

Supplement dated June 24, 2015 Prospectus dated April 30, 2015

This supplement contains information which amends, supplements or modifies certain information contained in the Prospectus of HMS Income Fund, Inc. (the "Company") dated April 30, 2015 (as supplemented and amended, the "Prospectus"). This supplement is part of, and should be read in conjunction with, the Prospectus. The Prospectus has been filed with the Securities and Exchange Commission and is available at www.sec.gov or by calling (888) 446-3773. Capitalized terms used in this supplement have the same meanings as in the Prospectus, unless otherwise stated herein.

You should carefully consider the "Risk Factors" beginning on page 27 of the Prospectus before you decide to invest.

This supplement updates the Prospectus to reflect the entry by the Company's structured subsidiary, HMS Funding I LLC, into an amendment to the amended and restated credit agreement with the Company, as equityholder and servicer, and Deutsche Bank AG, New York Branch, as Administrative Agent.

This supplement amends the Prospectus as follows:

PROSPECTUS SUMMARY

This supplement replaces in its entirety the fourth through eighth paragraphs in the section entitled "Prospectus Summary-Credit Facilities" on page 9 of the Prospectus (as supplemented) with the following:

On June 2, 2014, our wholly-owned Structured Subsidiary, HMS Funding I LLC, a Delaware limited liability company ("HMS Funding"), entered into a credit agreement (the "Deutsche Bank Credit Facility") among HMS Funding, as borrower, the Company, as equityholder and as servicer, Deutsche Bank AG, New York Branch ("Deutsche Bank"), as administrative agent, the financial institutions party thereto as lenders (together with Deutsche Bank, the "HMS Funding Lenders"), and U.S. Bank National Association (the "Collateral Agent"), as collateral agent and collateral custodian. The Deutsche Bank Credit Facility provided for an initial borrowing capacity of \$50 million, subject to certain limitations, including limitations with respect to HMS Funding's investments, as more fully described in the agreement. The Deutsche Bank Credit Facility has subsequently been amended on multiple occasions, most recently on June 17, 2015, increasing the revolver commitments to \$335 million. We contribute certain assets to HMS Funding from time to time, as permitted under our Syndicated Credit Facility, as collateral to secure the Deutsche Bank Credit Facility. The Deutsche Bank Credit Facility matures on June 16, 2020, at which point all outstanding advances are due.

Under the Deutsche Bank Credit Facility, as amended, interest is calculated as the sum of the one-month LIBOR plus the applicable margin of 2.50%. The Deutsche Bank Credit Facility provides for a revolving period until December 16, 2017, unless otherwise extended with the consent of the HMS Funding Lenders. The amortization period begins the day after the last day of the revolving period and ends on the maturity date. During the amortization period, HMS Funding cannot borrow any remaining unfunded commitment, the applicable margin will increase by 0.25%, and a portion of interest income and all principal collections will be

applied to the outstanding loan balance. During the revolving period, HMS Funding will pay a utilization fee equal to 2.50% of the undrawn amount of the required utilization, which is 75% of the loan commitment amount. Additionally, HMS Funding will incur an undrawn fee equal to 0.40% of the difference between the aggregate commitments and the outstanding advances under the facility, provided that the undrawn fee relating to any utilization shortfall shall not be payable to the extent that the utilization fee relating to such utilization shortfall is incurred.

HMS Funding's obligations under the Deutsche Bank Credit Facility are secured by a first priority security interest in its assets, including all of the present and future property and assets of HMS Funding. The Deutsche Bank Credit Facility contains affirmative and negative covenants usual and customary for credit facilities of this nature, including, but not limited to maintaining a positive tangible net worth, limitations on industry concentration and complying with all applicable laws. The Deutsche Bank Credit Facility contains usual and customary default provisions including, without limitation: (i) a default in the payment of interest and principal; (ii) insolvency or bankruptcy of the Company; (iii) the occurrence of a change of control; or (iv) any uncured breach of a covenant, representation or warranty in the Deutsche Bank Credit Facility. As of March 31, 2015 and December 31, 2014, we are not aware of any instances of noncompliance with covenants related to the Deutsche Bank Credit Facility.

As of March 31, 2015, we had \$105.0 million outstanding and zero available under our Syndicated Credit Facility, and approximately \$159.0 million outstanding and \$41.0 million available under the Deutsche Bank Credit Facility, both of which we estimated approximated fair value and subject to certain limitations and the asset coverage restrictions under the 1940 act. As of December 31, 2014, we had approximately \$87.9 million outstanding and \$17.1 million available under our Syndicated Credit Facility, and approximately \$95.0 million outstanding and \$30.0 million available under the Deutsche Bank Credit Facility, both of which we estimated approximated fair value and subject to certain limitations and the asset coverage restrictions under the 1940 act.

As of June 23, 2015, we had approximately \$95.0 million outstanding and \$30.0 million available under our Syndicated Credit Facility, and approximately \$218.0 million outstanding and \$117.0 million available under the Deutsche Bank Credit Facility, both of which we estimated approximated fair value and subject to certain limitations and the asset coverage restrictions under the 1940 act.

RISK FACTORS

This supplement replaces the title of the risk factor entitled "We may have limited ability to fund new investments if we are unable to expand, extend or refinance our Syndicated Credit Facility or the HMS Funding Facility." on page 37 of the Prospectus (as supplemented) with the following:

We may have limited ability to fund new investments if we are unable to expand, extend or refinance our Syndicated Credit Facility or the Deutsche Bank Credit Facility.

This supplement replaces in the second through fourth paragraphs of the risk factor entitled "We may have limited ability to fund new investments if we are unable to expand, extend or refinance our Syndicated Credit Facility or the HMS Funding Facility." on page 37 of the Prospectus (as supplemented) with the following:

On June 2, 2014, our wholly-owned subsidiary, HMS Funding I LLC, a Delaware limited liability company ("HMS Funding"), entered into a credit agreement (the "Deutsche Bank Credit Facility") among HMS Funding, the Company, as equityholder and servicer, Deutsche Bank AG, New York Branch ("Deutsche Bank"), as administrative agent, the financial institutions party thereto as lenders (together with Deutsche Bank, the "HMS Funding Lenders"), and U.S. Bank National Association, as collateral agent. The Deutsche Bank Credit Facility provided for an initial borrowing capacity of \$50 million, subject to certain limitations, including limitations with respect to HMS Funding's investments, as more fully described in the agreement. The Deutsche Bank Credit Facility has subsequently been amended on multiple occasions, most recently on June 17, 2015, increasing the revolver commitments to \$335 million. The Deutsche Bank Credit Facility matures on June 16, 2020.

As of March 31, 2015, we had borrowings of \$105.0 million outstanding on our Syndicated Credit Facility and had borrowings of \$159.0 million outstanding on our Deutsche Bank Credit Facility. As of December 31, 2014, we had borrowings of \$87.9 million outstanding on our Syndicated Credit Facility and had borrowings of \$95.0 million outstanding on our Deutsche Bank Credit Facility.

There can be no guarantee that we will be able to expand, extend or replace the Syndicated Credit Facility or the Deutsche Bank Credit Facility on terms that are favorable to us, if at all. Our ability to expand the Syndicated Credit Facility and the Deutsche Bank Credit Facility, and to obtain replacement financing at the time of maturity, will be constrained by then-current economic conditions affecting the credit markets.

This supplement replaces in its entirety the risk factor entitled "In addition to regulatory limitations on our ability to raise capital, our Syndicated Credit Facility and the HMS Funding Facility (together, the "Credit Facilities") contain various covenants, which, if not complied with, could accelerate our repayment obligations under the Credit Facilities, thereby materially and adversely affecting our liquidity, financial condition, results of operations and ability to pay distributions.." on page 38 of the Prospectus (as supplemented) with the following:

In addition to regulatory limitations on our ability to raise capital, our Credit Facilities contain various covenants, which, if not complied with, could accelerate our repayment obligations under the Credit Facilities, thereby materially and adversely affecting our liquidity, financial condition, results of operations and ability to pay distributions.

We will have a continuing need for capital to finance our operations. The Syndicated Credit Facility contains affirmative and negative covenants usual and customary for leveraged financings, including, but not limited to: (i) maintaining an interest coverage ratio of at least 2.0 to 1.0 (ii) maintaining an asset coverage ratio of at least 2.25 to 1.0 and (iii) maintaining a minimum consolidated tangible net worth, excluding Structured Subsidiaries, of at least \$50 million, and the Deutsche Bank Credit Facility contains affirmative and negative covenants usual and customary for leveraged financings, including but not limited to maintaining a positive tangible net worth and limitations on industry concentration. Further, the Credit Facilities contains usual and customary default provisions including, without limitation: (i) a default in the payment of interest and principal; (ii) insolvency or bankruptcy of the Company; (iii) a material adverse change in the Company's business; or (iv) breach of any covenant, representation or warranty in the loan agreement or other credit documents and failure to cure such breach within defined periods. Additionally, the Syndicated Credit Facility requires us to obtain written approval from the administrative agent prior to entering into any material amendment, waiver or other modification of any provision of the Advisory Agreement. The Syndicated Credit Facility permits us to fund additional loans and investments as long as we are within the conditions set out in the agreement. Our continued compliance with the covenants contained in the Credit Facilities depends on many factors, some of which are beyond our control, and there are no assurances that we will continue to comply with these covenants. Our failure to satisfy these covenants could result in foreclosure by our lenders, which would accelerate our repayment obligations under one or both of our Credit Facilities and thereby have a material adverse effect on our business, liquidity, financial condition, results of operations and ability to pay distributions to our stockholders.

This supplement replaces in its entirety the second paragraph of the risk factor entitled "Because we borrow money, the potential for gain or loss on amounts invested in us is magnified and may increase the risk of investing in us." on page 38 of the Prospectus (as supplemented) with the following:

As of June 23, 2015, we had borrowings of \$95.0 million outstanding on our Syndicated Credit Facility and had borrowings of \$218.0 million outstanding on the Deutsche Bank Credit Facility.

SENIOR SECURITIES

This supplement replaces in the fourth through ninth paragraphs in the section entitled "Senior Securities" on pages 48-49 of the Prospectus (as supplemented) with the following:

On June 2, 2014, our wholly-owned Structured Subsidiary, HMS Funding, entered into the Deutsche Bank Credit Facility, which provided for an initial borrowing capacity of \$50 million, subject to certain limitations, including limitations with respect to HMS Funding's investments, as more fully described in the Deutsche Bank Credit Facility. The Deutsche Bank Credit Facility has subsequently been amended on multiple occasions, most recently on June 17, 2015, increasing the revolver commitments to \$335 million. We contribute certain assets to HMS Funding from time to time, as permitted under our Syndicated Credit Facility, as collateral to secure the Deutsche Bank Credit Facility.

Under the Deutsche Bank Credit Facility, interest is calculated as the sum of the index plus the applicable margin of 2.50%. If the Deutsche Bank Credit Facility is funded via an asset backed commercial paper conduit, the index will be the related commercial paper rate; otherwise, the index will be equal to one month LIBOR. The Deutsche Bank Credit Facility provides for a revolving period until December 16, 2017, unless otherwise extended with the consent of the HMS Funding Lenders. The amortization period begins the day after the last day of the revolving period and ends on June 16, 2020, the maturity date. During the amortization period, the applicable margin will increase by 0.25%. During the revolving period, HMS Funding will pay a utilization fee equal to 2.50% of the undrawn amount of the required utilization, which is 75% of the loan commitment amount. Additionally, HMS Funding will incur an undrawn fee equal to 0.40% of the difference between the aggregate commitments and the outstanding advances under the facility, provided that the undrawn fee relating to any utilization shortfall shall not be payable to the extent that the utilization fee relating to such utilization shortfall is incurred.

HMS Funding's obligations under the Deutsche Bank Credit Facility are secured by a first priority security interest in its assets, including all of the present and future property and assets of HMS Funding. The Deutsche Bank Credit Facility contains affirmative

and negative covenants usual and customary for credit facilities of this nature, including, but not limited to maintaining a positive tangible net worth, limitations on industry concentration and complying with all applicable laws. The Deutsche Bank Credit Facility contains usual and customary default provisions including, without limitation: (i) a default in the payment of interest and principal; (ii) insolvency or bankruptcy of the Company; (iii) the occurrence of a change of control; or (iv) any uncured breach of a covenant, representation or warranty in the Deutsche Bank Credit Facility.

As of March 31, 2015, we had borrowings of \$105.0 million outstanding on our Syndicated Credit Facility and had borrowings of \$159.0 million outstanding on the Deutsche Bank Credit Facility, both of which we estimated approximated fair value. As of December 31, 2014, we had borrowings of \$87.9 million outstanding on our Syndicated Credit Facility and had borrowings of \$95.0 million outstanding on the Deutsche Bank Credit Facility, both of which we estimated approximated fair value.

As of June 23, 2015, we had approximately \$95.0 million outstanding and \$30.0 million available under our Syndicated Credit Facility and \$218.0 million outstanding and \$117.0 million available under the Deutsche Bank Credit Facility, subject to the asset coverage restrictions under the 1940 Act, as discussed below.

Information about our senior securities, which comprise borrowings under our Syndicated Credit Facility and Deutsche Bank Credit Facility, is shown in the following table below as of December 31, 2012, 2013, and 2014 and March 31, 2015 (in thousands).

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This supplement replaces in its entirety the fifth through twelfth paragraphs in the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources - Capital Resources" on pages 66-67 of the Prospectus (as supplemented) with the following:

On June 2, 2014, our wholly-owned Structured Subsidiary, HMS Funding, entered into the Deutsche Bank Credit Facility, a credit agreement among HMS Funding, as borrower, the Company, as equityholder and as servicer, Deutsche Bank, as administrative agent, the financial institutions party thereto as lenders (together with Deutsche Bank, the "HMS Funding Lenders"), and U.S. Bank National Association (the "Collateral Agent"), as collateral agent and collateral custodian. The Deutsche Bank Credit Facility provided for an initial borrowing capacity of \$50 million, subject to certain limitations, including limitations with respect to HMS Funding's investments, as more fully described in the Deutsche Bank Credit Facility. The Deutsche Bank Credit Facility has subsequently been amended on multiple occasions, most recently on June 17, 2015, increasing the revolver commitments to \$335 million. We contribute certain assets to HMS Funding from time to time, as permitted under our Syndicated Credit Facility, as collateral to secure the Deutsche Bank Credit Facility. The Deutsche Bank Credit Facility matures on June 16, 2020, at which point all outstanding advances are due.

Under the Deutsche Bank Credit Facility, as amended, interest is calculated as the sum of the one-month LIBOR plus the applicable margin of 2.50%. The Deutsche Bank Credit Facility provides for a revolving period until December 16, 2017, unless otherwise extended with the consent of the HMS Funding Lenders. The amortization period begins the day after the last day of the revolving period and ends on the maturity date. During the amortization period, HMS Funding cannot borrow any remaining unfunded commitment, the applicable margin will increase by 0.25%, and a portion of interest income and all principal collections are applied to the outstanding loan balance. During the revolving period, HMS Funding will pay a utilization fee equal to 2.50% of the undrawn amount of the required utilization, which is 75% of the loan commitment. Additionally, HMS Funding will incur an undrawn fee equal to 0.40% of the difference between the aggregate commitments and the outstanding advances under the facility, provided that the undrawn fee relating to any utilization shortfall shall not be payable to the extent that the utilization fee relating to such utilization shortfall is incurred.

HMS Funding's obligations under the Deutsche Bank Credit Facility are secured by a first priority security interest in its assets, including all of the present and future property and assets of HMS Funding. The Deutsche Bank Credit Facility contains affirmative and negative covenants usual and customary for credit facilities of this nature, including, but not limited to maintaining a positive tangible net worth, limitations on industry concentration and complying with all applicable laws. The Deutsche Bank Credit Facility contains usual and customary default provisions including, without limitation: (i) a default in the payment of interest and principal; (ii) insolvency or bankruptcy of the Company; (iii) the occurrence of a change of control; or (iv) any uncured breach of a covenant, representation or warranty in the Deutsche Bank Credit Facility. As of March 31, 2015 and December 31, 2014, we are not aware of any instances of noncompliance with covenants related to the Deutsche Bank Credit Facility.

As of March 31, 2015, we had \$105.0 million outstanding and zero available under our Syndicated Credit Facility, and approximately \$159.0 million outstanding and \$41.0 million available under the Deutsche Bank Credit Facility, both of which we estimated approximated fair value and subject to certain limitations and the asset coverage restrictions under the 1940 act. As of December

31, 2014, we had approximately \$87.9 million outstanding and \$17.1 million available under our Syndicated Credit Facility, and approximately \$95.0 million outstanding and \$30.0 million available under the Deutsche Bank Credit Facility, both of which we estimated approximated fair value and subject to certain limitations and the asset coverage restrictions under the 1940 act.

During the three months ended March 31, 2015, we raised proceeds of \$98.9 million from the Offering, including proceeds from the distribution reinvestment plan, and made payments of \$8.7 million for selling commissions and Dealer Manager fees. We also incurred an obligation of \$1.5 million of offering costs related to the current offering. During the year ended December 31, 2014, we raised proceeds of approximately \$253.1 million from the Offering, including proceeds from the distribution reinvestment plan, and made payments of \$23.0 million for selling commissions and Dealer Manager fees. We also incurred an obligation of \$3.8 million of offering costs related to the current offering.

We anticipate that we will continue to fund our investment activities through existing cash, capital raised from our Offering, and borrowings on our Syndicated Credit Facility and Deutsche Bank Credit Facility (combined, our "Credit Facilities"). Our primary uses of funds in both the short-term and long-term will be investments in portfolio companies, operating expenses and cash distributions to holders of our common stock.

In addition, as a BDC, we generally are required to meet a coverage ratio of total assets to total senior securities, which include borrowings and any preferred stock we may issue in the future, of at least 200%. As of March 31, 2015, our asset coverage ratio under BDC regulations was 222% when including unfunded commitments as a senior security. This requirement limits the amount that we may borrow. As of March 31, 2015, considering these limitations, we had the ability to draw upon the entire \$41.0 million of remaining capacity in our Credit Facilities. As of December 31, 2014 and December 31, 2013, our asset coverage ratio under BDC regulations was 242% and 443% respectively. This requirement limits the amount that we may borrow. As of December 31, 2014, due to these limitations, we had capacity under our Credit Facilities to borrow up to \$47.1 million.

Although we have been able to secure access to potential additional liquidity, through proceeds from the Offering and also by entering into the Credit Facilities, there is no assurance that equity or debt capital will be available to us in the future on favorable terms, or at all.

This supplement replaces in its entirety the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources - Contractual Obligations" on page 67 of the Prospectus (as supplemented) with the following:

As of March 31, 2015, we had \$264.0 million in borrowings outstanding under our Credit Facilities. Unless extended, our Syndicated Credit Facility will expire March 11, 2017, and the Deutsche Bank Credit Facility will mature on June 16, 2020. Our Syndicated Credit Facility has two, one-year extension options, with Lender approval that, if approved and exercised, would permit us to extend the maturity to March 11, 2019. See above for a description of our Credit Facilities.

A summary of our significant contractual payment obligations for the repayment of outstanding borrowings at March 31, 2015 is as follows:

| | Payments Due By Period (dollars in thousands) | | | | | | | | |
|-----------------------------------|---|------------------|-----------|---------|-----------|---------|---------------|---|--|
| | Total | Less than 1 year | 1-3 years | | 3-5 years | | After 5 years | | |
| Syndicated Credit Facility (1) | \$ 105,000 | \$ — | \$ | 105,000 | \$ | _ | \$ | _ | |
| Deutsche Bank Credit Facility (2) | \$ 159,000 | \$ — | \$ | _ | \$ | 159,000 | \$ | _ | |

- (1) At March 31, 2015, we had drawn the full capacity of our Syndicated Credit Facility.
- (2) At March 31, 2015, \$41.0 million remained available under our Deutsche Bank Credit Facility, subject to the asset coverage ratio restrictions imposed by the 1940 Act, as discussed above.

This supplement inserts the tenth paragraph in the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations - Recent Developments and Subsequent Events" on page 69 of the Prospectus (as supplemented) with the following:

On June 17, 2015, our wholly owned structured subsidiary entered into an amendment to the amended and restated credit facility with Deutsche Bank as administrative agent which increased the revolver commitments to \$335 million and extended the maturity date to June 16, 2020.