NUVEEN AMT-FREE MUNICIPAL INCOME FUND Form N-CSR January 06, 2012

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 811-21213

Nuveen AMT-Free Municipal 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: October 31

Date of reporting period: October 31, 2011

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 STOCKHOLDERS.

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Table of Contents

Chairman's Letter to Shareholders	4
Portfolio Managers' Comments	5
Fund Leverage and Other Information	10
Common Share Dividend and Share Price Information	14
Performance Overviews	16
Shareholder Meeting Report	22
Report of Independent Registered Public Accounting Firm	26
Portfolios of Investments	27
Statement of Assets and Liabilities	85
Statement of Operations	87
Statement of Changes in Net Assets	89
Statement of Cash Flows	92
Financial Highlights	94
Notes to Financial Statements	102
Annual Investment Management Agreement Approval Process	116
Board Members and Officers	124
Reinvest Automatically, Easily and Conveniently	129
Glossary of Terms Used in this Report	131
Other Useful Information	135

Chairman's Letter to Shareholders

Dear Shareholders,

These are perplexing times for investors. The global economy continues to struggle. The solutions being implemented in the eurozone to deal with the debt crises of many of its member countries are not yet seen as sufficient by the financial markets. The political paralysis in the U.S. has prevented the compromises necessary to deal with the fiscal imbalance and government spending priorities. The efforts by individual consumers, governments and financial institutions to reduce their debts are increasing savings but reducing demand for the goods and services that drive employment. These developments are undermining the rebuilding of confidence by consumers, corporations and investors that is so essential to a resumption of economic growth.

Although it is painfully slow, progress is being made. In Europe, the turnover of a number of national governments reflects the realization by politicians and voters alike that leaders who practiced business as usual had to be replaced by leaders willing to face problems and accept the hard choices needed to resolve them. The recent coordinated efforts by central banks in the U.S. and Europe to provide liquidity to the largest European banks indicates that these monetary authorities are committed to facilitating a recovery in the European banking sector.

In the U.S., the failure of the congressionally appointed Debt Reduction Committee was a blow to those who hoped for a bipartisan effort to finally begin addressing the looming fiscal crisis. Nevertheless, Congress and the administration cannot ignore the issue for long. The Bush era tax cuts are scheduled to expire on December 31, 2012, and six months later the \$1.2 trillion of mandatory across-the-board spending cuts under the Budget Control Act of 2011 begin to go into effect. Any legislative modification would require bipartisan support and the prospects for a bipartisan solution are unclear. The impact of these two developments would be a mixed blessing: a meaningful reduction in the annual budget deficit at the cost of slowing the economic recovery.

It is in these particularly volatile markets that professional investment management is most important. Skillful investment teams who have experienced challenging markets and remain committed to their investment disciplines are critical to the success of an investor's long-term objectives. In fact, many long-term investment track records are built during challenging markets when managers are able to protect investors against these economic crosscurrents. Experienced investment teams know that volatile markets put a premium on companies and investment ideas that will weather the short-term volatility and that compelling values and opportunities are opened up when markets overreact to negative developments. By maintaining appropriate time horizons, diversification and relying on practiced investment teams, we believe that investors can achieve their long-term investment objectives.

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 December 21, 2011

Portfolio Managers' Comments

Nuveen Insured Quality Municipal Fund, Inc. (NQI) Nuveen Insured Municipal Opportunity Fund, Inc. (NIO) Nuveen Premier Insured Municipal Income Fund, Inc. (NIF) Nuveen Insured Premium Income Municipal Fund 2 (NPX) Nuveen Insured Dividend Advantage Municipal Fund (NVG) Nuveen Insured Tax-Free Advantage Municipal Fund (NEA)

Portfolio managers Paul Brennan and Douglas White review key investment strategies and the twelve-month performance of these six national insured Funds. With 20 years of industry experience, including 14 years at Nuveen, Paul has managed NIO, NIF, NVG and NEA since 2006. Douglas, who has 28 years of financial industry experience, assumed portfolio management responsibility for NQI and NPX from Paul in January 2011.

What factors affected the U.S. economy and municipal market during the twelve-month reporting period ended October 31, 2011?

During this period, the U.S. economy's recovery from recession remained slow. The Federal Reserve (Fed) maintained its efforts to improve the overall economic environment by continuing to hold the benchmark fed funds rate at the record low level of zero to 0.25% that it had established in December 2008. At its November 2011 meeting (shortly after the end of this reporting period), the central bank reaffirmed its opinion that economic conditions would likely warrant keeping this rate at "exceptionally low levels" at least through mid-2013. The Fed also said that it would continue its program to extend the average maturity of its holdings of U.S. Treasury securities by purchasing \$400 billion of U.S. Treasury securities with maturities of six to thirty years and selling an equal amount of U.S. Treasury securities with maturities of three years or less. The goals of this program, which the Fed expects to complete by the end of June 2012, are to lower longer-term interest rates, support a stronger economic recovery and help ensure that inflation remains at levels consistent with the Fed's mandates of maximum employment and price stability.

In the third quarter of 2011, the U.S. economy, as measured by the U.S. gross domestic product (GDP), grew at an annualized rate of 2.0%, the best growth number since the fourth quarter of 2010 and the ninth consecutive quarter of positive growth. The Consumer Price Index (CPI) rose 3.5% year-over-year as of October 2011, while the core CPI (which excludes food and energy) increased 2.1%, edging just above the Fed's unofficial objective of 2.0% or lower for this inflation measure. Unemployment numbers remained high, as October 2011 marked the seventh straight month with a national jobless number of 9.0% or higher. However, after the reporting period came to a close, the U.S. unemployment rate fell to 8.6% in November 2011. While the dip was a step in

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 managers 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.

Ratings shown are the highest rating given by one of the following national rating agencies: Standard & Poor's Group, Moody's Investor Services, Inc. or Fitch, Inc. Credit ratings are subject to change. AAA, AA, A and BBB are investment grade ratings; BB, B, CCC, CC, C and D are below investment grade ratings. Bonds backed by U.S. Government or agency securities are given an implied rating equal to the rating of such securities. Holdings designated N/R are not rated by a national rating agency.

the right direction, it was due partly to a number of individuals dropping out of the hunt for work. The housing market also continued to be a major weak spot. For the twelve months ended September 2011 (the most recent data available at the time this report was prepared), the average home price in the Standard & Poor's/Case-Shiller Index lost 3.6%, with 18 of the 20 major metropolitan areas reporting losses. In addition, the U.S. economic picture continued to be clouded by concerns about the European debt crisis and efforts to reduce the federal deficit.

Municipal bond prices ended this period generally unchanged versus the beginning of this reporting period, masking a sell-off that commenced in the fourth quarter of 2010, as the result of investor concerns about inflation, the federal deficit and its impact on demand for U.S. Treasuries. Adding to this situation was media coverage of the strained finances of many state and local governments, which failed to differentiate between gaps in these governments' operating budgets and their ability to meet their debt service obligations. As a result, money flowed out of municipal mutual funds, yields rose, and valuations declined.

During the second half of this reporting period (i.e., May-October 2011), municipal bond prices generally rallied as yields declined across the municipal curve. The decline in yields was due in part to the continued depressed level of municipal bond issuance. Tax-exempt volume, which had been limited in 2010 by issuers' extensive use of taxable Build America Bonds (BABs), continued to drift lower in 2011. Even though BABs were no longer an option for issuers (the BAB program expired at the end of 2010), some borrowers had accelerated issuance into 2010 in order to take advantage of the program's favorable terms before its termination, fulfilling their capital program borrowing needs well into 2012. This reduced the need for many borrowers to come to market with new issues during this period. Over the twelve months ended October 31, 2011, municipal bond issuance nationwide totaled \$320.2 billion, a decrease of 23% compared with the issuance of the twelve-month period ended October 31, 2010. During the majority of this period, demand for municipal bonds remained very strong.

What key strategies were used to manage these Funds during this reporting period?

During this period, finding appropriate insured bonds, especially new insured issues, remained a challenge due to the continued severe decline in insured issuance. Over the past few years, most municipal bond insurers had their credit ratings downgraded, and only one insurer currently insures new municipal bonds. As a result, the supply of insured municipal securities has decreased dramatically. Over the past ten months of 2011, issuance of new insured bonds totaled \$12.2 billion, or just 5% of total municipal issuance (compared with a recent historical average of 50%), down 47% from the ten months ended October 2010. Even though these Funds may now invest up to 20% of their net assets in uninsured investment-grade credits rated BBB- or higher, the combination of tighter municipal supply, little insured issuance and relatively lower yields meant fewer attractive opportunities for these Funds during this period.

In this environment, we took an opportunistic approach to discovering what we thought were undervalued sectors and individual credits with the potential to perform well over the long term. During this period, all of the Funds found value in the essential services

sectors such as water and sewer, and NIO, NIF, NVG and NEA also added tax-supported bonds backed by excise taxes and other limited tax obligations. In NQI and NPX, we found opportunities in the secondary market to purchase health care, transportation (specifically airports and highway revenue bonds) and higher education credits. Overall, our focus remained on high quality investments. We also emphasized purchasing bonds with longer maturities in order to take advantage of more attractive yields at the longer end of the municipal yield curve. The purchase of longer bonds also extended the Funds' durations, which helped maintain their yield curve positioning.

Cash for new purchases during this period was generated largely by the proceeds from called and maturing bonds, which we worked to redeploy to keep the Funds fully invested. Most of the Funds also selectively sold bonds with short maturities or short call dates in advance of their maturity or call dates to generate additional funds that enabled them to take advantage of attractive purchase candidates as they became available in the market.

As of October 31, 2011, all of these Funds continued to use inverse floating rate securities. We employ inverse floaters for a variety of reasons, including duration management, income enhancement and total return enhancement.

How did the Funds perform?

Individual results for these Funds, as well as relevant index and peer group information, are presented in the accompanying table.

Average Annual Total Returns on Common Share Net Asset Value For periods ended 10/31/11

Fund	1-Year	5-Year	10-Year
NQI	5.98%	4.12%	5.11%
NIO	4.73%	4.37%	5.31%
NIF	4.40%	4.54%	5.36%
NPX	6.01%	4.44%	5.34%
NVG	4.83%	4.86%	N/A
NEA	3.92%	5.11%	N/A
Standard & Poors (S&P) National Insured Municipal Bond Index*	4.06%	4.52%	4.99%
Lipper General and Insured Leveraged Municipal Debt Funds			
Classification Average*	4.80%	4.20%	5.59%

For the twelve months ended October 31, 2011, the total returns on common share net asset value (NAV) for NQI, NIO, NIF, NPX and NVG exceeded the return for the Standard & Poor's (S&P) National Insured Municipal Bond Index, while NEA underperformed this index. For this same period, NQI, NPX and NVG outperformed the Lipper General and Insured Leveraged Municipal Debt Funds Classification Average, while NIO, NIF and NEA lagged the Lipper average.

Key management factors that influenced the Funds' returns during this period included duration and yield curve positioning, credit exposure and sector allocation. In addition, the Funds' use of leverage was an important positive factor affecting the Funds' performance over this period. The impact of structural leverage is discussed in more detail later in this report.

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.

* Refer to Glossary of Terms Used in this Report for definitions.

During this period, municipal bonds with intermediate and longer maturities tended to outperform the short maturity categories, with credits having maturities of seven years and longer generally outpacing the market. Among these Funds, NQI and NPX were the most advantageously situated in terms of duration and yield curve positioning, with more exposure to the longer parts of the yield curve that performed well. In general during this period, the greater a Fund's exposure to the outperforming intermediate and longer parts of the curve, the greater the positive impact on the Fund's return. The remaining four Funds, especially NEA, had shorter durations, which hampered their performance in the market environment of the period. Both NVG and NEA, which were introduced in 2002, are approaching their 10-year anniversaries and therefore have the increased exposure to bonds with short call dates often associated with that milestone.

Credit exposure also played a role in performance, as bonds rated A and AA typically outperformed the other credit quality categories. On the whole, bonds with higher levels of credit risk were not favored by the market during this period. The performance of the BBB category, in particular, was dragged down by poor returns in the tobacco bond sector (bonds backed by the 1998 master tobacco settlement agreement). All of these Funds benefited from their strong weightings in the A and AA sectors, while the negative impact of their BBB rated holdings was limited by the Funds' modest exposures to this category.

Holdings that generally made positive contributions to the Funds' returns during this period included zero coupon bonds and housing, water and sewer, and health care credits. General obligation and other tax-supported bonds also generally outpaced the municipal market return for the twelve months. All of these Funds, particularly NQI, benefited from their exposure to the health care sector. Holdings in the transportation sector also performed well, with NVG having the heaviest weighting in this sector and NEA the smallest. On the whole, some of the best performing bonds in the Funds' portfolios for this period were those purchased during the earlier part of this period before the market rallied, when yields were relatively higher and prices especially attractive.

In contrast, pre-refunded bonds, which are often backed by U.S. Treasury securities, were among the poorest performing market segments during this period. The under-performance of these bonds can be attributed primarily to their shorter effective maturities and higher credit quality. Among these six Funds, NEA, NVG and NIF held the heaviest allocations of pre-refunded bonds, while NQI had the smallest exposure to these bonds.

FUND POLICY CHANGES

On October 28, 2011, the Funds' Board of Directors/Trustees approved changes to each Fund's investment policy regarding its investment in insured municipal securities. These changes are designed to provide the Adviser with more flexibility regarding the types of securities available for investment by each Fund.

Effective January 2, 2012, each Fund will eliminate the investment policy requiring it, under normal circumstances, to invest at least 80% of its managed assets in municipal securities that are covered by insurance guaranteeing the timely payment of principal and interest. Over the past few years, most municipal bond insurers have had their credit ratings downgraded and only one insurer is currently insuring new municipal bonds. As a result, the supply of insured municipal securities has decreased dramatically and the long-term viability of the municipal bond insurance market is uncertain. The Funds are not changing their investment objective and will continue to invest substantially all of their assets in a portfolio of investment grade quality municipal securities.

Concurrent with the investment policy changes, the Funds will change their names as follows:

- Nuveen Insured Quality Municipal Fund, Inc. (NQI) will change to Nuveen Quality Municipal Fund, Inc. (NQI)
- Nuveen Insured Municipal Opportunity Fund, Inc. (NIO) will change to Nuveen Municipal Opportunity Fund, Inc. (NIO)
- Nuveen Premier Insured Municipal Income Fund, Inc. (NIF) will change to Nuveen Premier Municipal Opportunity Fund, Inc. (NIF)
- Nuveen Insured Premium Income Municipal Fund 2 (NPX) will change to Nuveen Premium Income Municipal Opportunity Fund (NPX)
- Nuveen Insured Dividend Advantage Municipal Fund (NVG) will change to Nuveen Dividend Advantage Municipal Income Fund (NVG)
- Nuveen Insured Tax-Free Advantage Municipal Fund (NEA) will change to Nuveen AMT-Free Municipal Income Fund (NEA)

Fund Leverage and Other Information

IMPACT OF THE FUNDS' LEVERAGE STRATEGIES ON PERFORMANCE

One important factor impacting the returns of all these Funds relative to the comparative indexes was the Funds' use of leverage. The Funds use leverage because their managers believe that, over time, leveraging provides opportunities for additional income and total return 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 securities held by a Fund generally are rising. Leverage made a positive contribution to the performance of these Funds over this reporting period.

RECENT DEVELOPMENTS REGARDING THE FUNDS' REDEMPTION OF AUCTION RATE PREFERRED SHARES

Shortly after their respective inceptions, each of the Funds issued auction rate preferred shares (ARPS) to create structural leverage. As noted in past shareholder reports, the ARPS issued by many closed-end funds, including these Funds, have been hampered by a lack of liquidity since February 2008. Since that time, more ARPS have been submitted for sale in each of their regularly scheduled auctions than there have been offers to buy. In fact, offers to buy have been almost completely nonexistent since late February 2008. This means that these auctions have "failed to clear," and that many, or all, of the ARPS shareholders who wanted to sell their shares in these auctions were unable to do so. This lack of liquidity in ARPS did not lower the credit quality of these shares, and ARPS shareholders unable to sell their shares continued to receive distributions at the "maximum rate" applicable to failed auctions, as calculated in accordance with the pre-established terms of the ARPS. In the recent market, with short term rates at multi-generational lows, those maximum rates also have been low.

One continuing implication for common shareholders from the auction failures is that each Fund's cost of leverage likely has been incrementally higher at times than it otherwise might have been had the auctions continued to be successful. As a result, each Fund's common share earnings likely have been incrementally lower at times than they otherwise might have been.

As noted in past shareholder reports, the Nuveen funds' Board of Directors/Trustees authorized several methods that can be used separately or in combination to refinance a portion of the Nuveen funds' outstanding ARPS. Some funds have utilized tender option bonds (TOBs), also known as inverse floating rate securities, for leverage purposes. The amount of TOBs that a fund may use varies according to the composition of each fund's portfolio. Some funds have a greater ability to use TOBs than others. Some funds have issued Variable Rate Demand Preferred (VRDP) Shares or Variable Rate MuniFund Term Preferred (VMTP) Shares, which are a floating rate form of preferred stock with a mandatory term redemption. Some funds have issued MuniFund Term Preferred (MTP) Shares, a fixed rate form of preferred stock with a mandatory redemption period of three to five years.

During 2010 and 2011, certain Nuveen leveraged closed-end funds (including NQI, NIO, NIF, NVG and NEA) 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's recommendation.

Subsequently, 33 of the funds that received demand letters (including NQI, NIF, NVG and NEA) were named in a consolidated complaint as nominal defendants in a putative shareholder derivative action captioned Martin Safier, et al. 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 February 18, 2011 (the "Complaint"). The Complaint, filed on behalf of purported holders of each fund's common shares, also name Nuveen Fund Advisors, Inc. as a defendant, together with current and former Officers and interested Director/Trustees of each of the funds (together with the nominal defendants, collectively, the "Defendants"). The Complaint contains 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. The Defendants filed a motion to dismiss the suit and on December 16, 2011, the court granted that motion dismissing the Complaint with prejudice.

As of October 31, 2011, each of the Funds has redeemed all of their outstanding APRS at liquidation value.

As of October 31, 2011, the Funds have issued and outstanding MTP Shares, VMTP Shares and/or VRDP Shares as shown in the accompanying tables.

MTP Shares

		MTP Shares		
		Issued		
		at Liquidation	Annual	NYSE
Fund	Series	Value	Interest Rate	Ticker
NVG	2014	\$ 108,000,000	2.95%	NVG PrC