Filed by Two Harbors Investment Corp. Pursuant to Rule 425 Under the Securities Act of 1933 and deemed filed pursuant to Rule 14a-12 under the Securities Exchange Act of 1934 Subject Company: CYS Investments, Inc. Commission File No.: 001-33740



TWO HARBORS Investment Corp.

A Pine River Capital Managed Company

Two Harbors Investment Corp. Conference Call

Thursday, April 26th, 2018

Two Harbors Investment Corp. Conference Call

Thursday, April 26th, 2018

Operator: Good morning. My name is Jonathan and I will be your conference facilitator. At this time, I would like to welcome everyone to this special investor conference call hosted by Two Harbors Investment Corp. and CYS Investments Inc.

All participants will be in a 'listen only' mode. After the speakers' remarks there will be a brief question and answer period. I would now like to turn the call over to Margaret Field with investor relations for Two Harbors.

Margaret Field: Thank you Jonathan, and good morning everyone. Thank you for joining our call to discuss our proposed acquisition of CYS Investments Inc. With me on the call this morning are: Tom Siering, Our President and CEO; Brad Farrell, our CFO; and Bill Roth, our CIO. Also joining us this morning is Kevin Grant, Chairman, CEO, President and CIO of CYS Investments.

After my introductory comments, Tom and Kevin will provide some insights into the announcement, Bill will provide a pro-forma portfolio overview, and then we will open up the call for a brief question and answer session.

The press release associated with today's call was filed this morning with the SEC. In addition, we'd encourage you to reference the accompanying presentation to this call. If you do not have a copy, you may find them on our website or on the SEC's website at sec.gov.

Before I turn the call over, I would like to remind you that remarks made by management during this conference call, and the supporting slides, may include forward-looking statements.

Forward-looking statements are based on the current beliefs and expectations of management, and actual results may be materially different because of a variety of risk and other factors. Such statements are typically associated with the words such as 'anticipate' 'expect', 'estimate' and 'believe' or other such words. We caution investors not to rely unduly on forward-looking statements.

Each of Two Harbors and CYS Investments describe these risks and uncertainties in their respective annual report on form 10-K for the fiscal year ended December 31st 2017; and in other filings they make — may make with the SEC from time to time; and as it relates to the proposed transaction on page two of the investor presentation, which are available in the investor relations sections of each company's websites and on the SEC's website at sec.gov. Except it may be required by law, Two Harbors and CYS Investments do not update forward-looking statements and expressly disclaim any obligation to do so.

I'd also like to inform you that in connection with the proposed transaction, Two Harbors and CYS Investments will file with the SEC a registration statement for the transaction, which will include a joint proxy statement relating to shareholder meetings of Two Harbors and CYS Investments. This registration statement and joint copy statement will contain important information about the transaction. Investors are urged to read these materials when they become available.

I will now turn the call over to Tom.

Tom Siering: Thank you, Maggy, and good morning everyone. We hope that you had a chance to review our press release and Form 8-K filing from this morning. Today we are excited to announce that we have entered into a definitive merger agreement, pursuant to which Two Harbors will acquire CYS Investments. Please turn to slide three of the accompanying presentation as we highlight some of the key transaction details.

Upon the closing of this proposed merger, in exchange for their shares of CYS common stock, CYS stockholders will receive newly issued shares of Two Harbors common stock, as well as an aggregate cash consideration of \$15 million, to be distributed on a pro rata basis. The number of new Two Harbors shares issued will be based on an exchange ratio, to be determined by dividing 96.75 of CYS adjusted book value by 94.2% of Two Harbors' adjusted book value per share.

On this slide we can see an illustrative example of the economics of the transaction, which represents a meaningful premium to CYS's April 25th closing stock price. Please note that this example is for illustration purposes only, and it will change as book values change between now and when the final exchange ratio is determined. For instance, at Two Harbors in April we have seen a modest reversal of the underperformance of both higher coupons and specified pools, reflected in our March 31st book value; in that light, despite interest rates being up over 25 basis points so far this month, Two Harbors' book value is relatively unchanged since quarter-end. We will discover this in more detail on our upcoming earnings call.

Please note that we will publicly announce the actual exchange ratio at least five business days prior to the special stockholder meetings that will be required for this transaction.

Following the closing of the transaction, all senior management positions will continue to be held by Two Harbors personnel, and Two Harbors Board of Directors will be expanded to include two additional independent directors from CYS's current Board, James Stern and Karen Hammond. We anticipate that there will be modest near-term dilution of about 2% to Two Harbors' book value as a result of this transaction. Over time, however, we believe there will be substantial benefits to our stockholders and CYS's stockholders in terms of long-term value creation.

Another key highlight of this transaction is that our external manager, PCRM Advisers, will contribute up to \$28 million to the transaction. In the first year following the close of the merger, PRCM Advisers will reduce its base management fee with respect to the incremental equity under management resulting from the merger, from 1.5% of stockholders' equity per annum to 75 basis points. This is intended to mitigate any drag from the redeployment of the CYS capital. Additionally, PRCM Advisers also has agreed to a one-time post-closing \$15 million downward adjustment in management fees, payable to PCRM Advisers by Two Harbors for the quarter in which the merger closes. This will offset the \$15 million cash consideration Two Harbors is paying CYS stockholders. PCRM Advisers has also agreed to contribute up to \$3.3 million pertaining to certain deal cost.

Turning to slide four, in line with our focus on maximizing stockholder value, we believe that this transaction will be beneficial for Two Harbors stockholders in the following ways. First, the additional capital from the acquisition supports continued growth in our target asset classes and positions us to take advantage of market opportunities as they arise. Second, we expect that the combination of the two companies will create cost efficiencies and decrease other operating expense ratio by about 30—40 basis points. Additionally, PCRM Advisers' agreement to reduce its base management fee on the additional capital will further enhance operating cost efficiencies in the year following the close of the transaction.

Third, we expect to maintain our quarterly dividend of 47 cents per share through 2018, subject to market conditions and at the discretion and approval of our Board of Directors. Fourth, we believe that with a pro-forma equity base of nearly \$5 billion, our stockholders will benefit from the scale, liquidity and capital alternatives of a larger company. Finally, as we discussed on prior earnings calls, we anticipate an improvement in Agency spreads in 2018. If this occurs, we believe that this transaction will be accretive to earnings, and endorses the cap raising attendant to this transaction.

I will now turn it over to Kevin to discuss the anticipated benefits for CYS's stockholders, as we turn to slide five.

Kevin Grant: Thank you, Tom, and good morning everyone. We are excited about the opportunity to merge with Two Harbors, a company I've followed since their founding, and admire.

Specifically, we believe that our stockholders will benefit from the combination in many ways. First, the enhanced scale and liquidity of a larger combined company. Second, based on the illustrative example that Tom highlighted, CYS shareholders would receive \$7.79 of combined cash and stock per share of CYS common stock, which is a meaningful premium. Third, we believe our stockholders will benefit from a more diversified business model, with a mix of asset classes and a platform that is positioned to withstand periods of market volatility. Fourth and finally, Two Harbors has a long history of being a very strong steward of its stockholders' capital.

With that, I'll now turn it over to Bill to talk about expectations for the combined companies.

Bill Roth: Thank you, Kevin. As both Tom and Kevin have noted, this is a very exciting time for both of our companies. My remarks this morning will focus on a quick review of Two Harbors, our plans to deploy the capital from CYS, and the market opportunity in front of us. Let's first turn to slide six.

As many of you know, Two Harbors is a hybrid-mortgage RIET with two investment strategies: a rates strategy comprised of Agency RMBS, mortgage-servicing rights or MSR, and related hedges; and a credit strategy comprised primarily of non-Agency securities. We believe the combination of these strategies can generate strong returns with more stable book value performance over time. Currently CYS's portfolio is comprised wholly of Agency security. Upon closing, we would expect to redeploy the capital from their portfolio into our target assets: Agency RMBS, MSR and residential mortgage credit assets.

Moving to slide seven, we believe that the additional capital from the acquisition of CYS will support continued growth across our strategies. We anticipate that over time approximately 50% of our equity capital will be allocated to MSR and residential credit, which aligns with our current capital allocation. As you can see in the table on this slide, in our rates strategy we anticipate ROEs in the low to mid double digits, which includes pairing Agency RMBS with MSR. Furthermore, as the Fed continues reducing its footprint in the agency RMBS market, we believe spreads will become more attractive for investing, which can lead to even more exciting returns for our rates strategy.

4

3

In our credit strategy, we also expect total returns in the low to mid double digits and believe these attractive returns will be driven by continued fundamental improvement in residential credit. The legacy market is still over 500 billion in size, and newer markets are growing quickly, both of which provide opportunity for us.

Finally, slides eight through 11 highlight a little bit more about Two Harbors for those who may not be as familiar with our company. I would particularly like to highlight our history of being strong stewards of our stockholders' capital, with a keen emphasis on protecting book value and delivering strong results.

As shown on slides ten and 11, since our inception in 2009 through to December 31st, 2017, we grew our book value by 20% and with less volatility than our mortgage RIET peer group. Additionally, on slide 11 you can see that during the 2013 'taper tantrum', we outperformed our peers by over 1,700 basis points, and had less book value variance during the volatile market environments of 2013 and 2016. We believe these results reflect our strong emphasis on risk management and our sophisticated approach to hedging.

In closing, we are very enthusiastic about the opportunities ahead for Two Harbors. We believe that through this transaction there will be the potential for enhanced stockholder value for both Two Harbors and CYS stockholders.

Operator: Certainly. Ladies and gentlemen if you have a question at this time, please press star then one on your touchtone telephone. If your question has been answered and you'd like to remove yourself from the queue, please press the pound key. Our first question comes from the line of Bose George from KPW. Your question please?

Bose George (KPW): Hey guys, good morning, and congratulations. The — just given the tight spread on a lot of credit assets and your pretty deliberate kind of flow approach to building MSR, how long do you think it'll take to realign the CYS portfolio to where you'd like it?

Bill Roth: Hey, thanks for joining us, Bose. Good question. Yeah, we anticipate roughly six months or so, plus or minus, once the deal closes. Obviously there'll be some time between now and then as we make headway, but from — to continue to pursue our target asset classes, but once the deal closes, that's what we're expecting.

Bose George: Okay. And then just in terms of — is anything going to be done to try and sort of stabilize CYS's book value to — as you head into the merger just for more certainty on that closing price?

Bill Roth: Yeah, this is Bill. I would — CYS obviously is their own independent company, and I would refer this to Kevin, so thanks for that question. Kevin, if you could unmute your line for that one.

Kevin Grant: Absolutely. Bill, as you probably noticed, we released last night that we've been continuing our ongoing process of adding to our hedge, and that was underway anyway regardless of this transaction, so we've had a program in place to get that duration gap and the volatility down.

5

At the end of the day, the biggest remaining risk is still going to be the basis risk, so it's still all about the, just the total number of mortgages that we own versus the hedges. And all the companies in this space have that basis risk. So that's a program that's — reducing the volatility of our book value has been a program that's been in place for quite a while, and we'll continue with that.

Bose George: Okay, great. Okay, and just one more on the expenses. After the deal, after that one-year period, the expenses, it goes back to kind of the base right that you had before, is that right?

Kevin Grant: Yes, that is correct.

Bose George: Okay, great. Thanks.

Operator: Thank you. Our next question comes the line of Mark DeVries from Barclays. Your question please?

Mark DeVries (Barclays): Yeah, thanks. Bill, I think as you mentioned, you see the opportunity for greater returns in the Agency spaces, as spreads potentially widen more from here. How do you think about with this deal potentially exposing yourself to greater spread widening by adding a portfolio that doesn't have the same kind of hedge with MSR that you currently have at Two Harbors?

Bill Roth: Hey Mark, good morning and thanks for joining us. Well, I mean I think, look, we intend to continue to manage the Two Harbors book the way we have, certainly up until closing. At closing obviously we'll see what the CYS holdings are at that time and then we'll take assets that we like and retain those, and assets that we're going to redeploy, and we'll redeploy those. But I think the key thing is that over time our intent is — one of the big benefits that we've discussed before is that MSR mitigates the basis risks that Kevin discussed and mitigates it greatly, and so it's really our intent to focus strongly on growing that, to continue to get to the point where it is now; it's about 20% in capital.

Mark DeVries: Got it. Is there ability for you to potentially accelerate acquisition or creation of MSRs once you get them on board?

Bill Roth: Yes, sure. So, as you know, we've talked about in the past, annual volumes are well north of \$100 billion, and so we can certainly continue to be focused on bulk transactions to build up our flow volume. And that's our intent because clearly as a bigger company that will be beneficial to our balance sheet.

Tom Siering: Yeah, Mark, it's Tom, good morning. The biggest lever in that respect are bulk deals and those are somewhat unpredictable, but we emphasize being[?] — trying to be active in that market as well.

Mark DeVries: Okay, got it. And then a question for Kevin. Kevin, I get why this deal makes sense for your shareholders, it's positive, but I think you could've said a lot of those things at any point in the past. I'm just curious if you could shed any light on kind of what's motivating the decision to kind of sell the company now?

Kevin Grant: Well, I think a whole range of things. The market structure more broadly, just away from us, has changed over the past ten years, and it's 14—15 years since I founded the company, and scale matters.

From a corporate perspective, it gives you the ability to have more resources attacking investment challenges and problems, and obviously interest rate volatility is an investment challenge these days. But from a stock trading perspective, liquidity, all that stuff, the algorithms in the ETS really dominate trading these days, and scale really matters so this... I used to say that a billion-dollar market cap was just fine, and I think that hurdle is much higher in this environment.

So, this came together through just an unsolicited inquiry in the market place. The Board conducted a very thorough process, which will be described in the joint proxy, and we came to a — really the best conclusion that I think we could've come to, so here we are. It's just a happenstance — a bunch of things lined up to make it happen now.

Mark DeVries: Okay, understood. And Kevin, for those of us that were planning to join you in Boston on Monday, is it safe to assume we can cancel our travel plans?

Kevin Grant: Yeah, I think it wouldn't be appropriate to have that meeting in Boston, so thanks for putting us on your schedule but I think you've got other things to do.

Mark DeVries: Okay, understood. Thank you.

Operator: Thank you. Our next question comes from the line of Fred Small from Compass Point. Your question please.

Fred Small (Compass Point): Hey, good morning. Thanks for taking my question, and congrats on the deal. Just on the — in terms of the closing, I guess, do you have any initial expectations on what you hope to close the deal?

Tom Siering: Sure. Good morning, Fred, this is Tom. So this obviously will need review by the SEC. It will require shareholder votes on both the Two Harbors and CYS side. But it's our reasonable expectation that the deal with close in Q3.

Fred Small: Okay. Any thoughts on early / late, or what's possible there? Is there — when's the earliest potential time you could close it? Just I think there are timelines for the votes and stuff like that.

Tom Siering: Yeah, I'd rather not go into that granularity because the path of these things can be somewhat unpredictable but, I think to frame it in Q3 is a reasonable expectation.

Fred Small: Great, thanks. And then to — I guess just on the — one question for Kevin, or one CYS-related question: do you have any sort of update for where we are now, quarter to date on book value or what you've seen happen there? I know that you said two's was flat.

Kevin Grant: All right, no, we don't have an update right now.

Fred Small: Okay. And then last one, just I think Kevin mentioned that this came through an unsolicited inquiry, but can you talk a little bit maybe about what had you out there looking for a deal, because I think it was a little bit unexpected. I know some other companies have talked about pursuing M&A.

Kevin Grant: This will be described in great detail in the joint proxy, so when that document is filed, you'll see quite a bit of detail about the process that occurred.

Fred Small: Okay, thanks.

Operator: I will turn the call back to Mr. Siering for concluding comments.

Tom Siering: Thank you for joining our conference call today. We're very excited about the proposed acquisition of CYS and look forward to keeping you updated as we move forward. Have a wonderful day.

[END OF TRANSCRIPT]

Forward-Looking Statements

The information presented herein may contain "forward-looking statements," including certain plans, expectations, goals, projections and statements about the benefits of the Merger, Two Harbors Investment Corp. ("Two Harbors") and CYS Investments, Inc. ("CYS") plans, objectives, expectations and intentions, the expected timing of completion of the proposed merger, and other statements that are not historical facts. Such statements are subject to numerous assumptions, risks, and uncertainties. Statements that do not describe historical or current facts, including statements about beliefs and expectations, are forward-looking statements. The forward-looking statements are intended to be subject to the safe harbor provided by Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, and the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical fact, included in this communication that address activities, events or developments that Two Harbors or CYS expects, believes or anticipates will or may occur in the future are forward-looking statements. Words such as "project," "predict," "believe," "expect," "anticipate," "potential," "create," "estimate," "plan," "continue," "intend," "could," "foresee," "should," "could," "may," "foresee," "will," "guidance," "look," "outlook," "goal," "future," "assume," "forecast," "build," "focus," "work," or the negative of such terms or other variations thereof and words and terms of similar substance used in connection with any discussion of future plans, actions, or events identify forward-looking statements. However, the absence of these words does not mean that the statements are not forward-looking. These forward-looking statements include, but are not limited to: statements regarding the merger, pro forma descriptions of the combined company and its operations, integration and transition plans, synergies, opportunities and anticipated future performance. Pro forma, projected and estimated numbers are used for illustrative purposes only, are not forecasts and may not reflect actual results. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions that are difficult to predict. Two Harbors' and CYS' ability to predict results or the actual effect of future events, actions, plans or strategies is inherently uncertain. Although Two Harbors and CYS believe the expectations reflected in any forward-looking statements are based on reasonable assumptions, the companies can give no assurance that our expectations will be attained and therefore, actual outcomes and results may differ materially from what is expressed or forecasted in such forward looking statements.

There are a number of risks and uncertainties that could cause actual results to differ materially from the forward-looking statements included in this communication. These include: the expected timing and likelihood of completion of the merger; the ability to successfully integrate the businesses; the occurrence of any event, change or other circumstances that could give rise to the termination of the Agreement and Plan of Merger, dated as of April 25, 2018, by and among Two Harbors, CYS and Eiger Merger Subsidiary LLC (the "Merger Agreement"); the possibility that stockholders of Two Harbors may not approve

8

7

the issuance of Two Harbors common stock in connection with the proposed merger or that stockholders of CYS may not approve the Merger Agreement; the risk that the parties may not be able to satisfy the conditions to the merger in a timely manner or at all; fluctuations in the adjusted book value per share of both Two Harbors and CYS; risks related to disruption of management's attention from ongoing business operations due to the merger; the risk that any announcements relating to the merger could have adverse effects on the market price of common stock of Two Harbors or CYS; the risk that the merger and its announcement could have an adverse effect on the ability of Two Harbors and CYS to retain and hire key personnel and the effect on the operating results and businesses of Two Harbors and CYS generally; the outcome of any legal proceedings relating to the merger; changes in future loan production; the availability of suitable investment opportunities; changes in interest rates; changes in the yield curve; changes in prepayment rates; the availability and terms of financing; general economic conditions; market conditions; conditions in the market for mortgage-related investments; legislative and regulatory changes that could adversely affect the business of Two Harbors or CYS. All such factors are difficult to predict and are beyond the control of Two Harbors and CYS including those detailed in Two Harbors' annual reports on Form 10-K, quarterly reports on Form 10-Q and periodic reports on Form 8-K that are available on Two Harbors' website at http://www.sec.gov, and those detailed in CYS' annual reports on Form 8-K that are available on its website at http://www.cysinv.com and on the SEC's website at http://www.sec.gov.

Each of the forward-looking statements of Two Harbors or CYS are based on assumptions that Two Harbors or CYS, as applicable, believes to be reasonable but that may not prove to be accurate. Any forward-looking statement speaks only as of the date on which such statement is made, and neither Two Harbors nor CYS undertakes any obligation to correct or update any forward-looking statement, whether as a result of new information, future events or otherwise, except as required by applicable law. Readers are cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof.

Certain Information Regarding Participants in the Solicitation

Two Harbors, CYS and their respective directors, executive officers and certain other members of management and employees of Two Harbors and CYS may be deemed to be "participants" in the solicitation of proxies from the stockholders of Two Harbors and CYS in connection with the proposed merger. Stockholders can find information about Two Harbors and executive officers and their ownership of common stock of Two Harbors in Two Harbors' annual report on Form 10-K for the fiscal year ended December 31, 2017 and in its definitive proxy statement relating to its 2018 annual meeting of stockholders filed with the SEC on March 29, 2018. Stockholders can find information about CYS and its directors and executive officers and their ownership of common stock of CYS in CYS' annual report on Form 10-K for the fiscal year ended December 31, 2017 and in its definitive proxy statement relating to its 2018 annual meeting of stockholders filed with the SEC on March 29, 2018. Stockholders can find information about CYS and its directors and executive officers and their ownership of common stock of CYS in CYS' annual report on Form 10-K for the fiscal year ended December 31, 2017 and in its definitive proxy statement relating to its 2018 annual meeting of stockholders filed with the SEC on March 29, 2018. Additional information regarding the interests of such individuals in the Merger will be included in the joint proxy statement / prospectus relating to the Merger when it is filed with the SEC. Free copies of these documents may be obtained as described in the preceding paragraph.

Important Additional Information and Where to Find It

This communication relates to the Merger Agreement. In connection with the proposed merger, Two Harbors expects to file with the SEC a registration statement on Form S-4 that will include a joint proxy statement of Two Harbors and CYS that also constitutes a prospectus (the "joint proxy statement / prospectus"). The Merger will be submitted to the stockholders of Two Harbors and CYS for their consideration. Two Harbors and CYS may also file other documents with the SEC regarding the Merger. The definitive joint proxy statement / prospectus will be sent to the stockholders of Two Harbors and CYS. This document is not a substitute for the registration statement and joint proxy statement / prospectus that will be filed with the SEC or any other documents that Two Harbors and CYS may file with the SEC or send to its stockholders in connection with the proposed merger. **INVESTORS AND STOCKHOLDERS OF Two Harbors and CYS ARE ADVISED TO READ THE REGISTRATION STATEMENT AND THE JOINT PROXY STATEMENT / PROSPECTUS REGARDING THE MERGER WHEN IT BECOMES AVAILABLE (INCLUDING ALL OTHER RELEVANT DOCUMENTS THAT ARE FILED OR WILL BE FILED WITH THE SEC**, AS WELL AS ANY AMENDMENTS AND SUPPLEMENTS TO **THESE DOCUMENTS) CAREFULLY AND IN THEIR ENTIRETY BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION ABOUT THE MERGER AND RELATED MATTERS**. Investors and stockholders may obtain a free copy of the registration statement and the joint proxy statement / prospectus (when available) and all other documents filed or that will be filed with the SEC by Two Harbors or CYS at the SEC's web site at http://www.sec.gov. Copies of documents filed with the SEC by Two Harbors will be made available free of charge on Two Harbors' website at http://www.twoharborsinvestment.com or by directing a request to: Two Harbors Investment Corp., 575 Lexington Avenue, Suite 2930, New York, NY 10022, Attention: Investor Relations.

Copies of documents filed with the SEC by CYS will be made available free of charge on CYS' website at http://www.cysinv.com or by directing a request to: CYS Investments, Inc., 500 Totten Pond Road, 6th Floor, Waltham, MA 02451, Attention: Richard E. Cleary. This document is for informational purposes only and shall not constitute an offer to sell or the solicitation of an offer to buy any securities, nor shall there be any sale of securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to the registration or qualification under the securities laws of any such jurisdiction. No offering of securities shall be made, except by means of a prospectus meeting the requirements of Section 10 of the Securities Act of 1933, as amended.

No Offer of Solicitation

This document shall not constitute an offer to sell or the solicitation of an offer to buy any securities, nor shall there be any sale of securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. No offering of securities shall be made except by means of a prospectus meeting the requirements of Section 10 of the U.S. Securities Act of 1933, as amended.

9