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Green Property Bonds Rating Working Committee
Meeting Minutes from George Vallone

August 1, 2014 10:00 AM

Attending: Working Committee - Members: Mike Italiano - CMP, George Vallone - Hoboken Brownstone Company, Janice Barnes – Perkins+Will, Kristen Sullivan – Deloitte, Marlo Newman – First Acacia Capital, John Williams – Impact Infrastructure, Vickie Tillman - Morningstar, Brian Grow – Morningstar, Kevin Dwyer – Morningstar

Meeting Minutes

The meeting began at 10 AM with participants introducing themselves.

Green Bond Update

George Vallone began the meeting by asking Marlo and Mike to give the group an update on the second item on the agenda – the $100 million Meritage Green Home Bond. Green Properties are a $500B/yr. US industry with about the same size in the rest of the world, with McGraw-Hill stating that green buildings are 44% of new construction and retrofits. Green homes are about 80% of all new homes built by the top 20 national builders based on CMP builder and Leading Builder of America surveys. POST MEETING NOTE: Deutsche Bank and Jones Lang LaSalle published reports on the substantial obsolescence risk of conventional properties from green properties, just like properties without air conditioning. Wells Fargo and the Appraisal Institute have made similar public statements.

Green Home Bond Versus Conventional Home Bond

- Brian asked for a high level overview of the project which Mike provided. The Green Home Bond is no different than an RMBS but it is backed by 100% green home mortgages. Marlo added that this is an opportunity for bringing innovations into the marketplace with builders building to either LEED or Energy Star 3 standards. The core product is the green home which has cheaper operating costs, reduced risk, and thus is more valuable collateral for investors.

  The added value of the collateral is captured through the National Consensus Green Home Underwriting Standards which is a simple added due diligence step like the Phase 1 Environmental Site Assessment and Property Condition Assessment Standards for CMBS, and the only standards measuring added green property value. POST MEETING NOTE: The underwriting standards meet the green property secondary market financing requirements of Federal Housing Finance Agency, Office of the Comptroller of the Currency, and Federal Trade Commission: (1) respect existing lien priorities, (2) provide prudent underwriting, (3) protect investor and consumer interests, and (4) provide accurate and not misleading communications using qualified professionals.

  The Underwriting Standards 25-100 *Green Value Score* identifies green property attributes increasing tangible value including those reducing risk and operating costs:

  - Energy efficiency / HERs Score (40% of *Green Value Score)*
  - Onsite renewable power including solar
  - Commissioning & integrative process reducing defects as well as construction costs & risk
  - Climate neutral operations

  Other *Green Value Score* attributes also increasing value and reducing risk include clean indoor air, proximity to transit, and daylighting. The *Green Value Score* attributes were unanimously approved in a national consensus ballot vote, identified in peer-reviewed Wall St. due diligence released at the NYSE on the green property business case, and reviewed at national public meetings at Federal Reserve Offices.

  <u>Added Value of Commissioning.</u> Meritage homes recently started commissioning for all homes it builds thus, the homes achieve the commissioning *Green Value Score* Credit. Commissioning ensures for the first time that new homes are built as designed, substantially reducing builder defects including defect litigation. Commissioning is an attribute of green homes but not conventional homes. Meritgage and First Acacia Capital use QualityBuilt for commissioning which as part of ensuring the home was built

as designed, tracks online all materials from design to construction, ensuring that contractors cannot substitute cheaper inferior materials to increase profit margins.

Until now, there has never been a way in the building industry to track construction of new homes. This is important industry changer. We have an 800 page credit report on the borrower but only 10 pages on the appraisal. QualityBuilt / First Acacia Capital commissioning raises the collateral package of the asset to be as significant as the credit package.

Green Homes Have a Lower Default Rate. During Marlo's summary of the bond, he mentioned that green home owners have a 32% lower default rate based on UNC data. Kevin asked for backup data as this was potentially helpful for his recognition of the higher value of this collateral. POST MEETING NOTE: Attached is controlled research from the University of NC showing lower default rates on green homes, noting that homeowners stay in their loans an extra 4-5 years. Berkeley HAAS School of Business controlled research found California green homes to be worth 9% more: http://issuu.com/nilskok/docs/kk_green_homes_071912?e=3497511/2830925.

Preserving Green Home Value if There is a Default. Currently when a home goes into default, the mortgage servicers use broker price opinions and not appraisals, and the brokers substantially reduce the value of the home in order to obtain a quick sales commission. Meritage's Green Home Bond requires the Underwriting Standard's *Green Value Score* identifying the green home's attributes increasing value, to be recorded in the chain of title with home value to be determined by a qualified green home appraiser.. Thus, if a house goes into default a few years out, only a trained appraiser on the value of green properties would be able to determine value. This brings collateral preservation to the mortgage backed securities market, reducing risk and makes the underlying value more obvious. POST MEETING NOTE: First Acacia Capital engaged the Altus Group, one of the largest North American appraisal firms, to provide green appraisals for the Green Home Bond using the Appraisal Institute / CMP Model Green Home Appraisal Scope of Service with the *Green Value Score.* First Acacia Capital has a contract with HOMEID (Safekeeping For Documents, Records & Photos For Your Home In The Cloud) http://www.homeid.com whereby the *Green Value Score* recorded in the title can easily be part of homeowner records.

- Meritage Homes Issued a Commitment Letter to Aggregate its Green Home Mortgages for Green Home Bonds. Alston & Bird, a nationally recognized securities firm, was engaged by First Acacia Capital to perform the green home bond legal work.

- Do we have established loan level data? The initial price-point target is $350-$450K.

- Why aren't loans Fannie/Freddie? The federal government is not an early adopter for green property bonds. POST MEETING NOTE: Joe Biden announced $400B in federal green property financing but was forced to withdraw the funding due to FHFA, Fannie & Freddie objections about the lack of underwriting standards by DOE in administering the proposed program.

- **Underwriting**: Marlo stated that he was interested in understanding how Morningstar considered the following in their underwriting process:
  1. Default Rates
  2. Pre-payment Rates
  3. Geographic Risk
  4. Mortgage Insurance
  5. QM and Non-QM Considerations

  POST MEETING NOTE: to the extent these factors are not covered in Morningstar's Final RMBS Criteria

ACTION: It was agreed that a follow-up conference call would be scheduled posing questions to Kevin and Brian as Vickie doesn't get involved in the rating of bonds themselves; Calvin Wong is chief credit officer and may be also involved. Ahead of call, provide backup data for Kevin/Brian to review.

Additional Rating

Vickie said we are probably going to need at least one other rating agency besides Morningstar participate in the bond underwriting rating. She suggested Standard & Poor's might be the most sensitive to renewable and sustainability issues and was going to refer us to the name of someone she believed worked there in this arena. She suggested that for a new issue, it may be better to choose a Moody's or S&P to help the market feel comfortable. Morningstar will be involved, but maybe not as the prime. S&P has taken environmental awareness most seriously to integrate into corporate risk criteria. POST MEETING NOTE: S&P was briefed about the Green Home Bond subsequent to the Morningstar meeting, and indicated that it would be pleased to provide a rating with Morningstar.

- Background on Morningstar Thinking. Brian then discussed the project they are working on to develop a transition model using Monte Carlo projections to predict default rates in home mortgages. He is currently using data from 1998 to the present time. Having the recent housing meltdown data included made the resulting criteria more accurate. Brian called a Single B rating the worst case scenario and a Single A as the best case. He mentioned Phoenix as an example of a 52 to 54% decline in home prices and that loan-to-value ratios also are factored in to the default rate projections. Using the new model they can add in quantitative factors as inputs that have robust and substantial background data, and qualitative factors which do not have as robust a background data set but which Morningstar believes are justified and need to be included to "turn up the dial" somewhat increasing the credit rating.

- Kristen asked what the threshold was for new data to go from Qualitative to Quantitative and Brian said that it was somewhat subjective.

- Kevin said that the best determinant of increased value in a green home would be lower operating costs as this would increase the Debt to Income (DTI) input. Energy Efficiency will equal lower energy bills theoretically and provide some credit to DTI. We would need to provide data showing this as an established data set.

- Janice asked whether or not the ability of the home to withstand severe climate events would have any impact. Theoretically if a home can withstand severe climate impacts through resiliency and owners not have to move out and pay for temporary housing, this would increase their DTI. Kevin felt this was more of an insurance issue and that insurance companies are more concerned with alternative living expenses as part of the overall claim. If an insurance company recognized a green homes ability to withstand severe climate events better, they should be able to lower the insurance rates on those homes and that would affect DTI positively. POST MEETING NOTE: Insurers both publicly and privately including Allianz Fireman's Fund and Nationwide, stated that there is no insurance coverage for climate damages because it is an uninsurable risk. Further, policies have for many years contained an absolute pollution exclusion, and carbon pollution is regulated under the Clean Air Act thus this is the basis for insurers' denying defense costs and coverage. Ratifying these facts are the National Association of Insurance Commissioners recent survey and Zurich / Farmers suit against 200 cities for climate damages. Zurich dropped the suit likely due to political pressure, but simultaneously boosted its $1B green bond purchasing commitment to $2B.

- The value of green homes on a future sale, or maintaining more value, could make adjustment to HPI [house price index] decline at the beginning. We would need to provide data showing this as an established data set.

ACTION: Provide data sets demonstrating the performance of green homes in increasing cash flow through reduced operating costs and in retaining value over time. POST MEETING NOTE: the available controlled data are the attached UNC study showing green homes default less, and the HAAS Berkeley controlled study on added green home value in California. Comparable data exist for green buildings. All mortgages in the Green Home Bond will have underwriting *Green Value Scores* recorded in the chain of title.

Municipal Bond

- Since time was running short we turned to the municipal bond issue number three on the agenda. Vickie said that Morningstar does not underwrite municipal bonds.

In summary the uncompleted follow-up item we agreed to was a conference call with Brian and Kevin, and perhaps Calvin Wong, to discuss the possibility of adding quantitative data sets, or qualitative factors.

The meeting was adjourned at 11:15 AM.