Checkwriting privilege

Putnam
INVESTMENTS

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.co

Use this form to add checkwriting privileges to your eligible Putnam nonretirement account(s). This option is not available for Retirement, 529, Coverdell, Outside trustee, or Brokerage accounts. Your account must have a balance in order to apply for checkwriting. Please be aware that you cannot use these checks or the account to do online bill pay. Additionally, Putnam's checkwriting checks cannot be converted into ACH transactions.

E-Signature authorization will not be accepted to establish checkwriting. If you have been a customer with Putnam for more than 60 days, **a Signature Validation Program (SVP) stamp must be provided**. A SVP stamp is a stamped assurance for nonfinancial transactions by a financial institution that indicates a signature is valid.

Section 1 Account owner information

Name of owner/custodian/trustee/entity

Social Security/Tax ID number (required)

Date of birth (mm/dd/yyyy)

Name of joint owner/minor/co-trustee/authorized party

Social Security/Tax ID number (required)

Date of birth (mm/dd/yyyy)

Contact phone number

Note: Providing a phone number above will replace the current contact information on file with Putnam (if applicable). If this field is left blank, no changes will be made.

Section 2 Eligible funds

When a check is presented for payment, shares in your account will be redeemed at that day's NAV to cover the amount of the check. An additional amount of shares may be redeemed to cover any applicable contingent deferred sales charge. The checkwriting privileges established by this application are specific to the account number(s) in which the privileges are assigned. If your account number is changed for any reason, you must complete a new checkwriting privilege application to establish checkwriting for the new account number.

Putnam's checkwriting privilege is available in any of these Putnam Funds with no fee.

• Government Money Market Fund   • Money Market Fund   • Mortgage Securities Fund

Add checkwriting to my existing Putnam account or to a new fund:

Fund number   *Account number*   *New fund name*

or

Section 3 Trust, Partnership, or Association certification

Trusts, partnerships and associations are required to complete the fields below. Additional documentation may be required, please contact Putnam Investments for more information. **Authorized signers named to act must complete Section 5**.

Name of Entity

Authorized signer(s)

I hereby certify that the authorized person(s) named above is/are authorized to redeem Putnam shares from the Fund by use of the checkwriting privilege. To change the authorized signature(s), written instructions must be received by Putnam Investor Services in the proper format.

PLACE SVP STAMP BELOW

Certifying signature   *Title*

Print name of signature above

Date (mm/dd/yyyy)

Section 4 **Corporate Resolution**

This section must be completed when the owner is a corporation. Generally, this section is signed by the secretary or other recording officer of the corporation in his/her capacity as custodian of corporate records. If the secretary or other recording officer signing the resolution is also named in the resolution as authorized to act, at least one other officer must also be authorized to act (except in the case of a sole officer). If your corporation has only one officer, the signature of that sole officer of the corporation must be guaranteed by an investment dealer or bank and must be signed with the title of the officer as the sole officer. To change the authorized signatory(ies), written instructions must be received by Putnam Investor Services, Inc. in the proper format. **Authorized officers named to act must complete Section 5.**

Name of corporation

State

Name of authorized officer

Title of authorized officer

Name of authorized officer (if applicable)

Title of authorized officer (if applicable)

The officer(s) listed above is/are authorized to redeem Putnam shares from the Fund by use of the checkwriting privilege. I, secretary or other recording officer of the Corporation listed above incorporated under the laws of the state listed above hereby certify that the foregoing resolution is in conformity with the charter and bylaws of this corporation and was adopted at a meeting of the Board of Directors of the corporation duly called and held on (print date) ___ /___ /_____ at which a quorum was present and acting throughout, and that the same is now in full force and effect.

CORPORATE SEAL OR SVP STAMP BELOW

Secretary or other recording officer signature

Title

Print name of signature above

Date (mm/dd/yyyy)

Section 5 **Signature card authorization**

All registered owners (individual or joint) or authorized signers (corporation, trust, partnership, or an association) must sign within the white spaces provided below in black ballpoint ink. If you have been a customer with Putnam for more than 60 days, an **SVP stamp is required for each signature.**

By signing the below signature card, the signatory(ies) agrees to be subject to the instructions and rules as now in effect and as amended from time to time, of the Fund(s) and of a bank designated by Putnam Investor Services, Inc. (the "designated subcustodian bank"), as they pertain to the use of redemption checks; therefore all registered owners must sign this signature card. Each signatory guarantees the genuineness of the other's signature.

The designated subcustodian bank is hereby appointed agent by the shareholders signing this card and, as such agent, is directed to request redemption of shares of such Putnam fund(s) as designated by the shareholders from time to time, and as recorded on Putnam's records, upon receipt of, and to the amount of, checks drawn upon the account(s). In so acting, the designated subcustodian bank shall be liable only for its own negligence. Shareholders will be subject to the designated subcustodian bank's rules, regulations, and associated laws governing check collection. It is further agreed that the above rules and regulations may be changed, modified, or terminated at any time upon notification mailed to the shareholder's address recorded on Putnam's records.

As set forth in the fund's prospectus, purchases made by check or ACH deposit may be held for up to 7 calendar days in order to collect payment. A check written against your fund account may be returned unpaid by the designated custodian bank if your fund account does not have sufficient collected funds to cover the amount of your check.

Signature of Owner/Custodian/Trustee/Authorized Signer

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

Print name of signature above

Print name of signature above

Date (mm/dd/yyyy)

Date (mm/dd/yyyy)

☐ Check here if more than one signature is required. If this box is not marked, only one signature will be required on checks. See above for terms of agreement.

PLACE SVP STAMP BELOW

PLACE SVP STAMP BELOW