



**Michael L. Frank, ASA, FCA, MAAA** is President and Actuary of Aquarius Capital and an adjunct professor at Columbia University. He can be reached at *Michael.Frank@AquariusCapital.com*.

## Columbia Invades Bermuda

By Michael L. Frank

In March 2014, students from Columbia University, Masters in Actuarial Science program participated in an educational trip to learn about the international insurance and reinsurance market. Students and faculty joined Michael Frank and Donald Rusconi (adjunct professors at Columbia and principals at Aquarius Capital) on an intensive educational trip with students meeting with twenty six (26) reinsurance companies and organizations supporting the insurance industry in Bermuda over a four day period. In total, there were fifteen (15) participants from Columbia.

The meetings kicked off in Catlin's office on Monday, March 17 with a half day presentation with students meeting ten executives at Catlin and learning all aspects of the business. Meetings ended on the afternoon of Thursday, March 20 at Arch Capital Group with students again receiving a half day presentation and meeting ten executives.

### AN INVALUABLE EDUCATION EXPERIENCE

During the four day period, students met with more than eighty (80) executives at twenty six (26) companies in the insurance industry including life, accident, health and property/casualty companies in Bermuda including CEOs, CFOs, chief actuaries, chief underwriters, chief risk officers and other executives in the reinsurance industry.

Students were exposed to the following during their trip:

- All aspects of the reinsurance business including marketing, underwriting, pricing, valuation, ERM, retrocession, claims management, cat modeling, operations, investments, regulations and other aspects of the insurance and reinsurance industry (and how actuaries interact in the day-to-day operations).
- Meetings at the different companies and presentations from executive management of those organizations, as well as one-on-one meeting with different experts in the industry.
- How insurance and reinsurance professionals from different backgrounds and specialties work together to meet common objectives.
- Different technology and software tools that actuaries and reinsurance professionals use to manage the business.
- The practical applications of enterprise risk management (ERM) in the day-to-day management of the business, including establishment of pricing and underwriting committees.

The presentations provided to students also covered trends in the insurance and reinsurance market, history of the reinsurance market (including Bermuda), and

Students received valuable career advice with professionals sharing countless stories and experiences.

business plans of the various companies. Students also go to see sample test cases for underwriting, cat modeling, pricing and valuation (e.g., Tokio Millennium Re showed students application of different pricing and reserve valuation methods).

Students were also exposed to all types of reinsurance treaties including understanding the marketing, underwriting, pricing, auditing, claims management, and legal involvement in the transactions. In addition to traditional reinsurance, students learned about the evolution of the captive insurance company market as well as cat bonds, insurance linked securities and Solvency II.

Students were provided additional insights and exposure to all levels of risk analysis on an international basis and how Bermuda companies work with organizations throughout the world (e.g., United States, United Kingdom, Asia, Latin America, etc.), including marketing, evaluating, and managing risk. Reinsurance companies discussed the impacts of the catastrophes in Japan and other Asian nations and their impact on the world's insurance economy. The different companies also showed how the science community and research are an important part of their business plan and managing of risk.

Various companies also shared details about their business plans including strategies on their new product lines and histories of their own organizations, including positives and negatives, and how they learned from the negatives.

#### **BILTIR**

Students also attended a cocktail hour hosted by Bermuda International Long-Term Insurers and Reinsurers (BILTIR), which is an association formed in 2011 representing the long-term insurer and reinsurer group in Bermuda. BILTIR ([www.biltir.bm](http://www.biltir.bm))

membership has grown to 28 companies as of January 2014. Students met a variety of companies at BILTIR and had the ability to spend additional time with some of the companies that they met during their stay on the island. It was a great opportunity for students to network with industry professionals while expanding their understanding of the actuarial and insurance industry.

#### **BFIS**

In addition to reinsurance companies, students also meet with the Bermuda Foundation for Insurance Studies (BFIS), which is an organization that offers scholarships and education programs to students interested in the insurance and actuarial profession. At BFIS ([www.bfis.bm](http://www.bfis.bm)), students were able to discuss the profession with some of the thought leaders in Bermuda on the education field for actuaries. BFIS also shared material including a textbook on the history of the Bermuda reinsurance market.

#### **IMPORTANCE OF HISTORY IN BERMUDA**

The Bermuda reinsurance market is proud of its history and many of the executives were able to share various aspects of the history, including where their organizations fit in to it. As U.S. college students and college graduates, we think of ourselves as part of a graduating class (e.g., I am University of Michigan graduating class of 1987). Many of the Bermuda reinsurance companies also recognize their origins so companies will identify themselves as the class of: Hurricane Andrew, Hurricane Katrina, 9/11, etc.

Every catastrophic event in the world (e.g., earthquakes, hurricanes, etc.) has created a chain reaction in the reinsurance industry whereby losses in the industry generated a growth in the reinsurance market, especially in Bermuda. Students learned about the importance of these events as well as how the impact



of experiences in soft markets and hard markets evolved the Bermuda reinsurance market.

Students were able to see firsthand how organizations had incorporated ERM into their everyday business practices, and how ERM planning was critical for the ongoing success of the organizations in Bermuda and worldwide.

### CAREER ADVICE

Students received valuable career advice with professionals sharing countless stories and experiences. Students were also able to get a more global perspective of the insurance and reinsurance industry, while also getting better insight of the different aspects of life, accident, health and property/casualty reinsurance to help provide them a framework to make better

career direction choices. Students also asked many questions during the trip and the interaction of the students and executives was a great experience.

Students were able to relate experiences to many of the individuals that they met on the trip. With the Columbia actuarial program having students from more than 20 countries and six continents, the students were a very diverse group. The Bermuda reinsurance market is equally diverse with students meeting executives from a variety of countries worldwide working together to meet a common objective. The 80 people that they met came from close to 20 countries.

## BEYOND REINSURANCE

Although the trip was scheduled to be a four day meeting marathon, several students stayed on the island to enjoy some of the tourist aspects of Bermuda. Some students even spent additional time meeting with companies that they met earlier in the week.

On a personal note, I was fortunate enough to experience this trip with my daughter (oldest of four kids), who is a sophomore at Fordham University. She joined me on this trip to Bermuda, but did not attend any of the meetings other than the cocktail hour hosted by BILTIR. Instead, she scouted out the island during the four day trip and identified a variety of activities and cultural events. The island has a large artistic and culinary community with my daughter meeting famous local artists as well as attending chef competitions (I was able to attend a couple of events including the cooking competition). We met many local people in the culinary field, news media, and artistic community with a mix of local Bermudians plus many transplants from other countries (United Kingdom, Canada and many other nations). All of them were very friendly and made the trip a great experience.

## TRIP ORIGATION

The genesis of this trip began last year when a few students elected to go to Bermuda on Spring break and one of the students, Grace Feng Wu, contacted me while on break to see if we can introduce her to a company in Bermuda so that they can learn more about the market. These students had previously studied the health care and reinsurance system in Bermuda in classes at Columbia that I taught with Donald Rusconi, and it spurred an interest to visit Bermuda. (Bermuda was one of the 24 countries studied in a Columbia class called “Global Perspective of the Health Insurance Market.”)

On very short notice, I had contacted Marc Grandisson at Arch Capital Group. He and the team at Arch were

willing to meet with students and returned with positive feedback.

The Columbia University Student Actuarial Club asked Ken Mitchell (Mitchell Actuarial Recruiting and an executive recruiter for Columbia University) and me to develop a similar trip for 2014. Ken and I reached out to the reinsurance community in Bermuda and got a positive response.

## STUDENT PREPARATION

Prior to the trip, students were provided an overview of the international reinsurance market including the history of the Bermuda reinsurance economy. Students attended seminars on reinsurance and also training specific to the Bermuda reinsurance market. The University established educational sessions for students about traveling to Bermuda with focus on the cultural and business ethics specific to the country. The students also had the benefit of having two native Bermudian students that were in Columbia’s program participate on the trip.

The weather was in the high 60s/low 70s Fahrenheit, which was ideal after enduring this past winter in New York. Other than some minor rain during one morning, the days were clear and sunny making traveling on the island easy with students walking to many of the meetings.

## THE FUTURE

Based on the experience and feedback from students, we look forward to doing future trips with students to Bermuda. We hope to meet with many of the same companies plus additional ones so that students can expand their reinsurance knowledge and career development.

### SPECIAL THANKS AND ACKNOWLEDGEMENTS

On behalf of Aquarius Capital and Columbia University, M.S. in Actuarial Science, we want to thank the following organizations for their participation in this education program.

- ACE Tempest Life
- Aon
- Arch Capital Group
- Athene Life Re
- Axis
- Bermuda Foundation For Insurance Studies
- Bermuda International Long-Term Insurers and Reinsurers (BILTIR)
- Bermuda Monetary Authority (BMA)
- Catlin Insurance Company
- Credit Suisse
- Deloitte
- Ernst & Young
- Front Street Re
- Hannover Re
- Lancashire Group
- Liberty Mutual
- Montepelier Re
- Platinum Underwriters Bermuda
- PriceWaterhouseCoopers (PWC)
- Renaissance Reinsurance
- Safe Harbor Re
- Standard Life
- Tokio Millennium Re
- Transamerica
- Validus Holding
- Wilton Re

The companies above provided extraordinary hospitality. We appreciate the reinsurance community's willingness to share their time and experiences with our students, especially the individuals and executives that gave their valuable time to educate and enhance the experience for the students.

Additional thanks to Donald Rusconi, VP & CFO at Aquarius Capital for his work in this joint effort, and to Noor Rajah and Lina Xu, faculty at Columbia University, for their assistance in getting things in motion and for trusting us to create a unique program for Columbia's graduate students.

In addition to the participating companies, ***WE*** want to thank the other faculty and student services department at Columbia University for their assistance on this trip as well as some of the vendors and consultants used by Columbia. Additional thanks to the following:

- Renaissance Management, Inc. for assisting and coordinating the trip and facilitating training for students prior to the trip
- LICAS for their assistance in communications technology support in order to manage and facilitate meetings
- Mitchell Actuarial Recruiting for their assistance in reaching out to prospective companies that participated in the education forum for students
- Sylvia Oliveira of Wilton Re Bermuda and a board member of BILTIR for her assistance in recruit-

ing participating companies and establishing a cocktail hour for students to meet reinsurance professionals.

- Grace Feng Wu, a graduate of the Columbia program, who helped set this trip in motion in the beginning of 2013, and encouraged the Columbia Actuarial Student Program to pursue this education trip during the students' spring break in 2014.
- Arch Capital Group for making the 2013 education trip a success for the three students that visited Bermuda, which ultimately lead to this larger trip involving 26 companies in 2014.

The number of people to thank on this trip between the Bermuda companies and those in New York to make this happen is over 100 people, so my apologies if I missed anyone. A special thanks to the Columbia University graduate students that went on this adventure to Bermuda rather than relaxing on their spring break. The students were very engaged in making this education trip a success. I look forward to future meetings.

#### **ABOUT COLUMBIA'S ACTUARIAL PROGRAM**

Columbia University was founded in 1754 as King's College by royal charter of King George II of England. It is the oldest institution of higher learning in the state of New York and the fifth oldest in the United States. The Masters of Science in Actuarial Science program was formed in 2006. It is an 18 month intensive program with students taught by practicing actuaries and insurance experts. The program currently has 23 credentialed actuaries as faculty (three full time and 20 part time professors).

Each fall, the program enrolls between 75 to 100 new students with students representing more than 20 different countries including the US (approximately 30 percent), Bermuda, Canada, China, Cyprus, Germany, India, Italy, Japan, Korea, Spain, Taiwan, Thailand, United Kingdom, and many others.

The core curriculum includes classes to help students with the associate level exams for SOA & CAS plus earn all Validation by Educational Experience (VEE). It also has specialty courses with more than 30 comprehensive electives focusing on topics including property/casualty, pensions, life insurance, reinsurance, and health insurance with training in pricing, valuation, mergers & acquisition and other financial disciplines internationally.

As part of the curriculum, students attend regular (twice per week) seminars and training from industry experts in actuarial science and insurance/reinsurance industry and will be attending more than sixty (60) seminars by the time they graduate. This program is referred to as ProSeminar. Sample organizations that participate in ProSeminar include AIG, Aon Hewitt, Aquarius Capital, Athene Annuity & Life, AXA/Equitable, Deloitte, Emblem Health, Marsh/Oliver Wyman, MetLife/ALICO, Milliman, NAIC, New York Life, Presidential Life, PricewaterhouseCoopers, Prudential Insurance, Société Générale, Society of Actuaries (current SOA President), Swiss Re and many others. Students are also able to attend presentations from world leaders and economists (e.g., chief economist of the China Banking Association).

Students are also mentored to develop critical business communication skills and presentations. They work in a team environment and research with practitioners. Mentors come from a variety of backgrounds including former presidents of SOA, and active CEOs and Chief Actuaries of large insurance/reinsurance companies. Furthermore, many organizations (U.S. and international) in the actuarial, insurance, and banking industries have partnered with the Columbia University Actuarial Program with more than fifty organizations providing internship programs to Columbia students.

Visit <http://ce.columbia.edu/Actuarial-Science> for further details of the Columbia program. □