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Boston, MA 02210**

[www.twine.com](http://www.twine.com)

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This wrap-fee program brochure provides information about the qualifications and business practices of John Hancock Personal Financial Services, LLC, ("JHPFS"). If you have any questions about the contents of this Brochure, please contact us at 800-721-0111. The website for this program, Twine, is [www.twine.com](http://www.twine.com). The information in this Brochure has not been approved or verified by the United States Securities and Exchange Commission (the "SEC") or by any state securities authority.

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

JHPFS is a registered investment adviser. Registration of an investment adviser does not imply a certain level of skill or training.

## **Item 2 – Material Changes**

The following material changes have been made to this brochure since it was filed on July 21, 2017.

### **Item 4**

The fee for the Investment Program has been updated.

The disclosure regarding the Apex sweep account has been updated.

The disclosure that certain features of the Cash Account are not available while upgrades are being made has been removed.

### **Item 5**

The disclosure regarding account minimums has been updated.

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## **Item 4 – Services, Fees and Compensation**

JHPFS is a Delaware limited liability company founded in 2014. JHPFS's principal owner is The Manufacturers Investment Corporation, which is an indirect, majority-owned subsidiary of Manulife Financial Corporation ("MFC"), a diversified international management and holding company with interests in companies that are active in, among other things, financial services and insurance. MFC is a publicly traded company listed on the Toronto Stock Exchange, the New York Stock Exchange, the Stock Exchange of Hong Kong and the Philippine Stock Exchange under the ticker symbol MFC.

JHPFS currently provides discretionary advisory services through a mobile device application in connection with a program (the "Program") referred to as "Twine" which permits a client to choose either a preset or custom goal to save for a particular purpose such as buying a house or taking a vacation. With the exception of assets allocated to the emergency fund goal, once a goal has been established, a client may choose to either save for the goal through a cash account (the "Cash Account") described below or by investing their assets in a portfolio of exchange traded funds ("ETFs") and, for certain goals, open-end mutual funds including money market funds as described under Investment Program below. Clients who allocate assets to an emergency fund goals will be restricted to the Cash Account.

The Program is not design to provide a client with a comprehensive financial plan but is instead design to advise a client on how to achieve a specific financial goal.

JHPFS also provides discretionary advisory services to other programs that are not described in this brochure. A client may be able to obtain investment solutions through other investment advisory programs or services sponsored by JHPFS or affiliate channels, at a higher or lower cost than this Program. The services that a client receives by investing in such strategies through a different program or service may or may not be similar to the services the client receives through the Program. A client should contact JHPFS if he or she has questions about the Program or to discuss the investment solutions, services and strategies available to determine which may be most appropriate.

This brochure is limited to the Program.

### **Overview**

The Program utilizes a mobile device application to collect information from and about a client to provide investment advice to the client through digital-based applications. The sponsor and portfolio manager of the Program is JHPFS. JHPFS manages client accounts on a discretionary basis. Apex Clearing Corporation ("Apex") is the custodian and clearing agent for the Program.

Twine is a goal-based advisory program designed to help a client achieve a particular financial goal. With the exception of assets allocated to the emergency fund goal, the client is responsible for determining whether to allocate assets to a particular goal and whether assets in a particular goal are allocated to the Cash Account or are invested in a portfolio of ETFs and for certain goals, open-end mutual funds, which are managed by JHPFS as described under the “Investment Program” below. Clients who allocate assets to the emergency fund goal will be restricted to the Cash Account.

There is no guarantee that the advisory services offered under the Program will result in the clients’ goals and objectives being met nor is there any guarantee of profit or protection from loss.

Twine is a program that may be used by an individual or by two persons such as spouses, family members or friends to save for a common goal.

Although telephone support is available for administrative issues, the Program does not offer in person or telephonic advice consultation with a live investment adviser representative. A client should carefully consider whether his or her participation in the Program is appropriate for his or her confidence and facility in participating in a mobile device application/website only investment program as well as his or her investment needs and goals.

### **Information about the Program**

The Program permits a client to save for either a preset or custom goal. With the exception of assets allocated to an emergency fund goal, once a client determines his or her goal, the client then determines whether to save for this goal by investing in a Cash Account or investing in a portfolio of ETFs and, for certain goals, open end mutual funds including money market funds, that is managed by JHPFS as described under Investment Program below. Clients who allocate assets to the emergency fund goal will be restricted to the Cash Account. Clients will be presented with a list of preset goals offered by the Program. A client may also choose to create a custom goal and JHPFS may in the future add other preset goals or remove currently offered preset goals.

For preset or custom goals, the client will provide specific information about their goal, including the target goal amount, initial deposit amounts and/or ongoing deposit amounts. Based on this information, JHPFS will forecast a time horizon or amount of time it will take to fulfill the target goal amount. JHPFS may also suggest a recommended amount a client should save for a particular goal and an ongoing deposit amount, but the client may change each of these amounts. Certain goals will not have a recommended savings amount since the amount needed to fulfill the goal will vary depending on the item to be purchased. The forecasted goal completion time is based on the function of target goal size, current balance, any initial or one-time deposits, the size and frequency of deposits, and an assumed rate of return. In cases of a goal where the client’s assets are invested in the Cash Account, a forecasted rate of interest payable on the assets (which may be zero) will be

assumed. When the client's assets are invested in a portfolio of ETFs and/or mutual funds through the Investment Program, the rate of return will be based on forward-looking projections of the recommended portfolio and its subsequent glidepath. These assumptions may not be correct and in the case of assets invested in a portfolio of ETFs and/or mutual funds, a client could lose all or part of the principal that is invested in the client's account.

In order that JHPFS may determine a recommended amount a client should save for a particular goal and a recommended portfolio of ETFs and mutual funds, a client provides JHPFS, and its authorized service provider, certain nonpublic personal and financial information through JHPFS's interactive mobile device application/website. Information provided includes the client's savings goals, income, assets, expenses and risk tolerance, bank account name and access credentials including username, password, and passcode. When making this determination, JHPFS is relying on the information obtained from and about the client through the account opening process. The client is responsible for providing JHPFS with any changes to this information.

Once a client agrees to a savings goal, the client then authorizes the automated transfer of money from the previously linked bank account to the client's account in the Program. A client may change the savings goal at any time. A client may also cancel or postpone any transfer prior to the time the transfer request has been transmitted to Apex.

The Program's advice and account management instructions will be generated by the Program's algorithms. JHPFS investment professional oversee and monitor the operation of the algorithm but, in general, JHPFS personnel may not assess each account individually nor will they generally override the advice generated by the algorithm although JHPFS may make exceptions to this policy from time to time such as to manage client investment and redemption activity or to halt trading or take other temporary defensive measures in stressed market conditions.

### **About the Cash Account**

The Cash Account provides clients with access to an account for assets the client desires to save for a particular goal. The Cash Account is not intended for unforeseen events where the Client needs immediate access to assets in the Cash Account nor is it intended to be used for common and frequent transactions since a client may not receive the proceeds from a withdrawal request for up to three business days under normal circumstances after the withdrawal request is received by JHPFS for an open account. The Cash Account utilizes an Apex cash sweep vehicle.

### **Client Cash Accounts.**

The cash in a client's Cash Account may be automatically "swept" into and out of interest-bearing FDIC-insured deposit accounts opened by Apex at participating banks ("Participating Banks"). A list of the current Participating Banks is available on Apex's website <https://www.apexclearing.com/> >>> [Business Continuity Plan and Other Disclosures](#) (in the footer of the page) >>> [Apex Administrated FDIC Sweep Program Bank](#)

[List \(docx\)](#). Participating in the Program does not guarantee that any or all of a client's Cash Account will be swept into a Participating Bank and all such sweeps are in Apex's sole discretion.

A client may specify that cash in his or her Cash Account not participate in the cash sweep program and may also elect not to have cash swept into one or more Participating Banks by contacting JHPFS. Exclusion of a Participating Bank from the cash sweep program for a client may result in some or all of client's cash remaining in the Cash Account and not being swept into the accounts of Participating Banks. A client will not be given notice when Participating Banks are added or withdrawn from the cash sweep program. If the cash in a client's Cash Account is such that a single deposit at a Participating Bank would put that amount beyond FDIC coverage, then Apex will sweep the excess cash into multiple Participating Banks.

Interest paid on the Cash Account will vary over time and can change daily without notice to the client. Interest paid on the Cash Account may be lower or higher than interest paid on the bank account used by a client to fund the Cash Account or the interest paid on deposits at the Participating Banks or at other banks.

If a client has accounts at a Participating Bank in addition to the Cash Account ("Additional Accounts"), the value of the Additional Accounts is aggregated with the value of the Cash Account at the Participating Bank for purposes of determining the Client's FDIC insurance coverage. Apex does not consider the value of the Additional Accounts when sweeping cash into accounts of Participating Banks.

FDIC insurance only applies to those assets in the Cash Account that are swept into a Participating Bank. Other assets in the Cash Account are not insured by the FDIC and have no bank or government guarantees but are instead covered up to \$250,000 by the Securities Investor Protection Corporation ("SIPC") of which Apex is a member.

### **About the Investment Program**

The Investment Program utilizes portfolios ("Model Portfolios") that are comprised of exchange-traded funds ("ETFs") and, in the case of certain goals, open-end mutual funds including money market funds. The sponsor and portfolio manager of the Investment Program is JHPFS. JHPFS manages client accounts on a discretionary basis. JHPFS has entered into an agreement with Manulife Asset Management ("MAM"), an affiliate of JHPFS, to create and maintain the Model Portfolios and recommends ETFs and mutual funds for the Model Portfolios in the Investment Program.

The provision of discretionary investment advisory services to clients has been structured to follow the conditions of Rule 3a-4 (the "Rule") under the Investment Company Act of 1940, as amended. JHPFS is the "sponsor" of the Investment Program within the meaning of the Rule.

There is no guarantee that the advisory services offered by JHPFS through the Investment Program will result in the clients' investment goals being met. Nor is there any guarantee of profit or protection from loss. The Investment Program is not design to provide a client with a comprehensive financial plan but is instead design to advise a client on how to achieve a specific financial goal.

JHPFS is granted investment discretion for each client's account and will continuously monitor each client's portfolio through computer based applications (also known as "algorithms"). MAM provides JHPFS with recommended Model Portfolios based on specific investment goals and risk tolerance and may, from time to time, recommend changes to asset class allocations and specific investment selections. For certain investment goals, MAM also provides JHPFS with an equity glidepath based on the client's investment goal as well as underlying asset allocation advice for each point on the glidepath. MAM makes certain assumptions including assumptions regarding the global economy and financial markets when creating the Model Portfolios and the glidepath. If these assumptions are not correct, the Model Portfolios and glidepath will not perform as expected. JHPFS is responsible for the evaluation, selection and ongoing monitoring of MAM's services to JHPFS.

To determine a Model Portfolio for a client's investment goal, a client provides JHPFS, and its authorized service provider, certain nonpublic personal and financial information through JHPFS's interactive mobile device application. Information provided includes the client's age, investment goals, income, assets, responses to questions to gauge ability to tolerate financial risk and risk preferences. JHPFS then analyzes this information through the use of an algorithm to recommend and assign a Model Portfolio for the particular investment goal. When making this determination, JHPFS is relying on the information obtained from and about the client through questions asked in the account opening process. JHPFS's recommendation is based on the information provided by the client in response to these questions. There may also be other factors that JHPFS does not take into account that could be relevant in choosing a Model Portfolio for the client's investment goal. The client is responsible for providing JHPFS with any changes to this information. A client should be careful when inputting answers or information. If the information is inaccurate, the resulting recommendation might not be appropriate for the client. JHPFS does not independently verify the information a client provides.

JHPFS uses computer based applications (algorithms) to advise clients and manage their accounts. Algorithms determine the Model Portfolio for a client's investment goal and the amount the client must contribute to his or her account on an ongoing basis to reach an investment goal. Algorithms provided by Apex also automatically rebalance the client's account. In addition, when a client deposits money into an account or withdraws money from his or her account, the algorithm determines the specific securities to trade.

Once a client agrees to an investment goal, the client then authorizes the automated transfer of money from the previously linked bank account to the client's account. A client may change the goal or automatically increase the percentage of income saved for the goal at any

time. A client may also cancel or postpone any transfer prior to the time the request has been transmitted to Apex.

The client gives investment discretion to JHPFS to manage their account and make trades in their account. Clients will not be allowed to make trades in their account.

However, the client may impose reasonable restrictions on the management of their account subject to JHPFS's determination that the restriction is reasonable. A request to impose restrictions on the management of an account may result in delays in the implementation of the Investment Program. The performance of accounts subject to reasonable restrictions may differ from accounts that are not subject to restrictions, possibly producing lower overall results. While a client may impose reasonable restrictions on their account, it is not possible to impose restrictions on how the underlying ETFs and mutual funds are managed. These underlying investments are subject to investment restrictions described in the applicable prospectus, Statement of Additional Information or other offering documents and restrictions under applicable law.

The client's portfolio will be managed along an investment glidepath that becomes increasingly conservative overtime as a client moves closer to his or her investment goal. In general, as a client moves along the glidepath, the allocation of assets to riskier asset classes, such as equities, will decrease and the allocation of asset to less risky asset classes, such as cash and fixed income securities, will increase. Deposits to, or withdrawals from, the client's account may also trigger adjustments in the glidepath.

Accounts in the Investment Program are rebalanced periodically through the use of an algorithm to maintain target asset allocations based for the glide path. JHPFS monitors each client's account for drift from target allocations and may rebalance all or a portion of the client's account to the recommended allocation. The frequency and parameters JHPFS uses to rebalance a client's account may change at any time and may be different from the parameters used in other types of investment strategies or investment advisory programs sponsored by John Hancock. JHPFS in its sole discretion may decide to delay a scheduled rebalancing due to unfavorable or volatile market conditions. This delay could adversely affect the performance of the client's account. All trades for Investment Program accounts, including those for rebalancing and/or redemption, are blocked into a single allocation file and transmitted to Apex for execution once per day. All subsequent trade instructions, including redemptions will be placed with Apex for execution on the following regular trading business day. When a client account participates in aggregated transactions, each client account will receive an average share price and any transaction costs will be shared equally and on a pro-rata basis. Rebalancing may result in taxable gains or losses in a client's account.

### Investing in ETFs and Open-End Mutual Funds

The Investment Program's Model Portfolio generally consist of shares of, or interests in, ETFs and open-end mutual funds including money market funds. As an ETF or mutual fund



shareholders, the client, along with other shareholders of the ETF or mutual fund, will bear a proportionate share of the ETF's or mutual fund's expenses. An ETF's or mutual fund's prospectus contains a description of its fees and expenses. When a client invests in an ETF or mutual fund, the client will indirectly pay a proportionate share of the ETF's or mutual fund's costs for services that may be similar to, or duplicative of, services rendered as part of the Investment Program and paid for directly through the Program Fees.

A client may be able to purchase shares of the ETFs included in a Model Portfolio in the secondary market or from an ETF through an Authorized Participant (in creation units only), without enrolling in the Program. A client may be able to purchase shares of a mutual fund included in a Model Portfolio directly, without enrolling in the Program. If a client does so, the client would not pay the Program Fee for such assets. Under "Methods of Analysis, Investment Strategies and Risk of Loss – Investment Program" below is summary of certain risks relating to investing in ETFs and mutual funds that may apply to all or certain types of ETFs and mutual funds included in a Model Portfolio. Please refer to the particular ETF or mutual fund Prospectus for more information about the risks applicable for a particular ETF or mutual fund.

ETFs may be traded in fractional shares for an Investment Program account. Fractional shares may be unrecognized, illiquid, unmarketable or unable to transfer to another brokerage account outside the Program. To facilitate the allocation of fractional shares to client accounts when portfolio ETFs trade only in whole shares, JHPFS may participate side-by-side in client transactions only to the extent required to zero-out JHPFS's Average Price Allocation Account at Apex prior to the end of each trading day if JHPFS receives no aggregate financial benefit from such transactions. JHPFS has established procedures to eliminate the opportunity for JHPFS to benefit incidentally from this limited participation in client transactions and to avoid any material conflict that may result from residual fractional shares being allocated to JHPFS.

Any dividends paid on the ETFs or mutual funds in the Investment Program account are deposited into the cash portion of the client's Investment Program account. If the amount of cash in the Cash Account exceeds the target allocation to cash by more than a certain amount determined from time to time by JHPFS, JHPFS will invest the cash in ETF or mutual fund shares. Any unallocated cash in an Investment Program account may be swept into an Apex Clearing Sweep Account.

### **Additional Information to the Program**

During the online application process, clients agree that records and disclosure for the Program will be delivered, and agreements will be signed, electronically. This is a requirement both now and in the future. This includes this Form ADV brochure, any other disclosure brochures, supplements, Privacy Notice and other documents relating to a client's account. Each client has an obligation to maintain an accurate and up-to-date email address with JHPFS and to ensure that the client has the ability to read, download, and retain documents the client receives from JHPFS. If a client wishes to print documents, client must

also have access to a printer. If a client is unable or unwilling to accept electronic delivery, the client's enrollment in the Program and their account may be terminated.

Clients can communicate with JHPFS via electronic channels and via telephone at (800) 721-0111.

In order for JHPFS to learn more about client's financial circumstances, JHPFS may retrieve certain financial account information about the client, such as the client's income, expenses, account balances and holdings, from financial institutions the client designates using a third party service.

JHPFS will send all emails to the email address client provides to JHPFS. If an email notification is undeliverable, JHPFS will deliver the documents to client's postal mail address of record and thereafter may terminate client's account. A client may incur additional costs if documents are mailed to the client's postal mail address.

Client assets invested in the Program will not be available for brokerage activities that are not directed by JHPFS, including but not limited to margin trading or trading securities by client or any of client's designated agents. If a client initiates brokerage activity for the Program directly with Apex, the client may be charged a fee by Apex and JHPFS will terminate its agreement with the client.

JHPFS will periodically, but at least annually, ask clients via electronic channels to update the information they provided to JHPFS on its mobile device application. Client may at any time throughout the year update the information it has provided to JHPFS. The update, in turn, will trigger a review of the client's account and depending on the results of the review, JHPFS may recommend changes to the client's account. Client is responsible for promptly notifying JHPFS of any change to client's saving or investment objectives or other information that may affect the advisory services provided through the Program. Client understands that client's failure to provide JHPFS with current, accurate information could adversely affect JHPFS's ability to effectively manage client's account in the Program.

## **Fees and Compensation**

### **Cash Account**

Clients pay no fee to JHPFS for participating in the Cash Account. Custody fees charged by Apex are paid by JHPFS. Clients are responsible for payment of any other fees that Apex may charge relating to client's Cash Account including fees for wire transfers, paper delivery of client statements and insufficient funds in the client's account.

### **Investment Program**

A client will pay JHPFS a fee for assets allocated to the Investment Program (the "Program Fee"). The Program Fee is deducted from a client's account at Apex (the "Program

Account”) and paid directly to JHPFS. The client authorizes JHPFS to transfer assets or funds from the client’s Program Account with Apex solely for the purpose of collecting the Program Fee. The Program Fee will be calculated monthly based on the average daily account balance and will be debited in arrears from the client’s Program Account at the beginning of each calendar month.

The Program Fee is 0.60% annually. This equals 25¢ per month for every \$500 invested. That’s 25 cents per month on \$500 invested, 35 cents on \$700, 50 cents on \$1000 and so on.

If a Program Account is opened during the billing period, that period’s Program Fee will be prorated for the number of days in the period that the Program Account was in existence. A Program Account is opened when a client funds his or her Program Account at Apex. If the Program Account closes before the end of a billing period, the Program Account will be billed through the date in which the Program Account was closed. The Program Fee for that period will be prorated for the number of days in the period the Program Account was in existence.

A client should review his or her account statements from Apex and verify that the appropriate Program Fee has been deducted. JHPFS may in its sole discretion make exceptions to the fee schedule set forth above for one or more clients or waive the Program Fee for a period of time for one or more clients. JHPFS may also negotiate different fees for certain clients.

The Program Fee covers investment advice, the ongoing management of the Program Accounts assets, as well as trade execution, clearance, settlement and custodial services provided by Apex. The Program Fee does not cover the expenses of the ETFs and open end mutual funds in which the Program Account invests, including commission and other transaction-related charges ETFs and open-end mutual funds incur.

In addition, a client may incur certain charges imposed by third parties, other than JHPFS, in connection with investments made through the client’s Program Account. The Program Fee is in addition to fees and expenses charged by ETFs and open-end mutual funds that are held in a client’s Program Account. All investments in ETFs and open-end mutual funds are subject to the terms of each of the applicable prospectuses, including associated fees and operating fund expenses, which a client ultimately bears.

Custody fees as well as trade execution, clearance and settlement fees charged by Apex are paid by JHPFS. Clients are responsible for payment of any other fees that Apex may charge relating to client’s Program Account including fees for wire transfers, paper delivery of client statements and insufficient funds in the client’s account.

The Program Fee also does not cover certain execution costs that may be charged to a client, including:

- (a) broker-dealer spreads and certain markups or markdowns paid to market makers;
- (b) transfer taxes;

(c) fees charged by exchanges on a per transaction basis or other fees required by law;  
(d) any other fees that Apex may charge, as may be outlined from time-to-time in Apex's separate fee schedule; and  
(e) any other charges imposed by law or otherwise agreed to regarding a client's Program Account.

The Program Fee may cost a client more or less than purchasing such services separately depending on several factors including the fees Apex charges for custody and trading and the trading activity in the client's account.

#### **Fee Change**

JHPFS may assess a fee for the Cash Account or change the Program Fee for the Program Account including increasing the Program Fee at any time provided it notifies client (which may include electronic notice through the mobile device application) thirty (30) days in advance. JHPFS may presume client has consented to the change in the fee if JHPFS has not received any objection thereto from client (including objection provided through the mobile device application) at the end of the 30 day period. In the event the client, during the 30 day period, notifies JHPFS of its objection to the fee change, the change will not take effect and JHPFS may, at its option, terminate its advisory agreement with the client.

#### **Assets Under Management**

As of December 31, 2016, JHPFS had \$797 million under management on a discretionary basis.

### **Item 5 – Account Requirements and Types of Clients**

#### **Account Requirements**

Currently, there is no minimum investment amount for the Cash Account.

Clients will execute a written advisory agreement with JHPFS specifying the advisory services to be provided and appointing JHPFS (and Apex, acting as JHPFS's agent) to act as the client's agent and attorney-in-fact with such discretionary power and authority to buy, sell or otherwise effect transactions in ETFs, mutual funds and any other securities or other property in the client's account in the Program. Accordingly, JHPFS may change the investments in a client's account in the Program at any time without prior notice to the client, including changing the investments used in a Model Portfolio or substituting a particular investment for another investment.

Under the terms of the advisory agreement, the client will also agree to receive all account information and account documents (including this Brochure), and any updates to these documents, through JHPFS electronic communications.

Apex, the custodian of accounts in each Program, effects all transactions. The client must appoint JHPFS as its investment adviser of record on accounts in each Program at Apex. Apex maintains physical custody of all funds and securities in accounts in each Program. The client retains all rights of ownership (e.g. right to withdraw securities or cash, exercise or delegate proxy voting and receive transaction confirmations) of the securities in the client's Program accounts.

### **Types of Clients**

The Program is only offered only to U.S. citizens and U.S. resident aliens over the age of 18.

Business entities, government entities and accounts that are subject to the Employee Retirement Income Security Act of 1974 ("ERISA") and Individual Retirement Accounts ("IRAs") are not eligible for the Program.

### **Transfer of Money into an Account in the Investment Program Account**

When a client transfers money to his or her account in the Investment Program, JHPFS will not submit an order to purchase ETFs or mutual funds for the client's account until the client's account balance is over \$100 and it receives final settlement of those funds from the client's financial institution.

After JHPFS submits a purchase or other transaction in a client's account to Apex or another broker for processing, the transaction will be completed within the standard settlement cycle for the ETF or mutual fund followed by that broker. JHPFS will not be liable for any delays in completing a transaction on the client's behalf if caused by the broker to whom JHPFS submits the client's transaction or as otherwise limited by the limitation on liability set forth in JHPFS' agreement with the client.

### **Redemption Requests and Termination of an Account**

If cash available in the account can cover the amount of the withdrawal request, withdrawal requests must be received by 3 p.m. Eastern Standard Time on a business day in order to be processed the next business day. Requests received after 3 p.m. will be processed on a best efforts basis. If cash available in the account cannot cover the amount of the withdrawal request, trades will be placed in the account the next business day and withdrawal request will be processed after trades are settled.

After JHPFS submits a trade in a client's account to Apex or another broker for processing, the trade will be completed within the standard settlement cycle for the ETF or mutual fund followed by that broker. JHPFS will not be liable for any delays in completing a transaction on the client's behalf if caused by the broker to whom JHPFS submits the client's transaction or as otherwise limited by the limitation on liability set forth in JHPFS'

agreement with the client.

It may take up to seven business days under normal circumstances for the proceeds of a withdrawal request to be transferred to the client's bank account through electronic fund transfer. If a client has deposited funds in its account within the five business days preceding the withdrawal request, these funds will not be available for withdrawal for five business days after the date of the deposit.

JHPFS may terminate a client from the Program for any reason including not providing JHPFS with information it has requested that is deemed necessary, or appropriate, to manage the client's Program account.

A client may terminate its account in the Program upon notice to JHPFS, including electronic notice through the mobile device application, and payment of all outstanding fees to JHPFS.

A client's termination of its brokerage account with Apex will terminate the client's advisory agreement upon receipt of notice by the JHPFS of such termination and payment of all outstanding fees to JHPFS.

Upon termination of the client's account in the Program, JHPFS will no longer provide the client with investment advisory services and the account will be closed and Client must transfer the assets in his or her account to another financial institution.

## **Item 6 – Portfolio Manager Selection and Evaluation**

### **Selection of Portfolio Manager**

JHPFS has selected itself as the portfolio manager in the Program. JHPFS utilizes its affiliate, MAM, to create and maintain Model Portfolios for the Investment Program and to recommend ETFs and mutual funds to be included in the Model Portfolios and the allocation of ETFs and mutual funds in a Model Portfolio, subject to JHPFS's approval and supervision. JHPFS could be deemed to have a conflict in performing these services because JHPFS and MAM will keep a larger share of the Program Fee than if JHPFS had selected a third party to create and maintain Model Portfolios and select ETFs and mutual funds. JHPFS believes that MAM possesses the requisite expertise to serve in this capacity. To the extent this decision represents a conflict, JHPFS addresses this conflict through disclosure in this Brochure.

### **Performance-Based Fees and Side-By-Side Management**

JHPFS does not receive performance-based fees for advisory services provided to clients. Therefore, JHPFS does not engage in side-by-side management of clients with performance based fees.

## **Methods of Analysis, Investment Strategies and Risk of Loss**

### **The Program**

Investing in the Program is subject to risks including those noted below. Specific risks related to investing in the Cash Account and the Investment Program are also set forth below.

### **Risks Related to the Use of Computer Based Applications (also known as algorithms)**

There are risks associated with utilizing computer based applications, including the following risks:

- The output of the computer based applications depends upon the accuracy and availability of the information inputted into the application.
- There may be certain factors or variables which have not been included in the computer based application. To the extent some questions are over-generalized, ambiguous or designed to fit a pre-determined option, the output may not reflect a particular client's needs or goals.
- By only using the computer based application, clients may not receive individually tailored investment advice.
- The computer based application may not be compatible with all types of bank accounts and/or with all financial institutions.
- Some banks and financial institutions may:
  - not permit JHPFS or our service provider to gather transaction data from your online bank account, or terminate our ability to do so at any time,
  - make changes to their websites, security measures, or login requirements, with or without notice to us, that may prevent or delay our ability to aggregate transaction data from those websites,
  - only provide transaction data updates to us on a set daily schedule resulting in your most recent transactions not being reflected in account balances or other account information presented to you in our mobile application.

### **Cybersecurity Risk**

Cybersecurity breaches may allow an unauthorized party to gain access to Cash Account assets, client data, or proprietary information, or cause JHPFS or Apex to suffer data corruption or lose operational functionality. Similar incidents affecting Participating Banks in the cash sweep program may negatively impact performance.

Intentional cybersecurity breaches include unauthorized access to systems, networks, or devices (such as through "hacking" activity); infection from computer viruses or other

malicious software code; and attacks that shut down, disable, slow, or otherwise disrupt operations, business processes, or website access or functionality. In addition, unintentional incidents can occur, such as the inadvertent release of confidential information (possibly resulting in the violation of applicable privacy laws).

### **The Cash Account**

The Cash Account is administered by Apex.

Investing in the Cash Account is subject to risks including:

#### **Risks Related to Cash Sweep Program**

Interest paid on the Cash Account will vary over time and can change daily without notice to you. Interest paid on the Cash Account may be lower or higher than interest paid on the bank account used by a client to fund the Cash Account or the interest paid on deposits at the Participating Banks or at other banks. Interest paid on the Cash Account may be lower than the rate of inflation.

The Program is not intended for unforeseen events where the Client needs immediate access to assets in the Cash Account since a Client may not receive the proceeds from a withdrawal request for up to two business days after the withdrawal request is received by JHPFS.

Client's assets in the Cash Account may be swept into one or more Participating Banks unless the client elects otherwise. If a client has accounts at a Participating Bank in addition to the Cash Account ("Additional Accounts"), the value of the Additional Accounts is aggregated with the value of the Cash Account at the Participating Bank for purposes of determining the client's FDIC insurance coverage. Neither JHPFS nor Apex monitor the amount of client's assets in Additional Accounts. Therefore, the amount of a client's assets held at a Participating Bank could exceed FDIC insurance coverage limits. A client will not be given notice when Participating Banks are added or withdrawn from the cash sweep program.

A client may specify that cash in his or her Cash Account not be swept into one or more Participating Banks. If a client excludes a Participating Bank from the cash sweep program, this action may result in some of client's cash remaining in the Cash Account and not being swept into the accounts of Participating Banks.

Participating in the Program does not guarantee that any or all of your Cash Account will be swept into a Participating Bank and all such sweeps are in Apex's sole discretion.

FDIC insurance only applies to those assets in the Cash Account that are swept into a Participating Bank. Other assets in the Cash Account are not insured by the FDIC and have no bank or government guarantees but are instead covered up to \$250,000 by the Securities Investor Protection Corporation ("SIPC") of which Apex is a member.



## **The Investment Program**

JHPFS uses Model Portfolios for the Investment Program each of which consist of a diversified portfolio of ETFs and for certain accounts, mutual funds. JHPFS has entered into an agreement with MAM whereby MAM recommends Model Portfolios for the Investment Program including the investments to be included in the Model Portfolios and the allocations among these investments. MAM will also provide ongoing review of the Model Portfolios.

Investing in the Investment Program is subject to risks including:

### **Risk of Loss**

Investing in securities involves risk of loss that clients should be prepared to bear. Past performance is not indicative of future results. As with all investments, there is no assurance that any of the ETFs or mutual funds in the Investment Program will achieve their investment objective and a client could lose money by investing in them.

### **Selection and Management Risk**

Actively managed investment portfolios like the Investment Program are subject to management risk. The ETFs and mutual funds in a Model Portfolio may decline in value. Security or instrument selection risk may cause a Model Portfolio to underperform other portfolios with similar investment objectives and investment strategies even in a rising market. Despite strategies to achieve positive investment returns regardless of general market conditions, the values of investments will change with market conditions, and so will the value of any investment in a Model Portfolio. Investments in the Investment Program could be lost or a Model Portfolio could underperform other investments.

### **General Risks**

#### **Model Portfolio Risks**

JHPFS and MAM may use quantitative analyses and/or models to create or manage the Model Portfolios. Any imperfections, limitations, inaccuracies or incorrect assumptions, including assumptions regarding the global economy and financial markets, in its analyses and/or models could affect its ability to implement investment strategies. By necessity, these tools make simplifying assumptions that may limit their effectiveness. Models that appear to explain prior market data can fail to predict future market events. Further, the data used in models may be inaccurate and/or it may not include the most current information available. In addition, models may also not address prolonged changes in market conditions.

Further, JHPFS oversees and monitors the computer based applications and the Model Portfolios but does not necessarily monitor each client's account.

### ETFs General Risks

ETFs in which the strategy may invest involve certain inherent risks generally associated with investments in a portfolio of securities, including the risk that the general level of security prices may decline, thereby adversely affecting the value of each unit of the ETF. Moreover, an ETF may not fully replicate the performance of its benchmark index because of the temporary unavailability of certain index securities in the secondary market or discrepancies between the ETF and the index as to the weighting of securities or the number of securities held. ETFs in which the strategies invest have their own fees and expenses as set forth in the ETF prospectuses.

ETFs may have exposure to derivative instruments, such as futures contracts, forward contracts, options, and swaps. There is a risk that a derivative may not perform as expected. The main risk with derivatives is that some types can amplify a gain or loss, potentially earning or losing substantially more money than the actual cost of the derivative, or that the counterparty may fail to honor its contract terms, causing a loss for the ETF. Use of these instruments may also involve certain costs and risks such as liquidity risk, interest rate risk, market risk, credit risk, management risk, and the risk that an ETF could not close out a position when it would be most advantageous to do so.

A particular ETF may be difficult to purchase or sell or may become difficult to sell after being purchased for a client account. JHPFS may be unable to sell ETFs on behalf of a client at an advantageous time and/or price due to then-existing trading market conditions.

### Mutual Fund General Risks

Mutual funds in which the strategy may invest involve certain inherent risks generally associated with investments in a portfolio of securities, including the risk that the general level of security prices may decline, thereby adversely affecting the value of each share of the mutual fund. Mutual funds in which the strategies invest have their own fees and expenses as set forth in the mutual fund prospectuses.

Mutual funds may have exposure to derivative instruments, such as futures contracts, forward contracts, options, and swaps and are subject to similar risks as ETFs investing in derivatives which are described above.

### Strategy Risk

In addition to the risks detailed herein, each ETF and mutual fund included in the Investment Program is subject to investment risks that are unique to the specific investment strategy of the fund's manager, and disclosed in each fund's prospectus.

### Market Risk

Equity and fixed income markets rise and fall daily. The performance of client investments is, to varying degrees, tied to these markets. When markets fall, the value of a client's investments will fluctuate, which means a client could lose money. Events in the financial sector have resulted, and may continue to result, in an unusually high degree of volatility in the financial markets, both domestic and foreign.

#### Asset Allocation/Strategy/Diversification Risks

The asset classes in which an investment strategy in the Investment Program seeks investment exposure can perform differently from each other at any given time (as well as over longer time periods), so the investment strategy will be affected by its allocation among the various asset classes. The asset allocation decisions can result in more portfolio concentration in a certain asset class or classes, which could reduce overall return if the concentrated assets underperform JHPFS's expectations. The more aggressive the investment strategy selected, the more likely the portfolio will contain larger weights in riskier asset classes, such as equities. Depending on market conditions, there may be times where diversified portfolios perform worse than less diversified portfolios.

#### Risks Related to the Use of Computer Based Applications (also known as algorithms) to Create Model Portfolios

There are risks associated with utilizing computer based applications to create Model Portfolios for the Investment Program, including the following risks:

- The computer based application uses certain economic assumptions that may not be updated in a timely manner or reflect shifts in the market.
- The output of the computer based application depends upon the accuracy of the information inputted into the investment tool.
- There may be certain factors or variables which have not been included in the computer based application. To the extent some questions are over-generalized, ambiguous or designed to fit a pre-determined option, the output may not reflect a particular client's needs or goals.
- By only using the computer based application, clients may not receive individually tailored investment advice.

In addition, computer based applications may rebalance a client's account based on factors other than just market conditions and may rebalance on a more frequent basis than the client might expect.

#### Underlying Securities Risk

**ETFs and mutual funds invest in securities. The risks of investing in various types of securities are set forth below.**

## Equity-Related Risks

General Risks. The price of equity securities may decline due to changes in a company's financial condition or overall market conditions. Growth company securities may fluctuate more in price than other securities because of the greater emphasis on earnings expectations. Securities the manager believes are undervalued may never realize their full potential value, and in certain markets value stocks may underperform the market as a whole.

Large Cap Risk. Larger companies may grow more slowly than smaller companies or be slower to respond to business developments. Large-capitalization securities may underperform the market as a whole.

Small and Mid Cap Risk. Small and mid-size companies are generally less established and may be more volatile than larger companies. Small capitalization securities may underperform the market as a whole.

## Fixed Income-Related Risks

General Risks. A rise in interest rates typically causes bond prices to fall. The longer the average maturity or duration of the bonds held by an ETF, the more sensitive it will likely be to interest-rate fluctuations. An issuer may not make all interest payments or repay all or any of the principal borrowed. Changes in a security's credit quality may adversely affect fund performance.

High-Yield Risks. High-yield securities and unrated securities of similar credit quality (sometimes called junk bonds) are subject to greater levels of credit and liquidity risks. High-yield securities and the ETFs and mutual funds that invest in them may be considered speculative.

Government Securities Risk. Many U.S. government securities are not backed by the full faith and credit of the United States government, which means they are neither issued nor guaranteed by the U.S. Treasury. Certain issuers of securities, such as the Federal Home Loan Banks, maintain limited lines of credit with the U.S. Treasury. Securities issued by other issuers, such as the Federal Farm Credit Bank Funding Corporation, are supported solely by the credit of the issuer. There can be no assurance that the U.S. government will provide financial support to securities of its agencies and instrumentalities if it is not obligated to do so under law.

## Foreign Investment-Related Risks

General Risks. Investments in securities of foreign issuers may involve certain risks that are greater than those associated with investments in securities of U.S. issuers. Less information may be publicly available regarding foreign issuers. Foreign securities may be subject to foreign taxes and may be more volatile than U.S. securities. Currency fluctuations

and political and economic developments may adversely impact the value of foreign securities.

Emerging Market Risk. The risks of investing in foreign securities are magnified in emerging markets. Emerging-market countries may experience higher inflation, interest rates, and unemployment and greater social, economic, and political uncertainties than more developed countries.

Currency Risk. Fluctuations in exchange rates may adversely affect the U.S. dollar value of a fund's investments. Foreign currencies may decline in value, which could negatively impact performance.

Geopolitical/Disruption-of-Markets Risks. Geopolitical events may adversely affect global economies and markets and thereby decrease the value of and/or the ease of trading the ETFs invested in those affected markets. Those events as well as other changes in foreign and domestic economic and political conditions could adversely affect the value of the strategy's investments.

#### Risks Related to Other Asset Classes

Commodity Risk. Commodity prices may be volatile due to fluctuating demand, supply disruption, speculation, and other factors. Certain commodity investments may have no active trading market at times.

Hard Asset Risk. The production and marketing of hard assets, such as precious metals, oil and gas, real estate and/or agricultural commodities may be affected by geopolitical and environmental factors and are cyclical in nature. During periods of economic or financial instability, hard asset securities and other instruments may be subject to broad price fluctuations, reflecting volatility of energy and basic material prices and possible instability of supply of various hard assets. Hard asset securities, hard asset companies, and other instruments may also experience greater price fluctuation than the relevant hard asset. In periods of rising hard asset prices, such securities or instruments may rise at a faster rate, and conversely, in time of falling hard asset prices, such securities may suffer a greater price decline.

Real Estate Risks. Real estate-related investments may be adversely affected by factors affecting the real estate industry, which may include changes in interest rates and social and economic trends. Real estate investment trusts ("REITs") may also be subject to the risk of fluctuations in income from underlying real estate assets, poor performance by the REITs' managers, prepayment and defaults by borrowers, adverse changes in tax laws, and, for U.S. REITs, their failure to qualify for the special tax treatment granted to REITs under the Internal Revenue Code of 1986 and/or to maintain exempt status under the Investment Company Act.

## **Limitations of Disclosure**

The foregoing list of risks does not purport to be a complete enumeration or explanation of the risks involved in JHPFS's investment strategies. As JHPFS's investment strategies develop and change over time, clients and investors may be subject to additional and different risk factors. No assurance can be made that profits will be achieved or that substantial losses will not be incurred.

### **Voting Client Securities**

JHPFS does not vote client proxies for investments in a client's account. Clients are responsible for exercising shareholder and other rights as owners of ETFs and mutual funds. JHPFS will not advise clients on the voting of proxies for investments held in their accounts. In addition, JHPFS will not advise clients on legal proceedings, including bankruptcies and class actions pertaining to investments in their accounts.

## **Item 7 - Client Information Provided to Portfolio Manager**

Prior to enrolling in the Program, the client provides JHPFS with nonpublic personal and financial information about the client's savings and investment goals, income, assets, expenses and risk tolerance as well as other information in order that JHPFS may provide portfolio management services to the client. The client is responsible for providing JHPFS with any changes to this information. A client should be careful when inputting answers or information. If the information is inaccurate, the resulting recommendation might not be appropriate for the client. JHPFS does not independently verify the information a client provides. Client is also responsible for providing JHPFS with Information to permit JHPFS to transfer assets from the Client's financial institution to the client's account in the Program and is responsible for providing JHPFS with any changes to this information.

## **Item 8 - Client Contact with Portfolio Manager**

Clients who wish to contact JHPFS can do so by calling the phone number listed on the cover page or by email at [support@twine.com](mailto:support@twine.com).

## **Item 9 - Additional Information**

### **Disciplinary Information**

There are no legal or disciplinary events that are material to a client's or prospective client's evaluation of or the integrity of JHPFS or its management persons.

## **Other Financial Industry Activities and Affiliations**

JHPFS is an indirect, majority-owned subsidiary of MFC and is directly owned by Manufacturers Investment Corporation. As such, JHPFS is affiliated with a number of investment advisers, investment companies, broker-dealers and insurance companies. Except as noted below, JHPFS does not believe that these relationships are material to JHPFS's advisory business.

MFC is the sole owner of The Manufacturers Life Insurance Company which in turn wholly owns, directly or indirectly, a number of subsidiaries, including The Manufacturers Investment Corporation.

MAM, an investment adviser that creates and maintains the Model Portfolios for the Investment Program and selects the ETFs and mutual funds, is an affiliate of JHPFS.

## **Code of Ethics, Participation or Interest in Client Transactions and Personal Trading**

### Code of Ethics

JHPFS's Code of Ethics (the "Code") establishes standards of business conduct for JHPFS and its "Covered Employees" (which includes all officers and employees with access to non-public portfolio information) and all persons who provide investment advice, or are involved with the Program, on behalf of JHPFS and are subject to the supervision and control of JHPFS ("Supervised Persons").

The Code states that each Covered Employee is responsible for maintaining the very highest ethical standards when conducting company business. In general, JHPFS and its Covered Employees are required to (i) at all times place the interests of clients first; (ii) ensure that all personal securities transactions are conducted consistent with this Code and in such a manner as to avoid any actual or potential conflict of interest or any abuse of a position of trust and responsibility; (iii) not take inappropriate advantage of their positions or engage in manipulative practices such as front running or manipulative market timing; (iv) comply with all applicable federal securities laws; and (v) promptly report any violation of the Code to the Chief Compliance Officer ("CCO").

The Code is designed to prevent abuses in the investment advisory business that can arise when conflicts of interest exist between the employees of an investment adviser and its clients. When conflicting interests cannot be reconciled, the Code makes clear that, first and foremost, Covered Employees owe a fiduciary duty to John Hancock clients. The Code contains specific rules prohibiting defined types of conflicts. Since every potential conflict cannot be anticipated by the Code, it also contains general provisions prohibiting conflict situations.

The Code is also designed to permit JHPFS to monitor various securities transactions by Covered Employees, including those in shares of any mutual funds advised by JHPFS or an affiliate of JHPFS, in which they may have a direct or indirect beneficial ownership interest. Under the Code and subject to limited exceptions, Covered Employees must obtain the approval of the CCO before acquiring any covered security in an IPO or limited offering (e.g., private placement) or an ETF. However, any Covered Employee who participates in, or has prior knowledge of, purchase or sale recommendations made to a fund generally is prohibited from acquiring any covered security in an IPO.

The Code includes sections on policies in and outside the Code, reporting requirements and other disclosures inside and outside the Code, reporting violations, interpretation and enforcement, exemptions and appeals, education of employees and recordkeeping.

This Code will be provided to any client or prospective client upon request by contacting JHPFS at (800) 721-0111.

JHPFS has also adopted an Amended and Restated Policy Statement and Procedures on Insider Trading in accordance with Section 204A of the Investment Advisers Act of 1940 which establishes procedures to prevent the misuse of material information by its officers, directors and employees. JHPFS and its related persons may, from time to time, come into possession of material nonpublic and other confidential information which, if disclosed, might affect an investor's decision to buy, sell or hold a security. Under applicable law, JHPFS and its related persons may be prohibited from improperly disclosing or using such information for their personal benefit or for the benefit of any other person, regardless of whether such other person is a client. Accordingly, should such persons come into possession of material nonpublic or other confidential information about any company, they may be prohibited from communicating such information to, or using such information for the benefit of, their respective clients, and have no obligation or responsibility to disclose such information to, nor responsibility to use such information for the benefit of, their clients when following policies and procedures designed to comply with law.

#### Participation or Interest in Client Transactions

##### Cash Account

This section is not applicable since client's assets are only swept into accounts at Participating Banks.

##### Investment Program

From time to time, employees and principals of JHPFS or a related person may also invest or otherwise have an interest in securities owned by or recommended to JHPFS's clients.

Similarly, some or all of the financial services businesses under common control with JHPFS may invest in securities that are also owned by JHPFS's clients. Any of such persons may invest or otherwise have an interest, either directly or indirectly, in certain pooled vehicles, which, in turn, may invest in securities held in other managed accounts. As these



situations may involve potential conflicts of interest, JHPFS has implemented policies and procedures relating to personal securities transactions and insider trading, that are designed to identify potential conflicts of interest, to prevent or mitigate actual conflicts of interest and to resolve such conflicts appropriately if they do occur.

### **Review of Accounts**

JHPFS will periodically, but at least annually, ask clients via electronic channels to update the information they provided to JHPFS on its mobile device application. Client may at any time throughout the year update the information it has provided to JHPFS. The update, in turn, will trigger a review of the client's account and depending on the results of the review, JHPFS may recommend changes to the client's account. Client is responsible for promptly notifying JHPFS of any change to client's saving or investment objectives or other information that may affect the advisory services provided through the Program. Client understands that client's failure to provide JHPFS with current, accurate information could adversely affect JHPFS's ability to effectively manage client's account in the Program. JHPFS associates and designees will also be available to discuss the Program during normal business hours.

### **Client Referrals and Other Compensation**

Not applicable.

### **Financial Information**

JHPFS is not aware of any financial condition that is reasonably likely to impair its ability to meet contractual and fiduciary commitments to clients and has not been the subject of a bankruptcy petition at any time during the past ten years.

JHPFS does not require or solicit prepayment of any fee and is therefore not required to include a balance sheet for its most recent fiscal year.