

## Vanguard Digital Advisor<sup>®</sup> Important Information

### Documents Included:

1. Vanguard Advisers, Inc. Client Relationship Summary (Form CRS)  
*For retail account holders only*
2. Vanguard Digital Advisor Brochure & Supplement (Form ADV Parts 2A & 2B)  
*For all eligible Digital Advisor account holders (retail brokerage and participants in certain employer-sponsored retirement plans)*

## Advisor Client Relationship Summary (Form CRS)

March 30, 2021

Vanguard Advisers, Inc. (VAI)

Registered with the Securities and Exchange Commission (SEC) as an Investment Adviser.

The services provided by an investment advisor and other financial services providers, like a broker-dealer, will differ, as well as the fees charged by such providers. It's important to understand who can provide you with the level of financial services and investment support you need at a price reasonable to you. The SEC makes free and simple tools and educational materials available to research firms and financial professionals at [investor.gov/CRS](http://investor.gov/CRS).

### What investment services and advice can you provide me?

We provide investment advisory services to retail investors through our Vanguard Personal Advisor Services® ("PAS") and Vanguard Digital Advisor® ("DA") programs.

In PAS, we provide ongoing advised account services. You'll work with a financial advisor, agree upon a financial plan and investment strategy, and grant us authority to trade your account(s) in accordance with that plan. We will not implement or change your plan without your approval. Our lead recommendations will normally be limited to certain Vanguard funds. We will monitor your accounts and rebalance, as needed, on a quarterly basis. PAS requires a minimum of \$50,000 of investable cash or securities in the advised portfolio.

In DA, we provide online financial planning tools designed to help you create and implement a personalized, goal-based investment plan. We'll monitor your enrolled accounts frequently using an algorithm. We'll have full investment discretion in order to rebalance and make trades as necessary to align your account(s) with your goal(s). We'll generally recommend combinations of Vanguard Total Stock Market ETF, Total International Stock ETF, Total Bond Market ETF, and Total International Bond ETF for retail accounts. Enrollment requires at least \$3,000 in a Vanguard Brokerage Account. For taxable accounts, the entire balance must be in the account's settlement fund. For IRAs, the entire balance must be in certain investment types and/or the account's settlement fund.

The services will require your accounts to be with Vanguard. Our lead investment recommendations will generally not include purchases of individual securities or bonds, CDs, options, derivatives, annuities, third-party mutual funds, closed-end funds, partnerships, or other non-Vanguard securities. For more information about the services, see the "Advisory business" and "Types of clients" sections of each brochure: PAS ADV Brochure [personal.vanguard.com/pdf/vpabroc.pdf](http://personal.vanguard.com/pdf/vpabroc.pdf) and DA ADV Brochure [vanguard.com/digitalbrochure](http://vanguard.com/digitalbrochure).

**Conversation Starters:** Consider these questions before choosing a financial service. You can see details at [investor.vanguard.com/financial-advisor/digital-advisor-details](http://investor.vanguard.com/financial-advisor/digital-advisor-details) and [investor.vanguard.com/financial-advisor/personal-advisor-details](http://investor.vanguard.com/financial-advisor/personal-advisor-details) or call us at the number provided below.



- Given my financial situation, should I choose an investment advisory service? Why or why not?
- How will you choose investments to recommend to me?
- What is your relevant experience, including your licenses, education, and other qualifications? What do these qualifications mean?

### What fees will I pay?

For PAS clients, the annual advisory fee starts at 0.30% of advised assets and decreases on a tiered level as advised assets increase. In addition, where mutual funds are held in your account (including Vanguard), there are built-in fees known as "expense ratios." These are the costs for the fund company to run a fund and will vary by fund, so your combined fees for advice and investments will vary.

For DA clients, the annual net advisory fee is approximately 0.15% of program assets, although this fee will vary based on the specific holdings in each account. The annual gross advisory fee for DA is 0.20%. We subtract any revenue we, or our affiliates, collect on assets held in investments in your portfolio in order to calculate your annual net advisory fee.

Fees are calculated on a rolling 90-day period based on your average daily balance in the portfolio over the entire fee period. We do not charge advisory fees on the balance of money market funds or other cash

equivalents held within your portfolio. As you invest more assets in the programs, the amount of fees we collect will increase; therefore, there could be incentive to encourage you to increase your assets.

There may be additional fees, including account service fees, and non-Vanguard fund fees, as discussed in more detail in the “Fees and compensation” section of each program’s Form ADV Brochure.

You will pay fees and costs whether you make or lose money on your investments. Fees and costs will reduce any amount of money you make on your investments over time. Please make sure you understand what fees and costs you are paying.



Help me understand how these fees and costs might affect my investments. If I give you \$10,000 to invest, how much will go to fees and costs, and how much will be invested for me?

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### What are your legal obligations to me when acting as my investment advisor? How else does your firm make money and what conflicts of interest do you have?

When we act as your investment advisor, we have to act in your best interest and put your interests ahead of ours. At the same time, the way we make money creates some conflicts with your interests. You should understand and ask us about these conflicts because they can affect the investment advice we provide you. Here are some examples to help you understand what this means:

- Our lead advice will be to invest in Vanguard funds. You will pay the funds’ expense ratios. The funds’ expense ratios are received by The Vanguard Group, Inc., as revenue. DA reimburses any revenue received by Vanguard from the gross advisory fee.
- We’ll also require your advised assets to be in accounts held with our affiliates. Those accounts may be subject to additional fees, like account service fees, commissions, and other charges and processing fees. If you were to transact in non-Vanguard funds through a Vanguard Brokerage Account, another of our affiliates, Vanguard Marketing Corporation, may receive transaction fees, front-end and back-end loads, sales charges, 12b-1 fees, and revenue-sharing payments from certain non-Vanguard funds.

See the “Fees and compensation” section of each program’s Form ADV Brochure for more details on how we and our affiliates make money and the conflicts involved.



How might your conflicts of interest affect me, and how will you address them?

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### How do your financial professionals make money?

Our advisors servicing PAS are salaried employees who do not earn commissions or additional compensation based on the products they recommend or the amount of assets they service.

Our DA service does not employ financial professionals who directly advise or manage individual client accounts. The professionals responsible for the service and its methodology are salaried employees who do not earn commissions or additional compensation based on the products they recommend or the amount of assets serviced.

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### Do you or your financial professionals have legal or disciplinary history?

Yes. For more information related to legal or disciplinary history disclosure go to [investor.gov/CRS](https://investor.gov/CRS). There, you will find a free and simple search tool to research us and our financial professionals.



As a financial professional, do you have any disciplinary history? For what type of conduct?

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For more information regarding our advisory services, obtain a copy of Form ADV or Form CRS from [adviserinfo.sec.gov](https://adviserinfo.sec.gov), or contact us at 800-523-9447 to request a copy.



Who is my primary contact person? Is he or she a representative of an investment advisor or a broker-dealer? Who can I talk to if I have concerns about how this person is treating me?

# Vanguard Digital Advisor Brochure

November 19, 2021

Vanguard Advisers, Inc.  
100 Vanguard Boulevard  
Malvern, PA 19355  
877-662-7447  
vanguard.com

This brochure provides information about the qualifications and business practices of Vanguard Digital Advisor®, an advisory service offered through Vanguard Advisers, Inc. (“VAI”) (also referred to herein as “we,” “us,” and “our”). This brochure also describes how VAI is compensated for the service provided to you. You should carefully consider this information in your evaluation of the service. If you have any questions about the contents of this brochure, please contact us at the phone number above. The information in this brochure hasn’t been approved or verified by the U.S. Securities and Exchange Commission (“SEC”) or by any state securities authority.

Additional information about VAI also is available on the SEC’s website at [adviserinfo.sec.gov](http://adviserinfo.sec.gov).

**VAI is a registered investment advisor with the SEC. Registration doesn’t imply a certain level of skill or training.**

**Material Changes:** Since Vanguard Digital Advisor’s Brochure (“Brochure”) annual update on March 30, 2021, Digital Advisor has added or is in the process of adding the following material changes to its service:

Previously on September 16, 2021, Digital Advisor added the ability for certain clients to plan and manage towards non- retirement investment goals. For additional information, see **“Methods of analysis, investment strategies, and risk of loss”** on page 18. Additionally, the list of qualified custodians was updated on page 40. Additionally, Digital Advisor updated its fee structure on June 4, 2021 to provide an introductory fee waiver for new retail Client enrollments, subject to account eligibility. For additional information, see **“Fees and compensation-Fee collection”** on page 13.

This brochure update includes other additional non-material changes regarding the features and capabilities available in the service including expanding non-retirement goal planning capabilities, subject to availability.

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## Advisory business

VAI is a Pennsylvania corporation that provides clients with a wide variety of investment advisory services, including the following:

- Stable Value: discretionary investment advisory services to separate accounts that are offered as investment options in state-sponsored education savings plans (“529 Plans”);
- Vanguard Institutional Advisory Services: discretionary and nondiscretionary advisory services and administrative services to institutional clients such as endowments, foundations, employee benefit plans and trusts, and family offices;
- Vanguard ETF Strategic Model Portfolios: model portfolios comprised of Vanguard Funds and exchange traded funds (ETFs) (as defined below) and mutual funds and ETFs managed by third party asset managers that are accessed by third party intermediaries through third party platforms;
- Interactive Advice Tools: Personal Online Advisor (“POA”) is a nondiscretionary advisory service previously offered to certain retail clients. POA is sub-advised by Edelman Financial Engines Advisors L.L.C. (“FEA”), an independent investment advisory unaffiliated with VAI;

- Vanguard Personal Advisor Services (“PAS”): ongoing advised account services and point-in-time advice services for certain retail clients and to participants in certain employer-sponsored retirement plans;
- Vanguard Digital Advisor: discretionary advisory service offered to retail clients and to participants of eligible employer-sponsored retirement plans;
- Vanguard Situational Advisor: point-in-time, nondiscretionary advice services and financial planning offered to participants in certain employer-sponsored retirement plans; and
- Vanguard Managed Account Program (“VMAP”) and POA: discretionary advisory service offered to participants of eligible employer-sponsored retirement plans. POA is a nondiscretionary advisory service offered to participants of eligible employer-sponsored retirement plans. VMAP and POA are sub-advised by FEA.

This Brochure provides information about the Vanguard Digital Advisor (“Digital Advisor”) program. Information about the other investment advisory programs and services offered by VAI is available through the SEC’s website at [www.adviserinfo.sec.gov](http://www.adviserinfo.sec.gov).

VAI was incorporated in and has been in business since 1995. VAI is 100% owned by Goliath, Inc., a Delaware corporation. Goliath is 100% owned by The Vanguard Group, Inc. (“Vanguard”). As such, VAI is an indirect, wholly owned subsidiary of Vanguard, the sponsor and manager of the family of mutual funds and ETFs (exchange-traded funds) comprising The Vanguard Group of Investment Companies (“Vanguard® Funds”), which VAI typically recommends as investments for its investment advisory services. Please see the section of this brochure entitled “Other financial industry activities and affiliations” for more information.

#### *Vanguard Digital Advisor*

Vanguard Digital Advisor (“Digital Advisor”), launched by VAI in 2019, provides an automated investment advisory program that offers eligible clients access to discretionary investment advisory services through a website and digital interface (“DA Website and Interface”). Digital Advisor also provides online financial planning tools designed to help clients create a personalized, goals-based financial plan.

As an SEC-registered investment advisor, VAI has a fiduciary duty to act in its clients’ best interests and to abide by the duties of care and loyalty under the Investment Advisers Act of 1940 (“Advisers Act”). Our client relationship begins when you enter into Your Service Agreement for Vanguard Digital Advisor (“DA Agreement”) and the scope of our fiduciary relationship is defined in the DA Agreement. Goal forecasting and other financial planning tools that are available prior to signing the DA Agreement, are provided solely for your information and education, but your use of those tools prior to signing the DA Agreement does not constitute a fiduciary relationship between you and VAI under the Advisers Act.

Your participation in Digital Advisor requires internet access in order to enroll and to access program documents. You should not interact with Digital Advisor if you do not have consistent internet access or do not want to accept electronic delivery of documents and disclosures required to be delivered in connection with the service. You are required to maintain an active email address with us in order to remain enrolled in the service.

Over time, as the DA Website and Interface evolves the new content, capabilities, or features may be introduced at different times. As new capabilities are introduced they may initially be available to a small population of Clients. At any given time, not all Clients will have access to the same features and services.

Below is an overview of the services provided by Digital Advisor, please refer to the sections of this Brochure that follow under the heading entitled “**Methods of analysis, investment strategies, and risk of loss**” for more detailed information.

### *Developing Your Investment Strategy*

Digital Advisor’s investment strategies are designed with a disciplined, long-term approach that focuses on managing risk through appropriate asset allocation and diversification. Our methodology uses a strategic and personalized approach by first focusing on the mix of asset classes (i.e., stocks, bonds, cash) that aligns with your willingness and ability to take risk and is appropriate to meet your financial goals over time. As a completely digital advisory experience, Digital Advisor relies on information you provide.

Across all of your goals, we will gather information about your risk/reward preferences or risk tolerance to determine your personalized investment strategy. This information helps us to provide an assessment of your risk attitude (Very Conservative, Conservative, Moderate, Aggressive and Very Aggressive) for you to consider.

You must set a retirement savings accumulation goal to enroll an account into the Digital Advisor’s discretionary investment advisory service. Digital Advisor captures inputs around your retirement savings accumulation goal including your expected retirement age, anticipated spending needs, and your savings. The risk attitude you select, your current age, marital status, and the expected retirement age you provide are then used as inputs to Digital Advisor’s proprietary investment algorithm. Digital Advisor’s proprietary algorithm uses this data to recommend a particular investing track and glide path that correspond to your retirement savings accumulation goal.

In order to obtain a recommended asset allocation through Digital Advisor, you will need to open a new account or enroll an eligible existing account that is either: (i) a Vanguard brokerage account (“Vanguard Brokerage Account”) established with Vanguard Marketing Corporation (“VMC”), or (ii) a participant account in an eligible employer-sponsored retirement plan (“Participant Account”) for which Vanguard affiliates provide recordkeeping services. Vanguard Brokerage Accounts and Participant Accounts are referred to collectively in this brochure as “Enrolled Accounts.” Once enrolled, Digital Advisor will recommend an asset allocation and specific investments that can be maintained in your Enrolled Accounts to meet your target asset allocation. The Enrolled Accounts that we manage on a discretionary basis through Digital Advisor are referred to as a “Portfolio.”

If you have an enrolled taxable account, Digital Advisor can manage additional non-retirement investment goals, subject to availability. Unlike traditional approaches, where an individual investment account is earmarked to a single goal, Digital Advisor’s multi-goal capability treats taxable accounts as fungible assets and flexibly allocates those assets across goals based on the plan

you set. Digital Advisor determines the appropriate goal-weighted asset allocation across all goals, dynamically managing assets and anticipated contributions within an integrated multi-goal framework. This approach is designed to help you balance your retirement goal with other major financial goals. It is important to understand that your target asset allocation and specific investments may change significantly upon the inclusion of non-retirement investment goals if a sizable portion of your taxable account balances are required to fund the goals.

### *Goal Forecasting and Multiple Goals*

In the DA Website and Interface your inputs will enable you to use different interactive planning tools and visualizations (leveraging inflation and return on capital models developed by VAI and its affiliates) to help you set your financial goals. Additional data such as current contributions, tax filing status, various income sources (lump sum, periodic, etc.), expenses, preferred age range of retirement options, and expected Social Security inform your retirement savings goal forecasting. Also subject to availability, if you have connected a taxable account that is not managed by Digital Advisor (“self-managed account” or “non-managed account”), you may plan additional non-retirement goals that you anticipate funding with your self-managed account for purposes of forecasting only. Projections and forecasts regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. Goal forecasts are based on your account types (e.g. individual, IRA, Roth IRA) and do not incorporate specific projections of investments that you hold at Vanguard or elsewhere.

Digital Advisor also provides projections to help you understand the tradeoffs between different goals that influence the success of all your goals. Additionally, if you incorporate self-managed accounts into multiple goals, forecasting success probabilities and tradeoffs are limited by assumptions regarding those accounts.

Currently, the retirement savings accumulation goal-setting experience is designed based on a long-term asset allocation strategy and may not suit your needs if you are nearing (within 5 years) or in retirement. Setting up additional non-retirement investment goals is subject to availability and initially will be made available on a pilot basis to a subset of Clients that will expand over time. You can plan a non-retirement investment goal with a single goal date that is at least eighteen months from the day you add the goal to your plan. Currently, adding financial goals other than retirement is only available to Clients born after 1965. Additionally, Digital Advisor does not currently permit Clients to set goals past the age 59 1/2.

Digital Advisor provides access to calculators and interactive tools to help educate Clients about how to save for emergencies, where to direct extra or idle cash and how to optimize debt repayment options. These interactive tools are not integrated with the discretionary investment advisory and related online financial planning services offered through DA and do not impact your recommended investment strategy.

### *Building your Digital Advisor profile*

Your Digital Advisor financial goals will be specific to the inputs you set. Digital Advisor is not intended to provide comprehensive tax advice or financial planning with respect to every aspect

of your financial situation.

Digital Advisor's ability to optimize your Portfolio allocation is dependent on the information you enter into the DA Website and Interface, including your planned savings, projections of future spending needs and responses to visualizations of the potential financial goal planning options. We will also use the information you provide to us through the DA Website and Interface to generate goals-based forecasting and recommendations on how to better meet your investing goals. Any such goals-based forecasting and recommendations are point-in-time assessment based on your situation and goals at the time you access the DA Website and Interface. Digital Advisor does not update your forecasts, provide ongoing financial planning, or monitor your progress toward your financial goals on an ongoing basis.

If you elect to include self-managed accounts in goal forecasts, these account types and balances may be considered for purposes of goals forecasting, but will not influence or alter the investment recommendations provided by Digital Advisor. Digital Advisor does not make specific recommendations or manage investments in accounts held at an entity outside of Vanguard. The processes regarding the transfer of cash and securities (described below) to and from the Portfolio do not apply those clients who only use the financial planning tools and decide to not enroll in the ongoing advised service.

### **Vanguard Brokerage Account Clients**

Enrollments in Vanguard Digital Advisor require at least a \$3,000 balance in each eligible Vanguard Brokerage Account. Eligible Vanguard Brokerage Account types include taxable accounts (e.g. individual or joint accounts with rights of survivorship) as well as certain tax-advantaged (e.g. traditional, Roth, or rollover IRAs). For each brokerage account you wish to enroll, the entire balance must be in the settlement fund or certain investment types (based on eligibility screening by Digital Advisor at the time of enrollment) and/or the brokerage account's settlement fund. If your brokerage account holds investments that are not accommodated by Digital Advisor's breakeven analysis or trading capabilities, then such account will be ineligible for enrollment.

In the event that an account is enrolled in Digital Advisor with pending trades, Digital Advisor reserves the right to cancel those trades as needed to allocate assets to the recommended portfolio. We recognize that you may experience costs and tax consequences associated with selling your existing securities positions to implement our lead advice recommendations.

As such, subject to eligibility screening at enrollment, we'll weigh the costs of transitioning the securities you hold before enrolling in the ongoing advised service using a breakeven cost analysis. We consider your costs by estimating the capital gains tax impacts compared to the expense ratio benefits from selling securities that are inconsistent from our lead recommendation. The breakeven analysis does not account for any fee offsets. If the securities you held before enrolling in the ongoing advised service pass our breakeven cost analysis, we'll recommend that you continue to hold all or a portion of such securities, subject to our portfolio construction guidelines. If they fail the breakeven cost analysis, we'll recommend that you sell those positions and implement our lead advice recommendations. Read the section below titled "Reasonable restrictions" for additional information about imposing restrictions on our investment strategy. Retention of existing securities in your portfolio to minimize tax consequences will result in variance to the calculation of your advisory fees. For example, if a non-

Vanguard security is retained under the break-even analysis any investment costs you would be responsible for any investment costs (e.g. expense ratios) that are not revenues to Vanguard. See “Fees and Compensation” below for more information on fees. Even in situations where your Portfolio continues to hold securities you purchased before enrolling in the ongoing advised service, we’ll recommend that any additional purchases in your advised Portfolio be made into Vanguard ETFs.

For enrolled Vanguard Brokerage accounts, Digital Advisor uses Vanguard ETFs as the core building blocks investments due to their low investment minimums and expense ratios, as well as their ability to help facilitate future investment strategies, such as tax loss harvesting, in Client’s Portfolios. Our investment recommendations for assets held in Vanguard Brokerage Accounts will not include recommendations to purchase individual securities or bonds, CDs, options, derivatives, annuities, third-party mutual funds, closed-end funds, unit investment trusts, partnerships, or other non-Vanguard securities. In particular, Digital Advisor will typically recommend varying combinations of Vanguard Total Stock Market ETF, Vanguard Total International Stock Market ETF, Vanguard Total Bond Market ETF, and Vanguard Total International Bond ETF (collectively referred to as the “Four Totals”) within Vanguard Brokerage Accounts. If you hold mutual fund share classes of the Four Totals within IRA accounts when you enroll, Digital Advisor, subject to availability of eligibility enhancements, will complete your target asset allocation around those existing mutual fund share class positions. New investments will be allocated to the ETF share classes of the Four Totals. See “Fees and compensation” below, Clients do not pay more to Vanguard and its affiliates if their investments are held in mutual funds vs. ETFs. Under certain circumstances (e.g., a Portfolio with Participant Accounts and Vanguard Brokerage Accounts), we will recommend other Vanguard index ETFs, such as Vanguard FTSE Developed Markets ETF or Vanguard FTSE Emerging Markets ETF, Vanguard S&P 500 ETF, Vanguard Extended Market ETF, Vanguard Growth ETF, Vanguard Value ETF, Vanguard Short-Term Bond ETF, Vanguard Intermediate-Term Bond ETF, Vanguard Long-Term Bond ETF in order to achieve your desired asset allocation. In certain circumstances, based on your Portfolio’s composition relative to your target asset allocation as well as consideration of potential tax consequences of selling to achieve your target asset allocation, we will recommend other ETFs such as Vanguard S&P 500 ETF or Vanguard Extended Market ETF to better satisfy the sub-asset class targets to achieve a diversified portfolio. More information regarding the asset allocation can be found under the heading entitled “**Methods of analysis, investment strategies, and risk of loss**” below.

We offer a range of different solutions to help you meet your financial goals, including self-directed brokerage services, single fund investments (such as Vanguard’s Target Retirement Funds), and investment advisory programs. If you are considering investing through Digital Advisor, you should understand that each of the Four Totals is a share class of the mutual funds that are used (or are substantially similar to the mutual funds used) in Vanguard’s Target Retirement Funds. In certain circumstances, your recommended Digital Advisor portfolio will contain identical allocations to the four Total Funds that are available in a Vanguard Target Retirement Fund, which is generally available at a lower cost than Digital Advisor. You should consider the Digital Advisor advisory fees and Vanguard ETFs expense ratios you will incur upon enrollment as well as the personalized features and additional services that are available through Digital Advisor in comparison to the lower costs and absence of personalized services of Vanguard single fund solutions when considering the managed offer. When considering whether to enroll in the ongoing advised service, you should consider that

you will pay both the advisory fees and investment fees Vanguard Fund or ETF expense ratios upon enrollment in exchange for receiving access to Digital Advisor's personalized features and services offered to Clients. In comparison, an investor who decides to not enroll would have access to many of the same Vanguard funds without the payment of Digital Advisor advisory fees, but would also not have access to Digital Advisor's personalized features and services offered to Clients.

### **Participant Account Clients**

You may enroll your Participant Accounts, specifically a 401(k) or Roth 401(k) U.S. tax qualified retirement plan account, in Digital Advisor only if the service has been made available by your plan fiduciary. There is a \$5 minimum Participant Account balance required to enroll an eligible Participant Account in the service. In some cases, your plan fiduciary may have enrolled your plan account in Digital Advisor and provided certain information on your behalf that was necessary to create your Portfolio, such as risk attitude, retirement age, length of retirement, retirement contributions, and retirement spending. You are encouraged to access your account to personalize your risk attitude and complete your profile, which will trigger Digital Advisor to reassess your asset allocation. Personalizing your enrollment will also give you access to plan additional goals (subject to availability) and use digital tools like the debt payoff calculator. If your plan fiduciary enrolls your account and you do not take action to un-enroll from Digital Advisor, your decision to remain enrolled in the service will constitute your approval of the investment strategy selected for your Portfolio. Enrolled Accounts with no assets will automatically be un-enrolled from Digital Advisor.

Our investment recommendations for Participant Accounts will normally be limited to allocations in certain Vanguard and non-Vanguard: mutual funds, collective investment trusts, or stable value funds. Digital Advisor will not include recommendations to purchase individual securities (with the exception of reasonable accommodations for company stock) or bonds, CDs, options, derivatives, annuities, closed-end funds, unit investment trusts, or partnerships. Plans and participants will have the opportunity to provide Digital Advisor with additional information about their desired allocation to company stock investments if the participant's account is invested in, or eligible to invest in (in the event a company match is available), such assets.

For participants in eligible employer-sponsored retirement plans, Digital Advisor will recommend an asset allocation based on the investment options selected by the plan fiduciary as the plan core lineup and will typically recommend a combination of specific Vanguard Funds or affiliated collective investment trusts based on their low cost and broad diversification, if available in the eligible employer-sponsored retirement plan. Digital Advisor will select Participant Account investments based on their asset allocation alignment with the methodology outlined in **"Methods of analysis, investment strategies, and risk of loss"** below. Digital Advisor's lead portfolio recommendation is to be globally diversified across equity and fixed income asset classes. However, if your plan fiduciary does not offer a currency-hedged international fixed income index fund, Digital Advisor will use a US aggregate bond index fund for fixed income asset allocation exposure. By enrolling a Participant Account, you will be directing us to apply our asset allocation methodology to invest in funds offered in your plan's core lineup as it exists today and as that lineup may be changed by your plan fiduciary in the future. Additionally, participants in certain employer-sponsored retirement plans may not be eligible to enroll or remain enrolled if the plan lineup only includes company stock or third-party investments that lack the asset allocation exposure required by Digital Advisor's investment strategy.

Investments (e.g., mutual funds or collective investment trusts) that are not affiliated with Vanguard may be included in your Portfolio to meet your allocation, if they are made available as part of your plan lineup of investment choices and including them is necessary to meet our recommended asset allocation for your Portfolio. Clients may be un-enrolled from Digital Advisor if their plan fiduciary changes the core plan lineup and there are insufficient investment options to complete the recommended asset allocation. Additionally, participants with self-directed brokerage accounts in their Participant Accounts will be ineligible to enroll in Digital Advisor.

### **All Clients**

You will be given the opportunity to preview Digital Advisor's initial recommended asset allocation and specific fund recommendations in order to determine whether to enroll in the ongoing advised service unless your plan fiduciary has enrolled your plan account. These recommendations are based on a point-in-time assessment of our projected investment strategy to manage towards your financial goal. In the event you choose to implement these recommendations without enrolling in Digital Advisor, we will not be held responsible for any losses resulting from any delays or mistakes in such implementation caused by you. Once you've agreed to ongoing management of your Portfolio, we will provide discretionary management based on the financial goal you set in the DA Website and Interface. It is extremely important that you immediately notify us through the DA Website and Interface of material changes to your willingness and ability to tolerate risk, financial situation, financial goals, and investment objectives. The foregoing does not apply if your plan fiduciary enrolls your plan account in Digital Advisor and provides certain information on your behalf that was necessary to create your Portfolio.

By enrolling in the ongoing advised service, you're granting us discretionary investment authority to purchase and sell securities on your behalf. Accordingly, Digital Advisor will assess Portfolios using an algorithm (typically on each business day that markets are open for trading, however, Digital Advisor may in its discretion for technical or market infrastructure reasons forgo an assessment on a given day) to determine whether a rebalancing opportunity exists consistent with Digital Advisor's investment strategy. Notwithstanding the foregoing, Digital Advisor will not attempt to engage in market timing trading practices. Digital Advisor may evolve its investment strategy described below under the heading "**Methods of analysis, investment strategies, and risk of loss**" from time to time.

The ongoing advised service is contained within the DA Website and Interface, which includes content based on your goals and provides personalized reporting. Once you are enrolled, the DA Website and Interface is accessed by logging on to your account at vanguard.com. For clients enrolled in the ongoing advised service, we will contact you, at least annually via the DA Website and Interface to validate your financial goal(s) chosen for the Portfolio for the purposes of determining whether there have been any changes in your financial situation, risk tolerance, tax situation, investment time horizon, investment objectives, or desired reasonable restrictions. Again, it is critical that you interact with us during these attempts to validate your financial goals, needs, and the strategy chosen for the Portfolio, or whenever you believe that you may have experienced material changes to your financial situation, investment objectives, restrictions, and willingness and ability to tolerate risk, in order to ensure that our investment strategy is appropriately tailored to your financial goals. If you fail to validate your current investor profile or respond to our attempts to confirm

your information, we'll assume that there have been no changes, and we'll continue in accordance with the financial goals you set on the DA Website and Interface. Digital Advisor reserves the right to un-enroll your Portfolio from management if you fail to respond or interact with the DA Website and Interface.

Before enrolling in the ongoing advised service, Clients should consider paying off high-interest debt. If potential returns on your investments are lower than your debt's interest rate, it may be best to prioritize debt payments first. See "**Methods of analysis, investment strategies, and risk of loss- Goals forecasting**" for the investment returns we assume for the asset classes in Digital Advisor portfolios.

### ***Enrolled Account Restrictions and Defaults***

When you enroll in the Digital Advisor's discretionary management, you will no longer be able to independently purchase or sell securities in your Portfolio, and you will be restricted from such activity until you terminate the ongoing advised service. Transactions performed in a Portfolio enrolled in the ongoing advised service without prior notice to us may be reversed or unwound by us in order to maintain the recommended allocation for your Portfolio. In the event that you enroll in Digital Advisor while trades are pending to invest in investments other than the Vanguard Federal Money Market Fund, Digital Advisor reserves the right to cancel those trades or otherwise take the actions necessary to invest your enrolled accounts into the target asset allocation. Ineligible trades or transfers placed in a taxable Vanguard Brokerage Account may result in taxable consequences. Other account transactions or services, like automatic trading services (such as automatic investment/withdrawal), will be restricted or unavailable through your traditional self-directed account web experience. Specific enrolled account restrictions and default account requirements for enrolled Vanguard Brokerage Accounts and enrolled Participant Accounts are summarized below.

#### **Enrolled Vanguard Brokerage Accounts**

In connection with the ongoing advised service, you'll retain the right to: (i) withdraw securities and take sales proceeds as cash from the Portfolio; (ii) vote on shareholder proposals of beneficially owned securities or delegate the authority to vote on such proposals to another person; (iii) be provided, in a timely manner, with a confirmation or other notification of each securities transaction in the Portfolio and all other documents required by law to be provided to security holders; and (iv) proceed directly as a security holder against the issuer of any security in the Portfolio and not be obligated to join any person involved in the operation of the service, or any other Client of the service, as a condition precedent to initiating such proceeding.

If you enroll a brokerage account in Digital Advisor that is currently approved for margin, your approval to invest on margin will be revoked. If you have any outstanding margin debt, that debt will need to be satisfied. Digital Advisor will undertake to trade to satisfy any outstanding margin debt, however, additional collection may be required if your assets are insufficient to do so. Due to initial limited functionality, Clients may need to un-enroll accounts from the service in order to perform certain functions as disclosed in the DA Website and Interface (e.g. IRA conversions).

#### ***MinTax cost basis method default for enrolled Vanguard Brokerage Accounts***

When you enroll, we'll use the minimum tax ("MinTax") cost basis method in performing the necessary transactions to manage your Portfolio on an ongoing basis for all securities held in your taxable accounts in the Portfolio. While the ongoing advised service will consider the tax

impact (as a result of the account type) of potential Portfolio changes, transitioning the Portfolio based on our portfolio construction guidelines could result in realized taxable gains or losses, or the generation of taxable dividend income or tax-preference items that are taxable under the alternative minimum tax. Neither VAI nor any affiliated entity shall have any responsibility to pay these taxes.

The MinTax cost basis method is generally designed to minimize tax impact and lower an individual's tax burden by identifying selective units or quantities, also referred to as lots, of securities to sell in any sale transaction (including rebalancing) based on specific ordering rules. In many cases, the MinTax cost basis method will minimize the tax impact to you of a transaction but it may not do so in every case. For example, if the taxable accounts within your Portfolio hold a position with a small short-term capital loss and a large long-term capital loss, the MinTax cost basis method will choose to sell the position held at a small short-term capital loss first. The method's effectiveness at minimizing your taxes will vary depending on your individual circumstances. You should consult with your tax advisor to discuss whether the MinTax cost basis method is appropriate for you given your individual circumstances.

Digital Advisor doesn't provide tax advice, nor does the ongoing advised service's use of the MinTax cost basis method constitute tax advice. We strongly urge you to consult with your tax advisor to discuss any tax concerns related to the ongoing advised service, including the appropriate cost basis method for you before enrollment.

#### *Cash in /Cash out for enrolled Vanguard Brokerage Accounts*

While enrolled in Digital Advisor, you may transfer cash to and from the Portfolio at any time, and you may add or un-enroll eligible accounts at any time via the DA Website and Interface. You will be able to transfer funds from any bank that you have linked to your Vanguard Brokerage Account. Digital Advisor reserves the right to un-enroll Clients that maintain a balance below \$3,000 in enrolled assets. We will attempt to contact you if you hold less than \$2,000 across your Portfolio (if entirely composed of Vanguard Brokerage Accounts) and will un-enroll your Accounts if we are unable to reach you or if you confirm that you will not be adding additional funds. Clients seeking to withdraw an amount from their Vanguard Brokerage Account that would cause the account balance to be less than \$3,000 will be instructed to un-enroll the account rather than use the "Get Cash" functionality. Enrolled Accounts with no assets will automatically be un-enrolled from Digital Advisor.

Transfers of funds into your enrolled accounts typically are invested after two business days although the specific circumstances of your transfer could result in longer processing times. Any amounts transferred into an enrolled account will be allocated to the appropriate investments based on our rebalancing methodology. In order to invest assets in enrolled accounts as quickly as possible, Digital Advisor will place trades based on the availability of pending transfers of cash in your Vanguard Brokerage Account. If you set up multiple investment goals, it will typically take one to two additional business days to invest your contribution to account for your contribution relative to your planned savings. Also, transfers of funds using methods outside of ACH transfers, wire transfers, check, or incoming rollover transactions will not be automatically allocated as planned savings for purposes of calculating your target asset allocation. In accordance with your VMC Custodial Account Agreement governing your Vanguard Brokerage Account, your ability to use recently added funds may be restricted until they are collected. In addition, if funds are unpaid, recalled, or otherwise not

honored, then VMC may debit your Vanguard Brokerage Account (including executing transactions) and/or charge your Vanguard Brokerage Account a fee.

When cash is transferred to the Portfolio as a result of automated account services (such as an automatic investment plan) or investment earnings (such as interest or dividend payments), the cash will be allocated in accordance with the Digital Advisor's investment strategy upon your next rebalancing opportunity. Rebalancing occurs periodically in your Portfolio based on a systematic review on whether particular guardrails relative to your target recommended asset allocation are triggered. Upon enrollment, Client accounts will be defaulted to receiving dividend and capital gain distributions in cash to optimize rebalancing opportunities. Digital Advisor is currently only able to rebalance your Vanguard Brokerage Accounts by purchasing whole shares of ETFs. Digital Advisor will monitor the assets in your settlement fund(s) in these accounts and will look for opportunities to put them to work in accordance with our investment strategy. Balances may remain in your settlement fund, generally less than \$300 across your Portfolio. The lower your account balance the more likely that cash equivalent balances may remain in your settlement fund due to ETF share prices and consequently your settlement fund will represent a disproportionately higher percentage of your Portfolio.

You will be able to request a sale of assets in your enrolled Vanguard Brokerage Accounts and to have the proceeds sent as cash to your authenticated and authorized linked bank account(s) via an electronic bank transfer. Transfers of cash out of tax-deferred Vanguard Brokerage Accounts are subject to availability as Digital Advisor expands withholding capabilities. Transfers of cash out of your enrolled Vanguard Brokerage Account typically take two to four business days to occur (subject to the settlement of securities transactions in your managed account). Market closures will delay the settlement of securities transactions, which will, in turn, delay the transfer of cash out of your account.

Taking out cash will have an impact on your financial goals. Unplanned withdrawals do not automatically update your target goal amount when you take a unplanned withdrawal and you will also need to separately update your plan to ensure that your needed goal amount remains accurate. If you do not update your target goal amount when you take an unplanned withdrawal to meet a goal, then your investments will not be efficiently invested for your needs, because we will assume you still need to fund the full goal amount. If the balance of your settlement fund is sufficient to cover the withdrawal request, shares of the settlement fund will be sold to cover the withdrawal rather than selling assets in your enrolled Vanguard Brokerage Account otherwise your Portfolio will be reallocated within our methodology guardrails. More information regarding the methodology used on the DA Website and Interface is provided in the sections of this Brochure that follow under the heading entitled "**Methods of analysis, investment strategies, and risk of loss**" below.

#### *Purchase and sale of securities in a Portfolio for enrolled Vanguard Brokerage Accounts*

While enrolled in the ongoing advised service, you are restricted from purchasing or selling securities in your Portfolio until you terminate the ongoing advised service. Ineligible transactions performed in a Portfolio enrolled in the ongoing advised service may be reversed or unwound by us in order to maintain the recommended allocation for your Portfolio.

Digital Advisor currently does not accept the transfer of securities into enrolled Vanguard Brokerage Accounts. When externally initiating transfers into your enrolled Vanguard Brokerage

Account, all transferred assets should be in cash. If you erroneously transfer securities into an enrolled Vanguard Brokerage Account they will be sold as soon as reasonably practicable, which may result in a taxable event in taxable accounts. Any charges or fees associated with the sale, such as contingent deferred sales charges, that are not revenue to Vanguard remain your sole responsibility. If we are unable to liquidate transferred investments, we will contact you to discuss your options.

### **Enrolled Participant Accounts**

Any default investment, distribution, withdrawal or loan transactions will continue to be subject to the terms of your plan.

While enrolled in Digital Advisor, you are prohibited from initiating investment exchanges and directing the investment of new contributions in your plan account unless you terminate the service. In certain situations, de minimis investments may be added to your account in accordance with plan terms (for example, as a result of dividends or rebates from investments held in your account prior to the date of management by Digital Advisor). In addition, certain investments may be contributed to your Participant Account by your employer in accordance with plan rules (e.g., upon auto-enrollment in the plan). Such investments generally will be re-balanced from your account.

### **All Account Types**

Digital Advisor may not be appropriate for all investors. Clients interested in other types of investment advice services regarding assets held in the Portfolio may contact VAI to discuss alternative arrangements or services. You may not receive third-party discretionary advice on assets held in the Portfolio under the ongoing advised service. If you wish to receive third-party discretionary advice regarding certain securities in the Portfolio, you should terminate the ongoing advised service. You may separately arrange for the provision of advice by another provider that has no material affiliation with, and receives no compensation in connection with, the securities held in your account(s). Enrolled Accounts with no assets will automatically be un-enrolled from Digital Advisor

You may terminate the service at any time via the DA Website and Interface, but your Portfolio will remain invested in the investment options selected by Digital Advisor until you take further action. Upon requesting termination, your account will remain restricted from trading for up to four business days to remove the managed status from your account if there are pending transactions. Restrictions will typically be lifted within one day. Depending on the timing of your termination relative to Digital Advisor's automated trade process, additional trades could process prior to the removal of the managed status from your account.

As of December 31, 2020: Digital Advisor offered under Vanguard Advisers, Inc. ("VAI") had a total of \$1.3867 billion in discretionary assets under management.

## **Fees and compensation**

By using Digital Advisor, Clients are subject to a gross advisory fee but pay to VAI a net advisory fee, as detailed and computed below, designed to mitigate conflicts of interest for any revenues that Vanguard receives on assets held in the underlying investments (for example,

revenues from Vanguard Funds). Digital Advisor will reduce your gross advisory fee by the amount of revenue that Vanguard (or a Vanguard affiliate) collects on your Portfolio in order to calculate the net advisory fee. Digital Advisor's net advisory fee is approximately 0.15% across your Portfolio for a typical investment portfolio although actual expenses will vary based on the specific holdings in each enrolled account. Your net advisory fee can also vary by enrolled account type. The combined annual costs of enrolling in Digital Advisor and investing in Vanguard Funds or collective investment trusts will vary for plan participants.

#### *Gross Advisory fee*

The gross advisory fee compensates Digital Advisor for the ongoing discretionary management of the enrolled accounts and is inclusive of the Digital Advisor services described in this brochure. The gross advisory fee will be calculated across all securities in your enrolled accounts, with the exception of money market fund securities (or other cash equivalent assets) held in your Portfolio.

The gross advisory fee does not include the expenses that you incur to invest in the underlying funds, collective investment trusts, or ETFs in your enrolled accounts. You will be responsible for paying underlying fund, collective investment trust, or ETF expenses charged at the individual holding levels within your enrolled accounts. These underlying funds, collective investment trust, or ETF expenses vary by fund and share class, and are expenses that all fund and ETF shareholders and collective investment trust holder's pay. Details of fund and ETF's expenses can be found in each fund's or ETF's prospectus. These expenses are not itemized or billed separately. The gross advisory fee is rounded to the nearest whole penny using standard rounding for the purpose of calculating the net fee amount to be charged.

#### Enrolled Vanguard Brokerage Accounts

Your enrolled Vanguard Brokerage Accounts will be subject to an annual gross advisory fee based on your average daily balance of ETFs held in your account. Digital Advisor's annual gross advisory fee for managed retail accounts is 0.20%.

#### Enrolled Participant Accounts

Your enrolled Participant Accounts will be subject to an annual gross advisory fee based on your average daily balance of funds and collective investment trusts held in your account. Digital Advisor's annual gross advisory fee for your Participant Account varies by plan. Please see your plan fee disclosure notices for the applicable annual gross advisory fees that apply to your plan assets.

#### *Net Advisory Fee (Credit Amount)*

The annual gross advisory fee applied to each enrolled account is reduced by a credit of the actual revenue Vanguard (or a Vanguard affiliate) accrues and retains from expense ratios of Vanguard managed funds or other Vanguard revenues received from Portfolio investments (e.g., 12b-1 or revenue sharing fees) in each enrolled account. Revenue sharing fees are credited manually and are not automated. Revenue sharing less than \$1.00 will not be credited due to securities erroneously transferred into a managed account, or, for Participant Accounts, due to securities added to the account in relation to investments held prior to management of the account by Digital Advisor. While Digital Advisor will not assess a gross advisory fee on the balance of money market fund securities (or other cash equivalent assets) held within your

enrolled accounts, if there is a strategic allocation to a money market fund security (or other cash equivalent asset), then any revenue from those holdings will be credited against your assessed gross advisory fee. Net advisory fees will not be a negative amount. Your resulting net advisory fee calculated for each account will be the actual fee collected. These actual amounts will vary based on your unique asset allocation and fund investments within the managed portfolio and the holdings in each enrolled account. The credit amount will be rounded to the nearest whole penny using standard rounding for the purpose of calculating the net advisory fee.

### *Account specific credit information*

#### Enrolled Vanguard Brokerage Accounts

Enrolled Vanguard Brokerage Accounts will be primarily composed of ETF shares that trade commission-free through VMC, doing business as Vanguard Brokerage Services,<sup>®</sup> a registered broker-dealer that's a wholly owned subsidiary of Vanguard and an affiliate of VAI. For example, a typical Portfolio comprised of the Four Totals ETFs will be credited approximately 0.05% as of the date of this brochure resulting in a net advisory fee of 0.15%. If you hold mutual fund share classes of the Four Totals within IRA accounts when you enroll, Digital Advisor will complete your target asset allocation around those existing holdings resulting in a higher credit amount due to the associated Vanguard revenues. If you enroll taxable Vanguard Brokerage Accounts with existing investments that are retained under the breakeven analysis described above the credit amount will vary based on the Vanguard revenues, if any, generated from the retained investments. Vanguard does not collect revenue from the advisory fees paid to nonaffiliated external managers of Vanguard actively managed mutual funds and unless there are revenue sharing payments Vanguard typically will not collect revenue from non-Vanguard investments. As a result, any investment fees and expenses associated with those investments are not offset and Clients are responsible for those expenses in addition to the advisory fees.

Additionally, accounts eligible for enrollment in Digital Advisor are required to elect e-delivery of statements and other account documents, which results in a waiver of account service fees. You are required to maintain e-delivery elections in order to remain enrolled in the service. To the extent that you incur account service fees, commission charges, other account charges and processing fees in connection with establishing accounts with VAI affiliates, you should review the terms of your account opening documents for details regarding fees that are assessed in connection with these accounts. If Vanguard or a Vanguard affiliate receives revenue from these charges they will be included in the credit amount deducted from your gross advisory fee. Due to manual processing, the timing of the credit of these other charges will differ from the automated process to credit revenues from Portfolio holdings and certain credits and could take the form of a check reimbursement.

Certain types of trade processing fees assessed by Vanguard or a Vanguard affiliate, and any related interest income will not be included in the credit amount. For example, fees charged to recoup transaction fees paid by VMC to an exchange or other self-regulatory organization (collectively, "SROs") in connection with the sale of certain

securities such as equities, options, and other covered securities. The amount of this fee varies and is determined periodically by the assessing SRO in accordance with Section 31 of the Securities Exchange Act of 1934, as amended. Section 31 requires SROs to pay transaction fees to the SEC based on the volume of securities sold on their markets. SROs, in turn, have adopted rules charging their broker-dealer members the applicable amount of the fee charged to the SROs by the SEC. Broker-dealers are not required to charge their clients these fees. These fees are intended to cover the costs incurred by the government, including the SEC, for supervising the securities markets. The rate is subject to adjustments that result in differences between the assessed amounts and the actual amount applicable to your transaction. VMC retains any excess. Additionally, due to payment timing VMC may also receive interest income on these fees. To the extent that a Vanguard Brokerage account has margin interest accrued from positions bought prior to enrollment that interest accrual is not credited. Additionally, if you hold American Depositary Receipts (ADRs) that you direct Digital Advisor to sell down as part of your enrollment, fees associated with holding such ADRs will not be included in the credit amount. Banks that custody ADRs are permitted to charge ADR holders certain fees, as detailed in the ADR prospectuses. "Pass through" ADR fees are collected from Vanguard Brokerage Services by the Depository Trust Company (DTC).

#### Enrolled Participant Accounts

Participants in employer-sponsored retirement plans may also directly or indirectly bear the fees assessed by Vanguard for recordkeeping services provided by Vanguard to the retirement plan. In connection with its services, Vanguard receives fees that are separate from, and in addition to, any advisory fees assessed by Digital Advisor. These fees for recordkeeping services are not included in the credit amount. Thus, retirement plan participants who receive advice from Digital Advisor may directly or indirectly bear the fees assessed by Vanguard in connection with its services to the plan, in addition to any advisory fees assessed by Digital Advisor. Participants in employer-sponsored retirement plans for which Vanguard provides recordkeeping or investment services may be permitted to invest in collective trusts, company stock funds, or certain customized investment options for which Vanguard Fiduciary Trust Company ("VFTC"), an affiliate of VAI, provides services and receives compensation. Because advice provided by Digital Advisor may include recommendations to hold or purchase these investment options, acting in accordance with such advice may result in the payment of fees to VFTC. Revenues generated from these fees will be included in the credit amount. No fees will be charged with respect to certain de minimis or fractional shares on investments held in Participant Accounts due to plan rules or in relation to investments held prior to management by Digital Advisor. In addition, no fees shall be charged with respect to less than 1/1000<sup>th</sup> of a share of a security.

Participants in employer-sponsored retirement plans for which Vanguard provides recordkeeping services are often permitted to invest in non-Vanguard mutual funds. Because the advice provided by Digital Advisor may include recommendations to transact in non-Vanguard mutual funds, acting in accordance with such advice may result in payments to Vanguard or one of its affiliates or subsidiaries as compensation for participant-level recordkeeping and administrative services provided by Vanguard for such funds. This payment may be made by the fund company sponsoring the non-

Vanguard mutual fund or an affiliate, by your employer or plan sponsor, by the participants investing in the non-Vanguard mutual fund, or some combination thereof. Payments to Vanguard or Vanguard affiliates for recordkeeping services will not be included in the credit amount, but revenues received and retained as compensation (i.e. revenue sharing not otherwise allocated to the sponsor to offset plan expenses or directly to participant accounts) related to transactions in non-Vanguard mutual funds will be included in the fee credit. Fee credits will also vary among plan participants of the same plan if investment options selected by the plan fiduciary as the plan core lineup generate different levels of revenue depending on the recommended asset allocation.

### *Billing*

Fees will be assessed quarterly (approximately every 90 days) and based on your average daily balance in each holding of each enrolled account across the entire fee period after the completion of a fee period and will generally be deducted within 30 days of assessment. Your fee period will start on the same day as your first account enrollment.

Digital Advisor reserves the right to provide periodic fee waivers where it deems appropriate. Digital Advisor in its discretion, can waive or reduce the gross advisory fee for any Client or group of Clients, including in connection with promotional efforts. The gross advisory fee may be waived or discounted for employees of Vanguard or its affiliates. As a result of promotional fee waivers, similarly situated Clients may pay different fees.

We reserve the right to increase the annual gross advisory fee upon 30 days' written notice to you. We may offer periodic fee waivers where Digital Advisor deems appropriate.

The ongoing advised service will continue to monitor your Portfolio and goals to help keep you on track to meet your investment goals and will therefore continue to charge all applicable fees, including periods of time when rebalancing isn't needed because the Portfolio is appropriately allocated.

### *Fee Collection*

Accrued fees will not be collected for the portion of the gross advisory fee equal to the net advisory fee for the period from the last quarterly fee collection upon termination of an account's enrollment in Digital Advisor.

### Vanguard Brokerage Accounts

Digital Advisor will systematically determine which securities to sell in order to raise proceeds sufficient to cover the fee and reassess each enrolled account for alignment with the target asset allocation. See **Methods of analysis, investment strategies, and risk of loss -- Portfolio Rebalancing**. In addition, when collecting fees from an enrolled account with a money market fund (or other cash equivalent assets) balance, we'll prioritize those assets first.

### Enrolled Participant Accounts

For participant accounts, fees will be deducted proportionally from the balance invested in each investment in the enrolled participant account. Please note that during times of a

plan-initiated event, such as a plan termination or conversion to an alternate service provider, fee handling will vary and will be communicated.

*Introductory waiver for new Vanguard Brokerage Clients and accounts*

An introductory 90-day net advisory fee waiver is available for Vanguard Brokerage Accounts eligible for enrollment into Digital Advisor and does not apply to Participant Accounts eligible for enrollment into Digital Advisor (fees will be charged to such accounts, if they are enrolled in Digital Advisor). The 90-day advisory fee-waiver period (the “fee-waiver period”) will start when you enroll your first account in Digital Advisor (of either a Vanguard Brokerage Account or Participant Account) and ends after the close of the first billing period (generally 90 days), which is specific to each Client. Additional Vanguard Brokerage Accounts enrolled at a later date can still take advantage of any remaining fee-waiver period. However, each additional account enrolled will not trigger new fee-waiver periods and any remaining fee-waiver period will be calculated based on the enrollment date of your first enrolled account. If you unenroll before your fee-waiver period has ended, you'll owe no net advisory fees. But if you choose to re-enroll in Digital Advisor during or after your fee-waiver period, you will not be eligible for a second fee waiver period.

Digital Advisor reserves the right to change the waiver terms or terminate the waiver at any time without notice. Digital Advisor also reserves the right to terminate this waiver at any time and to refuse a waiver or portion of waiver if Digital Advisor determines that it was obtained under wrongful or fraudulent circumstances, that inaccurate or incomplete information was provided in enrolling the account, that any rules or regulations would be violated, or that any terms of the Digital Advisor Service Agreement have been violated.

*Vanguard Fund and Collective Investment Trust fees*

The advice provided by Digital Advisor will include recommendations to sell, hold, or purchase Vanguard Funds and VFTC managed collective investment trusts. Where we transact to manage your Portfolio and invest in Vanguard Funds, it will result in the payment of fees to the Vanguard Funds and to Vanguard, an affiliate of VAI (see Net Advisory Fee (Credit Amount) above). A purchase or sale of Vanguard Fund shares isn't subject to a load, sales charge, or commission. However, each Vanguard Fund incurs advisory, administrative, and custodial fees, as well as other fees and expenses that it pays out of its own assets. The advisory, administrative, custodial, and other costs make up the Vanguard Funds' expense ratios. Also, some Vanguard Funds impose purchase and redemption fees. Vanguard collective investment trusts also charge expense ratios and may assess purchase or redemption fees, which results in the payment of fees to the Vanguard collective investment trusts and to VFTC, an affiliate of VAI. (Collective investment trusts are investment options only within Participant Accounts.) Clients who invest in Vanguard Funds and Vanguard collective investment trusts are subject to the applicable expense ratios and to any purchase and redemption fees. Please consult the prospectus or collective investment trust document for information about the specific expense ratio and any fees assessed by a Portfolio investment.

VAI does not consider the Digital Advisor program to be a wrap program. As the leader in reducing costs for all investors, VMC does not charge commissions to any investors for buying or selling ETFs, and therefore there are no fees to be a wrap-fee program. The net advisory fee charged by Digital Advisor is solely for the advice provided.

## Performance-based fees and side-by-side management

VAI doesn't receive any fees for advisory services provided to you that are based on a share of capital gains on or capital appreciation of your investments.

## Types of clients

As of the date of this filing, Digital Advisor anticipates expanding the availability of Digital Advisor over time, with the eventual objective of making enrollment in the service available, as appropriate, to any eligible Client.

Certain officers, directors and substantial shareholders, including any employees subject to Rule 144 of the Securities Act of 1933, as amended, or Section 16 of the Securities Exchange Act of 1934, as amended are not eligible for Digital Advisor (including both participant account and Vanguard Brokerage Accounts). Additionally, clients of the PAS or VMAP service are not eligible to enroll. Clients are required to maintain permanent residence in the 50 states, the District of Columbia, and the US Virgin Islands or have an APO/FPO/DPO mailing address in order to enroll and stay enrolled in Digital Advisor.

### Vanguard Brokerage Accounts

The ongoing advised service offered by Digital Advisor is made available to retail clients with a minimum of \$3,000 in each eligible Vanguard Brokerage Account they seek to enroll. For each brokerage account you seek to enroll all assets in the brokerage account's settlement fund or in certain investment types (based on eligibility screening by Digital Advisor at the time of enrollment) and/or the brokerage account's settlement fund are eligible to enroll.

Eligible clients include those with individual accounts (including IRAs) and joint accounts. Other account types may be considered for purposes of goals forecasting, but Digital Advisor won't invest or reallocate assets in those other accounts.

### Participant Accounts

Participants enrolled in eligible 401(k) and Roth 401(k) employer-sponsored retirement plans, whose employers have approved Digital Advisor, are eligible to use the service. Other account types may be considered for purposes of goals forecasting, but Digital Advisor won't invest or reallocate assets in those other employer-sponsored accounts.

## Methods of analysis, investment strategies, and risk of loss

Digital Advisor's investment methodology incorporates our own investment philosophies and beliefs, such as the benefits of low costs, diversification, and indexing. Our methodology, which is approved and periodically reviewed by VAI's Advice Policy Committee, is based on Vanguard's own fundamental research, as well as research obtained from a wide variety of external sources, both public and private. Our methodology is driven by long-term financial goals, not by market timing or short-term investment performance. Rather than attempting to predict which investments will provide superior performance at any given time, VAI believes that it can provide the best opportunity for success by maintaining a broadly diversified Portfolio—including investments from a variety of market sectors and asset classes. Digital Advisor periodically reviews its investment methodology which may result in modifications that that impact your Portfolio's asset allocation, security selection, or other aspects.

Digital Advisor supports the goal of saving for retirement and, subject to availability, non-retirement lump sum investment goals. The objective of the retirement goal is to build sufficient wealth to cover expected income needs through retirement. Subject to availability, you also may select multiple non-retirement investment goals after enrollment. This multi-goal capability helps balance their retirement goal with other non-retirement investment goals. Digital Advisor applies an overall long-term investment philosophy to the multi-goal capability by allocating investable assets to more near-term goals first to ensure the funds needed to cover expenses when goals reach maturity. Digital Advisor treats taxable accounts as fungible assets and allocates assets in those accounts across goals based on the investment goal-based plan you set.

#### *Investment strategy for the Portfolio*

Digital Advisor's investment strategies are designed with a disciplined, long-term approach that focuses on managing risk through appropriate asset allocation and diversification. Our methodology uses a strategic approach by first focusing on the mix of asset classes (i.e., stocks, bonds, cash) that aligns with your willingness and ability to take risk and is appropriate to meet your financial goals over time. The methodology is designed to then recommend specific investments for your Portfolio.

As a completely digital advisory experience, Digital Advisor relies on information provided by you and on certain assumptions based on our analysis about future financial factors, such as rates of return on certain types of investments, inflation rates, your rate of savings, percentage of income needed in retirement, portfolio withdrawals, tax rates, taxable capital gains and losses, and market returns, in order to develop an investment strategy for you. All assumptions are estimates based on historical data and proprietary forecasts that, in our opinion, serve as a useful and reasonable foundation on which to develop financial strategies.

#### *Developing an asset allocation- Retirement Accumulation Strategy*

First, we will gather information about your risk/reward preferences or risk tolerance (also referred to as risk attitude or profile). Risk tolerance is derived from your decisions within an assessment tool on the DA Website and Interface: TrueProfile Solutions®, provided by Capital Preferences Ltd. This assessment provides you six hypothetical risk/reward scenarios that are designed to measure your inherent preference for risk by evaluating the tradeoffs in those decisions. The output of the assessment tool results in measurements of loss aversion, risk tolerance and decision consistency. The risk tolerance measurement maps to the recommended risk attitudes (Very Conservative, Conservative, Moderate, Aggressive and Very Aggressive) for you to consider.

You may choose to deviate from the result of our assessment based your personal judgement of your willingness and ability to tolerate risk by selecting a different risk attitude up to two steps away from your assessed risk attitude to make your selected risk more conservative or aggressive, as applicable. Changes to your risk attitude will impact your recommended investment strategy. If we are not able to assess your risk attitude using the assessment tool (e.g. due to inconsistency in your scenario responses) you will be able to select a risk attitude after an opportunity to learn about each of the five risk attitude categorizations that we use in our investment methodology and the projected glide path aligned with each risk attitude.

Additionally, the assessment will seek to assess if you have a low or high loss aversion. A high loss aversion means that you feel a greater level of discomfort toward a loss relative to the comfort from an equal-sized gain. You may not choose to deviate the assessed loss aversion. If the assessment results are inconsistent then you will not be attributed with a low or high loss aversion.

Digital Advisor will rely on your final risk attitude selection in providing our guidance and recommendations for our investment strategy.

Next, you may select the accounts that you want included for retirement planning. Digital Advisor then captures inputs around your expectations and goal planning for their retirement. Investment strategies are derived based on your current age and expected retirement age, and additional data such as current contributions, tax filing status, various income sources (lump sum, periodic, etc.), expenses, preferred age range of retirement options, and expected Social Security to inform your retirement savings goal forecasting. See *Goals Forecasting* below.

Your selected risk attitude and the retirement planning inputs are then used as inputs to Digital Advisor's proprietary investment algorithm. Digital Advisor's proprietary algorithm uses this data to recommend a particular investing track and corresponding glide path that embody the risk tolerance, asset allocation, and time horizon that are suitable for your retirement accumulation goal. Glide paths for Digital Advisor are generated using the personalized glide path ("PGP") service developed in partnership with Vanguard's Investment Strategy Group ("ISG"). Glide paths for retirement accumulation PGP were created using the Vanguard Life-Cycle Model ("VLCM") and map a client to the optimal asset allocation from over 300 possible glide path options. With the evolution of Digital Advisor's proprietary algorithm to include personalized glide path recommendations, your retirement accumulation asset allocation will be selected based upon your stated retirement age, the risk attitude you selected, your assessed loss aversion (if any), marital status, if your portfolio has low or high single stock exposure, retirement savings rate, and expected retirement income (collectively, "Personal Characteristics"). Your current age will determine your starting point on the glide path.

Retirement accumulation PGPs are designed to balance the risks of seeking wealth accumulation with your tolerance for portfolio volatility. Customizing your glide path based on your Personal Characteristics will impact the amount of equity exposure in your Portfolio. Very aggressive and aggressive risk attitudes will result in higher equity exposure than a more conservative risk attitude. If Digital Advisor assesses that you have a high loss aversion, then Digital Advisor will reduce the equity exposure in your Portfolio relative to a client with low or no assessed loss aversion (all other Personal Characteristics being equal). Your stated retirement age is a key factor determining the slope (or rate at which equity exposure is reduced) in your Portfolio. Digital Advisor groups potential retirement ages into five-year age brackets between 50 and 75. PGPs also factor in marital status for married Clients based on an assumption that a joint household leads to a longer period of retirement consumption, given the chance that at least one person in the household may live longer. Additionally, PGPs will adjust your glide path if you have elected to have a concentrated equity position in your Portfolio.

In the future, retirement accumulation PGPs will also adjust the glide path based on assessing your retirement savings rate as either low or normal, subject to availability. Digital Advisor will

calculate your retirement savings rate by dividing your annual savings contribution by your salary. A lower savings rate will result in a higher equity exposure (all other Personal Characteristics being equal) prior to your retirement age. Finally, in the future, retirement accumulation PGPs will also adjust your glide path based on assessing your expected retirement income relative to your expected salary at retirement into one of three categories low, moderate, or high, subject to availability. Retirement income could include social security, rental income, part-time employment or another source disclosed in the DA Website and Interface. A low anticipated retirement income (all other Personal Characteristics being equal) decreases the rate at which the equity allocation in your Portfolio declines. Until personalization based on retirement income and retirement savings is available or if DA determines that it does not have classifying sufficient data or is not otherwise able to adequately assess retirement savings or retirement income then DA will use defaults of normal and moderate, respectively.

#### *Developing an asset allocation- Multiple Goal Strategy*

After you enroll in Digital Advisor with a retirement goal, subject to the criteria outlined below, you can add select non-retirement investment goals. For each non-retirement goal, you will need to provide a target date (when you want to reach your goal) and the lump sum you plan to need for your goal on that target date (the date in which a final withdrawal is distributed from a goal), to determine where a goal's asset allocation will be on your PGP. A non-retirement PGP is created by leveraging VLCM, your goal amount, the goal's target date, your selected risk attitude, loss aversion, and lump sum spending duration. As a result, Digital Advisor generates 15 non-retirement PGPs. Currently, Digital Advisor assumes that you plan to fund your non-retirement investment goals completely from your managed assets.

Once you confirm the addition of a non-retirement goal to your plan then Digital Advisor will determine a collective goal-weighted asset allocation across all goals (retirement accumulation and non-retirement goals) based on each goal's individual PGP. Your enrolled account balances as well as your planned future savings in those accounts are used to determine your target asset allocation and investment strategy across your Portfolio (referred to as weighted asset allocation glide path). As result of this logic any excess current taxable balance is allocated toward longer term goals, like a retirement accumulation goal, which will allocate more assets to equities, in line with your risk attitude and Personal Characteristics. In contrast, if Digital Advisor projects a shortfall based on your current taxable balance and planned contributions then your taxable balance will be allocated conservatively (e.g., in bonds and short-term reserves) relative to your next goal target date unless your planned savings will offset for the shortfall.

As your life changes, Digital Adviser will allow you to update your retirement planning inputs, non-retirement goal inputs, Personal Characteristics, and your risk attitude. When you enroll multiple accounts in Digital Advisor to support your goals, our collectively portfolio-weighted asset allocation will be based on your managed balances and planned savings. We will rely on the information you provide in formulating the investment strategy for your overall Portfolio. Any inaccuracies in that information could affect our recommendations and our discretionary management of your Portfolio.

When recommending, setting, and managing your asset allocation, we weigh "shortfall risk"—the possibility that a Portfolio will fail to meet longer-term financial goals— against "market risk,"

or the chance that your Portfolio's value will fluctuate based on the market's ups and downs. An investment strategy that's too conservative raises the risk that inflation will erode the purchasing power of a long-term portfolio. Investment strategies for different goals may reflect different trade-offs between shortfall and market risk. Digital Advisor's investment strategy is currently designed for Clients with an investment goal of accumulating savings for their retirement and non-retirement investment goals. Appropriate asset allocations for retirement savings goals may range from 100% stock to 72% bonds. Appropriate asset allocations for non-retirement investment goals may range from 100% stock to 100% cash. The objective of the retirement accumulation goal strategy is to build sufficient wealth to cover expected spending needs through retirement. This retirement accumulation investment strategy in isolation is likely not suitable for Clients near (within 5 years) or in retirement. The objective of non-retirement investment goals is to accumulate sufficient wealth to cover a Client's desired sum on their non-retirement investment goal target date.

#### *Diversifying the Portfolio asset allocation across a variety of sub-asset classes*

We seek to provide adequate diversification within each asset class for all glide paths as deemed appropriate for the goal target date. We recommend investing across different market segments to ensure sub-asset class diversification. Diversification does not ensure a profit or protect against a loss. See the **"Securities recommendations and risk," "Risks associated with usage of an algorithm,"** and **"Investment risks"** sections of this brochure below for further discussion of risks.

Our equity methodology seeks to diversify across different market segments (e.g., domestic and international; large-, mid-, and small-capitalization; and growth and value). While investing in equity securities can help grow your wealth over the long term, stock markets are also volatile, and you may lose money in a sharp downturn that can occur without warning. Our investment strategy will generally diversify the domestic and international stock positions across market capitalizations within those segments in similar proportion to their long-term market weight. In addition, we seek to balance growth and value investment styles when constructing a Portfolio. We examine the industry segments represented in the Portfolio to ensure the Portfolio isn't too heavily concentrated in one or more industry sectors, countries, or market segments.

Our bond methodology emphasizes broad diversification across the bond market, both domestic and international, and maintains an interest rate risk exposure in line with the broad bond market. Investments in bonds are subject to multiple risks, including interest rate, credit, and inflation risk. Diversification across the domestic and global bond markets, as well as across market segments, issuers, and the yield curve, helps mitigate these risks. Our investment strategy seeks to diversify across short-, intermediate-, and long-maturity bond funds and seeks to maintain an intermediate-term duration. An intermediate-term duration generally means that your Portfolio stays in the middle of the spectrum when measuring its sensitivity to interest rate changes while maintaining exposure to all areas of the maturity range. We also recommend a broad exposure to investment-grade bond funds (both corporate and Treasury bonds). We seek to build a high-credit-quality Portfolio of bond funds, including funds that hold corporate, Treasury, agency, and mortgage-backed bonds. Bond portfolios may incorporate a mix of domestic and foreign bond funds. As with equities, we examine bond sector exposure to ensure a Portfolio isn't concentrated in a single segment, which could expose the Portfolio to a higher level of risk.

Non-retirement investment goal glide paths may include a strategic allocation to short-term reserves or cash equivalents relative to your goal target date, risk attitude, and loss aversion. Regardless your risk attitude and other inputs, the glide path for a non-retirement investment goal could be allocated to approximately 100% short-term reserves within 12 months of a goal target date. However, at the Portfolio level, rounding the collective goal-weighted asset allocation to the nearest whole percentage across all of your goal glide paths could result in a mix of bond and short-term investments available to meet non-retirement investment goals in your taxable account. Additionally, if your target goal amount is materially smaller relative to the assets for other goals could result in 0% short-term reserve investments as you approach your goal target date. The consequences of holding cash equivalents over extended time periods include: extremely high capital stability; very low volatility and expected nominal returns; and low real returns (with the possibility that cash may underperform inflation to create a negative nominal return). Thus, inflation can be a significant risk to an investor's Portfolio and ability to achieve their long-term goals. Retirement savings goals will not have strategic allocations to cash equivalents as part of their glide path.

*Diverse investments, primarily consisting of low-cost Vanguard ETFs and Funds*

After determining the overall asset mix and your stock, bond, and short-term reserves sub-allocations, our algorithm will recommend appropriate investments for your Portfolio. We approach fund selection with a long-term, buy-and-hold approach and discourage switching strategies based solely on recent performance. For retirement savings goals, Digital Advisor implements an investment strategy founded in the same asset allocation that serves as the core of Vanguard's Target Retirement single mutual fund solutions; however, Digital Advisor will enable you to provide personalized inputs that align Digital Advisor's investment strategy to your needs. Additionally, as you update your information on the DA Website and Interface, Digital Advisor will adjust its investment strategy and your glide path based on the new information. While updates like salary changes may not trigger immediate rebalancing of your portfolio, it is important for Digital Advisor to take this information into account in planning your long-term investment trajectory. On the other hand, updating your savings plan, changing your risk attitude or other key information would likely trigger an immediate rebalancing the next time Digital Advisor assesses your account.

To attain the lead target allocations for Vanguard Brokerage Accounts, Digital Advisor typically allocates the equity portion of the Portfolio to Vanguard Total Stock Market ETF and Vanguard Total International Stock Market ETF. The Vanguard Total Bond Market ETF and Vanguard Total International Bond ETF typically will be core holdings within Vanguard Brokerage Account fixed income allocations and maintain an intermediate-term duration. When short-term reserves/cash is recommended as part of the strategic asset allocation target for non-retirement investment goals, the Vanguard Cash Reserves Federal Money Market Fund will be used.

To attain the lead target allocations for Participant Accounts, Digital Advisor will recommend an allocation between investments available in the applicable 401(k) plan lineup that Digital Advisor determines align with Digital Advisor's investment strategy. However, for all Clients we may reallocate holdings among different Vanguard Funds and collective investment trusts and other investments as we periodically reassess the most appropriate investments to achieve the targeted asset allocation and sub-allocations. Additionally, 401(k) plan participants' investments

in Participant Accounts may be reallocated if their plan fiduciary changes the available investment lineup. Our lead portfolio recommendation is to be globally diversified across equities and fixed income. However, if your plan fiduciary does not offer a currency-hedged international fixed income index fund or comprehensive international equity exposure, Digital Adviser will construct your Portfolio using a US aggregate bond index fund or developed markets equity investments, respectively.

Although Digital Advisor's lead recommendation is to invest in a diversified Portfolio, certain plan fiduciaries may elect for Digital Advisor to accommodate company stock holdings (a single stock or single stock fund) already held in Participant Accounts up to a limited amount. This limitation may not exceed 10% of the total equity exposure in company stock in a Portfolio unless a company match is available. If your company stock holdings exceed the accommodation limit, then your company stock holdings will need to be sold down subject to plan rules. You will need to choose to sell down your company stock holdings to your desired amount. The proportion of company stock relative to your total equity exposure that you request to hold will fluctuate over time due to market movements. Digital Advisor will not buy additional company stock to maintain a particular percentage, nor will it sell company stock to maintain a particular percentage (unless exceeding the accommodation limitation). Company stock may represent more than 10% of the total equity exposure in your Portfolio due to market movements if your Portfolio is not otherwise outside of Digital Advisor's guardrails.

#### *Considering tax efficiency in allocating assets across multiple Portfolio accounts*

For Portfolios containing both taxable and tax-advantaged accounts, our investment strategy will aim to optimize the tax efficiency of the Portfolio by recommending or allocating investments strategically among taxable and tax-advantaged accounts. The objective of this "asset location" approach is to hold relatively tax-efficient investments, such as broad-market stock index products, in taxable accounts while keeping relatively tax-inefficient investments, such as taxable bonds, in tax-advantaged accounts. The ongoing advised service will attempt to construct your Portfolio to fulfill your fixed income allocation in tax-advantaged accounts. This methodology does not preclude the purchase of taxable bonds outside of tax-advantaged accounts, but rather favors the placement of such investments into tax-advantaged accounts when possible. If your non-retirement goal target date is five years or less then we will likely recommend holding bond or cash asset allocations within a taxable account to minimize the impact of market volatility on an upcoming funding need for your non-retirement goal. While we seek to construct Portfolios using tax efficient allocation, we do not monitor accounts for wash sales within the Portfolio. A wash sale occurs when a taxpayer sells a security at a loss and has purchased or purchases the same security, or a substantially similar security, over a 61-calendar day period (the 30 days before the sale and the 30 days after sale). Trades that occur in your accounts (or a spouse's) not managed by Digital Advisor could also result in a wash sale. If a wash sale occurs, the IRS may disallow or defer the loss for current tax reporting purposes. For more information on the wash sale rule, consult the IRS website or your tax advisor.

We will modify our approach to tax-efficient investing based on continuing portfolio construction research performed by the Vanguard Investment Strategy Group and Vanguard Enterprise Advice Group or relevant changes in tax laws.

#### *Reasonable restrictions*

When requesting that Digital Advisor manage your enrolled accounts, you'll have the ability to impose reasonable restrictions on the management of your Portfolio by personalizing the inputs into your retirement accumulation goal beyond standardized defaults to create your Personalized Glide Path. Subject to eligibility screening at the time of enrollment as well as an ongoing breakeven analysis, you will be permitted to retain investments purchased prior to enrollment that differ from Digital Advisor's lead advice recommendation. In particular for assets held in taxable brokerage accounts, if you hold securities at enrollment that provide a portion of the target asset allocation then you will be permitted to retain those securities subject to a breakeven analysis. Although these securities are only retained if they meet a target asset allocation, their investment strategies may present different risks than Digital Advisor's lead advice recommendations. We require that your Portfolio remain diversified by asset class and within each asset class to ensure that no single security or class of securities will impose an unreasonable level of risk. If we believe that the restrictions are inappropriate for you, we'll notify you that we are unable to accommodate your request and we may need to remove particular accounts from the Portfolio of the ongoing advised service or terminate the ongoing advised service.

As described above, plan participants may, if the option is permitted by your plan fiduciary, request to hold company stock in a Participant Account (a single stock) if it was obtained prior to enrollment in VAI's direct investor advisory offers. Restrictions on company stock holdings are subject to the policies outlined above under the subheading "**Diverse investments, primarily consisting of low-cost Vanguard ETFs and Funds**". Additionally, a plan fiduciary may request asset allocation modifications to require a minimum fixed income allocation as a reasonable restriction for participants enrolled by the plan fiduciary. These restrictions do not apply once a participant enrolls directly into Digital Advisor.

Certain investments that you may request such as holding individual stocks may not offer the same degree of diversification, liquidity, or performance consistency that may be available with the Vanguard Funds we normally recommend.

#### *Multi-goal Limitations*

You can plan a non-retirement investment goal with a single goal target date that is at least eighteen months from the day you add the goal to your plan. Digital Advisor does not currently permit you to set goals past the age 59 1/2. Currently, adding investment goals other than retirement is only available to Clients born after 1965. We have shortened the eligible age range and limited goal setup because Digital Advisor does not currently incorporate rules around withdrawing from retirement tax advantaged accounts (e.g., IRA, 401k).

#### *Portfolio Rebalancing*

On each day that the markets are open for trading, Digital Advisor will typically look to assess Portfolios for whether a rebalancing opportunity exists consistent with Digital Advisor's investment strategy and the following criteria ("Rebalance"). Under normal circumstances, if any asset class (stocks, bonds, or cash) is off the target asset allocation by more than 5%, the Portfolio will be rebalanced to its target allocations (asset and sub-asset) or, in the future, within allowable guardrails pending embedded tax cost. Additionally, we will check to see if the target asset allocation has changed as prescribed by our investment strategy, as applicable. For cash

equivalent positions in the Portfolio, rebalancing for Vanguard Brokerage Accounts will only occur if there are sufficient funds to purchase whole shares of the required ETFs. If your plan includes multiple goals then Digital Advisor will calculate and use an overall weighted asset allocation to rebalance the portfolio, if needed, based on whether the current asset allocation is off from the weighted target asset allocation for all of your goals collectively by +/-5%. Additionally if your plan includes multiple goals and your taxable account asset allocation is off of its target asset allocation by +/-5%, a rebalance will occur. As a result of additional rebalancing checks for Portfolios with multiple goals, it is likely that rebalancing will be more frequent. However, controls have been put into place to limit Rebalances by rounding bond and short-term reserve allocations based on your collective goal-weighted asset allocation. Bond allocations at the Portfolio level will be rounded up and short-term reserve allocations will be rounded down. Digital Advisor will monitor the assets in your settlement fund(s) in these accounts and will look for opportunities to put them to work in accordance with our investment strategy. Balances may remain in your settlement fund in Vanguard Brokerage Accounts for an extended period of time, generally less than \$300. Additionally, we will check to see if the target asset allocation has changed as prescribed by our investment strategy, as applicable. In certain situations, de minimis investments may be added to Participant Accounts in accordance with plan terms (for example, as a result of dividends or rebates from investments held in your account prior to the management by Digital Advisor). Digital Advisor will sell down these investments and rebalance to the target allocation as described above, but no less frequently than on a monthly basis.

Digital Advisor reserves the right to abstain from assessments on a given day for technical or market infrastructure reasons. For example, if your Vanguard Brokerage Account is on hold or in a restricted status, for any reason, including waiting for confirmation of an address change or other client identification information then Digital Advisor will not be able to assess your Portfolio. In the event that your Vanguard Brokerage Account(s) remains on hold or restricted for longer than 45 days then those accounts will be un-enrolled.

If your ability to bear risk, your investment time horizon, your financial situation, or your overall investment objectives change, you should update your information on the DA Website and Interface so that Digital Advisor can take these considerations into account when reviewing your asset allocation target. We won't change the recommended asset allocation based on current or prevailing market conditions, but changes to your Personal Characteristics and goal inputs may warrant a change in our recommended asset allocation in order to align with your financial goals if your resulting PGP shifts beyond guardrails.

#### *Securities recommendations and risk*

##### Vanguard Brokerage Accounts

Digital Advisor uses Vanguard ETFs as the underlying investments in managed Portfolios. Equity portions of an investor's portfolio are invested in Vanguard Total Stock Market ETF and Vanguard Total International Stock Market ETF and bond portions are invested in Vanguard Total Bond Market ETF and Vanguard Total International Bond ETF. When short-term reserves/cash is recommended as part of the strategic asset allocation target for non-retirement financial goals, the Vanguard Cash Reserves Federal Money Market Fund will be used. The Vanguard Federal Money Market Fund serves as the settlement fund for Vanguard Brokerage Accounts.

If you enroll both Vanguard Brokerage Accounts and Participant Accounts then other Vanguard ETFs, such as Vanguard FTSE Developed Markets ETF, Vanguard FTSE Emerging Markets ETF, Vanguard S&P 500 ETF, Vanguard Extended Market ETF, Vanguard Growth ETF, Vanguard Value ETF, Vanguard Short-Term Bond ETF, Vanguard Intermediate-Term Bond ETF, or Vanguard Long-Term Bond ETF could be recommended in order to achieve Digital Advisor's desired asset allocation for you depending on the Participant Account recommendations. In certain circumstances, based on your Portfolio's composition relative to your target asset allocation as well as consideration of potential tax consequences of selling assets to achieve your target asset allocation, other ETFs such as Vanguard S&P 500 ETF or Vanguard Extended Market ETF could be recommended to better satisfy the sub-asset class targets to achieve a diversified portfolio.

#### 401(k) Plan participant accounts

Investment recommendations generated for participants in eligible employer-sponsored retirement plans will recommend an allocation based on the investment options selected by the plan fiduciary as the plan core lineup and will typically recommend a combination of specific Vanguard Funds or affiliated collective investment trusts based on their low cost and broad diversification, if available in the eligible employer-sponsored retirement plan. While Digital Advisor's lead portfolio recommendation is to be globally diversified across equity and fixed income asset classes, if your plan fiduciary does not offer a currency-hedged international fixed income index fund or comprehensive international equity exposure, Digital Advisor will use a US aggregate bond index fund for fixed income asset allocation exposure or developed equity investments, Digital will construct your Portfolio using a US aggregate bond index fund or developed equity investments, respectively. By enrolling a Participant Account, you will be directing us to apply our asset allocation methodology to invest in funds offered in your plan's core lineup as it exists today and as that lineup may be changed by your plan fiduciary in the future.

Although Digital Advisor's investment strategy is designed to be prudent and diversified, please remember that all investments, including mutual funds, ETFs, and collective investment trusts involve some risk, including possible loss of principal. Be aware that fluctuations in the financial markets and other factors may cause declines in the value of your account(s). There's no guarantee that any particular asset allocation or mix of funds will meet your investment objectives or provide you with a given level of income. We make investment recommendations using historical information. There's no guarantee that an investment strategy based upon historical information will meet your investment objectives, provide you with a given level of income, or protect against loss, particularly when future market conditions are drastically different from the information used to create your strategy. Diversification doesn't ensure a profit or protect against a loss. There's no assurance that you'll achieve positive investment results by using our service. We can't guarantee the future performance of your investments. Please consult a fund's prospectus or plan disclosures for more information about fund or investment specific risks. You should carefully consider all of your options before enrolling or acting upon any advice you receive.

### *Risks associated with usage of an algorithm*

Our proprietary algorithms are based on Vanguard's market assumptions and analysis. The algorithms don't consider prevailing market conditions when making recommendations to you. While we have standards governing the development, testing and monitoring of our algorithms, there is a risk that the algorithms and associated software may not perform as intended for various reasons, including unintended consequences due to modifying the algorithms or underlying software code. The United States Securities and Exchange Commission has provided further information for investors to consider when engaging digital advice services. The guidance can be found at [investor.gov/additional-resources/news-alerts/alerts-bulletins/investor-bulletin-robo-advisers](https://www.investor.gov/additional-resources/news-alerts/alerts-bulletins/investor-bulletin-robo-advisers).

### *Goals forecasting – Retirement Accumulation inputs*

We will also provide projections to help you assess your ability to achieve your personalized financial goals. In assisting you with projecting your potential success of accumulating a sufficient amount of savings in order to meet your projected expenses in retirement, Digital Advisor will ask you about 1) your annual contribution amounts, 2) your projected retirement income or spending needs, and 3) an age range when you plan to retire ("Retirement Accumulation Inputs"). In order to help you to explore combinations of the Retirement Accumulation Inputs, the DA Website and Interface will allow you to explore forecasts that leverage different combinations of the Retirement Accumulation Inputs.

After you enter ranges or initial Retirement Accumulation Inputs, we will make an initial assessment of whether there are multiple combinations of your Retirement Accumulation Inputs resulting in projections in at least 70% of our market forecasts that your planned investments will cover your estimated expenses in retirement. (See "**Goals forecasting – projected success rates**") We believe that achieving a combination of Retirement Accumulation Inputs that results in supporting your annual living in at least 70% of our market forecasts suggests you are moderately funded to meet your savings goal. If we forecast multiple combinations of your Retirement Accumulation Inputs that will result in you being on track, we will initially suggest three different combinations of the Retirement Accumulation Inputs that result in projecting you will be on track based on how close those combinations are to the information you provided. We may also provide you options for you to retire earlier within your specified retirement age range by suggesting a combination of the Retirement Accumulation Inputs where results in projections in at least 70% of our market forecasts that your planned investments will cover your estimated expenses in retirement. You will have an option to view more options or proceed to the next stage of goal forecasting where you can vary any of the Retirement Accumulation Inputs to see different forecasts. These combinations illustrate a variety of ways you may be able to achieve their desired monthly income at retirement during the age range they indicated as preferred for retirement. Options illustrate the tradeoffs you may need to make to achieve an earlier retirement age (increased contributions and/or decreased monthly income at retirement), as well as the benefits of retiring on the later end of their preferred range (including lower monthly contributions and/or higher income at retirement).

If Digital Advisor projects that your goal is forecasted to be off track, we will not suggest alternative combinations of the Retirement Accumulation Inputs, but rather direct you to the next stage of goal forecasting where you can vary any of the Retirement Accumulation Inputs to view the resulting goal success forecasts.

### *Goals forecasting – non retirement investment goal inputs*

When you start planning a non retirement investment goal, Digital Advisor will ask you when you want to reach your goal and how much money you need for your goal. Subject to availability, you can select to fully fund your non retirement investment goal either using self- managed accounts or managed accounts. If you plan a goal using self-managed account those goals are incorporated for purposes of forecasting only (subject to the limitations detailed below) and that information will not impact your investments. Using the self-managed accounts you connected as well as managed to project your retirement goal, you can use the interactive forecast to model how increasing your savings in your taxable accounts could impact the likelihood of success of achieving your non-retirement financial goal as well as project potential impact on your retirement accumulation goal. Digital Advisor’s multiple goal projection forecast seeks to visualize tradeoffs and interdependency of goal choices. Goals are projected to be funded based on the order in which they are due and funding should be available within a year of the goal target date to conservatively by providing early liquidity and minimizing volatility as a goal approaches distribution. For non-retirement investment goals, managed and self-managed taxable assets will be included as available assets to fund goals and provide goal projections for goal success rates based on pooling all accounts.

### *Assumptions about non-Portfolio accounts in goals forecasting*

For prospective Clients without an existing Enrolled Account, we will make a default assumption that the amount you enter for your retirement savings is taxable for purposes of providing you an initial goal forecast to avoid overstating financial projections until we learn more about you and your accounts.

You will have the option to add balances of accounts held outside of the Portfolio (including other Vanguard accounts) into goals forecasting, but not enroll those accounts. If you wish you can obtain a more holistic projection of your potential goal success by including these self-managed assets, however, there will be additional assumptions, see below, made about self-managed accounts that limit the quality of the hypothetical forecasts. In particular, all taxable (managed and self-managed) accounts aligned with your retirement goal will be assumed to be available for custom goals for purposes of goal projections. All taxable savings and balances will be treated as fungible assets that can be applied toward custom goals. However, Digital Advisor’s investment strategy will be based solely on non-retirement investment goals that you state will be 100% funded using only your taxable enrolled accounts. As a result, your funding status could be over overstated if your projections include self-managed and managed taxable accounts.

We will use the same index returns noted in the section below entitled “**Goals forecasting – projected success rates**” for the forecasting model to project your likelihood of success based on both outside accounts and accounts held in the Portfolio (or projected to be held in the Portfolio as part of the goal forecasting). If your accounts held outside the Portfolio (either at Vanguard or at another financial institution) aren’t invested in a similar manner as the Portfolio, your actual investment results may vary significantly from our likelihood of success projections. A variance in the actual asset allocation of your accounts held outside of the Portfolio could significantly impact your likelihood of reaching a goal within the indicated time frame and with the exception of the account balance, such a variance would not be reflected in the projections.

If your goals are forecasted using accounts held outside of the Portfolio (including other Vanguard accounts), the projections are calculated based solely on the information that you provide us with respect to the dollar amount of securities held in those accounts and your rate of contributions to those accounts. You may provide us with such information manually or through the usage of certain third-party financial data aggregation services. We will continue to rely upon the information you provide for as long as your goals are supported by such accounts. We will not independently verify or update this information. You are responsible for the accuracy of the information you provide whether manually or through third-party services. You may update the dollar amount of securities in accounts held outside of the Portfolio and your rate of contributions within the DA Website and Interface or by authorizing a third party financial data aggregation service to refresh the data. Digital Advisor does not take this information about non-Portfolio accounts into account to manage your asset allocation and recommend investments for your Portfolio.

#### *Goals Forecasting – projected success rates*

To cover a broad range of outcomes, Digital Advisor's forecasts will generate 10,000 scenarios to measure your likelihood of success of reaching your goals. Projections use forecasted index returns for equities, bonds, and cash, which are used to represent the hypothetical returns of the asset classes in your Portfolio (or potential portfolio for Clients who have not yet enrolled). These forecasted index returns as well as inflation rates are provided through the Vanguard Capital Markets Model® ("VCMM"), developed by the Vanguard Investment Strategy Group, which is discussed in more detail later.

Projections are based upon the account types and the balances of those accounts that you include in your goal planning. You may elect, in your discretion, whether to use the interactive tools to model only enrolled accounts or also accounts held outside of your enrolled Portfolio which could introduce additional imprecision into the model. This election is made by selecting the accounts that are connected to all of your goals and cannot be modified at the individual goal level. Our goals forecasting model uses the same index returns to represent estimated returns of the asset classes in all of your accounts supporting your goals in your Portfolio. Index returns for fixed income and equity products are reduced by 0.20% annually, and index returns for money market/cash/short-term reserves are reduced by 0.11% annually to account for hypothetical expenses and advisory fees. Because our forecasting model uses index returns it does not use actual returns of specific investments held within your accounts. Inflation is modeled based on historical data from 1960 through the most recent year-end and simulated going forward.

The likelihood of success projections for your goals do not attempt to predict or portray the future performance of any securities held in accounts supporting your goals rather they are market projections aligned with your expected asset allocations. The forecasts are hypothetical projections based on statistical modeling of current and historical data. They aren't a guarantee of future results or a guarantee of the success rate of the simulated outcomes. Although we believe that the forecasts may reasonably project your likelihood of reaching your goals as supported by accounts invested in a diversified portfolio of Vanguard Funds or collective investment trusts, such projections may not correlate well to other assets held by you in any accounts that are not invested in accordance with our lead advice methodology. Accordingly, your actual investment results may vary significantly from our projections.

We also project your lifetime cash flows—inflows from investment income and other sources

and outflows from spending—to assess whether your investments can adequately support your retirement income needs over your lifetime as well as your non-retirement investment goals, as applicable. We evaluate many factors in assessing your current and future cash flows, including:

- Projected and known expenses, including annual living expenses and other periodic expenses identified by you.
- The impact of adjusting your annual living expenses based on inflation projections as forecasted by our internal Vanguard Capital Markets Model (VCMM).
- Projected income, including employment, Social Security, pension, and income from investments.
- Funding non-retirement financial goals required by the beginning of the year of the goal target date.
- Current contributions are assumed to continue until retirement
- Projected savings are for an entire year, and any contribution already made during the year will be adjusted against the projected savings amount.
- The impact of variables, such as inflation and income taxes.
- The impact of different market scenarios on the rates of return used to project the likelihood of success of reaching your retirement goal.

We simulate your expected inflows and outflows each year through your expected planning horizon, and using each individual scenario's unique forecasted return and inflation assumptions, we project your likelihood of reaching your retirement goal as well as your non-retirement investment goals, as applicable. As part of your projected outflows, Digital Advisor forecasts your annual expenses based on our inflation projections and does not factor in market appreciation or depreciation. Additionally, after your planned retirement age, any projected spending shortfall is assumed to be taken from your non-retirement assets to make up the difference. Additionally, any surplus is assumed to be consumed in the year it occurs rather than reinvested. For participants that identify as retired, Digital Advisor will provide five year spending projections based on these assumptions.

In projecting the asset allocation for multiple goals, the forecast allocates funding to goals in the order in which they are due. If two goals are planned for the same goal target date, then funding is projected to be allocated to the goal with the lowest dollar amount. Multi-goal projections also assume funding should be available at the beginning of the year of your goal target date to conservatively provide early liquidity and minimizing volatility as a goal approaches distribution.

The overall likelihood of success measure for your retirement goal represents the percentage of the 10,000 hypothetical scenarios in which your balance in your accounts is above zero at the end of the planning horizon you select as part of the goal planning in Digital Advisor. For the retirement goal, Digital Advisor assumes a time horizon for retirement (time in retirement) of age 100 unless you input a different age. In other words, our projections represent the percentage of hypothetical scenarios in which the accounts supporting your retirement goal have at least a \$1 balance remaining as of your 100<sup>th</sup> birthday. The overall likelihood of success measure for your non-retirement investment goal represents the percentage of the 10,000 hypothetical scenarios in which the balance in your accounts available to fund the goal more than or equal to the target goal amount you indicated.

### *Index Benchmarks used in the projections*

The returns used in the projections for your goals are based on the following historical index data:

- We use historical index data for U.S. bond market returns to forecast future bond market returns correlated with your expected bond allocation. For U.S. bond market returns, we use the Barclays U.S. Aggregate Bond Index.
- We use historical index data for U.S. short-term reserve returns to forecast future short-term reserve market returns correlated with your expected short-term reserve allocation. We calculate U.S. short-term reserves returns on the basis of 3-month constant-maturity yields dating back to 1960, also provided in the Federal Reserve's Statistical Release H.15.
- We use historical index data for U.S. stock market returns to forecast future equity market returns correlated with your expected equity allocation. For U.S. stock market returns, we use the MSCI US Broad Market Index. For international stock market returns, we use the MSCI All Country World ex USA Index.

While Digital Advisor recommends that you invest a portion of your equity and bond allocations in securities with international exposure as part of its lead investment recommendation, the projections do not use historical index data for international bond market returns when forecasting your goal(s) because of the lack of long-term international benchmark data. Additionally, if your Portfolio contains investments that deviate from an investment allocation that does not seek to track the market (see Reasonable Restrictions above) or you elect to include accounts held outside of the Portfolio (including other Vanguard accounts) the historical index data we use to forecast the stock and bond markets and the expected asset allocations will differ from your actual investment exposure. As a result, to the extent your investments deviate from diversified market exposure (including more concentrated exposure) your actual experience will be less correlated with the market forecasts in the goal projections.

### *Vanguard Capital Markets Model ("VCMM")*

VCMM is a proprietary, state-of-the-art, financial simulation tool developed and maintained by the Vanguard Investment Strategy Group. The VCMM uses a statistical analysis of historical data for interest rates, inflation, and other risk factors for global equities, fixed income, and commodity markets to generate forward-looking distributions of expected long-term returns. The asset return distributions used in the goals forecasting models are drawn from 10,000 VCMM simulations based on market data from 1926 for the equity markets and from 1960 for the fixed income markets through the most recent year-end. The forecasts provided by the VCMM are updated annually to incorporate the most recent market data, though we may update the data more frequently in cases of major market events.

The VCMM is grounded on the empirical view that the returns of various asset classes reflect the compensation investors receive for bearing different types of systematic risk, a measure of the volatility of a security or a portfolio relative to a benchmark, also known as beta. Using a long span of historical monthly data, the VCMM estimates a dynamic statistical relationship among global risk factors and asset returns. Based on these calculations, the model uses regression-based Monte Carlo simulation methods to project relationships in the future. A regression-based Monte Carlo framework incorporates the uncertainty of any asset class that's produced by basic Monte Carlo simulation and also captures the dynamic relationships among

certain assets and risk factors. By incorporating a variety of macroeconomic and financial risk factors into the return-generating process, a regression-based Monte Carlo framework generates financial simulations that are responsive to changes in the economy. By explicitly accounting for important initial market conditions when generating its return distributions, the VCMM framework departs fundamentally from more basic Monte Carlo simulation techniques.

#### *Limitations of the quantitative analysis*

Projections generated by the VCMM are based both on estimated historical relationships and on assumptions about the risk characteristics of various asset classes. As a result, the accuracy of VCMM forecasts depends on the relevance of the historical sample in simulating future events. The projections are hypothetical in nature, don't reflect actual investment results, and aren't guarantees of future results.

#### *Emergency savings and next dollar guidance:*

Digital Advisor will provide guidance on how to set emergency savings goals. Guidance provided helps you define target thresholds for cash or cash equivalent holdings that could be liquidated at no cost, such as assets at a loss in a taxable account or where basis equals market value to address potential spending shocks. Additionally, Digital Advisor will also provide guidance how to balance competing financial objectives, such as wanting to contribute more money to your retirement accounts, pay down debt, or save for an emergency.

## Disciplinary information

VAI has no material legal or disciplinary information to disclose.

## Other financial industry activities and affiliations

#### *The Vanguard Group, Inc.*

VAI is 100% owned by Goliath, Inc., a Delaware corporation, which is wholly owned by Vanguard. Vanguard, also a registered investment advisor, provides a range of investment advisory and administrative services to the Vanguard Funds.

When giving advice to Clients, we will recommend the purchase of Vanguard Funds serviced by our corporate parent, Vanguard. We address the competing interests that arise between us and our Clients as a result of recommending proprietary funds by relying on our time-tested investment philosophies and beliefs, such as the benefits of low costs, diversification, and indexing, when formulating target allocations for Clients. We disclose to prospective Clients that we recommend Vanguard Funds prior to, or at the establishment of, the advisory relationship. Acting in accordance with our advice to purchase Vanguard's proprietary funds will result in the payment of fees to the Vanguard Funds that are separate from, and in addition to, any advisory fees assessed by us.

#### *Vanguard Marketing Corporation*

Shares of the Vanguard Funds are marketed and distributed by VMC. VMC's marketing and distribution services are conducted in accordance with the terms and conditions of a 1981 exemptive order from the SEC, which permits Vanguard Funds to internalize and jointly finance such activities. Each Vanguard Fund (other than a fund of funds) or each share class of a fund (in the case of a fund with multiple share classes) pays its allocated share of VMC's marketing

costs. VMC doesn't receive transaction-based compensation in connection with the distribution of the Vanguard Funds.

When giving advice to Clients, we will recommend the purchase of Vanguard Funds distributed by our affiliate, VMC. Since VMC doesn't receive transaction-based compensation in connection with the distribution of the Vanguard Funds, the competing interests that arise from our affiliation with VMC in its role as distributor of the Vanguard Funds are mitigated. However, to the extent that you maintain a retail brokerage account with VMC as part of the Portfolio, VMC may receive compensation from you that's separate from, and in addition to, the advisory fees payable to us. Please see the section of this brochure entitled "**Brokerage practices**" for more information about brokerage charges and other fees and expenses you may experience as a result of enrolling your Vanguard Brokerage Account in our service. Digital Advisor will not use information that you provide solely VMC (e.g. purpose of account opening) as the basis for the management of your Portfolio.

Certain members of our management and our advisors are registered representatives of, or are affiliated with, VMC. Please refer to the Supplement to the Vanguard Digital Advisor Brochure for further information.

#### *Vanguard Fiduciary Trust Company*

We are also affiliated with VFTC, a limited-purpose trust company incorporated under the banking laws of the Commonwealth of Pennsylvania and a wholly owned subsidiary of Vanguard. VFTC serves as trustee and investment advisor for certain collective investment trusts offered by Vanguard as eligible investment options by some retirement plans. We may recommend the purchase of Vanguard collective investment trusts serviced by VFTC. Additionally, VFTC serves as directed trustee for certain employer-sponsored retirement plans covering participants. VFTC also serves as custodian for traditional IRAs, SEP-IRAs, and Roth IRAs (collectively referred to as "Vanguard IRAs"). VFTC may charge reasonable custodial fees with respect to the establishment and maintenance of your Vanguard IRAs at any time during the calendar year. You should consult the Disclosure Statement and Custodial Account Agreement governing your Vanguard IRAs, or your Annual Plan Fee Disclosure Notice, for more information relating to VFTC's fees and services provided.

#### *Vanguard National Trust Company*

Vanguard National Trust Company ("VNTC") is a federally chartered, limited-purpose trust company regulated by the Office of the Comptroller of the Currency, which serves as corporate trustee and provides investment advisory services to certain high net worth clients of Vanguard's Retail Investor Group under Vanguard Personal Advisor Services. VNTC was chartered in 2001, but its business has been in operation since 1996. VNTC is a wholly owned subsidiary of Vanguard.

## Code of ethics, participation or interest in client transactions, and personal trading

VAI operates under a code of ethics that complies with Rule 17j-1 of the Investment Company Act of 1940 and Rule 204A-1 of the Investment Advisers Act of 1940.

The code sets forth fiduciary standards that apply to all employees, incorporates Vanguard's insider trading policy, and governs outside employment and receipt of gifts. Additionally, the code imposes restrictions on the personal securities trading of Vanguard employees, as well as reporting requirements. The trading restrictions and reporting requirements are more involved for employees that have access to information about Vanguard Fund trading activity or Vanguard client trading activity and are designed to ensure that Vanguard employees don't misuse fund or client information for their own benefit.

Vanguard will provide a copy of its code of ethics to any Client upon request at no charge.

Please see the previous section of this brochure above entitled "**Other financial industry activities and affiliations**" for a discussion of VAI's affiliations with other Vanguard entities and how those affiliations may impact clients of VAI.

## Brokerage practices

### Enrolled Vanguard Brokerage Accounts

This section regarding Brokerage practices applies to retail clients with enrolled Vanguard Brokerage Accounts. You will be required to establish or use an existing Vanguard Brokerage Account held through our affiliated broker-dealer, VMC, for those securities, and you'll agree in your Service Agreement for Digital Advisor to execute all Portfolio brokerage transactions through VMC. Transactions executed in a Vanguard Brokerage Account will be subject to VMC's usual and customary fees, markups, commissions, and charges, as well as bid-ask spreads, separate and apart from the gross advisory fees assessed by us. (However, if these fees are assessed and retained for purposes of generating revenue, they are included in the fee credit described above).

Digital Advisor typically starts sending trade orders for execution to our trading venues, at or near 10:00 a.m. each day, and, depending on trading volumes and appropriateness, may trade throughout the day. It is important to note that, retail clients give investment discretion to Digital Advisor to manage and make trades in their account(s), and, as such, Digital Advisor will initiate or pause trading at its discretion at any time and for any reason, including pausing trading when Digital Advisor believes that continuing trading may pose undue risk of harm to your Portfolio. In the event that we suspend or delay trading, requests to withdraw and transfer cash from enrolled accounts continue to be honored. However, there may be a delay in the Digital Advisor's ability to liquidate securities to cover requests for withdrawals in excess of the cash in enrolled accounts, or to invest existing or new cash balances.

To limit adverse price effects that you could experience if VAI submitted brokerage trades in bulk to the secondary markets at a single point in time, we've designed a fair and equitable system for handling automated brokerage trades that doesn't systematically disadvantage any Client. We aggregate trades among Clients and PAS clients for the purpose of minimizing transaction costs while seeking best execution on behalf of our clients. When VAI aggregates trades, they may be aggregated along with trades recommended for clients of VNTC, an affiliate of VAI. This means trades of certain VAI and VNTC clients may be combined for execution in the secondary market.

Except as provided below, where we aggregate trades, we first seek to reduce transaction costs by employing cross trading among the advised accounts of VAI and VNTC clients who are buying or selling a particular Vanguard ETF capable of being cross traded on that business day. To do so, we determine the net amount of our clients' buys and sells that can be aggregated for a particular Vanguard ETF on that business day and match up the trades of as many of those buyers and sellers as possible on a pro rata basis across all the clients participating in the aggregate trade. With this practice, individual advised clients are selling their Vanguard ETFs to other advised clients and thereby avoiding having those trades sent to the secondary markets for execution. We'll price all crossed trades at the then prevailing market price as determined by the midpoint between the national best bid and offer. Any portion of the aggregate trade unable to be executed through cross trading will be submitted as a residual aggregate trade to the secondary markets in an attempt to complete any unfilled orders for that Vanguard ETF.

Where VAI aggregates trades, VAI will calculate an average price for all of the Vanguard ETFs bought or sold together, and Clients who participated in the aggregated trade will receive that average price for the Vanguard ETFs traded for them. The average price we assign to individual trades that were aggregated may be greater or less than the price an individual client's order would've received if not traded using aggregation and cross trading. Further, if we're unable to completely fill the residual aggregate trade, we'll distribute the Vanguard ETFs purchased or the proceeds received from such aggregate transaction to the clients who participated in the residual aggregate trade on a pro rata basis. We'll initiate or pause automated trading at our discretion at any time and for any reason, including pausing trading when we believe that continuing trading may pose undue risk of harm to your Portfolio.

Aggregation and cross trading are not available to all account types, security types, or order types. You'll only be able to participate in aggregation and cross trading in certain automated trades of Vanguard ETFs submitted on your behalf from your Vanguard Brokerage Account. Accounts that are governed by ERISA generally are not permitted to engage in cross trading. Clients who are not permitted to participate in aggregation and cross trading might receive a different, possibly worse, price for the securities bought and sold on their behalf.

Where VAI is selling your entire position in stocks or ETFs and the position includes fractional shares, the fractional shares liquidate automatically on the settlement date at no additional cost to you. VMC will purchase the fractional shares from you on a principal basis at the same price at which the whole shares executed.

Periodically, we conduct due diligence to review the execution quality of any transaction services provided by VMC for Clients' Portfolios, primarily to oversee VMC's compliance with its best execution practices. VMC routes equity and option orders to various markets. VMC uses a top-down approach in selecting market participants with which VMC will establish a relationship. This approach includes a review of system availability and quality of service, as well as financial and regulatory standing. The designated market participants to which orders are routed are selected based on the consistent high quality of their executions in one or more market segments. In analyzing quality of executions, VMC considers factors such as liquidity enhancement, price improvement, execution speed, and overall effective price compared with the national best bid or offer ("NBBO"). VMC regularly conducts analysis and reviews reports in order to evaluate quality of execution.

Other investment advisors may not require you to direct brokerage transactions through a specified broker-dealer. By directing brokerage transactions to VMC, we may be unable to achieve most favorable execution of your transactions, and this practice may cost you more money.

### **Enrolled 401(k) Plan Participant Accounts**

Digital Advisor will not provide recommendations on individual securities held through a brokerage window. Therefore, Digital Advisor does not select or recommend broker-dealers for client transactions for Participant Accounts.

## **Review of accounts**

This section regarding the review of accounts applies to those Clients who have enrolled in Digital Advisor's ongoing discretionary advisory service. Clients of the ongoing advised service will have access to their Portfolio information through the DA Website and Interface. As part of Digital Advisor's Rebalance, we will evaluate and monitor the Portfolio.

We don't perform ongoing account monitoring or offer account reviews for users who enter information on the DA Website and Interface to plan financial goals, but who do not enroll their accounts and receive ongoing advice services under the terms of the DA Agreement. Financial planning tools that are available prior to signing the DA Agreement, are provided solely for your information and education.

### *Initial Enrollment*

Upon completing your enrollment, Digital Advisor will place trades, typically within 1-2 business days, based on the funds available in your account in order to rebalance your account into our recommended asset allocation for you. By enrolling an account in Digital Advisor, you are giving Digital Advisor an express order to sell any full or partial positions in that account that do not fit in with our recommended asset allocation, and invest the proceeds according to our investment strategy. These initial sells, directed by you, are subject to commissions and fees. VMC does not charge commissions on ETF, stock, and most fund trades, but you may be subject to purchase and redemption fees), and standard settlement time frames. We will place those initial trades— typically after 10 a.m. on the following business day – without consideration of the current market value or all tax implications (if applicable). In the event that we are unable to sell any of the positions in your account, we will attempt to contact you; if we are unable to reach you, we reserve the right to terminate your enrollment.

### *Adjusting the asset allocation*

For Clients, Digital Advisor will assess your asset allocation if you inform us that your Personal Characteristics have changed including your ability to bear risk changes or if you add additional goals, but we won't change the asset allocation based on market conditions. Each business day, we will review your target allocation in relation to your investment time horizon to determine if changes to the allocation are necessary. Digital Advisor reserves the right to abstain from assessments on a given day for technical or market infrastructure reasons. The Portfolio's target allocation will also change based on changes to your financial situation and financial goals, in particular, changes to your Personal Characteristics. Changes in your target asset allocation will

cause us to recommend and effect the purchase or sale of securities in your Portfolio in order to meet the new target asset allocation, subject to the rebalancing guardrails below.

### *Rebalancing the Portfolio*

For Clients or, if your Portfolio is found to deviate from the target asset allocation by more than 5% in any asset class during a daily Rebalance, under normal market circumstances, we will rebalance your Portfolio using our investment methodologies and strategies aligned with your financial goals. Securities contributing to over-weighted sub-asset classes will be sold and the proceeds invested in underweighted sub-asset classes in accordance with your financial goal.

We will attempt to minimize the tax costs associated with rebalancing your Portfolio. If the Portfolio consists of both taxable and tax-advantaged account registrations, we'll first attempt to rebalance within the tax-advantaged accounts to attempt to limit tax costs. In addition, we'll follow a tax-efficient "asset location" strategy to consider the tax implications of repositioning investments within the taxable accounts and among the taxable and tax-advantaged accounts. This strategy will follow similar practices as those used during implementation of your Portfolio to hold relatively tax-efficient investments, such as broad-market stock index products, in taxable accounts while keeping relatively tax-inefficient investments, such as taxable bonds, in tax-advantaged accounts. In the event your Portfolio is found to deviate from the target asset allocation by 5% or less in all asset classes, individual investments may still be reviewed and sold, if determined to be appropriate.

Additionally, we will use cash flows as an opportunity to adjust your holdings towards your target allocation. That is, we will invest your contributions or liquidate your withdrawals in a manner that adjusts your overall allocation back towards your target allocation, in order to minimize transaction and tax costs. If your contribution or additional proceeds are designated to purchase new ETF shares we will rebalance in a manner that purchases whole shares of the needed ETFs in your Vanguard Brokerage Account. If you have residual cash in your Vanguard Brokerage Account and it's not enough to purchase the necessary shares of ETFs, then the cash will continue to be held until the next rebalancing opportunity.

As owners of Vanguard Funds, Digital Advisor's clients will receive or have access to communications with respect to those securities. These communications include transaction confirmations, quarterly account statements, prospectus updates, annual and semiannual reports, and proxy statements relating to their holdings (as appropriate), as well as general Vanguard newsletters, emails, and other communications.

## Client referrals and other compensation

We don't receive compensation or other economic benefits from persons other than clients for providing investment advice or advisory services to clients. We'll run prospecting and promotional campaigns from time to time to attract new clients to Digital Advisor ("Referral Programs"). These Referral Programs may include compensating affiliates, strategic partners, or third-party solicitors for referring Digital Advisor to prospects. Compensation will include flat fees or payments based on certain performance triggers, like enrolling in Digital Advisor. Clients aren't charged any fee nor do they incur any additional costs for us running these Referral Programs. We have oversight of third parties involved in the Referral Programs, and prospects will be informed of any such Referral Programs receiving compensation prior to becoming a

Client. Note that Vanguard affiliates will also receive compensation in the form of expense ratios from Vanguard Funds and revenue sharing with third party funds as discussed in the “Fees and Compensation” section above.

## Custody

If you hold a mutual fund account directly with Vanguard, you will receive quarterly or more frequent account statements from Vanguard, the transfer agent of the Vanguard Funds, in lieu of a qualified custodian. Vanguard will also transmit transaction confirmations to you in connection with purchases and sales made in your Vanguard mutual fund account.

If you enroll a Participant Account, VFTC serves as the qualified custodian for the plan’s assets. You will receive quarterly, or more frequent, plan account statements from Vanguard, in its capacity as plan recordkeeper.

If you enroll a Vanguard Brokerage Account, VMC serves as qualified custodian and will send quarterly or more frequent account statements directly to you. VMC will also transmit transaction confirmations to you in connection with purchases and sales made in your Vanguard Brokerage Account (provided that VMC may furnish periodic statements of account activity in lieu of transaction confirmations in compliance with Rule 10b-10 of the Securities Exchange Act of 1934).

You should carefully review and compare all account statements and reports from Vanguard and VMC with any account information made available by us and contact the appropriate entity with any questions.

## Investment discretion

When you decide to enroll accounts, you are providing Digital Advisor full discretionary trading and investment authority over those accounts subject to the DA Agreement. As a result, Digital Advisor will have full discretionary authority over the investments selected for your Portfolio, and the timing and size of purchases and sales within your Portfolio. Digital Advisor is not designed to provide a comprehensive financial plan to Clients. Rather, the DA Website and Interface seeks to help Clients define their financial goals and designate investment accounts for which they would like Digital Advisor to exercise discretionary management.

In order to manage your accounts, we will have the authority, on your behalf, to purchase, sell, exchange, or transfer assets; rebalance and reallocate assets; modify our investment strategies; and execute other necessary and appropriate transactions, including transmitting verbal, written, or online instructions to effect transactions, at the times and according to the terms established in the DA Agreement. We may change our investment strategy at any time and without prior notice to you, including changing the investments used for purposes of rebalancing the Portfolio.

We don’t exercise any investment discretion with respect to users who use the financial planning tools and decide not to enroll in the ongoing advised service.

## Voting client securities

### Vanguard Brokerage Accounts

Upon request, Digital Advisor will provide additional information regarding proxy votes and corporate actions for clients enrolled in the ongoing advised service, upon request. The information could include details on the security itself, impact on the Client's Portfolio, and recommended voting by Vanguard or third parties.

We won't vote or exercise similar rights for your securities. The exercise of all voting rights associated with any security or other property held by you shall be your responsibility. We won't advise or act for you in any legal proceedings, including bankruptcies or class actions, involving securities held or previously held by you or the issuers of those securities. Proxies will be delivered directly by the issuer of the security, the custodian, or its agent.

### Participants in certain employer-sponsored 401(k) retirement plans

The responsibility for the exercise of all voting or similar rights associated with any security or other property held in the enrolled Participant Account will be outlined by your plan. Proxies related to plan holdings will be delivered directly by the issuer of the security, the custodian or its agent.

## Financial information

We aren't aware of any financial condition that's reasonably likely to impair VAI's ability to meet contractual commitments to you.

## Requirements for state-registered advisors

VAI is a federally registered investment advisor.

## Investment risks

**Digital risk:** Digital Advisor provides its investment advisory services through digital services (e.g. the DA Website and Interface or the underlying algorithms). It is possible that a digital service or capability may not perform as intended or as disclosed despite diligent design and testing before those services and capabilities are put into production. VAI will monitor and test for potential defects and seek to correct capabilities that do not perform as intended or disclosed.

**Vendor risk:** Digital Advisor's risk assessment process and data aggregation capabilities rely on third-party vendors. It is possible that Clients' ability to use the DA Website and Interface or the projections that Digital Advisor provides could be negatively impacted due to the performance of a third-party vendor. Third-party vendors may limit their liability to Clients.

**Data risk:** Digital Advisor relies on data provided by clients or authorized by clients to be provided by third party vendors. Digital Advisor does not independently verify the accuracy or completeness of provided data. If a client decides to aggregate or integrate external accounts there is no guarantee that information provided by the third-party vendor regarding non-Vanguard accounts will be accurate or complete. Additionally, to the extent Digital Advisor projections and calculations are based on historical market data, labor statistics, or other historic

economic data, models are not updated real-time and there will be a delay in incorporating significant events into models.

**Discretionary manager risk:** It is possible that poor security selection or focus on securities in a particular sector, category, or group of companies will cause one or more of the fund's or ETF's underlying funds—and, thus, the fund or ETF itself—to underperform relevant benchmarks or other funds with a similar investment objective.

**Cybersecurity risks:** The increased use of technology to conduct business could subject VAI and its third-party service providers to risks associated with cybersecurity. In general, a cybersecurity incident can occur as a result of a deliberate attack designed to gain unauthorized access to digital systems. If the attack is successful, an unauthorized person or persons could misappropriate assets or sensitive information, corrupt data, or cause operational disruption. A cybersecurity incident could also occur unintentionally if, for example, an authorized person inadvertently released proprietary or confidential information. Vanguard has developed robust technological safeguards and business continuity plans to prevent, or reduce the impact of, potential cybersecurity incidents. Additionally, Vanguard has a process for assessing the information security and/or cybersecurity programs implemented by third-party service providers, which helps minimize the risk of potential incidents. Despite these measures, a cybersecurity incident still has the potential to disrupt business operations, which could negatively impact VAI and/or Digital Advisor's Clients (including prospective Clients).

*The following summarizes the principle risks of using equity and bond index funds, ETFs, or collective investment trust to achieve the asset allocations in the Digital Advisor's investment strategy. For conciseness the risk description references to "fund" describe risks associated with funds, ETFs, or collective investment trusts.*

**Index sampling risk:** is the chance that the securities selected for a fund, in the aggregate, will not provide investment performance matching that of a fund's target index.

**ETF risk:** Vanguard ETF Shares are not redeemable directly with the issuing fund other than in very large aggregations worth millions of dollars. ETFs are subject to market volatility. When buying or selling an ETF, you will pay or receive the current market price, which may be more or less than net asset value.

**Manager risk:** is the chance that poor security selection or focus on securities in a particular sector, category, or group of companies will cause a fund to underperform relevant benchmarks or other funds with a similar investment objective.

*Equity-specific risks:*

**Stock market risk:** is the chance that stock prices overall will decline. Stock markets tend to move in cycles, with periods of rising prices and periods of falling prices.

**Industry concentration risk:** is the chance that there will be overall problems affecting a particular industry.

**Sector risk:** is the chance that significant problems will affect a particular sector or that returns from that sector will trail returns from the overall stock market. Daily fluctuations in specific market sectors are often more extreme than fluctuations in the overall market. Because a fund invests all, or substantially all, of its assets in a particular sector, the fund's performance largely depends—for better or for worse—on the general condition of that sector.

**Company stock funds:** concentrate on a single stock and are therefore considered riskier than diversified stock funds.

**Investment style risk:** is the chance that:

- Returns from large-capitalization stocks will trail returns from the overall stock market. Large-cap stocks tend to go through cycles of doing better—or worse—than other segments of the stock market or the stock market in general.
- Returns from small- and mid-capitalization stocks will trail returns from the overall stock market. Historically, small- and mid-cap stocks have been more volatile in price than the large-cap stocks that dominate the overall market, and they often perform quite differently.

**International risk or country/regional risk:** is the chance that world events—such as political upheaval, financial troubles, or natural disasters—will adversely affect the value of securities issued by companies in foreign countries or regions. Because a fund may invest a large portion of its assets in securities of companies located in any one country or region, including emerging markets, its performance may be hurt disproportionately by the poor performance of its investments in that area. Country/Regional risk is especially high in emerging markets.

**Emerging markets risk:** is the chance that the stocks of companies located in emerging markets will be substantially more volatile, and substantially less liquid, than the stocks of companies located in more developed foreign markets.

**Currency risk:** is the chance that the value of a foreign investment, measured in U.S. dollars, will decrease because of unfavorable changes in currency exchange rates. Currency risk is especially high in emerging markets.

**Bond-specific risks:**

**Call risk:** is the chance that during periods of falling interest rates, issuers of callable bonds may call (redeem) securities with higher coupons or interest rates before their maturity dates. The fund would then lose any potential price appreciation above the bond's call price and would be forced to reinvest the unanticipated proceeds at lower interest rates, resulting in a decline in the fund's income. Such redemptions and subsequent reinvestments would also increase a fund's portfolio turnover rate.

Call risk is generally low for short-term bond funds, moderate for intermediate-term bond funds, high for long-term bond funds, and high for high-yield bond funds.

**Prepayment risk:** is the chance that during periods of falling interest rates, homeowners will refinance their mortgages before their maturity dates, resulting in prepayment of mortgage-backed securities held by the fund. The fund would then lose any price appreciation above the mortgage's principal and would be forced to reinvest the unanticipated proceeds at lower

interest rates, resulting in a decline in the fund's income. Such prepayments and subsequent reinvestments would also increase a bond fund's portfolio turnover rate.

**Extension risk:** is the chance that during periods of rising interest rates, certain debt securities will be paid off substantially more slowly than originally anticipated, and the value of those securities may fall. This will lengthen the duration or average life of those securities and delay a fund's ability to reinvest proceeds at higher interest rates, making a fund more sensitive to changes in interest rates. For funds that invest in mortgage-backed securities, extension risk is the chance that during periods of rising interest rates, homeowners will repay their mortgages at slower rates.

**Credit risk:** is the chance that the issuer of a convertible security will fail to pay interest or dividends and principal in a timely manner or that negative perceptions of the issuer's ability to make such payments will cause the price of that security to decline.

**Income risk:** is the chance that the fund's income will decline because of falling interest rates. Income risk is generally high for short-term bond funds, low for long-term bond funds, and high for limited-term bond funds.

**Interest rate risk:** is the chance that bond and loan prices overall will decline because of rising interest rates.

**Liquidity risk:** is the chance that the fund may not be able to sell a security in a timely manner at a desired price. Liquidity risk is generally low for short-term bond funds, moderate for intermediate-term bond funds, and high for long-term bond funds.

**Currency hedging risk:** is the risk that the currency hedging transactions entered into by a fund may not perfectly offset the fund's foreign currency exposure.

# Supplement to the Vanguard Digital Advisor Brochure

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This brochure supplement provides information about Vanguard Digital Advisor Services® advisory services under Vanguard Advisers, Inc. (“VAI”), the registered investment advisor that supplements the Vanguard Digital Advisor Brochure. You should have received a copy of the respective brochure. Please contact VAI at the number above if you didn’t receive a brochure or if you have any questions about the contents of this supplement. Additional information about VAI is available on the SEC website at [adviserinfo.sec.gov](http://adviserinfo.sec.gov).

Digital Advisor’s discretionary investment advice is provided by a team and VAI has provided information for the Supervised Persons with the most significant responsibility for the day-to-day investment advisory services to Clients.

Joel Dickson, Ph.D., (1967)

A.B. from Washington University in St. Louis (1989)

Ph.D. in economics from Stanford University (1995)

Joel Dickson is a Vanguard Principal and Global Head of Advice Methodology at Vanguard. Prior to his current role, Joel served as Head of Investment Research and Development in Vanguard’s Investment Strategy Group from 2014-2017. Joel joined Vanguard in 1996 and has held a number of senior investment-related roles.

Disciplinary Information: None

Other Business Activities: None

Supervision: Dr. Dickson reports to Mr. Thompson.

Maria Bruno, CFP®, (1968)

B.S.B.A. from Villanova University (1990)

Maria Bruno is Head of U.S. Wealth Planning Research at Vanguard. Prior to her current role, Maria was a Senior Investment Strategist in Vanguard’s Investment Strategy Group, leading a team responsible for conducting research and analysis on a wide range of retirement, wealth planning, and portfolio construction topics from 2012-2017. She has also served in a variety of advice-related and leadership roles, including as a practitioner in Vanguard Personal Financial Planning and Advice Services departments, where she created comprehensive financial plans, managed a team of financial planners, and developed Vanguard's advice programs and educational materials.

Disciplinary Information: None

Other Business Activities: None

Supervision: Ms. Bruno reports to Dr. Dickson.

Brian Concannon, CFA® (1988)

Bachelor of Arts from La Salle University (2010)

Master of Business Administration from London Business School (2017)

Mr. Concannon is a Senior Manager and Head of Vanguard Digital Advisor and Personal Advisor Services Mass Affluent Advice. Brian previously served as Head of Enterprise Advice Product Management and multiple roles in Personal Advisor Services.

Disciplinary Information: None

Other Business Activities: None

Supervision: Mr. Concannon reports to Mr. Cleborne.

Matthew Marie CFA®, CFP®, FRM (1979)

Bachelor of Science in Business Administration in Management and Finance from University of North Carolina at Charlotte (2004)

Bachelor of Science in Accounting from University of North Carolina at Charlotte (2008)

Matthew Marie is a senior methodology specialist overseeing advice methodology for Vanguard Digital Advisor. Matthew previously served as a senior investment analyst developing portfolio construction methodology in the Enterprise Advice Department and as senior investment analyst in Personal Advisors Services.

Disciplinary Information: None

Other Business Activities: None

Supervision: Mr. Marie reports to Ms. Pu.

Yan Pu, CFA®, (1975)

Bachelor of Science, International Business from Jinan University (1998)

Master of Business Administration from Drexel University's LeBow College of Business (2000)

Yan Pu is a Vanguard Principal leading advice portfolio construction for Vanguard Personal Advisor Services and Vanguard Digital Advisor. Prior to her current role, Yan was Head of Investment Management Group, China. Yan previously was Head of Portfolio Review, Asia, at Vanguard Investments Hong Kong, where she oversaw product management and development, as well as capital markets. Before her relocation to Hong Kong, Yan was co-head of the Americas Bond Index team under the Vanguard Fixed Income Group, training and overseeing a team of portfolio managers and traders.

Disciplinary Information: None

Other Business Activities: None

Supervision: Ms. Pu reports to Mr. Cleborne.

Anatoly Shtekhman, CFA®, (1978)

Bachelor of Science from the University of Scranton, (2000)

MSF, Finance from Boston College Carroll School of Management (2004)

MBA, Finance from The Wharton School of the University of Pennsylvania

Anatoly Shtekhman is the head of Global Advised Portfolio Construction in Vanguard's Enterprise Advice Department. Prior to Anatoly's current role, he was a Senior Portfolio Manager managing investment portfolios from 2014 -2021. Anatoly joined Vanguard in 2007 as a Senior Investment Analyst.

Disciplinary Information: None

Other Business Activities: None

Supervision: Mr. Shtekhman reports to Dr. Dickson.

## Supervision

Dr. Dickson's, Ms. Bruno's, and Mr. Shtekhman's Digital Advisor investment advisory activities are conducted as a part of a wealth planning and portfolio construction advice team that advises the development of advice algorithms. Mr. Concanon, Ms. Pu, and Mr. Marie oversee the implementation of advice algorithms in Vanguard Digital Advisor. Both teams are supervised by the Advice Program Oversight Committee. The following management members serve on the Advice Program Oversight Committee:

Jonathan Cleborne, CFA®, (1980)

B.A. Government, University of Virginia (2003)

M.B.A., Dartmouth College (2010)

Principal, Vanguard: Head of Personal Advisor Services (2018-Present); Head of Product (2016-2018); Head of Product Strategy (2014-2016)

Amber Czonstka, (1985)

B.B.A., Finance, Temple University (2007)

M.B.A., The Wharton School of the University of Pennsylvania (2017)

Principal, Vanguard: Head of Advice and Client Experience (2020 – Present); Head of Large Market Institutional Sales (2017-2020); Head of Communication Consulting, Participant Education (2014-2017)

James M. Delaplane, Jr., (1966)

B.A., Harvard University (1989)

J.D., Harvard Law School (1995)

Principal, Vanguard: Head of Retail Relationship Management and Sales at Vanguard (2019-Present); Head of Flagship Services (2015-2019); Head of Securities & ERISA Regulation (2014-2015)

Charles Thompson, (1974)

B Eng, Electronic and Software Engineering, RMIT University (1995)

Principal, Vanguard: Head of Enterprise Advice (2021-Present); Chief Information Officer – International Division (2018-2021); Chief Information Officer Asia Pacific (2015-2018)

## Educational background and business experience

The Supervised Persons from VAI have several years of experience with investment products in addition to the Vanguard group of mutual funds.

Several of the Supervised Persons are Certified Financial Analyst® (CFA) charterholders. To earn the CFA charter, candidates must:

- meet requirements to enroll in the CFA Program,
- pass required exams,
- have four years of professional work experience in the investment-decision making process, and
- join the CFA Institute as a regular member.

All charterholders are expected to adhere to the CFA Code of Ethics and Standards of Professional Conduct. In addition, it is recommended that CFA Institute members complete a minimum of 20 hours of continuing education credit activities, with a minimum of 2 hours in the topics of Standards, Ethics, and Regulations (SER) each calendar year.

Certain Supervised Persons hold the Certified Financial Planner® (CFP) certification. To obtain the certification, financial planners are required to meet the following four criteria set forth by the Certified Financial Planner Board of Standards:

- The certificant must have a bachelor's degree (or higher) or its equivalent, in any discipline, from an accredited college or university, and successfully complete one of the following additional education requirements: a CFP board-registered program, a challenge status, or a transcript review.
- The certificant must pass the CFP Certification Examination that assesses his or her ability to apply financial planning knowledge, in an integrated format, to financial planning situations.
- The certificant must have three years of full-time relevant personal financial planning experience.
- The certificant must agree to adhere to the Certified Financial Planner Board of Standards' Code of Ethics and Professional Responsibility, Rules of Conduct, and Financial Planning Practice Standards.

Matthew Marie, holds the Global Association of Risk Professionals Financial Risk Manager (FRM) accreditation is a certification for financial risk professionals dealing in financial markets. To attain a FRM a candidate is required to pass required exams and demonstrate relevant work experience.

VAI has no affiliation with the CFA, Certified Financial Planner Board of Standards, and the FRM.

Advice services are provided by Vanguard Advisers, Inc., a registered investment advisor. If you have any questions about our services, please call 844-899-0113 and leave your name and a phone number where you can be reached. A member of our management team will contact you within two business days.