PUTNAM MANAGED MUNICIPAL INCOME TRUST Form N-CSR December 28, 2007

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: (811-05740)

Exact name of registrant as specified in charter: Putnam Managed Municipal Income Trust

Address of principal executive offices: One Post Office Square, Boston, Massachusetts 02109

Name and address of agent for service: Beth S. Mazor, Vice President

One Post Office Square

Boston, Massachusetts 02109

Copy to: John W. Gerstmayr, Esq.

Ropes & Gray LLP

One International Place

Boston, Massachusetts 02110

Registrant s telephone number, including area code: (617) 292-1000

Date of fiscal year end: October 31, 2007

Date of reporting period: November 1, 2006 - October 31, 2007

Item 1. Report to Stockholders:

The following is a copy of the report transmitted to stockholders pursuant to Rule 30e-1 under the Investment Company Act of 1940:

What makes Putnam different?

A time-honored tradition in money management

Since 1937, our values have been rooted in a profound sense of responsibility for the money entrusted to us.

A prudent approach to investing

We use a research-driven team approach to seek consistent, dependable, superior investment results over time, although there is no guarantee a fund will meet its objectives.

Funds for every investment goal

We offer a broad range of mutual funds and other financial products so investors and their financial representatives can build diversified portfolios.

A commitment to doing what s right for investors

With a focus on investment performance and in-depth information about our funds, we put the interests of investors first and seek to set the standard for integrity and service.

Industry-leading service

We help investors, along with their financial representatives, make informed investment decisions with confidence.

In 1830, Massachusetts Supreme Judicial Court Justice Samuel Putnam established The Prudent Man Rule, a legal foundation for responsible money management.

THE PRUDENT MAN RULE

All that can be required of a trustee to invest is that he shall conduct himself faithfully and exercise a sound discretion. He is to observe how men of prudence, discretion, and intelligence manage their own affairs, not in regard to speculation, but in regard to the permanent disposition of their funds, considering the probable income, as well as the probable safety of the capital to be invested.

Putnam Managed Municipal Income Trust

10131107

Annual Report

Message from the Trustees	1
About the fund	2
Performance and portfolio snapshots	4
Report from the fund managers	5
Performance in depth	9
Your fund s management	11
Terms and definitions	12
Trustee approval of management contract	13

Other information for shareholders	16
Financial statements	18
Federal tax information	41
Shareholder meeting results	42
Compliance certifications	43
About the Trustees	44
Officers	48

Cover photograph: @ Richard H. Johnson

Message from the Trustees

Dear Fellow Shareholder:

In November, Putnam Investments celebrated its 70th anniversary. From modest beginnings in Boston, Massachusetts, Putnam has grown into a global asset manager that serves millions of investors worldwide. Coincident with this anniversary, we are pleased to announce that Great-West Lifeco Inc. recently completed its purchase of Putnam Investments from Marsh & McLennan Companies, Inc. Great-West Lifeco is a financial services holding company with operations in Canada, the United States, and Europe, and is a member of the Power Financial Corporation group of companies. With this change, Putnam becomes part of a successful organization with a long-standing commitment to high-quality investment management and financial services. The change in ownership is not expected to affect the Putnam funds, the way Putnam manages money, or the funds management teams.

We would like to take this opportunity to announce that Putnam President and Chief Executive Officer Ed Haldeman, one of your fund s Trustees since 2004, was named President of the Funds, assuming this role from George Putnam, III. This change, together with the completion of the transaction with Great-West Lifeco, has enabled George Putnam to become an independent Trustee of the funds. Both George and Ed will continue serving on the Board of Trustees in our collective role of overseeing the Putnam funds on your behalf.

We are also pleased to announce that a new independent Trustee, Robert J. Darretta, has joined your fund s Board of Trustees. Mr. Darretta brings extensive leadership experience in corporate finance and accounting. He is a former Vice Chairman of the Board of Directors of Johnson & Johnson, one of the leading U.S. health-care and consumer products companies, where he also served as Chief Financial Officer, Executive Vice President, and Treasurer.

Finally, as you may already be aware, in February of this year Putnam Management and the Board of the Trustees proposed that another Putnam closed-end fund, Putnam High Yield Municipal Trust, be merged into your fund. We believe this merger, if approved, will be in the best interests of shareholders of both funds. Please see page 7 of this report for more details concerning this proposal. As always, we thank you for your support of the Putnam funds.

Putnam Managed Municipal Income Trust: potential for income exempt from federal income tax

Municipal bonds finance important public projects such as schools, roads, and hospitals, and they can help investors keep more of the income they receive from their investment. Putnam Managed Municipal Income Trust offers an additional advantage the flexibility to invest in municipal bonds issued by any state in the country.

Municipal bonds are typically issued by states and local municipalities to raise funds for building and maintaining public facilities. The income from a municipal bond is generally exempt from federal income tax. The bonds are backed by either the issuing city or town or by revenues collected from usage fees, and have varying degrees of credit risk that the issuer won to be able to repay the bond.

The fund s management team can select bonds from a variety of state and local governments throughout the United States. The fund also combines bonds of differing credit quality. In addition to investing in high-quality bonds, the team allocates a portion of the portfolio to lower-rated bonds, which may offer higher income in return for more risk.

When deciding whether to invest in a bond, the team considers factors such as credit risk, interest-rate risk, and the risk that the bond will be prepaid. The team is backed by Putnam s fixed-income organization, one of the largest in the investment management industry, in which municipal bond analysts are grouped into sector teams and conduct ongoing research. Once a bond has been purchased, the team continues to monitor developments that affect the bond market, the sector, and the issuer of the bond. Typically, lower-rated bonds are reviewed more often because of their greater potential risk.

The goal of the management team s research and active management is to stay a step ahead of the industry and pinpoint opportunities to adjust the fund sholdings either by acquiring more of a particular bond or selling it for the benefit of the fund and its shareholders.

Capital gains, if any, are taxable for federal and, in most cases, state purposes. For some investors, investment income may be subject to the federal alternative minimum tax. Income from federally exempt funds may be subject to state and local taxes. Please consult with your tax advisor for more information. Mutual funds that invest in bonds are subject to certain risks, including interest-rate risk, credit risk, and infla-tion risk. As interest rates rise, the prices of bonds fall. Long-term bonds are more exposed to interest-rate risk than short-term bonds. Lower-rated bonds may offer higher yields in return for more risk. Unlike bonds, bond funds have ongoing fees and expenses. The fund uses leverage, which involves risk and may increase the volatility of the fund s net asset value. The fund s shares trade on a stock exchange at market prices, which may be higher or lower than the fund s net asset value.

How do closed-end funds differ from open-end funds?

More assets at work While open-end funds need to maintain a cash position to meet redemptions, closed-end funds are not subject to redemptions and can keep more of their assets invested in the market.

Traded like stocks Closed-end fund shares are traded on stock exchanges, and their market prices fluctuate in response to supply and demand, among other factors.

Market price vs. net asset value Like an open-end fund s net asset value (NAV) per share, the NAV of a closed-end fund share equals the current value of the fund s assets, minus its liabilities, divided by the number of shares outstanding. However, when buying or selling closed-end fund shares, the price you pay or receive is the market price. Market price reflects current market supply and demand and may be higher or lower than the NAV.

Strategies for higher income Closed-end funds have greater flexibility to use strategies such as leverage for example, issuing preferred shares to raise capital, then seeking to invest it at higher rates to enhance return for common shareholders.

Municipal bonds may finance a range of community projects and thus play a key role in local development.

Identified project areas are not necessarily represented in your fund s portfolio as of the date of this report, and your fund may invest in securities representing projects not shown here. Your fund s holdings will vary over time. For more information on current fund holdings, see pages 6 and 20.

2

Performance and portfolio snapshots

Putnam Managed Municipal Income Trust

Average annual total return (%) comparison as of 10/31/07

Data is historical. Past performance does not guarantee future results. More recent returns may be less or more than those shown. Investment return and net asset value will fluctuate, and you may have a gain or a loss when you sell your shares. Performance assumes reinvestment of distributions and does not account for taxes. Fund returns in the bar chart are at NAV. See pages 9 10 for additional performance information, including fund returns at market price. Index and Lipper results should be compared to fund performance at NAV. Lipper calculates performance differently than the closed-end funds it ranks, due to varying methods for determining a fund's monthly reinvestment NAV.

While we expect to see continued volatility in the coming months, the silver lining in any market downturn is that many securities may become available at attractive prices.

Paul Drury, Portfolio Leader, Putnam Managed Municipal Income Trust

Credit qualities shown as a percentage of portfolio value as of 10/31/07. A bond rated Baa or higher (MIG3/VMIG3 or higher, for short-term debt) is considered investment grade. The chart reflects Moody s ratings; percentages may include bonds not rated by Moody's but considered by Putnam Management to be of comparable quality. Ratings will vary over time.

4

Report from the fund managers

The year in review

Solid performance from several sectors we emphasized in your fund s portfolio, including single-family housing, power, and long-term care, helped support results for the fiscal year ended October 31, 2007. The fund s interest-rate management strategy also boosted relative performance by protecting principal value when interest rates rose during May s market sell-off. However, market sentiment changed dramatically over the period, as the crisis in the subprime mortgage lending market led investors to curb their appetite for risk significantly. This flight to quality pushed down returns on lower-rated municipal bonds, which had been the strongest-performing area of the municipal bond market for some time. Amid this shift, the fund s overweight positions in tobacco settlement and hospital bonds held back relative performance. As a result, your fund s results for the year underperformed the average return of funds in its Lipper peer group and its benchmark index.

Market overview

A crisis in the subprime mortgage lending market and a resulting credit crunch weighed on the performance of many fixed-income sectors including municipal bonds during the year ended October 31, 2007. Yield spreads which represent the yield premium for investing in bonds that are riskier than U.S. Treasuries rose dramatically as investors demanded more return on riskier bonds. Consequently, the risk rally that persisted in the tax-exempt bond market during the past two years, in which low-quality bonds were among the strongest performers, came to an abrupt end.

During July and August, when the impact of the subprime crisis was most acutely felt in the municipal bond market, the yield curve—a graphical representation of differences in yield for bonds of comparable quality and different maturities—steepened. Long-term bond prices declined, and their yields rose, as investors reassessed the slim yield advantage that was being offered for the increased risk associated with holding longer-dated securities.

Market sector and fund performance

This comparison shows your fund s performance in the context of different market sectors for the 12 months ended 10/31/07. See the previous page and pages 9 10 for additional fund performance information. Index descriptions can be found on page 12.

5

Strategy overview

Given our expectation for rising interest rates, we maintained a short (defensive) portfolio duration relative to the average duration for the fund s Lipper peer group. This strategy helped relative results as the prices of longer-term tax-exempt bonds declined and their yields rose. Duration is a measure of a fund s sensitivity to changes in interest rates. Having a shorter-duration portfolio may help protect principal when interest rates rise, but it can reduce the potential for appreciation when rates fall. By the end of the period, we had extended the fund s duration to a more neutral positioning relative to its Lipper peer group.

Your fund s holdings

Although the crisis in the subprime mortgage lending market dampened performance throughout the municipal bond market over the period, the effects varied. In general, higher-quality bonds fared better than lower-quality bonds, which carry more risk and consequently found less favor among increasingly conservative, risk-averse investors. As investors reevaluated risk throughout their portfolios, the difference in yield between lower-rated and higher-quality bonds grew. Your fund s portfolio remained concentrated in high-quality municipal instruments during the period, with a large percentage of investment-grade bonds in the portfolio. However, the fund also maintained a number of lower-rated bond holdings, and these held back relative performance.

Tobacco settlement bonds remained a key component of the fund s holdings throughout the period. While a position in tobacco settlement bonds that exceeded the average position of the fund s peers boosted performance earlier in the fiscal year, these bonds detracted from relative returns for the year overall. Investors avoided the tobacco settlement sector, which weighed on its performance, as did concerns about the ability of the market to absorb new issuance. In particular, investors were concerned that the market would not be able to place the \$5 billion bond issue from **Buckeye Ohio Tobacco Settlement Finance Authority**. However, these fears proved to be unfounded as buyers purchased all the bonds. In fact, because tobacco settlement bonds were trading at what we believed to be very attractive levels, we continued to add them to your fund s portfolio, including a stake in the Ohio issue. We continued to find value in this sector throughout the period and have maintained the fund s overweight relative to the peer group average.

Although adversely affected during the period by the market s preference for higher-quality securities, hospital bonds can often reflect the earnings of the facilities and are often able to provide an attractive combination of high current income and appreciation potential.

Comparison of the fund s maturity and duration

This chart compares changes in the fund s average effective maturity (a

weighted average of the holdings maturities) and its average effective duration (a measure of its sensitivity to interest-rate changes).

Average effective duration and average effective maturity take into account put and call features, where applicable, and reflect prepayments for mortgage-backed securities. Duration is usually shorter than maturity because it reflects interest payments on a bond prior to its maturity. Duration may be higher for funds that use leverage, which magnifies the effects of interest-rate changes.

6

During the recent period, the fund maintained a slight overweight, relative to the peer group average, in the health-care sector. Among the fund s holdings in this area is a position in bonds issued in 2007 for **Community Health Care of Central California (CMC)** to fund expansion at its CRMC and Clovis hospitals. A well-managed organization, CMC recently consolidated downtown inpatient operations into one modern facility at CRMC, which should result in significant cost savings and increased patient volumes. The organization s other hospital, Clovis, is located in a growing market and will be expanded over time as capital allows and demographics demand.

The fund also maintained a slight emphasis on municipal bonds issued for companies in the energy sector. One recent acquisition in this area is a high-quality bond issue from oil refiner **Valero Energy**. With oil prices continuing to surge, prices on refined products remain strong and demand for Valero s services remains high. At the same time, strict environmental requirements for pollution-control equipment and other measures that benefit the municipalities surrounding these energy companies provide further support for municipal bond issues such as this.

The fund retained a slightly overweight position in **single-family housing bonds** relative to the fund speer group average. Despite a general slowdown in the housing sector during the period, this strategy proved helpful to results, as reduced mortgage-prepayment activity and solid investor demand continued to support bonds in this sector. The fund sportfolio includes municipal bonds issued for single-family housing in Idaho, New Mexico, South Dakota, Mississippi, and Texas.

Please note that the holdings discussed in this report may not have been held by the fund for the entire period. Portfolio composition is subject to review in accordance with the fund s investment strategy and may vary in the future.

Of special interest

Tender offer results

In June 2007, Putnam Investments announced the launch of separate tender offers for shares of eight Putnam closed-end funds, including shares of Putnam Managed Municipal Income Trust. As a result, in July the fund repurchased approximately 10% of its outstanding common shares, the maximum number of shares covered by the offer. For additional information about share repurchases under the offer or current share repurchase programs, see page 39 of this report.

In approving the tender offer for the funds, the Trustees considered that tender offers would give shareholders an opportunity to sell at least some of their shares at a price close to NAV, and that the tender offer price of 98% of NAV would help offset the costs that shareholders who retain their shares would otherwise bear in connection with the tender offer.

Merger with another Putnam closed-end fund proposed

In February 2007, Putnam Investments and the Board of Trustees of the Putnam Funds announced a comprehensive initiative intended to concentrate the lineup of closed-end funds managed by Putnam Investments. The initiative includes a proposal to merge another Putnam fund, Putnam High Yield Municipal Trust, into your fund. This merger must be approved by the common and preferred shareholders of both funds. The Trustees believe that approving the merger is in the best interests of shareholders of each fund because it would significantly increase the size of the combined fund. A larger asset size potentially could reduce the fund s expense ratio and increase the liquidity in the trading market for fund shares. Proxy statements, which include additional pertinent information to enable you to make an informed decision about the merger, were mailed in recent months. If approved by shareholders, the merger is expected to take place by early 2008.

7

The outlook for your fund

The following commentary reflects anticipated developments that could affect your fund over the next six months, as well as your management team s plans for responding to them.

We are encouraged that the liquidity crisis that has affected the fixed-income markets is being addressed by the Federal Reserve (the Fed) and other regulatory and legislative bodies. In September, the Fed reduced the federal funds rate—the benchmark rate for overnight loans between banks—by 0.50%, and lowered the rate by an additional 0.25% in October. These actions helped both the taxable and tax-exempt markets to stabilize by restoring a level of confidence that the central bank is prepared to step in when extreme events disrupt the bond market—s normal balance of supply and demand.

While we expect to see continued volatility in the coming months, the silver lining in any market downturn is that many securities may become available at attractive prices. We believe this may be the case for bonds at the lower end of the investment-grade credit spectrum. The selling pressure that caused investment-grade bonds—those rated Baa and above—to lag lower-rated bonds during the period has also created what we consider to be compelling values among these securities. For these reasons, we currently plan to add to the fund—s holdings in this area over the next several months.

The views expressed in this report are exclusively those of Putnam Management. They are not meant as investment advice.

Capital gains, if any, are taxable for federal and, in most cases, state purposes. For some investors, investment income may be subject to the federal alternative minimum tax. Income from federally exempt bonds may be subject to state and local taxes. Please consult your tax advisor for more information. Mutual funds that invest in bonds are subject to certain risks, including interest-rate risk, credit risk, and inflation risk. As interest rates rise, the prices of bonds fall. Long-term bonds are more exposed to interest-rate risk than short-term bonds. Lower-rated bonds may offer higher yields in return for more risk. Unlike bonds, bond funds have ongoing fees and expenses. The fund uses leverage, which involves risk and may increase the volatility of the fund s net asset value. The fund s shares trade on a stock exchange at market prices, which may be higher or lower than the fund s net asset value.

8

Your fund s performance

This section shows your fund s performance for periods ended October 31, 2007, the end of its most recent fiscal year. In accordance with regulatory requirements for mutual funds, we also include performance as of the most recent calendar quarter-end. Performance should always be considered in light of a fund s investment strategy. Data represents pasperformance. Past performance does not guarantee future results. More recent returns may be less or more than those shown. Investment return, net asset value, and market price will fluctuate, and you may have a gain or a loss when you sell your shares.

Fund performance Total return for periods ended 10/31/07

Lipper High Yield Municipal Debt Funds Lehman Municipal (closed-end) NAV Market price Bond Index category average*

Life of fund (since 2/24/89)	6.72%	5.67%	6.72%	5.96%
10 years	59.73	20.43	67.51	66.58
Annual average	4.79	1.88	5.29	5.20
5 years	40.10	32.01	24.37	39.81
Annual average	6.98	5.71	4.46	6.91
3 years	16.39	16.63	11.58	20.98
Annual average	5.19	5.26	3.72	6.54
1 year	1.27	0.14	2.91	1.44

Performance assumes reinvestment of distributions and does not account for taxes.

Index and Lipper results should be compared to fund performance at net asset value. Lipper calculates performance differently than the closed-end funds it ranks, due to varying methods for determining a fund's monthly reinvestment NAV.

9

Fund price and distribution information For the one year period ended 10/31/07

Distributions common shares			
Number		12	
Income ¹	\$0.4092		
Capital gains ²			
Total		\$0.4092	
Distributions preferred shares	Series A (550 shares)	Series B (550 shares)	Series C (650 shares)
Income ¹	\$3,790.31	\$3,793.55	\$3,703.89
Capital gains ²			
Total	\$3,790.31	\$3,793.55	\$3,703.89
Share value:	NAV	Market price	

^{*} Over the 1-year, 3-year, 5-year, 10-year, and life-of-fund periods ended 10/31/07, there were 15, 15, 12, 12, and 6 funds respectively, in this Lipper category.

10/31/06	\$ 8.37	\$ 7.58	
10/31/07	8.04	7.18	
Current yield (end of period) Current dividend rate ³	5.09%	5.70%	
Taxable equivalent ⁴	7.83	8.77	

¹ For some investors, investment income may be subject to the federal alternative minimum tax. Income from federally exempt funds may be subject to state and local taxes.

Fund performance as of most recent calendar quarter Total return for periods ended 9/30/07

NAV	Market price
6.73%	5.74%
60.04	23.36
4.81	2.12
34.64	21.44
6.13	3.96
17.07	18.36
5.39	5.78
1.60	2.44
	6.73% 60.04 4.81 34.64 6.13 17.07 5.39

10

Your fund s management

Your fund is managed by the members of the Putnam Tax Exempt Fixed-Income Team. Paul Drury is the Portfolio Leader, and Brad Libby, Susan McCormack, and Thalia Meehan are Portfolio Members, of your fund. The Portfolio Leader and Portfolio Members coordinate the team s management of the fund. For a complete listing of the members of the Putnam Tax Exempt

² Capital gains, if any, are taxable for federal and, in most cases, state purposes.

³ Most recent distribution, excluding capital gains, annualized and divided by NAV or market price at end of period.

⁴ Assumes maximum 35% federal tax rate for 2007. Results for investors subject to lower tax rates would not be as advantageous.

Fixed-Income Team, including those who are not Portfolio Leaders or Portfolio Members of your fund, visit Putnam s Individual Investor Web site at www.putnam.com.

Investment team fund ownership

The table below shows how much the fund s current Portfolio Leader and Portfolio Members have invested in the fund and in all Putnam mutual funds (in dollar ranges). Information shown is as of October 31, 2007, and October 31, 2006.

Trustee and Putnam employee fund ownership

As of October 31, 2007, all of the Trustees of the Putnam funds owned fund shares. The table below shows the approximate value of investments in the fund and all Putnam funds as of that date by the Trustees and Putnam employees. These amounts include investments by the Trustees and employees immediate family members and investments through retirement and deferred compensation plans.

	Assets in the fund	Total assets in all Putnam funds
Trustees	\$27,000	\$ 92,000,000
Putnam employees	\$ 3,000	\$777,000,000

Other Putnam funds managed by the Portfolio Leader and Portfolio Members

Paul Drury is the Portfolio Leader, and Brad Libby, Susan McCormack, and Thalia Meehan are Portfolio Members, of Putnam High Yield Municipal Trust and Putnam Tax-Free High Yield Fund.

Thalia Meehan is the Portfolio Leader, and Paul Drury, Brad Libby, and Susan McCormack are Portfolio Members, of Putnam s open-end tax-exempt funds for the following states: Arizona, California, Massachusetts, Michigan, Minnesota, New Jersey, New York, Ohio, and Pennsylvania. The same group also manages Putnam AMT-Free Insured Municipal Fund, Putnam Municipal Bond Fund, Putnam Municipal Opportunities Trust, and Putnam Tax Exempt Income Fund.

Paul Drury, Brad Libby, Susan McCormack, and Thalia Meehan may also manage other accounts and variable trust funds advised by Putnam Management or an affiliate.

Changes in your fund s Portfolio Leader and Portfolio Members

Your fund s Portfolio Leader and Portfolio Members did not change during the year ended October 31, 2007.

11

Terms and definitions

Important terms

Total return shows how the value of the fund s shares changed over time, assuming you held the shares through the entire period and reinvested all distributions in the fund.

Net asset value (NAV) is the value of all your fund s assets, minus any liabilities and the net assets allocated to any outstanding preferred shares, divided by the number of outstanding common shares.

Market price is the current trading price of one share of the fund. Market prices are set by transactions between buyers and sellers on exchanges such as the New York Stock Exchange.

Current yield is the annual rate of return earned from dividends or interest of an investment. Current yield is expressed as a percentage of the price of a security, fund share, or principal investment.

Comparative indexes

Lehman Aggregate Bond Index is an unmanaged index of U.S. investment-grade fixed-income securities.

Lehman Municipal Bond Index is an unmanaged index of long-term fixed-rate investment-grade tax-exempt bonds.

Merrill Lynch 91-Day Treasury Bill Index is an unmanaged index that seeks to measure the performance of U.S. Treasury bills available in the marketplace.

S&P 500 Index is an unmanaged index of common stock performance.

Indexes assume reinvestment of all distributions and do not account for fees. Securities and performance of a fund and an index will differ. You cannot invest directly in an index.

Lipper is a third-party industry-ranking entity that ranks mutual funds. Its rankings do not reflect sales charges. Lipper rankings are based on total return at net asset value relative to other funds that have similar current investment styles or objectives as determined by Lipper. Lipper may change a fund s category assignment at its discretion. Lipper category averages reflect performance trends for funds within a category.

12

Trustee approval of management contract

General conclusions

The Board of Trustees of the Putnam funds oversees the management of each fund and, as required by law, determines annually whether to approve the continuance of your fund s management contract with Putnam Investment Management (Putnam Management). In this regard, the Board of Trustees, with the assistance of its Contract Committee consisting solely of Trustees who are not interested persons (as such term is defined in the Investment Company Act of 1940, as amended) of the Putnam funds (the Independent Trustees), requests and evaluates all information it deems reasonably necessary under the circumstances. Over the course of several months ending in June 2007, the Contract Committee met several times to consider the information provided by Putnam Management and other information developed with the assistance of the Board's independent counsel and independent staff. The Contract Committee reviewed and discussed key aspects of this information with all of the Independent Trustees. The Contract Committee recommended, and the Independent Trustees approved, the continuance of your fund's management contract, effective July 1, 2007.

In addition, in anticipation of the sale of Putnam Investments to Great-West Lifeco, at a series of meetings ending in March 2007, the Trustees reviewed and approved new management and distribution arrangements to take effect upon the change of control. Shareholders of all funds approved the management contracts in May 2007, and the change of control transaction was completed on August 3, 2007. Upon the change of control, the management contracts that were approved by the Trustees in June 2007 automatically terminated and were replaced by new contracts that had been approved by shareholders. In connection with their review for the June 2007 continuance of the Putnam funds management contracts, the Trustees did not identify any facts or circumstances that would alter the substance of the conclusions and recommendations they made in their review of the contracts to take effect upon the change of control.

The Independent Trustees approval was based on the following conclusions:

That the fee schedule in effect for your fund represented reasonable compensation in light of the nature and quality of the services being provided to the fund, the fees paid by competitive funds and the costs incurred by Putnam Management in providing such services, and

That this fee schedule represented an appropriate sharing between fund shareholders and Putnam Management of such economies of scale as may exist in the management of the fund at current asset levels.

These conclusions were based on a comprehensive consideration of all information provided to the Trustees and were not the result of any single factor. Some of the factors that figured particularly in the Trustees deliberations and how the Trustees considered these factors are described below, although individual Trustees may have evaluated the information presented differently, giving different weights to various factors. It is also important to recognize that the fee arrangements for your fund and the other Putnam funds are the result of many years of review and discussion between the Independent Trustees and Putnam Management, that certain aspects of such arrangements may receive greater scrutiny in some years than others, and that the Trustees conclusions may be based, in part, on their consideration of these same arrangements in prior years.

Management fee schedules and categories; total expenses

The Trustees reviewed the management fee schedules in effect for all Putnam funds, including fee levels and breakpoints, and the assignment of funds to particular fee categories. In reviewing fees and expenses, the Trustees generally focused their attention on material changes in circumstances for example, changes in a fund s size or investment style, changes in Putnam Management s operating costs or responsibilities, or changes in competitive practices in the mutual fund industry that suggest that consideration of fee changes might be warranted. The Trustees concluded that the circumstances did not warrant changes to the management fee structure of your fund, which had been carefully developed over the years, reexamined on many occasions and adjusted where appropriate. The Trustees focused on two areas of particular interest, as discussed further below:

CompetitivenessThe Trustees reviewed comparative fee and expense information for competitive funds, which indicated that, in a custom peer group of competitive funds selected by Lipper Inc., your fund ranked in the 20th percentile in management fees and in the 20th percentile in total expenses as of December 31, 2006 (the first percentile being the least expensive funds and the 100th percentile being the most expensive funds). The Trustees expressed their intention to monitor this information closely to

13

ensure that fees and expenses of your fund continue to meet evolving competitive standards.

Economies of scaleThe Trustees considered that most Putnam funds currently have the benefit of breakpoints in their management fees that provide shareholders with significant economies of scale, which means that the effective management fee rate of a fund (as a percentage of fund assets) declines as a fund grows in size and crosses specified asset thresholds. Conversely, as a fund shrinks in size as has been the case for many Putnam funds in recent years these breakpoints result in increasing fee levels. In recent years, the Trustees have examined the operation of the existing breakpoint structure during periods of both growth and decline in asset levels. The Trustees concluded that the fee schedules in effect for the funds represented an appropriate sharing of economies of scale at current asset levels. In reaching this conclusion, the Trustees considered the Contract Committee s stated intent to continue to work with Putnam Management to plan for an eventual resumption in the growth of assets, and to consider the potential economies that might be produced under various growth assumptions.

In connection with their review of the management fees and total expenses of the Putnam funds, the Trustees also reviewed the costs of the services to be provided and profits to be realized by Putnam Management and its affiliates from the relationship with the funds. This information included trends in revenues, expenses and profitability of Putnam Management and its affiliates relating to the investment management and distribution services provided to the funds. In this regard, the Trustees also reviewed an analysis of Putnam Management s revenues, expenses and profitability with respect to the funds management contracts, allocated on a fund-by-fund basis.

Investment performance

The quality of the investment process provided by Putnam Management represented a major factor in the Trustees evaluation of the quality of services provided by Putnam Management under your fund a management contract. The Trustees were assisted in their review of the Putnam funds investment process and performance by the work of the Investment Process Committee of the Trustees and the Investment Oversight Committees of the Trustees, which had met on a regular monthly basis with the funds portfolio teams throughout the year. The Trustees concluded that Putnam Management generally provides a high-quality investment process as measured by the experience and skills of the individuals assigned to the management of fund portfolios, the resources made available to such personnel, and in general the ability of Putnam Management to attract and retain high-quality personnel but also recognized that this does not guarantee favorable investment results for every fund in every time period. The Trustees considered the investment performance of each fund over multiple time periods and considered information comparing each fund a performance with various benchmarks and with the performance of competitive funds.

The Trustees noted the satisfactory investment performance of many Putnam funds. They also noted the disappointing investment performance of certain funds in recent years and discussed with senior management of Putnam Management the factors contributing to such underperformance and actions being taken to improve performance. The Trustees recognized that, in recent years, Putnam Management has made significant changes in its investment personnel and processes and in the fund product line to address areas of underperformance. In particular, they noted the important contributions of Putnam Management s leadership in attracting, retaining and supporting high-quality investment professionals and in systematically implementing an investment process that seeks to merge the best features of fundamental and quantitative analysis. The Trustees indicated their intention to continue to monitor performance trends to assess the effectiveness of these changes and to evaluate whether additional changes to address areas of underperformance are warranted.

In the case of your fund, the Trustees considered that your fund s common share cumulative total return performance at net asset value was in the following percentiles of its Lipper Inc. peer group (Lipper High Yield Municipal Debt Funds (closed-end)) (compared using tax-adjusted performance to recognize the different federal income tax treatment for capital gains distributions and exempt-interest distributions) for the one-, three- and five-year periods ended March 31, 2007 (the first percentile being the best-performing funds and the 100th percentile being the worst-performing funds):

One-year period	Three-year period	Five-year period
93rd	87th	76th

(Because of the passage of time, these performance results may differ from the performance results for more recent periods shown elsewhere in this report. Over the one-, three- and five-year periods ended March 31, 2007, there were 15, 15 and 12 funds,

14

respectively, in your fund s Lipper peer group.* Past performance is no guarantee of future returns.)

The Trustees noted the disappointing performance for your fund for the one-year, three-year, and five-year periods ended March 31, 2007. In this regard, the Trustees considered Putnam Management s view that one factor in the fund s relative underperformance during this period appeared to have been its selection of higher-quality bonds, given market conditions. The Trustees also considered Putnam Management s view that the fund s investment strategy and process are designed to produce attractive relative performance over longer periods. The Trustees also noted that the Trustees have approved the merger of this fund into Putnam Municipal Opportunities Trust, subject to shareholder approval.

As a general matter, the Trustees concluded that cooperative efforts between the Trustees and Putnam Management represent the most effective way to address investment performance problems. The Trustees noted that investors in the Putnam funds have, in effect, placed their trust in the Putnam organization, under the oversight of the funds. Trustees, to make appropriate decisions regarding the management of the funds. Based on the responsiveness of Putnam Management in the recent past to Trustee concerns about investment performance, the Trustees concluded that it is preferable to seek change within Putnam Management to address performance shortcomings. In the Trustees view, the alternative of terminating a management contract and engaging a new investment adviser for an underperforming fund would entail significant disruptions and would not provide any greater assurance of improved investment performance.

Brokerage and soft-dollar allocations; other benefits

The Trustees considered various potential benefits that Putnam Management may receive in connection with the services it provides under the management contract with your fund. These include benefits related to brokerage and soft-dollar allocations, whereby a portion of the commissions paid by a fund for brokerage may be used to acquire research services that may be useful to Putnam Management in managing the assets of the fund and of other clients. The Trustees indicated their continued intent to monitor the potential benefits associated with the allocation of fund brokerage to ensure that the principle of seeking best price and execution remains paramount in the portfolio trading processThe Trustees annual review of your fund s management contract also included the review of your fund s custodian agreement and investor servicing agreement with Putnam Fiduciary Trust Company (PFTC), which provide benefits to affiliates of Putnam Management. In the case of the custodian agreement, the Trustees considered that, effective January 1, 2007, the Putnam funds had engaged State Street Bank and Trust Company as custodian and began to transition the responsibility for providing custody services away from PFTC.

Comparison of retail and institutional fee schedules

The information examined by the Trustees as part of their annual contract review has included for many years information regarding fees charged by Putnam Management and its affiliates to institutional clients such as defined benefit pension plans, college endowments, etc. This information included comparison of such fees with fees charged to the funds, as well as a detailed assessment of the differences in the services provided to these two types of clients. The Trustees observed, in this regard, that the differences in fee rates between institutional clients and the funds are by no means uniform when examined by individual asset sectors, suggesting that differences in the pricing of investment management services to these types of clients reflect to a substantial degree historical competitive forces operating in separate market places. The Trustees considered the fact that fee rates across all asset sectors are higher on average for funds than for institutional clients, as well as the differences between the services that Putnam Management provides to the Putnam funds and those that it provides to institutional clients of the firm, but did not rely on such comparisons to any significant extent in concluding that the management fees paid by your fund are reasonable.

* The percentile rankings for your fund s common share annualized total return performance in the Lipper High Yield Municipal Debt Funds (closed-end) category for the one-, five- and ten-year periods ended September 30, 2007 were 69%, 70% and 62%, respectively. Over the one-, five- and ten-year periods ended September 30, 2007, the fund ranked 11 out of 15, 9 out of 12 and 8 out of 12, respectively. Unlike the information above, these rankings reflect performance before taxes. Note that this more recent information was not available when the Trustees approved the continuance of your fund s management contract.

15

Other information for shareholders

Important notice regarding share repurchase program

In September 2007, the Trustees of your fund approved the renewal of a share repurchase program that had been in effect since 2005. This renewal will allow your fund to repurchase, in the 12 months beginning October 8, 2007, up to 10% of the fund s common shares outstanding as of October 5, 2007.

Putnam s policy on confidentiality

In order to conduct business with our shareholders, we must obtain certain personal information such as account holders addresses, telephone numbers, Social Security numbers, and the names of their financial representatives. We use this information to assign an account number and to help us maintain accurate records of transactions and account balances. It is our policy to protect the confidentiality of your information, whether or not you currently own shares of our funds, and, in particular, not to sell information about you or your accounts to outside marketing firms. We have safeguards in place designed to prevent unauthorized access to our computer systems and procedures to protect personal information from unauthorized use. Under certain circumstances, we share this information with outside vendors who provide services to us, such as mailing and proxy solicitation. In those cases, the service providers enter into confidentiality agreements with us, and we provide only the information necessary to process transactions and perform other services related to your account. We may also share this information with our Putnam affiliates to service your account or provide you with information about other Putnam products or services. It is also our policy to share account information with your financial representative, if you ve listed one on your Putnam account. If you would like clarification about our confidentiality policies or have any questions or concerns, please don the sitate to contact us at 1-800-225-1581, Monday through Friday, 8:30 a.m. to 7:00 p.m., or Saturdays from 9:00 a.m. to 5:00 p.m. Eastern Time.

Proxy voting

Putnam is committed to managing our mutual funds in the best interests of our shareholders. The Putnam funds proxy voting guidelines and procedures, as well as information regarding how your fund voted proxies relating to portfolio securities during the 12-month period ended June 30, 2007, are available on the Putnam Individual Investor Web site, www.putnam.com/individual, and on the SEC s Web site, www.sec.gov. If you have questions about finding forms on the SEC s Web site, you may call the SEC at 1-800-SEC-0330. You may also obtain the Putnam funds proxy voting guidelines and procedures at no charge by calling Putnam s Shareholder Services at 1-800-225-1581.

Fund portfolio holdings

The fund will file a complete schedule of its portfolio holdings with the SEC for the first and third quarters of each fiscal year on Form N-Q. Shareholders may obtain the fund s Forms N-Q on the SEC s Web site at www.sec.gov. In addition, the fund s Forms N-Q may be reviewed and copied at the SEC s Public Reference Room in Washington, D.C. You may call the SEC at 1-800-SEC-0330 for information about the SEC s Web site or the operation of the Public Reference Room.

16

Amendment to your fund s bylaws

The fund is required to comply with asset coverage tests and other investment restrictions set forth in your fund's Bylaws. These requirements are imposed by the rating agencies that rate the fund spreferred shares. In December, 2007, the fund's Bylaws were amended to expand the categories of investments that may be counted toward meeting the asset coverage tests and to liberalize the calculations applied to those investments. The amendment effectively increases the fund sability to invest in various derivative and lower-rated instruments. Specifically, (a) zero coupon bonds and swaps (including total return swaps, interest rate swaps, currency swaps and credit default swaps) may now be included when performing asset coverage tests; (b) the minimum original issue size of a qualified municipal obligation has been reduced; (c) pre-refunded bonds will now be discounted like AAA/Aaa-rated bonds even if they are not re-rated; and (d) the discount factors assigned to investments will be reduced, making it easier for the fund to satisfy the asset coverage tests. This additional investment flexibility may increase the fund s exposure to credit risk and to risks associated with derivatives, some of which are described below.

Credit RiskInvestors normally expect to be compensated in proportion to the risk they are assuming. Thus, debt of issuers with poor credit prospects usually offers higher yields than debt of issuers with more secure credit. Higher-rated investments generally have lower credit risk. Investments rated below BBB by Standard & Poor's Rating Group Inc. (S&P) or its equivalent are below investment grade. A below investment grade rating reflects a greater possibility that the issuers may be unable to make timely payments of interest and principal and thus default. If this happens, or is perceived as likely to happen, the values of those investments will be more volatile and are likely to fall. A default or expected default could also make it difficult for Putnam Management to sell investments at prices approximating the values Putnam Management had previously placed on them.

Tax-exempt debt, particularly lower-rated tax-exempt debt, usually has a more limited market than taxable debt, which may at times make it difficult for to buy or sell certain tax-exempt investments or to establish their fair value. Credit risk is generally greater for investments that are issued at less than face value and that are required to make interest payments only at maturity rather than at intervals during the life of the investment.

DerivativesDerivatives are financial instruments whose value depends upon, or is derived from, the value of something else, such as one or more underlying investments, pools of investments or indexes. The fund may use derivatives both for hedging and non-hedging purposes or as a substitute for direct investments in the securities of one or more issuers.

Derivatives involve special risks and may result in losses. The successful use of derivatives depends on Putnam Management s ability to manage these sophisticated instruments. Some derivatives are "leveraged," which means that they provide a fund with investment exposure greater than the value of the fund's investment in the derivatives and may magnify or otherwise increase investment losses to the fund. The risk of loss from a short derivatives position a derivative the value of which moves in the opposite direction from the price of the underlying investments, pools of investments or indexes is theoretically unlimited. The prices of derivatives may move in unexpected ways due to the use of leverage or other factors, especially in unusual market conditions, and may result in increased volatility. The use of derivatives may also increase the amount of taxes payable by shareholders. Other risks arise from the potential inability to terminate or sell derivatives positions. A liquid secondary market may not always exist for the fund's derivatives positions at any time. In fact, many over-the-counter instruments (instruments not traded on an exchange) will not be liquid. Over-the-counter instruments also involve the risk that the other party to the transaction will not meet its obligations.

Financial statements

These sections of the report, as well as the accompanying Notes, preceded by the Report of Independent Registered Public Accounting Firm, constitute the fund s financial statements.

The fund s portfolioists all the fund s investments and their values as of the last day of the reporting period. Holdings are organized by asset type and industry sector, country, or state to show areas of concentration and diversification.

Statement of assets and liabilities shows how the fund s net assets and share price are determined. All investment and noninvestment assets are added together. Any unpaid expenses and other liabilities are subtracted from this total. The result is divided by the number of shares to determine the net asset value per share. (For funds with preferred shares, the amount subtracted from total assets includes the liquidation preference of preferred shares.)

Statement of operations shows the fund s net investment gain or loss. This is done by first adding up all the fund s earnings from dividends and interest income and subtracting its operating expenses to determine net investment income (or loss). Then, anynet gain or loss the fund realized on the sales of its holdings as well as any unrealized gains or losses over the period is added to or subtracted from the net investment result to determine the fund s net gain or loss for the fiscal year.

Statement of changes in net assets shows how the fund s net assets were affected by the fund s net investment gain or loss, by distributions to shareholders, and by changes in the number of the fund s shares. It lists distributions and their sources (net investment income or realized capital gains) over the current reporting period and the most recent fiscal year-end. The distributions listed here may not match the sources listed in the Statement of operations because the distributions are determined on a tax basis and may be paid in a different period from the one in which they were earned.

Financial highlights provide an overview of the fund s investment results, per-share distributions, expense ratios, net investment income ratios, and portfolio turnover in one summary table, reflecting the five most recent reporting periods. In a semiannual report, the highlight table also includes the current reporting period.

18

Report of Independent Registered Public Accounting Firm

The Board of Trustees and Shareholders Putnam Managed Municipal Income Trust:

We have audited the accompanying statement of assets and liabilities of Putnam Managed Municipal Income Trust, including the fund s portfolio, as of October 31, 2007, and the related statement of operations for the year then ended, the statements of changes in net assets for each of the two years in the period then ended and the financial highlights for each of the five years in the period then ended. These financial statements and financial highlights are the responsibility of the fund s management. Our responsibility is to express an opinion on these financial statements and financial highlights based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform our audit to obtain reasonable assurance about whether the financial statements and financial highlights are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. Our procedures included confirmation of securities owned as of October 31, 2007 by correspondence with the custodian and brokers or by other appropriate auditing procedures. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements and financial highlights referred to above present fairly, in all material respects, the financial position of Putnam Managed Municipal Income Trust as of October 31, 2007, the results of its operations for the year then ended, the changes in its net assets for each of the two years in the period then ended, and the financial highlights for each of the five years in the period then ended, in conformity with U.S. generally accepted accounting principles.

Boston, Massachusetts December 13, 2007

19

The fund s portfolio 0/31/07

Key to abbreviations

AMBAC AMBAC Indemnity Corporation

CIFG CIFG Assurance North America, Inc.

COP Certificate of Participation

FGIC Financial Guaranty Insurance Company

FHA Insd. Federal Housing Administration Insured

FHLMC Coll. Federal Home Loan Mortgage Corporation Collateralized

FNMA Coll. Federal National Mortgage Association Collateralized

FRB Floating Rate Bonds

FRN Floating Rate Notes

FSA Financial Security Assurance

GNMA Coll. Government National Mortgage Association Collateralized

G.O. Bonds General Obligation Bonds

MBIA MBIA Insurance Company

PSFG Permanent School Fund Guaranteed

Radian Insd. Radian Group Insured

U.S. Govt. Coll. U.S. Government Collateralized

VRDN Variable Rate Demand Notes

XLCA XL Capital Assurance

MUNICIPAL BONDS AND NOTES (151.1%)*

, ,	Rating**	Principal amount	Value
Alabama (0.5%)			
Butler, Indl. Dev. Board Solid Waste Disp. Rev. Bonds (GA.			
Pacific Corp.), 5 3/4s, 9/1/28	В	\$ 950,000	\$ 914,242
Sylacauga, Hlth. Care Auth. Rev. Bonds (Coosa Valley Med. Ctr.),			
Ser. A, 6s, 8/1/25	B/P	650,000	663,631
			1,577,873
Arizona (4.5%)			
Apache Cnty., Indl. Dev. Auth. Poll. Control Rev. Bonds (Tucson			
Elec. Pwr. Co.), Ser. B, 5 7/8s, 3/1/33	Baa3	1,000,000	1,003,410
AZ Hlth. Fac. Auth. Hosp. Syst. Rev. Bonds (John C. Lincoln			
Hlth. Network), 6 3/8s, 12/1/37 (Prerefunded)	BBB	1,000,000	1,132,930
Casa Grande, Indl. Dev. Auth. Rev. Bonds (Casa Grande Regl. Med.			
Ctr.), Ser. A, 7 5/8s, 12/1/29	BB /P	1,800,000	1,911,582
Cochise Cnty., Indl. Dev. Auth. Rev. Bonds (Sierra Vista Regl.			
Hlth. Ctr.), Ser. A, 6.2s, 12/1/21	BB+/P	480,000	498,101
Coconino Cnty., Poll. Control Rev. Bonds (Tuscon/Navajo Elec.			
Pwr.), Ser. A, 7 1/8s, 10/1/32	Baa3	3,000,000	3,083,880
Glendale, Wtr. & Swr. Rev. Bonds, AMBAC, 5s, 7/1/28	Aaa	2,000,000	2,069,520
Pima Cnty., Indl. Dev. Auth. Rev. Bonds (Horizon Cmnty. Learning			
Ctr.), 5.05s, 6/1/25	BBB	815,000	794,584
Salt Verde, Fin. Corp. Gas Rev. Bonds, 5s, 12/1/32	Aa1	3,000,000	2,936,910
Scottsdale, Indl. Dev. Auth. Hosp. Rev. Bonds (Scottsdale Hith.			
Care), 5.8s, 12/1/31 (Prerefunded)	A3	1,000,000	1,088,880
			14,519,797
Arkansas (3.0%)			
AR State Hosp. Dev. Fin. Auth. Rev. Bonds (Washington Regl. Med.			
Ctr.), 7 3/8s, 2/1/29 (Prerefunded)	Baa2	4,600,000	4,972,002
Baxter Cnty., Hosp. Rev. Bonds, 5s, 9/1/22	Baa2	750,000	751,005
Independence Cnty., Poll. Control Rev. Bonds (Entergy AR, Inc.),			
5s, 1/1/21	Α	1,000,000	1,003,880
Little Rock G.O. Bonds (Cap. Impt.), FSA, 3.95s, 4/1/19	Aaa	565,000	565,825
Springdale, Sales & Use Tax Rev. Bonds, FSA			
4.05s, 7/1/26	Aaa	1,000,000	1,005,560
4s, 7/1/27	Aaa	925,000	927,294
Washington Cnty., Hosp. Rev. Bonds (Regl. Med. Ctr.), Ser. B,			
5s, 2/1/25	Baa2	500,000	492,580

9,