Letter of intent to purchase

Return by standard delivery: Putnam Investments PO Box 219697 Kansas City, MO 64121-9697 Return by overnight delivery: Putnam Investments 801 Pennsylvania Ave Suite 219697 Kansas City, MO 64105-1307 For more information: Putnam Investments 1-800-225-1581 www.putnam.com Please make checks payable to: The Putnam Funds



Use this form to establish a Letter of Intent (LOI) in order to qualify for a reduced sales charge on purchases of class A shares. This form indicates your intent to invest at least \$50,000 over a 13-month period into one or more Putnam funds. All shareholders who are eligible for the cumulative discount privilege and wish to participate under the LOI must sign this form. All accounts under the social security number(s) or tax identification number(s) provided will be eligible for the LOI once all authorized parties have signed this form.

Shares that have not been assessed a sales charge are not eligible for purchase under the LOI. This includes commissionable shares of the Putnam Money Market Fund, the Putnam Government Money Market Fund, and the Putnam Ultra Short Duration Income Fund, as well as closed end funds and Putnam class Y shares.

Linking limitations apply to certain company plans. Please see the prospectus/statement of additional information documents for details.

All references herein to the singular (i.e., "I" or "my") include the plural as applicable. Putnam will update customer phone number information when provided.

Note: In order to establish a LOI for an existing account, you may initiate the request by phone.

Section 1 Customer information

1A: Individual information				
Name of owner/custodian/trustee/authorized signer				
First	MI	Last	Suffix	Social Security number
Name of joint owner/minor/co-trustee/co-authorized signer				
First	MI	Last	Suffix	Social Security number
Contact phone number				

1B: Trust/Entity information (if applicable)

Name of trust/entity

Social Security/Tax ID number

Section 2 Select the purchase amount

By checking an amount below, you agree to the terms and conditions for the LOI as set forth in the Statement of Additional Information (including the escrowing of shares). Although you are not obligated to complete the LOI, you plan to invest an aggregate amount equal to at least the amount of the box checked below in one or more Putnam funds over a 13-month period. You are aware that if you do not invest at least this amount over a 13-month period any purchases made pursuant to this LOI will be adjusted to the commission rate that otherwise would apply. The LOI start date is established when the LOI is set up. Any eligible shares in the account before the start date will be credited toward the LOI.

\$50,000 \$100,000 \$250,000 \$500,000 \$1,000,000

Section 3 Authorization

I agree that the minimum initial investment, which will be held in escrow until the full LOI amount is purchased, is 5% of the amount checked. If I invest less than the LOI amount, shares may be redeemed from my account to cover the higher sales charge. If I invest more, the sales charge will only be adjusted when and if my dealer refunds Putnam its portion of the adjustment. I will not receive LOI credit for shares purchased by dividend reinvestment.

Signature of Owner/Custodian/Trustee/Authorized Signer

Signature of Joint Owner/Co-Trustee/Co-Authorized Signer

Print name of signer

Print name of signer

Current date (mm/dd/yyyy)

Current date (mm/dd/yyyy)