Distribution payment options authorization



Return by mail: Putnam Investments PO Box 219697 Kansas City, MO 64121-9697 Return by express delivery: Putnam Investments 430 W 7th Street Suite 219697 Kansas City, MO 64105-1407

For more information: Putnam Investments 1-800-225-1581 www.putnam.com



Use this form to change your distribution payment option on your Putnam account for dividends and capital gains.

Section	1 Account owner information					
Name of owner/custodian/trustee/entity		Social Security /Tax ID number (required)	Date of birth (mm/dd/yyyy; required)			
Name of joint owner/minor/co-trustee/authorized party		Tax identification number (required)	Date of birth (mm/dd/yyyy; required)			
Contact phon	e number					
be made.	ng a phone number above will replace the current contact in 2 Provide account information		If this field is left blank, no changes will			
	pply the distribution payment option to the fund and account					
Fund number	Account number					
Section	a 3 Choose a distribution option	I				
See Section 5 destination.	to indicate payment instructions for distributions made in "	cash". Dividends and capital gains distributed	in "cash" must be directed to the same			
Option 1:	: □ Reinvest both dividends and capital gains to purchase additional shares in my account					
Option 2:	☐ Distribute both dividends and capital gains in "cash"					
Option 3:	Split dividends and capital gains					
	Dividends (choose one option):	Capital Gains (choose one o	option):			
	☐ Reinvest into my existing account in the same fund		g account in the same fund			
	OR	OR				
	☐ Distribute in "cash"	☐ Distribute in "cash"				
Section	4 No income tax withholding	(Retirement accounts only)				

By signing this form, you are electing not to withhold federal (and, if applicable, state) income tax from any dividends and/or capitals gains distributed to you in cash from your account(s). Putnam is unable to withhold taxes from these distributions. If you wish to receive dividends and/or capital gains in cash and have taxes withheld from any such distributions, you must complete a Putnam Request for IRA Distribution Form following the reinvestment of each dividend and/or capital gains distribution paid by the fund(s). If you do so, this form will cease to be in effect and cash distributions will no longer be made automatically.

Please be aware that distributions in cash, pursuant to this form, will be reported as includible in ordinary income (not as dividends and/or capital gains). Also, if you are under 59%, and are not subject to an additional 10% tax penalty on early withdrawals under Section 72(t) of the Internal Revenue Code, you should not use this form. Please consult your tax advisor regarding these and other tax implications of withdrawing money from your IRA plans.

Even though federal income tax is not being withheld, you are still liable for any federal (and, if applicable, state) income taxes due on the taxable part of your distribution, and you could incur penalties if your withholding or estimated tax payments for the year are not sufficient.

Section 5 Distribution payment instructions

Select your payment instructions below; if no selection/instructions are provided, payment will be made to the account owner as registered to the address of record. See Section 6 for signature guarantee/medallion guarantee stamp requirements.

⊃ro	invest oceeds must be reinvested into the same share class. Unless other	wise indicat	ed on this form, a separate	letter of inst	ruction or a new account application,		
	oceeds will also be reinvested into the same fund. Into a new Putnam non-retirement account. Please attach the apple Name(s) of the new registration's owner(s), custodian/minor, tru						
	Into an existing Putnam non-retirement account. Please provide the	in existing Putnam non-retirement account. Please provide the information below:					
	Fund number Account number	Name(s)	of registered owner(s)				
Ele	ectronically deposit						
	Into the bank account indicated on the attached document. A preparation bank letterhead must be attached. Each of these documents must account number. Brokerage checks and investment company check information. Contact your investment company to obtain proper vistaple.	include: bar cks cannot b	nk name, name(s) as registe se used for bank instructions	ered on the b s as these ch	bank account, routing number and lecks do not contain the correct wiring		
	Check the bank account you would like to use: ☐ Checking accommode: Distributions will be sent via Automated Clearing House (AC unions may assess a fee upon receipt. Please check with your finant for ACH transactions.	CH). Putnam	does not assess a fee for el				
document here	Name Address City, State, ZIP	```	DATE				
	PAY TO THE ORDER OF	\'	\$ Do	DLLARS			
ape your	: 123456789 : 000123456789	: 101					
ţ	ABA routing number of financial institution		Bank account number				
Sei	nd check						
	To the account owner as registered to the address of record						
☐ To the alternate payee/alternate address listed below: *Alternate payee*				Plan acc	count number (if applicable)		
	Alternate mailing address (including apartment or box number)						
	City		State	ZIP code	۵		

Note: All checks will be mailed by standard delivery via the US Postal Service.

Section 6 Authorization (This form must be signed by all registered owners)

Putnam requires the signature guarantee/medallion guarantee for any of the scenarios listed below. A signature guarantee/medallion guarantee is a stamped assurance by a financial institution that indicates a signature is valid and has the financial backing of the institution.

- 1) distribution is sent electronically to a bank account
- 2) check is not payable solely to the registered account owner
- 3) distribution amount is more than \$100,000
- 4) request is signed by anyone other than the registered account owner(s) (must be signed in capacity and accompanied by the appropriate certified legal document(s) with original certification)
- 5) distribution is being mailed to an alternate address and the amount is more than \$25,000
- 6) distribution is being mailed to an address that has changed in the past 15 days and the amount is more than \$25,000
- distribution is reinvested in an account that is not registered solely in the owner's name or into a 529 for America account with a different

If I have completed the bank account information section, I authorize my bank/credit union to accept credit entries initiated by Putnam Investor Services, Inc. to my account and to credit, as requested, the same to my account, without responsibility for correctness thereof or for the existence of any further authorization relating thereto. I agree to indemnify and hold harmless my/our bank/credit union, the Putnam funds, and Putnam Investor Services, Inc. for any loss, liability, or expense incurred from acting on these instructions. I also agree to waive any right under the NACHA Rules to rescind any instruction for ACH transactions that have already occurred at the time of the attempt to rescind. This waiver of the rescission right applies to both ACH investments in and ACH redemptions from the Putnam funds. This authorization may be terminated by me at any time by written notification to Putnam Investor Services, Inc., with reasonable time given to implement my request.

I certify that all the information on this form, including my Social Security number set forth in Section 1, which is my Taxpayer Identification Number (TIN), is true, correct and complete. My signature below also indicates that if I am designating an investment in a fund that I do not already own I have read the fund prospectus(es) and agree to the terms therein.

Signature of owner/custodian/trustee/authorized party	Signature of joint owner/co-trustee/authorized party (if applicable)			
Print name of signature above	Print name of signature above			
Date (mm/dd/yyyy)	Date (mm/dd/yyyy)			
PLACE SIGNATURE/MEDALLION GUARANTEE STAMP BELOW THE GUARANTEE SHOULD NOT BE DATED	PLACE SIGNATURE/MEDALLION GUARANTEE STAMP BELOW THE GUARANTEE SHOULD NOT BE DATED			