Transfer on death (TOD) beneficiary designation guide

Return by mail:

Putnam Investments PO Box 219697 Kansas City, MO 64121-9697

Return by express 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

Use this form to designate or change a beneficiary(ies) for the transfer of a non-retirement account upon the death of an individual and/or joint owners. This form can also be used to revoke a beneficiary designation on an existing Transfer on death (TOD) registration. Please read the attached Terms and conditions for establishing a TOD registration carefully.

Note: If you wish to designate a beneficiary on a retirement account please contact Putnam Investments for the appropriate requirements.

If the new TOD account is being established by a transfer from an existing Putnam account, or the beneficiary of an existing TOD account is being changed, each signature in Section 5 must be authenticated with a Signature Guarantee or Medallion Guarantee stamp.

Important:

- Putnam will not accept beneficiary designations or changes from anyone other than the Putnam account owner(s).
- The TOD account owner(s) must be a legal resident of any U.S. state other than Louisiana.
- No person other than a citizen or legal resident of the U.S., or an entity organized under U.S. law and domiciled within the U.S. (collectively, a "U.S. Person") may be designated as a beneficiary.
- All pages of this form must be completed and returned in order for the beneficiary designation(s) to be accepted. If any page of this form is not returned, your current beneficiary designations will not be changed.
- If the contingent beneficiary designation page is left blank, any current contingent beneficiary designations will be **revoked**.
- If you are changing one or more, but not all, beneficiaries, you must redesignate all beneficiaries you wish to remain on your account. If you fail to redesignate any of your existing beneficiaries, they will be **revoked**.
- A TOD owner, or joint owner, cannot be designated as a beneficiary. If there is more than one registered TOD owner and one owner dies, the assests will belong to the surving owner(s).

The following restrictions may apply:

- You cannot designate a contingent beneficiary in Section 3C unless you have also designated a primary beneficiary in Section 3B of this form (even if the primary beneficiary on file is not changing).
- Putnam will not accept beneficiary designations from a parent/guardian on a minor's behalf.
- Putnam will not accept customized beneficiary designations (for example, designations which involve multiple contingencies within a primary or contingent beneficiary category) or "per stirpes" designations. All beneficiaries must be designated as either primary or contingent and must include all identifying information (full name, Social Security/Tax ID number, date of birth/date of trust, and allocated percentage).

Beneficiary designation checklist:

- Did you provide the full name, Social Security / Tax ID number, and date of birth/date of trust for each beneficiary?
 - If any required information is missing the designation cannot be accepted.
- Do your allocations equal 100%?

Important: Primary designations must be listed in Section 3B. Contingent beneficiary designations must be listed in Section 3C. Do not list both primary and contingent beneficiary designations on the same page. If you wish to designate more than five primary beneficiaries and/or more than five contingent beneficiaries, you must include a separate sheet of paper with the additional designation. The separate sheet of paper must indicate whether the designation is for a primary or contingent beneficiary, include all required beneficiary information (full name, Social Security/Tax ID number, date of birth/date of trust, and allocated percentage). If the new TOD account is being established by a transfer from an existing Putnam account, or the beneficiary of an existing TOD account is being changed, **the separate sheet of paper must be signed, dated, and authenticated with a Signature Guarantee or Medallion Guarantee stamp.**

- Did you sign the form in Section 5 and obtain a signature authentication stamp?
 - If the new TOD account is being established by a transfer from an existing Putnam account, or the beneficiary of an existing TOD account is being changed, a signature and a separate authentication stamp are required for each owner. Please refer to the Signature authentication guidelines document (FM523C) for a list of acceptable authentication stamps.
- Did you return all pages of the form?
 - If any page of this form is not returned, your current beneficiary designations will not be changed.

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Complete this form to designate or change a beneficiary(ies) for the transfer of a non-retirement account upon the death of an individual and/or joint owners. This form can also be used to revoke a beneficiary designation on an existing Transfer on death (TOD) registration. Please read the attached Terms and conditions for establishing a TOD registration carefully. Please return all pages. All references herein to the singular (i.e., "I" or "my") include the plural as applicable.

Important:

- No person other than a citizen or legal resident of the U.S., or an entity organized under U.S. law and domiciled within the U.S. (collectively, a "U.S. Person") may be designated as a beneficiary.
- If you name multiple primary or contingent beneficiaries, please specify the percentage each is to receive. If no percentage is specified or if the specified percentages do not equal 100%, your account will be distributed as set forth in Section 2.B of the Terms and conditions.
- See Section 2.D of the Terms and conditions for information concerning a minor beneficiaries. You must designate a custodian and donor state for each minor beneficiary. If a beneficiary has already attained the age of majority in the applicable donor state, the custodian designation will not be honored.

Section 1 Account owner information

Name of owner First	MI	Last	Suffix	Social Security number	Date of birth (mm/dd/yyyy)
Name of joint owner First	MI	Last	Suffix	Social Security number	Date of birth (mm/dd/yyyy)

Phone number

Note: Providing a phone number above will replace the current contact information on file with Putnam (if applicable).

Section 2 Transfer on death options

You must select one of the options below. Some situations will result in the generation of a new account number and additional paperwork may be required. Contact Putnam for additional details.

Important: If a change in ownership is taking place (addition or removal of owner(s)); a signature/medallion guaranteed *Transfer request form for non-retirement accounts* must accompany this request. Additionally, a *Putnam mutual fund account application* will be required if any new owners are added to the registration.

Option 1: Designate or update my beneficiary designations on a new or existing nonretirement account.

• If the designation is for assets held in an **existing** Putnam account, you must provide the account number(s) below.

Account number

Account number

• To establish a **new** account with Putnam, complete a *Putnam mutual fund account application*.

Account number

Option 2: Revoke my TOD designation from the existing nonretirement account(s) provided below. Your account will no longer have the transfer on death designation and will be transferred to either an individual account our a joint Tenants with rights of survivorship account as applicable.

Account number

Section 3 Beneficiary designations

3A: Signature of account owner's spouse (For TOD accounts established by an owner who is married unless the spouse is also a joint owner): If you are married to the owner and they have designated a beneficiary(ies) other than you, please consult your financial advisor about the state law and tax law implications of this beneficiary designation, including the need for your consent. By signing below you indicate that you are the spouse of the individual named in Section 1 and that you consent to the to the terms and conditions of this TOD registration. PSERV is not responsible for determining whether an account owner is married and is a resident of a jurisdiction in which community property rules apply.

Signature of spouse

Current date (mm/dd/yyyy)

Account number

Account number

Print	name	of signer
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Section 3 Beneficiary designations (continued)

or primary beneficiaries must	equal 100%.					
ntity/trust (required)	Relationship			Percento	ige	
	Spouse	Other	Entity/Trust			%
Date of birth (mm/dd/yyyy; red	quired for an indiv	vidual)	Date of trust (mm/d	d/yyyy; red	quired for a trust)	
	City			State	ZIP code	
			UTMA donor state (r	equired fc	or an UTMA desigi	nation)
ntity/trust (required)	Relationship			Percento	ige	
	Spouse	Other	Entity/Trust			%
Date of birth (mm/dd/yyyy; red	quired for an indiv	vidual)	Date of trust (mm/d	d/yyyy; rea	quired for a trust))
	City			State	ZIP code	
			UTMA donor state (r	equired fo	or an UTMA desigi	nation)
ntity/trust (required)	Relationship			Percento	ige	
	Spouse	Other	Entity/Trust			0⁄0
Date of birth (mm/dd/yyyy; red	quired for an indiv	vidual)	-	d/yyyy; red	quired for a trust)	
	City			State	ZIP code	
			UTMA donor state (r	equired fc	or an UTMA desigi	nation)
ntity/trust (required)	Relationship			Percento	age	
	Spouse	Other	Entity/Trust			%
Date of birth (mm/dd/yyyy; red	quired for an indiv	vidual)	Date of trust (mm/d	d/yyyy; red	quired for a trust)	
	City			State	ZIP code	
			UTMA dopor stato (r	oquirad fa		nation
	ntity/trust (required) Date of birth (mm/dd/yyyy; red ntity/trust (required) Date of birth (mm/dd/yyyy; red ntity/trust (required) Date of birth (mm/dd/yyyy; red	Spouse Date of birth (mm/dd/yyyy; required for an indix City ntity/trust (required) Relationship Spouse Date of birth (mm/dd/yyyy; required for an indix City ntity/trust (required) Relationship Spouse Date of birth (mm/dd/yyyy; required for an indix City ntity/trust (required) Relationship Spouse Date of birth (mm/dd/yyyy; required for an indix City ntity/trust (required) Relationship Spouse Date of birth (mm/dd/yyyy; required for an indix City ntity/trust (required) Relationship Spouse Date of birth (mm/dd/yyyy; required for an indix	ntity/trust (required) Relationship Spouse Other Date of birth (mm/dd/yyyy; required for an individual) city ntity/trust (required) Relationship Date of birth (mm/dd/yyyy; required for an individual) City ntity/trust (required) Relationship city tity/trust (required) Relationship Spouse Other Date of birth (mm/dd/yyyy; required for an individual) City tity/trust (required) Relationship Spouse Other Date of birth (mm/dd/yyyy; required for an individual)	ntity/trust (required) Relationship Spouse Other Entity/Trust Date of birth (mm/dd/yyyy; required for an individual) Date of trust (mm/d City Thity/trust (required) Relationship Spouse Other Entity/Trust Date of birth (mm/dd/yyy; required for an individual) Date of trust (mm/d City Thity/trust (required) Relationship Spouse Other Entity/Trust Date of birth (mm/dd/yyy; required for an individual) Date of trust (mm/d City Thity/trust (required) Relationship Spouse Other Entity/Trust Date of birth (mm/dd/yyy; required for an individual) Date of trust (mm/d City Thity/trust (required) Relationship Spouse Other Entity/Trust Date of birth (mm/dd/yyy; required for an individual) Date of trust (mm/d City Thity/trust (required) Relationship City Thity/trust (required) Relationship Spouse Other Entity/Trust Date of trust (mm/d City	ntity/trust (required) Relationship Percenter Spouse Other Entity/Trust City State ntity/trust (required) Relationship Percenter Spouse Other Entity/Trust Date of birth (mm/dd/yyyy; required for an individual) Date of trust (mm/dd/yyy; required for an indivi	ntity/trust (required) Relationship Percentage Spouse Other Entity/Trust City State ZIP code UTMA donor state (required for an UTMA desig Spouse Other Entity/Trust Date of birth (mm/dd/yyyy; required for an individual) Date of trust (mm/dd/yyyy; required for a trust, City State ZIP code Spouse Other Entity/Trust Date of birth (mm/dd/yyyy; required for an individual) Date of trust (mm/dd/yyyy; required for a trust, City State ZIP code UTMA donor state (required for an UTMA desig Spouse Other Entity/Trust Date of birth (mm/dd/yyy; required for an individual) Date of trust (mm/dd/yyyy; required for a trust, City State ZIP code UTMA donor state (required for an UTMA desig Spouse Other Entity/Trust Date of birth (mm/dd/yyy; required for an individual) Date of trust (mm/dd/yyy; required for a trust, City State ZIP code UTMA donor state (required for an UTMA desig Percentage Spouse Other Entity/Trust Date of birth (mm/dd/yyy; required for an individual) Date of trust (mm/dd/yyy; required for a trust, City State ZIP code UTMA donor state (required for an UTMA desig Date of birth (mm/dd/yyy; required for an individual) Date of trust (mm/dd/yyy; required for a trust, City Percentage Trity/trust (required) Relationship Percentage Date of birth (mm/dd/yyy; required for an individual) Date of trust (mm/dd/yyy; required for a trust, City Percentage Spouse Other Entity/Trust Date of birth (mm/dd/yyy; required for an individual) Date of trust (mm/dd/yyy; required for a trust, Date of birth (mm/dd/yyy; required for an individual) Date of trust (mm/dd/yyy; required for a trust, Date of birth (mm/dd/yyy; required for an individual) Date of trust (mm/dd/yyy; required for a trust, Date of birth (mm/dd/yyy; required for an individual) Date of trust (mm/dd/yyy; required for a trust, Date of birth (mm/dd/yyy; required for an individual) Date of trust (mm/dd/yyy; required for a trust, Date of birth (mm/dd/yyy; required for an individual) Date of trust (mm/dd/yyy; required for a trust, Date of birth (

Total primary allocations must equal 100%

10000%

Section 3 Beneficiary designations (continued)

Section 3C - Contingent beneficiary(ies): Percentage	es for contingent beneficiari	es must equal 100	%.				
Name of individual (First, MI, Last, Suffix)/Full name of e	ntity/trust (required)	Relationship			Percento	age	
		Spouse	Other	Entity/Trust			%
Social Security/Tax ID number (required)	Date of birth (mm/dd/yyyy;	required for an indiv	vidual)	Date of trust (mm/d	dd/yyyy; re	quired for a trust	
Residential street address of beneficiary		City			State	ZIP code	
Name of custodian (required for an UTMA designation)				UTMA donor state (required fo	or an UTMA desig	ination)
	ntity/trust (required)	Relationship			Percento	age	
		Spouse	Other	Entity/Trust			%
Social Security/Tax ID number (required)	Date of birth (mm/dd/yyyy;	required for an indiv	vidual)	Date of trust (mm/d	dd/yyyy; re	quired for a trust	/ •
Residential street address of beneficiary		City			State	ZIP code	
Name of custodian (required for an UTMA designation)				UTMA donor state (required fo	or an UTMA desig	ination)
Name of individual (First, MI, Last, Suffix)/Full name of e	ntity/trust (required)	Relationship			Percento	ige	
		Spouse	Other	Entity/Trust			0⁄0
Social Security/Tax ID number (required)	Date of birth (mm/dd/yyyy;		vidual)	Date of trust (mm/d	dd/yyyy; re	quired for a trust	/ 0
Residential street address of beneficiary		City			State	ZIP code	
Name of custodian (required for an UTMA designation)				UTMA donor state (required fo	or an UTMA desig	ination)
Name of individual (First, MI, Last, Suffix)/Full name of e	ntity/trust (required)	Relationship			Percento	age	
		Spouse	Other	Entity/Trust			%
Social Security/Tax ID number (required)	Date of birth (mm/dd/yyyy;	required for an indiv	vidual)	Date of trust (mm/d	dd/yyyy; re	quired for a trust	
Residential street address of beneficiary		City			State	ZIP code	
Name of custodian (required for an UTMA designation)				UTMA donor state (required fo	or an UTMA desig	ination)

Total contingent allocations must equal 100%

Section 4 Checkwriting

When transferring from an existing account or in cases where a new account is created as the result of a beneficiary change, your Checkwriting feature will not automatically carry over to the new registration. Your existing Checkwriting checks will not be acceptable and you will need to reapply for the option. Please contact Putnam for the appropriate paperwork.

Section 5 Authorization

I, the undersigned owner of the above account(s), have read, understand and agree to the attached Terms and conditions for establishing Transfer on death (TOD) registration and hereby instruct Putnam Investor Services, Inc. (PSERV), as transfer agent for the Putnam mutual funds, to register the foregoing account(s) in TOD form, subject to the TOD registration rules of the Securities Transfer Association, Inc. (STA) (except with respect to permitting multiple beneficiaries) and the attached Terms and conditions as now or hereinafter in effect, for the benefit of the beneficiaries designated in Section 3: Each of the undersigned hereby agrees, on behalf of themselves and their heirs, executors, and assigns to indemnify PSERV and the Putnam Funds against any loss, claim, or expense (including reasonable counsel fees) to the extent that any TOD effected pursuant to this registration is alleged or found for any reason to have been invalid or ineffective, and transfer is subject to the condition that PSERV and the Putnam Funds will be entitled to attach or debit the account of the TOD beneficiary to the extent necessary to enforce their rights to this indemnity.

My signature below indicates I agree to the terms herein.

Important: If the new TOD account is being established by a transfer from an existing Putnam account, or the beneficiary of an existing TOD account is being changed, **a signature/medallion guarantee is required** for the signature of each registered owner of the existing account. 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. The Guarantee should not be dated. If a Medallion Signature Guarantee is dated, it is only good for that date.

Signature of owner		Signature of joint owner		
Print name of signer		Print name of signer		
Current date (mm/dd/yyyy)		Current date (mm/dd/yyyy)		
PLACE SIGNATURE/MEDALLION GUARANTEE STAMF THE GUARANTEE SHOULD NOT BE DATED	BELOW	PLACE SIGNATURE/MEDALLION THE GUARANTEE SHC	N GUARANTEE STAMP BELOW JULD NOT BE DATED	
• • • •		• • • •	• • • •	
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0	•	0	•
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Terms and conditions for establishing Transfer on death (TOD) registration

- 1. Eligible Accounts. TOD registration is optional and is not required for any account. TOD registration is only available for an account owned solely by one individual or by two or more individuals holding the account as joint tenants with rights of survivorship ("JT TEN") or as tenants by the entirety ("TEN ENT"). TOD registration is not available for an account owned in whole or in part by a trust, corporation, partnership, or other entity, by two or more individuals holding the account as tenants in common, by two or more individuals holding the account as community property, by residents of the State of Louisiana, or residents of any jurisdiction other than the United States of America ("U.S.").
- 2. TOD Beneficiary(ies). Except as otherwise provided herein, any individual and any trust, corporation, partnership, or other entity may be designated as a beneficiary under a TOD registration.
 - A. Non-U.S. Persons. No person other than a citizen or legal resident of the U.S., or an entity organized under U.S. law and domiciled within the U.S. (collectively, a "U.S. Person") may be designated as a beneficiary. If a non-U.S. Person is designated as a beneficiary, of if a designated beneficiary has become a non-U.S. Person at the time of the death of the last surviving account owner, the beneficiary will be deemed to have pre-deceased the last surviving account owner and the percentage share allocated to that beneficiary will be treated accordingly, as set forth in Section 2.C.
 - **B.** Multiple Beneficiaries. If two or more primary beneficiaries are designated (or, where no primary beneficiary survives the last surviving account owner, if two or more contingent beneficiaries are designated), the account owner(s) may specify the percentage share to be received by each beneficiary. If no percentages are specified, the beneficiaries will receive equal shares. If the specified percentages add to less than 100%, the unallocated portion will be transferred as if it were not subject to TOD registration (usually, to the last surviving account owner's estate). If the specified percentages add to more than 100%, the specified percentages will be reduced proportionately so that their sum equals 100%.
 - C. Predeceased Beneficiary(ies). If a primary beneficiary does not survive the last surviving account owner, the share specified for that beneficiary will be transferred to the primary beneficiary(ies) who do survive the last surviving account owner, in the proportions that their shares bear to one another; and if no primary beneficiary survives the last surviving account owner, the account assets will be transferred to the contingent beneficiary(ies) (who will then be treated in like manner as primary beneficiary(ies) with regard to their respective shares). If no primary beneficiary or contingent beneficiary survives the last surviving account owner, the account assets will be transferred as if the account were not subject to TOD registration (usually, to the last surviving account owner's estate). If a trust, corporation, partnership, or other entity specified as a beneficiary is not in existence at the death of the last surviving account owner, such beneficiary shall be deemed to have not survived the last surviving account owner. References in this document to the "last surviving account owner" mean the account owner for an account owned solely by one individual or the last surviving co-owner for an account owned by two or more individuals as JT TEN or TEN ENT.
 - D. Minor Beneficiary(ies). Account owners seeking to designate a minor as a beneficiary may specify a custodian for the minor under the Uniform Transfers to Minors Act ("UTMA") of any state that has adopted UTMA (designations of custodians under the Uniform Gifts to Minors Act of any state will not be accepted). If no custodian is specified for a minor under the UTMA, PSERV will require formal letters of conservatorship/guardianship issued by a court to transfer the assets to the minor beneficiary.
- 3. Initiation, Change, and Revocation of TOD Registration. TOD registration may be initiated, changed, or revoked only by completion of a Putnam TOD Registration Form signed by all living account owners. Any change or revocation of TOD registration must include a signature guarantee for each account owner. (While photocopies and facsimiles of the form are acceptable, all signatures and signature guarantees must be original.) If outstanding share certificates are held, they must be properly endorsed to PSERV by all living account owners, with a signature guarantee for each account owner, in order for the initiation, change, or revocation of TOD registration to be approved. If an account owner has died but one or more account owners remain living, the living account owner(s) must also provide PSERV with sufficient evidence of the deceased account owner's death (i.e., a certified death certificate, except as otherwise permitted by PSERV in its sole discretion), as well as such inheritance tax waivers and affidavits of domicile as may be required by PSERV in its sole discretion. A Putnam TOD Registration Form and any accompanying certificates or documentation should be mailed to the address indicated on the Putnam TOD Registration Form.

TOD registration may not be initiated, changed, or revoked by any writing other than a Putnam TOD Registration Form, by any oral communications, or by any will or codicil; and PSERV shall be indemnified by each account owner's estate from and against any liability arising from or associated with any conflicting designation made in any will, codicil, trust, or other instrument. Moreover, TOD registration is not automatically initiated, changed, or revoked in any way by the marriage, divorce, separation, or remarriage of any party or by the death of any account owner (except that the death of the last surviving account owner makes TOD registration irrevocable and unchangeable or, if not yet initiated, unavailable); rather, it is the sole responsibility of the account owner(s) to initiate, change, or revoke TOD registration on account of such events if desired.

The initiation, change, or revocation of TOD registration for an account will be effective only as of the date on which PSERV approves the initiation, change, or revocation. If PSERV approves an initiation, change, or revocation of TOD registration after the date of death of the last surviving account owner, the initiation, change, or revocation will not be effective, regardless of when the Putnam TOD Registration Form (or any share certificate, if applicable) was mailed to or received by PSERV. If PSERV approves an initiation, change, or revocation on the date of death of the last surviving account owner, the initiation, change, or revocation will be effective, even if the time of approval on that date is later than the time of death. PSERV will generally attempt to approve an initiation, change, or revocation of TOD registration with reasonable promptness and to notify account owners in writing of the date on which the initiation, change, or revocation is approved. However, PSERV will not be liable to any party for any delay in approving an initiation, change, or revocation of TOD registration.

PSERV may refuse to approve an initiation, change, or revocation of TOD registration, even if submitted on a Putnam TOD Registration Form, if PSERV, in its sole discretion, is not satisfied that the form has been completed and executed properly and that the designated beneficiary(ies) are sufficiently clear and identifiable (and, if outstanding share certificates are held, that such certificates have been endorsed properly) or for any other reason. PSERV will generally attempt to notify the account owner(s) if an initiation, change, or revocation of TOD registration is not approved. However, PSERV will not be liable to any party for its refusal to approve any initiation, change, or revocation of TOD registration.

Any Putnam TOD Registration Form approved by PSERV will revoke, in their entirety, all Putnam TOD registration forms approved previously by PSERV (all prior beneficiary designations and other specifications set forth therein), regardless of the dates on which such forms are executed or dated by the account owner(s) or received by PSERV. Any new Putnam TOD Registration Form should thus be completed in full and should include not only any new or changed beneficiary designations and specifications but also any previous beneficiary designations and specifications that are to remain in force.

So long as at least one account owner is living, no beneficiary under a TOD registration has any rights or interests in or with respect to an account, and no beneficiary's signature or consent is necessary for the initiation, change, or revocation of TOD registration; and until an account has been transferred pursuant to a TOD registration following the death of the last surviving account owner, no beneficiary has any rights to control the disposition of all or any portion of an account. However, none of the provisions above shall be deemed to affect the manner in which account owners may handle and dispose of their accounts independently of TOD registration.

- 4. <u>Transfer to TOD Beneficiary(ies) at Death of Last Surviving Account Owner.</u> PSERV will transfer account assets pursuant to a TOD registration following the death of the last surviving account owner and the fulfillment of the following conditions (but no sooner than 30 days after the death of the last surviving account owner):
 - (a) PSERV has received sufficient evidence of the death of all account owners (i.e., by certified death certificates).
 - (b) PSERV has received such inheritance tax waivers and affidavits of domicile for all account owners as may be required by applicable state laws.
 - (c) If outstanding share certificates are held, PSERV has received the certificates, properly endorsed by all beneficiaries with a signature guarantee.
 - (d) For each beneficiary, PSERV has received sufficient evidence that the beneficiary survived the last surviving account owner. PSERV has no obligation to locate any beneficiary or any beneficiary's spouse, legal heirs, or executor, administrator, or other legal representative.
 - (e) PSERV must not have received written notice from anyone claiming rights to or in the account and objecting to the transfer pursuant to the TOD registration; or, if PSERV has received such written notice from any party, PSERV must subsequently receive a written notice signed and acknowledged by that party releasing all claimed rights to or in the account and withdrawing the objections to the transfer pursuant to the TOD registration; or, if that party will not provide such subsequent written notice (or if that party revokes such subsequent written notice before account assets are actually transferred), PSERV must receive sufficient instructions or orders from a count of competent jurisdiction with regard to the party's claim and/or with regard to the disposition of the account assets, unless PSERV in its sole discretion waives this requirement.
 - (f) PSERV must, in its sole discretion, be sufficiently satisfied (a) that the TOD registration was and is in compliance with laws regarding TOD registration in the jurisdictions and at the times deemed relevant by PSERV and (b) that PSERV and any issuers and transfer agents who act pursuant to the TOD registration are sufficiently exculpated by such laws for transferring account assets or taking other actions pursuant to the TOD registration.
 - (g) PSERV has received the written agreement of all TOD beneficiaries to indemnify PSERV and any issuer or transfer agent from any liability for transferring account assets or taking other actions pursuant to the TOD registration (including costs incurred to enforce such agreement), even if the TOD registration is alleged or found to have been invalid or ineffective for any reason. In order to realize or enforce its right to indemnity, PSERV and any issuer or transfer agent shall be entitled (but not limited) to recover from the account assets or from any other account maintained with PSERV by any TOD beneficiary making such written agreement and to require any TOD beneficiary to continue holding the account assets with PSERV for such time following the transfer as is deemed appropriate for such indemnification.
 - (h) PSERV may require such other documentation and agreements as PSERV, in its sole discretion, deems necessary to meet any condition for the transfer of account assets pursuant to a TOD registration and to protect itself from liability in connection with the TOD registration. PSERV reserves the right to interplead account assets or to bring any other suit relating to the disposition of the account in any state or federal court located in the commonwealth of Massachusetts or in any other court of competent jurisdiction and to be reimbursed from the account assets for the costs (including court fees and attorney fees) associated with such action. Account assets transferred pursuant to TOD registration will be reduced to satisfy any other debt or obligation to PSERV and increased by any dividends, interest, or other distributions received by PSERV after the death of the last surviving account owner, except such dividends, interest, or other distributions already paid by PSERV prior to its receipt of written notice of the death of the last surviving account owner (for which PSERV shall not be liable). Account assets may also be reduced to satisfy any tax or tax withholding obligations as required by law. If necessary to satisfy any tax, withholding obligation, or other debt or obligation, PSERV may liquidate all or a portion of the account assets transferred to the beneficiary's estate. A beneficiary who dies after the last surviving account assets transferred will be transferred to the beneficiary. Any account assets subject to such disclaimer shall be disposed of as if the disclaimant did not survive the last surviving account assets subject to such disclaimer shall be disposed of as if the disclaimant did not survive the last surviving account owner.
- 5. Future Changes in Terms and Conditions/Governing Law. These Terms and Conditions are subject to change by PSERV in response to changes in the relevant TOD statute(s) and in the Securities Transfer Association's TOD Rules (which PSERV generally observes, although PSERV permits multiple beneficiaries). All TOD accounts established by PSERV are established in reliance upon and are governed by Massachusetts law regarding such accounts.

Signature authentication guidelines



Use this document as a reference to explain the different authentications that may be required to process a transaction. Please refer to the specific Putnam form to verify which type of authentication is required as not all signature authentication types are acceptable for all transactions. You may be able to obtain signature authentication from securities broker/dealers, commercial banks, federally chartered savings institutions, federally chartered credit unions, trust companies, state chartered savings institutions or credit unions. Check with your financial institution for availability.

All authentications must be original; photocopies or fax copies are not acceptable.

This document is for reference only. Please do not stamp this form.

Medallion Program Signature Guarantee

A Medallion Program signature guarantee is a form of signature guarantee that is a stamped assurance provided by a financial institution that guarantees that a signature is genuine, the signer is an appropriate person to sign and the signer has legal capacity to sign. The purpose of a signature guarantee is to protect transfer agents and shareholders against loss from fraudulent signatures on instructions in connection with securities transactions, which are defined as the sale, assignment, transfer or redemption of a security. A Medallion Program signature guarantee provides additional protection against fraud by using special security ink, a bar code that can be scanned to identify a stamp that has been reported lost or stolen, and a prefix code that discloses the maximum transaction value covered by the stamp (see chart below). The guarantee should **not** be dated.

Prefix Letter	Liability Limit per Transaction
Z	\$10,000,000
Y	\$5,000,000
Х	\$2,000,000
A	\$1,000,000
В	\$750,000
С	\$500,000
D	\$250,000
E	\$100,000
F	\$100,000 (credit unions only)



The letter prefix of each identification number signifies the amount of the surety bond obtained by the guarantor. The amount of coverage associated with the corresponding prefix is detailed above.

Signature Guarantee

A signature guarantee is a stamped assurance provided by a financial institution that guarantees that a signature is genuine, the signer is an appropriate person to sign and the signer has legal capacity to sign. The purpose of the signature guarantee is to protect transfer agents and shareholders against loss from fraudulent signatures on instructions in connection with securities transactions, which are defined as the sale, assignment, transfer or redemption of a security.

