

SEMIANNUAL REPORT

For the Six Months Ended April 30, 2011



PRIMECAP ODYSSEY STOCK (POSKX)
PRIMECAP ODYSSEY GROWTH (POGRX)
PRIMECAP ODYSSEY AGGRESSIVE GROWTH (POAGX)



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Letter to Shareholders

PRIMECAP Odyssey Funds

Dear Fellow Shareholders,

For the six months ending April 30, 2011, the PRIMECAP Odyssey Stock Fund, PRIMECAP Odyssey Growth Fund, and PRIMECAP Odyssey Aggressive Growth Fund produced total returns of +15.72%, +17.39%, and +20.00%, respectively. By comparison, the unmanaged S&P 500 Index (S&P 500) produced a total return of +16.36% for the period.

The U.S. stock market provided strong returns during the six months ending April 30, 2011, extending the rally that began last summer as the economy continued its recovery from the recession. Gross domestic product (GDP) has increased for the past seven quarters. Both consumer spending and industrial production have increased as consumer confidence has improved and companies have rebuilt inventories and returned to growth mode.

However, there are reasons for caution regarding the sustainability of this recovery. Unemployment remains stubbornly high, housing markets show minimal improvement, the U.S. dollar has weakened relative to other major currencies, and balancing budgets at the federal, state, and local government levels poses daunting challenges. More recently, unrest in the Middle East and North Africa has added risk to an already elevated oil price, and the tragic earthquakes in Japan have disrupted the supply chains of many companies.

As always, the PRIMECAP Odyssey Funds remain focused on investing in companies that, in our judgment, offer better growth prospects than are currently anticipated by the market. We continue to be overweight in the health care and information technology sectors and underweight in the energy sector in each of the three PRIMECAP Odyssey Funds.

This sector allocation generally hurt the funds' results during the first six months of the fiscal year, as returns in both the health care and information technology sectors trailed the overall S&P 500 while the energy sector, fueled by rising commodity prices, enjoyed the highest returns of any sector. However, positive stock selection more than offset an overweight position in the information technology sector in each of the PRIMECAP Odyssey Funds. Each fund also benefited from underweight positions in the consumer staples, financials, and utilities sectors. Favorable stock selection in the health care sector also helped results in the PRIMECAP Odyssey Growth and PRIMECAP Odyssey Aggressive Growth Funds.

A more detailed discussion of the results of each PRIMECAP Odyssey Fund follows.

Letter to Shareholders

PRIMECAP Odyssey Funds

continued

PRIMECAP Odyssey Stock Fund

From November 1, 2010 to April 30, 2011, the Stock Fund's total return of +15.72% trailed the S&P 500's total return of +16.36%. On a relative basis, poor stock selection in the energy and materials sectors, along with an underweight position in the energy sector, detracted from the fund's returns. The fund's results were also hurt by its sizeable cash position during the period. This was partially offset by positive stock selection in the information technology sector.

L.M. Ericsson, Altera Corp., and Biogen Idec Inc. were among the top contributors to the fund's relative returns. L.M. Ericsson (+41.3%) and Altera Corp. (+56.4%) both benefited from increased investment in wireless network infrastructure. Biogen Idec (+55.7%) rose as investors reacted favorably to positive data for its potential oral therapy for multiple sclerosis. Other top contributors included Texas Instruments (+21.0%), Marsh & McLennan (+23.0%), and Range Resources (+51.2%).

On the negative side, major detractors included Schweitzer-Mauduit International, Southwest Airlines, and Research in Motion. Schweitzer-Mauduit International (-18.8%), a supplier of reconstituted tobacco and paper used in cigarettes, declined as European competitors challenged its patents for its proprietary low ignition tobacco paper. We believe demand for low ignition paper will expand rapidly as cigarette manufacturers around the world seek to meet emerging safety regulations. Southwest Airlines (-14.5%), along with other airlines, faced higher fuel costs as a consequence of political unrest in the Middle East. Yet, Southwest has continued to expand its market share, especially in new markets such as Denver and Boston, while maintaining its position as one of the lowest cost airlines in the U.S. We view Southwest's recent acquisition of AirTran Airways as a unique opportunity to accelerate the growth of its network into many new markets including Atlanta, the world's busiest airport. Research in Motion (-14.5%), maker of Blackberry smartphones and the new Blackberry Playbook tablet computer, has struggled as investors focus on its declining market share in North America relative to Apple's iPhone and phones based on the Android operating system. However, the company has continued to enjoy rapid growth in international markets, which now contribute the majority of the company's revenues. Additionally, we expect the company's aging product portfolio to be significantly refreshed over the coming months.

Letter to Shareholders

PRIMECAP Odyssey Funds

continued

The top 10 holdings, which collectively represent 34.4% of the portfolio at the period end, are listed below:

PRIMECAP Odyssey Stock Fund Top 10 Holdings as of 4/30/11	Ending % of Total Portfolio*
Roche Holding AG	4.9
Amgen Inc.	4.2
Johnson & Johnson	3.7
Texas Instruments Inc.	3.5
Medtronic Inc.	3.5
L.M. Ericsson (ADR)	3.2
Marsh & McLennan Cos.	3.0
Eli Lilly & Co.	2.8
Novartis AG (ADR)	2.8
Microsoft Corp.	2.8
Total % of Portfolio	34.4%

* The percentage is calculated by using the ending market value of the security divided by the total investments of the Fund.

PRIMECAP Odyssey Growth Fund

From November 1, 2010 to April 30, 2011, the Growth Fund's total return was +17.39%, which exceeded both the S&P 500's total return of +16.36% and the Russell 1000 Growth Index's total return of +16.96%. Positive stock selection in the health care and information technology sectors was a major contributor to the fund's results. The fund also benefited from underweight positions in the consumer staples, financials, and utilities sectors. This was offset by an underweight position in the energy sector.

ImmunoGen (+62.5%), Cepheid (+53.6%), and Biogen Idec (+55.7%) were three health care stocks that helped the fund's relative results. ImmunoGen, the fund's largest holding, is a biotechnology company focused on developing targeted anti-cancer therapies using its expertise in conjugated monoclonal antibodies. Its stock rose on the release of positive clinical data for TDM-1, an antibody drug conjugate that is being developed by a partner as a possible treatment for some forms of metastatic breast cancer. Cepheid benefited from increasing market acceptance of its molecular diagnostic systems. For example, the World Health Organization recently endorsed the company's point of care tuberculosis test.

Letter to Shareholders

PRIMECAP Odyssey Funds

continued

Among information technology stocks, Altera (+56.4%) and Stratasy's (+71.9%) were large contributors to the fund's returns. Stratasy's, a maker of 3-D printers used for rapid prototyping and manufacturing of plastic parts, has continued to see strong growth in sales as Hewlett-Packard (HP) has ramped up its efforts to resell Stratasy's products under the HP brand.

Nektar Therapeutics (-28.8%) was one of the largest detractors from the fund's results due to a dilutive equity offering following management's failure to find a partner for its lead oncology drug candidate. As a result, the company will now take on greater financial risk to fund trials for the drug, but it also stands to potentially gain greater rewards if the drug is successful. Google (-11.3%), AMR Corp (-25.6%), and Southwest Airlines (-14.5%) also hurt the fund's returns.

The top 10 holdings, which collectively represent 27.9% of the portfolio at the period end, are listed below:

PRIMECAP Odyssey Growth Fund Top 10 Holdings as of 4/30/11	Ending % of Total Portfolio*
ImmunoGen Inc.	3.8
Roche Holding AG	3.7
Seattle Genetics Inc.	3.5
Amgen Inc.	3.4
Dendreon Corp.	2.8
Altera Corp.	2.6
Biogen Idec Inc.	2.2
Cepheid Inc.	2.2
Stratasy's Inc.	1.9
Medtronic Inc.	1.8
Total % of Portfolio	27.9%

* The percentage is calculated by using the ending market value of the security divided by the total investments of the Fund.

Letter to Shareholders

PRIMECAP Odyssey Funds

continued

PRIMECAP Odyssey Aggressive Growth Fund

From November 1, 2010 to April 30, 2011, the Aggressive Growth Fund's total return was +20.00%, ahead of the S&P 500's total return of +16.36% but behind the Russell Midcap Growth Index's total return of +22.62%. Positive stock selection in the information technology and health care sectors was the largest contributor to relative returns, partially offset by the fund's underweight position in the energy sector and poor stock selection in the consumer discretionary and industrials sectors.

ImmunoGen (+62.5%), Cepheid (+53.6%), and InterMune (+239.2%) were among the health care stocks with the highest returns in the portfolio. InterMune stock rose on the news that its drug to treat idiopathic pulmonary fibrosis (IPF) had received regulatory approval in Europe. This is the same drug that had been rejected in the U.S. by the FDA in 2010. Stratasys (+71.9%), Altera Corp (+56.4%), and GSI Commerce (+56.8%) were among the information technology stocks with the highest returns. GSI Commerce, an e-commerce company specializing in creating, developing, and running online shopping sites for retailers, announced in March that it was being acquired for a substantial premium.

On the negative side, Nektar Therapeutics (-28.8%), DreamWorks Animation (-25.0%), and AMR Corp (-25.6%) were among the biggest detractors from the fund's returns. DreamWorks Animation struggled with weaker than expected box office and home video sales. However, as a leading creator of animated films, DreamWorks appears well-positioned to capitalize on its ability to create new animated film franchises as well as to build upon existing ones.

Letter to Shareholders

PRIMECAP Odyssey Funds

continued

The top 10 holdings, which collectively represent 31.6% of the portfolio at the period end, are listed below:

PRIMECAP Odyssey Aggressive Growth Fund Top 10 Holdings as of 4/30/11	Ending % of Total Portfolio*
Roche Holding AG	4.4
Seattle Genetics Inc.	3.9
Dendreon Corp.	3.9
ImmunoGen	3.8
Cepheid Inc.	3.3
Stratasys Inc.	3.0
Websense Inc.	2.4
Altera Corp.	2.4
Abiomed Inc.	2.3
Conceptus Inc.	2.2
Total % of Portfolio	31.6%

* The percentage is calculated by using the ending market value of the security divided by the total investments of the Fund.

Outlook

After seven consecutive quarters of increasing GDP and industrial production, it is fair to say that the economic recovery is well underway. Stocks have responded accordingly. The S&P 500 has roughly doubled from the lowest level reached in March 2009 at the depths of the financial crisis. Smaller capitalization stock indexes like the Russell 2000 have achieved even greater returns.

Although the economic recovery has continued, its sustainability, in our judgment, is not without risk. Labor and housing markets remain weak, the dollar has depreciated relative to many major currencies, and surging commodity prices fan fears of inflation and reduce consumer purchasing power. Additionally, balancing budgets at the federal, state, and local government levels will require austerity measures that may depress economic growth.

Letter to Shareholders

PRIMECAP Odyssey Funds

continued

Given the very strong recent gains posted by stocks and our more tempered economic outlook, we are at the margin more cautious on stocks than we were at the beginning of the year. We still find valuations reasonably attractive, particularly relative to bonds and cash. Many companies in which the funds are invested have been experiencing rapid growth in revenues and earnings, having recovered from the recession with more efficient operations and stronger balance sheets. We remain optimistic that innovation and global expansion should fuel growth, especially for information technology and health care companies, two sectors in which the funds have substantial investment and the United States has a strong competitive advantage.

Sincerely,

PRIMECAP Management Company
May 19, 2011

Past performance is not a guarantee of future results.

The funds invest in smaller companies, which involve additional risks such as limited liquidity and greater volatility. All funds may invest in foreign securities, which involves greater volatility and political, economic and currency risks and differences in accounting methods. Mutual fund investing involves risk, and loss of principal is possible. Growth stocks typically are more volatile than value stocks; however, value stocks have a lower expected growth rate in earnings and sales.

Please refer to the Schedule of Investments for details of fund holdings. Fund holdings and sector allocations are subject to change at any time and are not recommendations to buy or sell any security.

The **S&P 500 Index** is a broad based index of 500 stocks, which is widely recognized as representative of the market in general. The **Russell 1000 Growth Index** is an index that measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values. The **Russell Mid Cap Growth Index** measures the performance of those Russell Mid Cap companies with higher price-to-book ratios and higher forecasted growth values. The Russell 2000 Index consists of the smallest 2,000 companies in a group of 3,000 U.S. companies in the Russell 3000 Index, as ranked by market capitalization. These indices do not incur expenses and are not available for investment.

Earnings growth is an indicator for measuring a company's success and can be the driving force behind stock price appreciation.

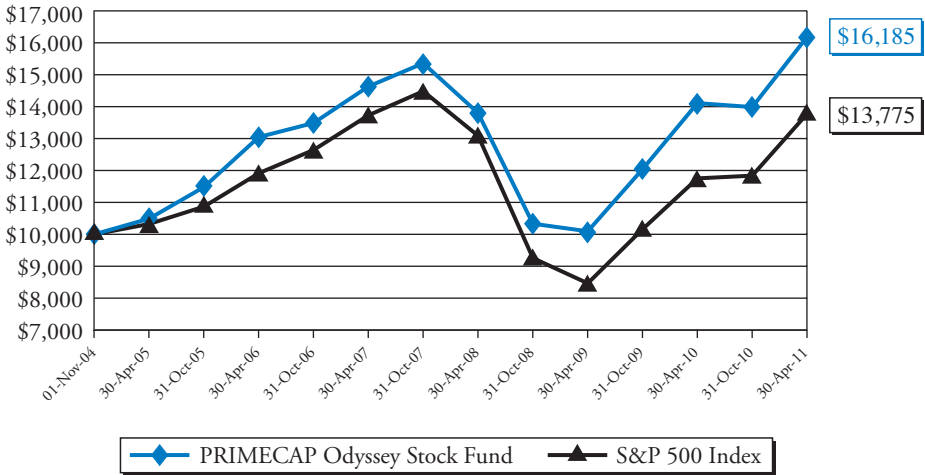
The information provided herein represents the opinions of PRIMECAP Management Company and is not intended to be a forecast of future events, a guarantee of future results, or investment advice.



Performance Graphs

PRIMECAP Odyssey Stock Fund

The following chart compares the value of a hypothetical \$10,000 investment in the PRIMECAP Odyssey Stock Fund from November 1, 2004 (inception) to April 30, 2011, compared to the S&P 500 Index. This chart illustrates the performance of a hypothetical \$10,000 investment made on the fund's inception date and is not intended to imply any future performance. The returns shown do not reflect the deduction of taxes that a shareholder would pay on fund distributions or the redemption of fund shares. The chart assumes reinvestment of capital gains and dividends.



Total Return Period Ended April 30, 2011

	1 Year	5 Year	Annualized Since Inception (11/01/04)
PRIMECAP Odyssey Stock Fund	14.70%	4.40%	7.70%
S&P 500 Index*	17.22%	2.95%	5.06%

Performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance of the fund may be lower or higher than the performance quoted. Performance data current to the most recent month end may be obtained by calling 1-800-729-2307. The fund imposes a 2% redemption fee on shares held less than 60 days.

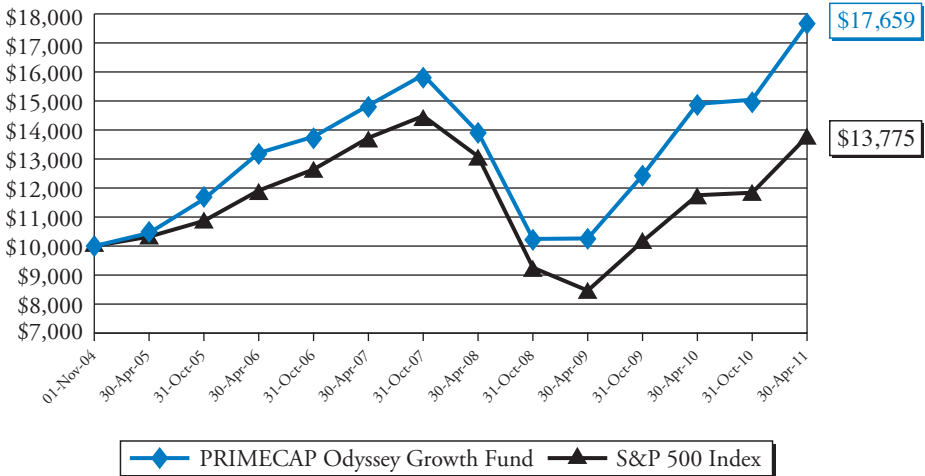
* The S&P 500 Index is an unmanaged index composed of 500 common stocks weighted by market value; its total return includes reinvestment of dividends and is considered representative of the stock market return as a whole.



Performance Graphs

PRIMECAP Odyssey Growth Fund

The following chart compares the value of a hypothetical \$10,000 investment in the PRIMECAP Odyssey Growth Fund from November 1, 2004 (inception) to April 30, 2011, compared to the S&P 500 Index. This chart illustrates the performance of a hypothetical \$10,000 investment made on the fund's inception date and is not intended to imply any future performance. The returns shown do not reflect the deduction of taxes that a shareholder would pay on fund distributions or the redemption of fund shares. The chart assumes reinvestment of capital gains and dividends.



Total Return Period Ended April 30, 2011

	1 Year	5 Year	Annualized Since Inception (11/01/04)
PRIMECAP Odyssey Growth Fund	18.51%	5.98%	9.15%
S&P 500 Index*	17.22%	2.95%	5.06%

Performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance of the fund may be lower or higher than the performance quoted. Performance data current to the most recent month end may be obtained by calling 1-800-729-2307. The fund imposes a 2% redemption fee on shares held less than 60 days.

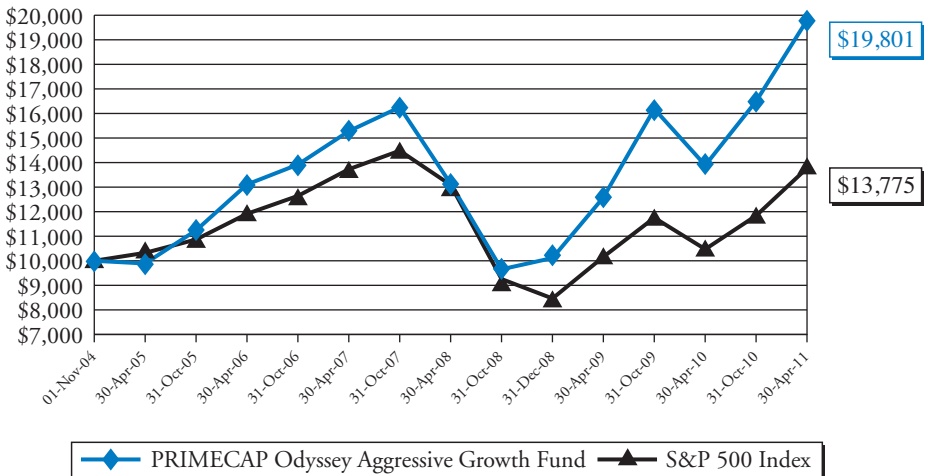
* The S&P 500 Index is an unmanaged index composed of 500 common stocks weighted by market value; its total return includes reinvestment of dividends and is considered representative of the stock market return as a whole.



Performance Graphs

PRIMECAP Odyssey Aggressive Growth Fund

The following chart compares the value of a hypothetical \$10,000 investment in the PRIMECAP Odyssey Aggressive Growth Fund from November 1, 2004 (inception) to April 30, 2011, compared to the S&P 500 Index. This chart illustrates the performance of a hypothetical \$10,000 investment made on the fund's inception date and is not intended to imply any future performance. The returns shown do not reflect the deduction of taxes that a shareholder would pay on fund distributions or the redemption of fund shares. The chart assumes reinvestment of capital gains and dividends.



Total Return Period Ended April 30, 2011

	1 Year	5 Year	Annualized Since Inception (11/01/04)
PRIMECAP Odyssey Aggressive Growth Fund	22.34%	8.60%	11.09%
S&P 500 Index*	17.22%	2.95%	5.06%

Performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance of the fund may be lower or higher than the performance quoted. Performance data current to the most recent month end may be obtained by calling 1-800-729-2307. The fund imposes a 2% redemption fee on shares held less than 60 days.

* The S&P 500 Index is an unmanaged index composed of 500 common stocks weighted by market value; its total return includes reinvestment of dividends and is considered representative of the stock market return as a whole.



Expense Example

PRIMECAP Odyssey Funds

(Unaudited)

As a shareholder of one or more of the funds, you incur ongoing costs, including management fees and other fund expenses. This expense example is intended to help you understand your ongoing costs (in dollars) of investing in the funds and to compare these costs with the ongoing costs of investing in other mutual funds.

The expense example is based on an investment of \$1,000 invested for a six month period beginning November 1, 2010 and held through April 30, 2011.

Actual Expenses

The information in the table adjacent to the heading “Actual Performance” provides actual account values and actual expenses. You may use the information in these columns, together with the amount you invested, to estimate the expenses that you paid over the period. Simply divide your account value by \$1,000 (for example, an \$8,600 account value divided by \$1,000 = 8.6), then multiply the result by the number in the column entitled “Expenses Paid during Period” to estimate the expenses you paid on your account during this period.

Hypothetical Example for Comparison Purposes

The information in the table adjacent to the heading “Hypothetical Performance (5% return before expenses)” provides hypothetical account values and hypothetical expenses based on the funds’ actual expense ratios and an assumed rate of return of 5% per year before expenses, which are not the funds’ actual returns. The hypothetical account values and expenses may not be used to estimate the actual ending account balance or expenses you paid for the period. You may use this information to compare the ongoing costs of investing in the funds and other mutual funds. To do so, compare these 5% hypothetical examples with the 5% hypothetical examples that appear in the shareholder reports of the other mutual funds.

Please note that the expenses shown in the table are meant to highlight your ongoing costs only. Therefore, the information adjacent to the heading “Hypothetical Performance (5% return before expenses)” is useful in comparing ongoing costs only and will not help you determine the relative total costs of owning different mutual funds. In addition, if transactional costs were included, your costs would have been higher.

Expense Example

PRIMECAP Odyssey Funds

(Unaudited) – *continued*

	Beginning Account Value (11/1/10)	Ending Account Value (04/30/11)	Expenses Paid During Period* (11/1/10 to 04/30/11)	Expense Ratio During Period* (11/1/10 to 04/30/11)
PRIMECAP Odyssey Stock Fund				
Actual Performance	\$1,000.00	\$1,157.20	\$3.50	0.65%
Hypothetical Performance (5% return before expenses)	\$1,000.00	\$1,021.55	\$3.28	0.65%
PRIMECAP Odyssey Growth Fund				
Actual Performance	\$1,000.00	\$1,173.90	\$3.54	0.66%
Hypothetical Performance (5% return before expenses)	\$1,000.00	\$1,021.54	\$3.29	0.66%
PRIMECAP Odyssey Aggressive Growth Fund				
Actual Performance	\$1,000.00	\$1,200.00	\$3.69	0.68%
Hypothetical Performance (5% return before expenses)	\$1,000.00	\$1,021.44	\$3.39	0.68%

* Expenses are equal to a fund's annualized expense ratio as indicated, multiplied by the average account value over the period, multiplied by the number of days in the most recent fiscal half-year period (181), then divided by the number of days in the fiscal year (365) to reflect the one-half year period.



Sector Breakdown

PRIMECAP Odyssey Funds

PRIMECAP Odyssey Stock Fund

Consumer Discretionary	8.6%
Consumer Staples	2.5%
Energy	9.7%
Financials	4.9%
Health Care	26.8%
Industrials	14.4%
Information Technology	23.2%
Materials	6.5%
Telecommunication Services	0.0%
Utilities	1.4%
Short Term Investments and Other Net Assets	2.0%
Total	100.0%

PRIMECAP Odyssey Growth Fund

Consumer Discretionary	7.0%
Consumer Staples	0.3%
Energy	6.7%
Financials	3.3%
Health Care	36.8%
Industrials	9.4%
Information Technology	29.2%
Materials	2.9%
Telecommunication Services	0.1%
Short Term Investments and Other Net Assets	4.3%
Total	100.0%

The tables above list sector allocations as a percentage of each fund's total net assets as of April 30, 2011. The management report makes reference to average allocations during the period. As a result, the sector allocations above may differ from those discussed in the management report.

Sector Breakdown

PRIMECAP Odyssey Funds

continued

PRIMECAP Odyssey Aggressive Growth Fund

Consumer Discretionary	4.7%
Consumer Staples	1.4%
Energy	4.4%
Financials	1.3%
Health Care	38.8%
Industrials	9.1%
Information Technology	33.1%
Materials	2.6%
Telecommunication Services	0.1%
Short Term Investments and Other Net Assets	4.5%
Total	100.0%

The table above lists sector allocations as a percentage of the fund's total net assets as of April 30, 2011. The management report makes reference to average allocations during the period. As a result, the sector allocations above may differ from those discussed in the management report.



Schedule of Investments

PRIMECAP Odyssey Stock Fund

April 30, 2011 (Unaudited)

Shares	Value
COMMON STOCKS – 98.0%	
Consumer Discretionary – 8.6%	
21,000 Amazon.com, Inc. (a)	\$ 4,126,500
188,700 Ascena Retail Group, Inc. (a)	5,904,423
102,600 Bed Bath & Beyond, Inc. (a)	5,757,912
200,900 CarMax, Inc. (a)	6,971,230
170,400 Collective Brands, Inc. (a)	3,578,400
64,500 DIRECTV Group, Inc. (The) (a)	3,134,055
32,200 Kohl’s Corp.	1,697,262
50,000 Limited Brands, Inc.	2,058,000
200,000 Mattel, Inc.	5,344,000
8,100 Men’s Wearhouse, Inc.	225,909
59,900 Sony Corp.- ADR.	1,695,769
96,700 TJX Cos, Inc.	5,185,054
105,000 Walt Disney Co. (The)	4,525,500
212,500 Whirlpool Corp.	<u>18,313,250</u>
	<u>68,517,264</u>
Consumer Staples – 2.5%	
190,000 Kellogg Co.	10,881,300
60,000 PepsiCo, Inc.	4,133,400
80,000 Procter & Gamble Co.	<u>5,192,000</u>
	<u>20,206,700</u>
Energy – 9.7%	
100,000 Cameco Corp.	2,948,000
85,200 Cameron International Corp. (a)	4,491,744
120,000 Cenovus Energy, Inc.	4,608,000
67,900 EOG Resources, Inc.	7,666,589
56,800 Hess Corp.	4,882,528
302,900 McDermott International, Inc. (a)	6,993,961
94,700 National Oilwell Varco, Inc.	7,262,543
50,000 Noble Energy, Inc.	4,813,500
304,000 Petroleo Brasileiro SA – ADR.	10,144,480
208,300 Range Resources Corp.	11,758,535
91,034 Schlumberger Ltd.	8,170,302
53,000 Transocean Ltd. (a)	<u>3,855,750</u>
	<u>77,595,932</u>

The accompanying notes are an integral part of these financial statements.

Schedule of Investments

PRIMECAP Odyssey Stock Fund

April 30, 2011 (Unaudited) – *continued*

Shares		Value
Financials – 4.9%		
79,000	Charles Schwab Corp. (The)	\$ 1,446,490
80,000	Chubb Corp.	5,215,200
111,100	Discover Financial Services.....	2,759,724
799,600	Marsh & McLennan Cos., Inc.	24,211,888
135,600	Mercury General Corp.	5,388,744
		<u>39,022,046</u>
Health Care – 26.8%		
8,000	Abbott Laboratories	416,320
75,000	Affymetrix, Inc. (a).....	405,000
592,400	Amgen, Inc. (a)	33,677,940
158,500	Biogen Idec, Inc. (a).....	15,429,975
227,900	Boston Scientific Corp. (a).....	1,706,971
611,000	Eli Lilly & Co.	22,613,110
473,935	GlaxoSmithKline PLC – ADR	20,692,002
447,700	Johnson & Johnson	29,422,844
668,000	Medtronic, Inc.	27,889,000
378,950	Novartis AG – ADR.....	22,422,471
237,716	Roche Holding AG – CHF	38,556,711
		<u>213,232,344</u>
Industrials – 14.4%		
23,800	Alaska Air Group, Inc. (a)	1,567,706
10,000	Alexander & Baldwin, Inc.....	527,000
160,100	AMR Corp. (a)	939,787
244,900	Arkansas Best Corp.	5,635,149
459,700	Babcock & Wilcox Co. (a).....	14,439,177
201,400	Boeing Co.	16,067,692
50,000	Canadian Pacific Railway Ltd.	3,312,000
8,300	Caterpillar, Inc.	957,903
10,000	Deere & Co.....	975,000
26,200	FedEx Corp.....	2,506,554
201,900	Honeywell International, Inc.....	12,362,337
23,500	JetBlue Airways Corp. (a)	133,010
140,000	Norfolk Southern Corp.....	10,455,200
64,300	Pall Corp.....	3,757,692
179,400	Ritchie Bros. Auctioneers, Inc.	5,609,838
100,700	Rockwell Automation, Inc.....	8,773,991
1,039,200	Southwest Airlines Co.	12,210,600
1,900	Thomas & Betts Corp. (a)	110,143

The accompanying notes are an integral part of these financial statements.

Schedule of Investments

PRIMECAP Odyssey Stock Fund

April 30, 2011 (Unaudited) – *continued*

Shares	Value
Industrials (continued)	
36,000 Union Pacific Corp.	\$ 3,724,920
140,000 United Parcel Service, Inc. – Class B	10,495,800
	<u>114,561,499</u>
Information Technology – 23.2%	
45,650 Accenture Ltd. – Class A	2,607,984
237,200 Altera Corp.	11,551,640
268,700 Applied Materials, Inc.	4,215,903
24,577 ASML Holding N.V. – ADR	1,026,336
200,000 Corning, Inc.	4,188,000
100,000 Diebold, Inc.	3,380,000
416,400 Electronic Arts, Inc. (a)	8,402,952
204,600 EMC Corp. (a)	5,798,364
4,900 Google, Inc. – Class A (a)	2,666,090
46,000 Hewlett-Packard Co.	1,857,020
260,000 Intel Corp.	6,029,400
94,700 Intuit, Inc. (a)	5,261,532
302,600 KLA-Tencor Corp.	13,284,140
1,664,700 L.M. Ericsson Telephone Co. – ADR	25,303,440
838,700 Microsoft Corp.	21,822,974
14,112 Motorola Mobility Holdings, Inc. (a)	367,759
16,128 Motorola Solutions, Inc. (a)	739,952
81,400 NeuStar, Inc. – Class A (a)	2,188,846
284,000 NVIDIA Corp. (a)	5,680,000
50,700 Oracle Corp.	1,827,735
45,900 QUALCOMM, Inc.	2,608,956
212,600 Research In Motion Ltd. (a)	10,342,990
225,800 Symantec Corp. (a)	4,436,970
787,800 Texas Instruments, Inc.	27,990,534
90,000 Visa, Inc. – Class A	7,030,800
100,000 Xilinx, Inc.	3,486,000
24,800 Yahoo!, Inc. (a)	440,200
	<u>184,536,517</u>
Materials – 6.5%	
113,600 Freeport-McMoRan Copper & Gold, Inc.	6,251,408
71,900 Monsanto Co.	4,892,076
44,100 Newmont Mining Corp.	2,584,701

The accompanying notes are an integral part of these financial statements.

Schedule of Investments

PRIMECAP Odyssey Stock Fund

April 30, 2011 (Unaudited) – *continued*

Shares	Value
Materials (continued)	
159,500 Potash Corp. of Saskatchewan, Inc.	\$ 8,992,610
298,500 Schweitzer-Mauduit International, Inc.	15,474,240
309,293 Vulcan Materials Co.	13,980,044
	<u>52,175,079</u>
Telecommunication Services – 0.0%	
56,600 Sprint Nextel Corp. (a)	<u>293,188</u>
Utilities –1.4%	
80,000 Edison International	3,141,600
50,000 NextEra Energy, Inc.	2,828,500
152,600 Public Service Enterprise Group, Inc.	4,909,142
	<u>10,879,242</u>
TOTAL COMMON STOCKS	
(Cost \$627,809,331)	<u>\$ 781,019,811</u>
SHORT TERM INVESTMENTS – 1.8%	
14,606,275 Dreyfus Treasury Prime Cash Management Fund	<u>\$ 14,606,275</u>
TOTAL SHORT TERM INVESTMENTS	
(Cost \$14,606,275)	<u>14,606,275</u>
TOTAL INVESTMENTS – 99.8%	
(Cost \$642,415,606)	795,626,086
Other Assets in Excess of Liabilities – 0.2%	<u>1,525,370</u>
TOTAL NET ASSETS – 100.0%	<u>\$ 797,151,456</u>

Percentages are stated as a percent of net assets.

ADR – American Depository Receipt.

CHF – Swiss Franc.

(a) Non-Income Producing.

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Schedule of Investments

PRIMECAP Odyssey Growth Fund

April 30, 2011 (Unaudited)

Shares	Value
COMMON STOCKS – 95.7%	
Consumer Discretionary – 7.0%	
250,000 99 Cents Only Stores (a)	\$ 5,040,000
77,900 Amazon.com, Inc. (a)	15,307,350
357,900 Ascena Retail Group, Inc. (a)	11,198,691
275,600 Bed Bath & Beyond, Inc. (a)	15,466,672
717,000 CarMax, Inc. (a)	24,879,900
80,000 Carnival Corp.	3,045,600
166,200 DIRECTV Group, Inc. (The) (a)	8,075,658
752,000 DreamWorks Animation SKG, Inc. (a)	19,920,480
228,500 Gentex Corp.	7,163,475
55,850 Kohl's Corp.	2,943,854
100,000 Limited Brands, Inc.	4,116,000
400,000 Mattel, Inc.	10,688,000
182,300 Quiksilver, Inc. (a)	793,005
252,100 Sony Corp. – ADR.	7,136,951
63,000 TJX Cos, Inc.	3,378,060
	<u>139,153,696</u>
Consumer Staples – 0.3%	
100,000 Procter & Gamble Co.	<u>6,490,000</u>
Energy – 6.7%	
140,000 Cenovus Energy, Inc.	5,376,000
104,400 EnCana Corp.	3,499,488
140,000 EOG Resources, Inc.	15,807,400
120,000 Hess Corp.	10,315,200
300,000 McDermott International, Inc. (a)	6,927,000
180,000 National Oilwell Varco, Inc.	13,804,200
80,000 Noble Energy, Inc.	7,701,600
170,000 Oceaneering International, Inc. (a)	14,861,400
187,900 Petroleo Brasileiro SA – ADR.	6,270,223
340,000 Range Resources Corp.	19,193,000
173,100 Schlumberger Ltd.	15,535,725
300,000 Southwestern Energy Co. (a)	13,158,000
	<u>132,449,236</u>

The accompanying notes are an integral part of these financial statements.

Schedule of Investments

PRIMECAP Odyssey Growth Fund

April 30, 2011 (Unaudited) – *continued*

Shares		Value
Financials – 3.3%		
533,900	Charles Schwab Corp. (The)	\$ 9,775,709
100,000	Berkshire Hathaway, Inc. – Class B (a)	8,330,000
180,000	Chubb Corp.	11,734,200
1,045,700	Marsh & McLennan Cos., Inc.	31,663,796
140,000	Progressive Corp. (The)	3,071,600
		<u>64,575,305</u>
Health Care – 36.8%		
850,000	Abiomed, Inc. (a)	14,773,000
2,705,000	Accuray, Inc. (a)	24,047,450
199,400	Affymetrix, Inc. (a)	1,076,760
1,193,300	Amgen, Inc. (a)	67,839,105
451,500	Biogen Idec, Inc. (a)	43,953,525
298,200	BioMarin Pharmaceutical, Inc. (a)	8,018,598
672,500	Boston Scientific Corp. (a)	5,037,025
1,340,100	Cepheid, Inc. (a)	43,298,631
40,000	Cerner Corp. (a)	4,807,200
2,253,728	Conceptus, Inc. (a) (b)	34,775,023
1,271,500	Dendreon Corp. (a)	55,221,245
787,200	Eli Lilly & Co.	29,134,272
88,800	GlaxoSmithKline PLC – ADR	3,877,008
270,000	Illumina, Inc. (a)	19,164,600
5,620,000	ImmunoGen, Inc. (a) (b)	75,083,200
270,000	Johnson & Johnson	17,744,400
200,000	Kinetic Concepts, Inc. (a)	11,806,000
120,000	Life Technologies Corp. (a)	6,624,000
872,300	Medtronic, Inc.	36,418,525
300,000	Momenta Pharmaceuticals, Inc. (a)	5,661,000
2,930,600	Nektar Therapeutics (a)	30,419,628
344,750	Novartis AG – ADR	20,398,858
145,000	NuVasive, Inc. (a)	4,479,050
260,000	OraSure Technologies, Inc. (a)	2,290,600
457,632	Roche Holding AG – CHF	74,226,323
4,179,600	Seattle Genetics, Inc. (a)	69,423,156
136,200	SurModics, Inc. (a)	2,092,032
168,500	Waters Corp. (a)	16,513,000
		<u>728,203,214</u>

The accompanying notes are an integral part of these financial statements.

Schedule of Investments

PRIMECAP Odyssey Growth Fund

April 30, 2011 (Unaudited) – *continued*

Shares	Value
Industrials – 9.4%	
637,000 AECOM Technology Corp. (a)	\$ 17,364,620
2,317,300 AMR Corp. (a)	13,602,551
680,000 Babcock & Wilcox Co. (a)	21,358,800
300,000 C. H. Robinson Worldwide, Inc.	24,054,000
133,600 Caterpillar, Inc.	15,418,776
187,565 Colfax Corp. (a)	4,098,295
320,000 Expeditors International Washington, Inc.	17,366,400
50,600 FedEx Corp.	4,840,902
850,150 JetBlue Airways Corp. (a)	4,811,849
107,800 Pall Corp.	6,299,832
389,000 Ritchie Bros. Auctioneers, Inc.	12,164,030
50,000 Rockwell Automation, Inc.	4,356,500
2,376,600 Southwest Airlines Co.	27,925,050
182,100 United Parcel Service, Inc. – Class B	13,652,037
	<u>187,313,642</u>
Information Technology – 29.2%	
57,850 Accenture Ltd. – Class A	3,304,970
702,500 Adobe Systems, Inc. (a)	23,568,875
200,000 Akamai Technologies, Inc. (a)	6,888,000
1,040,000 Altera Corp.	50,648,000
389,300 Applied Materials, Inc.	6,108,117
116,000 ASML Holding N.V. – ADR	4,844,160
138,000 Avid Technology, Inc. (a)	2,564,040
30,000 Cisco Systems, Inc. (a)	526,800
198,800 Corning, Inc.	4,162,872
350,100 Cree, Inc. (a)	14,263,074
37,000 Cymer, Inc. (a)	1,780,070
1,752,000 Electronic Arts, Inc. (a)	35,355,360
783,700 EMC Corp. (a)	22,210,058
2,160,000 Flextronics International Ltd. (a)	15,055,200
833,450 FormFactor, Inc. (a)	8,642,877
62,580 Google, Inc. – Class A (a)	34,049,778
530,000 GSI Commerce, Inc. (a)	15,513,100
90,000 Hewlett-Packard Co.	3,633,300
250,700 Intel Corp.	5,813,733
390,400 Intuit, Inc. (a)	21,690,624
331,300 KLA-Tencor Corp.	14,544,070
2,362,800 L.M. Ericsson Telephone Co. – ADR	35,914,560
5,500 MasterCard, Inc. – Class A.	1,517,395

The accompanying notes are an integral part of these financial statements.

Schedule of Investments

PRIMECAP Odyssey Growth Fund

April 30, 2011 (Unaudited) – continued

Shares	Value
Information Technology (continued)	
525,000 Micron Technology, Inc. (a)	\$ 5,927,250
676,300 Microsoft Corp.	17,597,326
30,737 Motorola Mobility Holdings, Inc. (a).....	801,006
35,128 Motorola Solutions, Inc. (a).....	1,611,673
195,900 NeuStar, Inc. – Class A (a).....	5,267,751
1,530,000 Nuance Communications, Inc. (a).....	31,671,000
540,000 NVIDIA Corp. (a).....	10,800,000
231,100 Oracle Corp.....	8,331,155
90,000 QUALCOMM, Inc.....	5,115,600
409,800 Rambus, Inc. (a).....	8,155,020
598,850 Research In Motion Ltd. (a).....	29,134,052
151,800 SanDisk Corp. (a).....	7,459,452
680,000 Stratasy, Inc. (a).....	36,618,000
536,400 Symantec Corp. (a).....	10,540,260
884,000 Texas Instruments, Inc.	31,408,520
200,000 Trimble Navigation Ltd. (a).....	9,368,000
265,000 Visa, Inc. – Class A	20,701,800
120,000 Xilinx, Inc.	4,183,200
	<u>577,290,098</u>
Materials – 2.9%	
470,900 Monsanto Co.	32,040,036
117,600 Potash Corp. of Saskatchewan, Inc.	6,630,288
17,250 Praxair, Inc.	1,835,745
378,200 Vulcan Materials Co.	17,094,640
	<u>57,600,709</u>
Telecommunication Services – 0.1%	
292,450 Sprint Nextel Corp. (a).....	1,514,891
TOTAL COMMON STOCKS	
(Cost \$1,492,157,673)	<u>\$1,894,590,791</u>

The accompanying notes are an integral part of these financial statements.

Schedule of Investments

PRIMECAP Odyssey Growth Fund

April 30, 2011 (Unaudited) – *continued*

Shares	Value
SHORT TERM INVESTMENTS – 4.2%	
83,064,411 Dreyfus Treasury Prime Cash Management Fund	\$ 83,064,411
TOTAL SHORT TERM INVESTMENTS	
(Cost \$83,064,411)	<u>83,064,411</u>
TOTAL INVESTMENTS – 99.9%	
(Cost \$1,575,222,084)	1,977,655,202
Other Assets in Excess of Liabilities – 0.1%	<u>1,237,973</u>
TOTAL NET ASSETS – 100.0%	<u><u>\$1,978,893,175</u></u>

Percentages are stated as a percent of net assets.

ADR – American Depository Receipt.

CHF – Swiss Franc.

(a) Non-Income Producing.

(b) Considered an affiliated company of the fund as the fund owns more than 5% of the outstanding voting securities of such company.

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Schedule of Investments

PRIMECAP Odyssey Aggressive Growth Fund

April 30, 2011 (Unaudited)

Shares	Value
COMMON STOCKS – 95.5%	
Consumer Discretionary – 4.7%	
63,000 Amazon.com, Inc. (a)	\$ 12,379,500
2,000 Bravo Brio Restaurant Group, Inc. (a)	41,280
333,400 CarMax, Inc. (a)	11,568,980
74,700 DIRECTV Group, Inc. (The) (a)	3,629,673
828,300 DreamWorks Animation SKG, Inc. (a)	21,941,667
140,000 Gentex Corp.	4,389,000
229,000 Quiksilver, Inc. (a)	996,150
	54,946,250
Consumer Staples – 1.4%	
3,413,405 Smart Balance, Inc. (a) (b)	16,316,076
Energy – 4.4%	
200,000 Cabot Oil & Gas Corp.	11,256,000
50,000 EOG Resources, Inc.	5,645,500
120,000 National Oilwell Varco, Inc.	9,202,800
84,000 Oceaneering International, Inc. (a)	7,343,280
200,000 Range Resources Corp.	11,290,000
520,000 Rex Energy Corp. (a)	6,671,600
	51,409,180
Financials – 1.3%	
605,820 MarketAxess Holdings, Inc.	14,751,717
Health Care – 38.8%	
1,533,373 Abiomed, Inc. (a)	26,650,023
2,330,000 Accuray, Inc. (a)	20,713,700
172,000 Affymetrix, Inc. (a)	928,800
205,000 Biogen Idec, Inc. (a)	19,956,750
590,300 BioMarin Pharmaceutical, Inc. (a)	15,873,167
791,700 Boston Scientific Corp. (a)	5,929,833
591,600 Cardica, Inc. (a)	2,342,736
1,172,800 Cepheid, Inc. (a)	37,893,168
1,669,750 Conceptus, Inc. (a) (b)	25,764,242
1,031,800 Dendreon Corp. (a)	44,811,074
5,625,000 Dyax Corp. (a) (b)	11,250,000
3,330,250 ImmunoGen, Inc. (a)	44,492,140
360,000 InterMune, Inc. (a)	16,070,400
198,500 Kinetic Concepts, Inc. (a)	11,717,455
706,200 Luminex Corp. (a)	13,693,218

The accompanying notes are an integral part of these financial statements.

Schedule of Investments

PRIMECAP Odyssey Aggressive Growth Fund

April 30, 2011 (Unaudited) – *continued*

Shares	Value
Health Care (continued)	
80,000 Momenta Pharmaceuticals, Inc. (a)	\$ 1,509,600
1,932,000 Nektar Therapeutics (a)	20,054,160
155,000 NuVasive, Inc. (a)	4,787,950
1,742,600 OraSure Technologies, Inc. (a)	15,352,306
1,768,339 Pharmacyclics, Inc. (a)	11,724,088
317,200 Roche Holding AG – CHF	51,448,740
2,747,300 Seattle Genetics, Inc. (a)	45,632,653
116,000 SurModics, Inc. (a)	1,781,760
	450,377,963
Industrials – 9.1%	
201,900 AECOM Technology Corp. (a)	5,503,794
195,000 Alaska Air Group, Inc. (a)	12,844,650
2,130,000 AMR Corp. (a)	12,503,100
433,700 Arkansas Best Corp.	9,979,437
140,000 C. H. Robinson Worldwide, Inc.	11,225,200
441,210 Colfax Corp. (a)	9,640,438
2,224,525 JetBlue Airways Corp. (a)	12,590,812
82,600 Pall Corp.	4,827,144
293,100 Ritchie Bros. Auctioneers, Inc.	9,165,237
582,100 Southwest Airlines Co.	6,839,675
234,000 US Airways Group, Inc. (a)	2,127,060
45,000 USA Truck, Inc. (a)	560,250
470,000 Vitran Corp, Inc. (a)	7,327,300
2,600 Zipcar, Inc. (a)	67,054
	105,201,151
Information Technology – 33.1%	
615,000 Adobe Systems, Inc. (a)	20,633,250
180,000 Akamai Technologies, Inc. (a)	6,199,200
570,000 Altera Corp.	27,759,000
247,777 ASML Holding N.V. – ADR	10,347,167
115,000 Avid Technology, Inc. (a)	2,136,700
273,500 Cree, Inc. (a)	11,142,390
96,500 Cymer, Inc. (a)	4,642,615
1,083,400 Electronic Arts, Inc. (a)	21,863,012
200,000 EMC Corp. (a)	5,668,000
270,000 FARO Technologies, Inc. (a)	11,655,900
240,000 FEI Co. (a)	7,790,400
716,300 FormFactor, Inc. (a)	7,428,031

The accompanying notes are an integral part of these financial statements.

Schedule of Investments

PRIMECAP Odyssey Aggressive Growth Fund

April 30, 2011 (Unaudited) – *continued*

Shares		Value
Information Technology (continued)		
36,600	Google, Inc. – Class A (a)	\$ 19,914,060
812,000	GSI Commerce, Inc. (a)	23,767,240
1,087,100	Guidance Software, Inc. (a)	8,685,929
275,000	Intuit, Inc. (a)	15,279,000
365,300	KLA-Tencor Corp.	16,036,670
800,000	Micron Technology, Inc. (a)	9,032,000
420,000	Monster Worldwide, Inc. (a)	6,892,200
149,200	NeuStar, Inc. – Class A (a)	4,011,988
570,000	Nuance Communications, Inc. (a)	11,799,000
326,550	NVIDIA Corp. (a)	6,531,000
311,800	Rambus, Inc. (a)	6,204,820
481,200	Research In Motion Ltd. (a)	23,410,380
5,400	Responsys, Inc. (a)	86,292
260,000	RightNow Technologies, Inc. (a)	9,406,800
83,100	SanDisk Corp. (a)	4,083,534
733,500	SMART Technologies, Inc. – Class A (a)	7,305,660
637,700	Stratasys, Inc. (a)	34,340,145
230,100	Symantec Corp. (a)	4,521,465
120,000	Trimble Navigation Ltd. (a)	5,620,800
1,104,600	Websense, Inc. (a)	28,487,634
60,000	Yahoo!, Inc. (a)	1,065,000
		<u>383,747,282</u>
Materials – 2.6%		
306,800	Monsanto Co.	20,874,672
163,200	Potash Corp. of Saskatchewan, Inc.	9,201,216
		<u>30,075,888</u>
Telecommunication Services – 0.1%		
296,700	Sprint Nextel Corp. (a)	1,536,906
		<u>1,536,906</u>
TOTAL COMMON STOCKS		
	(Cost \$852,312,143)	<u>\$1,108,362,413</u>

The accompanying notes are an integral part of these financial statements.

Schedule of Investments

PRIMECAP Odyssey Aggressive Growth Fund

April 30, 2011 (Unaudited) – *continued*

Shares	Value
SHORT TERM INVESTMENTS – 4.7%	
54,159,249 Dreyfus Treasury Prime Cash Management Fund	\$ 54,159,249
TOTAL SHORT TERM INVESTMENTS	
(Cost \$54,159,249)	<u>54,159,249</u>
TOTAL INVESTMENTS – 100.2%	
(Cost \$906,471,392)	1,162,521,662
Liabilities in Excess of Other Assets – (0.2%)	<u>(2,504,522)</u>
TOTAL NET ASSETS – 100.0%	<u><u>\$1,160,017,140</u></u>

Percentages are stated as a percent of net assets.

ADR – American Depository Receipt.

CHF – Swiss Franc.

(a) Non-Income Producing.

(b) Considered an affiliated company of the fund as the fund owns more than 5% of the outstanding voting securities of such company.

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Statements of Assets and Liabilities

PRIMECAP Odyssey Funds

April 30, 2011 (Unaudited)

	<u>PRIMECAP Odyssey Stock Fund</u>	<u>PRIMECAP Odyssey Growth Fund</u>	<u>PRIMECAP Odyssey Aggressive Growth Fund</u>
ASSETS			
Investments, at cost	\$ 642,415,606	\$ 1,575,222,084	\$ 906,471,392
Investments, at value (unaffiliated)	\$ 795,626,086	\$ 1,867,796,979	\$ 1,109,191,344
Investments, at value (affiliated) . . .	—	109,858,223	53,330,318
Receivables:			
Securities sold	1,530,067	5,606,545	1,280,723
Dividends and interest	1,453,117	2,259,133	717,842
Fund shares sold	964,781	3,704,574	3,098,456
Prepaid expenses and other assets . .	29,874	68,166	48,980
Total assets	<u>799,603,925</u>	<u>1,989,293,620</u>	<u>1,167,667,663</u>
LIABILITIES			
Payable for securities purchased . . .	878,187	7,035,137	5,333,245
Payable for fund shares repurchased	245,755	644,821	665,123
Payable to advisor (Note 6)	1,172,663	2,455,013	1,430,031
Other accrued expenses & liabilities	155,864	265,474	222,124
Total liabilities	<u>2,452,469</u>	<u>10,400,445</u>	<u>7,650,523</u>
NET ASSETS	<u>\$ 797,151,456</u>	<u>\$ 1,978,893,175</u>	<u>\$ 1,160,017,140</u>
Number of shares issued and outstanding (unlimited shares authorized, \$0.01 par value)	<u>51,508,727</u>	<u>114,756,407</u>	<u>61,741,037</u>
Net asset value, offering and redemption price per share	<u>\$ 15.48</u>	<u>\$ 17.24</u>	<u>\$ 18.79</u>
COMPONENTS OF NET ASSETS			
Paid-in capital	\$ 666,524,804	\$ 1,558,857,061	\$ 888,885,988
Undistributed net investment income	4,692,079	3,360,021	—
Accumulated net realized gain (loss) on investments	(27,329,387)	14,131,293	15,020,094
Accumulated net unrealized appreciation on investments	153,263,960	402,544,800	256,111,058
Net assets	<u>\$ 797,151,456</u>	<u>\$ 1,978,893,175</u>	<u>\$ 1,160,017,140</u>

The accompanying notes are an integral part of these financial statements.



Statements of Operations

PRIMECAP Odyssey Funds

For the Six Months Ended April 30, 2011 (Unaudited)

	PRIMECAP Odyssey Stock Fund	PRIMECAP Odyssey Growth Fund	PRIMECAP Odyssey Aggressive Growth Fund
INVESTMENT INCOME			
Income			
Dividends (net of foreign taxes withheld of \$527,635, \$756,505, and \$344,207, respectively)	\$ 8,198,292	\$ 9,239,844	\$ 2,643,575
Interest income	232	332	221
Total income	<u>8,198,524</u>	<u>9,240,176</u>	<u>2,643,796</u>
Expenses			
Advisory fees	2,175,202	4,659,976	2,680,913
Fund administration and accounting fees	163,775	356,308	201,042
Professional fees	27,349	27,738	27,388
Shareholder servicing fees	81,440	276,725	200,050
Registration fees	15,168	33,295	29,395
Custody fees	36,550	68,100	44,660
Trustee fees	14,430	14,599	14,399
Printing and mailing	9,444	36,290	30,565
Other	33,859	56,906	36,825
Total expenses	<u>2,557,217</u>	<u>5,529,937</u>	<u>3,265,237</u>
Net investment income (loss)	<u>5,641,307</u>	<u>3,710,239</u>	<u>(621,441)</u>
REALIZED AND UNREALIZED GAIN ON INVESTMENTS			
Net realized gain on investments	<u>5,469,786</u>	<u>28,600,036</u>	<u>15,097,101</u>
Change in net unrealized appreciation on investments	<u>99,906,734</u>	<u>244,879,598</u>	<u>167,701,156</u>
Net realized and unrealized gain on investments	<u>105,376,520</u>	<u>273,479,634</u>	<u>182,798,257</u>
Net increase in net assets resulting from operations . . .	<u>\$ 111,017,827</u>	<u>\$ 277,189,873</u>	<u>\$ 182,176,816</u>

The accompanying notes are an integral part of these financial statements.



Statement of Changes in Net Assets

PRIMECAP Odyssey Stock Fund

	Six Months Ended <u>April 30, 2011¹</u>	Year Ended <u>October 31, 2010</u>
INCREASE IN NET ASSETS FROM:		
OPERATIONS		
Net investment income	\$ 5,641,307	\$ 4,596,688
Net realized gain on investments	5,469,786	1,276,438
Change in net unrealized appreciation on investments	<u>99,906,734</u>	<u>52,908,147</u>
Net increase in net assets resulting from operations . . .	<u>111,017,827</u>	<u>58,781,273</u>
DISTRIBUTIONS TO SHAREHOLDERS		
FROM NET INVESTMENT INCOME	<u>(5,099,941)</u>	<u>(1,831,079)</u>
CAPITAL SHARE TRANSACTIONS		
Proceeds from shares sold	286,834,925	403,570,379
Proceeds from reinvestment of distribution	4,774,772	1,822,043
Cost of shares redeemed	(207,442,119)	(34,962,948)
Redemption fee proceeds	<u>6,436</u>	<u>7,738</u>
Net increase from capital share transactions	<u>84,174,014</u>	<u>370,437,212</u>
Total increase in net assets	190,091,900	427,387,406
NET ASSETS		
Beginning of period	<u>607,059,556</u>	<u>179,672,150</u>
End of period (includes undistributed net investment income of \$4,692,079 and \$4,150,713, respectively)	<u>\$ 797,151,456</u>	<u>\$ 607,059,556</u>
CHANGE IN CAPITAL SHARES		
Shares outstanding, beginning of period	<u>45,027,268</u>	<u>15,370,380</u>
Shares sold	20,128,907	32,259,418
Shares issued on reinvestment of distributions	341,543	144,721
Shares repurchased	<u>(13,988,991)</u>	<u>(2,747,251)</u>
Net increase in capital shares	<u>6,481,459</u>	<u>29,656,888</u>
Shares outstanding, end of period	<u>51,508,727</u>	<u>45,027,268</u>

¹ Unaudited.



Statement of Changes in Net Assets

PRIMECAP Odyssey Growth Fund

	Six Months Ended <u>April 30, 2011¹</u>	Year Ended <u>October 31, 2010</u>
INCREASE IN NET ASSETS FROM:		
OPERATIONS		
Net investment income	\$ 3,710,239	\$ 1,633,753
Net realized gain on investments	28,600,036	999,154
Change in net unrealized appreciation on investments	<u>244,879,598</u>	<u>189,779,096</u>
Net increase in net assets resulting from operations . . .	<u>277,189,873</u>	<u>192,412,003</u>
DISTRIBUTIONS TO SHAREHOLDERS		
FROM NET INVESTMENT INCOME	<u>(1,416,348)</u>	<u>(1,825,837)</u>
CAPITAL SHARE TRANSACTIONS		
Proceeds from shares sold	402,281,006	745,167,382
Proceeds from reinvestment of distribution	1,337,875	1,740,542
Cost of shares redeemed	(151,707,813)	(192,905,219)
Redemption fee proceeds	<u>42,676</u>	<u>87,258</u>
Net increase from capital share transactions	<u>251,953,744</u>	<u>554,089,963</u>
Total increase in net assets	527,727,269	744,676,129
NET ASSETS		
Beginning of period	<u>1,451,165,906</u>	<u>706,489,777</u>
End of period (including undistributed net investment income of \$3,360,021 and \$1,066,130, respectively)	<u>\$ 1,978,893,175</u>	<u>\$ 1,451,165,906</u>
CHANGE IN CAPITAL SHARES		
Shares outstanding, beginning of period	<u>98,706,971</u>	<u>57,986,448</u>
Shares sold	25,611,553	54,837,387
Shares issued on reinvestment of distributions	87,787	132,764
Shares repurchased	<u>(9,649,904)</u>	<u>(14,249,628)</u>
Net increase in capital shares	<u>16,049,436</u>	<u>40,720,523</u>
Shares outstanding, end of period	<u>114,756,407</u>	<u>98,706,971</u>

¹ Unaudited.



Statement of Changes in Net Assets

PRIMECAP Odyssey Aggressive Growth Fund

	Six Months Ended <u>April 30, 2011¹</u>	Year Ended <u>October 31, 2010</u>
INCREASE (DECREASE) IN NET ASSETS FROM: OPERATIONS		
Net investment loss	\$ (621,441)	\$ (2,543,607)
Net realized gain on investments	15,097,101	41,684,298
Change in net unrealized appreciation on investments	<u>167,701,156</u>	<u>102,743,903</u>
Net increase in net assets resulting from operations . . .	<u>182,176,816</u>	<u>141,884,594</u>
DISTRIBUTIONS TO SHAREHOLDERS FROM REALIZED GAIN ON INVESTMENTS		
	<u>(27,881,437)</u>	<u>—</u>
CAPITAL SHARE TRANSACTIONS		
Proceeds from shares sold	248,488,498	402,604,235
Proceeds from reinvestment of distribution	27,335,474	—
Cost of shares redeemed	(80,084,741)	(98,500,526)
Redemption fee proceeds	<u>34,155</u>	<u>129,280</u>
Net increase from capital share transactions	<u>195,773,386</u>	<u>304,232,989</u>
Total increase in net assets	350,068,765	446,117,583
NET ASSETS		
Beginning of period	<u>809,948,375</u>	<u>363,830,792</u>
End of period	<u>\$ 1,160,017,140</u>	<u>\$ 809,948,375</u>
CHANGE IN CAPITAL SHARES		
Shares outstanding, beginning of period	<u>50,097,938</u>	<u>29,505,941</u>
Shares sold	14,649,646	27,379,055
Shares issued on reinvestment of distributions	1,689,461	—
Shares repurchased	<u>(4,696,008)</u>	<u>(6,787,058)</u>
Net increase in capital shares	<u>11,643,099</u>	<u>20,591,997</u>
Shares outstanding, end of period	<u>61,741,037</u>	<u>50,097,938</u>

¹ Unaudited.



Financial Highlights

PRIMECAP Odyssey Stock Fund

For a capital share outstanding throughout the period

The following information should be read in conjunction with the financial statements and notes thereto appearing elsewhere in this Semiannual Report.

	Six Months Ended Apr. 30, 2011 ¹	Year Ended Oct. 31, 2010	Year Ended Oct. 31, 2009	Year Ended Oct. 31, 2008	Year Ended Oct. 31, 2007	Year Ended Oct. 31, 2006
Net asset value, beginning of period . . .	\$ 13.48	\$ 11.69	\$ 10.10	\$ 15.22	\$ 13.48	\$ 11.48
Income from investment operations:						
Net investment income	0.11	0.09 ⁵	0.10	0.06	0.07	0.03
Net realized and unrealized gain (loss) on investments	2.00	1.79	1.55	(4.99)	1.79	1.97
Total from investment operations	2.11	1.88	1.65	(4.93)	1.86	2.00
Less distributions:						
Dividends from net investment income	(0.11)	(0.09)	(0.06)	(0.07)	(0.04)	(0.00) ⁴
Distributions from realized gain	—	—	—	(0.12)	(0.08)	(0.00) ⁴
Total distributions	(0.11)	(0.09)	(0.06)	(0.19)	(0.12)	(0.00)
Redemption fee proceeds	0.00 ⁴	0.00 ⁴	0.00 ⁴	0.00 ⁴	0.00 ⁴	0.00 ⁴
Net asset value, end of period	\$ 15.48	\$ 13.48	\$ 11.69	\$ 10.10	\$ 15.22	\$ 13.48
Total return	15.72% ³	16.14%	16.55%	(32.73%)	13.88%	17.48%
Ratios/supplemental data:						
Net assets, end of period (millions) . . .	\$ 797.2	\$ 607.1	\$ 179.7	\$ 187.0	\$ 216.4	\$ 88.4
Ratio of expenses to average net assets	0.65% ²	0.71%	0.80%	0.79%	0.81%	0.99%
Ratio of net investment income to average net assets						
	1.44% ²	1.37% ⁵	0.96%	0.51%	0.59%	0.41%
Portfolio turnover rate	21.59% ³	3.35%	33.55%	9.66%	5.87%	4.09%

¹ Unaudited.

² Annualized.

³ Not Annualized.

⁴ Amount represents less than \$0.01 per share.

⁵ Investment income per share reflects a special dividend of \$0.05. Excluding the special dividend, the ratio of net investment income to average net assets would have been 0.74%.

The accompanying notes are an integral part of these financial statements.



Financial Highlights

PRIMECAP Odyssey Growth Fund

For a capital share outstanding throughout the period

The following information should be read in conjunction with the financial statements and notes thereto appearing elsewhere in this Semiannual Report.

	Six Months Ended Apr. 30, 2011 ¹	Year Ended Oct. 31, 2010	Year Ended Oct. 31, 2009	Year Ended Oct. 31, 2008	Year Ended Oct. 31, 2007	Year Ended Oct. 31, 2006
Net asset value, beginning of period . . .	\$ 14.70	\$ 12.18	\$ 10.07	\$ 15.71	\$ 13.76	\$ 11.62
Income from investment operations:						
Net investment income	0.03	0.02	0.03	0.03	0.04	0.01
Net realized and unrealized gain (loss) on investments	2.52	2.53	2.11	(5.59)	2.07	2.14
Total from investment operations	2.55	2.55	2.14	(5.56)	2.11	2.15
Less distributions:						
Dividends from net investment income	(0.01)	(0.03)	(0.03)	(0.04)	(0.02)	(0.00) ⁴
Distributions from realized gain	—	—	—	(0.04)	(0.14)	(0.01)
Total distributions	(0.01)	(0.03)	(0.03)	(0.08)	(0.16)	(0.01)
Redemption fee proceeds	0.00 ⁴	0.00 ⁴	0.00 ⁴	0.00 ⁴	0.00 ⁴	0.00 ⁴
Net asset value, end of period	\$ 17.24	\$ 14.70	\$ 12.18	\$ 10.07	\$ 15.71	\$ 13.76
Total return	17.39% ³	20.96%	21.39%	(35.55%)	15.46%	18.49%
Ratios/supplemental data:						
Net assets, end of period (millions) . . .	\$1,978.9	\$1,451.2	\$ 706.5	\$ 412.4	\$ 512.0	\$ 202.2
Ratio of expenses to average net assets	0.66% ²	0.68%	0.71%	0.71%	0.75%	0.89%
Ratio of net investment income to average net assets	0.44% ²	0.15%	0.35%	0.26%	0.30%	0.19%
Portfolio turnover rate	6.10% ³	4.93%	12.49%	12.72%	4.83%	6.87%

¹ Unaudited.

² Annualized.

³ Not Annualized.

⁴ Amount represents less than \$0.01 per share.

The accompanying notes are an integral part of these financial statements.



Financial Highlights

PRIMECAP Odyssey Aggressive Growth Fund

For a capital share outstanding throughout the period

The following information should be read in conjunction with the financial statements and notes thereto appearing elsewhere in this Semiannual Report.

	Six Months Ended Apr. 30, 2011 ¹	Year Ended Oct. 31, 2010	Year Ended Oct. 31, 2009	Year Ended Oct. 31, 2008	Year Ended Oct. 31, 2007	Year Ended Oct. 31, 2006
Net asset value, beginning of period . . .	\$ 16.17	\$ 12.33	\$ 9.46	\$ 16.03	\$ 13.92	\$ 11.24
Income from investment operations:						
Net investment loss	(0.01)	(0.05)	(0.05)	(0.06)	(0.03)	(0.02)
Net realized and unrealized gain (loss) on investments	3.16	3.89	2.92	(6.42)	2.34	2.70
Total from investment operations	3.15	3.84	2.87	(6.48)	2.31	2.68
Less distributions:						
Distributions from realized gain	(0.53)	—	—	(0.09)	(0.20)	—
Redemption fee proceeds	0.00 ⁴	0.00 ⁴	0.00 ⁴	0.00 ⁴	0.00 ⁴	0.00 ⁴
Net asset value, end of period	<u>\$ 18.79</u>	<u>\$ 16.17</u>	<u>\$ 12.33</u>	<u>\$ 9.46</u>	<u>\$ 16.03</u>	<u>\$ 13.92</u>
Total return	20.00% ³	31.14%	30.34%	(40.60%)	16.76%	23.84%
Ratios/supplemental data:						
Net assets, end of period (millions) . . .	\$1,160.0	\$ 809.9	\$ 363.8	\$ 225.4	\$ 375.2	\$ 119.9
Ratio of expenses to average net assets	0.68% ²	0.71%	0.77%	0.78%	0.78%	0.99%
Ratio of net investment loss to average net assets	(0.13%) ²	(0.45%)	(0.54%)	(0.46%)	(0.25%)	(0.33%)
Portfolio turnover rate	6.00% ³	15.34%	19.70%	24.32%	6.02%	12.30%

¹ Unaudited.

² Annualized.

³ Not Annualized.

⁴ Amount represents less than \$0.01 per share.

The accompanying notes are an integral part of these financial statements.



Notes to Financial Statements

PRIMECAP Odyssey Funds

For the Six Months Ended April 30, 2011 (Unaudited)

(1) Organization

PRIMECAP Odyssey Funds (the “Trust”) was organized on June 8, 2004 as a Delaware statutory trust and is registered as an open-end management investment company under the Investment Company Act of 1940, as amended (the “1940 Act”). The Trust is comprised of three series: PRIMECAP Odyssey Stock Fund, PRIMECAP Odyssey Growth Fund, and PRIMECAP Odyssey Aggressive Growth Fund (the “Funds”), each of which is diversified within the meaning of the 1940 Act. PRIMECAP Management Company (the “Investment Advisor”) serves as investment advisor to the Funds. Each Fund commenced operations on November 1, 2004.

Each Fund’s investment objective is to provide long-term capital appreciation. Each Fund is authorized to issue unlimited shares of beneficial interest. All shares within each Fund have equal rights with respect to voting.

(2) Significant Accounting Policies

The Funds consistently follow the accounting policies set forth below which are in conformity with accounting principles generally accepted in the United States of America.

A. *Security Valuation.*

Securities traded on a national securities exchange are valued at the last reported sales price at the close of regular trading on each day the exchanges are open for trading. Securities listed on the NASDAQ Global Market, the NASDAQ Global Select Market, and the NASDAQ Capital Market are valued using the NASDAQ Official Closing Price, which may not necessarily represent the last sale price. Quotations of foreign securities in a foreign currency are valued daily in U.S. dollars on the basis of the foreign currency exchange rates prevailing at the time such valuation is determined. Foreign currency exchange rates generally are determined prior to the close of the New York Stock Exchange (the “NYSE”). Securities traded on an exchange for which there have been no sales are valued at the mean between the bid and asked price. Securities for which quotations are not readily available are stated at their respective fair values as determined in good faith by a valuation committee of the Investment Advisor in accordance with procedures approved by the Trust’s board of trustees. In determining fair value, the Funds take into account all relevant factors and available information. Consequently, the price of a security used by a Fund to calculate its net asset value per share (“NAV”) may differ from quoted or published prices for the same security. Fair value pricing involves subjective judgments, and there is no single standard for determining a security’s fair value. As a result, different mutual funds could reasonably arrive at a different fair value for the same security. It is possible that the fair value determined for a security is materially different from the value that could be realized upon the sale of that security or from the values that other mutual funds may determine.

Investments in other funds are valued at their respective net asset values as determined by those funds, in accordance with the 1940 Act.

Notes to Financial Statements

PRIMECAP Odyssey Funds

For the Six Months Ended April 30, 2011 (Unaudited) – *continued*

Foreign securities are recorded in the financial statements after their prices are converted to U.S. dollars based on the applicable exchange rate at the end of the period. The Funds do not isolate that portion of the results of operations arising as a result of changes in the currency exchange rate from the fluctuations arising as a result of changes in the market prices of investments during the period.

B. *Share Valuation.*

The net asset value per share (“NAV”) of a Fund is calculated by dividing the sum of the value of the securities held by the Fund, plus cash or other assets, minus all liabilities (including estimated accrued expenses), by the total number of shares outstanding of the Fund. The result is rounded to the nearest cent. The Funds’ shares will not be priced on the days on which the NYSE is closed for trading.

C. *Foreign Currency.*

Values of investments denominated in foreign currencies are converted into U.S. dollars using the spot market rate of exchange at the time of valuation. Purchases and sales of investments and dividend and interest income are converted into U.S. dollars using the spot market rate of exchange prevailing on the respective dates of such translations. The gain or loss resulting from changes in foreign exchange rates is included with net realized and unrealized gain or loss from investments, as appropriate. Foreign securities and currency transactions may involve certain considerations and risks not typically associated with those of domestic origin.

D. *Federal Income Taxes.*

Each Fund has elected to be treated as a “regulated investment company” under Subchapter M of the Internal Revenue Code (the “IRC”). The Funds intend to distribute substantially all of their taxable income and any capital gains in excess of applicable capital loss carryforwards. Accordingly, no provision for Federal income taxes has been made in the accompanying financial statements.

The Funds may be subject to foreign taxes on income, gains on investments, or currency repatriation, a portion of which may be recoverable. The Funds will accrue such taxes and recoveries as applicable based upon their current interpretations of the tax rules and regulations that exist in the markets in which they invest.

Each Fund has adopted accounting standards regarding recognition and measurement of tax positions taken on a tax return. No material uncertain tax positions existed in any Fund as of April 30, 2011. As of April 30, 2011, open tax years include the tax years ended October 31, 2007 through 2010. The Funds are also not aware of any tax positions for which it is reasonably possible that the total amounts of unrecognized tax benefits will significantly change in the next six months. The Funds recognize interest and penalties, if any, related to unrecognized tax benefits as income tax expense in the Statement of Operations. During the period, the Funds did not incur any interest or penalties.

Notes to Financial Statements

PRIMECAP Odyssey Funds

For the Six Months Ended April 30, 2011 (Unaudited) – *continued*

E. Allocation of Expenses.

Each Fund is charged for those expenses directly attributable to it. Expenses that are not directly attributable to a Fund are allocated among the Funds by an appropriate method based on the nature of the expense.

F. Security Transactions, Investment Income, and Distributions.

Security transactions are accounted for on the trade date. Dividend income and distributions to shareholders are recorded on the ex-dividend date, and interest income is recognized on the accrual basis. Realized gains and losses are evaluated on the basis of identified costs. Premiums and discounts on the purchase of securities are amortized/accreted using the effective interest method. Accounting principles generally accepted in the United States of America require that permanent financial reporting and tax differences be reclassified in the capital accounts.

G. Use of Estimates.

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates.

H. Indemnification Obligations.

Under the Trust's organizational documents, its current and former officers and trustees are indemnified against certain liabilities arising out of the performance of their duties to the Funds. In addition, in the normal course of business, the Funds enter into contracts that contain a variety of representations and warranties that provide general indemnifications. The Funds' maximum exposure under these arrangements is unknown as this would involve future claims that may be made against the Funds that have not yet occurred. Based on experience, the Funds would expect the risk of loss to be remote.

(3) Investment Transactions

The cost of purchases and the proceeds from sales of securities, excluding short-term investments, for the six months ended April 30, 2011 were as follows:

<u>Fund</u>	<u>Purchases</u>	<u>Sales</u>
PRIMECAP Odyssey Stock Fund	\$ 273,364,665	\$ 151,875,851
PRIMECAP Odyssey Growth Fund	\$ 333,401,133	\$ 97,992,279
PRIMECAP Odyssey Aggressive Growth Fund	\$ 216,927,173	\$ 54,691,138

Notes to Financial Statements

PRIMECAP Odyssey Funds

For the Six Months Ended April 30, 2011 (Unaudited) – *continued*

(4) Fair Value of the Financial Instruments

The Funds have adopted fair valuation accounting standards which establish an authoritative definition of fair value and set forth a hierarchy for measuring fair value. These standards require additional disclosure about the various inputs and valuation techniques used to develop the measurements of fair value and a discussion of changes in valuation techniques and related inputs during the period. These standards define fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants on the measurement date. The fair value hierarchy is organized into three levels based upon the assumptions (referred to as “inputs”) used to value the asset or liability. These standards state that “observable inputs” reflect the assumptions that market participants would use in valuing an asset or liability based on market data obtained from independent sources. “Unobservable inputs” reflect the entity’s own assumptions about the inputs market participants would use to value the asset or liability.

Various inputs are used in determining the value of each Fund’s investments. These inputs are summarized in the three broad levels below:

- Level 1 – Unadjusted quoted prices in active markets for identical securities to which the trust has access at the date of measurement.
- Level 2 – Other significant observable inputs (including quoted prices for similar or related securities in both active and inactive markets, interest rates, foreign exchange rates, and fair value estimates for foreign securities indices).
- Level 3 – Significant unobservable inputs to the extent observable inputs are unavailable (including the Funds’ own assumptions in determining fair value of investments based on the best available information).

Notes to Financial Statements

PRIMECAP Odyssey Funds

For the Six Months Ended April 30, 2011 (Unaudited) – *continued*

The following table provides the fair value measurements of applicable Fund assets by level within the fair value hierarchy for each Fund as of April 30, 2011. There were no significant transfers into or out of Level 1 and Level 2 during the reporting period. These assets are measured on a recurring basis.

<u>Fund</u>	<u>Description</u>	<u>Quoted prices in active markets for identical assets (Level 1)</u>	<u>Significant other observable inputs (Level 2)</u>	<u>Significant unobservable inputs (Level 3)</u>	<u>Total</u>
PRIMECAP Odyssey Stock Fund	Equity				
	Common Stock	\$ 781,019,811	\$ —	\$ —	\$ 781,019,811
	Total Equity	\$ 781,019,811	\$ —	\$ —	\$ 781,019,811
	Short-Term Investments	\$ 14,606,275	\$ —	\$ —	\$ 14,606,275
	Total Investments in Securities	\$ 795,626,086	\$ —	\$ —	\$ 795,626,086
PRIMECAP Odyssey Growth Fund	Equity				
	Common Stock	\$1,894,590,791	\$ —	\$ —	\$1,894,590,791
	Total Equity	\$1,894,590,791	\$ —	\$ —	\$1,894,590,791
	Short-Term Investments	\$ 83,064,411	\$ —	\$ —	\$ 83,064,411
	Total Investments in Securities	\$1,977,655,202	\$ —	\$ —	\$1,977,655,202
PRIMECAP Odyssey Aggressive Growth Fund	Equity				
	Common Stock	\$1,108,362,413	\$ —	\$ —	\$1,108,362,413
	Total Equity	\$1,108,362,413	\$ —	\$ —	\$1,108,362,413
	Short-Term Investments	\$ 54,159,249	\$ —	\$ —	\$ 54,159,249
	Total Investments in Securities	\$1,162,521,662	\$ —	\$ —	\$1,162,521,662

Refer to each Fund's respective Schedule of Investments for the breakdown of major categories.

(5) Distribution to Shareholders

Net investment income and net realized gains differ for financial statement and tax purposes due to differing treatments of deferred wash sale losses.

Notes to Financial Statements

PRIMECAP Odyssey Funds

For the Six Months Ended April 30, 2011 (Unaudited) – *continued*

As of October 31, 2010, the components of capital on a tax basis were as follows:

	<u>PRIMECAP Odyssey Stock Fund</u>	<u>PRIMECAP Odyssey Growth Fund</u>	<u>PRIMECAP Odyssey Aggressive Growth Fund</u>
Cost of investments for tax purposes ⁽¹⁾	\$ 562,380,581	\$ 1,297,133,832	\$ 722,523,447
Gross tax unrealized appreciation.	79,683,082	260,985,245	164,880,361
Gross tax unrealized depreciation.	(29,846,067)	(107,360,252)	(76,515,282)
Net tax unrealized appreciation.	<u>\$ 49,837,015</u>	<u>\$ 153,624,993</u>	<u>\$ 88,365,079</u>
Undistributed ordinary income.	\$ 4,150,713	\$ 1,066,130	\$ —
Undistributed long-term capital gain	<u>—</u>	<u>—</u>	<u>27,849,253</u>
Total distributable earnings.	<u>\$ 4,150,713</u>	<u>\$ 1,066,130</u>	<u>\$ 27,849,253</u>
Other accumulated loss.	<u>\$ (29,278,962)</u>	<u>\$ (10,428,534)</u>	<u>\$ —</u>
Total accumulated gain.	<u>\$ 24,708,766</u>	<u>\$ 144,262,589</u>	<u>\$ 116,214,332</u>

⁽¹⁾ At October 31, 2010, the basis of investments for federal income tax purposes differs from the cost for financial reporting purposes due to the tax deferral of losses on wash sales.

At October 31, 2010, the PRIMECAP Odyssey Stock Fund and PRIMECAP Odyssey Growth Fund had capital loss carryovers of \$29,278,962 and \$10,428,534, respectively, of which \$3,593,931 and \$689,857 expire on October 31, 2016, and \$25,685,031 and \$9,738,677 expire on October 31, 2017, respectively.

Tax components of dividends paid during the six months ended April 30, 2011 and the year ended October 31, 2010 were as follows:

	<u>April 30, 2011</u>	
	<u>Ordinary Income Distributions</u>	<u>Long-Term Capital Gain Distributions</u>
PRIMECAP Odyssey Stock Fund	\$ 5,099,941	\$ —
PRIMECAP Odyssey Growth Fund	\$ 1,416,348	\$ —
PRIMECAP Odyssey Aggressive Growth Fund	\$ —	\$ 27,881,437

Notes to Financial Statements

PRIMECAP Odyssey Funds

For the Six Months Ended April 30, 2011 (Unaudited) – *continued*

	October 31, 2010	
	Ordinary Income Distributions	Long-Term Capital Gain Distributions
PRIMECAP Odyssey Stock Fund	\$ 1,831,079	\$ —
PRIMECAP Odyssey Growth Fund	\$ 1,825,837	\$ —
PRIMECAP Odyssey Aggressive Growth Fund	\$ —	\$ —

The Funds designated as long-term capital gain dividends, pursuant to Internal Revenue Code Section 852(b)(3), the amounts necessary to reduce the earnings and profits of the Funds related to net capital gains to zero for the tax year ended October 31, 2010.

In December 2010, the Regulated Investment Company Modernization Act (the “RIC Act”) was enacted by Congress and signed into law. Under the RIC Act, new capital losses may be carried forward indefinitely and retain the character of the original loss. The RIC Act, among other things, also contains provisions aimed at preventing disqualification under the IRC for inadvertent failures to comply with the asset diversification and qualifying income tests, exempts RICs from the preferential dividend rule, and repeals the 60-day designation requirement for certain pay-through income and gains. Most of the provisions of the RIC Act will apply to the Funds beginning in the 2013 fiscal year. Management is evaluating the implications of the RIC Act, if any, and the impact on the Funds’ financial statements is being assessed.

(6) Investment Advisory and Other Agreements

The Trust has entered into an investment management agreement with the Investment Advisor on behalf of each Fund. Under the terms of the agreement, each of the Funds will pay a fee equal to the following annual percentages of average net assets:

	For the First \$100,000,000 Per Fund	Assets in Excess of \$100,000,000 Per Fund
PRIMECAP Odyssey Stock Fund	0.60%	0.55%
PRIMECAP Odyssey Growth Fund	0.60%	0.55%
PRIMECAP Odyssey Aggressive Growth Fund	0.60%	0.55%

The Bank of New York Mellon Corporation serves as the Funds’ custodian. U.S. Bancorp Fund Services, LLC (“USBFS”) serves as the administrator, fund accountant, and transfer agent to the Funds. Quasar Distributors, LLC, an affiliate of USBFS, serves as the Funds’ distributor.

Notes to Financial Statements

PRIMECAP Odyssey Funds

For the Six Months Ended April 30, 2011 (Unaudited) – *continued*

(7) Other Affiliates

Certain of the Funds' investments are in companies that are considered to be affiliated companies of a Fund because the Fund owns more than 5% of the outstanding voting securities of the company. Transactions during the period in securities of these companies were as follows:

PRIMECAP Odyssey Growth Fund

<u>Common Stock</u>	<u>Market Value as of October 31, 2010</u>	<u>Current Period Transactions</u>				<u>Market Value at April 30, 2011</u>
		<u>Purchases at Cost</u>	<u>Proceeds from Securities Sold</u>	<u>Dividend Income</u>	<u>Realized Gain (Loss)</u>	
Conceptus, Inc.	31,457,075	591,600	—	—	—	34,775,023
ImmunoGen, Inc.	46,196,400	—	—	—	—	75,083,200
Total	<u>\$77,653,475</u>	<u>\$ 591,600</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>\$ 109,858,223</u>

PRIMECAP Odyssey Aggressive Growth Fund

<u>Common Stock</u>	<u>Market Value as of October 31, 2010</u>	<u>Current Period Transactions</u>				<u>Market Value at April 30, 2011</u>
		<u>Purchases at Cost</u>	<u>Proceeds from Securities Sold</u>	<u>Dividend Income</u>	<u>Realized Gain (Loss)</u>	
Conceptus, Inc.	21,382,497	2,269,604	—	—	—	25,764,242
Dyax, Corp	11,223,647	2,036,300	—	—	—	11,250,000
Smart Balance, Inc.	11,433,670	729,968	—	—	—	16,316,076
Total	<u>\$44,039,814</u>	<u>\$ 5,035,872</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>\$ 53,330,318</u>

(8) Subsequent Events

The funds have evaluated subsequent events through the issuance of the financial statements and determined that no events have occurred that require disclosure.



Additional Information

PRIMECAP Odyssey Funds

(Unaudited)

Proxy Voting Procedures

The Investment Advisor votes proxies relating to portfolio securities in accordance with procedures that have been approved by the Trust's board of trustees. You may obtain a description of these procedures, free of charge, by calling toll-free 1-800-729-2307. This information is also available through the Securities and Exchange Commission's ("SEC") website at <http://www.sec.gov>.

Proxy Voting Record

Information regarding how the Funds voted proxies relating to the portfolio securities during the most recent 12-month period ended June 30 is available without charge, upon request, by calling toll-free 1-800-729-2307. This information is also available through the SEC's website at <http://www.sec.gov>.

Form N-Q Disclosure

The Trust files its complete schedules of each Fund's portfolio holdings with the SEC for the first and third quarters of each fiscal year on Form N-Q. The Trust's Forms N-Q are available on the SEC's website at <http://www.sec.gov>. The Trust's Forms N-Q may be reviewed and copied at the Commission's Public Reference Room in Washington, DC, and information on the operation of the Public Reference Room may be obtained by calling 1-800-SEC-0330. This information is also available, without charge, by calling toll-free 1-800-729-2307.



Management

PRIMECAP Odyssey Funds

(Unaudited)

Portfolio Managers

PRIMECAP Management Company has five portfolio managers who together have more than 180 years of investment experience. Each of these five individuals manages a portion of the PRIMECAP Odyssey Stock Fund and the PRIMECAP Odyssey Growth Fund. The PRIMECAP Odyssey Aggressive Growth Fund is primarily managed by Messrs. Schow, Kolokotronis, Fried, and Mordecai. A small portion of each Fund's assets may be managed by individuals in the Investment Advisor's research department. The portfolio managers primarily responsible for overseeing the Funds' investments are:

Name	Years of Experience
Howard B. Schow	55
Mitchell J. Milius	47
Theo A. Kolokotronis	41
Joel P. Fried	26
Alfred W. Mordecai	14

Officers and Trustees

The Trust's officers, who administer the Funds' daily operations, are appointed by the board of trustees. The trustees are responsible for the overall management of the Trust, including establishing the Funds' policies and general supervision and review of their investment activities. The Statement of Additional Information includes additional information about the Trust's trustees and is available, without charge, by calling 1-800-729-2307 or at the Funds' website at <http://www.odysseyfunds.com>.

Executive Officers. The table below sets forth certain information about each of the Trust's executive officers.

Name, Address (Year of Birth)	Position(s) Held with Trust	Term of Office; Length of Time Served	Principal Occupation(s) During Past 5 Years
Howard B. Schow 225 South Lake Ave. Pasadena, CA 91101-3005 (1927)	Co-Chief Executive Officer	Indefinite; Since 09/04	Chairman Emeritus, Director, Portfolio Manager, and Principal PRIMECAP Management Company
Theo A. Kolokotronis 225 South Lake Ave. Pasadena, CA 91101-3005 (1946)	Co-Chief Executive Officer	Indefinite; Since 09/04	Vice-Chairman, Director, Portfolio Manager, and Principal PRIMECAP Management Company

Management

PRIMECAP Odyssey Funds

(Unaudited) – *continued*

Name, Address (Year of Birth)	Position(s) Held with Trust	Term of Office; Length of Time Served	Principal Occupation(s) During Past 5 Years
Joel P. Fried 225 South Lake Ave. Pasadena, CA 91101-3005 (1962)	Co-Chief Executive Officer and Trustee	Indefinite; Since 09/04	President, Director, Portfolio Manager, and Principal PRIMECAP Management Company
Michael J. Ricks 225 South Lake Ave. Pasadena, CA 91101-3005 (1977)	Chief Financial Officer, Chief Administrative Officer, and Secretary	Indefinite; Since 03/11	Director of Fund Administration, PRIMECAP Management Company (Since 2011); Vice President, Fund Administration and Compliance, U.S. Bancorp Fund Services, LLC (2001-2011)
Karen Chen 225 South Lake Ave. Pasadena, CA 91101-3005 (1973)	Vice President of Compliance and Chief Compliance Officer and AML Officer	Indefinite; Since 10/04	Chief Compliance Officer, Director of Compliance and Reporting PRIMECAP Management Company

“Independent” Trustees. The table below sets forth certain information about each of the trustees of the Trust who is not an “interested person” of the Trust as defined in the 1940 Act (“Independent Trustees”).

Name, Address (Year of Birth)	Position(s) Held with Trust	Term of Office; Length of Time Served	Principal Occupation(s) During Past 5 Years	Number of Portfolios in Fund Complex by Trustee ¹	Other Director- ships Held by Trustee
Benjamin F. Hammon 225 South Lake Ave. Pasadena, CA 91101-3005 (1935)	Chairman of the Board and Trustee	Indefinite; Since 09/04	Retired; Director, Institutional Equity Sales, Salomon Smith Barney Inc. (1963-1998)	3	None
Wayne H. Smith 225 South Lake Ave. Pasadena, CA 91101-3005 (1941)	Chairman of the Audit Committee and Trustee	Indefinite; Since 09/04	Retired; President, Wayne H. Smith Consulting, Inc. (2002- 2007); Vice President, Financial Services, Avery Dennison Corporation (2001-2002); Vice President, Financial Services, and Treasurer, Avery Dennison Corporation (1999- 2001)	3	None

Management

PRIMECAP Odyssey Funds

(Unaudited) – *continued*

Name, Address (Year of Birth)	Position(s) Held with Trust	Term of Office; Length of Time Served	Principal Occupation(s) During Past 5 Years	Number of Portfolios in Fund Complex by Trustee ¹	Other Director- ships Held by Trustee
Joseph G. Uzelac 225 South Lake Ave. Pasadena, CA 91101-3005 (1944)	Trustee	Indefinite; Since 10/07	Retired; Managing Director, Lehman Brothers Global Investment Bank (1988-2007)	3	None
Elizabeth D. Obershaw 225 South Lake Ave. Pasadena, CA 91101-3005 (1960)	Trustee	Indefinite; Since 06/08	Managing Director, Horsley Bridge Partners, a California- based investment advisor (2007-present); Vice President and Chief Investment Officer, Hewlett-Packard Company (1991-2007); Hewlett-Packard Company (1983-1991)	3	None

¹ Fund Complex includes any funds, series of funds, or trusts that share the same advisor or that hold themselves out to investors as related companies.

“Interested” Trustees. The table below sets forth certain information about each of the trustees of the Trust who is an “interested person” of the Trust as defined by the 1940 Act.

Name, Address (Year of Birth)	Position(s) Held with Trust	Term of Office; Length of Time Served	Principal Occupation(s) During Past 5 Years	Number of Portfolios in Fund Complex by Trustee ¹	Other Director- ships Held by Trustee
Joel P. Fried ² 225 South Lake Ave. Pasadena, CA 91101-3005 (1962)	Co-Chief Executive Officer and Trustee	Indefinite; Since 09/04	President, Director, Portfolio Manager, and Principal PRIMECAP Management Company	3	None

¹ Fund Complex includes any funds, series of funds, or trusts that share the same advisor or that hold themselves out to investors as related companies.

² Mr. Fried is an “interested person” of the Trust, as defined by the 1940 Act, because of his employment with PRIMECAP Management Company, the investment advisor to the Trust.

Investment Advisor
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This report is intended for the shareholders of the PRIMECAP Odyssey Funds and may not be used as sales literature unless preceded or accompanied by a current prospectus.

Past performance results shown in this report should not be considered a representation of future performance. Share price and returns will fluctuate so that shares, when redeemed, may be worth more or less than their original cost. Statements and other information herein are dated and are subject to change.

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