

JOHN HANCOCK PREFERRED INCOME FUND II
Form N-CSRS
March 27, 2017

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, 2017

ITEM 1. REPORTS TO STOCKHOLDERS.

John Hancock

Preferred Income Fund II

Ticker: HPF

Semiannual report 1/31/17

A message to shareholders

Dear shareholder,

Financial markets are by their very nature unpredictable, but few market observers could have imagined the dramatic twists and turns that would come to characterize the end of 2016 and the beginning of 2017. Donald Trump's victory in November's presidential election sent both U.S. equity prices and bond yields sharply higher. The S&P 500 Index, NASDAQ, and Dow Jones Industrial Average each set new all-time highs in the final weeks of the year, and stocks continued to rally in January.

Much of this change in market sentiment from wariness to a more considered optimism has been fueled by the prospect of the Trump administration implementing a variety of pro-growth reforms. Given that Republicans control the White House and hold majorities in both houses of Congress, it is likely that change is indeed on the horizon. But the country remains deeply divided on many issues, and attempts by the new administration to implement some of its more controversial campaign promises will give investors plenty to worry about in the months ahead.

One of your best resources for dealing with market uncertainty is your financial advisor, who can help ensure your portfolio is sufficiently diversified to meet your long-term objectives and to withstand the inevitable bumps along the way.

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

Sincerely,

Andrew G. Arnott
President and Chief Executive Officer
John Hancock Investments

The S&P 500 Index tracks the performance of 500 of the largest publicly traded companies in the United States. It is not possible to invest directly in an index. Diversification does not guarantee a profit or eliminate the risk of a loss.

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

Table of contents

2 Your fund at a glance
4 Discussion of fund performance
8 Fund's investments
13 Financial statements
17 Financial highlights
18 Notes to financial statements
26 Additional information
26 Shareholder meeting
27 More information

SEMIANNUAL REPORT | JOHN HANCOCK PREFERRED INCOME FUND II 1

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 1/31/17 (%)

The Bank of America Merrill Lynch Hybrid Preferred Securities Index is a subset of the Bank of America Merrill Lynch Fixed Rate Preferred Securities Index, including all subordinated securities with a payment deferral feature. The 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 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. If a shareholder purchases shares at a time when the market price is at a premium to the NAV or sells shares at a time when the market price is at a discount to the NAV, the shareholder may sustain losses.

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

SEMIANNUAL REPORT | JOHN HANCOCK PREFERRED INCOME FUND II 2

PERFORMANCE HIGHLIGHTS OVER THE LAST SIX MONTHS

Preferred securities and utility common stocks declined

Rising interest rates put pressure on income-producing securities.

Key detractors come from utilities

A few companies were hurt by macroeconomic developments, as indicators of potentially stronger growth put pressure on dividend-producing stocks.

Certain convertible-preferred and energy-related holdings fared well

Energy securities were among the fund's best performers on the late improvement in commodity prices.

PORTFOLIO COMPOSITION AS OF 1/31/17 (%)

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 Gregory K. Phelps, John Hancock Asset Management a division of Manulife Asset Management (US) LLC

Gregory K. Phelps

Portfolio Manager

John Hancock Asset Management

What was the market environment like for preferred securities during the six months ended January 31, 2017?

Income-producing investments including the preferred securities and utility common stocks that are the main areas of emphasis for the fund declined during the period amid significant macroeconomic developments that muted demand for such investments. From the outset of the period, better U.S. economic data fanned worries that the U.S. Federal Reserve (Fed) would be induced to raise interest rates in September. This subjected most income-producing investments to a bout of profit taking. Utilities sector securities were among those hit hardest, as investors looked to lock in gains in advance of a rate hike. After the Fed refrained from a rate hike in September, income-producing investments briefly regained some ground.

But in the final months of 2016, preferreds and utility common stocks came under renewed pressure. Initially, data pointing to a strong third-quarter rebound in U.S. economic growth ratcheted up expectations for higher inflation and rising interest rates, resulting in the repricing of income-oriented investments. After the election of Donald Trump, whose proposed policies were viewed as business-friendly measures, stocks of companies that were less dependent on such measures came under further pressure, including high-dividend utility stocks. In early December, the Fed increased short-term rates by 25 basis points. Although this rate hike had, for the most part, been widely anticipated, what surprised the markets was the Fed's summary of economic projections, which showed that the Fed forecast three more interest-rate hikes by the end of 2017, one more than the market was pricing in. This, coupled with year-end tax-loss selling which investors used to offset investment losses against gains put additional pressure on preferreds and utilities at year end.

However, January was a strong month for dividend-producing investments. They posted solid gains as value-seeking investors bought preferreds and utility common stocks and tax-loss selling abated.

What's your view on income-producing investments?

We believe that conditions may improve for income-producing investments during the first half of 2017. In our view, interest rates may move gradually higher than they were at the end of 2016, but

will still remain low relative to historical measures. Although some of the Trump administration's proposed measures are likely to be implemented in 2017, others may not be enacted or felt until 2018 and beyond. Yields on European government debt remain low, suggesting to us that the world economy is not all that healthy. We doubt the Fed will risk upsetting already fragile economic conditions abroad. After the U.S. central bank's September meeting, Fed Chair Janet Yellen noted that economic conditions had strengthened since the first half of the year.

Our longer-term optimism for dividend-paying stocks remains intact. We believe that the aging of the global population should foster ongoing demand for preferred securities and utility common stocks as older people move larger portions of their portfolios into income-producing investments.

What holdings negatively affected performance?

Although the vast majority of preferred securities and utility common stocks suffered price declines during the six-month period, some holdings disappointed even further due to company-related developments. One of our biggest laggards was Teva Pharmaceutical Industries, Ltd., the world's largest maker of generic drugs, which suffered steep security price losses. Political scrutiny of the drug industry's pricing of certain medications hurt Teva, as did news that the company's president and CEO was retiring. Teva was also hurt by revelations that the company would have to pay a substantial fine for alleged bribery of government officials in Russia, Ukraine, and Mexico. We continued to hold the Teva preferred securities the fund owned, given that they carry an attractive 7% coupon and that we believe the company's balance sheet strength will help see it through its current challenges. Holdings in National Grid PLC, an international gas and electric company serving the United Kingdom and the northeastern United States, also performed poorly. The company's common stock price declined significantly on news that it would sell the majority of its stake in its gas distribution networks and cut its dividend payments to shareholders.

SECTOR COMPOSITION AS OF 1/31/17 (%)

"We believe that conditions may improve for income-producing investments during the first half of 2017."

What holdings helped the fund's performance?

Convertible preferred security holdings in Kinder Morgan, Inc. and Great Plains Energy, Inc. performed comparatively well. Both benefited from offering investors an attractive coupon and from positive underlying fundamentals. Additionally, these preferreds were priced throughout much of the period so that investors would stand to gain when the shares are expected to convert to common stocks in 2018.

Some of the portfolio's other energy-related investments were among its best performers for the period. Spectra Energy Corp., a leading U.S. pipeline company, fared particularly well, initially because investors were encouraged that the company's earnings were resilient in the face of turbulent oil and gas prices. Spectra got another late-period boost from the news that it planned to merge in the first quarter of 2017 with Canadian company Enbridge, Inc., creating what the two companies billed as the largest energy infrastructure company in North America. Electric and gas utility CenterPoint Energy, Inc. also performed well, benefiting from improved earnings and good results from the company's growing natural gas and electricity transmission service territory.

Were there any significant changes to the portfolio?

We reduced the fund's holdings in financials from 49.8% to 36.1%. Early in the period, some of the fund's Morgan Stanley and Entergy Corp. preferred issues were called. We were able to replace these with comparably yielding, newly issued convertible preferred securities from utility companies that need to finance acquisitions, including Dominion Resources, Inc. and Great Plains Energy. Toward the end of 2016, we used the proceeds from some preferred securities called to buy other

TOP 10 ISSUERS AS OF 1/31/17 (%)

Dominion Resources, Inc.	5.0
Kinder Morgan, Inc.	4.4
Great Plains Energy, Inc.	4.1
PPL Capital Funding, Inc.	3.8
JPMorgan Chase & Co.	3.5
Teva Pharmaceutical Industries, Ltd.	3.2
Wells Fargo & Company	3.1
Royal Dutch Shell PLC	2.9
U.S. Bancorp	2.9
United States Cellular Corp.	2.8
TOTAL	35.7

As a percentage of total investments.

Cash and cash equivalents are not included.

SEMIANNUAL REPORT | JOHN HANCOCK PREFERRED INCOME FUND II 6

preferreds that we felt were attractively valued after having been unduly punished by the broad sell-off of income-producing investments.

Can you tell us about management changes?

We've added Brad Lutz, CFA, to the team. Brad has more than 20 years of investment experience and specializes in fixed-income strategies. Effective August 31, 2017, I will be retiring. Joe and Brad will continue to manage the fund.

MANAGED BY

Gregory K. Phelps

On the fund since inception

Investing since 1981

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 1/31/17 (%)

The views expressed in this report are exclusively those of Gregory K. Phelps, 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.

SEMIANNUAL REPORT | JOHN HANCOCK PREFERRED INCOME FUND II 7

Fund's investments

As of 1-31-17 (unaudited)

	Shares	Value
Preferred securities (a)		
135.3% (88.7% of		\$611,103,824
Total investments)		
(Cost \$603,298,319)		
Consumer staples 3.1%	14,000,000	
Food and staples retailing 3.1%		
Ocean		
Spray		
Cranberries,	160,000	14,000,000
Inc.,		
Series A,		
6.250% (S)		
Energy 6.7%	30,009,019	
Oil, gas and consumable fuels 6.7%		
Kinder		
Morgan,	608,332	30,009,019
Inc.,		
9.750%		
Financials 51.4%	232,069,684	
Banks 31.2%		
Bank		
of		
America	180,000	4,707,000
Corp.,		
6.500%		
Bank		
of		
America	31,922	840,506
Corp.,		
6.625%		
Barclays		
Bank	365,000	9,351,300
PLC,		
Series 3, 7.100%		
Barclays		
Bank		
PLC,	340,000	8,772,000
Series 5,		
8.125%		
(L) (Z)		

Edgar Filing: JOHN HANCOCK PREFERRED INCOME FUND II - Form N-CSRS

BB&T Corp., 5.200% (Z)	330,000	8,118,000
BB&T Corp., 5.625% (Z)	450,000	11,322,000
Citigroup Capital XIII, 7.409% (P) (Z)	50,000	1,291,000
Citigroup, Inc., 5.800%	10,000	250,900
Citigroup, Inc., 6.875% (Z)	60,000	1,585,200
Citigroup, Inc. (6.875% to 11-15-23, then 3 month LIBOR + 4.130%)	242,253	6,737,056
Citigroup, Inc. (7.125% to 9-30-23, then 3 month LIBOR + 4.040%)	175,000	4,894,750
JPMorgan Chase & Co., 5.450% (Z)	60,000	1,507,800
JPMorgan Chase & Co., 5.500% (Z)	77,661	1,936,089
JPMorgan Chase	276,500	7,130,935

& Co., 6.100% (Z) JPMorgan Chase & Co., 6.125% (Z) JPMorgan Chase & Co., 6.300% (Z) Royal Bank of Scotland Group PLC, Series L, 5.750% The PNC Financial Services Group, Inc., 5.375% (Z) The PNC Financial Services Group, Inc. (6.125% to 5-1-22, then 3 month LIBOR + 4.067%) (Z) U.S. Bancorp (6.000% to 4-15-17, then 3 month LIBOR	501,419	13,046,922
	30,000	784,500
	465,000	11,392,500
	70,000	1,720,600
	145,000	4,112,200
	120,000	3,049,200

+
 4.861% (Z)
 U.S.
 Bancorp
 (6.500%
 to
 1-15-22,
 then 570,000 16,672,500
 3
 month
 LIBOR
 +
 4.468% (Z)
 Wells
 Fargo
 & 250,000 6,485,000
 Company,
 6.000% (Z)
 Wells
 Fargo
 & 565,000 15,034,650
 Company,
 8.000% (Z)
 Capital markets 6.3%
 Deutsche
 Bank
 Contingent
 Capital 5,500 135,190
 Trust
 II,
 6.550%
 Deutsche
 Bank
 Contingent
 Capital 300,000 7,671,000
 Trust
 III,
 7.600% (Z)
 Morgan
 Stanley, 175,000 4,599,000
 6.625% (Z)
 Morgan 70,000 1,854,300
 Stanley
 (6.375%
 to
 10-15-24,
 then
 3
 month
 LIBOR
 +

3.708%)

State

Street

Corp.,

45,000 1,102,950

5.250% (Z)

SEE NOTES TO FINANCIAL STATEMENTS

SEMIANNUAL REPORT | JOHN HANCOCK PREFERRED INCOME FUND II 8

Edgar Filing: JOHN HANCOCK PREFERRED INCOME FUND II - Form N-CSRS

	Shares	Value
Financials (continued)		
Capital markets (continued)		
State		
Street Corp., 6.000% (Z)	445,000	\$11,752,450
The		
Goldman Sachs Group, Inc., 5.950%	55,900	1,412,034
Consumer finance 3.8%		
Capital		
One Financial Corp., 6.200%	270,395	6,976,191
Capital		
One Financial Corp., 6.700%	52,925	1,438,502
Navient Corp., 6.000%		
SLM Corp., Series A, 6.970%	64,000	3,232,000
Insurance 10.0%		
Aegon NV, 6.375% (Z)	432,498	10,959,499
Aegon NV, 6.500% (Z)	220,000	5,693,600
Prudential		
Financial, Inc., 5.750% (L) (Z)	160,000	4,016,000
Prudential		
PLC, 6.500% (L) (Z)	103,000	2,655,340
The Phoenix Companies, Inc.,	216,500	3,964,656

Edgar Filing: JOHN HANCOCK PREFERRED INCOME FUND II - Form N-CSRS

7.450% (Z)		
W.R.		
Berkley	740,000	17,834,000
Corp.,		
5.625% (Z)		
Thrifts and mortgage finance	0.1%	
Federal		
National		
Mortgage	75,000	695,250
Association,		
Series S,		
8.250% (I)		
Health care 4.9%		22,259,258
Pharmaceuticals 4.9%		
Teva		
Pharmaceutical		
Industries,	36,100	22,259,258
Ltd.,		
7.000%		
Industrials 2.2%		9,730,121
Machinery 2.2%		
Stanley		
Black		
&		
Decker,	385,504	9,730,121
Inc.,		
5.750%		
(L) (Z)		
Real estate 12.1%		54,829,632
Equity real estate investment		
trusts 12.1%		
Digital		
Realty		
Trust,	29,592	811,117
Inc.,		
7.375%		
Kimco		
Realty	725,000	18,248,250
Corp.,		
6.000% (Z)		
Public		
Storage,	255,000	6,135,300
5.200%		
(L) (Z)		
Public		
Storage,	343,642	8,474,212
5.750%		
(L) (Z)		
Senior	677,020	16,004,753
Housing		
Properties		

Trust, 5.625% (Z) Ventas Realty LP,	200,000	5,156,000
5.450% (L) (Z) Telecommunication services 9.9%	44,819,424	
Diversified telecommunication services 2.4%		
Qwest Corp.,	30,000	737,100
6.125% Qwest Corp.,	65,000	1,668,550
6.875% Qwest Corp.,	60,000	1,510,200
7.000% Qwest Corp.,	86,550	2,193,177
7.500% Verizon Communications Inc.,	185,000	4,872,900
5.900% (Z) Wireless telecommunication services 7.5% Telephone & Data Systems, Inc.,	167,221	4,182,197
6.625% (Z)		

SEE NOTES TO FINANCIAL STATEMENTS

SEMIANNUAL REPORT | JOHN HANCOCK PREFERRED INCOME FUND II 9

Edgar Filing: JOHN HANCOCK PREFERRED INCOME FUND II - Form N-CSRS

	Shares	Value
Telecommunication services (continued)		
Wireless telecommunication services (continued)		
Telephone & Data Systems, Inc., 6.875% (Z)	115,519	\$2,909,924
Telephone & Data Systems, Inc., 7.000%	283,000	7,165,560
United States Cellular Corp., 6.950% (L) (Z)	773,600	19,579,816
Utilities 45.0% Electric utilities 30.0%		203,386,686
Duke Energy Corp., 5.125% (L) (Z)	734,449	18,375,914
Entergy Louisiana LLC, 5.250% (L) (Z)	220,000	5,365,800
FPL Group Capital Trust I, 5.875% (Z)	255,000	6,471,900
Great Plains Energy, Inc., 7.000% (L) (Z)	549,000	28,125,270
HECO Capital Trust	187,750	4,907,785

III, 6.500% (Z) Interstate Power & Light Company, 5.100% (Z) NextEra Energy Capital Holdings, Inc., 5.125% (Z) NextEra Energy Capital Holdings, Inc., 5.700% (L) (Z) NSTAR Electric Company, 4.780% PPL Capital Funding, Inc., 5.900% (Z) SCE Trust I, 5.625% (Z) SCE Trust II, 5.100% (Z) SCE Trust III (5.750% to 3-15-24, then 3 month LIBOR + 2.990%) (Z)	158,837	4,231,418
	80,000	1,863,200
	665,000	16,472,050
	15,143	1,506,729
	1,050,000	26,323,500
	105,000	2,596,650
	438,444	10,513,887
	20,000	523,200
	310,000	8,134,400

The Southern Company, 6.250% (Z)		
Independent power and renewable electricity producers 0.7%		
AES Trust III, 6.750% (Z)	63,295	3,228,045
Multi-utilities 14.3%		
BGE Capital Trust II, 6.200% (Z)	539,000	13,933,150
Dominion Resources, Inc., 6.750% (Z)	569,667	28,910,600
DTE Energy Company, 5.250% (Z)	424,477	10,493,071
DTE Energy Company, 6.000%	76,475	1,937,112
DTE Energy Company, 6.500%	69,200	3,669,676
Integrus Holding, Inc. (6.000% to 8-1-23, then 3 month LIBOR + 3.220%) (L) (Z)	225,372	5,803,329
Common stocks 11.9% (7.8% of Total investments) (Cost \$47,447,677)		\$53,778,108
Energy 10.6%		47,971,508
Oil, gas and consumable fuels 10.6%		

BP PLC, ADR (L) (Z) Royal Dutch Shell PLC, ADR, Class A (L) (Z) Spectra Energy Corp. (Z) Utilities 1.3% Multi-utilities 1.3% CenterPoint Energy, Inc. (Z) National Grid PLC, ADR	491,000	17,666,180
	373,019	20,288,503
	240,500	10,016,825
		5,806,600
	110,000	2,883,100
	50,000	2,923,500

SEE NOTES TO FINANCIAL STATEMENTS

SEMIANNUAL REPORT | JOHN HANCOCK PREFERRED INCOME FUND II 10

Edgar Filing: JOHN HANCOCK PREFERRED INCOME FUND II - Form N-CSRS

Rate (%)	Maturity date	Par value^	Value
Capital preferred securities (b) 1.3% (0.9% of Total investments) (Cost \$5,574,000)			
Utilities 1.3%			5,869,915
Multi-utilities 1.3%			
Dominion Resources Capital Trust III			
1.400	01-15-31	5,000,000	5,869,915
Corporate bonds 3.0% (1.9% of Total investments) (Cost \$13,366,809)			
Energy 2.0%			9,007,063
Oil, gas and consumable fuels 2.0%			
Energy Transfer Partners LP (P)			
3.903	11-01-66	10,550,000	9,007,063
Utilities 1.0%			4,406,000
Electric utilities 1.0%			
Southern California Edison Company (6.250% to 2-1-2022 then 3 month LIBOR + 4.199%) (L) (Q) (Z)			
6.250	02-01-22	4,000,000	4,406,000
Yield* (%)			
Short-term investments 1.1% (0.7% of Total investments) (Cost \$4,945,000)			
U.S. Government Agency 1.1%			4,781,000
Federal Home Loan Bank Discount Note			
0.400	02-01-17	4,781,000	4,781,000
Par value^			
Repurchase agreement 0.0%			164,000

Repurchase Agreement with State Street Corp. dated 1-31-17 at 0.100% to be repurchased at \$164,000 on 2-1-17, collateralized by \$170,000 U.S. Treasury Notes, 1.250% due 10-31-19 (valued at \$169,794, including interest)	164,000	164,000
Total investments (Cost \$674,631,805)		\$689,109,910
152.6%		
Other assets and liabilities, net (52.6%)		(\$237,402,602)
Total net assets 100.0%		\$451,707,308

SEE NOTES TO FINANCIAL STATEMENTS

SEMIANNUAL REPORT | JOHN HANCOCK PREFERRED INCOME FUND II 11

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.

Key to Security

Abbreviations and

Legend

- | | |
|-------|---|
| ADR | American
Depository
Receipts
London |
| LIBOR | Interbank
Offered Rate
Includes
preferred
stocks and
hybrid
securities with
characteristics
of both equity
and debt that
pay dividends
on a periodic
basis.
Includes
hybrid
securities with
characteristics
of both equity
and debt that
trade with, and
pay, interest
income. |
| (I) | Non-income
producing
security. |
| (L) | A portion of
this security is
on loan as of
1-31-17, and is
a component |

- of the fund's leverage under the Credit Facility Agreement. Variable rate obligation. The coupon rate shown represents the rate at period end.
- (P)
- Perpetual bonds have no stated maturity date. Date shown as maturity date is next call date.
- (Q)
- 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.
- (S)
- All or a portion of this security is pledged as collateral pursuant to the Credit Facility Agreement. Total collateral value at 1-31-17 was \$508,406,393. A portion of the securities
- (Z)

pledged as collateral were loaned pursuant to the Credit Facility Agreement.

The value of securities on loan amounted to \$162,203,057.

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.

At 1-31-17, the aggregate cost of investment securities for federal income tax purposes was

\$674,784,640.

Net unrealized appreciation aggregated to \$14,325,270, of which \$27,739,066 related to appreciated investment securities and \$13,413,796 related to depreciated investment securities.

SEE NOTES TO FINANCIAL STATEMENTS

SEMIANNUAL REPORT | JOHN HANCOCK PREFERRED INCOME FUND II 12

Financial statements

STATEMENT OF ASSETS AND LIABILITIES 1-31-17 (unaudited)

Assets	
Investments, at value (Cost \$674,631,805)	\$689,109,910
Cash	227
Dividends and interest receivable	1,031,625
Swap contracts, at value	57,080
Other receivables and prepaid expenses	29,452
Total assets	690,228,294
Liabilities	
Committed facility agreement	238,000,000
Payable for investments purchased	399,526
Interest payable	19,565
Payable to affiliates	
Accounting and legal services fees	15,990
Trustees' fees	816
Other liabilities and accrued expenses	85,089
Total liabilities	238,520,986
Net assets	\$451,707,308
Net assets consist of	
Paid-in capital	\$493,394,064
Accumulated distributions in excess of net investment income	(647,984)
Accumulated net realized gain (loss) on investments, futures contracts and swap agreements	(55,576,291)
Net unrealized appreciation (depreciation) on investments, translation of assets and liabilities in foreign currencies and swap agreements	14,537,519
Net assets	\$451,707,308
Net asset value per share	
Based on 21,258,400 shares of beneficial interest outstanding unlimited number of shares authorized with no par value	\$21.25

SEE NOTES TO FINANCIAL STATEMENTS

SEMIANNUAL REPORT | JOHN HANCOCK PREFERRED INCOME FUND II 13

STATEMENT OF OPERATIONS For the six months ended 1-31-17 (unaudited)

Investment income	
Dividends	\$21,350,044
Interest	573,334
Less foreign taxes withheld	(257,299)
Total investment income	21,666,079
Expenses	
Investment management fees	2,634,762
Accounting and legal services fees	74,597
Transfer agent fees	16,098
Trustees' fees	22,673
Printing and postage	75,880
Professional fees	27,089
Custodian fees	28,223
Stock exchange listing fees	11,935
Interest expense	1,586,343
Other	7,051
Total expenses	4,484,651
Less expense reductions	(26,651)
Net expenses	4,458,000
Net investment income	17,208,079
Realized and unrealized gain (loss)	
Net realized gain (loss) on	
Investments	3,556,360
Futures contracts	1,533,728
Swap contracts	(343,550)
	4,746,538
Change in net unrealized appreciation (depreciation) of	
Investments and translation of assets and liabilities in foreign currencies	(34,730,305)
Futures contracts	1,863,219
Swap contracts	418,879
	(32,448,207)
Net realized and unrealized loss	(27,701,669)
Decrease in net assets from operations	(\$10,493,590)

SEE NOTES TO FINANCIAL STATEMENTS

SEMIANNUAL REPORT | JOHN HANCOCK PREFERRED INCOME FUND II 14

STATEMENTS OF CHANGES IN NET ASSETS

	Six months ended 1-31-17 (unaudited)	Year ended 7-31-16
Increase (decrease) in net assets		
From operations		
Net investment income	\$17,208,079	\$33,858,969
Net realized gain (loss)	4,746,538	(74,224)
Change in net unrealized appreciation (depreciation)	(32,448,207)	23,073,072
Increase (decrease) in net assets resulting from operations	(10,493,590)	56,857,817
Distributions to shareholders		
From net investment income	(17,856,063)	(32,536,721)
From tax return of capital		(3,161,748)
Total distributions	(17,856,063)	(35,698,469)
From fund share transactions		
Issued pursuant to Dividend Reinvestment Plan	159,239	53,977
Total increase (decrease)	(28,190,414)	21,213,325
Net assets		
Beginning of period	479,897,722	458,684,397
End of period	\$451,707,308	\$479,897,722
Accumulated distributions in excess of net investment income	(\$647,984)	
Share activity		
Shares outstanding		
Beginning of period	21,251,288	21,248,889
Issued pursuant to Dividend Reinvestment Plan	7,112	2,399
End of period	21,258,400	21,251,288

SEE NOTES TO FINANCIAL STATEMENTS

SEMIANNUAL REPORT | JOHN HANCOCK PREFERRED INCOME FUND II 15

STATEMENT OF CASH FLOWS For the six months ended 1-31-17 (unaudited)

Cash flows from operating activities	
Net decrease in net assets from operations	(\$10,493,590)
Adjustments to reconcile net increase in net assets from operations to net cash provided by operating activities:	
Long-term investments purchased	(99,527,708)
Long-term investments sold	93,184,537
Decrease in short term investments	4,057,000
Net amortization of premium (discount)	88,769
Decrease in dividends and interest receivable	833,229
Decrease in cash segregated at custodian for derivative contracts	370,000
Decrease in cash held at broker for futures contracts	702,000
Decrease in other receivables and prepaid expenses	3,870
Decrease in payable for investments purchased	(1,978,093)
Decrease in unrealized depreciation of swap contracts	(418,879)
Decrease in payable for futures variation margin	(251,875)
Decrease in payable to affiliates	(19,009)
Decrease in interest payable	(12,124)
Decrease in other liabilities and accrued expenses	(17,691)
Net change in unrealized (appreciation) depreciation on investments	34,732,639
Net realized gain on investments	(3,556,360)
Net cash provided by operating activities	\$17,696,715
Cash flows from financing activities	
Distributions to common shareholders	(\$17,696,824)
Net cash used in financing activities	(\$17,696,824)
Net decrease in cash	(\$109)
Cash at beginning of period	\$336
Cash at end of period	\$227
Supplemental disclosure of cash flow information	
Cash paid for interest	\$1,598,467
Noncash financing activities not included herein consists of reinvestment distributions	\$159,239

SEE NOTES TO FINANCIAL STATEMENTS

SEMIANNUAL REPORT | JOHN HANCOCK PREFERRED INCOME FUND II 16

Financial highlights

COMMON SHARES						
Period Ended	1-31-17¹	7-31-16	7-31-15	7-31-14	7-31-13	7-31-12
Per share operating performance						
Net asset value, beginning of period	\$22.58	\$21.59	\$21.28	\$20.43	\$21.97	\$20.70
Net investment income ²	0.81	1.59	1.64	1.64	1.71	1.75
Net realized and unrealized gain (loss) on investments	(1.30)	1.08	0.35	0.89	(1.57)	1.20
Total from investment operations	(0.49)	2.67	1.99	2.53	0.14	2.95
Less distributions to common shareholders						
From net investment income	(0.84)	(1.53)	(1.62)	(1.68)	(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	\$21.25	\$22.58	\$21.59	\$21.28	\$20.43	\$21.97
Per share market value, end of period	\$20.89	\$22.68	\$19.51	\$20.15	\$20.05	\$22.74
Total return at net asset value (%)^{3,4}	(2.08)⁵	13.47	10.08	13.52	0.41	15.02
Total return at market value (%)³	(4.16)⁵	26.12	5.06	9.53	(4.79)	22.92

Ratios and supplemental data							
Net assets applicable to common shares, end of period (in millions)	\$452		\$480	\$459	\$452	\$434	\$466
Ratios (as a percentage of average net assets):							
Expenses before reductions	1.94	⁶	1.81	1.70	1.77	1.69	1.75
Expenses including reductions ⁷	1.93	⁶	1.80	1.69	1.77	1.69	1.75
Net investment income	7.44	⁶	7.37	7.56	8.16	7.83	8.45
Portfolio turnover (%)	13		14	13	8	21	19
Senior securities							
Total debt outstanding end of period (in millions)	\$238		\$238	\$238	\$238	\$238	\$231
Asset coverage per \$1,000 of debt ⁸	\$2,898		\$3,016	\$2,927	\$2,900	\$2,824	\$3,018

¹ Six months ended 1-31-17.

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. These figures will differ depending upon the level of any discount from or premium to net asset value at which the fund's shares traded during the period.

Total returns would have been lower had certain

4 expenses not been reduced during the applicable periods.

5 Not annualized.

6 Annualized.

Expenses including reductions excluding interest expense were

7 1.24%(annualized),1.24%, 1.23%, 1.28%,1.23% and 1.25% for the periods ended 1-31-17, 7-31-16, 7-31-15, 7-31-14, 7-31-13 and 7-31-12, respectively.

Asset coverage equals the total net assets plus borrowings divided by the borrowings of the fund outstanding at period end

8 (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

SEMIANNUAL REPORT | JOHN HANCOCK PREFERRED INCOME FUND II 17

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.

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

Edgar Filing: JOHN HANCOCK PREFERRED INCOME FUND II - Form N-CSRS

The following is a summary of the values by input classification of the fund's investments as of January 31, 2017, by major security category or type:

	Total value at 1-31-17	Level 1 quoted price	Level 2 significant observable inputs	Level 3 significant unobservable inputs
Preferred securities				
Consumer staples	\$14,000,000		\$14,000,000	
Energy	30,009,019	\$30,009,019		
Financials	232,069,684	228,105,028	3,964,656	
Health care	22,259,258	22,259,258		
Industrials	9,730,121	9,730,121		
Real estate	54,829,632	54,829,632		
Telecommunication services	44,819,424	39,946,524	4,872,900	
Utilities	203,386,686	197,583,357	5,803,329	
Common stocks	53,778,108	53,778,108		
Capital preferred securities	5,869,915		5,869,915	
Corporate bonds	13,413,063		13,413,063	
Short-term investments	4,945,000		4,945,000	
Total investments in securities	\$689,109,910	\$636,241,047	\$52,868,863	
Other financial instruments:				
Interest rate swaps	\$57,080		\$57,080	

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. Distributions received on securities that represent a tax return of capital or capital gain are recorded as a reduction of cost of investments and/or as a realized gain if amounts are estimable. 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, 2016, the fund has a capital loss carryforward of \$62,355,621 available to offset future net realized capital gains. The following table details the capital loss carryforward available:

Capital loss carryforward expiring		No Expiration Date	
at July 31			
2017	2018	Short-Term	Long-Term
\$41,725,462	\$7,092,125	\$2,089,792	\$11,448,242

As of July 31, 2016, the fund had no uncertain tax positions that would require financial statement recognition, derecognition or disclosure. The fund's federal tax returns are subject to examination by the Internal Revenue Service for a period of three years.

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 derivative transactions and REITs.

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

SEMIANNUAL REPORT | JOHN HANCOCK PREFERRED INCOME FUND II 20

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.

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.

Swaps are typically traded through the OTC market. 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. 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, 2017, the fund used futures contracts to manage against anticipated interest rate changes. The fund held futures contracts with notional values ranging up to \$69.2 million, as measured at each quarter end. At January 31, 2017, the fund held no open futures contracts.

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. Market risks may also accompany the swap, including interest rate risk. 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, 2017, 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 from \$56.0 million to \$112.0 million, as measured at each quarter end. The following table summarizes the interest rate swap contracts held as of January 31, 2017:

Counterparty	USD notional amount	Payments made by fund	Payments received by fund	Maturity date	Market value
Morgan Stanley Capital Services	\$56,000,000	Fixed 0.8750%	3 Month LIBOR ^(a)	Jul 2017	\$57,080

^(a) At 1-31-17, 3-month LIBOR was 1.03456%

Fair value of derivative instruments by risk category

The table below summarizes the fair value of derivatives held by the fund at January 31, 2017 by risk category:

Risk	Statement of assets and liabilities location	Financial instruments location	Asset derivatives fair value	Liabilities derivative fair value
------	--	--------------------------------	------------------------------	-----------------------------------

Interest rate Swap contracts, at value Interest rate swaps \$57,080

For financial reporting purposes, the fund does not offset OTC derivative assets or liabilities that are subject to master netting arrangements, as defined by the ISDAs, in the Statement of assets and liabilities. In the event of default by the counterparty or a termination of the agreement, the ISDA allows an offset of amounts across the various transactions between the fund and the applicable counterparty.

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, 2017:

Risk	Statement of operations location	Futures contracts	Swap contracts	Total
Interest rate	Net realized gain (loss)	\$1,533,728	(\$343,550)	\$1,190,178

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, 2017:

Risk	Statement of operations location	Future contracts	Swap contracts	Total
Interest rate	Change in unrealized appreciation (depreciation)	\$1,863,219	\$418,879	\$2,282,098

SEMIANNUAL REPORT | JOHN HANCOCK PREFERRED INCOME FUND II 22

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, 2017, this waiver amounted to 0.01% of the fund's average net 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 \$26,651 for the six months ended January 31, 2017.

Expenses waived or reimbursed in the current fiscal period are not subject to recapture in future fiscal periods.

The investment management fees incurred for the six months ended January 31, 2017 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, 2017 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;

SEMIANNUAL REPORT | JOHN HANCOCK PREFERRED INCOME FUND II 23

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, 2017, the fund had borrowings of \$238,000,000 at an interest rate of 1.48%, which are reflected in the CFA payable on the Statement of assets and liabilities. During the six months ended January 31, 2017, the average borrowings under the CFA and the effective average interest rate were \$238,000,000 and 1.32%, 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, 2017, 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 \$25,287 for the six months ended January 31, 2017 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 \$99,527,708 and \$93,184,537, respectively, for the six months ended January 31, 2017.

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 are 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.

Note 10 New rule issuance

In October 2016, the Securities and Exchange Commission (SEC) issued *Final Rule Release No.33-10231, Investment Company Reporting Modernization* (the Release). The Release calls for the adoption of new rules and forms as well as amendments to its rules and forms to modernize the reporting and disclosure of information by registered investment companies. The SEC is adopting amendments to Regulation S-X, which will require standardized, enhanced disclosure about derivatives in investment company financial statements, as well as other amendments. Management is in the process of reviewing the impact to the financial statements.

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, 2017, 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, 2016	\$0.1400
September 30, 2016	0.1400
October 31, 2016	0.1400
November 30, 2016	0.1400
December 30, 2016	0.1400
January 31, 2017	0.1400
Total	\$0.8400

Shareholder meeting

The fund held its Annual Meeting of Shareholders on January 24, 2017. The following proposal was considered by the shareholders:

Proposal: To elect five (5) Trustees (James R. Boyle, William H. Cunningham, Grace K. Fey, Hassell H. McClellan and Gregory A. Russo) to serve for a three-year term ending at the 2020 Annual Meeting of Shareholders. Each Trustee was re-elected by the fund's shareholders and the votes cast with respect to each Trustee are set forth below.

	Total votes for the nominee	Total votes withheld from the nominee
Independent Trustees		
William H. Cunningham	18,658,244.252	565,146.500
Grace K. Fey	18,648,539.252	574,851.500
Hassell H. McClellan	18,622,981.252	600,409.500
Gregory A. Russo	18,672,315.252	551,075.500
Non-Independent Trustees		
James R. Boyle	18,680,536.752	542,854.000

Trustees whose term of office continued after the Annual Meeting of Shareholders because they were not up for election are: Charles L. Bardelis, Peter S. Burgess, Craig Bromley, Theron F. Hoffman, Deborah C. Jackson, James M. Oates, Steven R. Pruchansky, and Warren A. Thomson.

More information

Trustees

Hassell H. McClellan, *Chairperson*[#]

Steven R. Pruchansky, *Vice*

Chairperson

Charles L. Bardelis*

James R. Boyle

Craig Bromley

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 1-1-17

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:

800-852-0218

jhinvestments.com

Computershare

P.O. Box 30170

College Station, TX 77842-3170

SEMIANNUAL REPORT | JOHN HANCOCK PREFERRED INCOME FUND II 27

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 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
 Emerging Markets Equity

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

Global Equity	Global Absolute Return Strategies
Global Shareholder Yield	Global Conservative Absolute Return
Greater China Opportunities	Global Focused Strategies
International Growth	Global Real Estate
International Small Company	Natural Resources
International Value Equity	Redwood
	Regional Bank
	Seaport
	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 Fund

Multimanager Lifestyle Portfolios

Multi-Index Preservation Portfolios

Multimanager Lifetime Portfolios

Multi-Index Lifetime Portfolios

EXCHANGE-TRADED 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 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 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.

**ENVIRONMENTAL, SOCIAL, AND GOVERNANCE
FUNDS**

ESG All Cap Core

ESG Core Bond

ESG International Equity

ESG Large Cap Core

CLOSED-END FUNDS

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

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
Advisers, LLC
601 Congress Street n
Boston, MA
02210-2805
800-852-0218 n
jhinvestments.com
MF348587^{P11SA 1/17}
3/17

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 registrant's most recent fiscal half-year (the registrant's second fiscal half-year in the case of an annual report) that have materially affected, or are reasonably likely to materially affect, the registrant's internal control over financial reporting.

ITEM 12. 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) 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.

(c)(1) Contact person at the registrant.

(c)(2) Registrant's notice to shareholders pursuant to Registrant's exemptive order granting an exemption from Section 19(b) of the Investment Company Act of 1940, as amended and Rule 19b-1 thereunder regarding distributions made pursuant to the Registrant's Managed Distribution Plan.

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 17, 2017

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 17, 2017

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

Date: March 17, 2017
