

FLAGSTAR BANCORP INC
 Form 424B5
 June 13, 2018
 Filed Pursuant to Rule 424(b)(5)
 Registration No. 333-225397

CALCULATION OF REGISTRATION FEE

| Title of each class of securities to be registered | Amount to be Registered(1) | Proposed Maximum Offering Price Per Share(2) | Maximum Aggregate Offering Price(3) | Amount of Registration Fee(3) |
|---|----------------------------|--|-------------------------------------|-------------------------------|
| Common Stock, par value \$0.01 per share (the "Common Stock") | 9,200,000 | \$35.69 | \$328,348,000 | \$40,879.33 |

(1) Includes 1,200,000 shares of Common Stock that the underwriters have the option to purchase from the selling stockholder.

(2) Estimated solely for the purpose of determining the registration fee in accordance with Rule 457(c) under the Securities Act of 1933 based on the average of the high and low prices as reported on the New York Stock Exchange on June 12, 2018.

(3) Calculated in accordance with Rule 457(r) under the Securities Act of 1933, and relates to the registration statement on Form S-3 (File No. 333-225397) filed on June 1, 2018.

Prospectus Supplement
(To Prospectus dated June 1, 2018)
8,000,000 Shares

Common Stock

MP Thrift Investments L.P., our controlling stockholder, is offering 8,000,000 shares of common stock of Flagstar Bancorp, Inc. We will not receive any of the proceeds from the sale of shares by the selling stockholder. Our common stock is listed on the New York Stock Exchange (“NYSE”) under the symbol “FBC”. The last reported sale price of our common stock on the NYSE on June 8, 2018 was \$37.25 per share.

Investing in our common stock involves risk. See “Risk Factors” beginning on page S-3 of this prospectus supplement and the risk factors described in the documents that we file with the Securities and Exchange Commission that are incorporated herein by reference for a discussion of certain risks you should consider before deciding to invest in our common stock.

Neither the Securities and Exchange Commission nor any regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

The shares of our common stock that you purchase in this offering are not savings accounts, deposits or other obligations of any bank or savings association, and are not insured by the Federal Deposit Insurance Corporation (“FDIC”), the bank insurance fund or any other government agency or instrumentality.

| | Per Share | Total |
|---|-----------|---------------|
| Public offering price | \$34.5000 | \$276,000,000 |
| Underwriting discount and commissions | \$0.6812 | \$5,449,600 |
| Proceeds, before expenses, to the selling stockholder | \$33.8188 | \$270,550,400 |

The selling stockholder has granted the underwriters an option to purchase up to an additional 1,200,000 shares of our common stock at the public offering price less the underwriting discount, within 30 days from the date of this prospectus supplement.

The underwriters expect to deliver the shares against payment on or about June 14, 2018.

Sandler O’Neill + Partners, L.P. Keefe, Bruyette & Woods
A Stifel Company

Prospectus Supplement, dated June 11, 2018

TABLE OF CONTENTS

| | |
|---|------|
| Prospectus Supplement | |
| About This Prospectus Supplement | S-ii |
| Cautionary Note Regarding Forward-Looking Statements | S-ii |
| Prospectus Supplement Summary | S-1 |
| The Offering | S-2 |
| Risk Factors | S-3 |
| Use of Proceeds | S-6 |
| Summary Selected Historical Consolidated Financial Information | S-7 |
| Dividend Policy and Dividends | S-9 |
| Price Range of Our Common Stock | S-10 |
| The Selling Stockholder | S-11 |
| Material U.S. Federal Tax Considerations for Non-U.S. Holders of Our Common Stock | S-12 |
| Certain ERISA Considerations | S-15 |
| Underwriting | S-17 |
| Where You Can Find More Information | S-21 |
| Incorporation of Certain Information by Reference | S-21 |
| Validity of Common Stock | S-21 |
| Experts | S-21 |
| Prospectus | |

| | |
|---|---|
| About this Prospectus | 1 |
| Forward-Looking Statements | 1 |
| Where You Can Find More Information | 2 |
| Incorporation of Certain Information by Reference | 2 |
| Flagstar Bancorp, Inc. | 3 |
| Risk Factors | 3 |
| Ratio of Earnings to Fixed Charges | 3 |
| Use of Proceeds | 3 |
| Selling Stockholders | 4 |
| Plan of Distribution | 4 |
| Description of Securities | 6 |
| Legal Matters | 7 |
| Experts | 7 |

Unless we state otherwise or the context otherwise requires, references in this prospectus supplement to:

“we”, “our”, “us”, “Flagstar”, and our “company” refer to Flagstar Bancorp, Inc., a Michigan corporation, and its consolidated subsidiaries, which includes Flagstar Bank, FSB, and references to “Flagstar Bancorp, Inc.” refer to Flagstar Bancorp, Inc. on a stand-alone basis;

our “bank” and “Flagstar Bank” refer to Flagstar Bank, FSB, a federally chartered stock savings bank;

“selling stockholder” or “MP Thrift” refers to MP Thrift Investments L.P., a Delaware limited partnership, that directly owns approximately 61.8% of our outstanding shares of common stock as of the date of this prospectus supplement; and

*Federal Reserve" refers to the Board of Governors of the Federal Reserve System.

ABOUT THIS PROSPECTUS SUPPLEMENT

This document consists of two parts. The first part is this prospectus supplement, which describes the specific terms of this offering of shares of common stock and certain other matters relating to us and our financial condition. The second part, the accompanying base prospectus, dated June 1, 2018, gives more general information about the securities that we may offer from time to time, some of which may not apply to this offering. This prospectus supplement and the accompanying prospectus are part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (“SEC”) as a “well-known seasoned issuer”, as defined in Rule 405 under the Securities Act of 1933 (the “Securities Act”), using the SEC’s shelf registration rules. You should read both this prospectus supplement and the accompanying prospectus, together with additional information incorporated by reference herein and therein as described under the headings “Incorporation of Certain Information by Reference” in this prospectus supplement and the accompanying prospectus.

If the information set forth in this prospectus supplement differs in any way from the information set forth in the accompanying prospectus, you should rely on the information set forth in this prospectus supplement. If the information conflicts with any statement in a document that we have incorporated by reference, then you should consider only the statement in the more recent document. The information contained or incorporated by reference into this prospectus supplement, the accompanying prospectus or in any free writing prospectus is accurate only as of the date of the applicable document. Our business, financial condition, results of operations and prospects may have changed since that date.

You should rely only on the information contained or incorporated by reference into this prospectus supplement and the accompanying prospectus and any written communication from Flagstar or the underwriters specifying the final terms of this offering. None of Flagstar, the selling stockholder or the underwriters have authorized anyone to provide you with different or additional information from that contained or incorporated by reference into this prospectus supplement and the accompanying prospectus. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus supplement may be used only for the purpose for which it has been prepared. The selling stockholder and the underwriters are offering to sell our common stock, and seeking offers to buy our common stock, only in jurisdictions where offers and sales are permitted. Neither this prospectus supplement nor the accompanying prospectus constitutes an offer, or an invitation on our behalf or on behalf of the underwriters, to subscribe for and purchase any of our securities, and may not be used for or in connection with an offer or solicitation by anyone, in any jurisdiction in which such an offer or solicitation is not authorized or to any person to whom it is unlawful to make such an offer or solicitation.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the documents that we incorporate by reference into this prospectus supplement or the accompanying prospectus may contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements reflect our current views with respect to, among other things, future events and our financial performance. These statements are often, but not always, made through the use of words or phrases such as “may”, “might”, “should”, “could”, “predict”, “potential”, “believe”, “expect”, “continue”, “will”, “anticipate”, “seek”, “estimate”, “intend”, “plan”, “projection”, “would”, “annualized” the negative version of those words or other comparable words or phrases of a future or forward-looking nature. These forward-looking statements are not historical facts, and are based on current expectations, estimates and projections about our industry, management’s beliefs and certain assumptions made by management, many of which, by their nature, are inherently uncertain and beyond our control. Accordingly, we caution you that any such forward-looking statements are not guarantees of future performance and are subject to risks, assumptions, estimates and uncertainties that are difficult to predict. Although we believe that the expectations reflected in these forward-looking statements are reasonable as of the date made, actual results may prove to be materially different from the results expressed or implied by the forward-looking statements.

A number of important factors could cause our actual results to differ materially from those indicated in these forward-looking statements, including those factors identified in “Risk Factors” in Item 1A. of our 2017 Annual Report

on Form 10-K for the year ended December 31, 2017 (our "2017 Annual Report") which is incorporated by reference herein, and include the following: current and future economic and market conditions; changes in interest rates; an inability to effectively manage our Mortgage Servicing Rights concentration risk, which could impact our Common Equity Tier 1 ratio under Basel III; imperfect estimates that could impact the adequacy of our allowance for loan and lease losses; the geographic concentration of our loans held-for-investments, including in California, Michigan, and Florida; our access to sources of liquidity and capital to address our liquidity needs; our inability to receive dividends from our bank and satisfy obligations as they come due; failure to comply with the terms of our Supervisory Agreement (as defined below) with the Federal Reserve; dependency on Fannie Mae and Freddie Mac to sell mortgage loans; changes in the Fannie Mae or Freddie Mac servicing, origination, or underwriting guidelines or criteria; adverse effect on earnings from increases in deposit insurance premiums and special FDIC (as defined below) assessments; integration challenges associated with mergers and acquisitions; our inability to achieve anticipated

S-ii

benefits of any such merger or acquisition in a timely manner or at all; a failure of our, or our key third party vendors or service providers' information technology systems and resulting operational losses and damage to our reputation; cybersecurity attacks or other compromise to customers' personally identifiable information; our termination as a servicer or subservicer or the incurrence of costs if we fail to satisfy our servicing obligations, including with respect to mortgage loan foreclosure actions; requirements to repurchase mortgage loans, pay fees, or indemnify buyers against losses; reliance on third party mortgage originators, which subjects us to strategic, reputational, compliance, and operational risk; MP Thrift's ownership and influence over us, including control over decisions that require the approval of stockholders, whether or not such decisions are in the best interests of other stockholders; various legal and regulatory investigations and proceedings; uncertainties with respect to the assessment of the accounting impact of the Tax Cuts and Jobs Act (Public Law 115-97) (the "Tax Reform Act"); losses of certain personnel, including key members of our management team; and damage to our reputation from any of the factors described above or otherwise.

The foregoing factors should not be considered an exhaustive list and should be read together with the other cautionary statements included in our 2017 Annual Report. If one or more events related to these or other risks or uncertainties materialize, or if our underlying assumptions prove to be incorrect, actual results may differ materially from what we anticipate. Accordingly, you should not place undue reliance on any such forward-looking statements. Any forward-looking statement speaks only as of the date on which it is made, and we do not undertake any obligation to update or review any forward-looking statement, whether as a result of new information, future developments or otherwise, except as required by applicable law.

S-iii

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights information contained elsewhere in, or incorporated by reference into, this prospectus supplement and the accompanying prospectus. As a result, it does not contain all of the information that may be important to you or that you should consider before investing in our securities. You should read the prospectus supplement and the accompanying prospectus, including “Risk Factors”, and the documents incorporated by reference, which are described under “Incorporation of Certain Information by Reference” in this prospectus supplement. Flagstar Bancorp, Inc.

We are a savings and loan holding company founded in 1993. Our business is primarily conducted through our principal subsidiary, Flagstar Bank, a federally chartered stock savings bank founded in 1987. We provide commercial and consumer banking services, and are the 5th largest bank mortgage originator in the nation.

We have a unique, relationship-based business model which leverages our full-service bank’s capabilities with our national mortgage customer base to create and build enduring commercial relationships. Our banking network emphasizes the delivery of a complete set of banking and mortgage products and services. We distinguish ourselves by crafting specialized solutions for our customers, local delivery, high quality customer service and competitive product pricing. Our community bank growth model has focused on attracting seasoned bankers with larger bank lending experience who can attract their existing long-term customer relationships to Flagstar. At March 31, 2018, we operated 107 full service banking branches, including 99 throughout Michigan's major markets and eight Desert Community Bank branches in San Bernardino County, California, which we acquired on March 19, 2018.

We originate mortgages through a wholesale network of brokers and correspondents in all 50 states, and our own loan officers from 92 retail locations in 31 states and two call centers, which includes our direct-to-consumer lending team. Flagstar Bank has the opportunity to expand correspondent relationships by providing warehouse lending, mortgage servicing and other services. Servicing and subservicing of loans provides fee income and generates a stable long-term source of funding through custodial deposits.

We believe our transformation into a strong commercial bank, our flexible mortgage servicing platform, and focus on service creates a significant competitive advantage in the markets in which we compete. The management team we have assembled is focused on developing substantial and attractive growth opportunities that generate profitable results from operations. We believe our lower risk profile and strong capital level position us to take advantage of opportunities to deliver attractive shareholder returns over the long term.

As of the date of this prospectus supplement, we are considered a controlled company for NYSE purposes, because approximately 61.8% of our common stock is owned by MP Thrift, which is managed by MatlinPatterson, a global asset manager. Following this offering, we expect that MP Thrift will no longer hold 50% or more of our outstanding common stock and, therefore, we will cease to be a “controlled company” within the meaning of the corporate governance listing standards of the NYSE.

Recent Developments

On June 4, 2018, Flagstar Bank signed a definitive agreement to acquire 52 Wells Fargo Bank branches in Indiana, Michigan, Wisconsin and Ohio, with approximately \$2.3 billion in deposits and \$130 million in loans, along with certain related assets. Flagstar Bank will pay an effective deposit premium of approximately 7% based on balances as of December 31, 2017.

The 52-branch purchase is for 33 locations in Indiana, including 26 branches in Fort Wayne, Indiana, 14 branches in the Upper Peninsula of Michigan, four locations in Wisconsin and one in Ohio. At closing, Flagstar Bank expects to have 151 branches in the Midwest and eight in California. The branch acquisition will provide us with liquidity that we plan to use to repay Federal Home Loan Bank advances. Longer term, a larger branch network will allow us to expand access to core deposits and other business opportunities. The branches to be acquired will operate as Wells Fargo branches until closing, and will be re-branded as Flagstar branches immediately upon closing of the transaction. We intend to keep all branches and retain all employees at closing. This transaction is subject to regulatory approval and customary closing conditions, and is expected to close in the fourth quarter of 2018.

Corporate Information

Our principal executive office is located at 5151 Corporate Drive, Troy, Michigan 48098. Our telephone number is (248) 312-2000. Our website address is www.flagstar.com. The information found on, or otherwise accessible

through, our website is not incorporated into, and does not form a part of, this prospectus supplement or any other document we file with or furnish to the SEC.

S-1

THE OFFERING

This summary should be read together with this entire prospectus supplement, the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and accompanying prospectus, which are described under “Incorporation of Certain Information by Reference”, including the section entitled “Risk Factors” below and “Item 1A. Risk Factors” of our 2017 Annual Report.

Common stock

offered by the selling
stockholder in this
offering 8,000,000 shares.

Option to purchase
additional shares of
common stock from 1,200,000 shares.
the selling
stockholder

Common stock to be
outstanding 57,569,658 shares.
immediately after this
offering⁽¹⁾

Common stock
owned by the selling
stockholder Following the completion of the offering, the selling stockholder will own approximately 47.9%
immediately after this of our outstanding common stock (or approximately 45.9% if the underwriters’ option to
offering⁽²⁾ purchase up to 1,200,000 additional shares of common stock from the selling stockholder is
exercised in full).

Use of proceeds We will not receive any of the proceeds from the sale of the shares of common stock being sold
in this offering. All of the shares in this offering are being sold by the selling stockholder.
Each holder of our common stock will be entitled to one vote per share on all matters on which
our stockholders generally are entitled to vote. See “Description of Common Stock” in the
accompanying prospectus.

Voting rights We have not paid dividends on our common stock since the fourth quarter of 2007. We do not
expect to pay cash dividends on our common stock in the near term. Instead, we anticipate that
all of our future earnings will be retained to support our operations and finance the growth and
development of our business.

Dividend policy The declaration of all future dividends, if any, will be at the discretion of our board of directors
and will depend on many factors, including the financial condition, earnings and liquidity
requirements of our company and Flagstar Bank, regulatory constraints, corporate law and
contractual restrictions, and any other factors that our board of directors deems relevant in
making such a determination. We are generally prohibited from making any dividend payments
on stock except pursuant to the prior non-objection of the Federal Reserve as set forth in the
Supervisory Agreement. See “Dividend Policy and Dividends” for more information.

Listing Our common stock is listed on the NYSE.
Ticker symbol “FBC”.

Risk Factors Investing in our common stock involves significant risks. You should carefully consider all of
the information contained, or incorporated by reference, in this prospectus supplement prior to
investing in shares of our common stock. In particular, we urge you to carefully consider the
information contained in the “Risk Factors” section beginning on page S-4 of this prospectus
supplement and any risk factors described in “Item 1A. Risk Factors” of 2017 Annual Report.

(1) The number of shares of our common stock outstanding noted herein is as of June 7, 2018, and excludes
approximately 4,752,558 shares of our common stock reserved for issuance under our equity incentive and employee

stock purchase plans.

(2) Following this offering, we expect that MP Thrift will no longer hold 50% or more of our outstanding common stock and, therefore, we will cease to be a “controlled company” within the meaning of the corporate governance listing standards of the NYSE.

Unless we specifically state otherwise, the information in this prospectus supplement assumes no exercise of the underwriters’ option to purchase additional shares of our common stock from the selling stockholder.

S-2

RISK FACTORS

Investing in our common stock involves a significant degree of risk and uncertainty. Before investing in our common stock, you should carefully consider the risks and uncertainties described below and in our 2017 Annual Report, in addition to the other information contained in, or incorporated by reference into, this prospectus supplement. Any of such risks, as well as risks that we do not know or currently deem immaterial, could have a material adverse effect on our business, financial condition or results of operations. As a result, the trading price of our common stock could decline, and you could lose some or all of your investment.

Our stock price may be volatile, and you could lose part or all of your investment as a result.

Stock price volatility may make it more difficult for you to resell your common stock when you want and at prices you find attractive. Our stock price may fluctuate significantly in response to a variety of factors including, among other things:

- actual or anticipated variations in our quarterly results of operations;
- changes in economic or business conditions;
- the effects of, and changes in, trade, monetary and fiscal policies, including the interest rate policies of the Federal Reserve;
- publications of research reports about us, our competitors, or the financial services industry generally, or changes in, or failure to meet, estimates made by securities analysts or rating agencies of our financial and operating performance, or lack of research reports by analysts or ceasing of coverage;
- operating and stock price performance of other companies that investors deem comparable to us;
- news reports relating to trends, concerns and other issues in the financial services industry;
- perceptions in the marketplace regarding us, our competitors or other financial institutions;
- future sales of our common stock;
- additions or departures of key personnel;
- new technology used, or services offered, by competitors;
- changes in accounting principles, policies and guidelines;
- significant acquisitions or business combinations, strategic partnerships, joint ventures or capital commitments by or involving us or our competitors;
- changes or proposed changes in laws or regulations, or differing interpretations thereof affecting our business, or enforcement of these laws and regulations;
- litigation and governmental investigations;
 - geopolitical conditions such as acts or threats of terrorism or military conflicts;
 - and
- other economic, competitive, governmental, regulatory and technological factors affecting our operations, pricing, products and services.

The stock market and, in particular, the market for financial institution stocks, have experienced substantial fluctuations in recent years, which in many cases have been unrelated to the operating performance and prospects of particular companies. In addition, significant fluctuations in the trading volume in our common stock may cause significant price variations to occur. Increased market volatility may materially and adversely affect the market price of our common stock, which could make it difficult to sell your shares at the volume, prices and times desired.

MP Thrift will continue to have significant control over us following the completion of this offering, and its interests may conflict with ours or yours in the future.

MP Thrift beneficially owns approximately 61.8% of our outstanding common stock prior to this offering. As a result, MP Thrift has significant control over us. Following the completion of this offering, MP Thrift will beneficially own approximately 47.9% of our common stock (or 45.9% if the underwriters' option to purchase up to 1,200,000 additional shares of our common stock is exercised in full). As a result, although MP Thrift will no longer hold a majority of our outstanding common stock, it will retain substantial influence over our management and affairs. MP Thrift's degree of control over us will depend on, among other things, its level of beneficial ownership of our common stock and its ability to exercise certain rights under the terms of the Investment Agreement that we entered into with

MP Thrift in connection with MP Thrift's initial investment in Flagstar. Under the terms of the Investment Agreement, MP Thrift is entitled to designate nominees for election to our board of directors, make certain appointments to the nominating/corporate governance committee of our board, and appoint two non-voting observers to the board of directors. Pursuant to the Investment Agreement, until it no longer holds at least 10% of the voting power in our company, MP Thrift will have the right to designate as nominees such number of directors to serve on our board of directors in proportion to the total voting power of voting stock beneficially owned by MP Thrift.

S-3

MP Thrift's concentration of voting power could deprive stockholders of an opportunity to receive a premium for their shares of common stock as part of a sale of our company, and could affect the market price of our common stock. In addition, MP Thrift's interests may differ from our interests or those of our other stockholders, and MP Thrift may affect the management of our business or may not exercise its voting power or consent rights in a manner favorable to our other stockholders.

Following the completion of this offering, because MP Thrift will no longer hold more than 50% of our outstanding common stock, we will not be able to rely on certain exemptions from the corporate governance requirements of the NYSE available for "controlled companies" after the completion of a transition period.

Following the completion of this offering, we will cease to be a "controlled company" within the meaning of the corporate governance listing standards of the NYSE because MP Thrift will no longer own more than 50% of our outstanding common stock. As a "controlled company", we elected not to comply with certain corporate governance requirements of the NYSE. Under the rules of the NYSE, in order for our shares to remain listed on the NYSE upon ceasing to qualify as a controlled company, we will be required to comply fully with all NYSE corporate governance requirements. Because MP Thrift will cease to control a majority of the voting power of our common stock after this offering, we may no longer qualify as a "controlled company" and following a transition period, would be required to comply with all NYSE corporate governance requirements, including with respect to independent board of directors and committees.

Currently, our nominating/corporate governance committee and compensation committee do not consist entirely of independent directors. As a result, you currently do not have certain of the protections afforded to stockholders of companies that are subject to all of the corporate governance requirements of the NYSE and may not have such protections for a period following the completion this offering.

Future sales of our common stock, including future sales by MP Thrift, could impact our stock price.

The market price of our common stock could decline as a result of sales of a large number of shares of our common stock or from the perception that such sales could occur. These sales, or the possibility that these sales may occur, also may make it more difficult for us to raise additional capital by selling equity securities in the future, at a time and price that we deem appropriate. As of June 7, 2018, we have a total of 57,569,658 outstanding shares of common stock. Of the outstanding shares, the 8,000,000 shares sold in this offering (or 9,200,000 shares if the underwriters exercise their option to purchase additional shares in full), plus an additional 21,969,306 previously registered shares generally will be freely tradable without restriction or further registration under the Securities Act subject in the case of shares held by our affiliates, to volume, manner of sale and other limitations under Rule 144. The remaining 27,600,352 shares outstanding that are beneficially owned by MP Thrift after this offering (or 26,400,352 shares if the underwriters exercise their option to purchase additional shares in full), will be restricted securities as defined under Rule 144.

We have agreed with the underwriters not to offer, pledge, sell or otherwise dispose of or hedge any shares of our common stock, subject to certain exceptions, for the 90-day period following the date of this prospectus supplement, without the prior consent of Sandler O'Neill & Partners L.P. The selling stockholder and our executive officers and directors have entered into similar lock-up agreements with the underwriters. Sandler O'Neill & Partners L.P. may, at any time, release us and the selling stockholder or any of our executive officers or directors from this lock-up agreement and allow us to sell shares of our common stock within this 90-day period.

Upon the expiration of the lock-up agreements described above, all remaining shares beneficially owned by MP Thrift will be eligible for resale in a public market and MP Thrift may sell its shares from time to time pursuant to the Registration Statement of which this prospectus supplement forms a part. We do not have control over when, if at all, MP Thrift may decide to sell additional shares of our common stock that it will beneficially own following this offering.

In addition, future issuances of our common stock could result in dilution to our stockholders and affect the market price of our common stock. We cannot predict the size of future issuances or sales of our common stock or the effect, if any, that future issuances or sales of shares of our common stock may have on the market price of our common stock. Sales or distributions of substantial amounts of our common stock (including shares issued in connection with an acquisition), or the perception that such sales could occur, may cause the market price of our common stock to decline.

Our board of directors is subject to restrictions on its ability to declare dividends on the common stock. Our ability to declare and pay dividends on our stock is subject to numerous limitations applicable to savings and loan holding companies under federal banking laws, regulations and policies and dividends are payable only if declared by our board of directors. In addition, pursuant to a Supervisory Agreement entered into with the Federal Reserve on January 28, 2010 (the

S-4

“Supervisory Agreement”), we may not declare or pay any cash dividends or other capital distributions or repurchase any equity stock without the prior written non-objection of the Federal Reserve. Also, under Michigan law, we are prohibited from paying dividends on our capital stock if, after giving effect to the dividend, (i) we would not be able to pay our debts as they become due in the usual course of business or (ii) our total assets would be less than the sum of our total liabilities plus the preferential rights upon dissolution of stockholders with preferential rights on dissolution which are superior to those receiving the dividend. Therefore, there can be no assurance that we will pay any dividends to holders of our common stock, or as to the amount of any such dividends. See “Dividend Policy and Dividends”.

Anti-takeover provisions in our amended and restated articles of incorporation and bylaws and Michigan law, as well as restrictions on ownership of our capital stock in applicable federal banking laws, regulations and policies, could make a third party acquisition of us difficult.

Our amended and restated articles of incorporation and bylaws contain provisions that could make it more difficult for a third party to acquire us (even if doing so would be beneficial to our stockholders) and for holders of our common stock to receive any related takeover premium for their common stock. We are also subject to certain provisions of Michigan law that could delay, deter or prevent a change in control of us.

In addition, there are substantial regulatory limitations on changes of control of savings and loan holding companies and federal savings associations. Any company that acquires control of a savings association becomes a “savings and loan holding company” subject to registration, examination and regulation by the Federal Reserve. “Control,” as defined under federal banking regulations, includes ownership or control of shares, or holding irrevocable proxies (or a combination thereof), representing 25% or more of any class of voting stock, control in any manner of the election of a majority of the institution’s directors, or a determination by the Federal Reserve that the acquirer has the power to direct, or directly or indirectly to exercise a controlling influence over, the management or policies of the institution. Further, an acquisition of 10% or more of our common stock creates a rebuttable presumption of “control” under federal banking regulations. Any acquisition of “control” of the company, or the acquisition by another savings and loan holding company of more than 5% of the voting shares of the company, may require the prior approval of the Federal Reserve.

These provisions could limit the price that investors might be willing to pay in the future for shares of our common stock.

Our recently announced branch acquisition may fail to close or achieve the benefits currently anticipated.

We recently announced Flagstar Bank's agreement to acquire 52 branches from Well Fargo Bank, which we expect will close in the fourth quarter of 2018, subject to regulatory approval and closing conditions. If regulatory approval is not obtained or closing conditions are not satisfied or waived, the acquisition will not be completed. In addition, we may fail to realize all or any of the anticipated benefits of the acquisition, or those benefits may take longer to realize than expected. We may experience challenges related to the integration of the operations of the branches, including transition of data, integration of product offerings and the standardization of business practices. Complications associated with the acquisition could result in additional costs, loss of customers, damage to our reputation or other operational risks.

USE OF PROCEEDS

We will not receive any of the proceeds from the sale of the shares of common stock being sold in this offering, including the sale of any shares pursuant to the underwriters' option to purchase additional shares. All of the shares in this offering are being sold by the selling stockholder. See "The Selling Stockholder". All proceeds from the sale of these shares will be received by the selling stockholder, net of any expenses and any deemed underwriting discounts and commissions attributable to the sale of the securities.

S-6

SUMMARY SELECTED HISTORICAL CONSOLIDATED FINANCIAL INFORMATION

The following table summarizes certain selected financial data of the Company for the periods presented. The selected historical financial data as of and for the three months ended March 31, 2018 and 2017 have been derived from our unaudited interim consolidated financial statements, which are incorporated by reference in this prospectus supplement. The unaudited condensed consolidated financial statements include all adjustments, consisting only of normal recurring items, which our management considers necessary for a fair presentation of our financial position and results of operations for these periods. The financial condition and results of operations as of and for the three months ended March 31, 2018 do not purport to be indicative of the financial condition or results of operations to be expected as of or for the fiscal year ended December 31, 2018. The unaudited condensed consolidated financial statements as of March 31, 2018 and for the three-month periods ended March 31, 2018 and 2017, together with the notes thereto are included in our quarterly report on Form 10-Q for the quarter ended March 31, 2018, which is incorporated by reference into this prospectus supplement and the accompanying prospectus. The selected historical financial data as of and for the years ended December 31, 2017, 2016, 2015, 2014 and 2013 have been derived from our audited consolidated financial statements, and our audited consolidated financial statements for the selected financial data as of December 31, 2017 and 2016 and for each of the years in the four-year period ended December 31, 2017 have been incorporated by reference in this prospectus supplement.

You should read the following information, together with “Risk Factors” included in this prospectus supplement and the historical consolidated financial information contained in our consolidated financial statements and related notes, as well as the information contained under the caption entitled “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” in our Quarterly Report on Form 10-Q for the period ended March 31, 2018 and our 2017 Annual Report, which have been filed with the SEC and are incorporated herein by reference.

| (dollars in millions) | As of and for the three months ended March 31, | | As of and for the year ended December 31, | | | | |
|---|--|------------|---|------------|------------|------------|------------|
| | 2018 | 2017 | 2017 (1) | 2016 (1) | 2015 (1) | 2014 (1) | 2013 (1) |
| Summary of Consolidated Statement of Operations Data | | | | | | | |
| Net income (loss) | \$35 | \$ 27 | \$63 | \$ 171 | \$ 158 | \$(69) | \$ 267 |
| Net interest income | 106 | 83 | 390 | 323 | 287 | 247 | 186 |
| Noninterest income | 111 | 100 | 470 | 487 | 470 | 372 | 653 |
| Noninterest expense | 173 | 140 | 643 | 560 | 536 | 590 | 918 |
| Provision (benefit) for income taxes | 9 | 13 | 148 | 87 | 82 | (34) | (416) |
| Per Share Data: | | | | | | | |
| Earnings (loss) | | | | | | | |
| Basic | \$0.61 | \$ 0.47 | \$1.11 | \$ 2.71 | \$ 2.27 | \$(1.72) | \$ 4.40 |
| Diluted | 0.60 | 0.46 | 1.09 | 2.66 | 2.24 | (1.72) | 4.37 |
| Dividends declared per share | — | — | — | — | — | — | — |
| Dividend payout ratio | — | — | — | — | — | — | — |
| Book value per common share | 24.87 | 24.03 | 24.40 | 23.50 | 22.33 | 19.64 | 20.66 |
| Weighted average common shares outstanding | | | | | | | |
| Basic | 57,356,656 | 56,921,605 | 57,093,866 | 56,569,307 | 56,426,977 | 56,246,528 | 56,063,282 |
| Diluted | 58,314,388 | 58,072,563 | 58,178,347 | 57,597,667 | 57,164,523 | 56,246,528 | 56,518,181 |
| Performance Ratios: | | | | | | | |
| Return (loss) on average assets | 0.82 % | 0.76 % | 0.40 % | 1.23 % | 1.32 % | (0.71)% | 2.08 % |
| Return (loss) on average equity | 9.9 | 7.9 | 4.4 | 11.7 | 10.6 | (5.0) | 21.1 |
| Return (loss) on average common equity | 9.9 | 7.9 | 4.4 | 13.0 | 10.5 | (6.1) | 26.8 |
| Equity-to-assets ratio | 8.1 | 8.9 | 8.3 | 9.5 | 11.1 | 14.0 | 15.2 |

Edgar Filing: FLAGSTAR BANCORP INC - Form 424B5

| | | | | | | | |
|--|------|-------|------|-------|-------|-------|-------|
| Common equity-to-assets ratio | 8.1 | 8.9 | 8.3 | 9.5 | 9.2 | 11.2 | 12.3 |
| Equity/assets ratio (average for the period) | 8.27 | 9.59 | 9.05 | 10.52 | 12.43 | 14.22 | 9.87 |
| Net interest margin | 2.76 | 2.67 | 2.75 | 2.64 | 2.74 | 2.91 | 1.72 |
| Efficiency ratio | 79.7 | 76.8 | 74.8 | 69.2 | 70.9 | 95.4 | 109.4 |
| Flagstar Bancorp, Inc. Tier 1 leverage (to adjusted avg. total assets) (2) (3) | 8.72 | 9.31 | 8.51 | 8.88 | 11.51 | N/A | N/A |
| Flagstar Bank Tier 1 leverage (to adjusted avg. total assets) | 9.08 | 10.74 | 9.04 | 10.52 | 11.79 | 12.43 | 13.97 |
| Effective tax provision rate (4) | 20.1 | 33.1 | 70.1 | 33.7 | 34.2 | 32.9 | 29.7 |

S-7

| (dollars in millions) | As of and for the three months ended | | As of and for the year ended December 31, | | | | |
|--|---|---------|---|---------|---------|---------|---------|
| | 2018 | 2017 | 2017 | 2016 | 2015 | 2014 | 2013 |
| Summary of Consolidated Statement of Financial Condition | | | | | | | |
| Investment securities, available-for-sale | \$1,918 | \$1,650 | \$1,853 | \$1,480 | \$1,294 | \$1,672 | \$1,046 |
| Total loans held-for-investment (5) | 8,134 | 5,959 | 7,713 | 6,065 | 6,352 | 4,448 | 4,056 |
| Allowance for loan losses | (139) | (141) | (140) | (142) | (187) | (297) | (207) |
| Total assets | 17,736 | 15,361 | 16,912 | 14,053 | 13,715 | 9,840 | 9,407 |
| Total deposits | 9,986 | 8,645 | 8,934 | 8,800 | 7,935 | 7,069 | 6,140 |
| Total shareholders' equity | 1,427 | 1,371 | 1,399 | 1,336 | 1,529 | 1,373 | 1,426 |
| Capital Ratios: | | | | | | | |
| Tier 1 leverage to adjusted average total assets | 8.72 | % 9.31 | % 8.51 | % 8.88 | % 11.51 | % 12.59 | % 13.97 |
| Common equity Tier 1 capital to risk-weighted assets | 10.80 | % 12.32 | % 11.50 | % 13.06 | % 14.09 | % N/A | N/A |
| Tier 1 capital to risk-weighted assets | 12.90 | % 14.70 | % 13.63 | % 15.12 | % 18.98 | % 22.81 | % 26.82 |
| Total capital to risk-weighted assets | 14.14 | % 15.98 | % 14.90 | % 16.41 | % 20.28 | % 24.12 | % 28.11 |
| Selected Statistics: | | | | | | | |
| Mortgage rate lock commitments (fallout-adjusted) (6) | 7,722 | 5,996 | 32,527 | 29,372 | 25,511 | 24,007 | 31,590 |
| Mortgage loans sold and securitized | 7,247 | 4,484 | 32,493 | 32,033 | 26,307 | 24,407 | 39,075 |
| Number of banking centers | 107 | 99 | 99 | 99 | 99 | 107 | 111 |
| Number of FTE employees | 3,659 | 2,948 | 3,525 | 2,886 | 2,713 | 2,739 | 3,253 |

As previously disclosed in our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2018, effective January 1, 2018, we adopted Accounting Standards Update 2016-18 "Statement of Cash Flows (Topic 230) - Restricted Cash," which changed the presentation of restricted cash within our consolidated statements of cash flows and also implemented changes in our reportable segments. We recast our financial statements and other financial information included in our 2017 Annual Report to give effect to these changes, as presented in our Form 8-K filed with the SEC on June 1, 2018, which is incorporated by reference herein.

(1) Applicable to Flagstar Bancorp, Inc. for the three-month periods ended March 31, 2018 and 2017 and for the years ended December 31, 2017, 2016, and 2015.

(2) The Basel III transitional phase-in rules were applicable to December 31, 2017 and March 31, 2017.

(3) The year ended December 31, 2017 includes an \$80 million one-time, non-cash charge to the provision for income taxes resulting from the revaluation of the Company's net deferred tax assets at a lower statutory rate as a result of the Tax Reform Act.

(4) Includes nonaccrual loans.

(5) Fallout adjusted refers to mortgage rate lock commitments which are adjusted by a percentage of mortgage loans in the pipeline that are not expected to close based on previous historical experience and the level of interest rates.

DIVIDEND POLICY AND DIVIDENDS

We have not paid dividends on our common stock since the fourth of quarter 2007. We do not intend to pay dividends on our common stock in the near-term. Instead, we anticipate that all of our future earnings will be retained to support our operations and to finance the growth and development of our business. The amount and nature of any dividends declared on our common stock in the future will be determined by our board of directors in its sole discretion, subject to regulatory approval. In determining the amount of any future dividends, our board of directors will take into account: (i) our financial results; (ii) our available cash, as well as anticipated cash requirements (including debt servicing); (iii) our capital requirements and the capital requirements of our subsidiaries (including our bank) and the terms of any capital plan applicable to us (iv) contractual, legal, tax and regulatory restrictions on, and implications of, the payment of dividends by us to our stockholders or by our bank to us; (v) general economic and business conditions; and (vi) any other factors that our board of directors may deem relevant.

Our ability to declare and pay dividends on our stock is also subject to numerous limitations applicable to savings and loan holding companies under federal banking laws, regulations and policies. Pursuant to the Supervisory Agreement, we may not declare or pay any cash dividends or other capital distributions without the prior written non-objection of the Federal Reserve. Therefore, there can be no assurance that we will pay any dividends to holders of our stock, or as to the amount of any such dividends. See “Dividends” in “Item 5. Market for the Registrant’s Common Equity and Related Stockholder Matters” of our 2017 Annual Report and “Material U.S. Federal Tax Considerations for Non-U.S. Holders of Our Common Stock-Dividends” in this prospectus supplement.

As a Michigan corporation, we are subject to certain restrictions on dividends under the Michigan Business Corporation Act. Generally, Michigan law limits cash dividends if the corporation would not be able to pay its debts as they become due in the usual course of business after giving effect to the cash dividend or if the corporation’s total assets would be less than the sum of its total liabilities plus the amount needed to satisfy the preferential rights upon dissolution of shareholders whose preferential rights on dissolution are superior to those receiving the distribution. Because we are a holding company and do not engage directly in other business activities of a material nature, our ability to pay dividends on our stock depends primarily upon our receipt of dividends from our bank, which constitutes a principal source of income for us and the payment of which is subject to numerous limitations under federal banking laws, regulations and policies. The OCC regulates all capital distributions made by our bank, directly or indirectly, to us, including dividend payments. Our bank must file a notice and receive approval from the OCC at least 30 days prior to each proposed capital distribution before declaring any dividends. Additionally, our bank may not pay dividends to us if, after paying those dividends, our bank would fail to meet the required minimum levels under risk-based capital guidelines and the minimum leverage and tangible capital ratio requirements. Payment of dividends by our bank also may be restricted at any time at the discretion of the OCC if it deems the payment to constitute an unsafe and unsound banking practice. Under the Federal Deposit Insurance Act, an insured depository institution may not pay any dividends if the institution is undercapitalized or if the payment of the dividend would cause the institution to become undercapitalized. In addition, the federal bank regulatory agencies have issued policy statements providing that FDIC-insured depository institutions and their holding companies should generally pay dividends only out of their current operating earnings. See “Item 1. Business-Regulation and Supervision-Banking Regulation-Limitation on Capital Distributions” of our 2017 Annual Report for more information on federal banking laws, regulations and policies limiting our and our bank’s ability to declare and pay dividends.

Our senior notes, which are unsecured and rank equally and ratably with our unsecured senior indebtedness, are senior to our common stock and the securities offered hereby. Payments of the distributions on the trust preferred securities issued by subsidiary trusts, which are wholly owned Connecticut or Delaware statutory trusts, are fully and unconditionally guaranteed by us. Our senior notes and the junior subordinated debentures that we have issued to our subsidiary trusts are senior to our shares of common stock, including the securities offered hereby. As a result, we must make required payments on our senior notes and the junior subordinated debentures before any dividends can be paid on our common stock or the securities offered hereby and, in the event of our bankruptcy, dissolution or liquidation, the interest and principal obligations under our senior notes and the junior subordinated debentures must be satisfied before any distributions can be made on our common stock or the securities offered hereby. We may defer the payment of interest on each of the junior subordinated debentures for a period not to exceed 20 consecutive quarters, provided that the deferral period does not extend beyond the stated maturity. During such deferral period,

distributions on the corresponding trust preferred securities will also be deferred and we may not pay cash dividends to the holders of shares of our common stock, including the securities offered hereby, or any preferred stock.

The current and future dividend policy of our bank is also subject to the discretion of its board of directors. Our bank is not obligated to pay dividends to us. For additional information, see “Risk Factors-Market, Interest Rate, Credit and Liquidity Risk-We are a holding company and are, therefore, dependent on our bank for funding obligations” in “Item 1A. Risk Factors” of our 2017 Annual Report, which is incorporated by reference into this prospectus supplement.

S-9

PRICE RANGE OF OUR COMMON STOCK

Our common stock has been listed on the NYSE under the symbol “FBC” since July 13, 2001. The following table sets forth, for the periods indicated, the high and low sale prices in dollars on the NYSE for our common stock with respect to the periods indicated.

| Quarter Ended | High | Low |
|--------------------------------------|---------|---------|
| March 31, 2016 | \$23.13 | \$17.49 |
| June 30, 2016 | \$24.47 | \$20.68 |
| September 30, 2016 | \$28.09 | \$24.40 |
| December 31, 2016 | \$29.08 | \$26.35 |
| March 31, 2017 | \$29.10 | \$25.42 |
| June 30, 2017 | \$31.36 | \$27.59 |
| September 30, 2017 | \$35.48 | \$29.89 |
| December 31, 2017 | \$38.48 | \$34.82 |
| March 31, 2018 | \$39.24 | \$34.82 |
| June 30, 2018 (through June 8, 2018) | \$37.75 | \$33.09 |

On June 8, 2018, the last reported sale price for our common stock on the NYSE was \$37.25 per share. As of June 7, 2018, there were approximately 1,962 stockholders of record of our common stock. These figures do not reflect the beneficial ownership of shares held in nominee name, nor do they include holders of any restricted stock units.

S-10

THE SELLING STOCKHOLDER

Immediately following the offering, MP Thrift will beneficially own approximately 47.9% of our outstanding common stock (or approximately 45.9% if the underwriters exercise their option to purchase additional shares in full). The selling stockholder is selling shares of our common stock in this offering. The following table presents information as of the date of this prospectus supplement, regarding the beneficial ownership of our common stock by the selling stockholder.

| Name and Address of Selling Stockholder | Shares of Common Stock Beneficially Owned Before the Completion of the Offering | | Shares Being Sold by Stockholder in the Offering | Shares of Common Stock Beneficially Owned After Completion of the Offering | |
|---|---|---------------------|--|--|------------------------|
| | Number of Shares | Percentage of Class | Number of Shares(1) | Number of Shares(1) | Percentage of Class(1) |
| MP Thrift Investments L.P.(2) | 35,600,352 | 61.8 % | 8,000,000 | 27,600,352 | 47.9% |

If the underwriters exercise their option to purchase up to 1,200,000 additional shares of our common stock from (1) the selling stockholder in full, MP Thrift will beneficially own 26,400,352 shares, or 45.9%, of our common stock following the completion of this offering.

MP Thrift's investment decisions are controlled by its General Partner, MP (Thrift) Global Partners III LLC. The (2) address of MP Thrift's registered office is c/o Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808.

MATERIAL U.S. FEDERAL TAX CONSIDERATIONS FOR NON-U.S. HOLDERS OF OUR COMMON STOCK

This section summarizes the material United States federal income and estate tax consequences of the ownership and disposition of shares of our common stock by a non-U.S. holder (as defined below). You are a “non-U.S. holder” if you are a beneficial owner of our common stock and you are, for United States federal income tax purposes:

• a nonresident alien individual;

• a foreign corporation; or

• an estate or trust that in either case is not subject to United States federal income tax on a net income basis on income or gain from our common stock.

This section does not consider the specific facts and circumstances that may be relevant to a particular non-U.S. holder and does not address the treatment of a non-U.S. holder under the laws of any state, local or foreign taxing jurisdiction. This section is based on the tax laws of the United States, including the Internal Revenue Code of 1986, as amended (the “Code”), existing and proposed regulations, and administrative and judicial interpretations, all as currently in effect. These authorities are subject to change, possibly on a retroactive basis.

If a partnership holds the shares of our common stock, the United States federal income tax treatment of a partner will generally depend on the status of the partner and the tax treatment of the partnership. A partner in a partnership holding shares of our common stock should consult its tax advisor with regard to the United States federal income tax treatment of an investment in our common stock.

You should consult a tax advisor regarding the United States federal tax consequences of acquiring, holding and disposing of shares of our common stock in your particular circumstances, as well as any tax consequences that may arise under the laws of any state, local or foreign taxing jurisdiction.

Dividends

Except as described below, if you are a non-U.S. holder, dividends paid to you are subject to withholding of United States federal income tax at a 30% rate or at a lower rate if you are eligible for the benefits of an income tax treaty that provides for a lower rate. In addition, even if you are eligible for a lower treaty rate, we and other payors will generally be required to withhold at a 30% rate (rather than the lower treaty rate) on dividend payments to you, unless you have furnished to us or another payor:

• a valid Internal Revenue Service (“IRS”) Form W-8BEN or W-8BEN-E or an acceptable substitute form upon which you certify, under penalties of perjury, your status as a non-United States person and your entitlement to the lower treaty rate with respect to such payments; or

• in the case of payments made outside the United States to an offshore account (generally, an account maintained by you at an office or branch of a bank or other financial institution at any location outside the United States), other documentary evidence establishing your entitlement to the lower treaty rate in accordance with U.S. Treasury regulations.

If you are eligible for a reduced rate of United States withholding tax under a tax treaty, you may obtain a refund of any amounts withheld in excess of that rate by filing a refund claim with the IRS.

If dividends paid to you are “effectively connected” with your conduct of a trade or business within the United States, and, if required by a tax treaty, the dividends are attributable to a permanent establishment that you maintain in the United States, we and other payors generally are not required to withhold tax from the dividends, provided that you have furnished to us or another payor a valid IRS Form W-8ECI or an acceptable substitute form upon which you certify, under penalties of perjury, that:

• you are a non-United States person; and

• the dividends are effectively connected with your conduct of a trade or business within the United States and are includible in your gross income.

S-12

“Effectively connected” dividends are taxed at rates applicable to United States citizens, resident aliens and domestic United States corporations.

If you are a corporate non-U.S. holder, “effectively connected” dividends that you receive may, under certain circumstances, be subject to an additional “branch profits tax” at a 30% rate or at a lower rate if you are eligible for the benefits of an income tax treaty that provides for a lower rate.

Gain on Disposition of Common Stock

If you are a non-U.S. holder, you generally will not be subject to United States federal income tax on gain that you recognize on a disposition of shares of our common stock unless:

the gain is “effectively connected” with your conduct of a trade or business in the United States, and the gain is attributable to a permanent establishment that you maintain in the United States, if that is required by an applicable income tax treaty as a condition for subjecting you to United States taxation on a net income basis;

you are an individual, you hold the shares of our common stock as a capital asset, you are present in the United States for 183 or more days in the taxable year of the disposition and certain other conditions exist; or

(i) we are or have been a United States real property holding corporation for United States federal income tax purposes, (ii) so long as our common stock continues to be regularly traded on an established securities market, you held, directly or indirectly, at any time during the five-year period ending on the date of disposition more than 5% of our common stock and (iii) you are not eligible for any treaty exemption.

“Effectively connected” gains are taxed at rates applicable to United States citizens, resident aliens and domestic United States corporations. If you are a corporate non-U.S. holder, such “effectively connected” gains that you recognize may also, under certain circumstances, be subject to an additional “branch profits tax” at a 30% rate or at a lower rate if you are eligible for the benefits of an income tax treaty that provides for a lower rate.

We have not been, are not and do not anticipate becoming a United States real property holding corporation for United States federal income tax purposes.

FATCA Withholding

Pursuant to sections 1471 through 1474 of the Code, commonly known as the Foreign Account Tax Compliance Act (“FATCA”), a 30% withholding tax (“FATCA withholding”) may be imposed on certain payments to you or to certain foreign financial institutions, investment funds and other non-United States persons receiving payments on your behalf if you or such persons fail to comply with, certain information reporting requirements. Such payments will include United States-source dividends and the gross proceeds from the sale or other disposition of stock that can produce United States-source dividends. Payments of dividends that you receive in respect of shares of our common stock could be affected by this withholding if you are subject to FATCA information reporting requirements and fail to comply with them or if you hold shares of our common stock through a non-United States person (e.g., a foreign bank or broker) that fails to comply with these requirements (even if payments to you would not otherwise have been subject to FATCA withholding). Payments of gross proceeds from a sale or other disposition of shares of our common stock could also be subject to FATCA withholding unless such disposition occurs before January 1, 2019. An intergovernmental agreement between the United States and your country of residence (or the country of residence of the non-United States person receiving payments on your behalf) may modify the requirements described above. You should consult your own tax advisors regarding the relevant United States law and other official guidance on FATCA withholding.

Federal Estate Taxes

Shares of our common stock held by an individual non-U.S. holder at the time of death will be included in the holder’s gross estate for United States federal estate tax purposes, unless an applicable estate tax treaty provides otherwise.

Backup Withholding and Information Reporting

If you are a non-U.S. holder, we and other payors are required to report payments of dividends on IRS Form 1042-S even if the payments are exempt from withholding. You are otherwise generally exempt from backup withholding and information reporting requirements with respect to dividend payments and the payment of the proceeds from the sale of common stock

S-13

effected at a United States office of a broker provided that either (i) the payor or broker does not have actual knowledge or reason to know that you are a United States person and you have furnished a valid IRS Form W-8 or other documentation upon which the payor or broker may rely to treat the payments as made to a non-United States person; or (ii) you otherwise establish an exemption.

Payment of the proceeds from the sale of common stock effected at a foreign office of a broker generally will not be subject to information reporting or backup withholding. However, a sale effected at a foreign office of a broker could be subject to information reporting in the same manner as a sale within the United States (and in certain cases may be subject to backup withholding as well) if: (i) the broker has certain connections to the United States (ii) the proceeds or confirmation are sent to the United States; or (iii) the sale has certain other specified connections with the United States. In addition, certain foreign brokers may be required to report the amount of gross proceeds from the sale or other disposition of common stock under FATCA if you are presumed to be a United States person.

Any amounts withheld under the backup withholding rules will generally be allowed as a credit against your United States federal income tax liability or refunded, provided the required information is timely furnished to the IRS.

S-14

CERTAIN ERISA CONSIDERATIONS

The following is a summary of certain considerations associated with the purchase and holding of shares of our common stock by employee benefit plans that are subject to Title I of the U.S. Employee Retirement Income Security Act of 1974, as amended (“ERISA”), plans, individual retirement accounts and other arrangements that are subject to Section 4975 of the Code or provisions under any other federal, state, local, non-U.S. or other laws or regulations that are similar to such provisions of the Code or ERISA (collectively, “Similar Laws”), and entities whose underlying assets are considered to include “plan assets” of any such plan, account or arrangement (each, a “Plan”).

General Fiduciary Matters

ERISA and the Code impose certain duties on persons who are fiduciaries of a Plan subject to Part IV of Title I of ERISA or Section 4975 of the Code (an “ERISA Plan”) and prohibit certain transactions involving the assets of an ERISA Plan and its fiduciaries or other interested parties. Under ERISA and the Code, any person who exercises any discretionary authority or control over the administration of such an ERISA Plan or the management or disposition of the assets of such an ERISA Plan, or who renders investment advice for a fee or other compensation to such an ERISA Plan, is generally considered to be a fiduciary of the ERISA Plan.

In considering an investment in our common stock with a portion of the assets of any Plan, a fiduciary should determine whether the investment is in accordance with the documents and instruments governing the Plan and the applicable provisions of ERISA, the Code or any Similar Law relating to a fiduciary’s duties to the Plan including, without limitation, the prudence, diversification, delegation of control and prohibited transaction provisions of ERISA, the Code and any other applicable Similar Laws.

Prohibited Transaction Issues

Section 406 of ERISA and Section 4975 of the Code prohibit ERISA Plans from engaging in specified transactions involving plan assets with persons or entities who are “parties in interest,” within the meaning of ERISA, or “disqualified persons,” within the meaning of Section 4975 of the Code, unless an exemption is available. A party in interest or disqualified person who engaged in a non-exempt prohibited transaction may be subject to excise taxes and other penalties and liabilities under ERISA and the Code. In addition, the fiduciary of the ERISA Plan that engaged in such a non-exempt prohibited transaction may be subject to penalties and liabilities under ERISA and the Code. The acquisition and/or holding of shares of our common stock by an ERISA Plan with respect to which the selling stockholder is considered a party in interest or a disqualified person may constitute or result in a direct or indirect prohibited transaction under Section 406 of ERISA and/or Section 4975 of the Code, unless the investment is acquired and is held in accordance with an applicable statutory, class or individual prohibited transaction exemption. In this regard, the U.S. Department of Labor has issued prohibited transaction class exemptions, or “PTCEs,” that may apply to the acquisition and holding of shares of our common stock. These class exemptions include, without limitation, PTCE 84-14 respecting transactions determined by independent qualified professional asset managers, PTCE 90-1 respecting insurance company pooled separate accounts, PTCE 91-38 respecting bank collective investment funds, PTCE 95-60 respecting life insurance company general accounts and PTCE 96-23 respecting transactions determined by in-house asset managers. In addition, Section 408(b)(17) of ERISA and Section 4975(d)(20) of the Code provide relief from the prohibited transaction provisions of ERISA and Section 4975 of the Code for certain transactions, provided that neither the selling stockholder, of the securities nor any of its affiliates (directly or indirectly) has or exercises any discretionary authority or control or renders any investment advice with respect to the assets of any ERISA Plan involved in the transaction and provided further that the ERISA Plan receives no less, nor pays no more, than adequate consideration in connection with the transaction. Furthermore, newly issued class exemptions, such as the “Best Interest Contract Exemption” (PTCE 2016 01), may provide relief for certain transactions involving certain investment advisers who are fiduciaries. Each of the above-noted exemptions contains conditions and limitations on its application. Fiduciaries of ERISA Plans considering acquiring or holding shares of our common stock in reliance on these or any other exemption should carefully review the exemption to ensure it is applicable. There can be no assurance that all of the conditions of any such exemptions will be satisfied.

Because of the foregoing, shares of our common stock should not be purchased or held by any person investing “plan assets” of any Plan, unless such purchase and holding will not constitute a non-exempt prohibited transaction under ERISA and the Code or a similar violation of any applicable Similar Laws.

S-15

Representation

Accordingly, by acceptance of shares of our common stock, each purchaser and subsequent transferee of shares of our common stock will be deemed to have represented and warranted that either (i) no portion of the assets used by such purchaser or transferee to acquire or hold shares of our common stock constitutes assets of any Plan or (ii) the acquisition and holding of shares of our common stock by such purchaser or transferee will not constitute a non-exempt prohibited transaction under Section 406 of ERISA or Section 4975 of the Code or a similar violation under any applicable Similar Laws.

The foregoing discussion is general in nature and is not intended to be all inclusive. Due to the complexity of these rules and the penalties that may be imposed upon persons involved in non-exempt prohibited transactions, it is particularly important that fiduciaries, or other persons considering purchasing shares of our common stock on behalf of, or with the assets of, any Plan, consult with their counsel regarding the potential applicability of ERISA, Section 4975 of the Code and any Similar Laws to such investment and whether an exemption would be applicable to the purchase and holding of shares of our common stock.

The sale of shares of our common stock to a Plan is in no respect a representation by the selling stockholder that such an investment meets all relevant legal requirements with respect to investments by Plans generally or any particular Plan, or that such an investment is appropriate for Plans generally or any particular Plan. Purchasers of shares of our common stock have the exclusive responsibility for ensuring that their purchase and holding of shares of our common stock complies with the fiduciary responsibility rules of ERISA and does not violate the prohibited transaction rules of ERISA, the Code or any applicable Similar Laws.

S-16

UNDERWRITING

We, the selling stockholder and the underwriters named below have entered into an underwriting agreement with respect to the shares being offered. Subject to the terms and conditions of the underwriting agreement, the selling stockholder has agreed to sell to the underwriters, and each underwriter has agreed to purchase, at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus supplement, the number of shares of common stock listed next to its name in the following table:

| Underwriters | Number of Shares |
|----------------------------------|---------------------|
| Sandler O'Neill & Partners, L.P. | 5,600,000 |
| Keefe, Bruyette & Woods, Inc. | 2,400,000 |
| Total | 8,000,000 |

The underwriters are committed to purchase all the shares of common stock being offered, if any are taken, other than the option shares described below.

The underwriters propose to offer the shares of common stock directly to the public at the public offering price set forth on the cover page of this prospectus supplement and to certain dealers at that price less a concession not in excess of \$0.4087 per share. After the public offering of the shares, the offering price and other selling terms may be changed by the underwriters.

The underwriters have an option to purchase from the selling stockholder up to 1,200,000 additional shares of common stock to cover sales of shares by the underwriters which exceed the number of shares specified in the table above. The underwriters have 30 days from the date of this prospectus supplement to exercise this option to purchase additional shares. If any additional shares of common stock are purchased, the underwriters will offer the additional shares on the same terms as those on which the shares are being offered.

The underwriting fee is equal to the public offering price per share of common stock less the amount paid by the underwriters to the selling stockholder per share of common stock.

The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

| | Without over-allotment exercise | With full over-allotment exercise |
|-----------|---------------------------------|-----------------------------------|
| Per Share | \$0.6812 | \$0.6812 |
| Total | \$5,449,600 | \$6,267,040 |

We estimate that our share of the total expenses of this offering will be approximately \$0. The selling stockholder estimates that its share of the total expenses of this offering, including registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding the underwriting discounts and commissions, will be approximately \$600,000.

A prospectus in electronic format may be made available on the web sites maintained by the underwriters, or selling group members, if any, participating in the offering. The underwriters may agree to allocate a number of shares to selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters to selling group members that may make Internet distributions on the same basis as other allocations.

We have agreed that we will not (i) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase or otherwise transfer or dispose of, directly or indirectly, or file with the SEC a registration statement relating to, any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock, or publicly disclose the intention to make any offer, sale, pledge, disposition or filing, or (ii) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the common stock, (regardless of whether any of these transactions are to be settled by the delivery of shares of common stock, or such other securities, in cash or otherwise), in each case without the prior written consent of Sandler O'Neill & Partners, L.P. for a period of 90 days after the date of this prospectus supplement. The foregoing restrictions do not apply to:

the sale of shares of common stock to the underwriters; or

any shares of our common stock issued upon the exercise or vesting of options and awards granted under our stock-based compensation plans.

In addition, our directors, executive officers and the selling stockholder have entered into lock up agreements with the underwriters prior to the commencement of this offering pursuant to which we and each of these persons or entities, for a period of 90 days after the date of this prospectus supplement, may not, subject to certain specified exemptions, without the prior written consent of Sandler O'Neill & Partners, L.P., (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of our common stock or any securities convertible into or exercisable or exchangeable for our common stock (including, without limitation, common stock which may be deemed to be beneficially owned by such directors, executive officers, managers and members or shareholders in accordance with the rules and regulations of the SEC and securities which may be issued upon exercise of a stock option or warrant), (ii) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the common stock, or (iii) make any demand for or exercise any right with respect to the registration of any shares of common stock or any security convertible into or exercisable or exchangeable for common stock, whether any such transaction described in clauses (i) and (ii) above is to be settled by delivery of common stock or such other securities, in cash or otherwise.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act. Our common stock is listed on the NYSE under the symbol "FBC."

In connection with this offering, the underwriters may engage in stabilizing transactions, which involves making bids for, purchasing and selling shares of common stock in the open market for the purpose of preventing or retarding a decline in the market price of the common stock while this offering is in progress. These stabilizing transactions may include making short sales of the common stock, which involves the sale by the underwriters of a greater number of shares of common stock than it is required to purchase in this offering, and purchasing shares of common stock on the open market to cover positions created by short sales. Short sales may be "covered" shorts, which are short positions in an amount not greater than the underwriters' option to purchase additional shares referred to above, or may be "naked" shorts, which are short positions in excess of that amount. The underwriters may close out any covered short position either by exercising its option to purchase additional shares, in whole or in part, or by purchasing shares in the open market. In making this determination, the underwriters will consider, among other things, the price of shares available for purchase in the open market compared to the price at which the underwriters may purchase shares through the over-allotment option. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market that could adversely affect investors who purchase in this offering. To the extent that the underwriters create a naked short position, they will purchase shares in the open market to cover the position.

The underwriters have advised us that, pursuant to Regulation M of the Securities Act, they may also engage in other activities that stabilize, maintain or otherwise affect the price of the common stock. These activities may have the effect of raising or maintaining the market price of the common stock or preventing or retarding a decline in the market price of the common stock, and, as a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. If the underwriters commence these activities, they may discontinue them at any time. The underwriters may carry out these transactions on the NYSE, in the over-the-counter market or otherwise.

In addition, in connection with this offering the underwriters (and selling group members) may engage in passive market making transactions in our common stock on the NYSE prior to the pricing and completion of this offering. Passive market making consists of displaying bids on the NYSE no higher than the bid prices of independent market makers and making purchases at prices no higher than these independent bids and effected in response to order flow. Net purchases by a passive market maker on each day are generally limited to a specified percentage of the passive market maker's average daily trading volume in the common stock during a specified period and must be discontinued

when such limit is reached. Passive market making may cause the price of our common stock to be higher than the price that otherwise would exist in the open market in the absence of these transactions. If passive market making is commenced, it may be discontinued at any time.

Other than in the United States, no action has been taken by us, the selling stockholder or the underwriters that would permit a public offering of the securities offered by this prospectus supplement in any jurisdiction where action for that purpose is required. The securities offered by this prospectus supplement may not be offered or sold, directly or indirectly, nor may this prospectus supplement or any other offering material or advertisements in connection with the offer and sale of any such

S-18

securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus supplement comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus supplement. This prospectus supplement does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus supplement in any jurisdiction in which such an offer or a solicitation is unlawful.

The underwriters and their affiliates have provided in the past to the selling stockholder, us and certain of our and the selling stockholder's affiliates and may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for the selling stockholder, us and such affiliates in the ordinary course of their business, for which they have received and may continue to receive customary fees and commissions. In addition, from time to time, the underwriters and their affiliates may effect transactions for its own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future.

Pursuant to investment agreements we entered into with MP Thrift in connection with its investment in our company, we granted MP Thrift and certain other holders rights to require us to register shares of our common stock for resale under the Securities Act. Under the agreements, we agreed to pay certain expenses and indemnify holders against certain liabilities.

Selling restrictions

Canada

The securities may be sold in Canada only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the securities must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement or the accompanying prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

United Kingdom

In the United Kingdom, this prospectus supplement is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are "qualified investors" (as defined in the Prospectus Directive) (i) who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the "Order") or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as "relevant persons") or otherwise in circumstances which have not resulted and will not result in an offer to the public of the securities in the United Kingdom within the meaning of the Financial Services and Markets Act 2000.

Any person in the United Kingdom that is not a relevant person should not act or rely on the information included in this document or use it as basis for taking any action. In the United Kingdom, any investment or investment activity that this document relates to may be made or taken exclusively by relevant persons.

S-19

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a “Member State”), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State, no offer of securities may be made to the public in that Relevant Member State other than:

- A. to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- B. to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive), subject to obtaining the prior consent of the underwriters for any such offer; or
- C. in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of securities referred to in (a) to (c) above shall result in a requirement for the Company or the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Directive, or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

Each person located in a Member State to whom any offer of securities is made or who receives any communication in respect of any offer of ordinary securities, or who initially acquires any securities will be deemed to have represented, warranted, acknowledged and agreed to and with the underwriters and the company that (1) it is a “qualified investor” within the meaning of the law in that Member State implementing Article 2(1)(e) of the Prospectus Directive; and (2) in the case of any securities acquired by it as a financial intermediary as that term is used in Article 3(2) of the Prospectus Directive, the securities acquired by it in the offer have not been acquired on behalf of, nor have they been acquired with a view to their offer or resale to, persons in any Member State other than qualified investors, as that term is defined in the Prospectus Directive, or in circumstances in which the prior consent of the underwriters has been given to the offer or resale; or where ordinary securities have been acquired by it on behalf of persons in any Member State other than qualified investors, the offer of those ordinary securities to it is not treated under the Prospectus Directive as having been made to such persons.

The company, the underwriters and their affiliates will rely upon the truth and accuracy of the foregoing representations, acknowledgments and agreements.

This prospectus supplement has been prepared on the basis that any offer of securities in any Member State will be made pursuant to an exemption under the Prospectus Directive from the requirement to publish a prospectus for offers of securities. Accordingly any person making or intending to make an offer in that Member State of securities which are the subject of the offering contemplated in this prospectus supplement may only do so in circumstances in which no obligation arises for the Company or the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Directive in relation to such offer. Neither the Company nor the underwriters have authorized, nor do they authorize, the making of any offer of securities in circumstances in which an obligation arises for the Company or the underwriters to publish a prospectus for such offer.

For the purposes of this provision, the expression an “offer of securities to the public” in relation to any securities in any Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe the securities, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression “Prospectus Directive” means Directive 2003/71/EC (as amended) and includes any relevant implementing measure in each Member State.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC the registration statement on Form S-3, relating to our common stock. This prospectus supplement is part of the registration statement and does not contain all the information in the registration statement. Whenever a reference is made in this prospectus supplement to a contract or other document, please be aware that the reference is not necessarily complete and that you should refer to the exhibits that are part of the registration statement for a copy of the contract or other document. You may read and copy the registration statement at the SEC's public reference room located at 100 F Street, NE, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference rooms. SEC filings are also available to the public at the SEC's website at www.sec.gov.

We are subject to the reporting and information requirements of the Exchange Act, and, as a result, we file periodic and current reports, proxy statements and other information with the SEC. You may inspect and copy these reports and proxy and information statements and other information at the addresses set forth above. Those filings are also available to the public on, or accessible through, our website under the heading "Investor Relations" at www.flagstar.com. The information we file with the SEC or contained on or accessible through our corporate website or any other website we may maintain is not part of this prospectus supplement or the registration statement of which this prospectus supplement forms a part. We intend to furnish to our stockholders our annual reports containing our audited consolidated financial statements certified by an independent public accounting firm.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information that we file with the SEC, which means that Flagstar can disclose important information to you by referring to those documents, and later information that Flagstar files with the SEC will automatically update and supersede that information as well as the information contained in this prospectus supplement. Flagstar hereby incorporates by reference the following documents:

- (1) Our 2017 Annual Report filed with the SEC on March 12, 2018;
- (2) The portions of our Definitive Proxy Statement on Schedule 14A filed with the SEC on April 12, 2018 that are incorporated by reference into Part III of our 2017 Annual Report;
- (3) Our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2018 filed with the SEC on May 7, 2018;
- (4) Our Current Reports on Form 8-K filed with the SEC on March 26, 2018, May 23, 2018, June 1, 2018, and June 5, 2018 (except for information that is "furnished" and not "filed");
- (5) The description of our common stock contained in our Registration Statement on Form S-3 filed on November 3, 2009 (File No. 333-162823), including any amendments or reports filed for the purpose of updating such description; and
- (6) All filings made with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus supplement (except for information in those filings that is "furnished" to, rather than "filed" with, the SEC, such as information furnished pursuant to Items 2.02 or 7.01 of Form 8-K) until all the shares of the common stock to which this prospectus supplement relates are sold or the offering otherwise terminates.

VALIDITY OF COMMON STOCK

The validity of the securities offered hereby and certain legal matters will be passed upon for Flagstar by Warner Norcross + Judd LLP, Grand Rapids, Michigan. Certain legal matters in connection with the offering of the securities offered hereby will be passed upon for Flagstar by Sullivan & Cromwell LLP, New York, New York. The validity of the securities offered hereby will be passed upon for the underwriters by Simpson Thacher & Bartlett LLP, New York, New York.

EXPERTS

The financial statements incorporated in this prospectus supplement by reference to Flagstar Bancorp, Inc.'s Current Report on Form 8-K dated June 1, 2018 and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control over Financial Reporting) incorporated in this prospectus supplement by reference to the Annual Report on Form 10-K of Flagstar Bancorp, Inc. for the year ended December 31, 2017 have been so incorporated in reliance on the report of PricewaterhouseCoopers, LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and

accounting.

S-21

PROSPECTUS

Common Stock
Preferred Stock
Debt Securities
Depositary Shares
Warrants
Purchase Contracts
Units
Guarantees

The securities listed above may be offered and sold by us from time to time. In addition, the selling stockholders identified in this prospectus or in a supplement to this prospectus may offer and sell shares of our common stock from time to time in amounts, at prices and on terms that will be determined at the time of the offering. We will not receive any proceeds from the sale of shares of our common stock to be offered by the selling stockholders.

Our common stock is listed on the New York Stock Exchange and trades under the symbol "FBC".

This prospectus provides you with a general description of the securities that we or the selling stockholders may offer. Each time we offer any securities pursuant to this prospectus, we will provide you with a prospectus supplement that contains specific information about the offering and the specific amounts, prices and terms of the securities being offered. The specific manner in which shares of common stock may be offered by the selling stockholders will be described in a supplement to this prospectus, if required. Each prospectus supplement may also add, update or change information contained in this prospectus. To understand the terms of the securities offered, before deciding to invest you should carefully read this prospectus with the applicable supplement, which together provide the specific terms of the securities we or the selling stockholders are offering.

The securities offered hereby may be sold to or through one or more underwriters, dealers and agents, or directly to purchasers, on a continuous or delayed basis. The names of any underwriters, dealers or agents and a description of their compensation will be provided in the applicable prospectus supplement.

Investing in our securities involves risks. You should carefully consider the risk factors incorporated herein by reference and described under the heading "Risk Factors" beginning on page 4 of this prospectus before making a decision to invest in our securities.

The securities offered hereby are not or will not be savings accounts, deposits or other obligations of any bank or savings association, and will not be insured by the Federal Deposit Insurance Corporation, the bank insurance fund or any other governmental agency or instrumentality.

Neither the Securities and Exchange Commission nor any regulatory body has approved or disapproved of these securities or passed upon the adequacy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is June 1, 2018.

TABLE OF CONTENTS

| | |
|---|----------|
| About this Prospectus | <u>1</u> |
| Forward-Looking Statements | <u>1</u> |
| Where You Can Find More Information | <u>2</u> |
| Incorporation of Certain Information by Reference | <u>2</u> |
| Flagstar Bancorp, Inc. | <u>3</u> |
| Risk Factors | <u>3</u> |
| Ratio of Earnings to Fixed Charges | <u>3</u> |
| Use of Proceeds | <u>3</u> |
| Plan of Distribution | <u>4</u> |
| Description of Securities | <u>7</u> |
| Legal Matters | <u>7</u> |
| Experts | <u>7</u> |

ABOUT THIS PROSPECTUS

References in this prospectus to "Flagstar", "we", "us" and "our" are to Flagstar Bancorp, Inc. and its subsidiaries. All references to the "selling stockholders" refer to MP Thrift Investments L.P., a Delaware limited partnership, and any selling stockholder identified in a supplement to this prospectus.

This prospectus is a part of an automatic shelf registration statement that we filed with the Securities and Exchange Commission ("SEC") as a "well-known seasoned issuer" as defined in Rule 405 under the Securities Act of 1933 (the "Securities Act"). Under this shelf registration statement, we may offer and sell common stock, preferred stock, debt securities, depositary shares, warrants, purchase contracts, units and guarantees in one or more offerings up to an indeterminate total dollar amount, and the selling stockholders may offer and sell an unspecified number of shares of common stock in one or more offerings.

This prospectus provides you with a general description of the securities we or the selling stockholders may offer. Each time we offer securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. In addition, if the selling stockholders offer securities under this prospectus, a prospectus supplement, if required, will contain specific information about the terms of the offering and the selling stockholders. Each prospectus supplement may also add, update or change information contained in this prospectus. If there is any inconsistency between the information in this prospectus and any applicable prospectus supplement, you should rely on the information in the applicable prospectus supplement. You should read this prospectus and the applicable prospectus supplement together with the additional information described under the heading "Where You Can Find More Information" and "Incorporation of Certain Information by Reference."

FORWARD LOOKING STATEMENTS

Certain statements in this prospectus are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, as amended. We use the words "anticipate," "assume," "believe," "budget," "continue," "could," "estimate," "expect," "future," "intend," "may," "plan," "potential," "predict," "project," "will" and similar terms and phrases to identify forward-looking statements in this prospectus. In addition, Flagstar may make forward-looking statements in our other documents filed with or furnished to the SEC, and our management may make forward-looking statements orally to analysts, investors, representatives of the media, and others.

Generally, forward-looking statements are not based on historical facts but instead represent management's beliefs regarding future events. Such statements may be identified by words such as believe, expect, anticipate, intend, plan, estimate, may increase, may fluctuate, and similar expressions or future or conditional verbs such as will, should,

would, and could. Such statements are based on management's current expectations and are subject to risks, uncertainties, and changes in circumstances. Actual results and capital and other financial conditions may differ materially from those included in these statements due to a variety of factors, including without limitation the precautionary statements included within each individual business' discussion and analysis of our results of operations and the risk factors listed and described in Part I, Item 1A. Risk Factors of our most recently filed Annual Report on Form 10-K.

1

Other than as required by law, Flagstar does not undertake to update the forward-looking statements to reflect the impact of circumstances or events that may arise after the date of the forward-looking statements.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the information reporting requirements of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and, in accordance with these requirements, we are required to file periodic reports and other information with the SEC. The reports and other information filed by us with the SEC may be inspected and copied at the public reference facilities maintained by the SEC as described below.

We have filed with the SEC a registration statement on Form S-3 (the “Registration Statement,” which term shall encompass all amendments, exhibits, annexes and schedules thereto and all documents incorporated by reference therein) pursuant to the Securities Act, and the rules and regulations promulgated thereunder, with respect to the securities offered hereby. This prospectus, which constitutes a part of the Registration Statement, does not contain all the information contained in the Registration Statement, parts of which are omitted in accordance with the rules and regulations of the SEC. For further information with respect to us and the securities offered hereby, reference is made to the Registration Statement.

Our SEC filings are available to the public over the Internet at the SEC web site at <http://www.sec.gov>. You may also read and copy any document we file with the SEC at its public reference room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference room.

In addition, you may obtain these materials free of charge through our website at www.flagstar.com as soon as reasonably practicable after we file them with, or furnish them to, the SEC. Information on our website is not incorporated into this prospectus or our other securities filings and is not a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” into this prospectus and the applicable prospectus supplement the information we file with it under the Exchange Act, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus and the applicable prospectus supplement and information that we subsequently file with the SEC will automatically update and supersede information in this prospectus, the applicable prospectus supplement, and in our other filings with the SEC. In other words, in case of a conflict or inconsistency between information contained in this prospectus and the applicable prospectus supplement and information incorporated by reference into this prospectus and the applicable prospectus supplement, you should rely on the information that was filed later.

We incorporate by reference the documents listed below, which we have already filed with the SEC, and any documents we file with the SEC on or after the date of this prospectus under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (other than information furnished in such future filings and deemed not to have been filed in accordance with SEC rules), and before the termination of the offering of the securities under this prospectus:

- Our Annual Report on Form 10-K for the year ended December 31, 2017, filed on March 12, 2018;
- Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2018, filed on May 7, 2018;
- Our Current Reports on Form 8-K filed on March 26, 2018 and May 23, 2018;
- Our Proxy Statement on Schedule 14A dated April 12, 2018, filed on April 12, 2018;
- The description of our common stock contained in our Registration Statement on Form S-3 filed on November 3, 2009 (File No. 333-162823), including any amendments or reports filed for the purpose of updating such description.

You should rely only on the information contained or incorporated by reference in this prospectus and the applicable prospectus supplement. Neither we nor the selling shareholders has authorized anyone else to provide you with additional or different information. These securities are only being offered in jurisdictions where the offer is permitted. You should not assume that the information in this prospectus or the applicable prospectus supplement or any document incorporated by reference is accurate as of any date other than the dates of the applicable documents.

2

We will provide you, or any beneficial owner, a copy of these filings (other than an exhibit to a filing unless that exhibit is specifically incorporated by reference into that filing) at no cost by writing or calling us at the following address:

Flagstar Bancorp, Inc.
Investor Relations
5151 Corporate Drive
Troy, Michigan 48098
Attention: David Urban
(248) 312-2000

FLAGSTAR BANCORP, INC.

Flagstar Bancorp, Inc. is a savings and loan holding company founded in 1993. Our business is primarily conducted through our principal subsidiary, Flagstar Bank (the "Bank"), a federally chartered stock savings bank founded in 1987. We provide commercial, consumer and mortgage banking services. Our common stock is listed on the NYSE under the symbol "FBC."

RISK FACTORS

An investment in Flagstar securities involves risks. Before making an investment decision, you should carefully consider the risks described under "Risk Factors" in the applicable prospectus supplement and in our most recent Annual Report on Form 10-K, and in our updates to those Risk Factors in our Quarterly Reports on Form 10-Q, and in all other information appearing in this prospectus, the applicable prospectus supplement or incorporated by reference herein or therein. Material risks and uncertainties that management believes affect Flagstar will be described in those documents. In addition to those risk factors, there may be additional risks and uncertainties which we unaware of that could adversely affect our business, financial condition or results of operations. This prospectus is qualified in its entirety by these risk factors.

RATIO OF EARNINGS TO FIXED CHARGES

| | For the Three Months ended March 31, 2018 | For the Year Ended December 31, 2017 | 2016 | 2015 | 2014 | 2013 |
|--|---|--|-------|-------|---------|---------|
| Income (loss) before income tax | \$ 44 | \$211 | \$258 | \$240 | \$(103) | \$(149) |
| Fixed charges: | | | | | | |
| Interest on short-term borrowings | \$ 15 | \$36 | \$5 | \$1 | \$— | \$— |
| Interest on long-term debt | 14 | 49 | 43 | 25 | 9 | 102 |
| Combined fixed charges, excluding interest on deposits | 29 | 85 | 48 | 26 | 9 | 102 |
| Interest on deposits | 17 | 52 | 46 | 42 | 30 | 42 |
| Combined fixed charges, including interest on deposits | \$ 46 | \$137 | \$94 | \$68 | \$39 | \$144 |
| Ratio of earnings to combined fixed charges: | | | | | | |
| Excluding interest on deposits (1) | 2.52 | 3.48 | 6.38 | 10.23 | N/A | N/A |
| Including interest on deposits (2) | 1.96 | 2.54 | 3.74 | 4.53 | N/A | N/A |

(1) Earnings were insufficient to cover fixed charges excluding deposits and preferred stock dividends by approximately \$94 million and \$47 million for the years ended December 31, 2014 and 2013, respectively.

(2) Earnings were insufficient to cover fixed charges including deposits and preferred stock dividends by approximately \$64 million and \$5 million for the years ended December 31, 2014 and 2013, respectively.

USE OF PROCEEDS

We intend to use the net proceeds from the sales of the securities offered under this prospectus in the manner and for the purposes set forth in the applicable prospectus supplement. Unless otherwise set forth in an applicable prospectus supplement, we intend to use the net proceeds of any offering of securities sold by us for general corporate purposes, which may include, without limitation, acquisitions, repayment or refinancing of debt or other corporate obligations, capital expenditures, working capital, and repurchases and redemptions of securities.

We will not receive any proceeds from the sale of shares of common stock by the selling stockholders.

SELLING STOCKHOLDERS

MP Thrift Investments L.P. (“MP Thrift”) and any selling stockholder identified in a supplement to this prospectus may sell shares of our common stock. As of the date of this prospectus, MP Thrift beneficially owns 35,600,352 shares of our common stock, or 62.1% of the outstanding shares. MP Thrift may offer all, some or none of its shares of common stock pursuant to this prospectus. In addition, MP Thrift may sell, transfer or otherwise dispose of, at any time and from time to time, shares of our common stock in transactions exempt from the registration requirements of the Securities Act after the date hereof.

For purposes of this prospectus, the selling stockholders include partners, donees, pledgees, direct and indirect transferees or other successors-in-interest from time to time selling shares received from the selling stockholders as a gift, pledge, partnership distribution or other non-sale transfer.

We will pay the expenses incurred to register the shares being offered by the selling stockholders for resale, but the selling stockholders will pay any underwriting discounts and brokerage commissions associated with these sales.

PLAN OF DISTRIBUTION

We or any selling stockholder may offer and sell securities from time to time in one or more of the following ways:

- to or through underwriters or dealers;
- directly to one or more purchasers;
- through agents;
- through a combination of any such methods of sale; or
- as otherwise described in the applicable prospectus supplement, if required.

If we or any selling stockholder uses underwriters or dealers in the sale, the securities will be acquired by the underwriters or dealers for their own account and may be resold from time to time in one or more transactions, including:

- in privately negotiated transactions;
- in one or more transactions at a fixed price or prices, which may be changed from time to time;
- in “at the market offerings,” within the meaning of Rule 415(a)(4) of the Securities Act, to or through a market maker or into an existing trading market, on an exchange or otherwise;
- at prices related to those prevailing market prices; or
- at negotiated prices

We, any selling stockholder and the underwriters, dealers or agents, reserve the right to accept or reject all or part of any proposed purchase of the securities. The applicable prospectus supplement, if required, will set forth the terms and offering of securities, including:

- the names of any underwriters, dealers or agents;
- any agency fees or underwriting discounts or commissions and other items constituting agents’ or underwriters’ compensation;
- any discounts or concessions allowed or reallocated or paid to dealers;
- details regarding over-allotment options under which underwriters may purchase additional securities from us, if any;
- the purchase price of the securities being offered and the proceeds we or the selling stockholders will receive from the sale;
- the public offering price; and
- the securities exchanges on which such securities may be listed, if any.

We or any selling stockholder may enter into derivative transactions with third parties or sell securities not covered by this prospectus to third parties in privately negotiated transactions from time to time. If the applicable prospectus supplement indicates, in connection with those derivative transactions, such third parties (or affiliates of such third parties) may sell securities covered by this prospectus, the applicable prospectus supplement including in short sale transactions. If so, such third parties (or affiliates of such third parties) may use securities pledged by us or any selling stockholder or borrowed from us or any selling stockholder or others to settle those sales or to close out any related open borrowings of securities, and may use securities received from us or any selling stockholder in settlement of those derivative transactions to close out any related open borrowings of securities. The third parties (or affiliates of such third parties) in such sale

4

transactions will be underwriters and will be identified in an applicable prospectus supplement (or a post-effective amendment).

We or any selling stockholder may loan or pledge securities to a financial institution or other third party that in turn may sell the securities using this prospectus and an applicable prospectus supplement. Such financial institution or third party may transfer its economic short position to investors in our securities or in connection with a simultaneous offering of other securities offered by this prospectus.

Underwriters, Agents and Dealers. If underwriters are used in the sale of our securities, the securities will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions described above. The securities may be offered to the public either through underwriting syndicates represented by managing underwriters or directly by underwriters. Generally, the underwriters' obligations to purchase the securities will be subject to conditions precedent and the underwriters will be obligated to purchase all of the securities if they purchase any of the securities. We or any selling stockholder may use underwriters with which we or any selling stockholder have a material relationship. We or any selling stockholder will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

We or any selling stockholder may authorize underwriters, dealers or agents to solicit offers by certain purchasers to purchase our securities from us or any selling stockholder at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The contracts will be subject only to those conditions set forth in the prospectus supplement, and the prospectus supplement will set forth any commissions we or any selling stockholder pays for solicitation of these contracts.

Underwriters, dealers and agents may contract for or otherwise be entitled to indemnification by us or any selling stockholder against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments made by the underwriters, dealers or agents, under agreements between us or any selling stockholder and the underwriters, dealers and agents.

We or any selling stockholder may grant underwriters who participate in the distribution of our securities an option to purchase additional securities to cover over-allotments, if any, in connection with the distribution.

Underwriters, dealers or agents may receive compensation in the form of discounts, concessions or commissions from us, any selling stockholder or our purchasers, as their agents in connection with the sale of our securities. These underwriters, dealers or agents may be considered to be underwriters under the Securities Act. As a result, discounts, commissions or profits on resale received by the underwriters, dealers or agents may be treated as underwriting discounts and commissions. The prospectus supplement will identify any such underwriter, dealer or agent and describe any compensation received by them from us or any selling stockholder. Any public offering price and any discounts or concessions allowed or re-allowed or paid to dealers may be changed from time to time.

Any underwriter may engage in over-allotment transactions, stabilizing transactions, short-covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short-covering transactions involve purchases of our securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time. We and any selling stockholder make no representation or prediction as to the direction or magnitude of any effect these transactions may have on the price of our securities. For a description of these activities, see the information under the

heading “Underwriting” in the applicable prospectus supplement.

Underwriters, broker-dealers or agents who may become involved in the sale of our securities may engage in transactions with and perform other services for us or any selling stockholder for which they receive compensation.

Direct Sales. We or any selling stockholder may also sell securities directly to one or more purchasers without using underwriters or agents. In this case, no agents, underwriters or dealers would be involved. We or any selling stockholder may sell securities upon the exercise of rights that we or any selling stockholder may issue to our security holders. We or any selling stockholder may also sell the securities directly to institutional investors or others who may be deemed to be underwriters within the meaning of the Securities Act with respect to any sale of those securities. The selling stockholders and any

5

underwriters, broker/dealers or agents participating in the distribution of securities covered by this prospectus may be deemed to be “underwriters” within the meaning of the Securities Act, and any commissions received by any of those underwriters, broker/dealers or agents may be deemed to be underwriting commissions under the Securities Act.

DESCRIPTION OF SECURITIES

The securities offered hereby may be offered by use of this prospectus in one or more offerings. A prospectus supplement will be provided each time securities are offered, if necessary, which will describe the amounts, prices and detailed terms of the securities. The prospectus supplement will also contain information, where applicable, about material U.S. federal income tax considerations relating to the offered securities, and the securities exchange, if any, on which the offered securities will be listed. To the extent the applicable prospectus supplement is inconsistent with this prospectus, the terms of that prospectus supplement will supersede the information in this prospectus. The terms of the offered securities may differ from the terms summarized below. Additionally, the descriptions in this prospectus and the applicable prospectus supplement do not contain all of the information that you may find useful or that may be important to you. You should refer to the provisions in the applicable prospectus supplement which define your rights as holders of the relevant securities.

Common Stock

We or any selling stockholder may offer shares of our common stock, \$0.01 par value. The applicable prospectus supplement, if required, will describe the aggregate number of shares offered, the offering price or prices of the shares and the identity of any selling stockholders, if any.

Preferred Stock and Depositary Shares

We may issue shares of our no par value preferred stock in one or more series. In a prospectus supplement, we will describe: the specific designation; the aggregate number of shares offered; the dividend rate or manner of calculating the dividend rate; the dividend periods or manner of calculating the dividend periods; the ranking of the shares of the series with respect to dividends; liquidation and dissolution; the stated value of the shares of the series; the voting rights of the shares of the series, if any; whether and on what terms the shares of the series will be convertible or exchangeable; whether and on what terms we can redeem the shares of the series; whether we will offer depositary shares representing shares of the series and if so, the fraction or multiple of a share of preferred stock represented by each depositary share; whether we will list the preferred stock or depositary shares on a securities exchange; and any other specific terms of the series of preferred stock.

Debt Securities

We may issue senior debt securities or subordinated debt securities. When we offer to sell a particular series of debt securities, we will describe the specific terms of the securities in a prospectus supplement that describes: the ranking; whether senior or subordinated; the level of seniority or subordination (as applicable); the specific designation; the aggregate principal amount; the purchase price; the maturity, the redemption terms; the interest rate or manner of calculating the interest rate; the time of payment of interest, if any; the terms for any conversion or exchange; including the terms relating to the adjustment of any conversion or exchange mechanism; the nature of the property securing the indebtedness, if any; the covenants, if any, restricting our declaration of dividends, requiring the maintenance of any capital reserves or ratios, or restricting the incurrence of additional debt or issuance of additional securities; the events that constitute a default; the mechanism for modifying the debt securities; the name of the trustee and a description of our relationship with the trustee; and the listing, if any, on a securities exchange and any other specific terms of the debt securities.

Warrants

We may issue warrants to purchase our debt securities, shares of our preferred stock, shares of our common stock or units. In a prospectus supplement, we will describe the exercise price and any mechanism(s) for adjustments to the exercise price; whether our or your obligations, if any, under any warrants may be satisfied by delivering or purchasing the underlying securities or their cash value; the amount of securities called for by such warrants; the amount of warrants then outstanding; and other specific terms of the warrants.

Purchase Contracts

We may issue purchase contracts, including purchase contracts issued as part of a unit with one or more other securities, for the purchase or sale of our debt securities, preferred stock, depository shares, or common stock. In a prospectus supplement, we will describe the material terms of the purchase contract and the securities to which the purchase contract pertains.

Units

We may issue, in one more series, units comprised of one or more of the other securities described in this prospectus in any combination. In a prospectus supplement, we will describe the particular combination of securities constituting any units and any other specific terms of the units.

Guarantees

We may issue guarantees of indebtedness issued by one or more of our subsidiaries. In a prospectus supplement, we will describe the material terms of the guarantees and the nature of any guaranteed obligations.

LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplement, the validity of the securities offered hereby will be passed upon for Flagstar by Warner Norcross + Judd LLP. Unless otherwise indicated in the applicable prospectus supplement, certain legal matters in connection with the offering of the securities offered hereby will be passed upon for Flagstar by Sullivan & Cromwell LLP, New York, New York. Unless otherwise provided in the applicable prospectus supplement, certain legal matters will be passed upon for any underwriters or agents by their own counsel.

EXPERTS

The financial statements incorporated in this Prospectus by reference to Flagstar Bancorp, Inc.'s Current Report on Form 8-K dated June 1, 2018 and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control over Financial Reporting) incorporated in this Prospectus by reference to the Annual Report on Form 10-K of Flagstar Bancorp, Inc. for the year ended December 31, 2017 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

8,000,000 Shares

Common Stock
Prospectus Supplement

Sandler O'Neill + Partners, L.P. Keefe, Bruyette & Woods
A Stifel Company

June 11, 2018
