

Supplement dated June 4, 2015 to 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 filing by the Company of a registration statement related to a follow-on offering of its common stock.

This supplement amends the Prospectus as follows:

PROSPECTUS SUMMARY

This supplement adds the following as a second paragraph to the section entitled "Status of Our Ongoing Public Offering" on page 2 of the Prospectus and as a fifth paragraph to the section entitled "Estimated Use of Proceeds" on page 8 of the Prospectus:

On June 2, 2015, we filed a registration statement on Form N-2 with the SEC for a follow-on public offering of up to 150,000,000 shares of common stock, which we refer to as the follow-on offering. Pursuant to Rule 415 under the Securities Act of 1933, as amended, we have extended the termination date of our current offering to the earlier of the effective date of the registration statement on Form N-2 for the follow-on offering or December 1, 2015, which is 180 days after the third anniversary of the initial effective date of the registration statement for our current offering. In order to purchase shares of our common stock pursuant to our current offering prior to the termination date, all subscription documents and subscription funds must be received in good order by our transfer agent no later than 11:59 pm central time on November 24, 2015. In many states, we will need to renew the registration statement for our current offering in order to continue our current offering for this period. We may terminate our current offering at any time.

QUESTIONS AND ANSWERS ABOUT THIS OFFERING

This supplement adds the following as a second paragraph to the Question "How long will this offering last?" on page 22 of the Prospectus:

On June 2, 2015, we filed a registration statement on Form N-2 with the SEC for a follow-on public offering of up to 150,000,000 shares of common stock, which we refer to as the follow-on offering. Pursuant to Rule 415 under the Securities Act of 1933, as amended, we have extended the termination date of our current offering to the earlier of the effective date of the registration statement on Form N-2 for the follow-on offering or December 1, 2015, which is 180 days after the third anniversary of the initial

effective date of the registration statement for our current offering. In order to purchase shares of our common stock pursuant to our current offering prior to the termination date, all subscription documents and subscription funds must be received in good order by our transfer agent no later than 11:59 pm central time on November 24, 2015. In many states, we will need to renew the registration statement for our current offering in order to continue our current offering for this period. We may terminate our current offering at any time.

PLAN OF DISTRIBUTION

This supplement adds the following as a fourth paragraph to the section "General" on page 130 of the Prospectus:

On June 2, 2015, we filed a registration statement on Form N-2 with the SEC for a follow-on public offering of up to 150,000,000 shares of common stock, which we refer to as the follow-on offering. Pursuant to Rule 415 under the Securities Act of 1933, as amended, we have extended the termination date of our current offering to the earlier of the effective date of the registration statement on Form N-2 for the follow-on offering or December 1, 2015, which is 180 days after the third anniversary of the initial effective date of the registration statement for our current offering. In order to purchase shares of our common stock pursuant to our current offering prior to the termination date, all subscription documents and subscription funds must be received in good order by our transfer agent no later than 11:59 pm central time on November 24, 2015. In many states, we will need to renew the registration statement for our current offering in order to continue our current offering for this period. We may terminate our current offering at any time.