CALAMOS STRATEGIC TOTAL RETURN FUND Form N-CSR December 21, 2010

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549 FORM N-CSR

CERTIFIED SHAREHOLDER REPORT OF REGISTERED MANAGEMENT INVESTMENT COMPANIES

INVESTMENT COMPANY ACT FILE NUMBER: 811-21484

EXACT NAME OF REGISTRANT AS SPECIFIED IN CHARTER: Calamos Strategic Total Return Fund

ADDRESS OF PRINCIPAL

2020 Calamos Court, Naperville,

EXECUTIVE OFFICES:

Illinois 60563-2787

NAME AND ADDRESS OF AGENT

John P. Calamos, Sr., President

FOR SERVICE:

Calamos Advisors LLC 2020 Calamos Court Naperville, Illinois

60563-2787

REGISTRANT S TELEPHONE NUMBER, INCLUDING AREA CODE: (630) 245-7200

DATE OF FISCAL YEAR END: October 31, 2010

DATE OF REPORTING PERIOD: November 1, 2009 through October 31, 2010

ITEM 1. REPORTS TO SHAREHOLDERS

Include a copy of the report transmitted to stockholders pursuant to Rule 30e-1 under the Act (17 CFR 270. 30e-1).

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About Calamos Investments

For more than 30 years, we have helped investors like you manage and build wealth to meet their long-term individual objectives by working to capitalize on the opportunities of the evolving global marketplace. We launched our first open-end mutual fund in 1985 and our first closed-end fund in 2002. Today, we manage five closed-end funds. Three are enhanced fixed-income offerings, which pursue high current income from income and capital gains. Two are total-return oriented offerings, which seek current income, with increased emphasis on capital gains potential. Calamos Strategic Total Return Fund (CSQ), falls into this category. Please see page 4 for a more detailed overview of our closed-end offerings.

We are dedicated to helping our clients build and protect wealth. We understand when you entrust us with your assets, you also entrust us with your achievements, goals and aspirations. We believe we best honor this trust by making investment decisions guided by integrity, by discipline, and by our conscientious research.

We believe that an active, risk-conscious approach is essential for wealth creation. In the 1970s, we pioneered low-volatility equity strategies, which seek to participate in equity market upside and mitigate some of the potential risks of equity market volatility. Our investment process seeks to manage risk at multiple levels and draws upon our experience investing through multiple market cycles.

We have a global perspective. We believe that globalization offers tremendous opportunities for countries and companies all over the world. In our view, this creates significant opportunities for investors. In our U.S., global and international portfolios, we are seeking to capitalize on the potential growth of the global economy.

We believe there are opportunities in all markets. Our history traces back to the 1970s, a period of significant volatility and economic concerns. We have invested through multiple market cycles, each with its own challenges. Out of this experience comes our belief that the flipside of volatility is opportunity.

Letter to Shareholders

JOHN P. CALAMOS, SR.

Chairman, CEO/Co-CIO

Dear Fellow Shareholder:

Welcome to your annual report for the year ended October 31, 2010. On behalf of the team here at Calamos, I appreciate the opportunity to correspond with you. I invite you to review this report, which includes market commentary and other insights from the investment team. This report also includes a listing of portfolio holdings, financial data and highlights, as well as detailed information about the performance and asset allocation of your Fund.

As we will discuss at greater length in the commentary beginning on page 5, the Fund provided a steady stream of monthly distributions, as well as a total return that outpaced the broad equity market, as represented by the S&P 500 Index, a broad measure of the U.S. stock market. We believe that this speaks to the merits of our innovative risk-conscious approach to pursuing total return and income particularly given the persistently low interest rates in many areas of the fixed-income market.

CSQ provided a steady distribution stream and gained more than the S&P 500 Index during the reporting period. To us, this demonstrates the benefits of including income-oriented total return strategy within a long-term asset allocation.

A Focus on Steady Distributions

In this Fund, we employ a level rate distribution policy. This means that we endeavor to keep distributions consistent from month to month. We do this because we understand that many of our investors may prefer a steady stream of distributions, rather than distributions that fluctuate monthly. We therefore take a longer-term approach to setting the monthly distribution rate. We and the Fund s Board of Trustees are steadfast in our commitment to providing a distribution that we believe is sustainable over the long term. We monitor the investment environment on an ongoing basis to ensure that the distribution rate is appropriate given the market opportunity.

Our Use of Leverage

We believe that this is an environment that is conducive to the prudent use of leverage, as a means of enhancing total return and supporting the Fund s distribution rate. During the period, our use of leverage enhanced returns. We were able to borrow at attractive rates,

CALAMOS STRATEGIC TOTAL RETURN FUND ANNUAL REPORT

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Letter to Shareholders

invest the proceeds and achieve a greater return than the cost of leverage. We intend to judiciously use leverage, provided that we believe it will benefit shareholders.

The Economic and Market Environment

The S&P 500 Index posted a strong return of 16.52% during the year. Convertible securities and high-yield bonds joined equity markets in their advance over the reporting period. Convertible securities gained 20.66%, as measured by the BofA ML All U.S. Convertibles Ex-Mandatory Index, while the Credit Suisse High Yield Index gained 18.47%. Within the convertible market, valuations continued to improve alongside a rising equity market, but remain attractive on the whole. In the high-yield market, investors—thirst for yield in a global low interest rate environment has helped elevate prices, as has a massive amount of new issuance, strong corporate results and the slowing pace of defaults. Against this backdrop, the lowest-quality issues performed with particular strength. We, however, believe that a more prudent approach is appropriate given our long-term focus and the potential for slower economic recovery. We intend to continue with our more conservative credit selection process.

Although the equity, high-yield and convertible markets posted solid gains, the annual period was also notable for its volatility. Investors focused on economic concerns in European markets, such as Greece, and the potential for ripple effects across other economies. Unemployment and a slower economic recovery in the U.S. also remained at the forefront of investors—considerations, as did the potential impact of health care legislation, stimulus spending, the deficit, additional quantitative easing (the practice of printing more money to stimulate spending), the election cycle and tax policy.

Yet, there were many positive developments. We have seen encouraging signs of global rebalancing: rebounding global trade, an increase in consumption and growth from emerging markets, and increased exports and deleveraging from developed markets. We ve also seen a significant recovery in the velocity of money in the U.S. (a key measure of how rapidly money is flowing through the economy and a gauge of economic activity).

Staying Focused On Opportunity

I often have the privilege of speaking with investors in our funds, and I know that uncertainty and volatility are never comfortable. However, I have been investing for more than 40 years, first for my family and then for my clients. In all these years, I have yet to see a normal environment. To me, what this means is that volatility and uncertainty aren t reasons for staying on the sidelines they are instead reasons for taking a risk-conscious, thorough and long-term approach, which is what the investment team at Calamos does. As we assess the current environment, our team continues to find attractively valued securities. In particular, valuations in larger-capitalization growth-oriented stocks are more attractive than I ve seen in more than 20 years.

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Letter to Shareholders

The Importance of Global Perspective

We believe that investors should think more globally than ever before. Our investment team is extremely excited about the investment potential that globalization has created. While we are seeing more moderate growth in the U.S. economy, more rapid growth is occurring elsewhere, particularly in some of the developing markets, such as India and China. There are many powerful secular trends that we believe will drive global growth in decades to come. One of the most far-reaching is the growth of a middle class in developing markets. This mega-trend has tremendous implications for infrastructure building, and consumer spending, among other factors. The growth in global economies is something that all countries can participate in, including U.S. companies.

In this Fund, we are emphasizing U.S. companies with global strategies and geographically diversified revenues to take advantage of a growing global economy. We are also emphasizing companies with reliable debt servicing, respectable balance sheets and prospects for sustainable growth. We utilize exacting proprietary credit research to balance risk and reward considerations.

We hope this report provides you a meaningful update about your investment in CSQ. If you would like any information about the Fund or our other closed-end offerings, please contact your financial advisor or our client services team at 800.582.6959 (Monday through Friday from 8:00 a.m. to 6:00 p.m., Central Time). You can also visit us at www.calamos.com.

We are honored that you have chosen Calamos to help you achieve your investment goals. We look forward to serving your needs in the years to come.

Sincerely,

John P. Calamos, Sr. Chairman, CEO and Co-CIO Calamos Advisors LLC

This report is for informational purposes only and should not be considered investment advice.

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The Calamos Closed-End Funds: An Overview

In our closed-end funds, we draw upon decades of investment experience, including a long history of opportunistically blending asset classes in an attempt to capture upside potential while managing downside risk. We launched our first closed-end fund in 2002.

Closed-end funds are long-term investments. Most focus on providing monthly distributions, but there are important differences among individual closed-end funds. Calamos closed-end funds can be grouped into two broad categories: (1) enhanced fixed income and (2) total return. Funds in both groups provide a stream of income paid out on a monthly basis and invest in a combination of asset classes.

OBJECTIVE: ENHANCED FIXED INCOME

Portfolios Positioned to Pursue High Current Income from Income and Capital Gains

Calamos Convertible Opportunities and Income Fund (Ticker: CHI)

Invests in high-yield and convertible securities, primarily in U.S. markets

Calamos Convertible and High Income Fund (Ticker: CHY)

Invests in high-yield and convertible securities, primarily in U.S. markets

Calamos Global Dynamic Income Fund

(Ticker: CHW)

Invests in global fixed-income securities, alternative in

OBJECTIVE: TOTAL RETURN

Portfolios Positioned to Seek Current Income, with Increased Emphasis on Capital Gains Potential

Calamos Global Total Return Fund (Ticker: CGO)

Invests in equities and higher-yielding convertible securities and corporate bonds, in both U.S. and non-U.S. markets

Calamos Strategic Total Return Fund (Ticker: CSQ)

Invests in equities and higher-yielding convertible securities and corporate bonds, primarily in U.S. markets

vestments and equities

Our Level Rate Distribution Policy

Investors often choose a closed-end fund because they seek a steady stream of income. In recognition of this, all five Calamos closed-end funds have adopted a level distribution policy. Our policy is to pay a distribution reflective of the funds—past results and projected earnings potential through income as well as capital gains. Our team is focused on delivering an attractive monthly distribution, while maintaining a long-term focus on risk management. The level of the funds—distributions can be greatly influenced by market conditions, including the interest rate environment. The

funds distributions will depend on the individual performance of positions the funds hold, our view of the benefits of retaining leverage, fund tax considerations, and maintaining regulatory requirements.

For more information about any of these funds, we encourage you to contact your financial advisor or Calamos Investments at 800.582.6959 (Monday through Friday from 8:00 a.m. to 6:00 p.m., Central Time). You can also visit us at www.calamos.com.

For more information on our level rate distribution policy, please see page 35.

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Investment Team Discussion

TOTAL RETURN* AS OF 10/31/10

	Common Shares	Inception 3/26/04	
			Since
		1 Year	Inception**
On Market Price		20.13%	0.98%
On NAV		17.61%	3.63%

^{*}Total return measures net investment income and net realized gain or loss from portfolio investments, and change in net unrealized appreciation or depreciation, assuming reinvestment of income and net realized gains distributions.

**Annualized since inception.

SECTOR WEIGHTINGS

Energy	16.2%
Information Technology	14.2
Health Care	13.8
Industrials	10.7
Consumer Discretionary	9.2
Consumer Staples	8.8
Materials	8.5
Financials	7.8
Telecommunication Services	5.6
Utilities	0.9

Sector Weightings are based on managed assets and may vary over time. Sector Weightings exclude any government/sovereign bonds or options on broad market indexes the portfolio may hold.

STRATEGIC TOTAL RETURN FUND INVESTMENT TEAM DISCUSSION

The Calamos Investment Management Team, led by Co-Chief Investment Officers John P. Calamos, Sr. and Nick P. Calamos, CFA, discusses the Fund s performance, strategy and positioning during the one-year period ended October 31, 2010.

Q. Before discussing the performance of the Fund during the one-year period, please provide an overview of its strategy and role within an asset allocation.

A. Calamos Strategic Total Return Fund (CSQ) is a total return oriented offering that seeks to provide a steady stream of income paid out on a monthly basis. We invest in a diversified portfolio of equities, convertible securities and high-yield securities. The allocation to each asset class is dynamic, and reflects our view of the economic landscape as well as the potential of individual securities. By combining these asset classes, we believe that we are well positioned to generate capital gains as well as income. The broader range of security types also provides us with increased opportunities to manage the risk and reward characteristics of the portfolio over full market cycles. Through this approach, we seek to offer investors not only an attractive monthly distribution, but a more defensive approach to equity participation.

While we invest primarily in securities of U.S. issuers, we favor those companies that are actively participating in globalization, with geographically diversified revenue streams and global business strategies. We emphasize companies with reliable debt servicing, respectable balance sheets and good prospects for sustainable growth.

Q. How did the Fund perform during the reporting period?

A. CSQ gained 17.61% on a net asset value (NAV) basis for the one-year period ended October 31, 2010. On a market price basis, the Fund returned 20.13%. The Fund s returns surpassed the broad equity market, as measured by the S&P 500 Index, up 16.52%.

Q. Did the Fund provide steady distributions during the annual period?

A. The Fund provided shareholders with a steady distribution stream, with monthly distributions of \$0.0525. The Fund s current annualized distribution rate was 6.95% of market price as of the close of the reporting period.

SINCE INCEPTION MARKET PRICE AND NAV HISTORY THROUGH 10/31/10

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Investment Team Discussion

We believe that this distribution level and rate are very competitive, given the broader economic and market conditions. Indeed, during the reporting period, very low interest rates and yields remained the norm throughout much of the marketplace. As of the close of the reporting period, the dividend yield of the stocks in the S&P 500 Index was roughly 1.9%, on average. Ten-year U.S. Treasury bonds yielded 2.6% and 30-Year U.S. Treasury bonds yielded 4.0%.

Additionally, we would note that under its level rate distribution policy, the Fund distributes income and short-term capital gains on a monthly basis and long-term capital gains at the Fund s fiscal year end and calendar year end. The Fund had capital loss carry forwards from the previous fiscal year, which were offset against a portion of gains. As a result, these gains were not available to be distributed during the current fiscal year.

Q. What is the difference between market return and NAV return?

A. Closed-end funds trade on exchanges, where the price of shares may be driven by factors other than the value of the underlying securities. The price of a share in the market is called market value. Market price may be influenced by factors unrelated to the performance of the Fund s holdings, such as investor sentiment.

We believe that closed-end funds are best viewed as part of a long-term asset allocation strategy. In terms of assessing the performance of a closed-end fund, we believe that NAV returns are the more relevant measure. The Fund s NAV return measures the gains or losses of the individual securities in the Fund s portfolio. NAV return is a measure of the investment manager s ability to capitalize on market opportunities.

Q. As of the close of the period, the Fund traded at a discount of 11.78%. How do you believe investors should view this discount?

A. When a fund is trading at a discount, it means that its market share price is less than its NAV share price. As we discussed, the price of a share may be affected by factors other than the performance of the Fund s holdings. For long-term investors, a discount could be viewed as a buying opportunity because a discount provides investors with an opportunity to buy shares at a price that is lower than the fair value of the portfolio, as measured by the Fund s NAV.

Q. What were some of the most important factors influencing performance during the period?

A. As investors sought income in a low-rate environment, the Fund benefited from its stakes in high yield bonds and convertible securities as spreads compressed, driving prices up. However, this appetite for yield led investors to favor the most speculative tiers in the convertible and high yield securities markets. We, however, believe that income considerations must be measured against default risk, and that this analysis must be particularly rigorous in an economic environment where challenges still remain. Our goal is to invest in securities that provide a yield or distribution, while offering good prospects for longer-term total return. Given these considerations, the Fund was significantly underweighted in the lowest-quality issues that led in the convertible and high yield market. As long-term and risk-conscious investors, we believe that this positioning is appropriate in the current environment.

Turning to sector- and security-level influences, our positioning within the financials sector enhanced performance relative to the broad equity market, as represented by the

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Investment Team Discussion

S&P 500 Index. Both an underweighting relative to the overall market and good investment selection within the sector proved advantageous. We remain cautious about the sector, given the potential risks that may remain in individual companies and our concerns around deleveraging and new regulations. Returns were also enhanced by our security selection within the health care sector. In contrast, an underweight position and security selection within industrials hampered performance, as did overall security selection decisions within the Fund s consumer discretionary stake.

Q. What is your outlook for the Fund?

A. We believe that CSQ is well positioned for the road ahead and remains a compelling choice for investors seeking income, total return and a more defensive approach for equity market participation. While we believe that the Fund s multi-asset class approach is beneficial throughout market cycles, we believe it may be particularly important now. Unlike funds that invest in one type of fixed income security to generate income for example, U.S. Treasurys or municipal bonds this Fund has more sources to draw from for income potential. Moreover, the Fund s investments in high-yield and convertible securities may be less sensitive to interest-rate increases compared to Treasury issues. We believe that this will be essential, given our concerns about the impact that quantitative easing and government debt build-up could have on the Treasury market.

Using our highly selective approach, we continue to find attractive opportunities in the equity, convertible and fixed income markets. We believe that our risk-conscious approach will serve the Fund in good stead including our emphasis on companies with respectable balance sheets, good business strategies and where possible, globally diversified revenues.

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Schedule of Investments October 31, 2010

PRINCIPAL AMOUNT CORPORATE BONDS (30.3%)		VALUE
	Consumer Discretionary (6.1%)	
14,688,000	DISH Network Corp.	
	7.125%, 02/01/16	\$ 15,642,721
14,214,000	General Motors Corp.**	
	7.200%, 01/15/11	5,010,435
16,110,000	Hanesbrands, Inc.	
	4.121%, 12/15/14	16,150,275
6,823,000	Jarden Corp.	
	7.500%, 05/01/17	7,292,081
3,073,000	Kellwood Company	
4 = 20 000	7.625%, 10/15/17	1,628,690
4,738,000	Liberty Media Corp.	4.767.612
2 217 000	8.250%, 02/01/30	4,767,613
3,317,000	Live Nation Entertainment, Inc.*	2 422 005
4.620.000	8.125%, 05/15/18	3,433,095
4,629,000	MGM Resorts International	4 1 4 2 0 5 5
7.012.000	7.500%, 06/01/16	4,142,955
7,012,000	NetFlix, Inc.	7 999 500
	8.500%, 11/15/17 Povel Caribbaan Cruises, Ltd.	7,888,500
12 210 000	Royal Caribbean Cruises, Ltd. 7.500%, 10/15/27	12 411 202
12,319,000 4,359,000	7.250%, 06/15/16	12,411,392 4,773,105
8,529,000	Service Corp. International	4,773,103
8,329,000	6.750%, 04/01/16	9,030,079
2,369,000 GBP	Warner Music Group Corp.	9,030,079
2,309,000 GBI	8.125%, 04/15/14	3,568,211
1,658,000	Wynn Las Vegas, LLC*	3,308,211
1,038,000	7.750%, 08/15/20	1,807,220
	7.730 %, 00/13/20	1,007,220
		97,546,372
	Consumer Staples (2.3%)	
11,135,000	Chiquita Brands International, Inc.	
11,155,000	7.500%, 11/01/14	11,357,700
1,294,000	Del Monte Foods Company	11,557,700
1,22 1,000	7.500%, 10/15/19	1,426,635
8,529,000	NBTY, Inc.	1,120,033
5,527,500	7.125%, 10/01/15	8,784,870
14,214,000	Smithfield Foods, Inc.	5,75.,576
, , , ,	7.750%, 07/01/17	14,622,653
	. ,	,-==,500

		36,191,858
2 402 000	Energy (4.9%)	
2,402,000	Berry Petroleum Company	2.546.120
2 700 000	8.250%, 11/01/16	2,546,120
3,790,000	Brigham Exploration Company*	4 110 150
2 127 000	8.750%, 10/01/18	4,112,150
3,127,000	Complete Production Services, Inc.µ	2 206 902
7,581,000	8.000%, 12/15/16 Comstock Resources, Inc.	3,306,803
7,361,000	8.375%, 10/15/17	7,884,240
5,212,000	Concho Resources, Inc.mu	7,004,240
3,212,000	8.625%, 10/01/17	5,668,050
1,895,000	Dresser-Rand Group, Inc.	2,000,020
-,-,-,-,-	7.375%, 11/01/14	1,921,056
948,000	Frontier Oil Corp.	, ,
	8.500%, 09/15/16	1,002,510
2,843,000	GulfMark Offshore, Inc.	
	7.750%, 07/15/14	2,906,968
986,000	Holly Corp.	
	9.875%, 06/15/17	1,084,600
	Mariner Energy, Inc.	
6,633,000	8.000%, 05/15/17	7,362,630
2,843,000	11.750%, 06/30/16	3,589,287
4,738,000	Petrohawk Energy Corp.	4.761.600
2 0 42 000	7.125%, 04/01/12	4,761,690
2,843,000	Pride International, Inc.	2 464 006
4 729 000	8.500%, 06/15/19	3,464,906
4,738,000	Superior Energy Services, Inc.µ 6.875%, 06/01/14	4,809,070
	Swift Energy Company	4,009,070
7,581,000	8.875%, 01/15/20	8,225,385
6,117,000	7.125%, 06/01/17	6,208,755
7,384,000	Williams Companies, Inc.	0,200,723
., ,	7.750%, 06/15/31	8,267,872
		77,122,092
	Financials (2.6%)	
15,768,000	Leucadia National Corp.	
,,	8.125%, 09/15/15	17,285,670
9,476,000	Nuveen Investments, Inc.	,,
• • • • • • • • • • • • • • • • • • •	10.500%, 11/15/15	9,949,800
3,317,000	OMEGA Healthcare Investors, Inc.*	
	7.500%, 02/15/20	3,590,653
9,950,000	Senior Housing Properties Trust	
	8.625%, 01/15/12	10,596,750

41,422,873

	Health Care (2.9%)	
2,132,000	Bio-Rad Laboratories, Inc.	
	7.500%, 08/15/13	2,174,640
4,738,000	Community Health Systems, Inc.	
	8.875%, 07/15/15	5,081,505
	HealthSouth Corp.	
2,369,000	7.750%, 09/15/22	2,508,179
1,895,000	7.250%, 10/01/18	1,980,275
	Mylan, Inc.*	
4,738,000	7.875%, 07/15/20	5,306,560
3,947,000	7.625%, 07/15/17	4,361,435
3,790,000	Psychiatric Solutions, Inc.	
	7.750%, 07/15/15	3,960,550
3,790,000	Talecris Biotherapeutics Holdings Corp.	
	7.750%, 11/15/16	4,263,750
	Valeant Pharmaceuticals International*	
8,529,000	7.000%, 10/01/20	8,976,773
1,421,000	6.750%, 10/01/17	1,486,721

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See accompanying Notes to Schedule of Investments

Schedule of Investments October 31, 2010

PRINCIPAL AMOUNT		VALUE
5,212,000	Warner Chilcott Company, LLC* 7.750%, 09/15/18	\$ 5,446,540
		45,546,928
	Industrials (2.8%)	
3,790,000	BE Aerospace, Inc.	
	8.500%, 07/01/18	4,254,275
2,132,000	Belden, Inc.µ	
	7.000%, 03/15/17	2,174,640