Prime Interest

Summer 2019

PRESIDENT's CORNER

As the RMA fiscal year, and my tenure as CAVA's president, are coming to a close, I wanted to compliment the CAVA officers and board of directors on their hard work on a variety of programs. Here are a few of the highlights and benefits provided to RMA members and the CAVA local chapters in 2018-19:

- **Annual Conference** – CAVA's signature two-day event each Spring is recognized as one of the best regional RMA conferences in the United States. The 2019 edition at the Grandover Resort in Greensboro featured a bank executive roundtable, first-rate speakers addressing hot topics (with CRC credit provided), presentations by sponsors in breakout sessions, networking opportunities and fellowship. All of this was at a terrific venue with great food. Conference chair Jaison Paisley continued CAVA's tradition of strong programming and fun. *Mark your calendars for the 2020 Conference at the Hotel Roanoke in Roanoke, VA on April 30 and May 1, 2020*.
- **RMA/ECU Commercial Lending Schools** (Basic, Advanced, and Real Estate) — once again this week-long intensive lending school was held in early May 2019 at East Carolina University which has been serving RMA members for 45+ years.
- **Appraisal Roundtables** — Jennifer Welch led the way in putting on 3 Appraisal Roundtables (2 in NC and 1 in VA).
- **Insurance**--Comprehensive general liability insurance coverage was provided for CAVA and local chapter events.
- **Tax Filing**--Taxes roll up under the regional chapter and it files a single tax return that consolidates all income and expenses of CAVA and each local chapter.
- **Chapter Support** – CAVA provided financial support to local chapters for open enrollment classes, attendance at CLC, attendance at the CAVA annual conference and other needs.
- **Carolinas-Virginias Newsletter –** Newsletter Chair Babette Stone published three editions in 2018-19, providing updates on Chapter activities, recognizing selected associate members, publishing relevant articles and providing pertinent RMA information.
- **Open Enrollment Courses —** CAVA sponsored a class in Charlotte in 2018.

The 2019-20 CAVA Board will be led by a strong team of officers—Jaison Paisley (Business Finance Group) as President, Theresa Arrighi (BB&T/Truist) as Vice President and Conference Chair, Babette Stone (North State Bank) as Secretary/Treasurer and me as immediate past president (the best role of all!). Among other initiatives, the incoming Board will be working on conducting a college student case competition as part of the RMA academic initiative (co-chaired by 3 CAVA past presidents--Lacy Cross, James Clark and me) and standing up a local chapter in Roanoke, VA (with this effort chaired by Curt Solomon). All of the CAVA activities are a team effort and all the team members are listed later in this Newsletter.

Finally, but of importance, please contact me or any other CAVA officer to discuss areas where your chapter needs assistance or is struggling so we can see what can be done to help each local chapter reach its goals and objectives in 2019-20. Have a great rest of the Summer!

Best Wishes, Grig Scifres, CAVA President

Credit Risk Certification (CRC)

Why CRC?
In today's rapidly changing financial services industry, you need practical, day-to-day knowledge that will help you excel in your profession. You need the latest skills—skills that are current and complete. And you need the demonstrated ability to serve a diverse base of clients. Plus, you need all of your knowledge, skills, and abilities to be validated by a respected organization like RMA.

For more information, visit http://www.rmahq.org/crc.

Takeaway: Financial executives discuss preparing for and balancing risk

By Marc Smith

June 6, 2019

Panelists (L-R) included Allen Gillespie, president and managing partner of FinTrust Investment Advisors; Terry Turner, president and CEO of Pinnacle Financial Partners; Lynn Harton, chairman and CEO of United Community Banks, Inc; and Neil E. Grayson, Nelson Mullins Riley & Scarborough, LLP. chair of financial services corporate and regulatory practices.

Like any industry, the financial services industry faces a variety of potential risks. And because we have learned from past mistakes, we believe it is best to confront and discuss those risks more openly as a profession, for the benefit of our business and our customers. While the economy appears balanced with no immediate warning signs, it is important that executives be prepared for potential shifts on the horizon that would have a wider impact.

As part of this collective awareness of risk, the Upper South Carolina Chapter of the Risk Management Association recently hosted a panel with three financial services executives to discuss potential risks, including technology and fintech competitors, the economy, and the current cycle. Panelists included Lynn Harton, chairman and chief executive officer of United Community Banks Inc.; Terry M. Turner, president and chief executive officer of Pinnacle Financial Partners, which has six locations in the Upstate; and Neil E. Grayson, chair of the Financial Services Corporate and Regulatory Practice at Nelson Mullins Riley & Scarborough LLP. While all the executives cited different strategies for navigating common threats, all three agreed that talent, strategic decision-making, and a strong company culture are key to navigating risk.

Increasing technology and fintech competitors

With technology advancing daily, banks face constant pressure to keep up with their largest competitors. Both Harton and Turner agreed that as community banks, they are not striving to be on the front lines of innovation. Instead, they are investing in the appropriate technology for their customers.

“We’re more focused on finding ways to develop relationships with the customers that no longer visit the branch,” explained Harton. “We’re studying our data more closely so that we may better understand and connect with these customers even if we never see them in person.”

While banks would be naïve to ignore the increased popularity in companies like PayPal and Square Cash, many are comforted knowing that users still need a bank account to connect to these services. To Harton, the best solution is for banks to open themselves up to partnering with these companies as a benefit to their customers. Grayson agreed, adding that disruptive technology won’t dominate the industry as long as they have to rely on banks. As such, he encourages banks to focus on their authentic values instead of striving to be the most convenient. “The best companies are not profit-driven,” he explained. “They’re purpose-driven.”

The economic cycle

Though in an upward cycle, all three executives agreed that a downturn is soon to come. To Harton, however, much of the necessary preparation for a recession should have already been done.

“No one can predict the future, but if you were looking for a recession to hit 18 months from now, 80% of what is on the books today will be carried into the crisis with you,” he said. “You can’t clean everything up. Instead, focus on concentration risk and only diversifying into things you understand.”

Turner added that he views the economy as relatively strong and does not see any early signs of trouble.

Leaning on corporate culture

The importance of company culture as a risk deterrent was a driving topic throughout the conversation, and one that all three panelists felt passionately about. “Culture is the driver of performance in your organization,” explained Harton. “It’s what you think and do every day.”

Turner attributed the success of Pinnacle’s culture to its strategy of hiring experienced, personally connected bankers. This has helped the company achieve its goal of a 95% employee retention rate for nearly two decades. He also noted that this strategy translates to a better customer experience.

The panelists agreed that attracting, growing, and retaining a talented team can help to mitigate a variety of risks, but there are still many threats that cannot be avoided and must be prepared for in advance. Fostering an open dialogue about these risks as an industry is an important step in helping to prepare as much as possible, even for the unavoidable threats.

THE FUTURE LOOKS BRIGHT.

RMA is proud to support the next generation of bankers and is pleased to reveal the **2018–2019 scholarship recipients.**

William F. Githens Scholarship

The William F. Githens Scholarship, named for RMA's former CEO, was awarded to this year's most promising candidate, who demonstrated exceptional academic achievement and commitment to the financial services industry.

Antasia Glenn *University of Pennsylvania*

Learn more about The RMA Foundation Scholarship Program by visiting **www.rmahq.org/scholarship**

The RMA Foundation Scholarship

We are proud to present this year's RMA Scholars, who are recipients of The RMA Foundation Scholarship.

Jameerah Ali *North Carolina Central University*
Delaney Ambrosen *Kenyon College*
Ryan Ballow *Canisius College*
Zackary H. Barnes *Texas A&M University*
Eileen G. Barros *City University of New York: Baruch College*
Lina Ben-Harhara *Mount Royal University*
Brandon E. Cade *University of Southern Mississippi*
Enma D. Calderon *Mount Royal University*
Heather Caminske *James Madison University*
Jesse D. Carlson *South Dakota State University*
Matthew J. Carroll *Marquette University*
Harshal Choksi *University of Georgia*
Bradley Colditz *Penn State University Park*
Thomas R. Conlon *Xavier University*
Zachary T. Corbitt *Arkansas State University*
Patrick C. Cummins *Grand Valley State University*
Alia K. Dahlan *Appalachian State University*
Matthew M. Dever *Penn State University Park*
Evan Dingle *Penn State University Park*
Benjamin Doerner *Grand Valley State University*
Collin C. Drosdoski *University of Manitoba*
Kassidy A. Easterling *Eastern Kentucky University*
Hannah Enck *University of St. Thomas*
Madison E. Fairbanks *Providence College*
Quincey Glupker *Hope College*
Treasure Goddard *Spelman College*
Scott E. Gonzales *Texas A&M University*
Charles Grissum *Arkansas State University*
Jacob Hagan *University of Georgia*
Thomas J. Hamaker *Arkansas State University*
Casey Harper *University of Wisconsin-Madison*
Justin S. Holmstead *Brigham Young University*
Angel Y. Hsu *University of California: Berkeley*
Ethan L. Ishaug *Minnesota State University of Moorhead*
Kenzie S. Jackson *South Dakota State University*
Brandon Jenson *Utah State University*
Kara M. Kellogg *University of Kansas*
Erin Kelly *University of Massachusetts Amherst*
Sydney K. Lewellyn *University of St. Thomas*
Colton W. Lind *Western Michigan University*
Elaine M. Lochte *Texas A&M University*
Kurt T. Mantes *Ohio University*
Edward Mejia *California State University: Fresno*
Erin C. Moore *Georgia Southern University*
Brianna Morgan *Trinity College*
Maxwell T. Neese *Iowa State University*
Jeff M. Nobrega *Springfield College*
Jason Nowlin *Texas A&M University*
Brayden S. O'Brien *Utah State University*
Henry Olbrish *Duquesne University*
Daniel Owens *University of Tulsa*
Elizabeth K. Padgett *Eastern Kentucky University*
Annaleiz J. Palacios-Garcia *Oklahoma City University*
Candice Pedesclaux *Tulane University*
Steven Pelaez *City University of New York: Baruch College*
Matt Pelzer *Mount Mercy University*
Tyler Pierce *Utah State University*
Jeremy W. Pike *Brigham Young University*
Mitchell J. Pitkin *Providence College*
Dylan J. Plummer *Western Michigan University*
Taylor Poleman *Northwestern State University*
Kyle A. Ranostaj *Sam Houston State University*
Ashley M. Remmel *Auburn University*
Brittany Rhodes *University of Nevada: Las Vegas*
Colin Rickard *Texas A&M University*
Sydney M. Robb *University of Colorado Boulder*
Chase T. Rourke *University of Iowa*
Anne M. Schneeberger *Ohio State University: Columbus Campus*
Garrett M. Shipman *Texas A&M University*
Julie Shlyakhetko *Marquette University*
Jennifer Shulman *College of William and Mary*
Brianna Sueda *California State University: San Marcos*
Preston J. Tetzlaff *South Dakota State University*
Francisco M. Torres *Texas Wesleyan University*
Samuel M. Towler *College of William and Mary*
Halee J. Tucker *Tennessee Technological University*
Eric VanVoorst *Grand Valley State University*
Austin Villeneuve *Western Michigan University*
Caleb Wiens *Emporia State University*
Aria J. Williams *Spelman College*
Emma Winker *Washington State University*
Christian Wolford *Sam Houston State University*
Salim Yakubu *Marquette University*
Yahya A. Yussuf *Boston College*

RMA CAVA ACADEMIC SCHOLARSHIP RECIPIENTS FOR 2018-2019 YEAR

The Risk Management Association Foundation has awarded its prestigious William F. Githens Scholarship to Alia Dahlan. Alia is a 2019 graduate of Appalachian State University where she majored in Finance and Banking with a minor in mathematics. She grew up in Asheville, NC and is originally from Indonesia. Alia accepted a full-time role in the Finance functions division of Barclays in New York City after interning in summer of 2018 and is very excited to begin her career in July 2019. While at Appalachian, she was president of the Bowden Investment Group, a student-managed investment fund. She was also president of Appalachian Honors Association, a member of Walker Fellows, Walker College of Business Honors, the Honors College, and the Wilson Scholar program among other organizations and programs. While a student, she studied abroad in Australia at Southern Cross University and interned at Blue Cross Blue Shield of NC. Alia enjoys dancing, traveling, and doing service in her free time.

The RMA Foundation's top scholarship is named for William F. Githens, the former President and CEO of The Risk Management Association, a financial industry association whose sole purpose is to advance sound risk management principles. Githens was instrumental in creating The RMA Foundation, which was launched to help usher the best and brightest into the financial services industry by offering tuition support. Githens, who retired in 2017, is an active director of the Foundation.

Since its inception in 2014, The RMA Foundation has awarded nearly $900,000 in scholarships to four-year college students who are interested in working in the banking industry after graduation.

We are happy to announce that for the 2018-2019 academic year, The RMA Foundation has awarded scholarships to 105 students who have distinguished themselves through their academic work, industry knowledge, and experience. Of that number, 84 students were first-time recipients and an additional 21 students received renewal scholarships. We received 247 applications this year and thank you for your help in spreading the word.

2019 RMA-CAVA Spring Conference

Thursday, May 2 - Friday, May 3, 2019
Grandover Resort & Conference Center
Greensboro, North Carolina

Each spring the Carolinas-Virginias regional chapter of the Risk Management Association hosts a 2-day risk conference, where professionals and industry leaders come together to discuss current topics and emerging issues facing banks and the financial industry. To effectively manage these risks and improve operational efficiencies, the attendees hear about best practices and receive useful guidance from leading bank and risk experts via a series of roundtables, panel discussions and break-out sessions. The conference also offers attendees the opportunity to speak and interact with third-party partners who provide strategic solutions for banks to manage the many risks facing them, including those discussed during the conference.

This year's Spring Conference was held May 2-3 at the Grandover Resort & Conference Center in Greensboro, NC. Conference feedback was once again very positive, with a great venue, great speakers and fun fellowship! Below are some pictures from the 2019 conference.

Be sure to mark your calendars for next year's Spring Conference, which will be on April 29 – May 1, 2020 at the Hotel Roanoke in Roanoke, Virginia.

2019 had great speakers and great attendance

Many excellent sponsors made this year's conference possible

There was plenty of time built in to network

The Banker panel and RMA HQ panel provided many current insights

Golf and Tap Hopper Tours were an excellent ending to a great conference

WHAT I LEARNED AT THE CAVA SPRING CONFERENCE THIS YEAR

By Babette Stone

This annual event is one I look forward to every year. Having spent the last 30+ years in banking in the great state of North Carolina, I have met, worked with or competed against many fine individuals. I get to see some of these people at this event. It may have been 10 years since I saw them, but we are able to catch up and trade current business cards. With some many mergers over the years, I find that many have stayed in banking, but many have moved to a complementary industry. This year, I talked with many great people, re-connected, or formed a new relationship. With my stack of new business cards, I know I will be able to call each one if I have a need or question. These people include a former banker, who now has his own CDC company, a representative who can help my bank's clients with factoring, someone who can my dispose of foreclosed real estate, the CIO of a small bank like mine that I can call for advice, a representative of CRE software, the President of an excellent employee search company, and a representative that can help my bank score and underwrite small business loans. And all this was during the breaks between meetings.

The speakers at the conference were experts in their fields, delivering timely information on the changes in commercial lending, an overview of the global digital footprint and impact on banking and future banking, and a forecast of default rates of small business by industry, remaining competitive, and flood compliance. And this does not include the breakout sessions hosted by the wonderful and gracious sponsors, who allow CAVA (Carolinas-Virginias Chapter) to host this spectacular event.

A tremendous amount of effort goes into planning this conference each year. The result is always a beautiful venue, close to great golf and other fun activities that are reasons to attend by themselves. Although packed with many information laden meetings, the conference is only two days. Starting mid-day on a Thursday, meetings end mid-day on Friday, so that attendees (and their families) can enjoy golf and area activities on Friday afternoon. Some even stay for the weekend. Work and vacation!

This conference can't be beat. There is not another event where I can learn, find vendors that can really help my bank, and run into old friends. I always come away feeling full of new information and the knowledge that my world of banking continues to be full of friends that I can contact anytime I need. And did I mention rummy bears?

Financeability of Ground Leases

By: Cartwright R. Reilly

Background. In traditional acquisition transactions, a purchaser acquires a fee simple interest in the property and pledges that interest as collateral to a lender. But, fee simple interests are not the only financeable interests. Owners of undeveloped land may want to retain ownership and have a steady income stream but not incur the costs associated with development and, thus, may choose to ground lease the property to a developer. Once a ground lease is in place, the ground lessee's leasehold interest in the property is now, at least theoretically, a financeable interest that can be pledged to a lender to secure financing. Just because leasehold interests can be financed does not mean that all ground leases are financeable. A lender looking to finance a ground lease should be on the lookout for the following provisions.

Granting and Recording of the Leasehold Interest. A ground lease must expressly permit the lessee to encumber its leasehold interest with a leasehold mortgage. A memorandum of the ground lease should be recorded in the land records of the county or city in which the property is located and the ground lease should expressly permit such recording. Keep in mind that a leasehold deed of trust needs special provisions not generally found in fee mortgages.

Term. The lease term needs to be significantly longer than the loan term. Leasehold lenders should look for ground leases that have an original term (or one or more optional renewal terms that can, under all circumstances, be exercised by the leasehold lender) that extends at least ten (10) years beyond the amortization of the loan.

Use of the Property. The ground lease should not (a) restrict the use of the property by the lessee or its successors or assigns or (b) include a continuous operation clause or operating covenant. In the event the leasehold lender must foreclose, use restrictions and continuous operations clauses can be very problematic.

Fee Mortgages and Subordination. If there is both a fee mortgage and a leasehold mortgage on the property, the rights of the two lenders must be reconciled. Although an intercreditor agreement is not usually required, it is important for the ground lease to address the lenders' priority rights. The ground lease should not be subject to any liens that are superior to, or even of equal priority with, the leasehold mortgage. The lessor must obtain a subordination agreement from the existing fee lender that subordinates the fee mortgage to the leasehold mortgage. Alternatively, the leasehold lender might accept a non-disturbance agreement in favor of the lessee (and its successors and assigns) stating that as long as the lessee is not in default under the ground lease, the lessee's possession of the property and the lessee's rights under the ground lease (including any extensions or renewals) will not be disturbed by the fee lender. Although it is preferable for the fee owner to subordinate its interest, with a properly drafted leasehold deed of trust and recognition agreement, subordination of the fee interest may not be necessary.

Notice and Cure Rights. The ground lease should include specific provisions requiring notice to the leasehold lender in certain circumstances. For example, the ground lease should require that the lessor, on request from the leasehold lender, provide an estoppel certificate in form and substance acceptable to the leasehold lender. The ground lease should also provide that (a) the lessor must give notice to the leasehold lender if (i) the lessee fails to exercise a renewal option (and give the leasehold lender an additional period of time to exercise such option) and (ii) there is a default by the lessee (and give the leasehold lender a right to cure that begins after the lessee's cure period); and (b) the ground lease will not be modified or terminated without the leasehold lender's prior consent. In sum, it is important for the leasehold lender to receive notice of, and give its consent to, certain situations that impact its rights.

Assignability; Subletting; No Merger. The ground lease must expressly permit the lessee to assign the ground lease to a leasehold lender (and its successors and assigns) without the consent of the lessor and that, if so assigned, it is further assignable by the leasehold lender (and its successors and assigns) on notice to, but without the consent of, the lessor. This allows the lessee, in an event of default, to freely assign the lease to the lender and to then allow the lender to further assign the lease. The ground lease should not impose any restrictions on subletting. If a lessee subleases the property, the lessor must execute and deliver a recognition agreement in favor of the sublessee providing that if the ground lease is terminated for any reason other than its expiration, or condemnation or casualty (or terminated or rejected in bankruptcy proceedings), then the lessor and sublessee will enter into a new lease with the leasehold lender on the same terms contained in the ground lease. This protects the leasehold lender and provides assurances that there will be no gap in the lease. It is also important for the ground lease to expressly state that if the lessee acquires title to the fee estate, there will not be a merger of the fee and leasehold estates. This guarantees that the fee estate and the leasehold estate will remain separate and distinct and prevents termination of the leasehold lender's interest.

Losses; Insurance and Condemnation Proceeds. The ground lease should require that insurance proceeds and condemnation awards be applied to (a) repair or restoration of the property, with the leasehold lender having the right to hold and disburse such proceeds, or (b) payment of principal, together with accrued interest, on the leasehold mortgage loan. Additionally, insurance proceeds and condemnation awards related to total or substantially total losses must first be applied to the outstanding balance of the leasehold mortgage loan. These provisions help balance the leasehold lender's interests in rebuilding the property and paying down the debt.

Many of these items may be appropriately addressed in a consent signed by the lessor at the time of the leasehold financing. For example, a leasehold lender's right to consent to modifications of the ground lease and a requirement that the lessor give notice of defaults by the lessee and a right to cure might be included in a landlord's consent.

Remember! As more borrowers seek financing secured by leasehold interests, it is important for lenders to remain aware of the provisions that make ground leases financeable. It is equally important for borrowers who anticipate leasehold financing to, as they negotiate ground lease terms, include provisions relating to notice, cure, and other protections, that will satisfy leasehold lender requirements.

This article is intended solely as general discussion of the subject matter and should not be considered legal advice. Cart Reilly is an attorney in the finance and real estate section of Williams Mullen. For additional information on specific situations, please contact Cart Reilly at 757-473-5312 or creilly@williamsmullen.com.

Why Bankers Should Work with Invoice Financing Companies

By Craig Poms

Many of your clients may be missing out on growth opportunities and you don't even know it. We see it all the time.

In my prior discussions with bankers, many have expressed a negative impression of factoring—mostly stemming from the perceived high cost of financing. Certainly, factoring is not for every business, but there are many businesses that can benefit.

What is factoring? Factoring is a form of accounts receivable financing, more commonly known as invoice financing. Essentially it is a line of credit extended to a business so they can finance their accounts receivable. In factoring, a business will sell their open invoices to a factoring company, in return for cash now, that can be reinvested back into their business. For many business owners, waiting to get paid create gaps in cash flow, further restricting their ability to grow.

A common misconception is that a bank line of credit is always cheaper than a factoring facility. The flaw of this argument is that the only valid comparison is the cost of financing. It does not consider what each facility can do for the company and potential opportunity costs. For example, a smaller bank line of credit may fund current working capital needs, but not future growth. If a larger facility provided by a Factor allows the client, or business owner, to grow more quickly, the additional gross profit can offset the higher cost of financing. In this scenario, the bank line of credit, even with its lower financing cost, is actually more expensive than the Factor's credit facility when taking into account the lost opportunity costs.

What are some of the circumstances in which a business would qualify for a larger credit facility from a factoring company than from a bank? Banks are basically balance sheet lenders. A banker is looking for an acceptable level of solvency and liquidity first, and then will consider the quality of the collateral. Many businesses don't have either the balance sheet strength and/or the earnings to qualify for a line of credit that would allow them to take advantage of all of their sales opportunities. Factoring companies are collateral lenders. We consider the quality of collateral first and are not as concerned about the financial strength of the business. In addition, factoring companies have internal teams that monitor the receivables on a daily basis. I have found that most banks, outside of their ABL departments, do not have the ability to monitor receivables on more than a monthly basis at best.

At LSQ, we work with thousands of bankers across the country. In our 23 years of business, we have financed over $20B in invoices, with over $3B in invoices processed last year. Often lenders will call us when their prospect needs a line of credit that they can't get approved within the bank. As a banker, you can win the deposit relationship, while we assume the risk and provide a credit facility to your client, increasing the potential of deposits throughout your relationship. Sometimes an existing client needs an increase in their line of credit that a bank can't accommodate. We also partner with workout officers to help reduce exposure in unforeseen situations. Many of our clients move back to bank financing within a couple of years (40% after two years, to be exact) which we love to hear.

While factoring isn't for every company, it is a legitimate form of financing that every banker should be aware of and should consider the next time their client has a working capital need.

Craig Poms is the SVP-Director of Partnerships and Strategic Alliances for LSQ an invoice financing company based in Orlando, FL

M: 443.223.0393 LSQ | www.lsq.com 315 E. Robinson St., Suite 200, Orlando, FL 32801

2019–2020 Calendar of Events

Board Meetings

July 17, 2019 – board meeting, Greensboro, NC

August, 2019 – conference call

October, 2019 – conference call

December, 2019 - board meeting, Greensboro, NC

February, 2020 – conference call

April 28, 2020 – board meeting, Roanoke, VA

CAVA Spring Conference

April 29 – May 1, 2020 – Hotel Roanoke, Roanoke, VA

RMA ECU Lending Schools

May 2020 – Greenville, NC

Chapter's Leaders Conference

June 24-26, 2020 – Philadelphia, PA

National Conference

October 27-29, 2019 – New Orleans, LA

What is Exobot, the frightening new banking app trojan?

Published on 2019-04-30

Ben Dickson

Here's something creepy that might happen to you: You turn on your phone and fire up your banking app. While you think you're entering your login information safely, an invisible, malicious app steals your username and password and sends them to a cybercriminal who will use it to steal money from your account.

Known as banking trojan, this kind of malware has become a growing threat as mobile banking and payments have risen in popularity. Researchers at cybersecurity firm WatchGuard Technologies have made a thorough analysis of Exobot, a nasty Android malware, and their findings prove just how advanced the threat of banking trojans has become.

What is Exobot?
Exobot is a sophisticated botnet package for Android devices. Botnets are malware that give their authors remote access to infected devices. Botnets take orders from a command and control server and are usually used in distributed denial of service (DDoS) attacks.

In the case of Exobot, however, the malware's main functionality is to steal sensitive information from banking apps and financial services. Once Exobot infects a device, it uses "overlay attacks" to steal banking information. In an overlay attack, the attacker places an invisible window on top of the user interface of the targeted app and intercepts whatever the user types or taps. So, when the user is typing their username and password in the login page, they are in reality typing in Exobot's invisible layer. The malware then sends the information to the attacker's server.

The reason they call it a "trojan" is that, like the famous Greek myth Trojan Horse, the malware is hidden inside an application that looks legitimate. For instance, it might be a banking app in an unofficial Android app repository.

Exobot dates to 2016. Back then, the author provided it as a rented service. In 2018, Exobot's source code leaked publicly. This means anyone with the technical know-how can download the source code, modify it, and spin their own version of the malware.

"What makes Exobot's source code significant, even to this day, is that it provides an established fundamental structure for newer malware to build off of," says Emil Hozan, security threat analyst at WatchGuard. "Instead of starting from scratch, malware authors can use this code to build upon. We've seen this happen countless times with other malware source code leaks like Zeus and, more recently, Mirai." (Mirai is the botnet malware that shut down the internet across large swaths of the U.S. in 2016.)

Exobot: malware-as-a-service business

The general perception is that banking trojans and other malware are run by hackers with sophisticated programming and technical skills. But Exobot lowers the barrier for non-technical criminals to get involved in the banking trojan business.

The WatchGuard analysis shows that the malware has been designed to provide a control panel and user interfaces that "customers" without technical know-how can sign up to use.
The Exobot server software, the component that gathers the stolen data from infected devices, supports multi-tenancy. This means that a single installation can support multiple customers and stand as a malware-as-a-service (Maas) business for its owner. Using it will be as easy as running a CMS platform, such as WordPress.

"One of the specific elements of Exobot that is very effective is compartmentalizing features for 'customers' while maintaining full backend access for authors," Hozan says. "This allows full control of everything. While limiting customer access to their respective rental time, authors can make adjustments without affecting customer-facing frontends."

Exobot's sophistication also makes it extremely difficult for network analysis tools to detect and block its malicious traffic. "As opposed to having a dedicated server with an IP address that can be blocked in its entirety, the use of hosting providers as possible frontend proxies does indicate more advanced malware behavior," Hozan says.

Exobot: a global threat

One of the challenges of targeting the electronic payments industry is that the landscape varies across different regions. Exobot has been designed to adapt itself to habits and trends in various countries. The malware is especially targeted at PayPal, which is the most popular online payment system around the world, but also adapts to dozens of regional financial services and banking apps.
Exobot's authors have also armed the malware with the capability of disabling major mobile antivirus solutions such as BitDefender and Avira.

"In general, the more prominent global apps like PayPal and BitDefender would be a greater threat, followed by region-specific services," Hozan says. "Each region has their own 'U.S. Bank' or relatable financial service, and the same goes for antivirus products. In other words, the greatest threat would be the service with the most subscribers."

WatchGuard's researchers have also spotted at least one other rentable botnet on dark web markets, the anonymous underbelly of the internet, that looks very similar to Exobot. This could indicate that other hard-to-catch and dangerous banking trojans are emerging.

How to protect yourself against Exobot and other banking trojans

Authors of malware like Exobot usually catch their targets by distributing their malware outside official app stores or infecting them through phishing scams. The main way to protect yourself against mobile

banking trojans is to only download apps from official market places such as Google Play and Apple App Store.

Both Google and Apple have thorough processes to make sure the apps published in their marketplaces do not contain malicious code and suspicious behavior. Sideloaded apps—applications that have been downloaded and installed outside of main app stores—offer no such guarantees.
Yet not even the official app stores offer absolute protection, and malicious apps often slip past their defenses. WatchGuard's security experts recommend enabling multi-factor authentication (MFA) on sensitive applications. MFA requires users to complete an extra step when logging in to their accounts, such as running a fingerprint scan, entering a one-time password, or connecting a physical key. MFA makes it extremely difficult for hackers to break into online accounts, even if they steal the username and password through a trojan virus.

Also worth noting is that Exobot and similar malware need administrative access to perform functions such as disabling antivirus apps and manipulating the user interfaces of targeted apps. "The tell-tale sign of what to look out for are outrageous permission requests for a particular app. Users shouldn't give admin access to just any app, such as a game for example," Hozan says. "While there are apps that rightfully and legitimately require admin access to run, any app that does request this should be scrutinized."

CHAPTER EVENTS

Managing Environmental Risk During the Commercial Lending Process

August 20, 2019 - Raleigh, NC

CHAPTER OPEN ENROLLMENTS

Lending to Medical and Dental Practices

September 10, 2019 – Charlotte, NC

Problem Loan Workouts

September 13, 2019 – Raleigh, NC

Analyzing Business Tax Returns

September 19, 2019 – Fairfax, VA

Analyzing Personal Financial Statements and Tax Returns

September 20, 2019 – Fairfax, VA

Construction Loan Management: Administering the Construction Loan Process

October 3, 2019 – Raleigh, NC

Problem Loan Workouts

October 10, 2019 – Richmond, VA

Analyzing Business Tax Returns

October 16, 2019 – Greenville, SC

Analyzing Personal Financial Statements and Tax Returns

October 17, 2019 – Greenville, SC

Commercial Loan Documentation

October 22, 2019 – Charlotte, NC

Understanding and Interpreting Real Estate Appraisals

October 25, 2019 – Greensboro, NC

Analyzing Business Tax Returns

November 4, 2019 – Virginia Beach, VA

Analyzing Personal Financial Statements and Tax Returns

November 5, 2019 – Virginia Beach, VA

Lending to Wealthy Individuals

November 6, 2019 – Raleigh, NC

Cash Flow Refresher for Experienced Bankers

November 8, 2019 – Asheville, NC

2018–2019 CAVA Chapter Officers

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RMA'S ANNUAL RISK MANAGEMENT CONFERENCE TO FOCUS ON LIBOR, CYBER RISK, AND THE CREDIT CYCLE

Philadelphia, PA (June 27, 2019)

- Leading banking industry experts will share their experiences regarding LIBOR risk management, disruption, and CECL, as well as their views on changes to the current credit cycle, at RMA's Annual Risk Management Conference. The conference will be held at the Hyatt Regency, New Orleans, La., October 27-29, 2019.
-
- William C. Taylor, agenda-setting writer, speaker, and entrepreneur, will be a keynote speaker, outlining the best ways to manage disruption trends in the banking industry.
-
- The conference will also feature sessions on topics such as artificial intelligence, reputation risk, mergers and acquisitions, and third-party risk management.
-
- "With renewed industry focus on banking and disruption, we are excited to have William Taylor as a keynote speaker at the conference. He has real-world experience with regard to how companies need to prepare for disruptions of any kind," said RMA Director of Member Relations Bill Loftus.
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- For more information and to register, visit https://landing.rmahq.org/rmaconf2019/landing-2063L-3104NH.html.

CAVA Board Members Serving RMA at the National Level

CAVA Board members have been and continue to be strong representatives of RMA at the local, regional and national levels. Over the years, there have been a multitude of CAVA alum who have served nationally, including the position of RMA Chairman (most recently Tol Broome). Current CAVA Board Members serving RMA at the national level are listed below. Congratulations and thank you for your dedication and hard work!

Academic Program Committee

Karen Bjelland	Past President
Kristopher De Long	Past Academic Committee Chair

RMA Local Chapters

STATE	CHAPTER	PRESIDENT	WEBSITE
North Carolina	Carolinas-Virginias	C. Grigsby Scifres	http://community.rmahq.org/carolinasvirginias/home
	Charlotte	Mark Guthrie	http://community.rmahq.org/charlotte/home
	Coastal Carolinas	Billy Smith	http://community.rmahq.org/coastalcarolinas/home
	Eastern North Carolina	Mark Snyder	http://community.rmahq.org/easternnorthcarolina/home
	Great Smokies	Megan Allustiarti	http://community.rmahq.org/greatsmokies/home
	Triad	Theresa Arrighi	http://community.rmahq.org/triad/home
South Carolina	Central South Carolina	TBD	
	Greater Charleston	Jason Herring	http://community.rmahq.org/greatercharleston/home
	Upper South Carolina	Marc Smith	http://community.rmahq.org/uppersouthcarolina/home

Virginia	Hampton Roads	Amanda Freeland	http://community.rmahq.org/hamptonroads/home
	Potomac	Veronica Sharifaie	http://community.rmahq.org/potomac/home
	Richmond	Shareema Williams	http://community.rmahq.org/richmond/home
	Southwest Virginia	TBD	http://community.rmahq.org/southwestvirginia/home
West Virginia	West Virginia	TBD	http://community.rmahq.org/westvirginia/home

Fun Facts: Interest Rates Throughout History

Mesopotamia	c. 3000 BC	20%
Persian conquest (King Cyrus takes Babylon)	539 BC	40%+
Greece, Temple at Delos	c. 500 BC	10%
Rome	1 AD	4%
Rome, under Diocletian	300 AD	about 15%
Italian cities	c. 1150	20%
Venice	1430s	20%
Venice (Leonardo da Vinci paints "The Last Supper in Milan")	1490s	6.25%
England	1700s	9.92%
US, circa World War II	1940s	1.85%
US, Reagan administration	1980s	15.84%

Source: Chief Economist Andy Haldane

Data from "The Trader and His Shadow" businessinsider.com

JOIN. ENGAGE. LEAD.