

SIMON FRASER UNIVERSITY
Senate Committee on University Priorities
Memorandum

TO: Senate

FROM: John Waterhouse
Chair, SCUP
Vice President, Academic

RE: Faculty of Business Administration:
Full Program Proposal for a Master's of
Financial Risk Management
(SCUP 08-10)

DATE: March 6, 2008

At its February 27, 2008 meeting SCUP reviewed and approved the full program proposal for a Master's of Financial Risk Management from the Faculty of Business Administration.

Motion

That Senate approve and recommend to the Board of Governors, the Full Program Proposal for a Master's of Financial Risk Management in the Faculty of Business Administration.

encl:

c: E. Bukszar, G. Blazenko

MEMO

Dean of
Graduate Studies

STREET ADDRESS
Maggie Benston Student
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To Senate Committee on University Priorities

ATTENTION Sarah Dench

TEL

FROM Jonathan Driver, SGSC

RE Faculty of Business Administration: New program proposal

Master of Financial Risk Management (GS2007.44)

DATE February 11, 2008

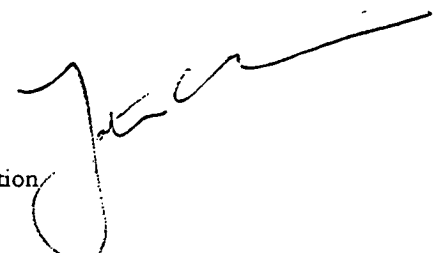
TIME 1:09 PM

At its 19th November 2007 meeting SGSC considered the full program proposal for a new degree program in the Faculty of Business Administration: Master of Financial Risk Management. This proposal has been reviewed externally, and the Assessment Committee for New Graduate Programs recommends that it be approved. SGSC makes the same recommendation, noting that the program received good reviews, that changes recommended by ACNGP had been made, and that it has been running successfully as a cohort special arrangements program for a few years.

One issue emerged during SGSC discussions. The Faculty of Business Administration and the Library do not agree about the library costs of establishing this program. SGSC was reluctant to hold up the proposal over what appears to be a relatively minor resource issue. We have therefore asked Business and the Library to resolve the issue before the program is debated at SCUP. I am happy to report that the Library and the Faculty of Business Administration have reached an agreement.

I am forwarding this program proposal to SCUP, with the recommendation that the program be approved. In addition to the full proposal, I also enclosed course outlines, external reviews of the program, and curriculum vitae of the faculty.

c: E. Bukszar, Business Administration



MEMO

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TO Jon Driver, SGSC

TEL

FROM George Agnes, ACNGP

RE Professional master's program proposal

Master of Financial Risk Management

DATE November 8, 2007

TIME 10:45 AM

At the ACNGP meeting of 9th October 2007 the committee unanimously recommended that the proposed professional master's program, Master of Financial Risk Management, in the Faculty of Business Administration, be forwarded to SGSC, with the recommendation that it be approved, pending the following revisions to calendar entries:

1. Update the program description, remove the application deadline, and revise the language for admission requirements (Appendix F).
2. Revise the course descriptions, conforming to university requirement for calendar entry (Appendix B).

These changes have now been made and the concerns raised by ACNGP have been addressed.



PROPOSAL FOR MASTER'S PROGRAM IN FINANCIAL RISK MANAGEMENT

7 February	2007	"Notice of Intent" and supplementary information approved "in-principle" by Senate Committee on University Priorities
6 November	2006	Received by Dean of Graduate Studies
5 March	2007	Reviewed by Assessment Committee for New Graduate Programs
8 March	2007	Received revised program proposal from Business Administration
1 June	2007	Sent proposal to external reviewers by Dean of Graduate Studies
20 September	2007	Received three external reviewers' reports by Dean of Graduate Studies
20 September	2007	Sent external reviewers' reports to Business Administration by Dean of Graduate Studies
1 October	2007	Received response to external reviewers' reports from Business Administration
9 October	2007	Reviewed and approved by Assessment Committee for New Graduate Programs
8 November	2007	Received revised proposal by Dean of Graduate Studies
8 November	2007	Submitted to Senate Graduate Studies Committee

MEMO

Dean of
Graduate Studies

STREET ADDRESS
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TO	Ed Bukszar, Business Administration	TEL	24255
FROM	George Agnes, Chair, ACNGP		
RE	Professional master's program proposal		
Master of Financial Risk Management			
DATE	October 19, 2007		

TIME 3:25 PM

Thank you for your presentation at the ACNGP meeting on October 9th 2007. The committee was pleased with the explanations you provided at the meeting and recommends the following modifications of the professional master's program proposal - Master of Financial Risk Management (MFRM) in the Faculty of Business Administration to go forward to SGSC.

Calendar entry

- 1) Review and update the program description (Appendix F, page 13), e.g., describe why and how the Master of FRM is unique in Canada.
- 2) Remove the application deadline – this is typically posted on website.
- 3) Admission requirements – Specifics on page 5 of the program proposal are not evident in the calendar entry. When requirements do not differ from university requirements, e.g., CGPA 3.0 and language requirement on pages 13-14, reference to the general graduate regulations, or no reference to, is appropriate.
- 4) Course descriptions - since the meeting, I have learned that calendar entries are now subject to 4 lines or less of text.

Please send us a copy of the revised proposal and I will forward the recommendation to SGSC.

Thank you for your hard work on the proposal.

Full Program Proposal

for a

Master of Financial Risk Management

To be offered by the

Faculty of Business Administration

Simon Fraser University

Master of Financial Risk Management

Executive Summary

The Faculty of Business Administration at Simon Fraser University is currently offering a specialized MA in Financial Risk Management ("FRM") under cohort special arrangements. This full program proposal seeks to regularize this offering pursuant to current university and ministry requirements.

The development of this program is in response to current trends in the financial services industry. The rapid globalization of business and the escalating volatility of the financial markets have led to an increasing demand for professionals who possess the skills to help firms more efficiently manage their exposure to both financial and non-financial risk.

The development of this program has greatly benefited from the guidance of a strong Business Council that was established for the GAWM MBA program.

The formal part of the program is 42 credit hours over three academic terms. In addition to the formal curriculum, there are extensive extra-curricular activities, including participation in the risk management and compliance functions of the Student Investment Advisory Service ("SIAS") and an Executive Speakers Series.

The FRM program has been offered entirely at our Segal Graduate School of Business location.

This program is currently run as a single cohort of approximately 20 to 25 students. Approximately one third of the curriculum is combined with students in the GAWM MBA program. We do not expect expected to admit more than 40 students in total for both programs for September 2007 but may increase this number in subsequent years.

Admissions are based on undergraduate grades, GMAT, letters of reference, work experience and an in-person or telephone interview. For our first two intakes, we received approximately 4 applications for each available spot in the incoming class.

Background

The Faculty of Business Administration at Simon Fraser University is currently offering a specialized MA in Financial Risk Management ("FRM") under cohort special arrangements. This full program proposal seeks to regularize this offering pursuant to current university and ministry requirements.

The development of this program is in response to current trends in the financial services industry. The rapid globalization of business and the escalating volatility of the financial markets have led to an increasing demand for professionals who possess the skills to help firms more efficiently manage their exposure to both financial and non-financial risk. New employees in the field of Risk Management must master the fundamentals of finance, direct investment activities and cash management strategies. Acquiring the skills to properly address these requirements has become a high priority, as these critical qualifications can greatly contribute to the overall effectiveness and success of an organization.

Effective risk management also requires broad and technically sophisticated skills. Identifying and efficiently managing various types of risks has become an issue of paramount importance in the financial services industry, as the strategic aspects of risk management can significantly influence the overall investment strategies currently employed. Today's financial managers are becoming aware of the acute necessity of employing advanced risk management strategies in their quest to achieve superior results, and in keeping abreast of contemporary technological advances. The daunting task of minimizing the losses, which might arise from financial transactions and business operations undertaken by institutions, has become an imperative for the Risk Manager. The firm has to be able to astutely ascertain the appropriate strategy for each individual situation. Therefore, we believe that this emphasis on technical abilities warrants the introduction of our new and innovative program in Risk Management.

We would note as well the new capital adequacy framework commonly known as Basel II Accord, which sets the guidelines for securing international convergence on revisions to supervisory regulations governing the capital adequacy of internationally active banks. This accord is relevant to the area of risk management because, by implementing more judicious risk management procedures, the banks will improve their ability to lower capital reserves requirements, therefore increasing the total resources available for investments and/or capital supply for further economic expansion.

The development of this Master's degree will certainly capitalize on synergies with our existing Global Asset & Wealth Management program as well as the considerable faculty skills in other SFU Faculties that can address important aspects of the overall treatment of risk felt needed in the program.

The mission of SFU's Master's program in Financial Risk Management is to provide a high level of expertise in both the quantitative and strategic aspects of risk management. Students will obtain leading edge technical skills through courses in financial theory. They will also develop skills in specialized topics of risk management through courses in market,

operational, credit and insurance risk. Graduates will be well prepared to identify, implement and monitor systems for managing the range of risks that confront firms in the financial services industry.

Strong interest in our program has also been evidenced by the organizations listed in Appendix A which are members of our GAWM MBA Business Council. In many of these organizations the practice of risk management is fundamental to their success. As such, we would anticipate the continued strong support of the Business Council in advising and shaping the development of this Risk Management program.

We would note several developments in conjunction with the Faculty that are linked to this program.

- As part of the development of the Segal Graduate School of Business, the CIBC Centre for Corporate Governance and Risk Management has received seed funding from the Canadian Imperial Bank of Commerce and both the Canadian Institute of Chartered Accountants (CICA) and the Institute of Chartered Accountants of British Columbia (ICABC). While a broader focus on risk management than the program being proposed here, clearly there is considerable overlap. Already a key paper on the governance of closely held Canadian firms has received a \$10,000 award in corporate governance research from Barclays Global Investors Canada Research Awards.
- One of the activities of the above Centre currently is a non-credit program to be delivered to the business community in Corporate Governance. This program is to be delivered in conjunction with both University of Toronto's Rotman School of Management and UBC's Sauder School of Business.

The above activities are included here to indicate our developing involvement in the arena of risk management and corporate governance, leveraging from our GAWM program.

We have received strong endorsements of our plans from a number of the members of the Business Council and other industry professionals, an example of which is as follows.

"As a leading provider of global financial solutions, we are acutely aware of the growing demand for individuals possessing highly developed skills in the area of Financial Risk Management."

Farhan A. Hamidani, MBA
Dundee Wealth Management
Toronto, ON

The Risk Management program initiative is consistent with SFU's teaching mandate to provide high quality graduate programs that advance the education of the citizens of BC and

Canada. The research that will be associated with this program is also consistent with our research mandate, particularly in finance, investments and risk management.

Curriculum

The formal part of the program is 42 credits over three academic terms. This new total (as compared to the preliminary proposal which entailed 38 credits) will consist of thirteen full courses (each of 3 credits) and a Project equivalent to an additional full course. The first term is designed to provide foundations in financial economics, econometrics, derivative securities and enterprise wide strategic risk management. The courses in the second and third terms supplement and extend these foundations to various specialized topics such as credit, insurance and market risk. These topics provide the framework from which the students can conduct the Project. The Project will represent successful in-depth research related to the broad range of the program curriculum.

In addition to the formal curriculum, there are complementary activities which will provide important grounding for our students.

- A Speaker's Series will provide opportunities to bring in outside individuals from industry as well as to utilize members of the faculty with particular contributions on selected topics.
- Students will be able to participate in the Risk Management and Compliance aspects of the GAWM Student Investment Advisory Service (SIAS).

Further information on the curriculum as well as brief course descriptions is contained in Appendix B. The sequencing of these courses is listed in Appendix C. All of these courses are currently offered at the university since this program is already operating under cohort special arrangements.

The curriculum in this program is consistent with the research capabilities of the Faculty of Business Administration, in particular, the Finance area. It is expected that student projects may lead to joint publications from time to time.

Learning Methodologies

The FRM program has been offered entirely at our Segal Graduate School of Business location. Administrative offices for the program are at the Segal School as well. We have only full time students in the program, but in order to accommodate the part time students in the GAWM program, the common courses are typically scheduled in the afternoon, evening or on weekends. The learning methodology is primarily through lectures, seminars and tutorials. The extra-curricular activities associated with this program are more experiential, as described above.

Faculty

A list of faculty members teaching or supervising in this program is attached as Appendix D. We also employ visitors, adjuncts and external lectures for some of the courses.

Program Consultations and Evaluation

A key feature of our program is the financial and advisory support of the Global Asset and Wealth Management Business Council. This council consists of senior industry professionals from a select group of financial services and related organizations as listed in Appendix A. The Business Council creates strong links between faculty and students in both the FRM and the GAWM MBA programs at Simon Fraser University and the investment community, and ensures relevance of the program curriculum and the speaker's series.

We regularly discuss the curriculum and the extra-curricular activities at our Business Council meetings. Each summer, the GAWM/FRM program committee reviews the curriculum and discusses what changes may be appropriate.

We expect to continue to enjoy the advisory support of the Business Council for the foreseeable future.

Admission and Residency requirements

Over 100 qualified applications have been received for the limited number of available spots in the first two years of this program (while operating under Cohort Special Arrangements). This strong demand is consistent with the growth in students enrolled in two popular certificate programs in risk management: the Professional Risk Manager and the Financial Risk Manager designations. Each has experienced increases in their enrolment of over 50% per year over the past four years.

The FRM program is a natural step for students who have completed undergraduate programs such as our own BBA degree as well as the B.Comm. degree from UBC and its related Portfolio Management Foundation program.

Admissions will be based on:

- an undergraduate degree in business, commerce, economics, mathematics, physics or other suitable programs. Students also holding a professional designation such as a PRM or FRM and evidence of strong mathematic competency would be ideal candidates. Likewise students with successful completion of the Graduate Diploma in Business Administration offered by Simon Fraser University with a strong mathematical aptitude would be equally qualified for entry;

- a Graduate Management Admission Test (GMAT) Score Report or the Graduate Record Exam (GRE);
- three letters of reference from professors, colleagues, supervisors or significant clients;
- preference will be given to candidates with 2 to 3 years related experience;
- demonstrated proficiency in English may be required if an applicant has not graduated from an English speaking university or if an applicant's first language is not English;
- an in-person or telephone interview by the Admissions Committee.

The Admissions Committee will reserve the right to waive certain qualifications in exceptional circumstances.

Students must be resident in Vancouver for each of the three academic terms in this program.

Other

None.

Additional material required by SFU

1. List of possible reviewers is attached as Appendix E.
2. Proposed Calendar entry is attached as Appendix F.
3. Budget and a recommendation for tuition fees is attached as Appendix G.
4. Course outlines are also attached.
Detailed course outlines available for review by contacting
Bobbie Grant at 778-782-3168 or email bgrant@sfu.ca

Appendix A
Business Council for
MBA in Global Asset and Wealth Management

RBC Global Private Banking

Beutel, Goodman & Company Ltd.

Scotiabank

Phillips, Hager & North Investment Management Ltd.

Connor, Clark and Lunn Investment Management Ltd.

Sun Life Financial

Sceptre Investment Counsel Limited

British Columbia Securities Commission

HSBC Asset Management (Canada) Limited

BC Investment Management Corporation

Industrial Alliance Group

TSX Venture Exchange

VanCity Savings Credit Union

BMO Harris Private Banking

CIBC

APPENDIX B (REVISED)

Proposed Curriculum for Master in Financial Risk Management

BUS 802 *Financial Economics (3 credits)*

An introductory course in the theory of finance, investor behavior, financial decision making under uncertainty as well as capital market equilibrium.

BUS 803 *Financial Econometrics (3 credits)*

Financial econometrics for testing asset pricing models and portfolio performance measurement.

BUS 805 *Capital Markets (3 credits)*

Empirical issues in capital markets for wealth and asset management including topics in behavioral finance, and performance measurement and attribution.

**BUS 810 *Fixed Income Security Analysis and Portfolio Management
(3 credits)***

The term structure of interest rates, fixed income returns, yield-spread analysis, sources of risk in fixed income securities, and embedded options.

BUS 814 *Derivative Securities (3 credits)*

An introductory course in derivative securities that includes pricing as well as the use of derivative securities in portfolio management and structured transactions.

BUS 818 *Advanced Topics in Business Finance (3 credits)*

Extensions of advanced topics beyond those covered in BUS 802 and 805.

BUS 857 *Numerical Methods (3 credits)*

Computational tools for financial analysis, financial engineering and risk management.

BUS 863 *Operational Risk Management (3 credits)*

Tools for identifying, measuring, monitoring and mitigating operational risks. Techniques include causal modeling and simulation.

BUS 864 *Credit Risk Management (3 credits)*

Credit risk management with emphasis on portfolio models, including probability of default and loss given default models, credit capital allocation, active portfolio management, credit derivatives, and structured transactions.

BUS 865 *Market Risk Management (3 credits)*

Value at risk, advanced market risk models, statistical models, stress testing, scenario analysis, and risk-adjusted performance measurement.

BUS 866 *Enterprise-wide Strategic Risk Management (3 credits)*

Strategic risks facing organizations and the economic forces driving strategic hedging with an analytical framework for measuring industry and firm structure and financial market volatility.

BUS 868 *Perspectives on Risk and Insurance (3 credits)*

Economic principles, concepts, and practice of risk and insurance.

BUS 869 *Topics in Risk Management (3 credits)*

Integrative and topical issues in financial risk management.

BUS 870 *Final Project for FRM Students (3 credits)*

A risk management research project, completed within the final academic term, based on ideas generated in previous terms, with in-class sessions on topic development, presentation, and reporting of findings as well as regular meetings with a designated supervisor. Project may be done individually or in pairs.

Appendix C

Schedule for the Master in Financial Risk Management

TERM	COURSES (credits)
1—Study	BUS 802: Foundations of Financial Economics (3); BUS 803: Financial Econometrics (3); BUS 814: Derivative Securities (3); BUS 866: Enterprise-wide Strategic Risk Management (3).
2—Study	BUS 805: Capital Markets (3); BUS 810: Fixed Income (3); BUS 818: Advanced Topics in Business Finance (3); BUS 857: Numerical Methods (3); BUS 865: Market Risk Management (3).
3—Study	BUS 863: Operational Risk Management (3) BUS 864: Credit Risk Management (3); BUS 868: Perspectives on Risk and Insurance (3); BUS 869: Topics in Risk Management (3); BUS 870: Final Project (3).

Appendix D

Faculty Members Teaching or Supervising in the Master in Financial Risk Management

Avi Bick	Associate Professor	Finance
Robert Grauer	Professor	Finance
John Heaney	Associate Professor	Finance
Robert Jones	Professor	Economics
Peter Klein	Professor	Finance
Andrey Pavlov	Associate Professor	Finance
Christophe Perignon	Assistant Professor	Finance
Leyland Pitt	Professor	Marketing
Daniel Shapiro	Professor	Strategy
Daniel Smith	Assistant Professor	Finance
Stephen Spector	Lecturer	Accounting
Peter Tingling	Assistant Professor	MIS

Appendix E

List of Possible Reviewers

Dr. Peter Christoffersen
McGill University

✓ **Dr. Gordon Sick**
University of Calgary

Dr. Tom McCurdy
University of Toronto

✓ **Dr. Usha Mitoo**
University of Manitoba

✓ **Dr. Ron Giammarino**
University of British Columbia

APPENDIX F (REVISED)

Proposed Calendar Entry

Master of Financial Risk Management (MFRM)

Segal Graduate School of Business, 500 Granville Street, Vancouver, BC, V6B 5K3
604.268.7962 Tel, 604.291.5122 Fax, mfrm@sfu.ca, www.sfubusiness.ca/mfrm/

Academic Director

George Blazenko, BA (SFU), MA (Western), Ph.D. (UBC), 778.782.7922

Executive Director

D. Cross BA (Qu), MHA (Ott), CHE, 778.782.5023

The rapid globalization of business and escalating volatility of financial markets has increased demand for professionals with skills to effectively manage financial and non-financial risks facing firms. The study of both types of risk makes the MFRM program unique in Canada. MFRM graduates have a solid grounding in the fundamentals of finance, asset pricing, credit, market, operational and enterprise-wide strategic risk management. They measure, mitigate and learn to manage such risks in the global business arena. The MFRM program reflects current trends in the finance industry and continues the heritage of innovation at Simon Fraser University.

The program consists of three full time semesters.

Admission Requirements

Admissions are based on:

- a four year undergraduate degree in business, commerce, economics, mathematics, physics or other suitable quantitatively oriented programs. Candidates holding a professional designation such as a PRM or FRM and evidence of strong mathematic competency would also be ideal candidates. Students with a strong mathematical aptitude who have completed the Graduate Diploma in Business Administration offered by Simon Fraser University would be qualified for admission consideration;
- preference is given to qualified candidates with at least 2 years work experience;
- an in-person or telephone interview with the Admissions Committee;
- proficiency in English.

The Admissions Committee reserves the right to waive qualifications in exceptional circumstances.

Application

Beyond general university graduate requirements, including demonstration of English competency when an applicant's previous education has been in a language other than English, applicants to the MFRM program must submit the following documentation:

- Simon Fraser University's Application for Admission to the MFRM
- a Graduate Management Admission Test (GMAT) Score Report or the Graduate Record Exam (GRE)
- an official copy of transcripts of grades from a four year undergraduate degree (mailed directly from the granting institution)
- three confidential letters of reference (mailed directly from the referees)
- a recent passport style photo
- a current curriculum vitae

Financial Assistance

See "Financial Assistance and Awards" in this calendar for information on university scholarships and awards that are available to graduate students.

Degree Requirements

To qualify for the MFRM degree, students must maintain a minimum average grade of B (3.0 grade point average) and complete courses totaling 42 credits consisting of the following:

Bus 802-3 Financial Economics

Bus 803-3 Financial Econometrics

Bus 805-3 Capital Markets

Bus 810-3 Fixed Income

Bus 814-3 Derivative Securities

Bus 818-3 Advanced Topics in Business Finance

Bus 857-3 Numerical Methods

Bus 863-3 Operational Risk Management

Bus 864-3 Credit Risk Management

Bus 865-3 Market Risk Management

Bus 866-3 Enterprise-wide Strategic Risk Management

Bus 868-3 Perspectives on Risk and Insurance

Bus 869-3 Topics in Risk Management

Bus 870-3 Final Project

Courses Offered by the Program

The following BUS courses are offered for the Master of Financial Risk Management Program: BUS 802*, 803*, 805*, 810*, 814*, 818, 857, 863, 864, 865, 866, 868, 869, 870.

* courses also offered for the MBA in Global Asset and Wealth Management.

Appendix G

Budget and Recommendation for Tuition Fees

Revenue

Tuition (25 students @ \$25,000.)	\$	625,000
(based on 42 credits @ \$ 595. per credit hour)		

Total Program Revenue (~ 60%):	\$	<u>375,000</u>
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Expenses:

Instructional Costs:

12 credit hours (shared with GAWM curriculum)	\$	21,000
30 credit hours		<u>110,000</u>

Subtotal		<u>131,000</u>
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Operating Expenses:

Support Staff	\$	70,000
Advertising, brochures		60,000
Course Material		20,000
General office, Bloomberg, software, etc.		50,000
Speakers, special events		20,000
Graduate Business programs allocation (research, PR, Career Svces)	20,000	

Subtotal		<u>240,000</u>
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Total Program Expenses:	\$	371,000
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Telephone: 403.220.-7165
Fax: 403.770-8104
gordon.sick@haskayne.ucalgary.ca

September 17, 2007

Trude Heift
Associate Dean of Graduate Studies
Office of the Dean of Graduate Studies
Maggie Benston Centre 1100
SIMON FRASER UNIVERSITY
8888 University Drive
Burnaby, BC V5A 1S6 Canada

Re: Review of proposed Master of Financial Risk Management program at Simon Fraser

Dear Dean Heift:

I have reviewed two documents, "Full Program Proposal for a Master of Financial Risk Management" and a pdf file of course descriptions for the program.

This is my assessment of the proposed program:

The academic merit and structural integrity of the proposed program

The program design contains may recognizable and well-established types of courses in finance and economics. Looking at the course outlines, I can see that the instructors take these courses to the leading edge of their respective topics.

Some of the course titles seem a bit odd. For example the title "Foundations of Financial Econmics" suggests to me that the course would use a Phd-type quantitative finance book like those of Duffie, Cochrane, or Ingersoll. Instead it uses a very corporate finance text for second-year MBA programs. I think it is good to have such a course for this program, since it becomes one of the core courses that ties the rest of the program together. It is just that the title is a bit unusual. On reflection, I can see that the title suggests that the course takes this core and central role. But the traditional use of the title is quite different.

Other courses like the Financial Econometrics course are suitably titled. And, the financial econometrics course is one that separates this program from an MBA program in finance.

The Bus 814 course on Derivative Securities does not list a textbook. Curiously, the text for Bus 818 (Advanced Topics in Business Finance) is a common text for a Derivative securities course. Thus, I am not sure how Bus 814 and Bus 818 will be distinguished. Certainly the field of derivative securities is large and can require two courses, but it would be nice to have some clarity that the two courses are being offered in a coordinated manner. There is also some relationship to Bus 857 that needs to be coordinated.

The Bus 869 course is appropriate for a program like this, but it would be nice to label it clearly as a

course on financial institutions, rather than "Topics in Risk Management". It will extend far beyond basic risk management, if it uses the whole of the proposed textbook.

In general, I must say that the program would benefit from a more unified course outline format and some sort of map for the students that describes what they will learn in each course and how the material in each course relates to that in other courses. There is no doubt in my mind how this map would look, and I'm sure it is clear to the designers of the program. I just do not think it will be obvious to the students who read the course outlines.

Two courses that seem a little unusual in the program are BUS 863.2 "Managing Operational Risk" and Bus 866 "Enterprise-wide Strategic Risk Management". They seem to have a much broader and more strategic corporate style than the others. They may well be regarded by the students as the "soft" courses in the program. There will be a struggle for the students to see how the material in these two courses is essential in the context of the other quantitative courses in the program. If they are to be kept in the program, some care should be taken to integrate them into the program, since they seem a bit like an add-on.

The adequacy of the faculty and other resources available to the proposed program for achieving its intended goals

The list of faculty members is very strong. It combines a nice blend of high-profile senior professors and strong young professors, so the program should be able to sustain itself over time as the older professors retire and the young ones move up to fill their shoes. The group does have a significant international reputation and will be able to take the program to a high level.

The demand for the proposed program among prospective students

I believe that student demand is driven by industry demand, and I address that below.

The demand for graduates of the proposed program

The finance industry seems to have an enormous appetite for highly trained risk managers. Many of them are called "quants", denoting that their strength is a quantitative training in physics, mathematics or engineering. The weakness of many industry quants is that they often don't have a full training in finance or economics. This program design solves that problem, since the students are trained in the more traditional finance and econometrics courses. On the other hand, the program is a step above the traditional MBA program in finance, because these programs traditionally limit the students to 4 or 5 courses in finance and economics.

Thus, the program fits a special niche to supply managers between the mathematical quants and the traditional MBAs. I believe that there is a significant demand for this niche. For example, in Calgary, I see demand for this niche from energy firms (producers, traders, pipelines, retailers), portfolio managers and banks. I attend some of their professional meetings and find dozens of people in attendance. There is high demand in other Canadian and US money centres for people with this training.

Yours truly,



Dr. Gordon Sick
Professor of Finance

July 29, 2007

Trude Heift
Associate Dean of Graduate Studies
Office of the Dean of Graduate Studies
Maggie Benston Centre 1100
SIMON FRASER UNIVERSITY
8888 University Drive
Burnaby, BC V5A 1S6 Canada

Dear Professor Heift:

I am writing in response to your request for my views on the proposed Financial Risk Management program in Business Administration at Simon Fraser University.

My overall assessment is positive. I think this a generally a well thought out program that will achieve its objectives and that addresses an area that is important to the community and the University. I have no serious reservations about the program.

My review is structured around the questions that you have asked me to address.

1. The academic merit and structural integrity of the proposed program.

The overall academic base of the program is, in my opinion, solid. The program builds on a solid foundation in the risk management area to provide considerable depth in a number of topics. My one structural concern is the almost total absence of corporate finance. The program seems to take a derivatives approach to risk management: Taking fundamental value as given, this approach considers the way in which contracts can be managed. In my opinion, it is worth spending some time (more than is currently allotted in the intro course) to understanding the process of value creation within the corporation. I realize, however, that most programs in risk management take the same approach that SFU plans to take. I do not see this as a fatal or even serious flaw but do want to point it out.

I have reviewed the course outlines that you provided. The courses generally seem to meet the standards one would expect in this sort of program and the introductory courses (the first three offered) seem to be above this standard. There are only a few of qualifications to my overall assessment of the courses:

- a. I am afraid that the operational risk courses deals with subject matter that I am not familiar with so I don't feel I can judge it adequately. I would note, however, that the readings and focus of this course seem to be very practitioner oriented, raising the possibility that it does not deal with more primitive issues in depth.
- b. The business finance course seems to be mostly a derivatives course and does not seem to deal with corporate finance issues in detail
- c. There was no textbook or other material provided for Market Risk, but the topics seemed appropriate.
- d. The Topics course uses Thomas and Saunders as a text. This seems narrow and constraining for a topics course.

2. The adequacy of the faculty and other resources available to the proposed program for achieving its intended goals?

You did not provide me with faculty CVs so I was not able to consider the research output of this group. I am, however, familiar with the work of several of the faculty and have a very favorable impression of the group overall. There are some excellent scholars in this group who can certainly achieve the goals of the program. Assuming the faculty I am less familiar with are of the same quality, I am confident this group can implement and deliver a successful program.

My one concern in the faculty area is bench-strength. My sense is that there are not many other faculty currently at SFU who could help deliver the program. A few key losses would put the program in jeopardy.

3. The demand for the proposed program among prospective students

The proposal brief states that there are four applicants for every admission at present. It does not provide information on how many offers were made and rejected or on the quality of the applicant pool. Still, this seems to indicate that there is considerable demand for the program.

I do note, however, that there is quite a proliferation of programs of this sort at present. There are several programs in North America that are very similar and there are likely to be more in the years to come.

4. The demand for graduates of the proposed program

My sense is that the demand for students with good finance related skills is strong and growing. I feel there is also a strong demand for the more focused, technical skills that this program will provide. I should add, however, that this is based on casual observations and wouldn't be surprised if placement services had a different view of the market.

I hope that you find this review to be of help to you. If you need further assistance, please do not hesitate to call or write.

Sincerely

Ron Giammarino

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From: "Usha R. Mittoo"
<umittoo@cc.umanitoba.ca>
To: Vivian Blaker <blaker@sfu.ca>
Date: Sat, 28 Jul 2007 17:47:43 -0500
Subject: Re: Review of new graduate program proposal - MFRM
attached

ADD to ADDRESSES

Attachments: To Sim Fraser REVIEW july 2007.doc **SCAN FOR VIRUSES**

Dear Dean Heift:

Enclosed please find my review of the proposed master of Financial Risk Management program in Business Administration at Simon Fraser University.

Overall, the proposed program is well-designed and would provide strong skills to students in all aspects of risk management in financial industry. Detail review is enclosed.

Please feel free to contact me if you have any questions.

Sincerely

Usha Mittoo

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Usha R. Mittoo
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26.

Review of Program Proposal:
Master of Financial Risk Management
Simon Fraser University

Reviewer: Dr. Usha R. Mittoo

A: The academic merit and structural integrity of the proposed program

The main goal of the program is to produce graduates with a high level of expertise in identifying, measuring, and managing risks in the financial services industry. The program focuses on both the financial and strategic risks facing financial institutions.

The curriculum consists of 42 credit hours over three academic terms and covers the following components:

1. Foundations in asset pricing, investments, and derivatives (12 credit hours)
2. Advanced courses in risk management (12 credit hours)
3. Special topics in risk management (12 credits), and
4. Final project (capstone course) in risk management (3 credit hours)

The foundation courses cover both the theory and practice of measuring and managing financial and strategic risk. The advanced courses build on the foundation courses and provide indepth coverage of the major risk areas confronting financial institutions: capital markets, fixed income, operational risk, and credit risk. The special topic courses provide advanced quantitative skills in risk management techniques and methods using statistical methods and software. These courses cover several special topics in risk modeling, such as value at risk, and default probability, that are very relevant to financial firms. In the capstone course, the students are expected to demonstrate the skills learned in the program through an indepth research on a selected topic in risk management under the supervision of a faculty member.

The number of courses (credit hours) offered in the proposed program are comparable to those in a standard Master or MBA Program. While major emphasis of the program is on the theory and practice of risk management, it also provides some breadth courses from related disciplines including MIS, marketing, accounting, and business strategy. Several courses are offered jointly with the MBA in Global Business Management Program. The students also get exposure to the current issues facing the industry through speaker series, and student participation in the GAWM Student Investment Advisory Service.

One area that could be strengthened is international finance. With the globalization of the financial markets, the knowledge of the international environment is important to identify and understand the risk exposure of all firms, especially the financial firms. Although parts of this coverage would be done in different courses, a three credit hour course in international financial markets and services would enhance students' skills in understanding the role of institutions in the global context.

Overall, the program has a strong curriculum that offers a solid training in different aspects of risk management. The curriculum is consistent with the goals of the program and will provide indepth training in theoretical and quantitative methods in measuring and managing different types of risks facing financial industry.

B: The adequacy of the Faculty and other resources available to the proposed program for achieving its intended goals

The Faculty involved in the program are fully capable of delivering a high quality program. The finance faculty include several recent Ph.Ds as well as internationally known scholars in risk management area. Dr. Robert Grauer is well known for his work in Asset Pricing and portfolio management. He has published in several top journals such as *Journal of Finance* and *Journal of Banking and Finance* and has supervised many graduate dissertations. Dr. Peter Klien specializes in derivative areas and has won several awards for his papers. He has also published in top finance journals including *Journal of Financial Economics* and *Journal of Banking and Finance*. Dr. Robert Jones is known for his work in financial intermediation and the economics of uncertainty. The professors from marketing, business strategy, MIS, and accounting disciplines bring broad and complementary strengths to the program. The strong research strengths of the faculty should result in high quality of research projects. The faculty has a good track record of developing successful program, such as the GAWM program, and the proposed new program on corporate governance in conjunction with the UBC and University of Toronto. The synergies from these programs should enhance the quality of the Master in Risk Management Program.

C: The demand for the proposed program among prospective students

The requirements for the applicants are similar to that in an MBA program but with more demanding quantitative skills. There already appears to be a strong interest in the program based on the large number of applications received in the program. There should be a steady pool of applicants from the undergraduate commerce program and professionals working in the finance industry with strong mathematical skills.

D: The demand for graduates of the proposed program

The financial industry has changed dramatically in the 1990s with the deregulation and the globalization of financial markets and services. The industry faces new challenges and risk management has become more complex in this highly competitive environment. Currently, few graduate programs cater to the changing needs of the financial industry. The program builds a unique niche by serving this need through graduates that are highly skilled in measuring and managing both financial and business risk using highly sophisticated quantitative tools and techniques. The demand for graduate students should be high in financial as well as non-financial institutions, especially since the program has been launched with the strong support of local financial and business community.

Summary:

The proposed Master of Financial Risk Management is well-designed and would provide strong skills to students in all aspects of risk management in financial industry. The unique features of the program are its emphasis on both asset and liability as well as strategic risk management, and rigorous training of students in identifying, measuring, and managing risk. Although the program is tailored primarily for the finance industry, these skills would also be in high demand in other corporations. The strong endorsement from the Business Council is a plus factor that should be very helpful in evaluating and strengthening the program on a continuous basis.

RESPONSES TO REVIEWER CONCERNS REGARDING THE SFU MASTER'S OF RISK MANAGEMENT PROGRAM

Overview

The three reviewers of the Financial Risk Management (FRM) Masters program, Gordon Sick of the University of Calgary, Ron Giammarino of the University of British Columbia, and Usha R. Mitto of the University of Manitoba, agree that the academic merit of the FRM program is strong, that there are adequate resources for the FRM program to achieve its goals, that there is student demand for the FRM degree, and that there is employer demand for graduates of the FRM program.

We summarize statements from the reviewers that lead us to this conclusion and comment on the concerns identified by the reviewers of the FRM program.

Academic Merit

Gordon Sick: "The program design contains may (sic) recognizable and well-established types of courses in finance and economics. Looking at the course outlines, I can see that the instructors take these courses to the leading edge of their respective topics."

Ron Giammarino: "The overall academic base of the program is, in my opinion, solid."

Usha R. Mitto: "Overall, the program has a strong curriculum that offers a solid training in different aspects of risk management." "The proposed Master of Financial Risk Management is well-designed and would provide strong skills to students in all aspects of risk management in the financial industry."

Comment on Reviewer Concerns.

Gordon Sick raises some concerns with the title of courses, clarity of the relation between specific courses, mapping of program content for student guidance through course outlines, and the contribution of "soft" course topics, identified as "Enterprise-Wide Strategic Risk Management" and "Managing Operational Risk," to the FRM program.

The first three issues can easily be handled administratively. The courses, Enterprise-Wide Risk Management, Managing Operational Risk, and, not identified by Gordon Sick, "Aspects of Insurance Risk Management," broaden the FRM program of studies beyond purely financial risks – like interest rate and exchange rate volatility. It is important for students to recognize that there are many sources of risk beyond financial risks, experts in the control of these risks come from disciplines outside of finance, and that the management and control of these risks have professional methods that differ distinctly from the management of financial risks. We fear that if we unduly restrict the instructors of these courses to fit a common theme, or eliminate these courses from the FRM program, students will lose the appreciation for distinct sources and management of risk.

Ron Giamarino is concerned that the FRM program has a "total absence of corporate finance." He believes, "... it is worth spending some time (more than is currently allotted in the intro course) to understanding the process of value creation."

We attach to this document the course outline for BUS 802 – Foundations of Financial Economics taught in FALL 07 by Visiting Professor Michel Dubois. We note that topics 9-12 and 13-15 are corporate finance topics. Since topic 7 appears to be missing, Professor Dubois intends on spending about one half of his course on topics of corporate finance. An additional topic in this course on why corporate hedging (risk reduction) does or does not create wealth would be valuable for setting the stage for students for more esoteric risk management methods that they learn in later courses.

Usha Mitto is concerned that the FRM program could be "strengthened in international finance." FRM students study financial securities to control exchange rate risk – exchange rate derivative securities – in BUS 814 – Derivative Securities and in BUS 818 – Advanced Derivative Securities. Exchange rate volatility is a primary source of risk identified, studied, and managed in BUS 865 – Market Risk Management. In addition, in the Student Investment Advisory Service (SIAS), FRM students have the opportunity to participate in the management of a portfolio that includes international financial assets (about a third of the portfolio by market value).

Resources

Gordon Sick: "The list of faculty members is very strong. It combines a nice blend of high-profile senior professors and strong young professors, so the program should be able to sustain itself over time as older professors retire and the young ones move up to fill their shoes."

Ron Giammarino: "There are some excellent scholars in this group who can certainly achieve the goals of the program."

Usha Mitto: "The Faculty involved in the program are fully capable of delivering a high quality program."

Comment on Reviewer Concerns.

Ron Giammarino has concerns that "A few key loses would put the program in jeopardy."

Hiring and retaining faculty is always a difficulty in the finance area because high salaries elsewhere and good alternative opportunities for finance faculty – including the financial industry. Despite this challenge the finance area of the Faculty of Business Administration has over the years consistently hired good quality young scholars. These scholars are growing and maturing academically. For example, Daniel Smith and Amir Rubin will take more active roles in the FRM program in the future. Last year, the finance area hired three young and talented assistant professors and we expect that as they mature they will take an active role in the FRM program. The finance area of the

FBA is in the market to hire an addition faculty member this year. However, we agree with Professor Giammarino that it is possible that hiring and retention problems could compromise our ability to sustain the FRM program. These problems have not yet arisen.

Student Demand for FRM

Gordon Sick: "I believe student demand is driven by industry demand ..."

Ron Giammarino: "The proposed brief states that there are four applicants for every admission at present." "...this seems to indicate that there is considerable demand for the program."

Usha R. Mitto: "There should be a steady pool of applicants ..."

Comment on Reviewer Concerns.

Professor Giammarino is concerned that "there is quite a proliferation of programs of this sort at present."

Of course, if we cannot attract good students in the future, we would not continue with the program. However, given the growth and expected growth in the financial industry, ever increasing need for specialized employees, and retirement of senior managers in the financial industry, we expect a consistent stream of applicants to this program in the future.

Employer Demand for FRM graduates

Gordon Sick; "The finance industry seems to have an enormous appetite for highly trained risk managers."

Ron Giammarino: "My sense is that the demand for students with good finance related skills is strong and growing."

Usha R. Mitto: "The demand for graduate students should be high in financial as well as non-financial institutions ..."

Comment on Reviewer Concerns.

No concerns. No need for comment.