

John Hancock Hedged Equity & Income Fund
Form N-CSRS
August 18, 2016

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- 22441

John Hancock Hedged Equity & Income Fund
(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: December 31

Date of reporting period: June 30, 2016

ITEM 1. REPORT TO SHAREHOLDERS

John Hancock

Hedged Equity & Income Fund

Ticker: HEQ

Semiannual report 6/30/16

Managed distribution plan

The fund has adopted a managed distribution plan (Plan). Under the Plan, the fund makes quarterly distributions of an amount equal to \$0.376 per share, which will be paid quarterly until further notice. The fund may make additional distributions: (i) for purposes of not incurring federal income tax at the fund level of investment company taxable income and net capital gain, if any, not included in such regular distributions; and (ii) for purposes of not incurring federal excise tax on ordinary income and capital gain net income, if any, not included in such regular distributions.

The Plan provides that the Board of Trustees of the fund may amend the terms of the Plan or terminate the Plan at any time without prior notice to the fund's shareholders. The Plan is subject to periodic review by the fund's Board of Trustees.

You should not draw any conclusions about the fund's investment performance from the amount of the fund's distributions or from the terms of the fund's Plan. The fund's total return at NAV is presented in the Financial highlights section.

With each distribution that does not consist solely of net income, the fund will issue a notice to shareholders and an accompanying press release that will provide detailed information regarding the amount and composition of the distribution and other related information. The amounts and sources of distributions reported in the notice to shareholders are only estimates and are not provided for tax reporting purposes. The actual amounts and sources of the amounts for tax reporting purposes will depend upon the fund's investment experience during the remainder of its fiscal year and may be subject to changes based on tax regulations. The fund will send you a Form 1099-DIV for the calendar year that will tell you how to report these distributions for federal income tax purposes. The fund may, at times, distribute more than its net investment income and net realized capital gains; therefore, a portion of your distribution may result in a return of capital. A return of capital may occur, for example, when some or all of the money that you invested in the fund is paid back to you. A return of capital does not necessarily reflect the fund's investment performance and should not be confused with yield or income.

A message to shareholders

Dear shareholder,

The past six months marked a volatile stretch for equity investors. In January, major U.S. equity indexes experienced corrections declines of 10% or more before going on to rebound in the spring. Turbulence soon returned, however, as Brexit, the U.K.'s vote in late June to leave the European Union (EU), created a challenging backdrop for financial markets. Investors embraced traditional safe-haven assets, including U.S. Treasuries and gold, but equities and currency markets worldwide experienced sharp short-term drops. The move creates a number of unknowns in the near term, the most important of which is whether other EU countries will follow suit, and may ultimately have a negative effect on Europe's economic recovery. Our network of asset managers and researchers expects that the European Central Bank and the Bank of England will likely expand their efforts to stimulate economic activity and that the U.K.'s decision may even delay the U.S. Federal Reserve's next interest-rate increase until December at the earliest, all of which should help support markets. In fact, the S&P 500 Index and Dow Jones Industrial Average both went on to hit all-time highs in mid-July as investors bought stocks on the Brexit dip.

While it's impossible to predict how markets will respond to global macroeconomic developments in the coming weeks and months, it is prudent to expect continued volatility. At John Hancock Investments, portfolio risk management is a critical part of our role as an asset manager and our dedicated risk team is focused on these issues every day. We continually strive for new ways to analyze potential risks and have liquidity tools in place to meet the needs of our fund shareholders. Whether the markets are up or down, your financial advisor 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

This commentary reflects the CEO's views as of June 30, 2016. They are subject to change at any time. All investments entail risks, including the possible loss of principal. Diversification does not guarantee a profit or eliminate the risk of a loss. For more up-to-date information, you can visit our website at jhinvestments.com.

John Hancock
Hedged Equity & Income Fund

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Your fund at a glance

INVESTMENT OBJECTIVE

The fund seeks to provide total return with a focus on current income and gains and also consisting of long-term capital appreciation.

AVERAGE ANNUAL TOTAL RETURNS AS OF 6/30/16 (%)

The MSCI All Country World Index (gross of foreign withholding tax on dividends) is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets.

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 most recent performance and current annualized distribution rate can be found at jhinvestments.com.

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, which could cause the fund to trade at a discount or premium to its NAV at any time.

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

PERFORMANCE HIGHLIGHTS OVER THE LAST SIX MONTHS

Global stocks were generally flat to down

Global stocks were flat for the period, with aggressive policy actions by central banks offsetting periods of volatility due to global growth concerns and geopolitical uncertainty in Europe and the United Kingdom.

Defensive stocks paced relative results

The fund outperformed its comparative index, the MSCI All Country World Index, owing primarily to stock selection in the more defensive telecommunication services, consumer staples, and healthcare sectors.

The fund's high-yield exposure helped

Allocation to global high-yield bonds, which provide a source of income, contributed to relative performance during the period.

PORTFOLIO COMPOSITION AS OF 6/30/16 (%)

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). In addition to the impact of market movements, 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. 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 return of capital. Fixed-income investments are subject to interest-rate risk; their value will normally decline as interest rates rise. An issuer of securities held by the fund may default, have its credit rating downgraded, or otherwise perform poorly, which may affect fund performance. Hedging, derivatives, and other strategic transactions may increase a fund's volatility and could produce disproportionate losses, potentially more than the fund's principal investment. Liquidity the extent (if at all) 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. Foreign investing, especially in emerging markets, has additional risks, such as currency and market volatility and political and social instability. Investments in higher-yielding, lower-rated securities include a higher risk of default. The primary risks associated with the use of futures contracts and options are imperfect correlation, unanticipated market movement, and counterparty risk.

Discussion of fund performance

An interview with Portfolio Manager Kent M. Stahl, CFA, Wellington Management Company LLP

Kent M. Stahl, CFA

Portfolio Manager

Wellington Management Company LLP

What factors affected global markets over the past six months?

Global equities, as measured by the fund's comparative index, the MSCI All Country World Index, gained only 1.58% for the first half of 2016 as the rally in risk assets stalled. The year got off to a volatile start as Chinese stocks plunged in early January, sparking a global risk-off trade. Along with ongoing worries about a hard landing in China, fears that yuan weakness could unleash a wave of global deflationary pressure resurfaced. Once again, monetary policy accommodation by major central banks in Japan, China, and the European Union (EU) helped support risk assets.

The volatility in the market continued into the second quarter of 2016, capped by Brexit, the vote of the U.K. electorate to leave the EU. While the short-term uncertainty about the outcome of the vote is now behind us, we are entering a new period of ambiguity regarding the implementation of the outcome, which may heighten near-term volatility. Overshadowed by the Brexit vote were a promising European economic backdrop and the European Central Bank's reaffirmation of its low interest-rate policy stance. In the United States, solid economic data helped investors shrug off the U.S. Federal Reserve's ramped-up rhetoric hinting at raising rates during May. Market participants were also encouraged by improving signs from China's economic data releases and Beijing's increased emphasis on currency stability.

During the six-month period, U.S. equities outperformed non-U.S. equities and emerging-market equities outperformed their developed market counterparts. Within the fund's comparative index, seven out of ten sectors posted positive returns. Energy, utilities, and telecommunication services gained the most, while the financials, consumer discretionary, and healthcare sectors declined.

How did the fund respond to these market conditions?

The fund seeks to provide investors with a portfolio that will generate attractive long-term total returns with downside equity market protection through a portfolio that invests in global equities and high-yield bonds and employs options strategies. The fund performed well compared with its index for the reporting period at net asset value, primarily due to its allocation to high-yield bonds and strong stock selection in the equity strategy. The fund's option overlay and beta hedge a

"During the six-month period, U.S. equities outperformed non-U.S. equities and emerging-market equities outperformed their developed market counterparts."

strategy that reduces the fund's equity exposure by selling futures on the S&P 500 Index and the MSCI EAFE Index and benefits when such indexes decline detracted from relative performance as the S&P 500 Index advanced during the period.

Allocation among sectors, a result of the fund's bottom-up stock selection process, contributed to relative results, most notably due to an underweight in the consumer discretionary sector and overweight exposure to the utilities, energy, and telecommunication services sectors. Stock selection also aided relative performance, particularly within the defensive telecommunication services, consumer staples, and healthcare sectors. These results were partially offset by weaker selection within financials and consumer discretionary stocks.

In a volatile period for equities, which stocks had the greatest positive impact on relative performance for the year?

Top contributors to the fund's relative performance during the period included U.K.-based British American Tobacco PLC, which benefited from pricing power and investor preference for dividend-paying securities. Japan-based telecommunication services companies Nippon Telegraph &

SECTOR COMPOSITION AS OF 6/30/16 (%)

"While Brexit and its impact will persist for some time, we believe the direct impact can be contained to the United Kingdom and Europe."

Telephone Corp. and wireless carrier NTT DOCOMO, Inc., were boosted by subscriber and profit growth at DOCOMO, which is majority owned by Nippon.

Which positions detracted the most from results?

Primary detractors from relative performance included the fund's holdings in U.S.-based The PNC Financial Services Group, Inc. and Japan-based bank Mitsubishi UFJ Financial Group, Inc., which were pressured by the impact of low interest rates on lending margins and capital markets volatility. British homebuilder Persimmon PLC was also among the top detractors.

How was the fund positioned at the end of the period?

At the end of the period, the equity portfolio was most overweight in the utilities, financials, and telecommunication services, while underweight in the consumer discretionary, consumer staples, and information technology sectors. From a regional standpoint, the fund had overweight exposure to Europe (including the United Kingdom) and Japan, while being underweight to most emerging markets and North America. As always, we remain vigilant about downside risk and believe that the portfolio's strategy, which seeks to participate in rising markets and manage downside risk while providing income, has the potential to perform well in multiple market environments.

While Brexit and its impact will persist for some time, we believe the direct impact can be contained

TOP 10 HOLDINGS AS OF 6/30/16 (%)

British American Tobacco PLC	2.7
Merck & Company, Inc.	2.4
Microsoft Corp.	2.2
Chevron Corp.	1.6
Intel Corp.	1.5
Bristol-Myers Squibb Company	1.5
The PNC Financial Services Group, Inc.	1.5
Cisco Systems, Inc.	1.5
JPMorgan Chase & Co.	1.5
Eaton Corp. PLC	1.3
TOTAL	17.7

As a percentage of net assets.

Cash and cash equivalents are not included.

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to the United Kingdom and Europe. While our team sees the potential for a U.K. recession in 2017 and slightly weaker growth for Europe, we maintain a low but positive global growth outlook. We continue to believe that the United States will show improving but uninspiring growth for the second half of the year with expected improvement in investment and capital expenditures as activity levels normalize. We believe that the U.S. consumer remains healthy and the drag from the stronger U.S. dollar will become less of a headwind on a year-over-year basis.

MANAGED BY

Kent M. Stahl, CFA

On the fund since 2011

Investing since 1985

Gregg R. Thomas, CFA

On the fund since 2011

Investing since 1993

COUNTRY COMPOSITION AS OF 6/30/16 (%)

United States	52.1
Japan	9.4
United Kingdom	8.2
Switzerland	4.0
France	3.7
Germany	3.2
Canada	2.9
Luxembourg	2.6
Netherlands	2.1
Italy	1.7
Other countries	10.1
TOTAL	100.0

As a percentage of net assets.

The views expressed in this report are exclusively those of Kent M. Stahl, CFA, Wellington Management Company LLP, 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 6-30-16 (unaudited)

	Shares	Value
Common stocks		\$163,833,542
81.3%		
(Cost \$167,063,239)		
Consumer		9,243,030
discretionary 4.6%		
Auto components 0.7%		
Aisan		
Industry	15,600	100,940
Company,		
Ltd.		
Exedy	8,200	175,559
Corp.		
Keihin	14,200	219,104
Corp.		
Nissin		
Kogyo	13,200	169,066
Company,		
Ltd.		
NOK	12,800	217,672
Corp.		
Sumitomo		
Riko	14,500	116,180
Company,		
Ltd.		
Tokai		
Rika	12,800	189,074
Company,		
Ltd.		
Toyoda		
Gosei	11,200	199,464
Company,		
Ltd.		
Automobiles 0.4%		
Honda		
Motor	16,800	421,398
Company,		
Ltd.		
Mitsubishi		
Motors	33,800	156,032
Corp.		

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Peugeot SA (I)	3,952	47,369
Renault SA	1,812	136,801
Diversified consumer services 0.1%		
Allstar Co-Invest LLC (I)(R)	236,300	137,054
Benesse Holdings, Inc.	3,800	89,208
Hotels, restaurants and leisure 0.1%		
Hilton Worldwide Holdings, Inc.	12,005	270,473
Household durables 1.2%		
Alpine Electronics, Inc.	14,700	144,063
Funai Electric Company, Ltd.	17,863	157,420
Newell Brands, Inc.	7,507	364,615
Nikon Corp.	18,200	246,425
Persimmon PLC	50,594	981,103
Pioneer Corp. (I)	65,000	114,118
PulteGroup, Inc.	27,220	530,518
Internet and catalog retail 0.1%		
Home Retail Group PLC	54,185	110,962
Qliro Group AB (I)	49,556	54,871
Media 0.9%		
Avex Group Holdings, Inc.	7,000	79,231
Gendai Agency, Inc.	5,200	25,043

Metropole Television SA	6,630	110,230
Proto Corp.	3,000	34,901
SES SA Multiline retail 0.2% Dollar	70,029	1,499,148
General Corp.	3,490	328,060

SEE NOTES TO FINANCIAL STATEMENTS

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	Shares	Value
Consumer discretionary (continued)		
Multiline retail (continued)		
New World Department Store	343,000	\$44,896
China, Ltd. (I)		
Specialty retail 0.8%		
Honeys Company, Ltd.	9,830	107,622
Nishimatsuya Chain Company, Ltd.	4,700	66,653
Pal Company, Ltd.	4,500	106,095
The Home Depot, Inc.	9,528	1,216,630
Xebio Holdings Company, Ltd.	9,200	130,066
Textiles, apparel and luxury goods 0.1%		
Daphne International Holdings, Ltd. (I)	506,000	77,241
Sanyo Shokai, Ltd.	36,000	67,725
Consumer staples 5.5%		11,187,122
Beverages 1.3%		
PepsiCo, Inc.	12,729	1,348,510
The Coca-Cola Company	26,409	1,197,120
Food and staples retailing 0.3%		
Cawachi, Ltd.	4,700	112,222
	72,935	227,206

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J		
Sainsbury		
PLC		
METRO	7,785	239,436
AG		
Food products 0.8%		
Ebro	13,769	316,936
Foods SA		
Ingredion,	6,018	778,789
Inc.		
Pinnacle		
Foods,	10,146	469,658
Inc.		
Suedzucker	6,908	152,152
AG		
Household products 0.3%		
The		
Procter &	7,610	644,339
Gamble		
Company		
Personal products 0.1%		
Oriflame		
Holding	8,135	207,468
AG (I)		
Tobacco 2.7%		
British		
American	84,735	5,493,286
Tobacco		
PLC		
Energy 7.5%		15,169,621
Energy equipment and		
services 0.1%		
Ensco		
PLC,	14,177	137,659
Class A		
Oil, gas and consumable		
fuels 7.4%		
BP PLC	146,481	857,428
Canadian		
Natural	6,659	205,297
Resources,		
Ltd.		
Chevron	30,346	3,181,171
Corp. (C)		
Encana	9,900	77,011
Corp.		
Eni SpA	31,930	514,302
Gazprom		
PJSC,	63,011	272,838
ADR		
	450,400	28,021

Harum

Energy

Tbk PT (I)

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	Shares	Value
Energy (continued)		
Oil, gas and consumable fuels (continued)		
Indo Tambangraya	96,400	\$68,923
Megah Tbk PT		
Inpex Corp.	19,300	150,938
Japan Petroleum Exploration Company, Ltd.	8,000	161,256
Lukoil PJSC, ADR	7,320	306,356
Marathon Oil Corp.	70,522	1,058,535
Occidental Petroleum Corp.	17,176	1,297,819
Painted Pony Petroleum, Ltd. (I)	12,700	74,512
Petro Rio SA (I)	586	2,499
Petroleo Brasileiro SA, ADR (I)	27,443	196,492
PrairieSky Royalty, Ltd.	173	3,283
Royal Dutch Shell PLC, B Shares		