NUVEEN SENIOR INCOME FUND Form N-CSR October 07, 2010

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549 FORM N-CSR FIFIED SHAREHOLDER REPORT OF REGISTERED MANAGEI

CERTIFIED SHAREHOLDER REPORT OF REGISTERED MANAGEMENT INVESTMENT COMPANIES

Investment Company Act file number 811-09571 NUVEEN SENIOR INCOME FUND

(Exact name of registrant as specified in charter)
Nuveen Investments
333 West Wacker Drive
Chicago, IL 60606

(Address of principal executive offices) (Zip code)
Kevin J. McCarthy
Nuveen Investments
333 West Wacker Drive
Chicago, IL 60606

(Name and address of agent for service)

Registrant s telephone number, including area code: (312) 917-7700

Date of fiscal year end: July 31

Date of reporting period: July 31, 2010

Form N-CSR is to be used by management investment companies to file reports with the Commission not later than 10 days after the transmission to stockholders of any report that is required to be transmitted to stockholders under Rule 30e-1 under the Investment Company Act of 1940 (17 CFR 270.30e-1). The Commission may use the information provided on Form N-CSR in its regulatory, disclosure review, inspection, and policymaking roles. A registrant is required to disclose the information specified by Form N-CSR, and the Commission will make this information public. A registrant is not required to respond to the collection of information contained in Form N-CSR unless the Form displays a currently valid Office of Management and Budget (OMB) control number. Please direct comments concerning the accuracy of the information collection burden estimate and any suggestions for reducing the burden to Secretary, Securities and Exchange Commission, 450 Fifth Street, NW, Washington, DC 20549-0609. The OMB has reviewed this collection of information under the clearance requirements of 44 U.S.C. ss. 3507.

ITEM 1. REPORTS TO SHAREHOLDERS

Closed-End Funds

Nuveen Investments Closed-End Funds

High current income from portfolios of senior corporate loans.

Annual Report July 31, 2010

Nuveen Senior Income Fund NSL

Nuveen Floating Rate Income Fund

JFR

Nuveen Floating Rate Income Opportunity Fund

JRO

NUVEEN INVESTMENTS ANNOUNCES STRATEGIC COMBINATION WITH FAF ADVISORS

On July 29, 2010, Nuveen Investments, Inc. announced that U.S. Bancorp will receive a 9.5% stake in Nuveen Investments and cash consideration in exchange for the long-term asset business of U.S. Bancorp s FAF Advisors (FAF). Nuveen Investments is the parent of Nuveen Asset Management (NAM), the investment adviser for the Funds included in this report.

FAF Advisors, which currently manages about \$25 billion of long-term assets and serves as the advisor of the First American Funds, will be combined with NAM, which currently manages about \$75 billion in municipal fixed income assets. Upon completion of the transaction, Nuveen Investments, which currently manages about \$150 billion of assets across several high-quality affiliates, will manage a combined total of about \$175 billion in institutional and retail assets.

This combination will not affect the investment objectives, strategies or policies of the Funds in this report.

Over time, Nuveen Investments expects that the combination will provide even more ways to meet the needs of investors who work with financial advisors and consultants by enhancing the multi-boutique model of Nuveen Investments, which also includes highly respected investment teams at NWQ Investment Management, Santa Barbara Asset Management, Symphony Asset Management, Tradewinds Global Investors, Winslow Capital and Nuveen HydePark.

The transaction is expected to close late in 2010, subject to customary conditions.

Chairman s Letter to Shareholders

Dear Shareholder,

Recent months have revealed the fragility and disparity of the global economic recovery. In the U.S., the rate of economic growth has slowed as various stimulus programs have started to wind down, exposing weakness in the underlying economy. In contrast, many emerging market countries are experiencing a return to comparatively high rates of growth. Confidence in global financial markets has been undermined by concerns about high sovereign debt levels in Europe and the U.S. Until these countries can begin credible programs to reduce their budgetary deficits, market unease and hesitation will remain. On a more positive note, even though the countries now enjoying the strongest recovery depend on exports to countries with trade deficits, these importing countries have resisted the temptation to damage world trade by erecting trade barriers.

The U.S. economy is subject to unusually high levels of uncertainty as it struggles to recover from a devastating financial crisis. Unemployment remains stubbornly high, due to what appears to be both cyclical and structural forces. Federal Reserve policy makers are considering novel approaches to provide support to the economy, and administration policy makers are debating additional stimulus measures. However, the high levels of debt owed both by U.S. consumers and the U.S. government limit their ability to engineer a stronger economic recovery.

The U.S. financial markets reflect the crosscurrents now impacting the U.S. economy. Today s historically low interest rates reflect the Fed s easy monetary policy and the demand for U.S. government debt by U.S. and overseas investors looking for a safe haven for investment. Despite a continued corporate earnings recovery, equity markets continue to reflect concern about the possibility of a double dip recession. Encouragingly, financial institutions are rebuilding their balance sheets and the financial reform legislation enacted this summer has the potential to address many of the most significant contributors to the financial crisis, although many details still have to be worked out.

In this difficult environment, your Nuveen investment team continues to seek sustainable investment opportunities and, at the same time, remains alert for potential risks that may result from a recovery still facing many headwinds. As your representative, the Nuveen Fund Board monitors the activities of each investment team to assure that all maintain their investment disciplines. As always, I encourage you to contact your financial consultant if you have any questions about your investment in a Nuveen Fund.

On behalf of the other members of your Fund Board, we look forward to continuing to earn your trust in the months and years ahead.

Sincerely, Robert P. Bremner Chairman of the Board September 22, 2010

Nuveen Investments 3

4

Portfolio Manager s Comments

Nuveen Senior Income Fund (NSL) Nuveen Floating Rate Income Fund (JFR) Nuveen Floating Rate Income Opportunity Fund (JRO)

The Funds investment portfolios have been managed since 2001 by Gunther Stein of Symphony Asset Management, LLC, an affiliate of Nuveen Investments. Gunther, who is Symphony s chief investment officer, has more than 20 years of investment management experience, much of it in evaluating and purchasing senior corporate loans and other high-yield debt.

Here Gunther talks about general economic and market conditions, his management strategies and the performance of the Funds for the twelve-month period ended July 31, 2010.

What were the general market conditions for the twelve-month period?

During this period, there continued to be considerable stress on the economy and both the Federal Reserve (Fed) and the federal government took actions intended to improve the overall economic environment. For its part, the Fed continued to hold the benchmark fed funds rate in a target range of zero to 0.25%. At its June 2010 meeting, the central bank renewed its pledge to keep the fed funds rate exceptionally low for an extended period. The federal government focused on implementing a \$787 billion economic stimulus package intended to provide job creation, tax relief, fiscal assistance to state and local governments and expansion of unemployment benefits.

Certain statements in this report are forward-looking statements. Discussions of specific investments are for illustration only and are not intended as recommendations of individual investments. The forward-looking statements and other views expressed herein are those of the portfolio manager as of the date of this report. Actual future results or occurrences may differ significantly from those anticipated in any forward-looking statements, and the views expressed herein are subject to change at any time, due to numerous market and other factors. The Funds disclaim any obligation to update publicly or revise any forward-looking statements or views expressed herein.

These and other measures taken by the Fed and the government to ease the economic recession helped to produce some signs of improvement. Over the four calendar quarters comprising most of this period, the U.S. economy, as measured by the U.S. gross domestic product (GDP), grew at annualized rates of 1.6%, 5.0%, 3.7% and 1.6%, respectively. This marked the first time since 2007 that the economy managed to string together four consecutive positive quarters. Housing also provided something of a bright spot, as the S&P/Case-Shiller Home Price Index of average residential prices gained 3.6% for the twelve months ended June 2010 (the most recent data available at the time this report was produced). This moved average home prices across the United States to levels similar to where they were in the autumn of 2003.

Inflation continued to be relatively tame, as the Consumer Price Index (CPI) rose 1.2% year-over-year as of July 2010. The labor markets remained weak, with the national unemployment rate at 9.5% as of July 2010. This compares with the 26-year high of 10.1% in October 2009 and a rate of 9.4% in July 2009.

In the senior loan market, the second half of 2009 saw a continuation of the positive momentum from earlier in the year. This could be attributed to three primary drivers: lack

of new issuance, incremental demand for the asset class, and relative strength in fundamentals.

Market technical factors remained firm as a result of limited new supply as well as new money being put into loans. New issue activity was virtually nonexistent during the period, although some smaller deals came to market. While the fourth quarter of 2009 saw the highest level of institutional new issuance for the year, the levels paled in comparison with recent years. Many of the deals were driven by refinancings, which continued throughout 2010. Refinancings provide opportunities on a select basis to purchase higher quality new issues with attractive spreads and LIBOR floors. Meanwhile, mutual fund inflows in the second half of 2009 and the first quarter of 2010 remained consistent, given the attractive return profile of senior loan assets and the floating rate coupon which historically has outperformed in rising-rate environments. Institutional investors also showed interest in the asset class off and on throughout the year, with buyers appearing despite spread contraction.

The period also saw an improving fundamental environment for senior loans, with relatively low default rates and better recoveries forecasts from market participants and rating agencies. While fundamentals still were not particularly strong, most companies issuing leveraged loans consistently reported better-than-expected operating and net earnings results throughout 2009 and into 2010. This helped to drive positive price action. The Credit Suisse Leverage Loan Index rose +13.98% during the second half of the 2009.

What key strategies were used to manage the Fund during the twelve-month period ended July 31, 2010?

The investment objective of each Fund is to achieve a high level of current income by investing primarily in adjustable rate secured and unsecured senior loans and other debt instruments. Other investments may include U.S. dollar denominated senior loans of non-U.S. borrowers and equity securities and warrants acquired in connection with the Fund s investment in senior loans.

Toward the end of 2009 and early in 2010, we shifted our investments toward higher quality names as we believed the pace of the rally in riskier assets would normalize as the market leveled off. We also continued to utilize new issues, as well as a variety of older positions where we felt that risk-adjusted returns remained attractive. In addition, we continued to hold select positions in lower quality companies that were purchased at deep discounts to par, such as Infor Global and Citadel. However, the vast majority of the assets in the portfolio traded above 85% of par as fewer broad-based market opportunities were present.

How did the Fund perform over this twelve-month period?

The performance of the Funds, as well as the performance of certain market indexes, is presented in the accompanying table.

Average Annual Total Returns on Common Share Net Asset Value

For periods ended 7/31/10

	1-Year	5-Year	10-Year
NSL	28.15%	3.94%	5.08%
JFR	23.85%	3.43%	3.66%
JRO	26.66%	3.99%	4.02%
CSFB Leveraged Loan Index ¹	14.62%	3.88%	4.46%
Barclays Capital U.S. Aggregate Bond Index ²	8.91%	5.96%	6.49%

For the twelve months ended July 31, 2010, all three Funds outperformed the comparative indexes. During the period, higher risk assets generally outperformed higher quality assets. The risk-driven rally was most evident in some of the low dollar-priced names we hold in the Funds, such as Tribune Company and Swift Transportation. However, some newer higher-quality assets such as Reynolds Brands also performed well.

The more-levered companies generally outperformed during the period, however these names largely underperformed during the previous year and during the financial crisis. There were several special situations that dragged on performance, such as MGM, which is a distressed issuer that had experienced some difficulty with the auction of some of its assets. Other distressed issuers, such as Intelsat also contributed negatively to performance.

Past performance is not predictive of future results. Current performance may be higher or lower than the data shown. Returns do not reflect the deduction of taxes that shareholders may have to pay on Fund distributions or upon the sale of Fund shares.

For additional information, see the individual Performance Overview for your Fund in this report.

- 1 The CSFB Leveraged Loan Index is a representative, unmanaged index of tradeable, senior, U.S. dollar-denominated leveraged loans. Index returns do not include the effects of any sales charges or management fees. It is not possible to invest directly in an index.
- 2 The Barclays Capital U.S. Aggregate Bond Index is an unmanaged index that includes all investment-grade, publicly issued, fixed-rate, dollar denominated, nonconvertible debt issues and commercial mortgage backed securities with maturities of at least one year and outstanding par values of \$150 million or more. Index returns do not include the effects of any sales charges or management fees. It is not possible to invest directly in an index.

IMPACT OF THE FUNDS LEVERAGE STRATEGIES ON PERFORMANCE

One important factor impacting the returns of these Funds relative to the comparative indexes was the Funds use of financial leverage, primarily through bank borrowings. The Funds use leverage because their managers believe that, over time, leveraging provides opportunities for additional income and total returns for common shareholders. However, use of leverage also can expose common shareholders to additional volatility. For example, as the prices of securities held by a Fund decline, the negative impact of these valuation changes on common share net asset value and common shareholder total return is magnified by the use of leverage. Conversely, leverage may enhance common share returns during periods when the prices of Fund holdings generally are rising.

The use of leverage made a significant positive contribution to the return of each Fund over this period.

RECENT DEVELOPMENTS REGARDING THE FUNDS LEVERAGED CAPITAL STRUCTURES

Shortly after their inceptions, each Fund issued auction rate preferred shares (ARPS) to create financial leverage. As noted in past shareholder reports, the weekly auctions for those ARPS shares began in February 2008 to consistently fail, causing the Funds to pay the so-called maximum rate to ARPS shareholders under the terms of the ARPS in the Funds charter documents. With the goal of lowering the relative cost of leverage over time for common shareholders and providing liquidity at par for preferred shareholders, the Funds sought to refinance all of their outstanding ARPS beginning shortly thereafter. The Funds completed this refinancing process during 2009 and since then have relied upon bank borrowings to create financial leverage.

In April and May 2010, 30 Nuveen leveraged closed-end funds, including JRO, received a demand letter from a law firm on behalf of purported holders of common shares of each such fund, alleging that Nuveen and the funds officers and Board of Directors/Trustees breached their fiduciary duties related to the redemption at par of the funds ARPS. In response, the Board established an ad hoc Demand Committee consisting of certain of its disinterested and independent Board members to investigate the claims. The Demand Committee retained independent counsel to assist it in conducting an extensive investigation. Based upon its investigation, the Demand Committee found that it was not in the best interests of each fund or its shareholders to take the actions suggested in the demand letters, and recommended that the full Board reject the demands made in the demand letters. After reviewing the findings and recommendation of the Demand Committee, the full Board of each fund unanimously adopted the Demand Committee is recommendation.

Subsequently, twenty of the funds that received demand letters (not including JRO) were named as nominal defendants in a putative shareholder derivative action complaint captioned *Safier and Smith v. Nuveen Asset Management*, et al. that was filed in the Circuit Court of Cook County, Illinois, Chancery Division (the Cook County Chancery Court) on July 27, 2010. Three additional funds (not including JRO) were named as nominal defendants in a similar complaint captioned *Curbow v. Nuveen Asset Management, et al.* filed in the Cook County Chancery Court on August 12, 2010, and three additional funds (not including JRO) were named as nominal defendants in a similar complaint captioned *Beidler v. Nuveen Asset Management, et al.* filed in the Cook County Chancery Court on September 21, 2010 (collectively, the Complaints). The Complaints, filed on behalf of purported holders of each fund s common shares, also name Nuveen Asset Management as a defendant, together with current and former Officers and Trustees of each of the funds (together with the nominal defendants, collectively, the Defendants). The Complaints contain the same basic allegations contained in the demand letters. The suits seek a declaration that the Defendants have breached their fiduciary duties, an order directing the Defendants not to redeem any ARPS at their liquidation value using fund assets, indeterminate monetary damages in favor of the funds and an award of plaintiffs costs and disbursements in pursuing the action. Nuveen Asset Management believes that the Complaints are without merit, and intends to defend vigorously against these charges.

For up-to-date information, please visit the Nuveen CEF Auction Rate Preferred Resource Center at: http://www.nuveen.com/arps.

Common Share Distribution and Share Price Information

As noted earlier, these Funds use financial leverage to potentially enhance opportunities for additional income for common shareholders. The Funds—use of this leverage strategy continued to provide incremental income, although the extent of this benefit was reduced to some degree by short-term interest rates that remained relatively high during the early part of the period. This, in turn, kept the Funds—borrowing costs high. All three fund—s distributions increased twice over the twelve-month period.

During certain periods, each Fund may pay dividends at a rate that may be more or less than the amount of net investment income actually earned by the Fund during the period. If a Fund has cumulatively earned more than it has paid in dividends, it holds the excess in reserve as undistributed net investment income (UNII) as part of the Fund s common share NAV. Conversely, if a Fund has cumulatively paid dividends in excess of its earnings, the excess constitutes negative UNII that is likewise reflected in the Fund s common share NAV. As of July 31, 2010, NSL had a positive UNII balance for tax purposes while JFR & JRO had negative UNII balances for tax purposes. For financial statement purposes, JRO had a positive UNII balance while NSL and JFR had negative UNII balances.

Common Share Repurchases and Share Price Information

As of July 31, 2010, and since the inception of the Funds—repurchase program, JFR and JRO have cumulatively repurchased common shares as shown in the accompanying table. Since the inception of the Fund—s repurchase program, NSL has not repurchased any of its outstanding common shares.

	Common Shares	% of Outstanding
Fund	Repurchased	Common Shares
JFR	147,593	0.3%
JRO	19,400	0.1%

During the twelve-month reporting period, the JFR and JRO repurchased common shares at a weighted average price and a weighted average discount per common share as shown in the accompanying table.

	Common Shares	Weighted Average Price Per Share	Weighted Average Discount Per Share
Fund	Repurchased	Repurchased	Repurchased
JFR	137,893	\$9.15	12.86%
JRO	9,700	\$8.95	13.25%

As of July 31, 2010, the Funds were trading at (+) premiums/ (-) discounts to their common share NAVs as shown in the accompanying table.

		Twelve-Month
	7/31/10	Average
	(+) Premium/	(+) Premium/
Fund	(-) Discount	(-) Discount
NSL	(+)2.06%	(+)1.56%
JFR	(-)2.35%	(-)6.13%
JRO	(+)2.65%	(-)2.86%

NSL Performance OVERVIEW	Nuveen Senior Income Fund	
OVERVIEW		as of July 31, 2010
Fund Snapshot Common Share Price		\$6.95
Common Share Net Asset Value		\$6.81
Premium/(Discount) to NAV		2.06%
Latest Dividend		\$0.0400
Market Yield		6.91%
Net Assets Applicable to Common Shares (\$000)		\$203,261
Average Annual Total Return (Inception 10/26/99)		
1-Year	On Share Price 44.83%	On NAV 28.15%
5-Year	3.61%	3.94%
10-Year	5.11%	5.08%
Portfolio Composition (as a % of total investments) Media		10.6%
Hotels, Restaurants & Leisure		9.3%
Health Care Providers & Services		8.7%
Specialty Retail		4.4%
Building Products		4.1%
IT Services		3.4%
Oil, Gas & Consumable Fuels		2.8%

Automobiles	2.8%
Paper & Forest Products	2.4%
Chemicals	2.4%
Road & Rail	2.3%
Diversified Telecommunication Services	2.3%
Airlines	2.3%
Communications Equipment	2.2%
Real Estate Management & Development	2.2%
Software	2.2%
Food & Staples Retailing	2.0%
Leisure Equipment & Products	1.8%
Pharmaceuticals	1.7%
Internet Software & Services	1.6%
Auto Components	1.5%
Food Products	1.2%
Aerospace & Defense	1.2%
Household Products	1.2%
Warrants	0.7%
Short-Term Investments	8.0%
Other	14.7%
Top Five Issuers	
(as a % of total long-term investments) Infor Global Solutions Intermediate Holdings, Ltd.	2.4%
Charter Communications Operating Holdings LLC	2.1%
Swift Transportation Company, Inc.	2.0%
Michaels Stores, Inc.	2.0%

Venetian Casino Resort LLC 2.0%

Portfolio Allocation (as a % of total investments)

2009-2010 Monthly Dividends Per Common Share

Share Price Performance Weekly Closing Price

Refer to the Glossary of Terms Used in this Report for further definition of the terms used within this Fund s Performance Overview page.

JFR Performance	Nuveen Floating Rate Income		
OVERVIEW	Fund		as of July 31, 2010
			us of July 51, 2010
Fund Snapshot Common Share Price			\$11.20
Common Share Net Asset Value			\$11.47
Premium/(Discount) to NAV			-2.35%
Latest Dividend			\$0.0510
Market Yield			5.46%
Net Assets Applicable to Common Shares (\$000)			\$542,456
Average Annual Total Return (Inception 3/25/04)			
1-Year		On Share Price 41.48%	On NAV 23.85%
5-Year		4.17%	3.43%
Since Inception		3.01%	3.66%
Portfolio Composition (as a % of total investments) Media			12.2%
Hotels, Restaurants & Leisure			10.1%
Health Care Providers & Services			6.5%
Specialty Retail			4.8%
IT Services			4.2%
Road & Rail			3.8%
Diversified Telecommunication Services			3.3%

Building Products	3.2%
Wireless Telecommunication Services	2.9%
Chemicals	2.7%
Oil, Gas & Consumable Fuels	2.7%
Software	2.6%
Airlines	2.4%
Real Estate Management & Development	2.4%
Communications Equipment	2.1%
Automobiles	1.9%
Auto Components	1.9%
Pharmaceuticals	1.8%
Insurance	1.8%
Internet Software & Services	1.6%
Leisure Equipment & Products	1.6%
Food Products	1.5%
Investment Companies	1.6%