

ROYCE MICRO-CAP TRUST, INC /MD/

Form N-Q

May 26, 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: 811-08030

Name of Fund: Royce Micro-Cap Trust, Inc.

Fund Address: 745 Fifth Avenue

New York, NY 10151

Name and address of agent for service:

John E. Denneen, Esq.

Royce & Associates, LLC

745 Fifth Avenue

New York, NY 10151

Registrant's telephone number, including area code: (212) 508-4500

Date of fiscal year end: 12/31/2010

Date of reporting period: 3/31/2010

Item 1 - Schedule of Investments

SCHEDULE OF INVESTMENTS
ROYCE MICRO-CAP TRUST
MARCH 31, 2010 (UNAUDITED)

	SHARES	VALUE
COMMON STOCKS 111.6%		
Consumer Products 9.0%		
Apparel, Shoes and Accessories - 2.2%		
K-Swiss Cl. A ^a	47,400	\$ 495,804
Luk Fook Holdings (International)	928,300	936,161
Movado Group ^a	159,139	1,795,088
Steven Madden ^a	10,300	502,640
True Religion Apparel ^a	25,800	783,288
Weyco Group	48,000	1,128,960
Yamato International	40,000	149,749
		<hr/>
		5,791,690
		<hr/>
Consumer Electronics - 0.6%		
DTS ^a	50,000	1,702,000
		<hr/>
Food/Beverage/Tobacco - 2.6%		
Asian Citrus Holdings	1,060,000	868,616
Binggrae Company	17,962	751,691
Cal-Maine Foods	22,500	762,525
Heckmann Corporation ^{a,b}	200,000	1,160,000
HQ Sustainable Maritime Industries ^a	72,800	436,800
Seneca Foods Cl. A ^a	51,400	1,496,768
Seneca Foods Cl. B ^a	42,500	1,245,675
		<hr/>
		6,722,075
		<hr/>
Health, Beauty and Nutrition - 0.3%		
NutriSystem	44,700	796,107
		<hr/>
Home Furnishing and Appliances - 3.3%		
American Woodmark	72,000	1,396,080
Ethan Allen Interiors	66,600	1,373,958
Flexsteel Industries	172,500	2,344,275
Koss Corporation	73,400	417,646
Lumber Liquidators Holdings ^a	23,900	637,413
Natuzzi ADR ^a	409,800	1,844,100
Universal Electronics ^a	31,000	692,540
		<hr/>
		8,706,012
		<hr/>
Total		23,717,884
		<hr/>
Consumer Services 3.9%		
Media and Broadcasting - 0.4%		
Ascent Media Cl. A ^a	41,500	1,130,875
		<hr/>
Online Commerce - 0.3%		

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Alloy ^a	36,002	295,216
CryptoLogic	88,300	336,423
		<hr/>
		631,639
		<hr/>
Retail Stores - 3.2%		
America's Car-Mart ^a	92,800	2,238,336
Charming Shoppes ^a	266,200	1,453,452
DSW Cl. A ^{a,b}	3,500	89,355
Le Chateau Cl. A	27,900	384,581
Lewis Group	57,000	442,149
PetMed Express	33,600	744,912
QKL Stores ^a	38,740	249,873
Stein Mart ^a	178,900	1,615,467
West Marine ^a	86,000	933,100
Wet Seal (The) Cl. A ^a	50,000	238,000
		<hr/>
		8,389,225
		<hr/>
Total		10,151,739
		<hr/>
Diversified Investment Companies 1.1%		
Closed-End Funds - 1.1%		
ASA	10,000	745,300
Central Fund of Canada Cl. A	131,700	1,843,800
Urbana Corporation ^a	237,600	371,963
		<hr/>
Total		2,961,063
		<hr/>
Financial Intermediaries 9.4%		
Banking - 4.3%		
Alliance Bancorp, Inc. of Pennsylvania	50,420	421,007
Banca Finnat Euramerica	480,000	361,758
BCB Holdings ^a	806,207	1,315,175
BofI Holding ^{a,b}	140,000	1,950,200
Cass Information Systems	15,000	467,250
Centrue Financial ^a	66,600	229,770
CFS Bancorp	75,000	332,250
Chemung Financial	40,000	800,000
Commercial National Financial	20,000	341,000
Fauquier Bankshares	135,800	2,017,988
Financial Institutions	36,000	526,320
First Bancorp	40,200	640,788
HopFed Bancorp	55,000	660,000
LCNB Corporation	30,000	360,000
Mechanics Bank	5	56,750
Wilber Corporation (The)	137,908	903,297
		<hr/>
		11,383,553
		<hr/>
Insurance - 0.9%		
Greenlight Capital Re Cl. A ^a	9,700	258,796
Independence Holding	95,800	909,142
Presidential Life	132,100	1,317,037
		<hr/>
		2,484,975
		<hr/>
Real Estate Investment Trusts - 0.5%		
Colony Financial	49,717	994,340

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Vestin Realty Mortgage II ^a	214,230	370,618
		<hr/>
		1,364,958
		<hr/>
Securities Brokers - 3.1%		
Cowen Group Cl. A ^a	342,834	1,940,441
Diamond Hill Investment Group	24,479	1,679,259
FBR Capital Markets ^a	326,600	1,486,030
International Assets Holding Corporation ^a	17,310	259,131
Sanders Morris Harris Group	199,000	1,231,810
Thomas Weisel Partners Group ^a	376,200	1,474,704
		<hr/>
		8,071,375
		<hr/>
Securities Exchanges - 0.6%		
Bolsa Mexicana de Valores ^a	948,500	1,503,638
		<hr/>
Total		24,808,499
		<hr/>
Financial Services 9.7%		
Diversified Financial Services - 0.4%		
Encore Capital Group ^a	32,000	526,400
World Acceptance ^{a,b}	19,300	696,344
		<hr/>
		1,222,744
		<hr/>
Information and Processing - 0.3%		
Value Line	32,487	750,125
		<hr/>
Insurance Brokers - 0.2%		
Western Financial Group	148,000	498,361
		<hr/>
Investment Management - 5.3%		
BKF Capital Group ^a	130,200	119,784
Cohen & Steers	27,900	696,384
Dundee Corporation Cl. A ^a	140,200	1,910,469
Endeavour Financial ^{a,b}	618,200	1,479,078
Endeavour Financial (Warrants) ^a	50,000	49,230
Epoch Holding Corporation	196,500	2,218,485
Evercore Partners Cl. A	13,200	396,000
JZ Capital Partners	293,999	1,298,277
MVC Capital	136,200	1,848,234
Queen City Investments	948	968,865
Sceptre Investment Counsel	78,000	441,589
Sprott Resource ^a	70,000	323,931
U.S. Global Investors Cl. A	91,500	904,935
VZ Holding	15,000	1,276,792
		<hr/>
		13,932,053
		<hr/>
Special Purpose Acquisition Corporation - 0.4%		
Westway Group	220,000	992,200
		<hr/>
Specialty Finance - 0.2%		
NGP Capital Resources	68,080	580,041
		<hr/>
Other Financial Services - 2.9%		
Hilltop Holdings ^a	101,400	1,191,450

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Kennedy-Wilson Holdings ^a	631,766	6,412,425
		<hr/>
		7,603,875
		<hr/>
Total		25,579,399
		<hr/>
Health 9.9%		
Commercial Services - 0.6%		
PAREXEL International ^a	40,000	932,400
PDI ^a	96,800	727,936
		<hr/>
		1,660,336
		<hr/>
Drugs and Biotech - 1.6%		
Adolor Corporation ^a	460,500	828,900
American Oriental Bioengineering ^{a,b}	99,000	403,920
China Nuokang Bio-Pharmaceutical ADR ^a	21,147	131,111
Hi-Tech Pharmacal ^a	17,700	391,878
Simcere Pharmaceutical Group ADR ^a	25,700	218,707
Sinovac Biotech ^a	53,900	318,549
Strategic Diagnostics ^a	150,000	285,000
Theragenics Corporation ^a	306,900	509,454
3SBio ADR ^a	53,500	662,330
ViroPharma ^a	37,000	504,310
		<hr/>
		4,254,159
		<hr/>
Health Services - 2.3%		
Advisory Board (The) ^a	51,700	1,628,550
eResearch Technology ^a	127,000	877,570
Gentiva Health Services ^a	23,000	650,440
HMS Holdings ^a	11,900	606,781
On Assignment ^a	41,100	293,043
PharMerica Corporation ^a	40,000	728,800
Psychemedics Corporation	37,500	286,875
Res-Care ^a	76,120	912,679
U.S. Physical Therapy ^a	10,000	174,000
		<hr/>
		6,158,738
		<hr/>
Medical Products and Devices - 5.4%		
Allied Healthcare Products ^a	226,798	850,492
Atrion Corporation	5,500	786,720
CAS Medical Systems ^a	62,600	118,940
Exactech ^a	121,000	2,537,370
Kensey Nash ^a	20,000	471,800
Medical Action Industries ^a	125,250	1,536,817
Mesa Laboratories	48,267	1,236,118
NMT Medical ^a	198,500	899,205
Somanetics Corporation ^a	75,247	1,440,228
STRATEC Biomedical Systems	14,000	496,459
Syneron Medical ^a	69,200	756,356
Utah Medical Products	42,300	1,189,899
Young Innovations	61,450	1,730,432
		<hr/>
		14,050,836
		<hr/>
Total		26,124,069

Industrial Products 23.2%**Automotive - 1.0%**

Norstar Founders Group ^{a,c}	771,500	36,268
SORL Auto Parts ^a	53,277	492,279
US Auto Parts Network ^a	240,900	1,811,568
Wonder Auto Technology ^{a,b}	10,900	115,322
Xinyi Glass Holdings	212,400	193,682

2,649,119

Building Systems and Components - 2.7%

AAON	73,000	1,651,260
Apogee Enterprises	57,900	915,399
Drew Industries ^a	90,000	1,981,800
LSI Industries	79,812	544,318
NCI Building Systems ^a	8,400	92,736
Preformed Line Products	16,000	610,400
WaterFurnace Renewable Energy	45,200	1,272,355

7,068,268

Construction Materials - 1.8%

Ash Grove Cement	8,000	1,360,000
Monarch Cement	52,303	1,542,939
Trex Company ^a	90,000	1,916,100

4,819,039

Industrial Components - 2.0%

Bel Fuse Cl. A	67,705	1,253,897
Deswell Industries	564,371	2,370,358
Graham Corporation	48,500	872,515
Powell Industries ^a	26,800	871,804

5,368,574

Machinery - 6.6%

Burckhardt Compression Holding	2,100	414,264
Burnham Holdings Cl. A	113,000	1,514,200
Columbus McKinnon ^a	15,100	239,637
Duoyuan Printing ^a	50,400	544,320
Eastern Company (The)	39,750	538,215
FreightCar America	51,000	1,232,160
Hardinge	260,000	2,340,000
Hollysys Automation Technologies ^a	166,492	1,916,323
Hurco Companies ^a	46,666	785,389
Jinpan International	36,924	768,019
K-Tron International ^a	5,926	888,722
Rofin-Sinar Technologies ^a	37,000	836,940
Sun Hydraulics	65,425	1,699,742
Tennant Company	92,300	2,528,097
Williams Controls ^a	125,000	1,000,000

17,246,028

Metal Fabrication and Distribution - 2.9%

Central Steel & Wire	1,088	734,400
CompX International Cl. A	107,500	966,425

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Encore Wire	15,000	312,000
Foster (L.B.) Company Cl. A ^a	15,100	436,239
Friedman Industries	2,025	11,583
Fushi Copperweld ^a	29,483	330,799
Horsehead Holding Corporation ^a	28,800	340,992
Ladish Company ^a	45,000	907,200
NN ^a	114,300	628,650
Olympic Steel	22,000	718,300
RBC Bearings ^a	6,500	207,155
RTI International Metals ^a	69,900	2,120,067
		<hr/>
		7,713,810
		<hr/>
Miscellaneous Manufacturing - 2.6%		
AZZ	15,000	507,750
China Automation Group	460,300	355,114
Griffon Corporation ^a	89,500	1,115,170
Hana Microelectronics	500,000	335,550
PMFG ^a	143,800	1,902,474
Raven Industries	58,400	1,722,216
Semperit AG Holding	12,500	488,091
Synalloy Corporation	58,200	472,584
		<hr/>
		6,898,949
		<hr/>
Pumps, Valves and Bearings - 0.4%		
CIRCOR International	28,000	929,880
		<hr/>
Specialty Chemicals and Materials - 2.4%		
Aceto Corporation	72,219	436,203
Balchem Corporation	63,375	1,562,194
China XD Plastics ^{a,b}	76,000	471,200
Hawkins	69,866	1,690,757
Park Electrochemical	15,400	442,596
Rogers Corporation ^a	58,400	1,694,184
		<hr/>
		6,297,134
		<hr/>
Textiles - 0.7%		
Interface Cl. A	27,000	312,660
J.G. Boswell Company	2,490	1,511,430
		<hr/>
		1,824,090
		<hr/>
Other Industrial Products - 0.1%		
Research Frontiers ^{a,b}	50,000	141,500
		<hr/>
Total		60,956,391
		<hr/>
Industrial Services 13.6%		
Commercial Services - 5.6%		
Acacia Research-Acacia Technologies ^a	68,290	739,581
ATC Technology ^a	25,200	432,432
CBIZ ^a	47,000	308,790
Diamond Management & Technology Consultants	138,100	1,084,085
Exponent ^a	58,400	1,665,568
Forrester Research ^a	54,900	1,650,843
Global Sources ^a	30,315	197,351
Heidrick & Struggles International	10,000	280,300

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Heritage-Crystal Clean <u>a</u>	118,283	1,336,598
Kforce <u>a</u>	60,000	912,600
Rentrak Corporation <u>a</u>	63,300	1,364,115
SFN Group <u>a</u>	426,600	3,417,066
Spectrum Group International <u>a,b</u>	6,925	12,326
Team <u>a</u>	86,500	1,435,035
		<hr/>
		14,836,690
		<hr/>
Engineering and Construction - 1.6%		
Cavco Industries <u>a</u>	12,491	426,443
Insituform Technologies Cl. A <u>a</u>	34,300	912,723
Integrated Electrical Services <u>a</u>	132,000	745,800
Layne Christensen <u>a</u>	8,200	219,022
MYR Group <u>a</u>	28,500	464,835
Skyline Corporation	62,100	1,155,060
Sterling Construction <u>a</u>	25,000	393,000
		<hr/>
		4,316,883
		<hr/>
Food, Tobacco and Agriculture - 1.2%		
Farmer Bros.	51,400	963,236
Hanfeng Evergreen <u>a</u>	70,800	544,428
Origin Agritech <u>a,b</u>	121,488	1,213,665
Yuhe International <u>a</u>	39,714	369,340
Zhongpin <u>a,b</u>	12,300	156,210
		<hr/>
		3,246,879
		<hr/>
Industrial Distribution - 0.7%		
Houston Wire & Cable	67,375	780,203
Lawson Products	63,269	978,771
		<hr/>
		1,758,974
		<hr/>
Printing - 0.8%		
Bowne & Co.	68,989	769,917
Courier Corporation	30,450	502,729
CSS Industries	20,243	406,884
Domino Printing Sciences	80,000	470,061
		<hr/>
		2,149,591
		<hr/>
Transportation and Logistics - 3.1%		
Dynamex <u>a</u>	86,000	1,479,200
Forward Air	50,700	1,333,410
Frozen Food Express Industries <u>a</u>	157,000	612,300
Pacer International <u>a</u>	35,000	210,700
Patriot Transportation Holding <u>a</u>	19,000	1,605,120
Transat A.T. Cl. B <u>a</u>	31,800	418,302
Universal Truckload Services <u>a</u>	134,200	2,359,236
		<hr/>
		8,018,268
		<hr/>
Other Industrial Services - 0.6%		
US Ecology	92,500	1,489,250
		<hr/>
Total		35,816,535

Natural Resources 10.7%**Energy Services - 4.5%**

CE Franklin ^a	90,450	614,156
Dawson Geophysical ^a	53,213	1,555,948
Dril-Quip ^a	22,500	1,368,900
Gulf Island Fabrication	29,116	633,273
ION Geophysical ^a	50,000	246,000
Lamprell	202,400	743,283
Lufkin Industries	1,000	79,150
North American Energy Partners ^a	50,000	479,500
OYO Geospace ^a	7,130	340,885
Pason Systems	139,200	1,566,540
Pioneer Drilling ^a	57,500	404,800
T-3 Energy Services ^a	39,150	961,524
Tesco Corporation ^a	50,000	583,500
Willbros Group ^a	159,200	1,911,992
World Energy Solutions ^a	72,920	226,052

11,715,503

Oil and Gas - 0.5%

Approach Resources ^a	12,000	108,960
China Integrated Energy ^a	65,000	681,200
GeoMet ^a	75,000	66,975
GeoResources ^a	30,000	458,100

1,315,235

Precious Metals and Mining - 3.1%

Alamos Gold ^a	47,100	629,298
Allied Nevada Gold ^a	108,700	1,801,159
Aurizon Mines ^a	197,000	937,720
Brush Engineered Materials ^a	27,000	609,390
Chesapeake Gold ^a	20,000	160,488
Exeter Resource ^{a,b}	140,000	858,200
Gammon Gold ^a	83,836	602,781
Midway Gold ^a	345,000	224,191
Minefinders Corporation ^a	36,000	333,360
New Gold ^a	141,200	615,632
Northgate Minerals ^a	270,000	810,000
Seabridge Gold ^a	16,700	406,812
Victoria Gold ^a	200,000	145,720
Vista Gold ^{a,b}	50,000	100,500

8,235,251

Real Estate - 2.6%

Avatar Holdings ^a	18,104	393,581
Consolidated-Tomoka Land	32,100	1,011,471
PICO Holdings ^a	45,700	1,699,583
Pope Resources L.P.	57,205	1,510,784
Tejon Ranch ^a	65,100	1,986,852
ZipRealty ^{a,b}	25,000	122,500

6,724,771

Other Natural Resources - 0.0%

China Hydroelectric ADR ^{a,b}	10,000	92,500
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Total		28,083,260
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Technology 17.7%		
Aerospace and Defense - 2.4%		
Applied Signal Technology	20,000	391,600
Ducommun	72,100	1,514,821
HEICO Corporation	33,600	1,732,416
Innovative Solutions and Support ^a	100,000	630,000
Integral Systems ^a	138,222	1,331,078
SIFCO Industries	45,800	781,806
		<hr/>
		6,381,721
<hr/>		
Components and Systems - 2.9%		
Frequency Electronics ^a	275,000	1,452,000
Methode Electronics	66,223	655,608
Newport Corporation ^a	80,900	1,011,250
Richardson Electronics	250,900	1,994,655
Rimage Corporation ^a	79,200	1,145,232
Technitrol	150,000	792,000
TransAct Technologies ^a	78,600	572,208
		<hr/>
		7,622,953
<hr/>		
Distribution - 0.4%		
Agilysys ^a	90,000	1,005,300
ScanSource ^a	7,600	218,728
		<hr/>
		1,224,028
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Internet Software and Services - 1.2%		
ActivIdentity Corporation ^a	180,000	511,200
iPass ^a	210,000	241,500
Marchex Cl. B	95,000	485,450
Support.com ^a	430,000	1,406,100
WebMediaBrands ^a	525,000	519,750
		<hr/>
		3,164,000
<hr/>		
IT Services - 4.0%		
Computer Task Group ^a	236,100	1,711,725
iGATE Corporation	248,400	2,416,932
Sapient Corporation	500,000	4,570,000
Syntel	43,300	1,665,751
Yucheng Technologies ^a	50,960	198,744
		<hr/>
		10,563,152
<hr/>		
Semiconductors and Equipment - 2.6%		
ATMI ^a	6,400	123,584
Coherent ^a	22,000	703,120
Exar Corporation ^a	121,208	854,517
Ikanos Communications ^a	40,000	120,000
Inficon Holding	3,600	485,508
Mentor Graphics ^a	22,400	179,648
Micrel	60,000	639,600
Microtune ^a	362,000	988,260

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PLX Technology ^a	80,000	421,600
TTM Technologies ^a	114,400	1,015,872
Virage Logic ^a	160,000	1,257,600
		<hr/>
		6,789,309
		<hr/>
Software - 3.3%		
ACI Worldwide ^a	69,600	1,434,456
Actuate Corporation ^a	66,200	370,058
American Software Cl. A	74,900	435,169
Bottomline Technologies ^a	12,300	207,009
Double-Take Software ^a	29,400	261,954
Fundtech ^a	51,000	714,000
Geeknet ^a	875,000	1,312,500
Pegasystems	84,000	3,108,000
PLATO Learning ^a	140,000	778,400
		<hr/>
		8,621,546
		<hr/>
Telecommunications - 0.9%		
Anaren ^a	8,000	113,920
Atlantic Tele-Network	14,700	660,471
Cogo Group ^a	50,500	352,995
Diguang International Development ^a	230,000	73,600
Globecomm Systems ^a	10,230	78,668
PC-Tel ^a	44,100	272,538
Zhone Technologies ^a	266,320	732,380
		<hr/>
		2,284,572
		<hr/>
Total		46,651,281
		<hr/>
Miscellaneous ^d 3.4%		
Total		8,775,181
		<hr/>
TOTAL COMMON STOCKS		
(Cost \$219,237,056)		293,625,301
		<hr/>
PREFERRED STOCK 0.5%		
Seneca Foods Conv. (Cost \$578,719)	45,409	1,226,043
		<hr/>
REPURCHASE AGREEMENT 10.9%		
State Street Bank & Trust Company, 0.005% dated 3/31/10, due 4/1/10, maturity value \$28,710,004 (collateralized by obligations of various U.S. Government Agencies, 0.42% due 9/21/10, valued at \$29,430,000) (Cost \$28,710,000)		28,710,000
		<hr/>
COLLATERAL RECEIVED FOR SECURITIES LOANED 1.7%		
Money Market Funds Federated Government Obligations Fund (7 day yield-0.0150%) (Cost \$4,465,210)		4,465,210
		<hr/>
TOTAL INVESTMENTS 124.7%		

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(Cost \$252,990,985)	328,026,554
LIABILITIES LESS CASH AND OTHER ASSETS (1.9)%	(4,993,036)
PREFERRED STOCK (22.8)%	(60,000,000)
NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS 100.0%	\$ 263,033,518

- ^a Non-income producing.
- ^b All or a portion of these securities were on loan at March 31, 2010. Total market value of loaned securities at March 31, 2010 was \$4,292,160.
- ^c A security for which market quotations are not readily available represents 0.0% of net assets. This security has been valued at its fair value under procedures established by the Fund's Board of Directors.
- ^d Includes securities first acquired in 2010 and less than 1% of net assets applicable to Common Stockholders.

TAX INFORMATION: The cost of total investments for Federal income tax purposes was \$253,469,167. At March 31, 2010, net unrealized appreciation for all securities was \$74,557,387, consisting of aggregate gross unrealized appreciation of \$98,566,578 and aggregate gross unrealized depreciation of \$24,009,191. The primary difference between book and tax basis cost is the timing of the recognition of losses on securities sold.

Valuation of Investments:

Investment transactions are accounted for on the trade date. Securities are valued as of the close of trading on the New York Stock Exchange (NYSE) (generally 4:00 p.m. Eastern time) on the valuation date. Securities that trade on an exchange, and securities traded on Nasdaq's Electronic Bulletin Board, are valued at their last reported sales price or Nasdaq official closing price taken from the primary market in which each security trades or, if no sale is reported for such day, at their bid price. Other over-the-counter securities for which market quotations are readily available are valued at their highest bid price, except in the case of some bonds and other fixed income securities which may be valued by reference to other securities with comparable ratings, interest rates and maturities, using established independent pricing services. The Fund values its non-U.S. dollar denominated securities in U.S. dollars daily at the prevailing foreign currency exchange rates as quoted by a major bank. Securities for which market quotations are not readily available are valued at their fair value under procedures established by the Fund's Board of Directors. In addition, if, between the time trading ends on a particular security and the close of the customary trading session on the NYSE, events occur that are significant and may make the closing price unreliable, the Fund may fair value the security. The Fund uses an independent pricing service to provide fair value estimates for relevant non-U.S. equity securities on days when the U.S. market volatility exceeds a certain threshold. This pricing service uses proprietary correlations it has developed between the movement of prices of non-U.S. equity securities and indices of U.S.-traded securities, futures contracts and other indications to estimate the fair value of relevant non-U.S. securities. When fair value pricing is employed, the prices of securities used by the Fund may differ from quoted or published prices for the same security. Investments in money market funds are valued at net asset value per share.

Various inputs are used in determining the value of the Fund's investments, as noted above. These inputs are summarized in the three broad levels below:

Level 1 quoted prices in active markets for identical securities

Level 2 other significant observable inputs (including quoted prices for similar securities, foreign securities that may be fair valued and repurchase agreements)

Level 3 significant unobservable inputs (including the Fund's own assumptions in determining the fair value of investments)

The inputs or methodology used for valuing securities are not necessarily an indication of the risk associated with investing in those securities.

The following is a summary of the inputs used to value the Fund's investments as of March 31, 2010:

	Level 1	Level 2	Level 3	Total
Common stocks	\$261,389,315	\$32,199,718	\$36,268	\$293,625,301
Preferred stocks		1,226,043		1,226,043
Cash equivalents	4,465,210	28,710,000		33,175,210

Level 3 Reconciliation:

**Realized
and
Unrealized**

	Balance as of 12/31/09	Purchases	Transfers Out	Sales	Gain (Loss)	Balance as of 3/31/10
Common stocks	\$73,019	\$	\$417,646	\$	\$380,895	\$36,268

Repurchase Agreements:

The Fund may enter into repurchase agreements with institutions that the Fund's investment adviser has determined are creditworthy. The Fund restricts repurchase agreements to maturities of no more than seven days. Securities pledged as collateral for repurchase agreements, which are held until maturity of the repurchase agreements, are marked-to-market daily and maintained at a value at least equal to the principal amount of the repurchase agreement (including accrued interest). Repurchase agreements could involve certain risks in the event of default or insolvency of the counter-party, including possible delays or restrictions upon the ability of the Fund to dispose of its underlying securities.

Securities Lending:

The Fund loans securities to qualified institutional investors for the purpose of realizing additional income. Collateral for the Fund on all securities loaned is accepted in cash and cash equivalents and invested temporarily by the custodian. The collateral maintained is at least 100% of the current market value of the loaned securities. The market value of the loaned securities is determined at the close of business of the Fund and any additional required collateral is delivered to the Fund on the next business day. The Fund retains the risk of any loss on the securities on loan as well as incurring the potential loss on investments purchased with cash collateral received for securities lending.

Other information regarding the Fund is available in the Fund's most recent Report to Stockholders. This information is available through The Royce Funds (www.roycefunds.com) and on the Securities and Exchange Commission's website (www.sec.gov).

Item 2 - Controls and Procedures

(a) The Registrant's principal executive and principal financial officers have concluded, based on their evaluation of the Registrant's disclosure controls and procedures as of a date within 90 days of the filing date of this report (as required by Rule 30a-3(b) under the Investment Company Act of 1940 (the "Act")), that the Registrant's disclosure controls and procedures (as defined by Rule 30a-3(c) under the Act) are reasonably designed to ensure that information required to be disclosed by the Registrant on Form N-Q is recorded, processed, summarized and reported within the required time periods and that information required to be disclosed by the Registrant in the reports that it files or submits on Form N-Q is accumulated and communicated to the Registrant's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure.

(b) There were no changes in the Registrant's internal control over financial reporting (as defined in Rule 30a-3(d) under the Act) during the Registrant's last fiscal quarter that have materially affected, or are reasonably likely to materially affect, the internal control over financial reporting.

Item 3 - Exhibits

Certifications pursuant to Rule 30a-2(a) under the Act are attached hereto.

SIGNATURES

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.

Royce Micro-Cap Trust, Inc.
By:

/s/Charles M. Royce
Charles M. Royce
President, Royce Micro-Cap Trust, Inc.
Date: May 26, 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/Charles M. Royce
Charles M. Royce
President, Royce Micro-Cap Trust, Inc.
Date: May 26, 2010

By:

/s/John D. Diederich
John D. Diederich
Treasurer, Royce Micro-Cap Trust, Inc.
Date: May 26, 2010