



## *Pick up the PACE Ann Arbor and Beyond Renewable Energy Projects*

In January, the Ann Arbor City Council moved to establish a **Property Assessed Clean Energy** program which the Michigan legislature authorized in December 2010. Ann Arbor's PACE program makes funds available to commercial property owners who want to improve energy efficiency at their sites—or consider renewable energy projects.

Ann Arbor's January 12, 2012 press release said PACE can be used for commercial properties which are "any property that is not a single-family home, duplex or certain townhouses." Owners can apply for financing for energy projects including heating and air conditioning equipment, lighting, insulation and weather sealing.

Even cool roofs, windows and doors and geothermal systems along with energy star appliances can be considered. The program requires the estimated energy savings to be greater than the cost of the assessment—so immediate savings for property owners is a must. Ann Arbor's program includes initial funding of up to \$4 million in commercial PACE projects and up to \$10 million per year going forward. **See PACE on Page 3.**

## *G-43 The Broker's Broker Rule*

On March 5, 2012 the Municipal Securities Rulemaking Board requested approval from the SEC to create a new rule that would establish specific obligations for broker's brokers that provide secondary market liquidity for retail investors in municipal securities. According to the MSRB, broker's brokers play a critical role in providing secondary market liquidity for retail investors by acting as intermediaries between selling and bidding dealers. **See G-43 Page 7.**

## *MAC Staff – Who They Are & What They Do*

*Want a challenge? Pick up the phone and dial 313-963-0420. If you are a MAC member surely you've already done it, and listened to a few short rings followed by the pleasant greeting, "Good morning, this is Debbie at the M-A-C..." or Bernadette, or Jackie, or Jim or Sean. They are the fabulous five, the Detroit team that works in seamless fashion to provide you, MAC members, with important and current information about municipal securities, whether you need website assistance, the facts about the deals or disclosures, or access to the reports. **See STAFF Page 5.***

### **REMINDER**

#### **MAC / Bond Club of Detroit Conference**

**VisTa Tech Center – Schoolcraft  
College in Livonia, MI  
May 8<sup>th</sup>, 2012 3:00-4:30pm**

#### **Topic: "Why do Ratings Matter?" SPEAKERS**

Jane Ridley, Standard & Poor's Rating Services

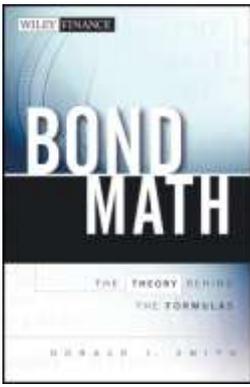
Ken Weinstein, Fitch Ratings Services

Matthew Butler, Moody's Investor Services

*Refreshments follow*

## *Bond Math - A New Book*

In need of some new reading material? How about a book filled with excitement, intrigue, and adventure and loaded with detail – a gripping and



realistic page-turner, with a little something for everyone. **Continued Next Page.**

Thinking James Bond movie—no, but you're close: It's ***Bond Math – The Theory Behind the Formulas*** by Donald J. Smith.

He's the associate professor of finance and economics at Boston University's School of Management. Smith has been involved with bonds, college and executive education for years—over 25 to be exact and now in his new book for the first time he's offering insight to the masses.

Not for the newbie, the book is from an expert and aimed at those currently working in the bond market. He offers analysis, insight...and yes, even a bit of advice. But he goes further than most bond books on the market today. He actually "shows" the theory behind the numbers dealers and investors calculate on a daily basis—and sorts out which numbers matter and which do not, covering everything from zero-coupon bonds and taxation to floaters and linkers and the mysterious sometimes misunderstood credit default swaps everyone heard about during the market collapse in 2008.

Even if you've never touched a bond or worked in the market you'll learn something by reading the book, but its primary audience is a truly seasoned and knowledgeable bond market professional. Any student or employee training to work or currently working in fixed income markets will also benefit from perusing the material. He assumes a reader knows what a bond is, and is familiar "with the terminology used in the industry but has never really looked at the relationships between numbers and formulas," explained Smith.

Smith recently sat with MAC and discussed the book in detail. The take away—you'll learn

that like calculus, bond math is a thinking man's (or gal's) game. And that some numbers matter and some do not. He sorts it all out.

Smith described his motivation for writing the book which started with a prod from a Bloomberg editor. "I've been teaching about bonds for 30 years, to executives and students, across the globe and I hold particular ideas about these topics—strong opinions and ideas and the time was right to share them," he said.

He presents theoretical ideas of no arbitrage in the book. For those unfamiliar, in rational pricing theory, there is an assumption that prices (asset) reflect the arbitrage-free price of the asset—because any deviation from that price gets "removed" or arbitrated away. This idea is often useful in fixed income security pricing—bonds in particular. Arbitrage is the act of taking advantage of disequilibrium in the market for the purpose of making a profit. Smith engages in an in depth discussion of both theory and practice with numerous examples sprinkled throughout the text.

The book's chapters are outlined in a logical fashion, and start with the money market, then move into commercial paper, Libor rates and Treasury bills. Next it covers basic math, and then moves into the bond market—and a discussion about zero-coupon bonds and finally, "Taxes," said Smith, "which are not covered in most textbooks."

"There's a lot of math in the book. You'll see equations and examples, lots of them but you don't have to do the math," he explained. "Still it's important to know that a formula exists." In the book Smith shows readers the formulas that "get them" to the numbers seen in Bloomberg reporting services.

And he also demonstrates where Bloomberg has erred—this tidbit alone is reason enough to buy the book. "Yes," said Smith, "Even Bloomberg sometimes gets it wrong. And those working in fixed income markets don't want to make mistakes."

Smith said he discovered that some of Bloomberg's numbers with regard to after-tax

rates on bonds when comparing municipals and corporate issues were in error. And some global issues that are sold internationally but listed in U.S. dollars had after-tax returns that were a little off because discrepancies between U.S. tax law and international laws were not accounted for. "It was fun finding this out and perhaps a bit controversial. Also good that Bloomberg is fixing it," admitted Smith.

Chapter 3 of the book discusses data, specifically what data are important in decision making and what data can be ignored. He draws a distinction between data and information: the useful pieces—what decisions *are* based on, he calls information. Should you buy a bond, hold it or sell it? This chapter will help you decide.

And don't skip over Chapter 1 which describes the math behind the statistics and ranks their importance. There Smith aptly points out that there are many "versions" of statistics—and figuring out which to use or ignore can be a tough road—but he offers help. To learn more you'll need to buy the book. On this end, mums the word.

Chapter 7 looks at floating rate notes or *floaters* and inflation indexed bonds called *linkers*. He covers each in detail with examples along with interest rate swaps. Other chapters discuss bond portfolios and strategies—topics not typically covered in classroom textbooks in any detail.

Smith explains how to calculate average yields on bonds within a portfolio and the average yield for an entire portfolio—these along with portfolio duration are not easy to describe. It's rare to find a book covering the material and "the book offers much more than most texts you'll find out there in the marketplace," Smith said.

Smith made it clear he is *not* an advisor and that other than Treasury bonds he does not dabble in the market. His purpose is to serve as an educator and his advice: think about your investment horizon. Ask yourself, "Will I pull out before retirement?" Then match

duration with the horizon—and remuneration, but start with the horizon.

The book idea sprouted from years spent educating professionals and students about bonds. Smith's viewpoint is not run of the mill; he is a sage and the message is timely. Today he lectures globally on the topic and just returned from a three week stint in India. If you like this book, look for a sequel in the next year or two, a companion workbook, to serve as a supplement to the current text. Readers can purchase ***Bond Math*** by visiting this link: [Amazon-Bond Math](#).

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### ***PACE* from Page 1**

Wendy Barrott, Ann Arbor's community energy coordinator, said, "The program is definitely generating interest. We've already got several individuals interested in investing in [commercial] property improvements through the PACE program."

Barrott also said, "It's a great way to get funding for projects that have longer payback. Investors might not see payback for seven years on cost intensive projects, but can get access to capital at a fixed interest rate over a long term, and it makes the investment in energy saving initiatives both attractive and possible."

Some smaller projects like those focused on lighting are not as cost intensive and realize payback much sooner. Ann Arbor is a beacon for other cities considering PACE initiatives and Barrott said she often gets inquiries from city officials outside the state—Cleveland, Kansas City and Milwaukee to name a few.

### ***PACE* History**

PACE is not new. It actually hails from the 1600s when New York City embarked on a mission to build roads and drains and property owners who benefited from the improvements were assessed a share of the cost, as part of a "special assessment district."

In recent years California adopted PACE as a way to encourage reduced energy consumption and fossil fuel use. Many are familiar with Berkeley's voluntary assessment district where property owners received monies from the city and reimbursed the city for the cost of solar improvements via assessment payments—on their tax bills, for up to 20 years. PACE still operates in much the same way.

The program is optional—a property owner can opt in or out, and only those who participate pay the single lot assessment.

In Ann Arbor, a qualifying property owner applies for an assessment by submitting an application which specifies the energy projects and the savings. Ann Arbor's current program allows assessments for energy projects, ranging from \$10k to \$350k. The assessments are paid back over a longer period of time, up to 10 years, at a fixed interest rate. The assessment is billed once annually by the city.

To qualify, property owners must be in good standing with their bank, up to date on payments, not be in bankruptcy proceedings, the amount of the assessment cannot exceed 20% of the state equalized value and the lien to value ratio must not be greater than 99% of two times the SEV.

### **Lost in PACE**

Eric Jamison, associate attorney at Miller Canfield said, "The original concept of PACE was aimed at residential property. But the Federal Housing Finance Authority said PACE lending would interfere with traditional underwriting criteria of the residential mortgage market, and this ultimately stopped the residential program dead in its tracks. As a result, the five to 10 programs active at the time came to an immediate halt, and efforts to get Congress to address the issue since then have been slow, so the program needed to take a new direction."

Residential programs had been sprouting up across the United States until the FHFA overseer in the secondary mortgage market

voiced concern. Freddie Mac and Fannie Mae opted to *not* purchase mortgages secured by properties with PACE assessments. This dealt a major blow—most residential mortgages are resold to Fannie Mae and Freddie Mac on the secondary market. "Banks won't issue a mortgage on a property with a PACE assessment if Fannie Mae and Freddie Mac won't accept the mortgage," said Jamison.

So teams regrouped. Many other states' PACE laws already allowed commercial programs—and Michigan joined the bandwagon quickly modifying its PACE legislation to aim solely at commercial and industrial properties which removed Fannie Mae and Freddie Mac from the picture because they don't handle commercial mortgages.

### **Financing**

There are many finance methods available. Here's an example. Equipment and service providers on particular projects could be assigned funds. The funds would go to them after project completion and documentation acceptance. This is called "third party" assignment.

Alternatively a city can float a revenue bond which is tied to the revenue stream from the property. "If the city issues a bond then proceeds from the assessment are used to pay it off—no taxpayer money is involved. It's not a general obligation bond," said Jamison. This is the approach Ann Arbor is taking. The Michigan PACE statute also includes a loan loss reserve—"which offers a layer of protection and lowers the cost of capital and minimizes risk," he said.

California has a program running in Sonoma County. Now others are beginning elsewhere in California, and in Florida and Ohio.

The Ann Arbor PACE program is the first in Michigan. The economic benefits of reducing property owner operating costs, creating jobs

and retaining money locally were seen as a favorable outcome of the program.

Other Michigan communities are watching Ann Arbor closely to see if the demand from commercial property owners is there. PACE statute provides protection and a "promise" for the types of projects undertaken. From day one, "the savings investment ratio must be greater than one. "If you make improvements with costs of \$100k you must be able to demonstrate savings," explained Jamison. There are protections built into the statute for both property owners and units of government which can be read in full here: [PACE Act 270 Michigan Statute](#).

Jamison gave a hypothetical example of protections included in the statute:

*"Suppose an energy savings Company will renovate a building. They start by performing a property evaluation, and then install project elements. Energy savings are used to pay back the capital over a period of time. The statute requires that the building owner save more than it costs when making the investment. For projects which cost more than \$250,000 the Michigan statute requires that an energy service company or ESCO provide a performance guarantee so if the savings forecasts are not met, the ESCO will make the property owner whole."*

Jamison sees potential for the PACE program to move back into the residential arena once the benefits are seen in the commercial sector but proof of concept is needed and given that 2012 is an election year, a move by Congress seems unlikely.

PACE is not a party issue. The program in general has bipartisan support. "In parts of Sonoma County California citizens are very Republican and they fully support PACE. They

see it as a common sense solution to help abate outrageous energy costs," said Jamison. They have funded \$51 million in PACE projects for both commercial and residential properties.

If PACE assessments are placed on property and the property meets criteria—tax payments are not in arrears for example, then having a special assessment on residential property is seen as "more" secure so a mortgage holder may view ownership of the loan as more secure too. Think about it. If a home is under water in value, PACE improvements—such as putting on solar panels, are not feasible.

But for commercial property owners in good standing, making improvements will lower energy bills which will put them in an even better position to meet their mortgage obligations.

What does it mean? Simply put, a home with improvements in place and payments up to date is viewed as a more secure investment, a more secure loan.

Interested parties can access information on the Ann Arbor PACE Program at [www.a2energy.org/PACE](http://www.a2energy.org/PACE)

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## **Staff - from Page 1**

*For years, the MAC has maintained record data on outstanding State of Michigan and local municipality bond and note issues. They also handle acceptance of bids on competitive deals—it's one of their key functions. And all paying members get access to a special report in advance of all competitive bond sales, the 'MAC Report', detailing current sale information. A lot of work goes into both generating and distributing these reports, and assisting veteran and new members when they call in looking for information. Functioning as a cohesive unit, the MAC team provides timely and accurate data that members need, when they need it.*

*With only five people on staff, the MAC runs a tidy ship. "And each member on the team has a role to play. They are individual contributors with well-defined responsibilities, who contribute to the overall efficiency of the office" said newly appointed executive director Jim Bickley who added, "But they've also been cross-trained so a staff member's short-duration absence while certainly felt by all will not prevent the MAC from continuing to provide premier member services in the interim."*

## **The MAC Team**

### **Jim Bickley, Executive Director**

At MAC since December 2011

Director beginning January 2012

Jim was profiled in the Winter 2012 Newsletter which is available for review at [www.mi-maccsite.com](http://www.mi-maccsite.com).

### **Debbie Prunkard Communications Specialist**

At MAC since August 2000

As the communications specialist for MAC, Debbie has many responsibilities. "I handle the reports," she explained and added, "And enter key information into the computer system." She is responsible for taking the county, school district, city and village reports and pulling out key information, then entering it into the computer database. If you are a new member, odds are you will speak to Debbie if you haven't already and she'll probably send you a welcoming email because she's the membership go-to person, responsible for setting up new members on the computer system and ensuring access to the website. She also answers site specific reporting questions. She explained, "For example, there's

a section on the website called revenue. If someone calls and asks about 'revenue coverage' for an issue coming to market—I can help them sort it out and get the information they need," she said.

When not working, Debbie, an avid sports enthusiast, can most likely be found on tennis courts, bike trails or in a kayak on a waterway.

### **Jacqueline Brown (Jackie) Information Specialist**

At MAC since April 2000

As the information specialist for MAC, Jackie evaluates the competitive sales, reviews the bids and inputs results into the computer system. "I also manage all the negotiated sales transactions," she said. Tracking negotiated sales requires a bit of data mining. To keep information for members up to date, Jackie, searches online database systems including the Bloomberg and MuniOS websites because the information isn't always reported. Combing the online municipal security portals she regularly looks for new negotiated sales and then adds them to her internally maintained listings to keep information for members up to date. The work is comprehensive and labor intensive, and there's a lot of "detective" work involved, before she posts results. Additionally she inputs new bond issues into the computer database system, reviews the MAC reports proofing them for accuracy and then electronically distributes information to members.

If you spot her outside of work, odds are it will be at a sporting event for her kids or perhaps a movie theater.

### **Bernadette Garr Office Manager**

At MAC since April 2000

Bernadette is executive director Jim Bickley's assistant and the office manager. She serves as the biller, responsible for accounts receivable and payable, and keeps the office running smoothly. She also authors the MAC reports. Bernadette reiterated Jim's earlier comments and explained, "I have sole responsibility for billing, but can also fill in elsewhere when there's a short-term crunch even if it's outside my normal day-to-day responsibility. We're all like that. While it's true that we are a small team and handle a lot, we can backfill from time to time on short notice if necessary."

Bernadette worked at MAC from 1987 to 1990 and then left to raise children. After 10 years away, she returned. She fondly recounted the technology leaps that occurred during her absence. "When I started we had dedicated display writers and word processors at each desk. That was the extent of our technology. When I returned after raising kids, the computer age was in full swing. We had MS Word, desktop computers and an online presence, yes, MAC had a website," she said and added, "I love working for MAC. It's a great place and the members are wonderful people."

With two daughters grown and out of the house, Bernadette finds ample time outside of work to walk, read and crochet.

**Sean Fulcher**  
**Information Technology Director**  
At MAC since June 2010

As MAC's information technology director, Sean maintains all the computer systems and site administration for members. Users who seamlessly move between pages on the MAC website, [www.mi-macsites.com](http://www.mi-macsites.com) can thank Sean. He's an important contributor at MAC, maintaining the website, firewall, servers, and email and database systems. In short, anything

stored as bits and bytes is his job. He also keeps the office desktop computers in working order, free from viruses and spyware and regularly updates the website content. Sean is always looking for more efficient ways to manage system data, reduce cost and speed access for membership and staff and he wants members to know, "Some new functionality is being added to make things easier for system users." An example: Members can now request individual customized reports on an as-needed basis.

When not at work, Sean focuses on educational pursuits because as a programmer he recognizes the importance of keeping his skills current.

***A MAC Request to Members – By sending the MAC your documents and sale notices in a timely fashion, we can continue to offer the most up to date and accurate information.***

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### **G-43 from page 1**

The regulations proposed under new MSRB Rule G-43 are intended to ensure that investors receive prices that are fair and reasonable when buying and selling municipal securities by requiring broker's brokers to make a reasonable effort to obtain such pricing. Selling and bidding dealers also have fair pricing obligations and as part of the new broker's brokers rule, dealers would be reminded of those obligations.

### **Proposed MSRB Rule G-43**

Proposed MSRB Rule G-43 requires broker's brokers to attempt to obtain prices for dealers that are fair and reasonable prices under prevailing market conditions. The rule calls for broker's brokers to use the same care and diligence in obtaining fair pricing that they would use if the transaction was being done for their own accounts.

Under the proposed rule, in a bid-wanted situation, when a selling dealer asks a broker's broker to get the best bid available for a municipal security, the broker's broker would be presumed to be working on behalf of the selling dealer unless both the buying and selling dealer agreed otherwise in writing in advance of the bid-wanted. The rule also requires a broker's broker to disseminate a bid-wanted widely.

When the broker's broker is searching for a bid for securities of limited interest, the broker's broker would need to make a reasonable effort to locate dealers with specific knowledge of the issue or known interest in comparable securities.

The rule also establishes the concept of allowing a broker's broker to establish predetermined parameters to identify possible off-market bids in the conduct of bid-wanted. These parameters could be based on yield curves, pricing services, recent trades reported to the MSRB's Real-Time Trade Reporting System (RTRS), or bids submitted to a broker's broker in previous bid-wanted or offerings.

### **Genesis of G-43**

According to Peg Henry, the MSRB's general counsel for market regulation, development of the MSRB's new broker's broker rule stems from earlier enforcement actions by the Securities and Exchange Commission and the Financial Industry Regulatory Authority regarding broker's brokers' violations of existing MSRB rules and the MSRB's conclusion that additional guidance and/or rulemaking concerning the activities of broker's brokers was warranted.

Henry said the MSRB was particularly concerned about the enforcement actions because broker's brokers are the primary way

retail investors obtain secondary market liquidity for bonds. When a retail investor wants to sell a bond, the investor contacts a dealer, who typically contacts a broker's broker to put the bond out for bid. Henry said the selling dealer does not necessarily know the value of the bond and depends on a broker's broker to solicit a fair bid.

Over the past 10 years some say this method has been misused by broker's brokers and bidding dealers who did not buy the bond at the highest bid. Instead, the broker's broker would tell bidding dealers they could buy the bonds even if they were not the highest bidder. Then the winning bidder could repeatedly resell the bond at higher prices, resulting in a significantly higher price for a retail investor.

When the MSRB proposed creating a new rule to address the problems, some industry members argued that new rules were unnecessary. In a comment letter, the Bond Dealers Association wrote,

*Fundamentally, however, BDA believes that this rule is not necessary. As the explanations accompanying the Proposal and the Draft Interpretive Notice make clear, the behaviors that the Proposal is meant to address are already prohibited under other MSRB rules. The information that we have from our members is that, to the extent there had been improper behavior, the enforcement actions undertaken under existing rules have resulted in broker's brokers generally being more aware of their obligations and responsibilities and improved the conduct of bid wanted and offerings. If the MSRB and FINRA have identified additional improper actions, we believe that they should pursue them and that any resulting enforcement actions will have a similar*

*salutary effect. We believe that this is a preferable course of action to undertaking additional rulemaking. This is particularly the case because of the remaining conceptual and practical problems with the proposed parameters and because of the inclusion of ATS within the definition of broker's broker, which we believe is not warranted.*

Despite resistance from some market participants, the MSRB proceeded with developing the new rule, but took into account industry concerns. The proposed rule includes a safe harbor provided to help broker's brokers satisfy their pricing duty. This safe harbor allows a broker's broker to establish predetermined pricing parameters to identify off-market bids.

The way this would work is that if a certain bond typically trades within predetermined pricing parameters and a bid for that bond comes in that is above that parameter, the broker's broker is alerted to the fact that the price may be in error. In this case, a broker's broker can contact the high bidder and ask them to check to make sure information is correct. Henry said this approach brings more structure to the pricing process.

### **Electronic Trading Systems**

The MSRB also addressed the role of alternative trading systems in proposed Rule G-43, and specifically stated that these systems are not considered broker's brokers if they

meet certain conditions such as only using automated and electronic means to communicate with bidders and sellers in a systematic and non-discretionary fashion and any customers must be sophisticated municipal market professionals under MSRB rules.

### **Toward a Better Marketplace**

Henry said in the past, broker's brokers have informally used available information to determine if a bid seems fair. If a bond normally trades within a range and then starts trading outside that range, the broker's broker would recognize that the bid is off market. Some broker's brokers subscribe to pricing services and are more aware of proper valuations but that assessment is not done in a formal way.

The MSRB believes that the new broker's broker rule and its structured approach will improve the bid-wanted process and will give better prices for retail investors. The MSRB also will remind selling and bidding dealers of their pricing duties as sellers and bidders, who have an independent duty to obtain a fair price for the investor.

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Click: [TRAINING](#)



*“MAC Quarterly” is a newsletter written for Municipal Advisory Council of Michigan members and business associates. If you have questions you would like discussed in the newsletter, please contact the MAC office. We will answer your questions or find an expert to address the topic and share the information with you in a future issue.*

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## **MAC STAFF**

### ***Director***

Jim Bickley

### ***Director of Information Technologies***

Sean Fulcher

### ***Information Specialists***

Jacqueline Brown  
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Debbie Prunkard

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### **Newsletter**

### ***Writer/Publisher/Editor***

Madeleine Miehls  
[www.WriteSideOfBusiness.com](http://www.WriteSideOfBusiness.com)