PUTNAM MANAGED MUNICIPAL INCOME TRUST Form PRE 14A March 08, 2017

#### PUTNAM CLOSED-END PROXY

# UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, DC 20549

SCHEDULE 14A (RULE 14A-101)

# INFORMATION REQUIRED IN PROXY STATEMENT

#### SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934

Filed by the Registrant / X /

Filed by a Party other than the Registrant / /

# Check the appropriate box:

/ X /		Preliminary Proxy Statement.
/	/	Confidential, for use of the Commission Only (as permitted by Rule 14a-6(e) (2)).
/	/	Definitive Proxy Statement.
/	/	Definitive Additional Materials.
/	/	Soliciting Material under § 240.14a-12.

# PUTNAM MANAGED MUNICIPAL INCOME TRUST PUTNAM MUNICIPAL OPPORTUNITIES TRUST

(Name of Registrant as Specified in its Charter)

(Name of Person(s) Filing Proxy Statement, if Other Than the Registrant)

# Payment of Filing Fee (Check the appropriate box):

/ X /	No fee required.
/ /	Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
	(1) Title of each class of securities to which transaction applies:
	(2) Aggregate number of securities to which transaction applies:
	(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):
	(4) Proposed maximum aggregate value of transaction:
	(5) Total fee paid:
/ /	Fee paid previously with preliminary materials.
/ /	Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identified the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.
(1)	Amount Previously Paid:
(2)	Form, Schedule or Registration Statement No.:
(3)	Filing Party:
(4)	Date Filed:

2

**We Need Your Vote** 

Please vote today on matters affecting your investment in the Putnam closed-end funds.

Your prompt response to this proxy statement is important.

Voting now can help save costs.

3

# A message from Putnam Investments and the Trustees of the Putnam funds

Putnam Managed Municipal Income Trust Putnam Municipal Opportunities Trust

A few minutes of your time now can help save time and expenses later.

Dear Fellow Shareholder:

We are asking for your vote on important matters affecting your investment in one or more of the Putnam closed-end funds. The Putnam closed-end funds will hold their annual shareholder meetings on April 28, 2017 in Boston, Massachusetts. We are asking you — and all shareholders — to consider and vote on the important matters described below.

You may vote conveniently by:

**Visiting** the website listed on the proxy card.

**Calling** by telephone, using the toll-free number listed on the proxy card.

**Mailing** the enclosed proxy card — be sure to sign, date, and return the card in the enclosed postage-paid envelope.

Of course, you are also welcome to attend the annual shareholder meeting on April 28, 2017 and vote your shares in person with respect to the following matters:

1. Fixing the number of Trustees at 15 and electing Trustees. Shareholders of each fund are being asked to fix the number of Trustees at 15 and to elect Trustees at the upcoming annual meeting. Although Trustees do not manage fund portfolios, they play an important role in protecting shareholders. Trustees are responsible for approving the fees paid to your fund's investment adviser and its affiliates, reviewing overall fund expenses, selecting the fund's auditors, monitoring conflicts of interest, overseeing the fund's compliance with federal securities laws, and voting proxies for the fund's portfolio securities. All but one of your fund's Trustees currently are independent of the fund and Putnam Investment Management, LLC ("Putnam Management").

Detailed information regarding these proposals may be found in the enclosed proxy statement.

# Please vote today.

We encourage you to sign and return your proxy card today or, alternatively, to vote online or by telephone using the voting control number that appears on your proxy card. Delaying your vote will increase fund expenses if further mailings are required. Your shares will be voted on your behalf exactly

4

as you have instructed. If you sign the proxy card without specifying your vote, your shares will be voted in accordance with the Trustees' recommendations.

Your vote is extremely important. If you have questions, please call toll-free [ ] or contact your financial advisor.

We appreciate your participation and prompt response, and thank you for investing in the Putnam funds.

Sincerely yours,

[Insert hand signature]

Robert L. Reynolds President and Chief Executive Officer Putnam Investments

[Insert hand signature]

Jameson A. Baxter Chair Board of Trustees The Putnam Funds

[], 2017

[Insert image of Reynolds and Baxter]

5

# **Table of Contents**

**Notice of Annual Meeting of Shareholders** 

Trustees' Recommendations	[]
The Proposals	[]
1a. FIXING THE NUMBER OF TRUSTEES AT 15	[]
1b. ELECTING TRUSTEES	[]
Further Information About Voting and the Annual Meeting	[]
Fund Information	[]

# PROXY CARD(S) ENCLOSED

If you have any questions, please call toll-free [ ] or call your financial advisor.

Important Notice Regarding the Availability of Proxy Materials for the Annual Shareholder Meeting to be Held on April 28, 2017.

The proxy statement is available at <a href="https://www.proxyonline.com/docs/putnamfunds2017.pdf">www.proxyonline.com/docs/putnamfunds2017.pdf</a>.

**Notice of Annual Meeting of Shareholders** 

To the Shareholders of:

# PUTNAM MANAGED MUNICIPAL INCOME TRUST PUTNAM MUNICIPAL OPPORTUNITIES TRUST

This is the formal agenda for your fund's annual shareholder meeting. It tells you what proposals will be voted on and the time and place of the annual meeting, in case you wish to attend in person.

The annual meeting of shareholders of your fund will be held on April 28, 2017 at [], Boston time, at the principal offices of the funds, One Post Office Square, Boston, Massachusetts 02109, to consider the following proposals:

# **Proposal Proposal Description**

- 1a. Fixing the number of trustees at 15.
- 1b. Electing Trustees.

By Michael J. Higgins, Clerk, and by the Trustees

Jameson A. Baxter, Chair

Liaquat Ahamed Paul L. Joskow
Ravi Akhoury Kenneth R. Leibler
Barbara M. Baumann Robert E. Patterson
Robert J. Darretta George Putnam, III
Katinka Domotorffy Robert L. Reynolds
John A. Hill W. Thomas Stephens

In order for you to be represented at your fund's annual shareholder meeting, we urge you to record your voting instructions over the Internet or by telephone or to mark, sign, date, and mail the enclosed proxy card(s) in the postage-paid envelope provided.

[], 2017

2

#### **Proxy Statement**

This document gives you the information you need to vote on the proposals. Much of the information is required under rules of the Securities and Exchange Commission (the "SEC"); some of it is technical. If there is anything you don't understand, please call toll-free [] or call your financial advisor.

# Who is asking for your vote?

The enclosed proxy is solicited by the Trustees of Putnam Managed Municipal Income Trust and Putnam Municipal Opportunities Trust for use at each fund's annual meeting of shareholders to be held on April 28, 2017 and, if your fund's meeting is adjourned, at any later sessions, for the purposes stated in the Notice of Annual Meeting of Shareholders (see previous pages). The Notice of Annual Meeting of Shareholders, the proxy card and this proxy statement are being mailed beginning on or about [], 2017.

How do your fund's Trustees recommend that shareholders vote on these proposals?

The Trustees recommend that you vote

- 1a. FOR fixing the number of Trustees at 15;
- 1b. FOR electing your fund's nominees for Trustees.

# Are there other matters that will be considered at the meeting?

A shareholder has provided notice that it intends to nominate two persons for election (by the preferred shareholders voting as a class) to each fund's Board of Trustees (the "Board")

and to propose that shareholders request that the Board afford the preferred shareholders of each fund a means to obtain liquidity for their shares.

# Who is eligible to vote?

Shareholders of record of each fund at the close of business on February 10, 2017 (the "Record Date") are entitled to be present and to vote at the annual meeting or, if it is adjourned, at any later sessions.

Each common shareholder and each preferred shareholder (if applicable) will be entitled to one vote for each share held, with fractional shares voting proportionately. The holders of preferred shares and holders of common shares for each fund will together vote as a single class, unless otherwise noted. Shares represented by your duly executed proxy card will be voted in accordance with your instructions. If you sign and return the proxy card but don't fill in a vote, your shares will be voted in accordance with the Trustees' recommendations. If any other business properly comes before your fund's annual meeting, including those matters mentioned above that a shareholder may seek to bring before the meeting, your shares will be voted at the discretion of the persons designated on the proxy card.

Shareholders of each fund vote separately with respect to each proposal. No proposal is contingent on the outcome of any other proposal.

3

#### The Proposals

#### 1a. FIXING THE NUMBER OF TRUSTEES AT 15

Each fund's Amended and Restated Agreement and Declaration of Trust (the "Declaration of Trust") states that shareholders shall fix the number of Trustees on the Board at each annual meeting. The Board, based on the recommendation of the Board Policy and Nominating Committee, recommends that shareholders fix the number of Trustees on your fund's Board at 15. The Board also recommends that shareholders vote to elect its 15 Trustee nominees, as described below in Proposal 1b.

For each fund, if a quorum is present at the annual meeting, a plurality vote, meaning the greatest number of affirmative votes cast by shareholders, will fix the number of Trustees. The holders of each fund's common and preferred shares vote together as a single class.

# The Trustees of your fund unanimously recommend that shareholders vote "FOR" fixing the number of Trustees at 15.

#### 1b. ELECTION OF TRUSTEES

Who are the nominees for Trustees?

The Board Policy and Nominating Committee of the Board is responsible for recommending nominees for Trustees of your fund. The Board Policy and Nominating Committee consists solely of Trustees who are not "interested persons" (as defined in the Investment Company Act

of 1940, as amended (the "1940 Act")) of your fund or of Putnam Management. Those Trustees who are not "interested persons" of your fund or of Putnam Management are referred to as "Independent Trustees" throughout this proxy statement.

Each fund's Declaration of Trust requires that shareholders elect the fund's Trustees by a plurality vote at the fund's annual meeting. The Board, based on the recommendation of the Board Policy and Nominating Committee, recommends that you vote for the election of the nominees described in the following pages. Each nominee is currently a Trustee of your fund and of the other Putnam funds.

The Amended and Restated Bylaws of each fund and the 1940 Act entitle holders of the preferred shares of your fund, voting as a separate class to elect two nominees for Trustees. Messrs. Patterson and Putnam have been nominated to be elected as Trustees by the holders of the preferred shares, voting as a separate class, while the other 13 nominees have been nominated to be elected by the holders of the preferred shares and common shares voting together as a single class.

Biographical Information For The Funds' Nominees.

The Board's nominees for Trustees and their backgrounds are shown in the following pages. This information includes each nominee's name, year of birth, principal occupation(s) during the past five years, and other information about the nominee's professional background, including other directorships the nominee holds. Each Trustee oversees all of the Putnam funds and serves until the election and qualification of his or her successor, or until he or she sooner dies, resigns, retires, or is removed. The

4

address of all of the Trustees is One Post Office Square, Boston, Massachusetts 02109. As of December 31, 2016, there were 114 Putnam funds.

#### **Independent Trustees**

Liaquat Ahamed (Born 1952) Trustee since 2012

Mr. Ahamed is the Pulitzer Prize-winning author of Lords of Finance: The Bankers Who Broke the World. His articles on economics have appeared in the New York Times, Foreign Affairs, and the Financial Times.

Mr. Ahamed serves as a director of Aspen Insurance Co., a New York Stock Exchange company, and is the Chair of the Aspen Board's Investment Committee. He is a Trustee of the Brookings Institution (a nonprofit public policy organization). He is also a director of the Rohatyn Group, an emerging-market fund complex that manages money for institutions. Mr. Ahamed was previously the Chief Executive Officer of Fischer Francis Trees & Watts, Inc., a fixed income investment management subsidiary of BNP Paribas. He was formerly the head of the investment division at the World Bank.

Mr. Ahamed holds a B.A. in economics from Trinity College, Cambridge University and an M.A. in economics from Harvard University.

#### Ravi Akhoury (Born 1947) Trustee since 2009

Mr. Akhoury serves as a Trustee of the Rubin Museum, serving on the Investment Committee, and of the American India Foundation. Mr. Akhoury is also a Director of RAGE Frameworks, Inc. and English Helper, Inc. (each a private software company).

Previously, Mr. Akhoury served as a Director of Jacob Ballas Capital India (a non-banking finance company focused on private equity advisory services) and a member of its Compensation Committee. He was also a Director and on the Compensation Committee of MaxIndia/New York Life Insurance Company in India. He was also Vice President and Investment Policy Committee member of Fischer Francis Trees & Watts, a fixed income investment management subsidiary of BNP Paribas. He has also served on the Board of Bharti Telecom (an Indian telecommunications company), serving as a member of its Audit and Compensation Committees, and as a Director and member of the Audit Committee on the Board of Thompson Press (a publishing company). From 1992 to 2007, he was Chairman and CEO of MacKay Shields, a multi-product investment management firm.

Mr. Akhoury graduated from the Indian Institute of Technology with a B.S. in Engineering and obtained an M.S. in Quantitative Methods from SUNY at Stony Brook.

5

#### Barbara M. Baumann (Born 1955) Trustee since 2010

Ms. Baumann is President and Owner of Cross Creek Energy Corporation, a strategic consultant to domestic energy firms and direct investor in energy projects.

Ms. Baumann currently serves as a Director of Buckeye Partners, L.P. (a publicly traded master limited partnership focused on pipeline transport, storage and distribution of petroleum products) and Devon Energy Corporation (a leading independent natural gas and oil exploration and production company). Ms. Baumann is the Chair of the Board of Trustees of Mount Holyoke College, serves on the Board of The Denver Foundation, is a former Chair of the Board and a current Board member of Girls Inc. of Metro Denver (a nonprofit organization benefitting young women), and serves on the Finance Committee of the Children's Hospital of Colorado.

Until September 2014, Ms. Baumann was a director of UNS Energy Corporation (a publicly held electric and gas utility in Arizona). Until May 2014, Ms. Baumann was a Director of SM Energy Corporation (a publicly held U.S. exploration and production company). Until May 2012, Ms. Baumann was a Director of CVR Energy, Inc. (a publicly held petroleum refiner and fertilizer manufacturer). Prior to 2003, Ms. Baumann was Executive Vice President of Associated Energy Managers, LLC (a domestic private equity firm). From 1981 until 2000, she held a variety of financial and operational management positions with the global energy

company Amoco Corporation and its successor, BP.

Ms. Baumann holds an M.B.A. from The Wharton School of the University of Pennsylvania and a B.A. from Mount Holyoke College.

# Jameson A. Baxter (Born 1943) Trustee since 1994, Vice Chair from 2005 to 2011 and Chair since 2011

Ms. Baxter is the President of Baxter Associates, Inc., a private investment firm.

Ms. Baxter serves as Chair of the Mutual Fund Directors Forum, Director of the Adirondack Land Trust and Trustee of the Nature Conservancy's Adirondack Chapter. Until 2011, Ms. Baxter was a director of ASHTA Chemicals, Inc. Until 2007, she was a Director of Banta Corporation (a printing and supply chain management company), Ryerson, Inc. (a metals service company), and Advocate Health Care. She has also served as a director on a number of other boards, including BoardSource (formerly the National Center for Nonprofit Boards), Intermatic Corporation (a manufacturer of energy control products), and MB Financial. She is Chair Emeritus of the Board of Trustees of Mount Holyoke College, having served as Chair for five years.

Ms. Baxter has held various positions in investment banking and corporate finance, including Vice President of and Consultant to First Boston Corporation and Vice President and Principal of the Regency Group. She is a graduate of Mount Holyoke College.

6

# Robert J. Darretta (Born 1946) <sup>1</sup> Trustee since 2007

Mr. Darretta serves as Director of UnitedHealth Group, a diversified health-care company.

Until April 2007, Mr. Darretta was Vice Chairman of the Board of Directors of Johnson & Johnson, one of the world's largest and most broadly based health-care companies. Prior to 2007, he had responsibility for Johnson & Johnson's finance, investor relations, information technology, and procurement functions. He served as Johnson & Johnson Chief Financial Officer for a decade, prior to which he spent two years as Treasurer of the corporation and over 10 years leading various Johnson & Johnson operating companies. From 2009 until 2012, Mr. Darretta served as the Health Care Industry Adviser to Permira, a global private equity firm.

Mr. Darretta received a B.S. in Economics from Villanova University.

# Katinka Domotorffy (Born 1975) Trustee since 2012

Ms. Domotorffy is a voting member of the Investment Committees of the Anne Ray Charitable Trust and Margaret A. Cargill Foundation, part of the Margaret A. Cargill Philanthropies. She also serves as a Director of Reach Out and Read of Greater New York, an organization dedicated to promoting childhood literacy, of the Great Lakes Science Center,

and of College Now Greater Cleveland.

Until December 2011, Ms. Domotorffy was Partner, Chief Investment Officer, and Global Head of Quantitative Investment Strategies at Goldman Sachs Asset Management.

Ms. Domotorffy holds a BSc in Economics from the University of Pennsylvania and an MSc in Accounting and Finance from the London School of Economics.

#### Catharine Bond Hill (Born 1954)

Dr. Hill is Managing Director of Ithaka S+R, a not-for-profit service that helps the academic community navigate economic and technological change, where she leads research and consulting initiatives to broaden access to higher education, reduce costs, and improve student outcomes.

From 2006 to 2016, Dr. Hill served as the 10 th president of Vassar College. Before that, she was the provost of Williams College, where she had chief academic and financial officer responsibilities. She originally joined the economics faculty at Williams in 1985. From 1994–1997, she lived in the Republic of Zambia, working in the Ministry of Finance and with the Bank of Zambia.

Dr. Hill serves on the board of the Yale-NUS College and is an alumni fellow to the Yale Corporation. She graduated from Williams College, earned a bachelor's degree and a master's degree at Brasenose College, Oxford University, and completed her doctorate in economics at Yale University.

7

#### John A. Hill (Born 1942) <sup>1</sup> Trustee since 1985 and Chairman from 2000 to 2011

Mr. Hill is founder and Vice-Chairman of First Reserve Corporation, the leading private equity buyout firm specializing in the worldwide energy industry, with offices in Greenwich, Connecticut; Houston, Texas; London, England; and Hong Kong, China. The firm's investments on behalf of some of the nation's largest pension and endowment funds are currently concentrated in 24 companies with annual revenues in excess of \$15 billion, which employ over 53,000 people in 43 countries.

Mr. Hill is a Director of various private companies owned by First Reserve, and serves as a Trustee of Sarah Lawrence College where he chairs the Investment Committee.

Prior to forming First Reserve in 1983, Mr. Hill served as President of F. Eberstadt and Company, an investment banking and investment management firm. Between 1969 and 1976, Mr. Hill held various senior positions in Washington, D.C. with the federal government, including Deputy Associate Director of the Office of Management and Budget and Deputy Administrator of the Federal Energy Administration during the Ford Administration.

Born and raised in Midland, Texas, he received his B.A. in Economics from Southern Methodist University and pursued graduate studies as a Woodrow Wilson Fellow.

#### Paul L. Joskow (Born 1947) Trustee since 1997

Dr. Joskow is an economist and President of the Alfred P. Sloan Foundation (a philanthropic institution focused primarily on research and education on issues related to science, technology, and economic performance). He is the Elizabeth and James Killian Professor of Economics, Emeritus at the Massachusetts Institute of Technology (MIT), where he joined the faculty in 1972. Dr. Joskow was the Director of the Center for Energy and Environmental Policy Research at MIT from 1999 through 2007.

Dr. Joskow serves as a Trustee of Yale University, as a Director of Exelon Corporation (an energy company focused on power services), and as a member of the Board of Overseers of the Boston Symphony Orchestra. Prior to April 2013, he served as Director of TransCanada Corporation and TransCanada Pipelines Ltd. (energy companies focused on natural gas transmission, oil pipelines, and power services). Prior to August 2007, he served as a Director of National Grid (a U.K.-based holding company with interests in electric and gas transmission and distribution and telecommunications infrastructure). Prior to July 2006, he served as President of the Yale University Council. Prior to February 2005, he served on the Board of the Whitehead Institute for Biomedical Research (a non-profit research institution). Prior to February 2002, he was a Director of State Farm Indemnity Company (an automobile insurance company), and prior to March 2000, he was a Director of New England Electric System (a public utility holding company).

Dr. Joskow has published seven books and numerous articles on industrial organization, government regulation of industry, and competition policy. He is active in industry restructuring, environmental,

8

energy, competition, and privatization policies — having served as an advisor to governments and corporations worldwide. Dr. Joskow holds a Ph.D. and M.Phil. from Yale University and a B.A. from Cornell University.

#### Kenneth R. Leibler (Born 1949) Trustee since 2006

Mr. Leibler is a founder and former Chairman of the Boston Options Exchange, an electronic marketplace for the trading of derivative securities.

Mr. Leibler is currently Vice Chairman Emeritus of the Board of Trustees of Beth Israel Deaconess Hospital in Boston and a former Director of Beth Israel Deaconess Care Organization, an accountable care group jointly owned by the medical center and its affiliated physicians. He is also a Director of Eversource Corporation, which operates New England's largest energy delivery system, and, until November 2010, was a Director of Ruder Finn Group, a global communications and advertising firm. Prior to December 2006, he

served as a Director of the Optimum Funds Group. Prior to October 2006, he served as a Director of ISO New England, the organization responsible for the operation of the electric generation system in the New England states. Prior to 2000, Mr. Leibler was a Director of the Investment Company Institute in Washington, D.C.

Prior to January 2005, Mr. Leibler served as Chairman and Chief Executive Officer of the Boston Stock Exchange. Prior to January 2000, he served as President and Chief Executive Officer of Liberty Financial Companies, a publicly traded diversified asset management organization. Prior to June 1990, Mr. Leibler served as President and Chief Operating Officer of the American Stock Exchange (AMEX), and at the time was the youngest person in AMEX history to hold the title of President. Prior to serving as AMEX President, he held the position of Chief Financial Officer, and headed its management and marketing operations. Mr. Leibler graduated with a B.A in Economics from Syracuse University.

### Robert E. Patterson (Born 1945) <sup>2</sup> Trustee since 1984

Mr. Patterson is Co-Chairman of Cabot Properties, Inc. (a private equity firm investing in commercial real estate) and Chairman or Co-Chairman of the Investment Committees for various Cabot Funds.

Mr. Patterson is past Chairman and served as a Trustee of the Joslin Diabetes Center. He previously was a Trustee of the Sea Education Association. Prior to December 2001, Mr. Patterson was President and Trustee of Cabot Industrial Trust (a publicly traded real estate investment trust). Prior to February 1998, he was Executive Vice President and Director of Acquisitions of Cabot Partners Limited Partnership (a registered investment adviser involved in institutional real estate investments). Prior to 1990, he served as Executive Vice President of Cabot, Cabot & Forbes Realty Advisors, Inc. (the predecessor company of Cabot Partners).

9

Mr. Patterson practiced law and held various positions in state government, and was the founding Executive Director of the Massachusetts Industrial Finance Agency. Mr. Patterson is a graduate of Harvard College and Harvard Law School.

#### George Putnam, III (Born 1951) Trustee since 1984

Mr. Putnam is Chairman of New Generation Research, Inc. (a publisher of financial advisory and other research services), and President of New Generation Advisors, LLC (a registered investment adviser to private funds). Mr. Putnam founded the New Generation companies in 1986.

Mr. Putnam is a Director of The Boston Family Office, LLC (a registered investment adviser). He is a Trustee of Epiphany School and a Trustee of the Marine Biological Laboratory in Woods Hole, Massachusetts. Prior to June 2007, Mr. Putnam was President of the Putnam funds. Until 2010, he was a Trustee of St. Mark's School, until 2006, he was a Trustee of Shore Country Day School, and until 2002, he was a Trustee of the Sea Education

Association.

Mr. Putnam previously worked as an attorney with the law firm of Dechert LLP (formerly known as Dechert Price & Rhoads) in Philadelphia. He is a graduate of Harvard College, Harvard Business School, and Harvard Law School.

#### Manoj P. Singh (Born 1952)

Mr. Singh is the former chief operating officer and global managing director at Deloitte Touche Tohmatsu, Ltd., a global professional services organization. He served on the Deloitte U.S. board of directors and the boards of Deloitte member firms in China, Mexico and Southeast Asia.

Mr. Singh is a Director of Abt Associates, a global research firm working in the fields of health, social and environmental policy, and international development. He has also been admitted to the Board of Directors of a new public company being formed through the merger of HP Enterprise Services and CSC Corp. This new company is expected to be launched on April 3, 2017. He is a member of the advisory board of Altimetrik, a business transformation and technology solutions firm. He is a Trustee of Carnegie Mellon University, a Trustee of the Rubin Museum, and a Director of Pratham USA, an organization dedicated to children's education in India.

Mr. Singh holds a bachelor's degree in electrical engineering from the Indian Institute of Technology and an MS in industrial administration from Carnegie Mellon University.

10

#### W. Thomas Stephens (Born 1942) <sup>1</sup> Trustee from 1997 to 2008, and since 2009

Mr. Stephens retired as Chairman and Chief Executive Officer of Boise Cascade, LLC (a paper, forest products and timberland assets company) in December 2008.

Until 2014, Mr. Stephens was a Director of TransCanada Pipelines, Ltd. (an energy infrastructure company). Until 2010, Mr. Stephens was a Director of Boise Inc. (a manufacturer of paper and packaging products). Until 2004, Mr. Stephens was a Director of Xcel Energy Incorporated (a public utility company), Qwest Communications and Norske Canada, Inc. (a paper manufacturer). Until 2003, Mr. Stephens was a Director of Mail-Well, Inc. (a diversified printing company). He served as Chairman of Mail-Well until 2001 and as CEO of MacMillan-Bloedel, Ltd. (a forest products company) until 1999.

Prior to 1996, Mr. Stephens was Chairman and Chief Executive Officer of Johns Manville Corporation (a manufacturing company). He holds B.S. and M.S. degrees from the University of Arkansas.

#### **Interested Trustee 3**

Robert L. Reynolds (Born 1952)
Trustee since 2008 and President of the Putnam Funds since July 2009

Mr. Reynolds is President and Chief Executive Officer of Putnam Investments, LLC ("Putnam Investments") since 2008 and, since 2014, President and Chief Executive Officer of Great-West Life & Annuity Insurance Company ("Great-West Financial"), a financial services company that provides retirement savings plans, life insurance, and annuity and executive benefits products, and of Great-West Lifeco U.S. Inc., a holding company that owns Putnam Investments and Great-West Financial. Mr. Reynolds is a member of Putnam Investments' and Great-West Financial's Board of Directors, and President of the Putnam funds. He has more than 30 years of investment and financial services experience.

Prior to joining Putnam Investments in 2008, Mr. Reynolds was Vice Chairman and Chief Operating Officer of Fidelity Investments from 2000 to 2007. During this time, he served on the Board of Directors for FMR Corporation, Fidelity Investments Insurance Ltd., Fidelity Investments Canada Ltd., and Fidelity Management Trust Company. He was also a Trustee of the Fidelity Family of Funds. From 1984 to 2000, Mr. Reynolds served in a number of increasingly responsible leadership roles at Fidelity.

Mr. Reynolds serves on several not-for-profit boards, including those of the West Virginia University Foundation, Concord Museum, Dana-Farber Cancer Institute and Boston Chamber of Commerce. He is a member of the Chief Executives Club of Boston, the National Innovation Initiative, and the Council on Competitiveness, and he is a former President of the Commercial Club of Boston.

Mr. Reynolds received a B.S. in Business Administration with a major in Finance from West Virginia University.

1 Messrs. Darretta, Hill and Stephens will retire effective June 30, 2017.

 $^2$  On March 23, 2016, Great-West Financial, a company under common control with Putnam Investments, LLC and of which Mr. Reynolds is the Chief Executive Officer, entered into a loan agreement as the lending party with Cabot Industrial Core

11

Fund Operating Partnership, L.P ("Cabot OP"), the guarantor for a collection of six borrowing parties, each being a limited liability company wholly owned by Cabot OP. The loan is intended to provide long-term financing in the form of a 7 year loan totaling \$72.25 million to Cabot Industrial Core Fund, L.P. (the "Cabot Fund"). Cabot OP is an entity through which the Cabot Fund holds certain investments. The interest rate for the loan is 3.48%. Mr. Patterson may be deemed to have an indirect interest in the transaction, or an indirect relationship with Great-West Financial, through his position as an officer of Cabot OP and as Co-Chairman of the Investment Committee of the Cabot Fund, which approved the proposed loan on behalf of the borrowing parties. Mr. Patterson has an 18.3% ownership interest in Cabot Properties, Inc., the highest controlling entity of Cabot OP, and is also a 14.3% partner in Cabot Properties, L.P., the asset manager of the Cabot Fund.

<sup>3</sup> Trustee who is an "interested person" (as defined in the 1940 Act) of the funds and Putnam Management. Mr. Reynolds is deemed an "interested person" by virtue of his positions as an officer of the funds and Putnam Management. Mr. Reynolds is the President and Chief Executive Officer of Putnam Investments, LLC and President of your fund and each of the other Putnam funds.

Most of the Trustees have served on the Board for many years. Dr. Hill and Mr. Singh were appointed to the Board of Trustees of your fund and the other Putnam funds effective March 16, 2017. The Board Policy and Nominating Committee is responsible for recommending

proposed nominees for election to the Board of Trustees for its approval. In recommending the election or appointment of the current Board members as Trustees, the Committee generally considered the educational, business and professional experience of each Trustee in determining his or her qualifications to serve as a Trustee of the fund, including the Trustee's record of service as a director or trustee of public and private organizations. This included each long-serving Trustee's previous service as a member of the Board of Trustees of the Putnam funds, during which he or she has demonstrated a high level of diligence and commitment to the interests of fund shareholders and the ability to work effectively and collegially with other members of the Board. The Committee also considered, among other factors, the particular attributes described below with respect to the various individual Trustees.

#### **Independent Trustees:**

Liaquat Ahamed — Mr. Ahamed's experience as Chief Executive Officer of a major investment management organization and as head of the investment division at the World Bank, as well as his experience as an author of economic literature.

Ravi Akhoury — Mr. Akhoury's experience as Chairman and Chief Executive Officer of a major investment management organization.

Barbara M. Baumann — Ms. Baumann's experience in the energy industry as a consultant, an investor, and in both financial and operational management positions at a global energy company, and her service as a director of multiple New York Stock Exchange companies.

Jameson A. Baxter — Ms. Baxter's experience in corporate finance acquired in the course of her career at a major investment bank, her experience as a director and audit committee chair of two New York Stock Exchange companies and her role as Chair of the Mutual Fund Directors Forum.

Robert J. Darretta — Mr. Darretta's experience as the Chief Financial Officer and Vice Chairman of the board of a major New York Stock Exchange health products company.

Katinka Domotorffy — Ms. Domotorffy's experience as Chief Investment Officer and Global Head of Quantitative Investment Strategies at a major asset management organization.

12

Catharine Bond Hill — Dr. Hill's education and experience as an economist and as president and provost of colleges in the United States.

John A. Hill — Mr. Hill's experience as founder and Chairman of an open-end mutual fund and as a founder and lead managing partner of one of the largest private equity firms in the United States.

Paul L. Joskow — Dr. Joskow's education and experience as a professional economist familiar with financial economics and related issues and his service on multiple for-profit boards.

Kenneth R. Leibler — Mr. Leibler's extensive experience in the financial services industry, including as Chief Executive Officer of a major asset management organization, and his service as a director of various public and private companies.

Robert E. Patterson — Mr. Patterson's training and experience as an attorney and his experience as president of a New York Stock Exchange company.

George Putnam, III — Mr. Putnam's training and experience as an attorney, his experience as the founder and Chief Executive Officer of an investment management firm and his experience as an author of various publications on the subject of investments.

Manoj P. Singh — Mr. Singh's experience as chief operating officer and global managing director of a global professional services organization that provided accounting, consulting, tax, risk management, and financial advisory services.

W. Thomas Stephens — Mr. Stephens's extensive business experience, including his service as Chief Executive Officer of four public companies, as non-executive chairman of two public companies and as a director of numerous other public companies.

#### **Interested Trustee:**

Robert L. Reynolds — Mr. Reynolds's extensive experience as a senior executive of one of the largest mutual fund organizations in the United States and his current role as the President and Chief Executive Officer of Putnam Investments.

Each of the nominees has agreed to serve as a Trustee, if elected. If any of the nominees is unavailable for election at the time of the annual meeting, which is not anticipated, the persons designated on the proxy card may vote for other nominees at their discretion or may fix the number of Trustees at fewer than 15 for your fund.

# What are the Trustees' responsibilities?

Your fund's Trustees are responsible for the general oversight of your fund's affairs. The Trustees regularly review your fund's investment performance as well as the quality of other services provided to your fund and its shareholders by Putnam Management and its affiliates, including administration and shareholder servicing. At least annually, the Trustees review and evaluate the fees and operating expenses paid by your fund for these services and negotiate changes if they deem it appropriate. In carrying out these responsibilities, the Trustees are assisted by an independent administrative staff and

13

by your fund's auditors, independent counsel and other experts as appropriate, selected by and responsible to the Trustees.

**Board Leadership Structure.** Currently, 14 of the 15 Trustees of your fund are independent Trustees. These Independent Trustees must vote separately to approve all financial arrangements and other agreements with your fund's investment manager and

other affiliated parties. The role of the Independent Trustees has been characterized as that of a "watchdog" charged with oversight to protect shareholders' interests against overreaching and abuse by those who are in a position to control or influence a fund. Your fund's Independent Trustees meet regularly as a group in executive session (i.e., without representatives of Putnam Management or its affiliates present). An Independent Trustee currently serves as chair of the Board.

**Board Committees.** Taking into account the number, the diversity and the complexity of the funds overseen by the Board and the aggregate amount of assets under management, your fund's Trustees have determined that the efficient conduct of the Board's affairs makes it desirable to delegate responsibility for certain specific matters to committees of the Board. The Executive Committee, Audit, Compliance and Distributions Committee and Board Policy and Nominating Committee are authorized to take action on certain matters as specified in their charters or in policies and procedures relating to the governance of the funds; with respect to other matters, these committees review and evaluate and make recommendations to the Trustees as they deem appropriate. The other committees also review and evaluate matters specified in their charters and make recommendations to the Trustees as they deem appropriate. Each committee may utilize the resources of your fund's independent staff, counsel and independent registered public accountants as well as other experts. The committees meet as often as appropriate, either in conjunction with regular meetings of the Trustees or otherwise. The membership and chair of each committee are appointed by the Trustees upon recommendation of the Board Policy and Nominating Committee. Each committee is chaired by an Independent Trustee and, except as noted below, the membership and chairs of each committee consist exclusively of Independent Trustees.

The Trustees have determined that this committee structure also allows the Board to focus more effectively on the oversight of risk as part of its broader oversight of the funds' affairs. While risk management is the primary responsibility of the funds' investment manager, the Trustees receive reports regarding investment risks, compliance risks and other risks. The Board and certain committees also meet periodically with the funds' Chief Compliance Officer to receive compliance reports. In addition, the Board and its Investment Oversight Committees meet periodically with the portfolio managers of the funds to receive reports regarding the management of the funds. The Board's committee structure allows separate committees to focus on different aspects of these risks and their potential impact on some or all of the funds and to discuss with the funds' investment manager how it monitors and controls risks.

The Board recognizes that the reports it receives concerning risk management matters are, by their nature, typically summaries of the relevant information. Moreover, the Board recognizes that not all risks that may affect your fund can be identified in advance; that it may not be practical or cost-effective to eliminate or to mitigate certain risks; that it may be necessary to bear certain risks (such as investment-related risks) in seeking to achieve your fund's investment objectives; and that the processes, procedures and controls employed to address certain risks may be limited in their effectiveness. As a result of the foregoing and for other reasons, the Board's risk management oversight is subject to substantial limitations.

Audit, Compliance and Distributions Committee. The Audit, Compliance and Distributions Committee provides oversight on matters relating to the preparation of the Putnam funds' financial statements, compliance matters, internal audit functions, and Codes of Ethics issues. This oversight is discharged by regularly meeting with management and the funds' independent registered public accountants and keeping current on industry developments. Duties of this Committee also include the review and evaluation of all matters and relationships pertaining to the funds' independent registered public accountants, including their independence. The Committee also oversees all dividends and distributions by the funds. The Committee makes recommendations to the Trustees of the funds regarding the amount and timing of distributions paid by the funds, and determines such matters when the Trustees are not in session. The Committee also oversees the policies and procedures pursuant to which Putnam Management prepares recommendations for distributions, and meets regularly with representatives of Putnam Management to review the implementation of these policies and procedures. The Committee reports to the Trustees and makes recommendations to the Trustees regarding these matters. Information about the fees billed to the fund by the funds' registered public accountants, as well as information about the Committee's pre-approval policies relating to the work performed by the funds' registered public accountants, is included on pages 28-30 of this proxy statement. The members of the Committee include only Independent Trustees. Each member of the Committee also is "independent," as that term is interpreted for purposes of Rule 10A-3(b)(1) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the listing standards of the New York Stock Exchange. The Board has adopted a written charter for the Committee, a current copy of which is available at www.putnam.com/about-putnam/. The Committee currently consists of Messrs. Darretta (Chairperson), Akhoury, Hill and Patterson, and Mses. Baumann and Domotorffy.

**Board Policy and Nominating Committee.** The Board Policy and Nominating Committee reviews matters pertaining to the operations of the Board and its committees, the compensation of the Trustees, and the conduct of legal affairs for the Putnam funds. The Committee also oversees the voting of proxies associated with portfolio investments of the Putnam funds, with the goal of ensuring that these proxies are voted in the best interest of each fund's shareholders.

The Committee evaluates and recommends all candidates for election as Trustees and recommends the appointment of members and chairs of each Board committee. The Committee also identifies prospective nominees for election as Trustee by considering individuals that come to its attention through the recommendation of current Trustees, Putnam Management or shareholders. Candidates properly submitted by shareholders (as described below) will be considered and evaluated on the same basis as candidates recommended by other sources. The Committee may, but is not required to, engage a third-party professional search firm to assist it in identifying and evaluating potential nominees.

When evaluating a potential candidate for membership on the Board, the Committee considers the skills and characteristics that it determines would most benefit the Putnam funds at the time the evaluation is made. The Committee may take into account a wide variety of attributes in considering potential Trustee candidates, including, but not limited to: (i) availability and commitment of a candidate to attend meetings and perform his or her responsibilities to the Board, (ii) other board experience, (iii) relevant industry and related experience, (iv) educational background, (v) financial expertise, (vi) an assessment of the candidate's ability, judgment and expertise, (vii) an assessment of the perceived needs of the

Board and its committees at that point in time and (viii) overall Board composition. The Committee generally believes that the Board benefits from diversity of background, experience and views among its

15

members, and considers this as a factor in evaluating the composition of the Board, but has not adopted any specific policy in this regard. In connection with this evaluation, the Committee will determine whether to interview prospective nominees, and, if warranted, one or more members of the Committee, and other Trustees and representatives of the funds, as appropriate, will interview prospective nominees in person or by telephone. Once this evaluation is completed, the Committee recommends such candidates as it determines appropriate to the Independent Trustees for nomination, and the Independent Trustees select the nominees after considering the recommendation of the Committee. The Committee is composed entirely of Independent Trustees and currently consists of Messrs. Hill (Chairperson), Leibler, Patterson and Putnam, Dr. Joskow and Ms. Baxter.

Brokerage Committee. The Brokerage Committee reviews the Putnam funds' policies regarding the execution of portfolio trades and Putnam Management's practices and procedures relating to the implementation of those policies. The Committee reviews periodic reports on the cost and quality of execution of portfolio transactions and the extent to which brokerage commissions have been used (i) by Putnam Management to obtain brokerage and research services generally useful to it in managing the portfolios of the funds and of its other clients, and (ii) by the funds to pay for certain fund expenses. The Committee reports to the Trustees and makes recommendations to the Trustees regarding these matters. The Committee currently consists of Dr. Joskow (Chairperson), Ms. Baxter and Messrs. Ahamed, Leibler, Putnam and Stephens.

Contract Committee. The Contract Committee reviews and evaluates at least annually all arrangements pertaining to (i) the engagement of Putnam Management and its affiliates to provide services to the Putnam funds, (ii) the expenditure of the Putnam open-end funds' assets for distribution purposes pursuant to Distribution Plans of the open-end funds, and (iii) the engagement of other persons to provide material services to the funds, including in particular those instances where the cost of services is shared between the funds and Putnam Management and its affiliates or where Putnam Management or its affiliates have a material interest. The Committee also reviews the proposed organization of new fund products, proposed structural changes to existing funds and matters relating to closed-end funds. The Committee reports and makes recommendations to the Trustees regarding these matters. The Committee currently consists of Messrs. Putnam (Chairperson), Ahamed, Leibler and Stephens, Dr. Joskow and Ms. Baxter.

**Executive Committee.** The functions of the Executive Committee are twofold. The first is to ensure that the Putnam funds' business may be conducted at times when it is not feasible to convene a meeting of the Trustees or for the Trustees to act by written consent. The Committee may exercise any or all of the power and authority of the Trustees when the Trustees are not in session. The second is to review annual and ongoing goals, objectives and priorities for the Board and to facilitate coordination of all efforts between the Trustees and Putnam Management on behalf of the shareholders of the funds. The Committee currently

consists of Ms. Baxter (Chairperson) and Messrs. Hill, Leibler, Patterson and Putnam.

**Investment Oversight Committees.** The Investment Oversight Committees regularly meet with investment personnel of Putnam Management to review the investment performance and strategies of the Putnam funds in light of their stated goals and policies. The Committees seek to identify any compliance issues that are unique to the applicable categories of funds and work with the appropriate Board committees to ensure that any such issues are properly addressed. Investment Oversight Committee A currently consists of Mses. Domotorffy (Chairperson) and Baumann, Messrs. Ahamed,

16

Leibler, Putnam and Stephens and Dr. Joskow. Investment Oversight Committee B currently consists of Messrs. Akhoury (Chairperson), Darretta, Hill, Patterson and Reynolds, and Ms. Baxter.

**Pricing Committee.** The Pricing Committee oversees the valuation of assets of the Putnam funds and reviews the funds' policies and procedures for achieving accurate and timely pricing of fund shares. The Committee also oversees implementation of these policies, including fair value determinations of individual securities made by Putnam Management or other designated agents of the funds. The Committee also oversees compliance by money market funds with Rule 2a-7 under the 1940 Act and the correction of occasional pricing errors. The Committee also reviews matters related to the liquidity of portfolio holdings. The Committee reports to the Trustees and makes recommendations to the Trustees regarding these matters. The Committee currently consists of Mses. Baumann (Chairperson) and Domotorffy, and Messrs. Akhoury, Darretta, Hill and Patterson.

#### How large a stake do the Trustees have in the Putnam family of funds?

The Trustees allocate their investments among the Putnam funds based on their own investment needs. The table below shows the number of shares beneficially owned by each nominee for Trustee, as well as the value of each nominee's holdings in each fund and in all of the Putnam funds as of December 31, 2016. As a group, the Trustees owned shares of the Putnam funds valued at approximately \$132 million, as of December 31, 2016.

Trustees/ Officers	Dollar Range of Shares Owned	Shares Beneficially Owned	Dollar Range of Shares Owned	Shares Beneficially Owned
	Putnam Managed Municipal Income Trust		Putnam Municipal Opportunities Trust	
Liaquat Ahamed	\$1-\$10,000	100.000	\$1-\$10,000	100.000

Edgar Filing: PUTNAM MANAGED MUNICIPAL INCOME TRUST - Form PRE 14A

Ravi Akhoury	\$1-\$10,000	100.000	\$1-\$10,000	100.000
Barbara M. Baumann	\$1-\$10,000	100.000	\$1-\$10,000	100.000
Jameson A. Baxter	\$1-\$10,000	756.3710	\$50,001- \$100,000	7,425.3050
Robert J. Darretta	\$1-\$10,000	100.000	\$1-\$10,000	100.000
Katinka Domotorffy	\$1-\$10,000	100.000	\$1-\$10,000	100.000
Catharine Bond Hill*	\$0	0.000	\$0	0.000
John A. Hill	\$1-\$10,000	455.4460	\$1-\$10,000	659.3190
Paul L. Joskow	\$1-\$10,000	195.000	\$1-\$10,000	387.000
Kenneth R. Leibler	\$1-\$10,000	195.000	\$1-\$10,000	287.000
Robert E. Patterson	\$1-\$10,000	587.000	\$1-\$10,000	655.000
George Putnam,	\$10,001- \$50,000	3,815.000	\$10,001- \$50,000	3,788.000
Robert L. Reynolds	\$1-\$10,000	100.000	0	0.000
Manoj P. Singh*	\$0	0.000	\$0	0.000
W. Thomas Stephens	\$1-\$10,000	100.000	\$1-\$10,000	100.000

Trustees and	\$10,001-	6,703.8170	Over \$100,000	13,801.6240
Officers as a	\$50,000			
group				

Name of Trustee/Nominee	Aggregate Dollar Range of Shares Owned in All of the Putnam funds Overseen by Trustee
Liaquat Ahamed	Over \$100,000
Ravi Akhoury	Over \$100,000
Barbara M. Baumann	Over \$100,000
Jameson A. Baxter	Over \$100,000
Robert J. Darretta	Over \$100,000
Katinka Domotorffy	Over \$100,000
Catharine Bond Hill*	\$0
John A. Hill	Over \$100,000
Paul L. Joskow	Over \$100,000
Kenneth R. Leibler	Over \$100,000
Robert E. Patterson	Over \$100,000
George Putnam, III	Over \$100,000
Robert L. Reynolds	Over \$100,000
Manoj P. Singh*	\$0

# W. Thomas Stephens

Over \$100,000

\* Appointed to the Board on March 16, 2017.

As of December 31, 2016, none of the Trustees owned any preferred shares of the funds. As of December 31, 2016, to the knowledge of your fund, each Trustee, and the officers and Trustees of the fund as a group, owned less than 1% of each fund's outstanding common shares.

18

#### How can shareholders communicate with the Trustees?

The Board provides a process for shareholders to send communications to the Trustees. Shareholders may direct communications to the Board as a whole or to specified individual Trustees by submitting them in writing to the following address:

The Putnam Funds
Attention: "Board of Trustees" or any specified Trustee(s)
One Post Office Square
Boston. Massachusetts 02109

Written communications must include the shareholder's name, be signed by the shareholder, refer to the Putnam fund(s) in which the shareholder holds shares and include the class and number of shares held by the shareholder as of a recent date.

Representatives of the funds' transfer agent will review all communications sent to Trustees and, as deemed appropriate, will provide copies and/or summaries of communications to the Trustees.

#### How often do the Trustees meet?

The Trustees currently hold regular in-person meetings eight times each year, usually over a two-day period, to review the operations of the Putnam funds. A portion of these meetings is devoted to meetings of various committees of the Board that focus on particular matters. Each Independent Trustee generally attends several formal committee meetings during each regular meeting of the Trustees, including meetings with senior investment personnel and portfolio managers to review recent performance and the current investment climate for selected funds. These meetings ensure that fund performance is reviewed in detail on at least an annual basis. The committees of the Board, including the Executive Committee, may also meet on special occasions as the need arises. During calendar year 2016, the average Trustee participated in approximately 35 committee and Board meetings.

The number of times each committee met during calendar year 2016 is shown in the table below:

Audit, Compliance and Distributions Committee	15
Board Policy and Nominating Committee	5
Brokerage Committee	4
Contract Committee	9
Executive Committee	1
Investment Oversight Committee A	7
Investment Oversight Committee B	7
Pricing Committee	8

19

The funds do not have a formal policy with respect to Trustee attendance at shareholder meetings. While various Trustees may attend shareholder meetings from time to time, your fund's Trustees did not attend the last annual meeting of your fund. The Trustees are generally represented at shareholder meetings by their independent staff and independent counsel.

#### What are some of the ways in which the Trustees represent shareholder interests?

Among other ways, the Trustees seek to represent shareholder interests:

by reviewing your fund's investment performance with your fund's investment personnel;

by discussing with senior management of Putnam Management steps being taken to address any performance deficiencies;

by reviewing the quality of the various other services provided to your fund and its shareholders by Putnam Management and its affiliates;

by reviewing in depth the fees paid by each fund and by negotiating with Putnam Management, if appropriate, to ensure that the fees remain reasonable and competitive with

those of comparable funds, while at the same time providing Putnam Management sufficient resources to continue to provide high quality services in the future;

by reviewing brokerage costs and fees, allocations among brokers and soft dollar expenditures (if applicable);

by reviewing the specific concerns of closed-end fund shareholders;

by monitoring potential conflicts of interest between the Putnam funds, including your fund, and Putnam Management and its affiliates to ensure that the funds continue to be managed in the best interests of their shareholders; and

by monitoring potential conflicts among funds managed by Putnam Management to ensure that shareholders continue to realize the benefits of participation in a large and diverse family of funds.

# What are the Trustees paid for their services?

Each Independent Trustee of the fund receives an annual retainer fee and additional fees for each Trustee meeting attended and for certain related services. Independent Trustees also are reimbursed for expenses they incur relating to their service as Trustees. All of the current Independent Trustees of the fund are Trustees of all of the Putnam funds and receive fees for their services.

The Trustees periodically review their fees to ensure that the fees continue to be appropriate in light of their responsibilities as well as in relation to fees paid to trustees of other mutual fund complexes. The Board Policy and Nominating Committee, which consists solely of Independent Trustees of the fund, estimates that committee and Trustee meeting time, together with the appropriate preparation, requires the equivalent of at least four business days per regular Trustee meeting.

Under a Retirement Plan in effect for Trustees of the Putnam funds elected to the Board before 2003 (the "Plan"), each eligible Trustee who retires with at least five years of service as a Trustee of the funds is entitled to receive an annual retirement benefit equal to one-half of the average annual attendance and retainer fees paid to such Trustee for calendar years 2003, 2004 and 2005. This retirement benefit is

20

payable during a Trustee's lifetime, beginning the year following retirement, for the number of years of service through December 31, 2006. A death benefit, also available under the Plan, ensures that the Trustee and his or her beneficiaries will receive benefit payments for the lesser of an aggregate period of (i) ten years or (ii) such Trustee's total years of service.

The Plan Administrator (currently the Board Policy and Nominating Committee) may terminate or amend the Plan at any time, but no termination or amendment will result in a reduction in the amount of benefits (i) currently being paid to a Trustee at the time of such termination or amendment, or (ii) to which a current Trustee would have been entitled had

he or she retired immediately prior to such termination or amendment. The Trustees have terminated the Plan with respect to any Trustee first elected to the Board after 2003.

The following table includes the year each Trustee became a Trustee of the Putnam funds, the fees paid to each of those Trustees by each fund included in this proxy statement for its most recent fiscal year (ended prior to December 31, 2016) and the fees paid to each of those Trustees by all of the Putnam funds during calendar year 2016. Dr. Hill and Mr. Singh are not included in the table because they did not serve as Trustees during the relevant period.

Pension or