Letter of intent to purchase



Return by mail: Putnam Investor Services, Inc. P. O. Box 8383 Boston, MA 02266-8383 Return by express delivery: Putnam Investor Services, Inc. 30 Dan Road Canton, MA 02021-2809 For more information: Putnam Investments 1-800-225-1581 www.putnam.com



Use this form to establish a Letter of Intent (LOI) in order to qualify for a reduced sales charge on purchases of class A or M shares. This form serves as your intent to invest at least \$50,000 over a 13-month period into one or more Putnam funds.

Note: Shares that have not been assessed a sales charge are not eligible for purchase under the LOI. This includes commissionable shares of money market, tax exempt money market, and short duration income funds as well as closed end funds and Putnam class Y shares.

Section Existing account owner information		
Name of owner/custodian/trustee/entity	Tax identification number (required)	Date of birth (required; mm/dd/yyyy)
Name of joint owner/minor/co-trustee/authorized party	Tax identification number (required)	Date of birth (required; mm/dd/yyyy)
Day phone	Evening phone	
Please update my day and/or evening phone number		
E-mail address		
Section 2 Select the purchase amoun	t	
By checking an amount below, you agree to the terms and conditions for	the LOLas set forth in the Statement of Additional	Information (including the accrewing of
shares). Although you are not obligated to complete the LOI, you plan to	invest an aggregate amount equal to at least the a	mount of the box checked below in one
or more Putnam funds over a 13-month period. You are aware that if you this LOI will be adjusted to the commission rate that otherwise would app		period any purchases made pursuant to
\$50,000 \$100,000 \$250,000	\$500,000 \$1,000,000	
Section 3 Putnam accounts		
Please list all of your existing Putnam accounts so that Putnam may dete	rmine if a credit can be applied toward the amount	indicated in the LOI. The credit will be
equal to the public offering price value of all shares owned on the date the purchase under the LOI (plus any shares of money market or short durati		
Putnam account number(s)	Putnam account number(s)	
Section 4 Authorization		
Your signature(s) below indicate(s) you agree that the minimum initial inv	vestment, which will be held in escrow until the full	LOI amount is purchased, is 5% of the
amount checked. If you invest less than the LOI amount, shares may be re charge will only be adjusted when and if your dealer refunds Putnam its;		
reinvestment.	oortion of the adjustment. For will not receive 2010	area for shares parenased by arriacha
Signature of Owner/Custodian/Trustee/Authorized Signer	Signature of Joint Owner/Co-Trustee/Co-A	uthorized Signer
Print name of signature above	Print name of signature above	
Date (mm/dd/yyyy)	Date (mm/dd/yyyy)	