NUVEEN AMT-FREE MUNICIPAL INCOME FUND
Form N-CSRS
July 07, 2016

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: April 30, 2016

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.

Life is Complex
Nuveen makes things e-simple.
It only takes a minute to sign up for e-Reports. Once enrolled, you'll receive an e-mail as soon as your Nuveen Fund information is ready—no more waiting for delivery by regular mail. Just click on the link within the e-mail to see the report and save it on your computer if you wish.
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Chairman's Letter to Shareholders

Dear Shareholders,

The U.S. economy is now seven years into the recovery, but its pace remains stubbornly subpar compared to past recoveries. Economic data continues to be a mixed bag, as it has been throughout this expansion period. While the unemployment rate fell below its pre-recession level, a surprisingly weak jobs growth report in May was a disappointing sign, although not necessarily indicative of a lasting downtrend. Wages have grown slightly but not nearly enough to reinvigorate Americans' buying power. The housing market has improved markedly but its contribution to the recovery has been lackluster. Deflationary pressures, including the dramatic slide in commodity prices, have kept inflation much lower for longer than many expected.

Furthermore, frail economies across the rest of the world have continued to cast a shadow over the U.S. Although the European Central Bank and Bank of Japan have been providing aggressive monetary stimulus, including adopting negative interest rates in both Europe and Japan, their economies continue to lag the U.S.'s recovery. China's policy makers have also continued to manage its slowdown but investors are still worried about where the world's second-largest economy might ultimately land. Additionally, global markets were surprised by the U.K.'s June 23, 2016 referendum vote to leave the European Union, known as "Brexit." Heightened price volatility and negative sentiment are to be expected in the near term as markets readjust and await clarity on the Brexit process and its impact on the U.K., Europe and across the world.

Many of these ambiguities – both domestic and international – have kept the U.S. Federal Reserve (Fed) from raising short-term interest rates any further since December's first and only increase thus far. While markets rallied on the widely held expectation that the Fed would defer any increases until June, the unusually weak May jobs report and the Brexit concerns compelled the Fed to again hold rates steady.

With global economic growth still looking fairly fragile, financial markets have become more volatile over the past year. Although sentiment has improved and conditions have generally recovered from the intense volatility seen in early 2016, we expect that turbulence remains on the horizon for the time being. In this environment, Nuveen remains committed to both managing downside risks and seeking upside potential. If you're concerned about how resilient your investment portfolio might be, we encourage you to talk to your financial advisor.

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

Sincerely,

William J. Schneider
Chairman of the Board
June 24, 2016

Portfolio Managers' Comments
Nuveen Enhanced AMT-Free Municipal Credit Opportunities Fund (NVG)
Nuveen Performance Plus Municipal Fund, Inc. (NPP)
Nuveen Municipal Market Opportunity Fund, Inc. (NMO)
Nuveen Premium Income Municipal Fund 2, Inc. (NPM)
Nuveen AMT-Free Municipal Income Fund (NEA)
Nuveen Municipal High Income Opportunity Fund (NMZ)

These Funds feature portfolio management by Nuveen Asset Management, LLC (NAM), an affiliate of Nuveen Investments, Inc. Portfolio managers Thomas C. Spalding, CFA, Paul L. Brennan, CFA, and John V. Miller, CFA, review key investment strategies and the six-month performance of these six national Funds. Paul has managed NVG, NPM and NEA since 2006, and Tom assumed portfolio management responsibility for NPP and NMO in 2003. John has managed NMZ since its inception in 2003.

Effective May 31, 2016 (subsequent to the close of this reporting period), Tom Spalding, retired from NAM and Christopher L. Drahn, CFA, has taken over portfolio management responsibilities for NPP and NMO.

Effective May 26, 2016 (subsequent to the close of this reporting period), the investment policy changed for NMZ. The investment policy change allows the Fund to increase the maximum percent allowed to be invested in municipal securities rated below B-/B3 from 5% to 10%.

Effective April 11, 2016, a secondary benchmark (60% S&P Municipal Bond Investment Grade Index and 40% S&P Municipal Bond High Yield Index) was added for NVG. The secondary benchmark was added to better reflect the Fund's mandate in conjunction with the Fund's reorganization.

Effective February 5, 2016, the investment policy changed for NPP, NMO, NPM and NEA. Under the new policy, each Fund may invest up to 35% of its assets in municipal securities rated BBB and below or judged by the portfolio manager to be of comparable quality.

FUND REORGANIZATIONS

During August 2015, the Board of Directors/Trustees of the Nuveen Closed-End Funds approved a series of reorganizations for certain Funds included in this report (the Target Funds) to create one, larger-national Fund (the Acquiring Fund).

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 (S&P), Moody's Investors Service, Inc. (Moody's) or Fitch, Inc. (Fitch) 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. Certain bonds backed by U.S. government or agency securities are regarded as having an implied rating equal to the rating of such securities. Holdings designated N/R are not rated by these national rating agencies.

Bond insurance guarantees only the payment of principal and interest on the bond when due, and not the value of the bonds themselves, which will fluctuate with the bond market and the financial success of the issuer and the insurer. Insurance relates specifically to the bonds in the portfolio and not to the share prices of a Fund. No representation is made as to the insurers' ability to meet their commitments.

Refer to the Glossary of Terms Used in this Report for further definition of the terms used within this section.

Portfolio Managers' Comments (continued)
The reorganizations are as follows:

Target Funds	Symbol	Acquiring Fund	Symbol
Nuveen Municipal Opportunity Fund, Inc.	NIO	Nuveen Dividend Advantage Municipal Income	NVG
Nuveen Quality Municipal Fund, Inc.	NQI	Fund, renamed Nuveen Enhanced AMT-Free	
Nuveen Quality Income Municipal Fund, Inc.	NQU	Municipal Credit Opportunities Fund	

During March 2016, the reorganizations were approved by shareholders and became effective before the opening of business on April 11, 2016.

During February 2016, the Board of Directors/Trustees of the Nuveen Closed-End Funds approved a series of reorganizations for certain Funds included in this report (the Target Funds) to create one, larger-national Fund (the Acquiring Fund).

The approved reorganizations are as follows:

Target Funds	Symbol	Acquiring Fund	Symbol
Nuveen Performance Plus Municipal Fund, Inc.	NPP	Nuveen AMT-Free Municipal Income	NEA
Nuveen Municipal Market Opportunity Fund, Inc.	NMO	Fund, to be renamed Nuveen Enhanced	
Nuveen Premium Income Municipal Fund 2, Inc.	NPM	AMT-Free Municipal Quality Fund	

See Notes to Financial Statements, Note 1 — General Information and Significant Accounting Policies, Fund Reorganizations for further information.

What key strategies were used to manage these Funds during the six-month reporting period ended April 30, 2016?

Municipal bonds rallied in the six-month reporting period amid falling interest rates, improved credit fundamentals, robust demand and tight supply. Our trading activity continued to focus on pursuing the Funds' investment objectives. We continued to seek bonds in areas of the market that we expected to perform well as the economy continued to improve. The Funds' positioning emphasized intermediate and longer maturities, lower rated credits and sectors offering higher yields. To fund these purchases, we generally reinvested the proceeds from called and maturing bonds. In some cases, we sold bonds that we believed had deteriorating fundamentals or could be traded for a better relative value, as well as selling short-dated, higher quality issues that we tend to hold over short timeframes as a source of liquidity.

We have also continued to be more cautious in selecting individual securities. As investor demand for municipal securities has increased and created a slight supply-demand imbalance, we've started to see underwriters bring new issues to market that are structured with terms more favorable to the issuer and perhaps less advantageous to the investor than in the recent past. We believe this shift in the marketplace merits extra vigilance on our part to ensure that every credit considered for the portfolio offers adequate reward potential for the level of risk to the bondholder. In cases where our convictions have been less certain, we have sought compensation for the additional risk or have passed on the deal all together.

Trading activity covered a range of sectors and remained consistent with our strategic emphasis on lower rated, longer maturity credits. During this reporting period, NVG, NPP, NMO, NPM and NEA were active buyers in the transportation, health care and utilities sectors. In the transportation sector, tollroads and airports have continued to benefit from improving fundamentals in the economic recovery. Both air and road travel have increased, while airports and tollroads tend to be critical assets with few competitors. During this reporting period, we increased our Texas tollroad exposures in NVG, NPP, NMO, NPM and NEA. In addition, NPP and NMO established a position in a newly issued New Jersey State Transportation Trust credit, and NVG, NPM and NEA added an Illinois Toll Authority bond.

In the health care sector, NPP and NMO each purchased several hospital bonds, including Wisconsin Health for Ascension Health Services and Orange County for Orlando Health. Ascension is the largest and possibly best-run hospital network in the country, with a strong balance sheet and AA rating. Orlando Health, which operates six hospitals in the Orlando, Florida area, carries an A rating, and appears to be improving its financial position after losing market share a few years ago. We also selectively bought health care credits in NVG and NEA during this reporting period.

The utility sector presented several buying opportunities for the Funds during this reporting period. The sector has suffered recently on concerns about falling commodity prices and a shunning by investors, but we believe the higher yields, in select cases, compensate investors for the risk we're taking. NVG, NPM and NEA bought a bond issued for public utility provider South Carolina Santee Cooper. We bought a Springfield Electric Revenue issue in NVG, NPP and NMO, taking advantage of the recent price dislocation in Illinois' municipal bond market.

In NMZ, we continued to focus on research and the selection of individual credits with the potential for improvement as the key contributors to performance. NMZ emphasized bonds with above-market coupons and stable-to-improving credit fundamentals. During this reporting period, we continued to favor areas of the market that have been key long-term overweight positions in the Fund's portfolio, including the industrial development revenue (IDR), land-backed, health care and tobacco sectors.

We added two new IDR sector positions during this period, Allegheny County U.S. Steel and Maryland CNX Marine Terminal. These bonds were available at deep discounts due to their exposure to commodity prices and the negative sentiment surrounding commodity supply surplus. As some of these concerns eased, both positions subsequently delivered positive performance.

Land-backed bonds, also known as special assessment or "dirt bonds," have been an attractive source of opportunities for NMZ, as the real estate market has continued to rebound and credit fundamentals have improved. The bonds are used to finance basic infrastructure projects and are repaid with property taxes as the land becomes more valuable as a result of its development. We added Jefferson Center Metropolitan District 1 in Colorado, Northern Palm Beach County Florida Improvement District Water Control and Babcock Ranch Community Independent Special Assessment bonds.

Like in the other five Funds, the health care sector remains a longstanding strategic position in NMZ as well. NMZ bought a New York City Resource Corporation for Albert Einstein College of Medicine, Inc. credit in mid-January that performed well through the end of the reporting period. We also invested in a Daughters of Charity Health System bond. This California-based, seven-hospital system has been struggling and is under new management, which we believe can turn it around over time. NMZ also added to its existing position in Colorado Health for American Baptist Homes Project, a network of senior assisted living communities.

Also during this reporting period, NMZ took advantage of a Chicago local general obligation bond (GO) opportunity. The Chicago Board of Education, which manages the Chicago Public Schools system, issued new bonds in January 2016 to help manage some of school system's short-term funding needs. NMZ bought these bonds, which offered high yields and long maturities, and were available at attractive prices due to heightened investor concerns about these credits at the time of issue. While the Chicago Board of Education continues to face challenges, the stabilization of some of the concerns helped the bond perform well since we bought it.

For all six Funds, cash for new purchases was generated mainly from maturing and called bonds. NMZ also holds bonds that make sinking fund payments, which are monies an issuer sets aside to periodically repay a portion of the bond issue during a bond's lifetime. During this reporting period, NMZ received ample cash from these sinking fund payments, dividend reinvestments and share offerings in the secondary market, as well as from maturing and called bonds, to fund its buying activity.

As of April 30, 2016, all of these Funds continued to use inverse floating rate securities. We employ inverse floaters for a variety of reasons, including duration management and income and total return enhancement. As part of our duration management strategies, NVG, NPM and NEA also invested in forward interest rates swaps to help reduce price volatility risk to movements in U.S. interest rates relative to the Funds' benchmark. Although these swaps had a negative impact on performance, the three Funds' overall duration positioning was a positive contributor to performance during this reporting period.

How did the Funds perform during the six-month reporting period ended April 30, 2016?

The tables in each Fund's Performance Overview and Holding Summaries section of this report provide the Funds' total returns for the six-month, one-year, five-year and ten-year periods ended April 30, 2016. Each Fund's total returns at common share net asset value (NAV) are compared with the performance of a corresponding market index and Lipper classification average.

For the six months ended April 30, 2016, the total returns on common share NAV for NVG, NPP, NMO, NPM and NEA outperformed both the return for the national S&P Municipal Bond Index and the average return for the Lipper General & Insured Leveraged Municipal Debt Funds Classification Average. NMZ outperformed the return on both the S&P Municipal Bond High Yield Index and the S&P Municipal Bond Index but lagged the average return for the Lipper High-Yield Municipal Debt Funds Classification Average.

For NVG, NPP, NMO, NPM and NEA, duration and yield curve positioning were among the main positive contributors to performance during this reporting period. Consistent with our long term strategy, these Funds tended to have longer durations than the benchmark, with overweightings in the longer parts of the yield curve that performed well and underweightings in the underper-forming shorter end of the curve. NPP and NMO, which have higher weightings in zero coupon bonds, benefited from the strong performance of this segment of the market. "Zeros," which are typically issued with maturities of 25 years and longer remained in favor with investors seeking higher yields.

Credit ratings allocations also boosted performance of NVG, NPP, NMO, NPM and NEA during this reporting period. The returns of lower quality bonds generally outpaced those of higher quality credits due to investor demand for higher yielding assets and a willingness to increase credit risk because of improving credit fundamentals. The Funds' overweight allocations to the lower quality categories and underweight allocations to AAA and AA rated credits were advantageous to performance.

Sector allocations and individual credit selection provided additional gains for the Funds. The tobacco sector, the best-performing sector during this reporting period, contributed positively to the performance of NVG, NPP, NMO, NPM and NEA. The health care and transportation sectors were also among the top-performing segments in the municipal market in this reporting period. The Funds' exposures to these two sectors, which were generally overweight allocations relative to the benchmark, also boosted relative returns.

In addition, the use of regulatory leverage was an important positive factor affecting the performance of the Funds. Leverage is discussed in more detail later in the Fund Leverage section of this report.

For NMZ, which is primarily compared to the S&P Municipal Bond High Yield Index, many of the same factors drove its performance. Within the high yield segment of the municipal bond market, tobacco and Puerto Rico bonds continued to be the largest movers during this reporting period. The Fund had no exposure to Puerto Rico credits during this reporting period, which was beneficial to performance because the group underperformed due to the Commonwealth's weakening credit outlook. The tobacco sector, in contrast, bested all other sectors by a wide margin during this reporting period. Tobacco credits benefited from their liquidity during a period of strong investor demand and a surprise uptick in cigarette sales in 2015. The Fund's underweight tobacco exposure was a detractor from relative performance. Although the Fund's tobacco weighting did marginally increase over the reporting period mostly because of market appreciation and to a lesser extent trading activity, it remained well below that of the benchmark index because we consider the high yield benchmark's weight to be too high for NMZ given our current assessment of the sector.

Nevertheless, positive returns in other areas of the portfolio more than compensated for this relative loss. NMZ's use of leverage and our selection of bonds within its tender option bond trusts contributed positively to performance, as did the Fund's longer duration and maturity profile. Individual credit selections also added value during this reporting period, due to spread narrowing and higher distribution yields across a diverse range of sectors and issues. NMZ's position in New York Liberty for World Trade Center 3 bonds was bolstered by good progress in the project's construction and strong leasing activity, as well as by the scarcity value of New York City tax-exempt bonds. Several new positions contributed to performance after we added them in the second half of the reporting period. We bought the Allegheny County U.S. Steel, CNX Marine Terminal and Chicago Board of Education credits at discounted prices and, as investors' fears were mitigated, the bonds' yield spreads narrowed, which aided performance.

An Update Involving Puerto Rico

As noted in the Funds' previous shareholder reports, we continue to monitor situations in the broader municipal market for any impact on the Funds' holdings and performance: the ongoing economic problems of Puerto Rico is one such case. Puerto Rico's continued economic weakening, escalating debt service obligations, and long-standing inability to deliver a balanced budget led to multiple downgrades on its debt over the past two years. Puerto Rico has warned investors since 2014 that the island's debt burden may be unsustainable and the Commonwealth has been exploring various strategies to deal with this burden, including Chapter 9 bankruptcy, which is currently not available by law. Subsequent to the close of the reporting period, Puerto Rico's effort to restructure its public utility debt was struck down by the U.S. Supreme Court. All Puerto Rico debt restructuring efforts are now concentrated in Congress.

In terms of Puerto Rico holdings, shareholders should note that, as of the end of this reporting period, NVG, NPP, NMO and NEA had limited exposure which was either insured or investment grade to Puerto Rico debt, 0.28%, 0.74%, 0.51% and 0.42%, respectively, while NPM and NMZ did not hold any Puerto Rico bonds. The Puerto Rico credits offered higher yields, added diversification and triple exemption (i.e., exemption from most federal, state and local taxes). Puerto Rico general obligation debt is currently rated Caa2/CC/CC (below investment grade) by Moody's, S&P and Fitch, respectively, with negative outlooks.

A Note About Investment Valuations

The municipal securities held by the Funds are valued by the Funds' pricing service using a range of market-based inputs and assumptions. A different municipal pricing service might incorporate different assumptions and inputs into its valuation methodology, potentially resulting in different values for the same securities. These differences could be significant, both as to such individual securities, and as to the value of a given Fund's portfolio in its entirety. Thus, the current net asset value of a Fund's shares may be impacted, higher or lower, if the Fund were to change pricing service, or if its pricing service were to materially change its valuation methodology. The Funds have received notification by their current municipal bond pricing service that such service has agreed to be acquired by the parent company of another pricing service, and that the transaction is under regulatory review. Thus there is an increased risk that each Fund's pricing service may change, or that the Funds' current pricing service may change its valuation methodology, either of which could have an impact on the net asset value of each Fund's shares.

Fund Leverage

IMPACT OF THE FUNDS' LEVERAGE STRATEGIES ON PERFORMANCE

One important factor impacting the returns of the Funds relative to their comparative benchmarks was the Funds' use of leverage through their issuance of preferred shares and/or investments in inverse floating rate securities, which represent leveraged investments in underlying bonds. The Funds use leverage because our research has shown that, over time, leveraging provides opportunities for additional income, particularly in the recent market environment where short-term market rates are at or near historical lows, meaning that the short-term rates the Fund has been paying on its leveraging instruments have been much lower than the interest the Fund has been earning on its portfolio of long-term bonds that it has bought with the proceeds of that leverage. However, use of leverage also can expose the Fund to additional price volatility. When a Fund uses leverage, the Fund will experience a greater increase in its net asset value if the municipal bonds acquired through the use of leverage increase in value, but it will also experience a correspondingly larger decline in its net asset value if the bonds acquired through leverage decline in value, which will make the Fund's net asset value more volatile, and its total return performance more variable over time. In addition, income in levered funds will typically decrease in comparison to unlevered funds when short-term interest rates increase and increase when short-term interest rates decrease. Leverage made a positive contribution to the performance of these Funds over this reporting period.

As of April 30, 2016, the Funds' percentages of leverage are as shown in the accompanying table.

	NVG	NPP	NMO	NPM	NEA	NMZ
Effective Leverage*	34.96%	36.58%	33.91%	36.81%	34.42%	31.68%
Regulatory Leverage*	30.21%	34.68%	32.60%	30.23%	29.08%	10.17%

* Effective Leverage is a Fund's effective economic leverage, and includes both regulatory leverage and the leverage effects of certain derivative and other investments in a Fund's portfolio that increase the Fund's investment exposure. Currently, the leverage effects of Tender Option Bond (TOB) inverse floater holdings are included in effective leverage values, in addition to any regulatory leverage. Regulatory leverage consists of preferred shares issued or borrowings of a Fund. Both of these are part of a Fund's capital structure. Regulatory leverage is subject to asset coverage limits set forth in the Investment Company Act of 1940.

Fund Leverage (continued)

THE FUNDS' REGULATORY LEVERAGE

As of April 30, 2016, the Funds have issued and outstanding Variable Rate MuniFund Term Preferred (VMTP) Shares and/or Variable Rate Demand Preferred (VRDP) Shares as shown in the accompanying table.

	VMTP Shares		VRDP Shares			
Fund	Series	Shares Issued at Liquidation Preference	Series		Shares Issued at Liquidation Preference	Total
NVG	2018*	$240,400,000	1		$179,000,000	
	—	—	2	*	$385,400,000	
	—	—	3	*	$667,200,000	
		$240,400,000			$1,231,600,000	$1,472,000,000
NPP	2018	$535,000,000	—		—	$535,000,000
NMO	—	—	1		$350,900,000	$350,900,000
NPM	—	—	1		$489,500,000	$489,500,000
NEA	2016	$151,000,000	1		$219,000,000	
	—	—	2		$130,900,000	
		$151,000,000	—		$349,900,000	$500,900,000
NMZ	2018	$87,000,000	—		—	$87,000,000

*VMTP Shares and VRDP Shares issued in connection with the reorganization.

Subsequent to the close of this reporting period, NVG issued an additional $180,000,000 VRDP Shares at liquidation preference, which will be used to invest in additional municipal securities in accordance with its investment objectives and policies and to pay costs associated with the transaction.

Subsequent to the close of this reporting period, NEA refinanced all of its outstanding VMTP Shares with the issuance of new VMTP Shares. NEA also issued an additional $87,000,000 VMTP Shares at liquidation preference to be invested in accordance with its investment policies.

Refer to Notes to Financial Statements, Note 4 — Fund Shares, Preferred Shares for further details on VMTP and VRDP Shares and each Fund's respective transactions.

Common Share Information

COMMON SHARE DISTRIBUTION INFORMATION

The following information regarding the Funds' distributions is current as of April 30, 2016. Each Fund's distribution levels may vary over time based on each Fund's investment activity and portfolio investments value changes. During the current reporting period, each Fund's distributions to common shareholders were as shown in the accompanying table.

	Per Common Share Amounts		
Ex-Dividend Date	NVG	NPP	NMO