Pioneer Diversified High Income Trust Form N-Q April 01, 2011

OMB APPROVAL

OMB Number: 3235-0578 Expires: April 30, 2013 Estimated average burden

hours per response.....
10.5

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM N-Q

CERTIFIED SHAREHOLDER REPORT OF REGISTERED MANAGEMENT INVESTMENT COMPANIES

Investment Company Act file number 811-22014

Pioneer Diversified High Income Trust (Exact name of registrant as specified in charter)

60 State Street, Boston, MA 02109 (Address of principal executive offices) (ZIP code)

Terrence J Cullen, Pioneer Investment Management, Inc., 60 State Street, Boston, MA 02109 (Name and address of agent for service)

Registrant's telephone number, including area code: (617) 742-7825

Date of fiscal year end: April 30

Date of reporting period: January 31, 2011

Form N-Q is to be used by management investment companies, other than small business investment companies registered on Form N-5 (239.24 and 274.5 of this chapter), to file reports with the Commission, not later than 60 days after close of the first and third fiscal quarters, pursuant to Rule 30b1-5under the Investment Company Act of 1940 (17 CFR 270.30b-5). The Commission may use the information provided on Form N-Q in its regulatory, disclosure review, inspection, and policymaking roles.

A registrant is required to disclose the information specified by Form N-Q, and the Commission will make this information public. A registrant is not required to respond to the collection of information contained in Form N-Q unless the Form displays a currently valid Office of Management and Budget ("OMB") control number. Please direct comments concerning the accuracy of the information collection burden estimate and any suggestions for reducing the burden to Secretary, Securities and Exchange Commission, 450 Fifth Street, NW,

Washington, DC 20549-0609. The OMB has reviewed this collection of information under the clearance requirements of  $44~\mathrm{U.S.C.}$  ss. 3507.

#### <PAGE>

ITEM 1. Schedule of Investments.

Pioneer Diversified High Income Trust SCHEDULE OF INVESTMENTS 1/31/11 (unaudited)

Principal Amount USD (\$)	S&P/Moody's Ratings (unaudited)		Value	
		ASSET BACKED SECURITIES - 1.3% of Net Assets Banks - 0.7% Thrifts & Mortgage Finance -		
		0.7%		
246,741(a)	AA+/Aa1	Ace Securities Corp., 1.16%, 12/25/34	\$	192,734
699,000(a)	BBB+/Caa2	Carrington Mortgage Loan Trust, 0.46, 2/25/37		468,517
497,092(a)	CCC/NR	Countrywide Asset-Backed Certificates, 0.711%, 3/25/47 (144A)		248,908
203,463(a)	B-/B3	GSAMP Trust, 0.391%, 1/25/37		184,492
570,986(a)	CC/Ca	Lehman XS Trust, 0.613%, 12/25/35		191,867
		Total Banks	\$	1,286,518
		Diversified Financials - 0.5% Other Diversified Financial Services - 0.4%		
1,137,467(a)	B-/Caa1	Aircraft Finance Trust, 0.741%, 5/15/24 (144A)	\$	659,731
70,017(a)	B-/Ba3	Aircraft Finance Trust, 0.761%, 5/15/24 (144A)		65,115
		Specialized Finance - 0.1%	\$	724,846
150,000	BBB-/Baa3	Dominos Pizza Master Issuer LLC, 5.261%, 4/25/37 (144A)	\$	153,750
		Total Diversified Financials	\$	878,596

		Mortgage Real Estate Investment Trust - 0.1%		
97,965	NR/NR	Real Estate Asset Trust, 10.0%, 9/25/40 (144A)	\$	97,965
		Total Real Estate	\$	97,965
		TOTAL ASSET BACKED	\$	2,263,079
		SECURITIES (Cost \$2,237,017)		
		COLLATERALIZED		
		MORTGAGE OBLIGATIONS - 0.9% of Net Assets		
		Banks - 0.9%		
		Thrifts & Mortgage Finance -		
		0.9%		
242,599(a)	CCC/C	Countrywide Home Loans, 0.611%, 3/25/35	\$	68,134
504,258(a)	CC/C	Downey Savings and Loan		236,364
		Association Mortgage Loan Trust, 0.631%, 10/19/45		
239,579(a)	D/C	Downey Savings and Loan		33,080
		Association Mortgage Loan		
1,104,563(a)	AAA/A3	Trust, 0.681%, 10/19/45 Impac CMB Trust, 1.021%,		890,018
		1/25/35		
83,133(a)	D/B3	Impac Secured Assets CMN Owner Trust, 0.35%, 11/25/36		78,488
355,326(a)	D/C	Luminent Mortgage Trust,		21,063
, (,		0.521%, 7/25/36		,
373,069(a)	AAA/Caa1	WaMu Mortgage Pass-Through		315,865
		Certificates, 0.491%, 4/25/45	4	1 612 012
		Total Banks	\$	1,643,012
		TOTAL COLLATERALIZED MORTGAGE OBLIGATIONS		
		(Cost \$2,060,787)	\$	1,643,012
		(====, ,===,		,,-
		CORPORATE BONDS &		
		NOTES - 94.8% of Net Assets		
		Energy - 8.3% Coal & Consumable Fuels -		
		1.0%		
850,000(c)	BB/Ba3	Bumi Capital Pte, Ltd., 12.0%,	\$	966,875
		11/10/16 (144A)		
738,000	BB-/B1	Drummond Co., Inc., 9.0%,		793,350
		10/15/14 (144A)	\$	1,760,225
		Oil & Gas Drilling - 0.9%	ψ	1,700,223
500,000(a)	NR/NR	Aker Drilling ASA,1.0%,	\$	88,730
		2/24/16		
500,000	NR/NR	Aker Drilling ASA,11.0%,		86,566
		2/24/16		

NOK

NOK

Edgar Filing: P	ioneer I	Diversifie	d High Inc	ome T	rust - Form	N-Q

	670,000	B-/B3	Offshore Group Investments, Ltd., 11.5%, 8/1/15(144A)		745,375
	500,000	B/NR	Pioneer Drilling Co., 9.875%, 3/15/18		540,625
			3/13/18	\$	1,461,296
			Oil & Gas Equipment &	Ψ	1,101,270
			Services - 2.3%		
	1,500,000	B+/B1	American Petroleum Tankers LLC, 10.25%, 5/1/15 (144A)	\$	1,561,875
	730,000	B/B2	Expro Finance Luxembourg SCA, 8.5%, 12/15/16 (144A)		719,050
	65,067(b)	NR/NR	Nexus 1 Pte., Ltd., 10.5%, 3/7/12 (144A)		65
	900,000(a)	NR/NR	Sevan Marine ASA, 3.443\$,5/14/13 (144A)		810,000
NOK	2,560,000(a)	NR/NR	Sevan Marine ASA, 12.59%, 10/24/12 (144A)		463,162
NOK	2,500,000(a)	NR/NR	Sevan Marine ASA, 14.0%, 10/24/14 (144A)		432,829
			10/24/14 (144A)	\$	3,986,981
			Oil & Gas Exploration &		
			Production - 2.9%		
	505,000	BB-/B2	Berry Petroleum Co., 10.25%, 6/1/14	\$	582,012
	125,000	BB/Ba3	Chesapeake Energy Corp., 9.5%, 2/15/15		146,250
	970,000	BB-/B2	Hilcorp Energy I LP, 9.0%, 6/1/16 (144A)		1,023,350
	685,000	B/B2	Linn Energy LLC/Linn Energy Finance Corp., 11.75%, 5/15/17		792,888
NOK	2,500,000	NR/NR	Norwegian Energy Co. AS, 12.9%, 11/20/14		452,307
NOK	3,000,000(a)	NR/NR	PA Resources AB, 10.06%, 3/9/11		514,201
	240,000	B-/B3	Quicksilver Resources, Inc., 7.125%, 4/1/16		230,400
	472,000	B-/Caa1	Rosetta Resources, Inc., 9.5%, 4/15/18		520,970
	670,000(d)	B/B3	SandRidge Energy, Inc., 8.625%, 4/1/15		688,425
			0.00_0 /0, 1, 1, 10	\$	4,950,803
			Oil & Gas Refining &		
			Marketing - 0.7%		
	1,310,000(c)	B/B2	Petroplus Finance, Ltd., 9.375%, 9/15/19 (144A)	\$	1,277,250
			Oil & Gas Storage &		
			Transportation - 0.5%		
	500,000	B+/B1	Holly Energy Partners LP, 6.25%, 3/1/15	\$	495,000

Edgar	Filina:	Pioneer	Diversified	Hiah	Income	Trust - I	Form N	1-Q
								,

			•		
	450,000(a)	BB/Ba1	Southern Union Co., 7.2%, 11/1/66		423,000
				\$	918,000
			Total Energy	\$	14,354,555
			Materials - 11.2% Aluminum - 1.0%		
	1,351,578(a)(d)	CCC+/B3	Noranda Aluminum Acquisition Corp., 5.193%, 5/15/15	\$	1,260,346
	405,000	B/B2	Novelis, Inc., 8.75%, 12/15/20 (144A)		439,931
			5 11 11 5 1 0 1 0	\$	1,700,277
EURO	200,000(a)(e)	B-/NR	Building Products - 0.1% C10 - EUR Capital SPV, Ltd., 6.277%	\$	180,973
			Commodity Chemicals - 0.2%		
	300,000	NR/WR	Montell Finance Co. BV, 8.1%, 3/15/27 (144A)	\$	336,000
			Construction Materials - 0.6%		
	865,000	CCC+/B3	AGY Holding Corp., 11.0%, 11/15/14	\$	774,175
	300,000(a)(e)	B-/NR	C8 Capital SPV, Ltd.,		216,000
	100,000	B/NR	6.64% (144A) Cemex SAB de CV, 9.0%, 1/11/18 (144A)		102,500
			1,11,10 (11,111)	\$	1,092,675
EMBO	1 277 000		Diversified Chemicals - 1.2%	Φ.	1 500 505
EURO	1,275,000	CCC/Caa2	Ineos Group Holdings Plc, 7.875%, 2/15/16 (144A)	\$	1,708,705
	275,000	CCC/Caa1	Momentive Performance Materials, Inc., 9.0%, 1/15/21 (144A)		292,875
			Diversified Metals & Mining -	\$	2,001,580
	371,096(b)(d)	NR/NR	1.0% Blaze Recycling & Metals LLC, 13.0%, 7/16/12	\$	316,359
	428,000	BBB/Baa2	Teck Resources, Ltd., 10.25%, 5/15/16		524,300
	750,000	BB/Ba2	Vedanta Resources Plc, 9.5%, 7/18/18 (144A)		826,875
			Forest Products - 0.1%	\$	1,667,534
	186,000	BB-/Ba3	Grupo Papelero Scribe SA, 8.875%, 4/7/20 (144A)	\$	185,070
			Metal & Glass Containers - 1.6%		
	1,145,000	CCC+/B2	1070	\$	1,142,137

			AEP Industries, Inc., 7.875%,	
EURO	255,000	NR/NR	3/15/13 Ardagh Glass Finance Plc,	383,694
	175,000	CCC+/B3	9.25%, 7/1/16 (144A) BWAY Holdings Co., 10.0%,	190,750
	1,000,000(d)	CCC+/Caa1	6/15/18 (144A) BWAY Parent Co., Inc., 10.125%, 11/1/15 (144A)	1,050,000
				\$ 2,766,581
	750,103(f)	NR/NR	Paper Packaging - 1.2% Corporacion Durango SAB de CV, 6.0%, 8/27/16	\$ 689,157
	700,000	B-/Caa1	Graham Packaging Co., Inc., 9.875%, 10/15/14	724,500
	750,000	B/B3	U.S. Corrugated, Inc., 10.0%, 6/1/13	735,000
			Paper Products - 1.6%	\$ 2,148,657
	667,000	B+/B1	ABI Escrow Corp., 10.25%, 10/15/18 (144A)	\$ 752,042
	500,000	B+/B1	Appleton Papers, Inc., 10.5%, 6/15/15 (144A)	513,750
	260,000	BB/Ba3	Clearwater Paper Corp., 10.625%, 6/15/16	296,725
	814,000	B/B3	Exopack Holding Corp., 11.25%, 2/1/14	836,385
	344,000	B/B3	Mercer International, Inc., 9.5%, 12/1/17 (144A)	361,200
			Precious Metals & Minerals -	\$ 2,760,102
			0.3%	<b>.</b>
	500,000	BB-/Ba3	ALROSA Finance SA, 8.875%, 11/17/14 (144A)	\$ 563,300
			Steel - 2.3%	
	1,245,000	CCC+/Caa2	Algoma Acquisition Corp., 9.875%, 6/15/15 (144A)	\$ 1,123,612
	350,000	B+/B3	Atkore International, Inc., 9.875%, 1/1/18 (144A)	373,625
	450,000	B+/B3	Essar Steel Algoma, Inc., 9.375%, 3/15/15 (144A)	450,000
	250,000	B/B2	Evraz Group SA, 8.875%, 4/24/13 (144A)	269,375
	250,000(c)	B/B2	Evraz Group SA, 9.5%, 4/24/18 (144A)	282,188
	500,000	NR/B2	Metinvest BV, 10.25%, 5/20/15 (144A)	531,412
	920,000	CCC+/Caa1	Ryerson, Inc., 12.0%, 11/1/15	975,200
EURO	50,000	CC/Ca	Zlomrex International Finance SA, 8.5%, 2/1/14 (144A)	53,469
			•	\$ 4,058,881

		Total Materials	\$ 19,461,630
		Capital Goods - 5.9% Aerospace & Defense - 0.3%	
405,000	BBB-/Ba3	DigitalGlobe, Inc., 10.5%, 5/1/14	\$ 462,712
90,000	BB-/Ba3	GeoEye, Inc., 9.625%, 10/1/15	\$ 101,700 564,412
365,000	BB/B2	Building Products - 0.2% USG Corp., 9.75%, 8/1/14 (144A)	\$ 394,200
850,000	B+/Caa1	Construction & Engineering - 0.5% New Enterprise Stone & Lime	\$ 847,875
		Co., 11.0%, 9/1/18 (144A)	
		Construction & Farm Machinery & Heavy Trucks - 1.4%	
720,000	B+/Caa1	American Railcar Industries, Inc., 7.5%, 3/1/14	\$ 729,000
770,000	CCC/Caa2	Commercial Vehicle Group, Inc., 8.0%, 7/1/13	754,600
950,000	CCC/Caa2	Greenbrier Companies, Inc., 8.375%, 5/15/15	971,375
		Electrical Components &	\$ 2,454,975
750,000	B-/B3	Equipment - 0.5% WireCo WorldGroup, 9.5%, 5/15/17 (144A)	\$ 798,750
90,000(g)	NR/NR	Industrial Conglomerates - 0.6% Little Traverse Bay Bands of Odawa Indians, 9.0%, 8/31/20 (144A)	\$ 73,800
100,000	BB-/Ba3	Mark IV USA/EURO LUX, 8.875%, 12/15/17 (144A)	146,698
740,000	CCC+/Caa1	Park-Ohio Industries, Inc., 8.375%, 11/15/14	756,650
		·	\$ 977,148
500,000(b)	NR/WR	Industrial Machinery - 1.1% Indalex Holding Corp., 11.5%, 2/1/14	\$ 8,125
335,000	B/B3	Liberty Tire Recycling, 11.0%, 10/1/16 (144A)	371,850
875,000	CCC+/B3	Mueller Water Products, Inc., 7.375%, 6/1/17	849,844
665,000	B+/NR	WPE International Cooperatief UA, 10.375%, 9/30/20 (144A)	673,313
			\$ 1,903,132

EURO

	150,000	B/B3	Trading Companies & Distributors - 1.3% Avis Budget Car Rental LLC / Avis Budget Finance, Inc.,	\$	165,000
	1,090,000	B-/B3	9.625%, 3/15/18 Intcomex, Inc., 13.25%, 12/15/14 (144A)		1,147,225
	1,000,000	B/B1	Wesco Distribution, Inc., 7.5%, 10/15/17		1,030,000
			Total Capital Goods Commercial & Professional Services - 0.4% Diversified Support Services -	\$ \$	2,342,225 10,282,717
	400(h)	NR/B3	0.2% MSX International, Ltd., UK, 12.5%, 4/1/12 (144A)	\$	344,000
			Environmental & Facilities Services - 0.2%		
	700,000(b)(g)	NR/WR	Aleris International, Inc., 10.0%, 12/15/16	\$	-
	210,000	BB-/B2	Casella Waste Systems, Inc., 11.0%, 7/15/14		235,725
EURO	107,128	CCC+/Ca	a2New Reclamation Group Pty., Ltd., 8.125%, 2/1/13 (144A)		124,842
			Ltd., 8.123 /0, 2/1/13 (144A)	\$	360,567
			Total Commercial &	\$	704,567
			Professional Services		
	929,000(c)	CCC+/Caa1	Transportation - 1.8% Air Freight & Logistics - 0.6% CEVA Group Plc, 11.5%, 4/1/18 (144A)	\$	1,004,676
	305,000	BB-/Ba2	Airlines - 0.2% Delta Air Lines, Inc., 9.5%, 9/15/14 (144A)	\$	333,213
	450,000	B/B2	Airport Servoces - 0.3% Aeropuertos Argentina 2000 SA, 10.75%, 12/1/20 (144A)	\$	481,517
	835,000	NR/NR	Marine Ports & Services - 0.3% Oceanografia SA de CV, 11.25%, 7/15/15 (144A)	\$	501,000
	425,000	B-/Caa1	Trucking - 0.4% Swift Services Holdings, Inc., 10.0%, 11/15/18 (144A)	\$	459,531
	300,000	B/B3			308,250

		Syncreon Global Ireland, Ltd., 9.5%, 5/1/18 (144A)		
		9.5%, 3/1/18 (144A)	\$	767,781
		Total Transportation	\$	3,088,187
		Automobiles & Components - 1.8%		
		Auto Parts & Equipment - 1.7%		
980,000	CCC+/Caa2	Allison Transmission, Inc., 11.0%, 11/1/15 (144A)	\$	1,073,100
160,000	CCC/Caa1	Stanadyne Corp., 10.0%, 8/15/14		160,800
500,000(f)	CCC-/Caa3	Stanadyne Corp., 12.0%, 2/15/15		450,000
1,125,000(c)	B+/B1	Tower Automotive Holdings USA LLC, 10.625%, 9/1/17 (144A)		1,217,813
			\$	2,901,713
		Tires & Rubber - 0.1%		
235,000(c)	B+/B1	Goodyear Tire & Rubber Co., 10.5%, 5/15/16	\$	266,725
		Total Automobiles & Components	\$	3,168,438
		Consumer Durables & Apparel - 2.5%		
530,000	CCC/Caa2	Homebuilding - 1.0% Beazer Homes USA, Inc.,	\$	537,950
430,000	BB-/Ba3	9.125%, 6/15/18 Desarrolladora Homex SA de CV, 9.5%, 12/11/19 (144A)		490,316
695,000	B+/B1	Meritage Homes Corp., 6.25%, 3/15/15		698,475
		3/13/13	\$	1,726,741
		Housewares & Specialties - 0.9%	Ψ	1,720,711
500,000	B-/Caa1	Reynolds Group Holdings, Ltd, 9.0%, 4/15/19 (144A)	\$	525,000
1,000,000	CCC+/B3	Yankee Acquisition Corp., 9.75%, 2/15/17		1,050,000
		Lairean Day Leads 0.60	\$	1,575,000
1,000,000	B-/B2	Leisure Products - 0.6% Icon Health & Fitness, 11.875%, 10/15/16 (144A)	\$	1,032,500
		Total Consumer Durables & Apparel	\$	4,334,241
500,000(b)	NR/WR	Consumer Services - 3.1% Casinos & Gaming - 2.0% Buffalo Thunder Development Authority, 9.375%, 12/15/14	\$	160,000

			(144A)		
EURO	1,155,000	B/B2	Codere Finance Luxembourg SA, 8.25%, 6/15/15 (144A)		1,603,309
	395,000	B+/B2	FireKeepers Development Authority, 13.875%, 5/1/15 (144A)		470,050
	1,615,000(b)	NR/WR	Mashantucket Western Pequot Tribe, 8.5%, 11/15/15 (144A)		191,781
EURO	500,000	B/B3	Peermont Global, Ltd., 7.75%, 4/30/14 (144A)		613,526
	450,000	BB-/B1	Scientific Games International, Inc., 9.25%, 6/15/19		482,625
	585,000(b)	NR/WR	Station Casinos, Inc., 6.625%, 3/15/18		59
				\$	3,521,350
	400,000(2)	D /Cas1	Restaurants - 0.5%	¢	427,000
	400,000(c)	B-/Caa1	Burger King Corp., 9.875%, 10/15/18	\$	427,000
	360,000	CCC+/Caa2	Dunkin Finance Corp., 9.625%, 12/1/18 (144A)		367,200
			Specialized Consumer Services - 0.6%	\$	794,200
	685,000	BB-/B1	Service Corp. International, 7.0%, 5/15/19	\$	703,838
	350,000	B-/B3	StoneMor Operating LLC/Cornerstone Family Services/Osiris Holdings, 10.25%, 12/1/17		364,000
				\$	1,067,838
			Total Consumer Services	\$	5,383,388
			Media - 6.2%		
	1,100,000	B-/B3	Advertising - 1.5% Affinity Group, Inc., 11.5%, 12/1/16 (144A)	\$	1,113,750
	716,000	BB-/B2	MDC Partners, Inc., 11.0%, 11/1/16		787,600
	800,000	B-/Caa2	Sitel LLC/Sitel Finance Corp., 11.5%, 4/1/18 (144A)		716,000
				\$	2,617,350
	182,676	B/B2	Broadcasting - 3.1% CCH II LLC, 13.5%, 11/30/16	\$	221,038
	840,000	B/B2 B/B1	Hughes Network Systems LLC, 9.5%, 4/15/14	ψ	867,300
	959,570(d)	CCC+/Caa3	9.5%, 4/15/14 Intelsat Bermuda, Ltd., 11.5%, 2/4/17		1,093,910
	500,000	B+/B3	Intelsat Subsidiary Holding Co., Ltd., 8.5%, 1/15/13		502,500
EURO	100,000	B/B2	Nara Cable Funding, Ltd., 8.875%, 12/1/18 (144A)		139,157

EURO	124,999	CCC+/Caa2	Ono Finance II Plc, 11.125%, 7/15/19 (144A)	174,747
	430,000	B-/Caa1	Telesat Canada, 12.5%, 11/1/17	520,300
EURO	200,000	B+/B1	TVN Finance Corp II AB,	304,338
			10.75%, 11/15/17 (144A)	
	1,451,560(d)	CCC+/Caa2	Univision Communications,	1,531,396
			Inc., 9.75%, 3/15/15 (144A)	
				\$ 5,354,686