

RMD Service Agreement

1. Overview

The Vanguard Group, Inc., or Vanguard Brokerage Services, or an affiliate of either (collectively, "Vanguard"), will calculate and notify you of the amount you may be required by federal law to take out of IRAs and certain other retirement plans you hold at Vanguard. This amount is called your required minimum distribution ("RMD"). You may call us, write to us, or log on to your account at vanguard.com to take your RMD at any time throughout the year. Or you can enroll in Vanguard's RMD Service (the "Service"). The Service allows you to set up an automatic distribution plan that is designed to assist you in taking your RMD each year. The terms and conditions of the Service are explained below. You may enroll in the Service by completing a form and mailing it to Vanguard or, for certain types of retirement plans, by completing a questionnaire by phone or online at vanguard.com.

As long as you remain in the Service, Vanguard will provide a confirmation of your RMD amount and the distribution option you selected on an annual basis. You may cancel your participation in the Service at any time online or by calling or writing to Vanguard. However, Vanguard will continue to calculate and provide you with an annual notification of your RMD amount as long as you are required to take RMDs from an account at Vanguard.

Vanguard does not automatically calculate RMDs for inherited retirement accounts. Subject to Vanguard policies and procedures, a beneficiary of an inherited retirement account may enroll in the Service to have Vanguard calculate and provide notification of the RMD amount, and set up an automatic distribution plan. Beneficiaries of inherited retirement accounts may enroll in the Service by completing a questionnaire by phone or online at vanguard.com. Not all inherited retirement accounts are eligible for the Service.

2. Services

RMD calculation

Vanguard will calculate your RMD based on all holdings in your eligible retirement plan accounts, excluding any nonpublicly traded securities, as of the prior December 31. You are solely responsible for the valuation of and RMD calculation for any nonpublicly traded securities held in your Vanguard retirement plan accounts.

Vanguard's calculation of your RMD is based upon Internal Revenue Code Section 401(a)(9) and the regulations thereunder, as amended, using certain information contained in Vanguard's records and certain additional information that you may provide.

All information about you and your accounts from Vanguard's records is based upon such information available to Vanguard as of December 31 of the prior calendar year. Vanguard assumes that all information provided by you or by any prior owner or beneficiary of the retirement plan account was correct when provided and remains correct. Vanguard has no responsibility to verify the accuracy or completeness of such information beyond that imposed by law.

When Vanguard calculates the RMD amount in any given year, we will not include amounts that may be due from any retirement plan accounts you may have at other financial institutions or from any qualified employer plan accounts you may have, whether or not invested at Vanguard, other than those employer plan accounts specifically eligible.

For any current year, upon your request, Vanguard will adjust the prior December 31 value of your IRAs and eligible Vanguard retirement plan accounts (for purposes of calculating your RMD) to reflect certain asset transfers, rollovers, recharacterizations, or account adjustments made after December 31. You agree that you are responsible for the accuracy and completeness of any such information provided from a source other than Vanguard's records. Vanguard reserves the right to request documentation regarding such a change, including written statements from other providers, prior to making the requested adjustment.

Distribution options

Vanguard will distribute your RMD from your IRA(s) or other retirement plan(s) for each year you are enrolled in the Service in accordance with your instructions. If you have more than one eligible IRA or other retirement plan, you may choose from which IRA or plan you wish to take distributions under the Service. You may choose to have your distributions made annually, semiannually, quarterly, or monthly during each year you remain in the Service. You may change the frequency of such distributions and the plans included in the Service at any time and from time to time. You can take your RMD amount only from Vanguard mutual funds.

If you are enrolling to have distributions start in the current year and have selected semiannual, quarterly, or monthly distributions, the Service will calculate each distribution based on the number of periodic distributions remaining in the current year so your RMD is distributed before December 31 of the current year. For example, if you enroll in May and select quarterly distributions, your RMD amount will be distributed in three equal payments for the current year and in four payments in future years.

You may take your distributions by electronic bank transfer to a bank account linked to your Vanguard retirement account. Once this option is established, if a transfer cannot be completed for any reason, Vanguard may send you a check for that distribution. You may also take your distributions by check to your address of record or to a different payee and/or address.

You may also have the option to have your RMD payment automatically invested in a Vanguard nonretirement account (the "automatic exchange" option). If you do not have a Vanguard nonretirement account at the time of enrolling in the RMD Service, and wish to set up the automatic exchange option, you must establish the nonretirement account prior to enrolling in the RMD Service. **(Note: The automatic exchange option may not be available for all types of retirement accounts.)**

If your RMD cannot be paid in accordance with your distribution instructions for any reason, your RMD Service may be terminated by Vanguard. Vanguard will notify you of any termination and you must contact Vanguard to restart the Service. If the balance of any of the mutual funds you choose to have your RMD paid from are insufficient to pay your RMD according to your distribution instructions, you must contact Vanguard to update your distribution instructions (including authorization to pay your RMD from other Vanguard funds, if applicable). Vanguard will not be responsible for your failure to take at least the minimum required amount (an "underdistribution") from your retirement account.

Any distribution you take prior to enrolling in the Service will reduce the RMD amount to be distributed through the Service in that year. After you enroll in the Service, distributions you take outside of the Service will not reduce the remaining RMD amount to be paid under the Service, except in certain instances when the Service is updated. This may result in you taking more than the minimum required amount.

Eligibility for Service

Vanguard reserves the right to limit eligibility for the Service. If you did not have a retirement account eligible for the Service as of December 31 of the prior calendar year, the Service may not be available to you.

Taxes

Distributions from retirement accounts generally will result in ordinary income taxes to you. The Service offers you the option to have federal taxes withheld from any distribution. If your account is registered to an address outside the United States or your payment is being directed outside the United States, your distribution may be subject to mandatory federal withholding at a rate of 30%. In addition, state withholding is available for certain states and may be required depending on where you live.

Vanguard is not responsible for determining whether amounts withheld from a distribution, if any, are sufficient to meet your tax obligations, including estimated tax payments. You are solely responsible for payment of any and all taxes, including penalties, and for compliance with your tax obligations under federal, state, and local laws. Current law imposes tax penalties for failure to take RMD amounts when required to do so.

Vanguard strongly encourages you to verify with your own tax advisor whether you have met your obligations in any given year and to determine the tax consequences to you of taking distributions from retirement plan accounts.

3. Enrollment

You may enroll in the Service by completing the applicable Required Minimum Distribution Service Form and sending it to Vanguard or, for certain retirement plans, by completing the questionnaire for the Service by phone or online at vanguard.com.

4. Fees

There is no fee for the Service, although Vanguard reserves the right to change this policy at any time. Vanguard will provide thirty (30) days' notice to you prior to the effective date of any change to the fee policy.

5. Your responsibilities

You are responsible for providing Vanguard with all information needed to perform the RMD calculations beyond the information in Vanguard's records as of December 31 of the prior calendar year. You are also responsible to inform Vanguard if any of the information you provide during enrollment for the Service or have previously provided is or becomes inaccurate.

Vanguard is not responsible for the completeness or accuracy of any calculation performed based upon incomplete or inaccurate information received from you or from any prior owner or beneficiary. You are solely responsible for ensuring that any distributions made under this Service satisfy your RMD obligation and for the tax consequences of any distributions from your accounts.

Vanguard does not determine whether you are eligible for any tax benefit that may be available to you under the minimum distribution rules. Vanguard strongly recommends that you consult with your own tax advisor to determine your eligibility for any special tax benefit and to ensure your compliance with applicable law.

6. Other disclosures

Standard of care

Vanguard and its representatives will perform the services described in this Agreement in good faith and in accordance with applicable law. However, except for gross negligence, willful malfeasance, or bad faith, neither Vanguard nor any Vanguard affiliate will be held liable for any action performed or omitted, or for errors of judgment made in the performance of these services.

Effectiveness, assignment, and termination of Service

This Agreement becomes effective upon your enrollment in the Service. You may cancel your participation in the Service and terminate this Agreement at any time by calling or writing to Vanguard or by canceling your Service option online at vanguard.com. You may not assign your rights and responsibilities under this Agreement without Vanguard's written consent.

Vanguard may amend this Agreement at any time for any reason. Vanguard reserves the right to terminate this Agreement if, in the sole opinion of Vanguard, you fail to provide complete and accurate information, or at any time for any reason, by notifying you in writing. Vanguard reserves the right to terminate or revise the Service at any time.

If you wish to cancel the Service, please send your written request to:

Vanguard
P.O. Box 2600
Valley Forge, PA 19482-2600

Notices

Any notices that Vanguard is required to give you under this Agreement shall be made in writing and may be delivered by United States mail to your address of record or electronically to your e-mail address of record if you have consented to electronic delivery of agreements from Vanguard.

Schedule A: Assumptions

1. The RMD calculation will be based on the life expectancy factor(s) from IRS life expectancy tables set forth in Treasury Regulation Section 1.401(a)(9)-9.
2. Vanguard will use the uniform lifetime table in most instances to calculate the RMD for you or for a surviving spousal beneficiary who assumes the retirement plan. If you are eligible to use the joint and last survivor table, you may specifically request that Vanguard use that table. In some instances, if eligibility is supported by Vanguard's records, Vanguard may use that table even if you have not specifically requested its use. Vanguard will use the single life expectancy table to calculate the RMD for beneficiaries of inherited retirement plan accounts.
3. If you have multiple Vanguard IRAs, the RMD will be calculated separately for each IRA. However, the total of these calculations will be aggregated and can be distributed from any one or a combination of those IRAs. The Service does not aggregate RMD amounts for multiple individual 401(k) or 403(b)(7) plans, or for inherited plans of any kind.
4. At your request, Vanguard will adjust the prior December 31 balance to account for any amounts transferred into Vanguard, including rollovers and asset transfers, in the current calendar year and for any adjustments to the prior December 31 balance for the RMD calculation, including recharacterizations, made in the current calendar year. Vanguard reserves the right to request documentation regarding such a change, including written statements from other providers, prior to making the requested adjustment.
5. If your spouse is the only beneficiary in Vanguard's records on January 1 of any year, Vanguard assumes the spouse is your sole primary beneficiary for the entire year. Any beneficiary changes concerning the spouse communicated to Vanguard will be reflected in the following year's calculations.
6. Cash dividends will be automatically switched to "reinvest" when you sign up for the Service. Any distributions taken prior to enrolling in the Service will reduce the RMD amount to be distributed in that year. After enrollment in the Service, distributions you take outside of the Service will not reduce the remaining RMD amount to be paid under the Service, which may result in you taking more than the minimum required amount.
7. The Service may not be available and/or may be terminated if any of the following conditions occur:
 - Your RMD cannot be paid in accordance with your distribution instructions for any reason, including insufficient funds.
 - There is a transaction restriction on the account.
 - The account is in return from post office (RPO) status. (Mail has been repeatedly returned from the post office as undeliverable.)If the Service has been terminated, you must reenroll.
8. RMD calculations are not provided based upon any rights you may have under a qualified domestic relations order (QDRO) or any court order or agreement. Special rules may apply.
9. RMD calculations do not differentiate between pre-1987 and post-1986 contributions to 403(b)(7) plans.

10. If multiple beneficiaries of the same retirement plan account enroll and confirm to Vanguard that they meet the legal requirements to receive separate account treatment under Section 1.401(a)(9)-8 of the Treasury Regulations, including the requirement to separate the plan account into separate accounts by no later than December 31 of the year after the original owner's death, Vanguard will calculate the RMD for each beneficiary on the basis of that beneficiary's life expectancy factor under the single life table. If such legal requirements are not met or all the beneficiaries have not confirmed to Vanguard that such requirements have been met, Vanguard will use the life expectancy factor of the oldest beneficiary from the single life table for RMD purposes.
11. Vanguard relies solely on trustee(s)' representation that the beneficiaries of a trust that is a beneficiary of a retirement account may or may not be treated as designated beneficiaries under Treasury Regulations Section 1.401(a)(9)-4, Q & A-5.