

JOHN HANCOCK PREFERRED INCOME FUND II
Form N-CSRS
March 29, 2018

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM N-CSR

**CERTIFIED SHAREHOLDER REPORT OF REGISTERED
MANAGEMENT INVESTMENT COMPANIES**

Investment Company Act file number 811- 21202

John Hancock Preferred Income Fund II
(Exact name of registrant as specified in charter)

601 Congress Street, Boston, Massachusetts 02210
(Address of principal executive offices) (Zip code)

Salvatore Schiavone
Treasurer

601 Congress Street

Boston, Massachusetts 02210

(Name and address of agent for service)

Registrant's telephone number, including area code: 617-663-4497

Date of fiscal year end: July 31

Date of reporting period: January 31, 2018

John Hancock

Preferred Income Fund II

Ticker: HPF
Semiannual report 1/31/18

A message to shareholders

Dear shareholder,

In the weeks following the close of the reporting period, markets around the world experienced a meaningful rise in volatility. Stocks declined as investors reacted to higher bond yields and the prospect of rising inflation, even if that inflation was up from historically low levels. While some in the asset management community believe the sell-off will be temporary, it's likely that the era of extremely low volatility is behind us for the time being.

Ultimately, asset prices are underpinned by fundamentals, and those continue to appear supportive. There was no shortage of good economic news to report as 2017 came to a close: Unemployment remained close to historic lows, consumer confidence rose, and the housing market continued to notch steady gains.

The recently passed tax reform legislation appears poised to inject substantial stimulus into U.S. businesses at the same time that industry regulations are being rolled back across large swaths of the economy, including the systemically important financials sector. One moderating factor is the U.S. Federal Reserve's continued tightening of monetary policy. In mid-December, the federal funds rate was lifted by a quarter of a percentage point, the fifth such increase in the current cycle. While rising interest rates alone may not cause the economy to pull back, markets will be closely attuned to any suggestion that policymakers may quicken the pace of interest-rate increases in the year ahead.

Your best resource in unpredictable markets is your financial advisor, who can help position your portfolio so that it's sufficiently diversified to meet your long-term objectives and to withstand the inevitable turbulence that accompanies investing in any market cycle.

On behalf of everyone at John Hancock Investments, I'd like to take this opportunity to welcome new shareholders and to thank existing shareholders for the continued trust you've placed in us.

Sincerely,

Andrew G. Arnott
President and CEO
John Hancock Investments
Head of Wealth and Asset Management
United States and Europe

This commentary reflects the CEO's views, which are subject to change at any time. Diversification does not guarantee investment returns and does not eliminate risk of loss. All investments entail risks, including the possible loss of principal. For more up-to-date information, you can visit our website at jhinvestments.com.

John Hancock
Preferred Income Fund II

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Your fund at a glance

INVESTMENT OBJECTIVE

The fund seeks to provide a high level of current income consistent with preservation of capital. The fund's secondary investment objective is to provide growth of capital to the extent consistent with its primary objective.

AVERAGE ANNUAL TOTAL RETURNS AS OF 1/31/18 (%)

The ICE Bank of America Merrill Lynch Hybrid Preferred Securities Index is a subset of the ICE Bank of America Merrill Lynch Fixed Rate Preferred Securities Index, including all subordinated securities with a payment deferral feature. The ICE Bank of America Merrill Lynch Fixed Rate Preferred Securities Index tracks the performance of fixed-rate U.S. dollar-denominated preferred securities issued in the U.S. domestic market. Qualifying securities must have an investment-grade rating and the country of risk must also have an investment-grade rating.

It is not possible to invest directly in an index. Index figures do not reflect expenses or sales charges, which would result in lower returns.

The performance data contained within this material represents past performance, which does not guarantee future results.

Investment returns and principal value will fluctuate and a shareholder may sustain losses. Further, the fund's performance at net asset value (NAV) is different from the fund's performance at closing market price because the closing market price is subject to the dynamics of secondary market trading. Market risk may be augmented when shares are purchased at a premium to NAV or sold at a discount to NAV. Current month-end performance may be higher or lower than the performance cited. The fund's most recent performance can be found at jhinvestments.com or by calling 800-852-0218.

PERFORMANCE HIGHLIGHTS OVER THE LAST SIX MONTHS

Preferred securities posted flat to modestly negative returns

Concerns about broad-based economic growth, higher inflation, and rising interest rates tempered the returns of preferred securities.

A handful of holdings detracted

Earnings misses, dividend cuts, and competitive pressures caused some holdings to underperform.

Energy-related common stock holdings were some of the fund's best performers

Rising oil prices boosted financial results and investor demand for energy stocks.

PORTFOLIO COMPOSITION AS OF 1/31/18 (%)

A note about risks

As is the case with all closed-end funds, shares of this fund may trade at a discount or a premium to the fund's net asset value (NAV). An investment in the fund is subject to investment and market risks, including the possible loss of the entire principal invested. There is no guarantee prior distribution levels will be maintained, and distributions may include a substantial tax return of capital. Fixed-income investments are subject to interest-rate risk; their value will normally decline as interest rates rise or if a creditor, grantor, or counterparty is unable or unwilling to make principal, interest, or settlement payments. An issuer of securities held by the fund may default, have its credit rating downgraded, or otherwise perform poorly, which may affect fund performance. Liquidity the extent to which a security may be sold or a derivative position closed without negatively affecting its market value may be impaired by reduced trading volume, heightened volatility, rising interest rates, and other market conditions. The fund's use of leverage creates additional risks, including greater volatility of the fund's NAV, market price, and returns. There is no assurance that the fund's leverage strategy will be successful. Focusing on a particular industry or sector may increase the fund's volatility and make it more susceptible to market, economic, and regulatory risks as well as other factors affecting those industries or sectors.

The fund normally will invest at least 25% of its total assets in the industries composing the utilities sector, which includes telecommunications companies, measured at the time of purchase. When the fund's investments focus on one or more sectors of the economy, they are far less diversified than the broad securities markets. This means that the fund may be more volatile than other funds, and the values of its investments may go up and down more rapidly. Because utility companies are capital intensive, they can be hurt by higher interest rates, which would increase the companies' interest burden. They can also be affected by costs in connection with capital construction programs, costs associated with environmental and other regulations, and the effects of economic declines, surplus capacity, and increased competition. In addition, the fund may invest in financial services companies, which can be hurt by economic declines, changes in interest rates, and regulatory and market impacts. The fund's investments in securities of foreign issuers involve special risks, such as political, economic, and currency risks and differences in accounting standards and financial reporting.

Discussion of fund performance

An interview with Portfolio Manager Joseph H. Bozoyan, CFA, John Hancock Asset Management a division of Manulife Asset Management (US) LLC

Joseph H. Bozoyan, CFA

Portfolio Manager

John Hancock Asset Management

What was the market environment like for preferred securities during the six months ended January 31, 2018?

As a group, preferred securities generated flat to modestly negative returns for the six-month period, tempered largely by concerns about broad-based economic growth, higher inflation, and rising interest rates. While preferred stocks were mostly generating gains in the final months of 2017, they suffered a significant sell-off in January 2018, responding to surging optimism that the Tax Cuts and Jobs Act would further boost the ongoing U.S. economic recovery and corporate profits. This, in turn, heightened the probability there would be more interest-rate hikes than the market had previously priced in. Like fixed-income investments, preferreds tend to underperform during periods of rising interest rates; the value of their income payments becomes less attractive relative to newly issued securities with higher prevailing yields. Somewhat offsetting these headwinds was a lack of supply in the preferred securities marketplace. There was scant issuance of new securities during a period when the supply of them already was tight.

Meanwhile, utility common stocks another area of focus for the fund generally posted solid gains, powered in part by the stability and visibility of their earnings and cash flow. This allowed utility companies to pay out consistent dividends, making them even more attractive to income-oriented investors.

What's your view on preferred securities?

Given their relatively weak performance in January, we believe many preferreds ended the period at attractive valuation levels we haven't seen for some time, particularly those issued by high-quality companies with respect to which, in our view, the market overreacted. And while interest rates will likely move higher, we do not believe that the U.S. Federal Reserve will implement more than three interest-rate hikes in 2018. Given the combination of preferreds' attractive valuations and the fact that we believe three rate hikes already have been priced in, we're optimistic about their short-term prospects.

Our long-term outlook for preferreds remains intact. We don't expect a significant increase in new issue supply of income-producing securities, given our view that corporations may reduce their

"While preferreds were mostly generating gains in the final months of 2017, they suffered a significant sell-off in January 2018 ..."

reliance on debt financing in light of caps on interest-rate deductions stemming from tax reform. In the financial sector, bank balance sheets are in much better shape, reducing the need to issue preferreds to meet regulatory requirements. As for demand, we believe investors will continue to turn to income-generating assets in search of yield as long as U.S. government bond yields remain low, which we believe is likely. Additionally, the aging global population should foster ongoing demand for assets that provide a steady and predictable income stream, as increasing numbers of older investors transfer larger portions of their portfolios into income-producing investments.

We are particularly optimistic about the longer-term performance of the utility sector. Companies continue to upgrade and strengthen their infrastructure and are investing in renewable energy, such as solar and wind. These developments, in our view, position utility companies for accelerated earnings and dividend growth over the next three to five years.

What holdings contributed to performance?

Returns for the vast majority of the fund's preferred holdings mirrored those of the preferred market at large, which is to say their returns were virtually flat to modestly negative for the six-month period. That said, some of the fund's holdings in energy-related common stocks, including the integrated companies BP PLC, Royal Dutch Shell PLC, and ONEOK, Inc., were standouts. They

SECTOR COMPOSITION AS OF 1/31/18 (%)

"We were particularly active buyers toward the end of the period when values among preferred stocks emerged." generated solid gains as the price of oil moved toward a three-year high amid rising energy demand, falling inventories, and better OPEC compliance in maintaining production cuts.

Holdings in the convertible preferred securities of Crown Castle International Corp. also fared well. The decision by Sprint Corp. and T-Mobile US, Inc. (neither of which is held by the fund) to abandon talks of a merger calmed earlier worries that industry consolidation would curtail demand for the company's Crown Castle's cell towers and other wireless infrastructure.

Additionally, the fund used futures and swaps to help manage interest-rate risk. These derivatives had a positive impact on performance.

What holdings hurt the fund's performance?

Among the laggards, telecommunications company Qwest Corp., which is owned by CenturyLink, Inc. (also in the portfolio), performed poorly as investors worried about its prospects in an increasingly competitive operating environment. Exposure to Kinder Morgan, Inc., detracted from results as well. Despite the benefits of rising energy prices, the stock of this pipeline company lagged partly because investors were dissatisfied with the pace of its dividend hikes.

Teva Pharmaceutical Industries, Ltd., the world's largest maker of generic drugs, was another detractor. The company struggled throughout much of the period amid increased political scrutiny of drug prices, as well as an earnings miss and dividend cut. However, Teva's stock rallied very strongly late in the period, mostly tied to investors' enthusiasm about the company's announcement of a restructuring plan.

TOP 10 ISSUERS AS OF 1/31/18 (%)

Dominion Energy, Inc.	5.4
Wells Fargo & Company	4.1
Kinder Morgan, Inc.	3.6
DTE Energy Company	3.5
ONEOK, Inc.	3.3
JPMorgan Chase & Co.	3.3
BP PLC, ADR	3.2
Crown Castle International Corp.	3.2
PPL Capital Funding, Inc.	3.2
United States Cellular Corp.	3.0
TOTAL	35.8

As a percentage of total investments.

Cash and cash equivalents are not included.

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Were there any significant changes to the portfolio?

We were particularly active buyers toward the end of the period when values among preferred stocks emerged. We added to our holdings in high-quality companies, such as banking firm BB&T Corp. We also purchased the preferred securities MB Financial, Inc. based on our view that the shares were attractively valued and the company is well managed. To fund these purchases, we used some cash we had on hand and redeployed the proceeds from preferreds we sold just prior to their call dates.

MANAGED BY

Joseph H. Bozoyan, CFA

On the fund since 2015

Investing since 1993

Brad Lutz, CFA

On the fund since 2017

Investing since 1992

QUALITY COMPOSITION AS OF 1/31/18 (%)

The views expressed in this report are exclusively those of Joseph H. Bozoyan, CFA, John Hancock Asset Management, and are subject to change. They are not meant as investment advice. Please note that the holdings discussed in this report may not have been held by the fund for the entire period. Portfolio composition is subject to review in accordance with the fund's investment strategy and may vary in the future. Current and future portfolio holdings are subject to risk.

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Fund's investments

AS OF 1-31-18 (unaudited)

	Shares	Value
Preferred securities (A) 129.1% (84.4% of Total investments) (Cost \$591,622,816)		\$574,599,177
Consumer staples 3.3%		14,880,000
Food and staples retailing 3.3%		
Ocean Spray Cranberries, Inc., 6.250% (B)	160,000	14,880,000
Energy 5.5%		24,417,251
Oil, gas and consumable fuels 5.5%		
Kinder Morgan, Inc., 9.750% (C)(D)	663,332	24,417,251
Financials 50.9%		226,383,362
Banks 29.0%		
Bank of America Corp., 6.500% (D)	180,000	4,703,400
Bank of America Corp., 6.625%	31,922	839,868
Barclays Bank PLC, 8.125% (D)	340,000	8,918,200
BB&T Corp., 5.200% (D)	330,000	8,081,700
BB&T Corp., 5.625% (C)(D)	464,675	11,551,821
Citigroup Capital XIII (3 month LIBOR + 6.370%), 8.137% (D)(E)	50,000	1,352,500
Citigroup, Inc., 5.800%	10,000	250,500
Citigroup, Inc., 6.875% (D)	60,000	1,585,800
Citigroup, Inc. (6.875% to 11-15-23, then 3 month LIBOR + 4.130%)	262,253	7,395,535
Citigroup, Inc. (7.125% to 9-30-23, then 3 month LIBOR + 4.040%) (D)	300,564	8,487,927
JPMorgan Chase & Co., 5.450% (C)(D)	60,000	1,488,600
JPMorgan Chase & Co., 6.100% (D)	276,500	7,133,700
JPMorgan Chase & Co., 6.125% (C)(D)	501,419	12,881,454
JPMorgan Chase & Co., 6.300% (D)	30,000	773,100
MB Financial, Inc., 6.000%	150,000	3,708,000
The PNC Financial Services Group, Inc., 5.375% (D)	70,000	1,731,800
The PNC Financial Services Group, Inc. (6.125% to 5-1-22, then 3 month LIBOR + 4.067%) (D)	145,000	4,012,150
U.S. Bancorp (6.500% to 1-15-22, then 3 month LIBOR + 4.468%) (D)	570,000	15,800,400
Wells Fargo & Company, 6.000% (D)	250,000	6,425,000
Wells Fargo & Company, 8.000% (C)(D)	565,000	14,560,050
Wells Fargo & Company (6.625% to 3-15-24, then 3 month LIBOR + 3.690%) (D)	249,225	7,008,207
Western Alliance Bancorp, 6.250%	20,000	513,000
Capital markets 7.9%		
Deutsche Bank Contingent Capital Trust II, 6.550%	5,500	141,570
Deutsche Bank Contingent Capital Trust III, 7.600% (D)	300,000	7,632,000
Morgan Stanley, 6.625% (D)	175,000	4,555,250

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	Shares	Value
Financials (continued)		
Capital markets (continued)		
Morgan Stanley (6.375% to 10-15-24, then 3 month LIBOR + 3.708%)	125,000	\$3,383,750
Morgan Stanley (6.875% to 1-15-24, then 3 month LIBOR + 3.940%)	86,000	2,413,160
Morgan Stanley (7.125% to 10-15-23, then 3 month LIBOR + 4.320%)	155,458	4,422,780
State Street Corp., 5.250% (D)	45,000	1,099,350
State Street Corp., 6.000% (C)(D)	445,000	11,485,450
Consumer finance 3.5%		
Capital One Financial Corp., 6.200%	270,395	7,054,606
Capital One Financial Corp., 6.700%	52,925	1,402,513
Navient Corp., 6.000% (D)	319,272	7,110,187
Insurance 10.3%		
Aegon NV, 6.375% (C)(D)	392,498	10,032,249
Aegon NV, 6.500% (D)	220,000	5,627,600
Prudential Financial, Inc., 5.750% (D)	160,000	4,025,600
Prudential PLC, 6.500% (C)(D)	103,000	2,681,090
The Hartford Financial Services Group, Inc. (7.875% to 4-15-22, then 3 month LIBOR + 5.596%)	46,750	1,357,620
The Phoenix Companies, Inc., 7.450% (D)	216,500	3,951,125
W.R. Berkley Corp., 5.625% (D)	740,000	18,204,000
Thriffs and mortgage finance 0.2%		
Federal National Mortgage Association, Series S, 8.250% (F)	75,000	600,750
Health care 3.1%		13,686,952
Pharmaceuticals 3.1%		
Teva Pharmaceutical Industries, Ltd., 7.000% (D)	36,100	13,686,952
Industrials 2.2%		9,676,150
Machinery 2.2%		
Stanley Black & Decker, Inc., 5.750% (C)(D)	385,504	9,676,150
Real estate 14.9%		66,538,331
Equity real estate investment trusts 14.9%		
American Homes 4 Rent, Series E, 6.350%	15,000	383,250
American Homes 4 Rent, Series F, 5.875%	87,500	2,142,875
American Homes 4 Rent, Series G, 5.875%	146,511	3,618,822
Crown Castle International Corp., Series A, 6.875% (D)	19,200	21,587,933
Digital Realty Trust, Inc., 6.350%	922	24,184
Digital Realty Trust, Inc., 6.625%	4,875	129,188
Digital Realty Trust, Inc., 7.375%	29,592	779,453
Federal Realty Investment Trust, Series C, 5.000%	80,000	1,896,800
Kimco Realty Corp., 6.000% (D)	315,396	7,906,978
Public Storage, 5.200% (C)(D)	255,000	6,025,650
SEE NOTES TO FINANCIAL STATEMENTS		
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	Shares	Value
Real estate (continued)		
Equity real estate investment trusts (continued)		
Senior Housing Properties Trust, 5.625% (C)(D)	683,020	\$17,007,198
Ventas Realty LP, 5.450% (D)	200,000	5,036,000
Telecommunication services 11.2%		49,854,035
Diversified telecommunication services 3.5%		
Qwest Corp., 6.125%	30,000	579,300
Qwest Corp., 6.500%	73,290	1,495,116
Qwest Corp., 6.750%	200,000	4,196,000
Qwest Corp., 6.875%	98,796	2,121,150
Qwest Corp., 7.000%	60,000	1,304,400
Qwest Corp., 7.500%	49,050	1,199,763
Verizon Communications, Inc., 5.900% (C)(D)	185,000	4,778,550
Wireless telecommunication services 7.7%		
Telephone & Data Systems, Inc., 6.625% (D)	168,297	3,980,224
Telephone & Data Systems, Inc., 6.875% (D)	115,519	2,870,647
Telephone & Data Systems, Inc., 7.000%	283,000	7,018,400
United States Cellular Corp., 6.950% (C)(D)	773,600	18,899,048
United States Cellular Corp., 7.250%	56,616	1,411,437
Utilities 38.0%		169,163,096
Electric utilities 22.9%		
Alabama Power Company, 5.000% (D)	320,250	8,019,060
Duke Energy Corp., 5.125% (D)	734,449	18,236,369
Energys Louisiana LLC, 5.250% (D)	220,000	5,266,800
HECO Capital Trust III, 6.500% (D)	187,750	5,012,925
Interstate Power & Light Company, 5.100% (D)	158,837	3,815,265
NextEra Energy Capital Holdings, Inc., 5.125% (D)	80,000	1,900,000
NextEra Energy, Inc., 6.123% (D)	308,000	17,420,480
NSTAR Electric Company, 4.780%	15,143	1,477,351
PPL Capital Funding, Inc., 5.900%	855,000	21,477,600
SCE Trust II, 5.100% (D)	468,444	10,610,257
SCE Trust III (5.750% to 3-15-24, then 3 month LIBOR + 2.990%) (D)	20,000	507,200
The Southern Company, 6.250% (D)	310,000	8,066,200
Multi-utilities 15.1%		
Dominion Energy, Inc., 6.750% (D)	609,667	30,769,893
DTE Energy Company, 5.250% (C)(D)	424,477	10,251,120
DTE Energy Company, 5.250%	160,000	3,872,000
DTE Energy Company, 6.000%	76,475	2,000,586
DTE Energy Company, 6.500%	149,200	7,868,808
Integrus Holding, Inc. (6.000% to 8-1-23, then 3 month LIBOR + 3.220%) (D)	237,872	6,351,182
Sempra Energy, 6.000%	62,400	6,240,000

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	Shares	Value			
Common stocks 16.3% (10.7% of Total investments)		\$72,515,742			
(Cost \$61,045,338)					
Energy 14.1%	62,854,095				
Oil, gas and consumable fuels 14.1%					
BP PLC, ADR (C)(D)	511,000	21,865,690			
ONEOK, Inc. (C)(D)	382,500	22,513,950			
Royal Dutch Shell PLC, ADR, Class A (C)(D)	263,019	18,474,455			
Telecommunication services 0.9%		3,918,200			
Diversified telecommunication services 0.9%					
CenturyLink, Inc.	220,000	3,918,200			
Utilities 1.3%		5,743,447			
Multi-utilities 1.3%					
CenterPoint Energy, Inc. (D)	110,000	3,099,800			
National Grid PLC, ADR	45,833	2,643,647			
			Rate (%)	Maturity date	Par value^ Value
Corporate bonds 5.4% (3.6% of Total investments)		\$24,248,625			
(Cost \$23,598,591)					
Consumer discretionary 1.7%		7,743,750			
Automobiles 1.7%					
General Motors Financial Company, Inc. (5.750% to 9-30-27, then 3 month LIBOR + 3.598%) (G)			5.750	09-30-27	7,500,000 7,743,750
Energy 1.6%		7,204,750			
Oil, gas and consumable fuels 1.6%					
Energy Transfer LP (3 month LIBOR + 3.018%) (D)(E)			4.394	11-01-66	8,050,000 7,204,750
Financials 1.1%		5,078,125			
Consumer finance 1.1%					
Discover Financial Services (5.500% to 10-30-27, then 3 month LIBOR + 3.076%) (G)			5.500	10-30-27	5,000,000 5,078,125
Utilities 1.0%		4,222,000			
Electric utilities 1.0%					
Southern California Edison Company (6.250% to 2-1-22, then 3 month LIBOR + 4.199%) (C)(D)(G)			6.250	02-01-22	4,000,000 4,222,000
Capital preferred securities (H) 1.3% (0.8% of Total investments)		\$5,752,961			
(Cost \$5,574,000)					
Utilities 1.3%		5,752,961			
Multi-utilities 1.3%					
Dominion Resources Capital Trust III			8.400	01-15-31	5,000,000 5,752,961

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	Yield* (%)	Maturity date	Par value^	Value
Short-term investments (Cost \$3,573,000)	0.8% (0.5% of Total investments)			\$3,573,000
U.S. Government Agency	0.8%			3,426,000
Federal Agricultural Mortgage Corp. Discount Note	1.200	02-01-18	323,000	323,000
Federal Home Loan Bank Discount Note	0.900	02-01-18	444,000	444,000
Federal Home Loan Bank Discount Note	1.200	02-01-18	2,659,000	2,659,000
			Par value^	Value
Repurchase agreement	0.0%			147,000
Repurchase Agreement with State Street Corp. dated 1-31-18 at 0.540% to be repurchased at \$147,002 on 2-1-18, collateralized by \$150,000 U.S. Treasury Notes, 1.375% due 9-30-18 (valued at \$150,280, including interest)			147,000	147,000
Total investments (Cost \$685,413,745)	152.9%			\$680,689,505
Other assets and liabilities, net (52.9%)				(235,635,083)
Total net assets	100.0%			\$445,054,422

The percentage shown for each investment category is the total value of the category as a percentage of the net assets of the fund unless otherwise indicated.

^All par values are denominated in U.S. dollars unless otherwise indicated.

Security Abbreviations and Legend

ADR American Depositary Receipt

LIBOR London Interbank Offered Rate

- (A) Includes preferred stocks and hybrid securities with characteristics of both equity and debt that pay dividends on a periodic basis.
 - (B) These securities are exempt from registration under Rule 144A of the Securities Act of 1933. Such securities may be resold, normally to qualified institutional buyers, in transactions exempt from registration.
 - (C) A portion of this security is on loan as of 1-31-18, and is a component of the fund's leverage under the Credit Facility Agreement.
 - (D) All of a portion of this security is pledged as collateral pursuant to the Credit Facility Agreement. Total collateral value at 1-31-18 was \$479,495,598. A portion of the securities pledged as collateral were loaned pursuant to the Credit Facility Agreement. The value of securities on loan amounted to \$188,421,691.
 - (E) Variable rate obligation. The coupon rate shown represents the rate at period end.
 - (F) Non-income producing security.
 - (G) Perpetual bonds have no stated maturity date. Date shown as maturity date is next call date.
 - (H) Includes hybrid securities with characteristics of both equity and debt that trade with, and pay, interest income.
- * Yield represents either the annualized yield at the date of purchase, the stated coupon rate or, for floating rate securities, the rate at period end.

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DERIVATIVES

FUTURES

Open contracts	Number of contracts	Position	Expiration date	Notional basis*	Notional value*	Unrealized appreciation (depreciation)
10-Year U.S. Treasury Note Futures	520	Short	Mar 2018	\$(64,942,015)	\$(63,220,625)	\$1,721,390
						\$1,721,390

* Notional basis refers to the contractual amount agreed upon at inception of open contracts; notional value represents the current value of the open contract.

SWAPS

Interest rate swaps

Counterparty (OTC)/ Centrally cleared	Notional amount	Currency	Payments made	Payments received	Fixed payment frequency	Floating payment frequency	Maturity date	Unamortized upfront payment paid (received)	Unrealized appreciation (depreciation)	Value
Centrally cleared	60,000,000	USD	Fixed 2.136%	USD 3 Month LIBOR BBA ^(a)	Semi-Annual	Quarterly	Oct 2022	—	\$911,912	\$911,912
								—	\$911,912	\$911,912

(a) At 1-31-18, the 3 month LIBOR was 1.778%

Derivatives

Currency

Abbreviations

USD U.S. Dollar

Derivatives Abbreviations

BBA The British Banker's Association

LIBOR London Interbank Offered Rate

At 1-31-18, the aggregate cost of investments for federal income tax purposes was \$685,584,656. Net unrealized depreciation aggregated to \$2,261,849, of which \$31,170,658 related to gross unrealized appreciation and \$33,432,507 related to gross unrealized depreciation.

OTC is an abbreviation for over-the-counter. See Notes to financial statements regarding investment transactions and other derivatives information.

SEE NOTES TO FINANCIAL STATEMENTS

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Financial statements

STATEMENT OF ASSETS AND LIABILITIES 1-31-18 (unaudited)

Assets	
Investments, at value (Cost \$685,413,745)	\$680,689,505
Receivable for futures variation margin	32,500
Receivable for centrally cleared swaps	804,968
Cash	304
Cash held at broker for futures contracts	494,000
Receivable for investments sold	703,829
Dividends and interest receivable	1,797,062
Other receivables and prepaid expenses	7,356
Total assets	684,529,524
Liabilities	
Credit facility agreement	238,000,000
Payable for investments purchased	1,249,900
Interest payable	30,110
Payable to affiliates	
Accounting and legal services fees	41,296
Trustees' fees	666
Other liabilities and accrued expenses	153,130
Total liabilities	239,475,102
Net assets	\$445,054,422
Net assets consist of	
Paid-in capital	\$452,047,095
Undistributed net investment income	18,334
Accumulated net realized gain (loss) on investments, futures contracts and swap contracts	(4,923,654)
Net unrealized appreciation (depreciation) on investments, futures contracts, translation of assets and liabilities in foreign currencies and swap contracts	(2,087,353)
Net assets	\$445,054,422
Net asset value per share	
-	
Based on 21,279,239 shares of beneficial interest outstanding unlimited number of shares authorized with no par value	\$20.91

SEE NOTES TO FINANCIAL STATEMENTS

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STATEMENT OF OPERATIONS For the six months ended 1-31-18 (unaudited)

Investment income	
Dividends	\$22,650,577
Interest	855,870
Less foreign taxes withheld	(287,666)
Total investment income	23,218,781
Expenses	
Investment management fees	2,606,358
Interest expense	2,483,194
Accounting and legal services fees	78,357
Transfer agent fees	14,708
Trustees' fees	23,427
Printing and postage	79,081
Professional fees	29,097
Custodian fees	26,373
Stock exchange listing fees	12,067
Other	7,398
Total expenses	5,360,060
Less expense reductions	(29,256)
Net expenses	5,330,804
Net investment income	17,887,977
Realized and unrealized gain (loss)	
Net realized gain (loss) on	
Investments	1,854,001
Futures contracts	194,673
Swap contracts	213,701
	2,262,375
Change in net unrealized appreciation (depreciation) of	
Investments and translation of assets and liabilities in foreign currencies	(25,797,799)
Futures contracts	1,789,195
Swap contracts	911,912
	(23,096,692)
Net realized and unrealized loss	(20,834,317)
Decrease in net assets from operations	(\$2,946,340)

SEE NOTES TO FINANCIAL STATEMENTS

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STATEMENTS OF CHANGES IN NET ASSETS

	Six months ended 1-31-18 (unaudited)		Year ended 7-31-17	
Increase (decrease) in net assets				
From operations				
Net investment income	\$17,887,977		\$34,016,846	
Net realized gain	2,262,375		13,041,046	
Change in net unrealized appreciation (depreciation)	(23,096,692)	(25,976,387)
Increase (decrease) in net assets resulting from operations	(2,946,340)	21,081,505	
Distributions to shareholders				
From net investment income	(17,869,643)	(35,715,076)
From fund share transactions				
Issued pursuant to Dividend Reinvestment Plan	247,896		358,358	
Total decrease	(20,568,087)	(14,275,213)
Net assets				
Beginning of period	465,622,509		479,897,722	
End of period	\$445,054,422		\$465,622,509	
Undistributed net investment income	\$18,334			
Share activity				
Shares outstanding				
Beginning of period	21,267,596		21,251,288	
Issued pursuant to Dividend Reinvestment Plan	11,643		16,308	
End of period	21,279,239		21,267,596	

SEE NOTES TO FINANCIAL STATEMENTS

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STATEMENT OF CASH FLOWS For the six months ended 1-31-18 (unaudited)

Cash flows from operating activities	
Net decrease in net assets from operations	(\$2,946,340)
Adjustments to reconcile net decrease in net assets from operations to net cash provided by operating activities:	
Long-term investments purchased	(102,948,280)
Long-term investments sold	90,812,790
Decrease in short term investments	6,280,000
Net amortization of premium (discount)	6,711
Decrease in cash held at broker for futures contracts	104,000
Decrease in receivable for investments sold	3,839,667
Increase in dividends and interest receivable	(695,680)
Decrease in other receivables and prepaid expenses	8,985
Increase in receivable for centrally cleared swaps	(804,968)
Decrease in payable for investments purchased	(43,722)
Increase in payable to affiliates	14,827
Decrease in interest payable	(20,972)
Increase in other liabilities and accrued expenses	17,382
Net change in unrealized (appreciation) depreciation on investments	25,801,384
Net realized gain on investments	(1,854,001)
Net cash provided by operating activities	\$17,571,783
Cash flows from financing activities	
Distributions to shareholders	(\$17,621,747)
Net cash used in financing activities	(\$17,621,747)
Net decrease in cash	(\$49,964)
Cash at beginning of period	\$50,268
Cash at end of period	\$304
Supplemental disclosure of cash flow information	
Cash paid for interest	\$2,504,166
Noncash financing activities not included herein consists of reinvestment distributions:	\$247,896

SEE NOTES TO FINANCIAL STATEMENTS

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Financial highlights

COMMON SHARES						
Period Ended	1-31-18¹	7-31-17	7-31-16	7-31-15	7-31-14	7-31-13
Per share operating performance						
Net asset value, beginning of period	\$21.89	\$22.58	\$21.59	\$21.28	\$20.43	\$21.97
Net investment income ²	0.84	1.60	1.59	1.64	1.64	1.71
Net realized and unrealized gain (loss) on investments	(0.98)	(0.61)	1.08	0.35	0.89	(1.57)
Total from investment operations	(0.14)	0.99	2.67	1.99	2.53	0.14
Less distributions to common shareholders						
From net investment income	(0.84)	(1.68)	(1.53)	(1.62)	(1.68)	(1.68)
From tax return of capital			(0.15)	(0.06)		
Total distributions	(0.84)	(1.68)	(1.68)	(1.68)	(1.68)	(1.68)
Net asset value, end of period	\$20.91	\$21.89	\$22.58	\$21.59	\$21.28	\$20.43
Per share market value, end of period	\$20.15	\$22.39	\$22.68	\$19.51	\$20.15	\$20.05
Total return at net asset value (%)^{3,4}	(0.61)⁵	4.87	13.47	10.08	13.52	0.41
Total return at market value (%)³	(6.36)⁵	6.79	26.12	5.06	9.53	(4.79)

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Ratios and supplemental data							
Net assets applicable to common shares, end of period (in millions)	\$445		\$466	\$480	\$459	\$452	\$434
Ratios (as a percentage of average net assets):							
Expenses before reductions	2.36	⁶	2.06	1.81	1.70	1.77	1.69
Expenses including reductions ⁷	2.34	⁶	2.05	1.80	1.69	1.77	1.69
Net investment income	7.86	⁶	7.42	7.37	7.56	8.16	7.83
Portfolio turnover (%)	13		21	14	13	8	21
Senior securities							
Total debt outstanding end of period (in millions)	\$238		\$238	\$238	\$238	\$238	\$238
Asset coverage per \$1,000 of debt ⁸	\$2,870		\$2,956	\$3,016	\$2,927	\$2,900	\$2,824

¹ Six months ended 1-31-18. Unaudited.

² Based on average daily shares outstanding.

³ Total return based on net asset value reflects changes in the fund's net asset value during each period. Total return based on market value reflects changes in market value. Each figure assumes that distributions from

income, capital gains
and tax return of
capital, if any, were
reinvested.

Total returns would
have been lower had
4 certain expenses not
been reduced during
the applicable periods.

5 Not annualized.

6 Annualized.

Expenses including
reductions, excluding
interest expense were
1.25% (annualized),
1.25%, 1.24%, 1.23%,

7 1.28% and 1.23% for
the periods ended
1-31-18, 7-31-17,
7-31-16, 7-31-15,
7-31-14 and 7-31-13,
respectively.

Asset coverage equals
the total net assets
plus borrowings
divided by the
borrowings of the fund
outstanding at period
8 end (Note 7). As debt
outstanding changes,
the level of invested
assets may change
accordingly. Asset
coverage ratio
provides a measure of
leverage.

SEE NOTES TO FINANCIAL STATEMENTS

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Notes to financial statements (unaudited)

Note 1 Organization

John Hancock Preferred Income Fund II (the fund) is a closed-end management investment company organized as a Massachusetts business trust and registered under the Investment Company Act of 1940, as amended (the 1940 Act).

Note 2 Significant accounting policies

The financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (US GAAP), which require management to make certain estimates and assumptions as of the date of the financial statements. Actual results could differ from those estimates and those differences could be significant. The fund qualifies as an investment company under Topic 946 of Accounting Standards Codification of US GAAP.

Events or transactions occurring after the end of the fiscal period through the date that the financial statements were issued have been evaluated in the preparation of the financial statements. The following summarizes the significant accounting policies of the fund:

Security valuation. Investments are stated at value as of the scheduled close of regular trading on the New York Stock Exchange (NYSE), normally at 4:00 p.m., Eastern Time. In case of emergency or other disruption resulting in the NYSE not opening for trading or the NYSE closing at a time other than the regularly scheduled close, the net asset value (NAV) may be determined as of the regularly scheduled close of the NYSE pursuant to the fund's Valuation Policies and Procedures.

In order to value the securities, the fund uses the following valuation techniques: Equity securities held by the fund are typically valued at the last sale price or official closing price on the exchange or principal market where the security trades. In the event there were no sales during the day or closing prices are not available, the securities are valued using the last available bid price. Debt obligations are valued based on the evaluated prices provided by an independent pricing vendor or from broker-dealers. Independent pricing vendors utilize matrix pricing which takes into account factors such as institutional-size trading in similar groups of securities, yield, quality, coupon rate, maturity, type of issue, trading characteristics and other market data, as well as broker supplied prices. Swaps are valued using evaluated prices obtained from an independent pricing vendor. Futures contracts are valued at settlement prices, which are the official closing prices published by the exchange on which they trade.

In certain instances, the Pricing Committee may determine to value equity securities using prices obtained from another exchange or market if trading on the exchange or market on which prices are typically obtained did not open for trading as scheduled, or if trading closed earlier than scheduled, and trading occurred as normal on another exchange or market.

Other portfolio securities and assets, for which reliable market quotations are not readily available, are valued at fair value as determined in good faith by the fund's Pricing Committee following procedures established by the Board of Trustees. The frequency with which these fair valuation procedures are used cannot be predicted and fair value of securities may differ significantly from the value that would have been used had a ready market for such securities existed.

The fund uses a three-tier hierarchy to prioritize the pricing assumptions, referred to as inputs, used in valuation techniques to measure fair value. Level 1 includes securities valued using quoted prices in active markets for identical securities. Level 2 includes securities valued using other significant observable inputs. Observable inputs may include quoted prices for similar securities, interest rates, prepayment speeds and credit risk. Prices for securities valued using

these inputs are received from independent pricing vendors and brokers and are based on an evaluation of the inputs described. Level 3 includes securities valued using significant unobservable inputs when market prices are not readily available or reliable, including the fund's own assumptions in determining the fair value of investments. Factors used in determining value may include market or issuer specific events or trends, changes in interest rates and credit quality. The inputs or methodology used for valuing securities are not necessarily an indication of the risks associated with investing in those securities. Changes in valuation techniques and related inputs may result in transfers into or out of an assigned level within the disclosure hierarchy.

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The following is a summary of the values by input classification of the fund's investments as of January 31, 2018, by major security category or type:

	Total value at 1-31-18	Level 1 quoted price	Level 2 significant observable inputs	Level 3 significant unobservable inputs
Investments in securities:				
Assets				
Preferred securities				
Consumer staples	\$14,880,000		\$14,880,000	
Energy	24,417,251	\$24,417,251		
Financials	226,383,362	222,432,237	3,951,125	
Healthcare	13,686,952	13,686,952		
Industrials	9,676,150	9,676,150		
Real estate	66,538,331	44,950,398	21,587,933	
Telecommunication services	49,854,035	45,075,485	4,778,550	
Utilities	169,163,096	157,798,989	11,364,107	
Common stocks	72,515,742	72,515,742		
Corporate bonds	24,248,625		24,248,625	
Capital preferred securities	5,752,961		5,752,961	
Short-term investments	3,573,000		3,573,000	
Total investments in securities	\$680,689,505	\$590,553,204	\$90,136,301	

Derivatives:

Assets

Futures	\$1,721,390	\$1,721,390		
Swap contracts	911,912		\$911,912	

Securities with a market value of approximately \$21,304,243 at the beginning of the period were transferred from Level 1 to Level 2 during the period since quoted prices in active markets for identical securities were no longer available and securities were valued using other significant observable inputs.

Repurchase agreements. The fund may enter into repurchase agreements. When the fund enters into a repurchase agreement, it receives collateral that is held in a segregated account by the fund's custodian. The collateral amount is marked-to-market and monitored on a daily basis to ensure that the collateral held is in an amount not less than the principal amount of the repurchase agreement plus any accrued interest. Collateral received by the fund for repurchase agreements is disclosed in the Fund's investments as part of the caption related to the repurchase agreement.

Repurchase agreements are typically governed by the terms and conditions of the Master Repurchase Agreement and/or Global Master Repurchase Agreement (collectively, MRA). Upon an event of default, the non-defaulting party may close out all transactions traded under the MRA and net amounts owed. Absent an event of default, assets and liabilities resulting from repurchase agreements are not offset in the Statement of assets and liabilities. In the event of a default by the counterparty, realization of the collateral proceeds could be delayed, during which time the collateral value may decline or the counterparty may have insufficient assets to pay back claims resulting from close-out of the transactions.

Security transactions and related investment income. Investment security transactions are accounted for on a trade date plus one basis for daily NAV calculations. However, for financial reporting purposes, investment transactions are reported on trade date. Interest income is accrued as earned. Interest income includes coupon interest and amortization/accretion of premiums/discounts on debt securities. Debt obligations may be placed in a non-accrual

status and related interest income may be reduced by stopping current accruals and writing off interest receivable when the collection of all or a portion of interest has become doubtful. Dividend income is recorded on the ex-date, except for dividends of foreign

securities where the dividend may not be known until after the ex-date. In those cases, dividend income, net of withholding taxes, is recorded when the fund becomes aware of the dividends. Foreign taxes are provided for based on the fund's understanding of the tax rules and rates that exist in the foreign markets in which it invests. Gains and losses on securities sold are determined on the basis of identified cost and may include proceeds from litigation.

Real estate investment trusts. The fund may invest in real estate investment trusts (REITs). Distributions from REITs may be recorded as income and subsequently characterized by the REIT at the end of the fiscal year as a reduction of cost of investments and/or as a realized gain. As a result, the fund will estimate the components of distributions from these securities. Such estimates are revised when the actual components of the distributions are known.

Foreign taxes. The fund may be subject to withholding tax on income and/or capital gains or repatriation taxes imposed by certain countries in which the fund invests. Taxes are accrued based upon investment income, realized gains or unrealized appreciation.

Overdrafts. Pursuant to the custodian agreement, the fund's custodian may, in its discretion, advance funds to the fund to make properly authorized payments. When such payments result in an overdraft, the fund is obligated to repay the custodian for any overdraft, including any costs or expenses associated with the overdraft. The custodian may have a lien, security interest or security entitlement in any fund property that is not otherwise segregated or pledged, to the maximum extent permitted by law, to the extent of any overdraft.

Expenses. Within the John Hancock group of funds complex, expenses that are directly attributable to an individual fund are allocated to such fund. Expenses that are not readily attributable to a specific fund are allocated among all funds in an equitable manner, taking into consideration, among other things, the nature and type of expense and the fund's relative net assets. Expense estimates are accrued in the period to which they relate and adjustments are made when actual amounts are known.

Federal income taxes. The fund intends to continue to qualify as a regulated investment company by complying with the applicable provisions of the Internal Revenue Code and will not be subject to federal income tax on taxable income that is distributed to shareholders. Therefore, no federal income tax provision is required.

Under the Regulated Investment Company Modernization Act of 2010, the fund is permitted to carry forward capital losses incurred in taxable years beginning after December 22, 2010 for an unlimited period. Any losses incurred during those taxable years will be required to be utilized prior to the losses incurred in pre-enactment taxable years. As a result of this ordering rule, pre-enactment capital loss carryforwards may be more likely to expire unused. Additionally, post-enactment capital losses that are carried forward will retain their character as either short-term or long-term capital losses rather than being considered all short-term as under previous law.

For federal income tax purposes, as of July 31, 2017, the fund has a capital loss carryforward of \$7,092,125 available to offset future net realized capital gains. This carryforward expires on July 31, 2018.

Distribution of income and gains. Distributions to shareholders from net investment income and net realized gains, if any, are recorded on the ex-date. The fund generally declares and pays dividends monthly and capital gain distributions, if any, annually.

Such distributions, on a tax basis, are determined in conformity with income tax regulations, which may differ from US GAAP.

Capital accounts within the financial statements are adjusted for permanent book-tax differences. These adjustments have no impact on net assets or the results of operations. Temporary book-tax differences, if any, will reverse in a subsequent period. Book-tax differences are primarily attributable to expiration of capital loss carryforwards and real

estate investment trusts.

Statement of cash flows. Information on financial transactions that have been settled through the receipt and disbursement of cash is presented in the Statement of cash flows. The cash amount shown in the Statement of cash flows is the amount included in the fund's Statement of assets and liabilities and represents the cash on hand at the fund's custodian and does not include any short-term investments or Cash held at broker for futures contracts.

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Note 3 Derivative instruments

The fund may invest in derivatives in order to meet its investment objective. Derivatives include a variety of different instruments that may be traded in the over-the-counter (OTC) market, on a regulated exchange or through a clearing facility. The risks in using derivatives vary depending upon the structure of the instruments, including the use of leverage, optionality, the liquidity or lack of liquidity of the contract, the creditworthiness of the counterparty or clearing organization and the volatility of the position. Some derivatives involve risks that are potentially greater than the risks associated with investing directly in the referenced securities or other referenced underlying instrument. Specifically, the fund is exposed to the risk that the counterparty to an OTC derivatives contract will be unable or unwilling to make timely settlement payments or otherwise honor its obligations. OTC derivatives transactions typically can only be closed out with the other party to the transaction.

Certain swaps are typically traded through the OTC market. Certain swaps are regulated by the Commodity Futures Trading Commission. Derivative counterparty risk is managed through an ongoing evaluation of the creditworthiness of all potential counterparties and, if applicable, designated clearing organizations. The fund attempts to reduce its exposure to counterparty risk for derivatives traded in the OTC market, whenever possible, by entering into an International Swaps and Derivatives Association (ISDA) Master Agreement with each of its OTC counterparties. The ISDA gives each party to the agreement the right to terminate all transactions traded under the agreement if there is certain deterioration in the credit quality or contractual default of the other party, as defined in the ISDA. Upon an event of default or a termination of the ISDA, the non-defaulting party has the right to close out all transactions and to net amounts owed.

As defined by the ISDA, the fund may have collateral agreements with certain counterparties to mitigate counterparty risk on OTC derivatives. Subject to established minimum levels, collateral for OTC transactions is generally determined based on the net aggregate unrealized gain or loss on contracts with a particular counterparty. Collateral pledged to the fund is held in a segregated account by a third-party agent or held by the custodian bank for the benefit of the fund and can be in the form of cash or debt securities issued by the U.S. government or related agencies; collateral posted by the fund for OTC transactions is held in a segregated account at the fund's custodian and is noted in the accompanying Fund's investments, or if cash is posted, on the Statement of assets and liabilities. The fund's maximum risk of loss due to counterparty risk is equal to the asset value of outstanding contracts offset by collateral received.

Futures and centrally-cleared swaps are traded or cleared on an exchange or central clearinghouse. Exchange-traded or centrally-cleared transactions generally present less counterparty risk to a fund than OTC transactions. The exchange or clearinghouse stands between the fund and the broker to the contract and therefore, credit risk is generally limited to the failure of the exchange or clearinghouse and the clearing member.

Centrally-cleared swap contracts are subject to clearinghouse rules, including initial and variation margin requirements, daily settlement of obligations and the clearinghouse guarantee of payments to the broker. There is, however, still counterparty risk due to the potential insolvency of the broker with respect to any margin held in the brokers' customer accounts. While clearing members are required to segregate customer assets from their own assets, in the event of insolvency, there may be a shortfall in the amount of margin held by the broker for its clients. Collateral or margin requirements for exchange-traded derivatives are set by the broker or applicable clearinghouse. Margin for exchange-traded and centrally-cleared transactions is detailed in the Statement of assets and liabilities as Cash held at broker for futures contracts and receivable for centrally-cleared swaps, respectively. Securities pledged by the fund for exchange-traded, if any, are identified in the Fund's investments.

Futures. A futures contract is a contractual agreement to buy or sell a particular currency or financial instrument at a pre-determined price in the future. Risks related to the use of futures contracts include possible illiquidity of the futures markets, contract prices that can be highly volatile and imperfectly correlated to movements in the underlying financial instrument and potential losses in excess of the amounts recognized on the Statement of assets and liabilities.

Use of long futures contracts subjects the fund to the risk of loss up to the notional value of the futures contracts. Use of short futures contracts subjects the fund to unlimited risk of loss.

Upon entering into a futures contract, the fund is required to deposit initial margin with the broker in the form of cash or securities. The amount of required margin is generally based on a percentage of the contract value; this amount is the initial

margin for the trade. The margin deposit must then be maintained at the established level over the life of the contract. Futures margin receivable / payable is included on the Statement of assets and liabilities. Futures contracts are marked-to-market daily and an appropriate payable or receivable for the change in value (variation margin) and unrealized gain or loss is recorded by the fund. When the contract is closed, the fund records a realized gain or loss equal to the difference between the value of the contract at the time it was opened and the value at the time it was closed.

During the six months ended January 31, 2018, the fund used futures contracts to manage against anticipated interest rate changes against preferred securities. The fund held futures contracts with notional values ranging from \$63.2 million to \$65.5 million, as measured at each quarter end.

Interest rate swaps. Interest rate swaps represent an agreement between the fund and a counterparty to exchange cash flows based on the difference between two interest rates applied to a notional amount. The payment flows are usually netted against each other, with the difference being paid by one party to the other. The fund settles accrued net interest receivable or payable under the swap contracts at specified, future intervals. Swap agreements are privately negotiated in the OTC market or may be executed on a registered commodities exchange (centrally cleared swaps). Swaps are marked-to-market daily and the change in value is recorded as unrealized appreciation/depreciation of swap contracts. A termination payment by the counterparty or the fund is recorded as realized gain or loss, as well as the net periodic payments received or paid by the fund. The value of the swap will typically impose collateral posting obligations on the party that is considered out-of-the-money on the swap.

Entering into swap agreements involves, to varying degrees, elements of credit, market and documentation risk that may amount to values that are in excess of the amounts recognized on the Statement of assets and liabilities. Such risks involve the possibility that there will be no liquid market for the swap, or that a counterparty may default on its obligation or delay payment under the swap terms. The counterparty may disagree or contest the terms of the swap. In addition to interest rate risk, market risks may also impact the swap. The fund may also suffer losses if it is unable to terminate or assign outstanding swaps or reduce its exposure through offsetting transactions.

During the six months ended January 31, 2018, the fund used interest rate swaps to manage against anticipated interest rate changes. The fund held interest rate swaps with total USD notional amounts ranging up to \$60.0 million, as measured at each quarter end.

Fair value of derivative instruments by risk category

The table below summarizes the fair value of derivatives held by the fund at January 31, 2018 by risk category:

Risk	Statement of assets and liabilities location	Financial instruments location	Assets derivatives fair value	Liabilities derivative fair value
Interest rate	Receivable/payable for futures	Futures	\$1,721,390	
Interest rate	Swap contracts, at value	Interest rate swaps [^]	911,912	
Total			\$2,633,302	

Reflects cumulative appreciation/depreciation on futures as disclosed in Fund's investments. Only the period end variation margin is separately disclosed on the Statement of assets and liabilities.

[^] Reflects cumulative value of swap contracts. Receivable for centrally cleared swaps, which includes value and margin, and swap contracts at value, which represents OTC swaps, are shown separately on the Statement of assets and liabilities.

Effect of derivative instruments on the Statement of operations

The table below summarizes the net realized gain (loss) included in the net increase (decrease) in net assets from operations, classified by derivative instrument and risk category, for the six months ended January 31, 2018:

Statement of operations location - net realized gain

(loss) on:

Risk Futures contracts Swap contracts Total

Interest rate \$194,673 \$213,701 \$408,374

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The table below summarizes the net change in unrealized appreciation (depreciation) included in the net increase (decrease) in net assets from operations, classified by derivative instrument and risk category, for the six months ended January 31, 2018:

Statement of operations location - change in net unrealized appreciation (depreciation) of:

Risk	Futures contracts	Swap contracts	Total
Interest rate	\$1,789,195	\$911,912	\$2,701,107
Note 4	Guarantees and indemnifications		

Under the fund's organizational documents, its Officers and Trustees are indemnified against certain liabilities arising out of the performance of their duties to the fund. Additionally, in the normal course of business, the fund enters into contracts with service providers that contain general indemnification clauses. The fund's maximum exposure under these arrangements is unknown, as this would involve future claims that may be made against the fund that have not yet occurred. The risk of material loss from such claims is considered remote.

Note 5 Fees and transactions with affiliates

John Hancock Advisers, LLC (the Advisor) serves as investment advisor for the fund. The Advisor is an indirect, wholly owned subsidiary of Manulife Financial Corporation (MFC).

Management fee. The fund has an investment management agreement with the Advisor under which the fund pays a daily management fee to the Advisor, equivalent on an annual basis, to 0.75% of the fund's average daily managed assets including any assets attributable to the Credit Facility Agreement (see Note 7) (collectively, managed assets). The Advisor has a subadvisory agreement with John Hancock Asset Management a division of Manulife Asset Management (US) LLC, an indirectly owned subsidiary of MFC and an affiliate of the Advisor. The fund is not responsible for payment of the subadvisory fees.

The Advisor has contractually agreed to waive a portion of its management fee and/or reimburse expenses for certain funds of the John Hancock group of funds complex, including the fund (the participating portfolios). This waiver is based upon aggregate net assets of all the participating portfolios. The amount of the reimbursement is calculated daily and allocated among all the participating portfolios in proportion to the daily net assets of each fund. During the six months ended January 31, 2018, this waiver amounted to 0.01% of the fund's average daily managed assets (on an annualized basis). This arrangement may be amended or terminated at any time by the Advisor upon notice to the fund and with the approval of the Board of Trustees.

The expense reductions described above amounted to \$29,256 for the six months ended January 31, 2018.

The investment management fees, including the impact of the waivers and reimbursements as described above, incurred for the six months ended January 31, 2018 were equivalent to a net annual effective rate of 0.74% of the fund's average daily managed assets.

Accounting and legal services. Pursuant to a service agreement, the fund reimburses the Advisor for all expenses associated with providing the administrative, financial, legal, accounting and recordkeeping services to the fund, including the preparation of all tax returns, periodic reports to shareholders and regulatory reports, among other services. These accounting and legal services fees incurred for the six months ended January 31, 2018 amounted to an annual rate of 0.02% of the fund's average daily managed assets.

Trustee expenses. The fund compensates each Trustee who is not an employee of the Advisor or its affiliates. These Trustees receive from the fund and the other John Hancock closed-end funds an annual retainer. In addition, Trustee

out-of-pocket expenses are allocated to each fund based on its net assets relative to other funds within the John Hancock group of funds complex.

Note 6 Leverage risk

The fund utilizes a Credit Facility Agreement (CFA) to increase its assets available for investment. When the fund leverages its assets, common shareholders bear the fees associated with the CFA and have potential to benefit or be disadvantaged from the use of leverage. The Advisor's fee is also increased in dollar terms from the use of leverage. Consequently, the fund and the Advisor may have differing interests in determining whether to leverage the fund's assets. Leverage creates risks that may adversely affect the return for the holders of common shares, including:

- the likelihood of greater volatility of NAV and market price of common shares;
- fluctuations in the interest rate paid for the use of the credit facility;
- increased operating costs, which may reduce the fund's total return;
- the potential for a decline in the value of an investment acquired through leverage, while the fund's obligations under such leverage remains fixed; and
- the fund is more likely to have to sell securities in a volatile market in order to meet asset coverage or other debt compliance requirements.

To the extent the income or capital appreciation derived from securities purchased with funds received from leverage exceeds the cost of leverage, the fund's return will be greater than if leverage had not been used; conversely, returns would be lower if the cost of the leverage exceeds the income or capital appreciation derived.

In addition to the risks created by the fund's use of leverage, the fund is subject to the risk that it would be unable to timely, or at all, obtain replacement financing if the CFA is terminated. Were this to happen, the fund would be required to de-leverage, selling securities at a potentially inopportune time and incurring tax consequences. Further, the fund's ability to generate income from the use of leverage would be adversely affected.

Note 7 Credit facility agreement

The fund has entered into a CFA with a subsidiary of BNP Paribas (BNP) that allows it to borrow up to \$238,000,000 (maximum facility amount) and to invest the borrowings in accordance with its investment practices.

The fund pledges a portion of its assets as collateral to secure borrowings under the CFA. Such pledged assets are held in a special custody account with the fund's custodian. The amount of assets required to be pledged by the fund is determined in accordance with the CFA. The fund retains the benefits of ownership of assets pledged to secure borrowings under the CFA. Interest charged is at the rate of one month LIBOR (London Interbank Offered Rate) plus 0.70% and is payable monthly. As of January 31, 2018, the fund had borrowings of \$238,000,000 at an interest rate of 2.28%, which are reflected in the CFA payable on the Statement of assets and liabilities. During the six months ended January 31, 2018, the average borrowings under the CFA and the effective average interest rate were \$238,000,000 and 2.07%, respectively.

The fund is required to pay a commitment fee equal to 0.60% on any unused portion of the maximum facility amount, only for days on which the aggregate outstanding amount of the loans under the CFA is less than 80% of the maximum facility amount. For the six months ended January 31, 2018, there were no commitment fees incurred by the fund.

The fund may terminate the CFA with 30 days' notice. If certain asset coverage and collateral requirements, minimum net assets or other covenants are not met, the CFA could be deemed in default and result in termination. Absent a default or facility termination event, BNP generally is required to provide the fund with 360 days' notice prior to terminating or amending the CFA.

The fund has an agreement with BNP that allows BNP to borrow a portion of the pledged collateral (Lent Securities) in an amount not to exceed the lesser of: (i) outstanding borrowings owed by the fund to BNP or (ii) 331/3% of the

fund's total assets. The fund can designate any security within the pledged collateral as ineligible to be a Lent Security and can recall any of the Lent Securities. The fund also has the right to apply and set-off an amount equal to 100% of the then-current fair market value of such Lent Securities against the current borrowings under the CFA in the event that BNP fails to timely return the Lent Securities and in certain other circumstances. In such circumstances, however, the fund may not be able to obtain replacement financing required to purchase replacement securities and, consequently, the fund's income generating

potential may decrease. Even if the fund is able to obtain replacement financing, it might not be able to purchase replacement securities at favorable prices. Income earned from Lent Securities of \$80,528 for the six months ended January 31, 2018 is recorded as a component of interest income on the Statement of operations.

Note 8 Purchase and sale of securities

Purchases and sales of securities, other than short-term investments, amounted to \$102,948,280 and \$90,812,790, respectively, for the six months ended January 31, 2018.

Note 9 Industry or sector risk

The fund may invest a large percentage of its assets in one or more particular industries or sectors of the economy. If a large percentage of the fund's assets is economically tied to a single or small number of industries or sectors of the economy, the fund will be less diversified than a more broadly diversified fund, and it may cause the fund to underperform if that industry or sector underperforms. In addition, focusing on a particular industry or sector may make the fund's NAV more volatile. Further, a fund that invests in particular industries or sectors is particularly susceptible to the impact of market, economic, regulatory and other factors affecting those industries or sectors.

ADDITIONAL INFORMATION

Unaudited

Investment objective and principal investment strategies

The fund is a closed-end, diversified management investment company, common shares of which were initially offered to the public on November 29, 2002 and are publicly traded on the New York Stock Exchange (the NYSE). The fund's primary investment objective is to provide a high level of current income consistent with preservation of capital. The fund's secondary investment objective is to provide growth of capital to the extent consistent with its primary investment objective. The fund seeks to achieve its investment objectives by investing in securities that, in the opinion of the Advisor, may be undervalued relative to similar securities in the marketplace. The fund's principal investment strategies include, but are not limited to, the following: Under normal market conditions, the fund invests at least 80% of its assets (net assets plus borrowings for investment purposes) in preferred stocks and other preferred securities, including convertible preferred securities. In addition, the fund normally invests 25% or more of its total assets in the industries composing the utilities sector.

Dividends and distributions

During the six months ended January 31, 2018, distributions from net investment income totaling \$0.8400 per share were paid to shareholders. The dates of payments and the amounts per share were as follows:

Payment Date	Distributions
August 31, 2017	\$0.1400
September 29, 2017	0.1400
October 31, 2017	0.1400
November 30, 2017	0.1400
December 29, 2017	0.1400
January 31, 2018	0.1400
Total	\$0.8400

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More information

Trustees

Hassell H. McClellan, *Chairperson*

Steven R. Pruchansky, *Vice*

Chairperson

Andrew G. Arnott[#]

Charles L. Bardelis*

James R. Boyle

Peter S. Burgess*

William H. Cunningham

Grace K. Fey

Theron S. Hoffman*

Deborah C. Jackson

James M. Oates

Gregory A. Russo

Warren A. Thomson

Investment advisor

John Hancock Advisers, LLC

Subadvisor

John Hancock Asset Management a division of Manulife Asset Management (US) LLC

Custodian

State Street Bank and Trust Company

Officers

Andrew G. Arnott

President

John J. Danello

*Senior Vice President, Secretary,
and Chief Legal Officer*

Francis V. Knox, Jr.

Chief Compliance Officer

Charles A. Rizzo

Chief Financial Officer

Salvatore Schiavone

Treasurer

*Member of the Audit Committee

Non-Independent Trustee

[#]Effective 6-20-17

Transfer agent

Computershare Shareowner Services, LLC

Legal counsel

K&L Gates LLP

Stock symbol

Listed New York Stock Exchange: HPF

The fund's proxy voting policies and procedures, as well as the fund proxy voting record for the most recent twelve-month period ended June 30, are available free of charge on the Securities and Exchange Commission (SEC) website at sec.gov or on our website.

The fund's complete list of portfolio holdings, for the first and third fiscal quarters, is filed with the SEC on Form N-Q. The fund's Form N-Q is available on our website and the SEC's website, sec.gov, and can be reviewed and copied (for a fee) at the SEC's Public Reference Room in Washington, DC. Call 800-SEC-0330 to receive information on the operation of the SEC's Public Reference Room.

We make this information on your fund, as well as **monthly portfolio holdings**, and other fund details available on our website at jhinvestments.com or by calling 800-852-0218.

You can also contact us:

Regular mail:

Express mail:

800-852-0218

jhinvestments.com

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Louisville, KY 40233

Computershare
462 South 4th Street, Suite 1600
Louisville, KY 40202

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John Hancock family of funds

DOMESTIC EQUITY FUNDS

Balanced
 Blue Chip Growth
 Classic Value
 Disciplined Value
 Disciplined Value Mid Cap
 Equity Income
 Fundamental All Cap Core
 Fundamental Large Cap Core
 Fundamental Large Cap Value
 New Opportunities
 Small Cap Core
 Small Cap Value
 Small Company
 Strategic Growth
 U.S. Global Leaders Growth
 U.S. Growth
 Value Equity

GLOBAL AND INTERNATIONAL EQUITY FUNDS

Disciplined Value International
 Emerging Markets

INCOME FUNDS

Bond
 California Tax-Free Income
 Emerging Markets Debt
 Floating Rate Income
 Global Income
 Government Income
 High Yield
 High Yield Municipal Bond
 Income
 Investment Grade Bond
 Money Market
 Short Duration Credit Opportunities
 Spectrum Income
 Strategic Income Opportunities
 Tax-Free Bond

ALTERNATIVE AND SPECIALTY FUNDS

Absolute Return Currency
 Alternative Asset Allocation
 Enduring Assets
 Financial Industries

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Emerging Markets Equity

Global Absolute Return Strategies

Fundamental Global Franchise

Global Conservative Absolute Return

Global Equity

Global Focused Strategies

Global Shareholder Yield

Natural Resources

Greater China Opportunities

Redwood

International Growth

Regional Bank

International Small Company

Seaport

International Value Equity

Technical Opportunities

The fund's investment objectives, risks, charges, and expenses are included in the prospectus and should be considered carefully before investing. For a prospectus, contact your financial professional, call John Hancock Investments at 800-852-0218, or visit the fund's website at jhinvestments.com. Please read the prospectus carefully before investing or sending money.

ASSET ALLOCATION

Income Allocation

Multi-Index Lifetime Portfolios

Multi-Index Preservation Portfolios

Multimanager Lifestyle Portfolios

Multimanager Lifetime Portfolios

Retirement Income 2040

ENVIRONMENTAL, SOCIAL, AND GOVERNANCE FUNDS

ESG All Cap Core

ESG Core Bond

ESG International Equity

ESG Large Cap Core

EXCHANGE-TRADED FUNDS

CLOSED-END FUNDS

John Hancock Multifactor Consumer Discretionary ETF

John Hancock Multifactor Consumer Staples ETF

John Hancock Multifactor Developed International ETF

John Hancock Multifactor Energy ETF

John Hancock Multifactor Financials ETF

John Hancock Multifactor Healthcare ETF

John Hancock Multifactor Industrials ETF

John Hancock Multifactor Large Cap ETF

John Hancock Multifactor Materials ETF

John Hancock Multifactor Mid Cap ETF

John Hancock Multifactor Small Cap ETF

John Hancock Multifactor Technology ETF

John Hancock Multifactor Utilities ETF

John Hancock Multifactor ETF shares are bought and sold at market price (not NAV), and are not individually redeemed

Financial Opportunities

Hedged Equity & Income

Income Securities Trust

Investors Trust

Preferred Income

Preferred Income II

Preferred Income III

Premium Dividend

Tax-Advantaged Dividend Income

Tax-Advantaged Global Shareholder Yield

from the fund. Brokerage commissions will reduce returns.

John Hancock ETFs are distributed by Foreside Fund Services, LLC, and are subadvised by Dimensional Fund Advisors LP.

Foreside is not affiliated with John Hancock Funds, LLC or Dimensional Fund Advisors LP.

Dimensional Fund Advisors LP receives compensation from John Hancock in connection with licensing rights to the John Hancock Dimensional indexes. Dimensional Fund Advisors LP does not sponsor, endorse, or sell, and makes no representation as to the advisability of investing in, John Hancock Multifactor ETFs.

John Hancock Investments

A trusted brand

John Hancock Investments is a premier asset manager representing one of America's most trusted brands, with a heritage of financial stewardship dating back to 1862. Helping our shareholders pursue their financial goals is at the core of everything we do. It's why we support the role of professional financial advice and operate with the highest standards of conduct and integrity.

A better way to invest

We serve investors globally through a unique multimanager approach: We search the world to find proven portfolio teams with specialized expertise for every strategy we offer, then we apply robust investment oversight to ensure they continue to meet our uncompromising standards and serve the best interests of our shareholders.

Results for investors

Our unique approach to asset management enables us to provide a diverse set of investments backed by some of the world's best managers, along with strong risk-adjusted returns across asset classes.

John Hancock
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jhinvestments.com
MF431084^{P11SA 1/18}_{3/18}

ITEM 2. CODE OF ETHICS.

Not applicable at this time.

ITEM 3. AUDIT COMMITTEE FINANCIAL EXPERT.

Not applicable at this time.

ITEM 4. PRINCIPAL ACCOUNTANT FEES AND SERVICES.

Not applicable at this time.

ITEM 5. AUDIT COMMITTEE OF LISTED REGISTRANTS.

Not applicable at this time.

ITEM 6. SCHEDULE OF INVESTMENTS.

- (a) Not applicable.
- (b) Not applicable.

ITEM 7. DISCLOSURE OF PROXY VOTING POLICIES AND PROCEDURES FOR CLOSED-END MANAGEMENT INVESTMENT COMPANIES.

Not applicable at this time.

ITEM 8. PORTFOLIO MANAGERS OF CLOSED-END MANAGEMENT INVESTMENT COMPANIES.

Not applicable at this time.

ITEM 9. PURCHASES OF EQUITY SECURITIES BY CLOSED-END MANAGEMENT INVESTMENT COMPANY AND AFFILIATED PURCHASERS.

Not applicable at this time.

ITEM 10. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS.

Not applicable at this time.

ITEM 11. CONTROLS AND PROCEDURES.

(a) Based upon their evaluation of the registrant's disclosure controls and procedures as conducted within 90 days of the filing date of this Form N-CSR, the registrant's principal executive officer and principal financial officer have concluded that those disclosure controls and procedures provide reasonable assurance that the material information required to be disclosed by the registrant on this report is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms.

(b) There were no changes in the registrant's internal control over financial reporting that occurred during the second fiscal quarter of the period covered by this report that have materially affected, or are reasonably likely to materially affect, the registrant's internal control over financial reporting.

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ITEM 12. DISCLOSURE OF SECURITIES LENDING ACTIVITIES FOR CLOSED-END MANAGEMENT INVESTMENT COMPANIES.

The Fund did not participate directly in securities lending activities. See Note 7 to financial statements in Item 1.

ITEM 13. EXHIBITS.

(a) Separate certifications for the registrant's principal executive officer and principal financial officer, as required by Section 302 of the Sarbanes-Oxley Act of 2002 and Rule 30a-2(a) under the Investment Company Act of 1940, are attached.

(b)(1) Separate certifications for the registrant's principal executive officer and principal financial officer, as required by 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, and Rule 30a-2(b) under the Investment Company Act of 1940, are attached. The certifications furnished pursuant to this paragraph are not deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that section. Such certifications are not deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent that the Registrant specifically incorporates them by reference.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

John Hancock Preferred Income Fund II

By: /s/ Andrew G. Arnott
Andrew G. Arnott
President

Date: March 22, 2018

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

By: /s/ Andrew G. Arnott
Andrew G. Arnott
President

Date: March 22, 2018

By: /s/ Charles A. Rizzo
Charles A. Rizzo
Chief Financial Officer

Date: March 22, 2018
