



ANNUAL REPORT

AFRICAN INSTITUTE OF
FINANCIAL MARKETS AND
RISK MANAGEMENT

2016

DIRECTOR'S MESSAGE

AIFMRM's third year of operation has, once more, been inspiring, challenging and productive. This brief report contains a description of some of our activities for the year. There were numerous highlights in 2016, but producing the first cohort of graduates from our new MCom in Risk Management of Financial Markets stands out. The students were fantastic, and we are deeply satisfied with their results.



Each year, I like to use this opportunity to express our gratitude and appreciation to our donors, Liberty, ABSA/Barclays Africa and FirstRand, and their representatives, Brian Kipps, Colin Iles and Miné van Zyl, for their financial support, strategic guidance and trust as we pursue our vision and fine-tune our strategy together. We are excited to welcome our new donors, Nedbank and Old Mutual, to the Board from 2017 and look forward to a long and rewarding partnership.

I would also like to express my gratitude to my colleagues in AIFMRM and the various staff in the Faculty of Commerce who supported the Institute during this year; particularly the efforts of everyone who assisted us during the student protests. These disruptions brought university operations to a halt for over two months and had significant after-effects, some of which we have only partially mitigated.

Sincerely,

Professor David Taylor, Director – AIFMRM

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students in the inaugural MCom class

238%

increase in MCom applicants for 2017



Research & Industry Relevance

67%

increase in PhD students (6 to 10)

13

journal publications

3

new Postdoctoral Research Fellows



Public Events & Outreach

18

postgraduate students from 6 universities

20

experts from 4 continents



In the Media

R 4m+ worth of media coverage (Advertising Value Equivalent)

1

television slot

7

opinion pieces

8

press releases

13

radio interviews



Who is AIFMRM?

WHAT PEOPLE ARE SAYING ABOUT AIFMRM

"Government has aligned itself with AIFMRM's thinking and agreed to the implementation of 'Professional Master's degrees'. These degrees have different educational outcomes to traditional Master's programmes and allow for much more flexibility in their research component and the methods of assessment. In essence, Professional Master's degrees are specialised, high-level apprenticeships. This can produce 'day-one ready' graduates who do not need a year or more of business immersion to contribute in a meaningful way."

**Professor David Taylor,
Director of AIFMRM**

"The intensity of the degree was matched by the support and guidance of the faculty members. Their teaching went beyond the classroom. I learned to be patient, professional, and how to present myself to the wider world. I learned to have an opinion and seek out discussions because there is no harm in a second opinion, and you might just learn something new."

**Gareth Schumann,
MPhil Mathematical Finance**

"I found that there was a lot of support in terms of securing funding for the degree, as well as networking opportunities with many companies."

**Justin van der Merwe,
MPhil Mathematical Finance**

"The invaluable exposure I gained throughout the year was the largest influencing factor behind my decision to pursue a PhD next year."

**Gobolwakhe Dube,
MCom Risk Management of
Financial Markets**

"All the lecturers were meticulous and required us to respond with their level of detail in exams. I've come to know that difficulty means there's something to learn, and learning that 'something' makes you realise that you are taller than you thought you were."

**Thabo Tokwe, MPhil
Mathematical Finance**

"Usually graduates have no idea what to expect in the workplace, but with us, that is not the case. The practicality of this course helped me acquire skills that I did not have after my undergrad, such as presentation skills, networking skills, coding and research. It is a privilege to have been in the first group of students to take part in this programme."

**Relief Nonyane, MCom Risk
Management of Financial Markets**

"Participating in the Financial Mathematics Team Challenge is good for students' CVs, with recruiters showing interest and prospective employers taking notice of these students almost immediately. This competition provides a framework for students to gain experience in teamwork, cooperation, managing projects, and gaining insight into real-world problems. All of these are qualities that are highly valued by employers in our sector."

**Professor Josef Teichmann,
ETH Zürich**

"This course equipped me with the necessary technical, methodological, regulatory and research skills for financial market risk management and, most importantly, it enhanced my soft skills. Through the externship, current issues seminars and social outreach programmes, I gained the ability to do presentations, work in a team and collaborate."

**Lefa Selepe, MCom Risk
Management of
Financial Markets**

"The MCom degree was designed as an occupational qualification, targeting the risk manager profile, and contains a component of workplace skills learning. We believe it is vital for students to be exposed to the practical application of their qualification in a workplace setting."

**Paulette Bourne,
Work Integrated Learning and
Bursaries Manager at BANKSETA**

EDUCATION & TRANSFORMATION

In its third year, AIFMRM's degrees have grown in stature and ranking. The MPhil in Mathematical Finance is now ranked 46th out of 100 Master's degrees in Financial Markets worldwide, up from 50th position in 2015. 2016 was the inaugural year for the MCom in Risk Management of Financial Markets, developed after extensive consultation with the financial services sector, and designed to match the needs of the industry. AIFMRM also offers three online short courses, in collaboration with GetSmarter. Through all its offerings, AIFMRM is committed to addressing skills shortages and contributing to the transformation of the financial services sector.

314

short course participants



17

students in the inaugural MCom class



238%

increase in MCom applicants for 2017



3

online short courses offered



Students attending a guest speaker presentation.

Online learning gains momentum

In collaboration with the Faculty of Commerce's online learning partner, GetSmarter, AIFMRM offers three, not-for-credit online short courses aimed at working professionals:

Business Risk Management 10 weeks

Provides a comprehensive overview of enterprise-wide risk management. BRM ran 4 times during 2016 with a total of 167 participants.

Foundations of Financial Markets in South Africa 8 weeks

Designed for buy-side and sell-side individuals operating in the financial services and investment industries. FFMSA ran 5 times during 2016 with a total of 97 participants.

Advanced Business Risk Management 8 weeks

An advanced course that offers a comprehensive simulation of the risk management process. ABRM ran 3 times during 2016 with a total of 50 participants.

MPhil climbs the rankings

UCT is still the only African institution to appear on the prestigious Eduniversal Best Master's in Financial Markets top-100. This year, AIFMRM's MPhil in Mathematical Finance climbed to 46th place.

Eduniversal Best Master's in Financial Markets

50TH → 46TH

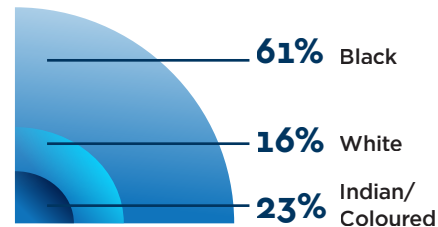
The MPhil degree continues to grow in stature. There were over 90 applicants for a limited number of places for the 2016 academic year. The class had a packed schedule of events throughout the year with donors and sponsors RMB/FirstRand, Nedbank, Deloitte, Standard Bank, ABSA/Barclays, FIS and Liberty. These events provided rare opportunities for interaction and an explanation of corporate internships and graduate recruitment programmes. Six students completed corporate internships during the June/July break, and nine participated in the Financial Mathematics Team Challenge. Graduates of the MPhil degree continue to be in high demand. The companies employing 2016's graduates include Deloitte, Nedbank, Barclays Africa, OMSFIN, Sanlam, and FirstRand.

MCOM: NEW DEGREE FLIES HIGH

The first year of the MCom in Risk Management of Financial Markets degree got underway with considerable excitement in February 2016 with 17 bright and engaged students in the class. Student feedback indicates that the year was challenging but rewarding. The coursework is specialised and intensive, and smaller classes enable individual mentoring of students.

AIFMRM spent over a year developing the MCom curriculum in consultation with industry experts. The degree is an academic intervention that matches the needs of the financial services sector as closely as possible. It addresses the industry's skills gaps by producing graduates who are technically competent, mature of mind and attitude, and able to contribute meaningfully to their company from the outset. Annual curriculum development includes input from risk management practitioners.

Demographics of successful applicants for 2017



Applicants



"The objective of the externship is to expose students to practical business or social problems, and for them to apply innovative and inventive approaches to analysing and solving these problems."

Professor David Taylor,
Director of AIFMRM

BANKSETA boosts new degree

In 2016, AIFMRM signed a Memorandum of Agreement with BANKSETA that saw the statutory body provide over R2.5 million in scholarships for students enrolled in the new MCom degree. BANKSETA has granted the Institute a further R8 million in scholarship funding for students on both the MPhil and MCom degrees for 2017.

"The Agreement is an outcome of our strategy to support public higher education institutions in response to the needs of registered employers in our sector."

Paulette Bourne,
Work Integrated Learning and
Bursaries Manager
at BANKSETA

Experience + Experiment + Exposure = Externship

The MCom in Risk Management of Financial Markets has moved to put the "ex"perience into its internship programme via an innovative and practical format. The renamed "externship" programme inspires creativity and originality. Although it does not form part of the formal assessment of the degree, it is crucial to producing work-ready graduates.

Each team of students works with a separate company on a unique problem. Teams have four weeks for research and problem solving, and two weeks for assessment and feedback. The teams each produce a report that details their analysis, approach, solutions, and recommendations, and presents their findings to their peers and mentors. The value of the externship lies in its format. The students work in groups where they apply common sense, knowledge, resources and analytical skills to determine an outcome, thus mimicking the project process in the workplace.

RESEARCH & INDUSTRY RELEVANCE

AIFMRM's driving motivation is to address skills shortages in the financial services sector. In addition to training Master's students, the Institute oversees significant amounts of research carried out by Master's and PhD students, as well as by its academic members. Industry co-supervisors regularly propose Master's dissertation topics, which aids in ensuring that the research has relevance. The Institute remains current by collaborating with the broader financial services sector and leading global academic institutions. The annual Financial Mathematics Team Challenge, now in its fourth year, plays a vital role here. AIFMRM also promotes continuing education in the sector through industry and policy forums, seminars and masterclasses.



13

journal
publications



67%

increase in
PhD students
(6 to 10)



3

new
Postdoctoral
Research
Fellows

Audience members listening to an analysis of the financial crisis by Professor Erik Schlögl.



ACQuFRR gets full 5-year accreditation

AIFMRM's research unit, the African Collaboration for Quantitative Finance and Risk Research (ACQuFRR), coordinates the research related activities of the Institute. ACQuFRR received full five-year accreditation from the University Research Committee (URC) in February 2016.

All approved research units at UCT need to undergo periodic review by the URC, which forms a critical part of quality control within the university.

Part of ACQuFRR's role is to coordinate the dissertations for the MPhil in Mathematical Finance, and to provide a home for PhD students in quantitative finance and other

areas of economic and financial risk. AIFMRM PhD students and Postdoctoral Research Fellows are automatically members of ACQuFRR.

Membership of ACQuFRR extends well beyond AIFMRM to include researchers in quantitative finance, mathematical finance and their allied disciplines at UCT, collaborating universities, and in industry.

Award-winning Director

Professor David Taylor won the Investment Analyst Society of South Africa's "Best Research Paper Published in the Investment Analysts Journal in 2014". The paper was titled *Modelling South African Single-Stock Futures Option Volatility Smiles*.



Financial Mathematics Team Challenge 2016



The 3rd Financial Mathematics

Team Challenge took place from 30 June to 11 July 2016 at UCT. This highly successful collaboration between AIFMRM/ACQuFRR and University College London is an extraordinary opportunity for students to work with world-class local and international academics.

Five teams of Master's and PhD students from France, Australia, South Africa and the UK took part in the 2016 challenge. Professional and academic experts from UCT, University College London, Rand Merchant Bank, the University of Technology Sydney, ETH Zürich, the Université d'Évry-Val-d'Essonne and the University of Vienna mentored the teams.

The students applied themselves with exceptional commitment and energy and delivered quality solutions to some of the toughest challenges in the finance sector. During the final two days, teams presented their conclusions in extended seminar talks.

This year's winning team worked on a problem related to Model Risk. "All financial services companies use models for pricing and risk management. This exposes them to the risk that the model is 'wrong', which it almost always is", explained AIFMRM Director, Professor David Taylor. "Model Risk is currently a 'hot' topic because it appears in the Basel regulations, and companies must mitigate it with a capital provision."

Each team produced a lengthy report containing a critical analysis of their problem and their results. ACQuFRR published the reports in a combined volume.

Winning team leader Ralph Rudd, being awarded the trophy.



ACQuFRR seminars and masterclasses in 2016

ACQuFRR holds a weekly seminar series during term-time, presented by UCT academics, visiting local and international scholars, and industry practitioners. PhD students and Postdoctoral Research Fellows also present their research in this forum. The research unit frequently hosts research events, some of which are intended for industry specialists. These events are a valuable resource and enable participants to stay abreast of current industry and academic research.



ACQuFRR Special Seminar: Lawyers, Maths and Money - Lessons for quantitative analysts from a Federal Court of Australia judgment in the aftermath of the Global Financial Crisis

Professor Erik Schlögl (University of Technology Sydney)

ACQuFRR/Avior Research Seminar: Fundamentals of Credit Risk Modelling for Counterparty Credit Risk Assessment and Valuation

Professor Erik Schlögl (University of Technology Sydney)

ACQuFRR/Avior Research Seminar: Rational Multi-Curve Interest Rate Modelling and Counterparty Risk

Dr Andrea Macrina (University College London) and Mr Obeid Mahomed (AIFMRM)

ACQuFRR Masterclass: Real Options, Capital Budgeting and Strategy

Professor Peter Ritchken (Case Western Reserve University)

ACQuFRR/Rand Merchant Bank Masterclass: Catching up with Emerging Markets

Dr Andrea Macrina and Dr Gareth Peters (University College London) and Mr Obeid Mahomed (AIFMRM)

PUBLIC OUTREACH & EVENTS

AIFMRM hosts public events, seminars, workshops and panel discussions to encourage debate and engagement on topical issues relevant to the financial services industry and academia. In 2016, a panel discussion on the feasibility of free higher education led to a constructive analysis of this controversial topic. Financial literacy workshops were delivered by MCom students as part of their outreach programme. AIFMRM also hosted a "Financial Intermediation in Emerging Markets" Conference, which attracted over 20 leading experts from Africa, Europe, the US, and Asia. Additionally, AIFMRM hosted a "Risk Management as a Career" evening and a well-attended Economics Postgraduate Summer School.

729
LinkedIn
group members



62

"Risk Management
as a Career" event
participants

Shaylen Trikamjee from
Barclays Africa talking to
prospective students at
the "Risk Management as
a Career" event



Barclays
Africa

"Risk Management as a Career"

*Kim Buker from Liberty,
guest speaker at the
career event*

AIFMRM and the UCT Careers Service co-hosted the second annual Panel Discussion and Industry Q & A on Risk Management on 18 August 2016. The evening serves to promote the MCom in Risk Management of Financial Markets to UCT students who may be interested in the field. Students had the opportunity to interact with a variety of practitioners in areas of risk management in financial services companies.



AIFMRM Panel Discussion: Should we finance free higher education in SA?

Should we have free tertiary education, and how could this be financed? A team of experts in education, finance and economics at AIFMRM's panel discussion attacked this difficult question on 28 October 2016. The answers were surprising – beginning with a challenge of the very concept of free education.

The event, held during the period of disruption and protest, attracted considerable interest, with 170 students, academics and members of the public in attendance. The panellists and panel chair, all recognised and respected figures, gave 15-minute presentations on this highly controversial topic. A constructive and interesting hour and a half Q&A session followed.

Panellists

Mr Michael Sachs (DDG: Budget Office, National Treasury)

Professor Nico Cloete (Centre for Higher Education Transformation and the University of the Western Cape)

Professor Servaas van der Berg (University of Stellenbosch)

Dr Co-Pierre Georg (AIFMRM)

Panel Chair

Koketso Sachane (Heart 104.9FM)

Financial Intermediation in Emerging Markets Conference

AIFMRM, Economic Research Southern Africa (ERSA), Imperial Business School and the Review of Finance hosted a conference at UCT from 8 to 10 December 2016. The conference addressed the challenges faced by financial intermediaries in emerging markets, and will lead to a Special Edition of the Review of Finance. Keynote speakers included Professor Manju Puri from the Fuqua School of Business at Duke University, and the South African Reserve Bank Governor, Lesetja Kganyago.

20 experts from 4 continents



AIFMRM Economics Postgraduate Student Summer School 2016

AIFMRM held an Economics Postgraduate Student Summer School for PhD and Master's students registered at South African universities in Economics, Finance, or closely related fields. The summer school ran from 16 to 22 December 2016 at UCT.

18 
postgraduate
students
from 6 
universities

Professor Ben Golub (Harvard University) taught a two-day course on Interconnectedness, which covered the basics of network analysis in economics.

Professor Katharina Pistor (Columbia University) taught a two-day course on Law and Finance, which introduced the students to this area.

Dr Co-Pierre Georg (AIFMRM) delivered a one-day Introduction to Empirical Banking in Emerging Markets, which acquainted the students with the relevant literature, methods, and available data sources in South Africa.

SA consumers owe as much as 3/4 of their monthly pay to creditors

77% are flat broke at the end of the month

60% struggle to pay monthly home loans and credit cards

Source - Debt Rescue



Student outreach

Students from AIFMRM, with our partners Ndima Yam, Phaphama and the American Corner, hosted a series of social outreach events and financial literacy workshops around Cape Town. Different workshops were aimed at general consumers, entrepreneurs and disadvantaged members of society.

Viwe Sakela, head of Phaphama, said young people in townships who are trying to start businesses need financial advice. Many of these entrepreneurs have not gone to university, and their motivation to start a business is to make a living. "The challenges are basic, but crucial," says Sakela. "It is about operational issues, like keeping track of money or the need for proper bookkeeping." AIFMRM students worked with Phaphama to offer mentoring and financial advice. Sakela said a little information made a huge difference to the lives of these budding businesspeople.

Kevin Rodrigues, an MCom student and organiser of the events, noted that financial experts often work with sophisticated concepts and instruments, and in an environment where it is easy to miss the impact financial institutions have on consumers and entrepreneurs.

IN THE MEDIA

Throughout the year, AIFMRM provides valuable commentary and analysis through press releases and opinion pieces in key media.

R 4m+ worth of media coverage
(Advertising Value Equivalent)



1 television slot



7 opinion pieces



8 press releases



13 radio interviews



WHO IS AIFMRM?



David Taylor
Director



Peter Ouwehand
Associate Professor



Co-Pierre Georg
Senior Lecturer



Abhik Mukherjee*
Senior Lecturer



Obeid Mahomed
Lecturer



Thomas McWalter
Adjunct Associate Professor



Tanja Tippet
Adjunct Associate Professor



Lizzy Starck*
Administrative Officer



Lameez Fakier
Administrative Officer

***Dr Abhik Mukherjee** will join the Institute as a Senior Lecturer in February 2017. He recently completed a PhD in the College of Management at the École Polytechnique Fédérale de Lausanne (EPFL), Switzerland under the supervision of Professor Luisa Lambertini. Abhik also has two Master's degrees, an MSc in Management of Technology and Entrepreneurship from EPFL and an MS in Chemical and Biological Engineering from Colorado State University. His research interests include financial intermediation, banking, regulation, and monetary policy.

***Lizzy Starck** joined AIFMRM as its Administrative Officer in April 2016.

AIFMRM Board

AIFMRM has a Governance Board, which includes the Director and representatives of the three major donors. The Board is chaired by the Dean of the Faculty of Commerce and the Director is responsible for implementing its decisions. Regular meetings and communication ensure that the oversight provided by the Board influences the strategic direction of AIFMRM.

**African Institute of Financial Markets and
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