

Substitute form W-9

Request for Taxpayer Identification Number and Certification



Putnam Investments

PO Box 219697, Kansas City, MO 64121-9697

1-800-225-1581

www.putnam.com

Your account number

-

Tax ID

Name of owner, trust, organization or business entity

Check appropriate box for federal tax classification (required):

Individual Trust Estate Partnership C Corporation S Corporation Foundation/Non-profit organization

Certification — Under penalties of perjury, I certify with my signature below that: (1) The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me) and (2) I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and (3) I am a U.S. citizen, a U.S. resident alien, or other U.S. person as defined in the instructions issued by the IRS.

You must cross out item (2) above if you have been notified by the IRS that you are currently subject to backup withholding because of underreporting interest or dividends on your tax return.

Please sign here

Date (mm/dd/yyyy)

Purpose of form

Putnam is required to file an information return with the Internal Revenue Service (IRS) and must obtain your correct Taxpayer Identification Number (TIN). Please be sure to read and complete the certification section on the front of this form to ensure proper certification of your TIN.

By providing us with your correct TIN and making the appropriate certifications, you may prevent certain payments from being subject to the statutory backup withholding rate as well as avoid potential IRS imposed penalties.

For further details, please contact our Putnam Shareholder Services representatives at 1-800-225-1581 in order to obtain the necessary documents and information.