A.W. Brown Fellowship		
Charter, Series A (ACA), 5.13%,		
8/15/36	1,000	1,168,690
Harris County Health Facilities		
Development Corp., Refunding RB,		
Memorial Hermann Healthcare		
System, Series B, 7.25%, 12/01/35	1,110	1,263,036
Matagorda County Navigation District		
No. 1 Texas, Refunding RB, Central		
Power & Light Co. Project, Series A,		
6.30%, 11/01/29	850	927,401
North Texas Tollway Authority, RB, Toll,		
2nd Tier, Series F, 6.13%, 1/01/31	1,650	1,758,834
Tarrant County Cultural Education		
Facilities Finance Corp., RB:		
CC Young Memorial Home, Series		
A, 8.00%, 2/15/38	710	743,697

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BLACKROCK APEX MUNICIPAL FUND, INC.

JULY 31, 2010

Municipal Bonds	Par (000)	Value
Texas (concluded) Tarrant County Cultural Education Facilities Finance Corp., RB: (concluded)		
Senior Living Center Project, Series A, 8.25%, 11/15/44 Texas Private Activity Bond Surface Transportation Corp., RB, Senior Lien:,	\$ 1,710	\$ 1,714,036
LBJ Infrastructure, 7.00%, 6/30/40 Note Mobility, 6.88%, 12/31/39 Texas State Public Finance Authority, Refunding ERB, KIPP Inc., Series A	1,815 1,605	1,888,235 1,665,765
(ACA), 5.00%, 2/15/28	2,250	2,069,685
U.S. Virgin Islands 1.2% United States Virgin Islands, Refunding		20,017,701
RB, Senior Secured, Hovensa Coker Project, AMT, 6.50%, 7/01/21	2,100	2,132,382
Utah 1.2% County of Carbon Utah, Refunding RB, Laidlaw Environmental, Series A, AMT, 7.45%, 7/01/17	2,240	2,244,592
Virginia 2.6%		
Dulles Town Center Community Development Authority, Special Assessment Bonds, Dulles Town Center Project, 6.25%, 3/01/26	2,330	2,240,225
Tobacco Settlement Financing Corp. Virginia, Refunding RB, Senior Series B-1, 5.00%, 6/01/47	4,040	2,615,375
		4,855,600
Wisconsin 2.3% Wisconsin Health & Educational Facilities Authority, RB:		
New Castle Place Project, Series A, 7.00%, 12/01/31	1,320	1,318,376
Wheaton Franciscan Healthcare, 5.25%, 8/15/34 Wisconsin Health & Educational Facilities Authority, Refunding RB, St.	2,540	2,320,138
John s Communities Inc., Series A: 7.25%, 9/15/29	175	180,574

Eugar Filling. DEAORTIOOR AF EX MONT		
7.63%, 9/15/39	350	366,254
		4,185,342
Wyoming 1.3%		
County of Sweetwater Wyoming, Refunding RB, FMC Corp. Project,		
AMT, 5.60%, 12/01/35	2,500	2,449,100
Total Municipal Bonds 94.1%		174,863,096
Municipal Bonds Transferred to Tender		
Option Bond Trusts (g)		
District of Columbia 1.7%		
District of Columbia Water & Sewer Authority, RB, Series A, 6.00%, 10/01/35	2,730	3,085,265
Municipal Bonds Transferred to Tender Option Bond Trusts (g)	Par (000)	Value
Florida 3.3%		
County of Miami-Dade Florida, RB, Miami International Airport, Series A, AMT (AGC), 5.25%, 10/01/33	\$ 6,130	\$ 6,157,830
Virginia 3.1%		
Virginia HDA, RB, Sub-Series H-1 (NPFGC), 5.38%, 7/01/36	5,710	5,823,058
Total Municipal Bonds Transferred to Tender Option Bond Trusts 8.1%		15,066,153
Total Long-Term Investments(Cost \$190,267,683)102.2%		189,929,249
Short-Term Securities	Shares	
FFI Institutional Tax-Exempt Fund, 0.21% (h)(i)	1,559,574	1,559,574
Total Short-Term Securities		
(Cost \$1,559,574) 0.8%		1,559,574
Total Investments		
		1,559,574 191,488,823 1,641,959

Liability for Trust Certificates, Including Interest Expense and Fees Payable (3.9)%

Net Assets 100.0%

185,839,393

\$

* The cost and unrealized appreciation (depreciation) of investments as of July 31, 2010, as computed for federal income tax purposes, were as follows:

Aggregate cost	\$ 184,556,603
Gross unrealized appreciation	\$ 10,527,015
Gross unrealized depreciation	 (10,880,241)
Net unrealized depreciation	\$ (353,226)

(a) Security exempt from registration under Rule 144A of the Securities Act of 1933. These securities may be resold in transactions exempt from registration to qualified institutional investors.

- (b) Represents a zero-coupon bond. Rate shown reflects the current yield as of report date.
- (c) Security represents a beneficial interest in a trust. The collateral deposited into the trust is federally tax-exempt revenue bonds issued by various state or local governments, or their respective agencies or authorities. The security is subject to remarketing prior to its stated maturity.
- (d) Variable rate security. Rate shown is as of report date.
- (e) Issuer filed for bankruptcy and/or is in default of interest payments.
- (f) Non-income producing security.
- (g) Securities represent bonds transferred to a tender option bond trust in exchange for which the Fund acquired residual interest certificates. These securities serve as collateral in a financing transaction.

BLACKROCK APEX MUNICIPAL FUND, INC.

JULY 31, 2010

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Schedule of Investments July 31, 2010 (Unaudited)

BlackRock Apex Municipal Fund, Inc. (APX)

(h) Investments in companies considered to be an affiliate of the Fund during the period, for purposes of Section 2(a)(3) of the Investment Company Act of 1940, as amended, were as follows:

Affiliate	Shares at April 30, 2010	Net Activity	Shares at July 31, 2010	Income	
FFI Institutional Tax-Exempt Fund	648,958	910,616	1,559,574	\$	681

(i) Represents the current yield as of report date.

Fair Value Measurements - Various inputs are used in determining the fair value of investments, which are as follows:

Level 1 price quotations in active markets/exchanges for identical assets and liabilities

Level 2 other observable inputs (including, but not limited to: quoted prices for similar assets or liabilities in markets that are active, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable for the assets or liabilities (such as interest rates, yield curves, volatilities, prepayment speeds, loss severities, credit risks and default rates) or other market-corroborated inputs)

Level 3 unobservable inputs based on the best information available in the circumstances, to the extent observable inputs are not available (including the Fund s own assumptions used in determining the fair value of investments)

The inputs or methodologies used for valuing securities are not necessarily an indication of the risk associated with investing in those securities. For information about the Fund s policy regarding valuation of investments and other significant accounting policies, please refer to the Fund s most recent financial statements as contained in its annual report.

The following table summarizes the inputs used as of July 31, 2010 in determining the fair valuation of the Fund s investments:

Valuation Inputs		Level 1		Level 2	Level 3		Total
Assets:							
Investments in Securities:							
Long-Term							
Investments ¹			\$	189,929,249		\$	189,929,249
Short-Term							
Securities	\$	1,559,574					1,559,574
Total	\$	1,559,574	\$	189,929,249		\$	191,488,823
Total	ψ	1,559,574	ψ	109,929,249		ψ	191,400,025

¹ See above Schedule of Investments for values in each state or political subdivision.

BLACKROCK APEX MUNICIPAL FUND, INC.

JULY 31, 2010

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Item 2 Controls and Procedures

- 2(a) The registrant's principal executive and principal financial officers or persons performing similar functions have concluded that the registrant's disclosure controls and procedures (as defined in Rule 30a-3(c) under the Investment Company Act of 1940, as amended (the 1940 Act)) are effective as of a date within 90 days of the filing of this report based on the evaluation of these controls and procedures required by Rule 30a-3(b) under the 1940 Act and Rule 13a-15(b) under the Securities Exchange Act of 1934, as amended.
- 2(b) There were no changes in the registrant's internal control over financial reporting (as defined in Rule 30a-3(d) under the 1940 Act) that occurred during the registrant's last fiscal quarter that have materially affected, or are reasonably likely to materially affect, the registrant's internal control over financial reporting.
- Item 3 Exhibits

Certifications Attached hereto

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

BlackRock Apex Municipal Fund, Inc.

By: /s/ Anne F. Ackerley Anne F. Ackerley Chief Executive Officer of BlackRock Apex Municipal Fund, Inc.

Date: September 27, 2010

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

By: /s/ Anne F. Ackerley Anne F. Ackerley Chief Executive Officer (principal executive officer) of BlackRock Apex Municipal Fund, Inc.

Date: September 27, 2010

By: /s/ Neal J. Andrews Neal J. Andrews Chief Financial Officer (principal financial officer) of BlackRock Apex Municipal Fund, Inc.

Date: September 27, 2010