



**Business Research
&
Economic and
Financial Research**

**School of Business and Economics
Maastricht University**

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This report was finalised on 16-12-2015.



Report on the research master's programmes Business Research and Economic and Financial Research of Maastricht University

This report considers the NVAO's Assessment framework for limited programme assessments (19 December 2014) as a point of departure. In addition, the report is written in light of the NVAO's Guidelines for assessment of research master's programmes (1 September 2015).

Administrative data regarding the programmes

Research master's programme Business Research

Name of the programme:	Business Research
CROHO number:	60013
Level of the programme:	master's
Orientation of the programme:	academic
Number of credits:	120 EC
Specialisations or tracks:	-
Location(s):	Maastricht
Mode(s) of study:	full time
Expiration of accreditation:	06-09-2016

Research master's programme Economic and Financial Research

Name of the programme:	Economic and Financial Research
CROHO number:	60012
Level of the programme:	master's
Orientation of the programme:	academic
Number of credits:	120 EC
Specialisations or tracks:	-
Location(s):	Maastricht
Mode(s) of study:	full time
Expiration of accreditation:	06-09-2016

The visit of the assessment panel Business Research and Economic and Financial Research to the School of Business and Economics of Maastricht University took place on 21 and 22 October 2015.

Administrative data regarding the institution

Name of the institution:	Maastricht University
Status of the institution:	publicly funded institution
Result institutional quality assurance assessment:	positive

Quantitative data regarding the programmes

The required quantitative data regarding the programmes are included in Appendix 5.

Composition of the assessment panel

The panel that assessed the research master's programmes Business Research and Economic and Financial Research consisted of:

- Victor Ginsburgh (chair), honorary professor of economics at Université Libre de Bruxelles, and former co-director of the European Center for Advanced Research in Economics and Statistics (ECARES);
- Herman van Dijk, professor of econometrics and affiliated with the Faculty of Economics and Business Administration, VU University Amsterdam;
- Jeroen Suijs, professor of the economics of accounting at the Department of Accountancy, Tilburg University;
- Tom Elfring, professor of strategic management and entrepreneurship at the Faculty of Economics and Business Administration, VU University Amsterdam;
- Desirée Joosten-ten Brinke (assessment expert), lector at Fontys Hogescholen and associate professor at the Open University of the Netherlands;
- Gabriele Ciminelli (student member), PhD candidate in Applied Macroeconomics at the University of Amsterdam, MPhil graduate in Economics from the Tinbergen Institute.

The panel was supported by Jasne Krooneman MSc, who acted as secretary.

Appendix 1 contains the curricula vitae of the members of the panel.

Brief description of the procedures

Preparation

The management of the research master's programmes Business Research and Economic and Financial Research provided two critical reflections as part of the preparation for the assessment. The project manager forwarded the documents to the members of the assessment panel, who formulated questions based on its content.

Twelve theses were carefully selected by the project manager in consultation with the chair of the panel (see Appendix 7 for a list of theses and documents studied by the panel). Taking a variation of grades, the year of submission and thesis supervisors into account, six theses were selected for Business Research and six for Economic and Financial Research. The theses were evenly distributed over the four domain experts in the panel. The assessment expert and student member each assessed three theses in the same grade range (low, middle and high) on the basis of their expertise and hence provided a supplement to the assessments of the domain experts.

The project manager prepared a timetable for the visit, which was discussed with the management of the research master's programmes and the chair of the panel.

Site visit

During the preparatory meeting held at the start of the site visit, the panel received instructions regarding the assessment procedures and the accreditation framework. It discussed its findings from the evaluation of the critical reflections, appendices and theses. It also looked at additional information for several courses, such as reference books and other learning material, and studied a couple of exams. Immediately after the preparatory meeting, interviews were held with representatives of the management, Business Research alumni and

Economic and Financial Research alumni. The next day, interviews with Business Research students and teachers were held, followed by interviews with Economic and Financial Research students and teachers. An open office hour was included, which provided people involved in the programme the opportunity to speak freely to the panel. However, nobody applied for the open office hour. The panel added an additional interview with thesis supervisors from both programmes during lunchtime to collect information regarding the thesis procedure and assessment. In the afternoon, the Programme Committee and Board of Examiners were interviewed. Then, a final interview with the management of the research programmes was held.

The site visit concluded with an oral presentation of the preliminary findings by the chair of the panel, consisting of a general assessment and several specific observations and impressions.

Report

After the site visit, the secretary wrote a draft report based on the panel's findings. Subsequently, this draft was sent to the panel members for feedback. After processing their feedback, the draft report was sent to the management of the research programmes to check for factual irregularities. Any suggestions made by the management were discussed with the chair of the panel. The draft report was then sent to the panel members, who had the opportunity to review the changes. A few days later, the report was finalised.

Definitions and decision rules

In accordance with the NVAO's Assessment framework for limited programme assessments (as of 19 December 2014), the panel used the following definitions for the assessment of both programmes as a whole.

Generic quality

The quality that, from an international point of view, can reasonably be expected from a higher education bachelor's or master's programme.

Unsatisfactory

The programme does not meet the current generic quality standards and shows serious shortcomings in several areas.

Satisfactory

The programme meets the current generic quality standards and demonstrates an acceptable level across its entire spectrum.

Good

The programme systematically surpasses the current generic quality standard.

Excellent

The programme systematically well surpasses the current generic quality standards across its entire spectrum and is regarded as an international example.

Also in line with the NVAO's Assessment framework for limited programme assessments (as of 19 December 2014), the panel applied the following decision rules:

- The final conclusion regarding a programme will always be 'unsatisfactory' if standards 1, 3 or 4 are judged 'unsatisfactory'. In the case of an unsatisfactory score on standard 1, the NVAO cannot grant an improvement period.
- The final conclusion regarding a programme can only be 'good' if at least two standards are judged 'good', one of these must be standard 4.
- The final conclusion regarding a programme can only be 'excellent' if at least two standards are judged 'excellent', one of these must be standard 4.

Summary judgement

This report provides an overview of the findings and considerations of the assessment panel regarding the research master's programmes Business Research and Economic and Financial Research of Maastricht University. The panel based its judgement on information acquired from the critical reflections, a number of selected theses, the interviews held during the site visit and additional reading material which was available during the site visit. For both research master's programmes, the panel found positive aspects as well as points for improvement. After careful consideration, it concluded that the research master's programme Business Research and the research master's programme Economic and Financial Research satisfy the requirements for accreditation.

The panel assessed the standards from the Assessment framework for limited programme assessments in the following way:

Research master's programme Business Research

Standard 1: Intended learning outcomes

The research master's programme Business Research aims to deliver graduates who are equipped to conduct competitive high-level research autonomously within the field of business. In the past few years, the programme has been built around five intended learning outcomes geared towards achieving this aim. According to the panel, the intended learning outcomes are adequately formulated and exceed the level of a general master's programme. In addition, they are in line with the Dublin criteria and contribute to the international reputation of the programme.

Standard 2: Teaching-learning environment

Business Research is a two-year (120 EC) full-time research master's programme, taught in English. The first year of the curriculum places a strong emphasis on research methodology and techniques relevant to the analysis of business topics, while instilling a critical attitude to the concepts and approaches used in this field. It consists of ten courses in total. Students follow six core courses and can select four International Business electives, which are also available to regular master's students. In practice, students will select courses in their field of research to prepare themselves for the MSc thesis and a prospective PhD track. The second year of the curriculum allows for two tailor-made specialisation courses fitting the needs of individual students. The students also have two *free/methodology electives*. The second year concludes with a course on *Presentation skills* and the *Research master's thesis*.

The panel studied the content and structure of the curriculum and is satisfied about the core courses and the way in which teachers explain the methodology in an applied manner, relating it to their own research background. The panel argues that the rather large number of electives allows too much variation in the content and level of the curriculum. In particular, the way in which the intended learning outcomes of the regular master's electives contribute to the profile of the research master's programme is not entirely clear to the panel. The core courses show a clearer connection to the intended learning outcomes and profile of the programme, however. It might also be worthwhile changing the titles of the core courses since they suggest a strictly methodological approach. Business Research is embedded in the academic context of six research programmes provided by the School of Business and Economics, which have been evaluated with an average score ranging between very good and excellent in the latest research assessment. The panel is happy that the students have the opportunity to become a research or teaching assistant. It is also pleased that the frequently

held seminars are open to research master's students. These seminars contribute to the academic research character of the programme. The panel therefore suggests making attendance at the seminars compulsory.

Business Research adopted the Problem-Based Learning (PBL) approach for educating students. A wide range of didactic teaching methods is applied throughout the courses. Students have access to EleUM, the electronic learning environment, a computer lab, and the library. The Programme Committee consists of students and teachers and meets monthly. Its members have created task forces to tackle different issues of concern. The panel found that the Programme Committee functions adequately, but advises its members to reflect carefully on the size and scale of the programme.

The panel agrees with the current entry requirements, even though this means that student numbers remain low. Business Research has a study load of 120 EC, divided over two years and based on an average study load of 36 hours per week, for 40 weeks per year.

Due to the low student numbers, teachers outnumber students. However, teachers are also involved in other educational programmes. The panel studied the cv's and recent publications of the teachers and confirmed that the programme houses excellent researchers who generally have a good reputation and publish in highly ranked journals. It confirmed that the quality and quantity of the teaching staff suit the programme well.

According to the panel, the curriculum, staff, services, and facilities constitute a coherent teaching-learning environment for the students.

Standard 3: Assessment

The panel concluded that there is a sufficient and adequate variety of exam types in place and that students are well aware of the methods of assessment. There is an Assessment Committee which informs the Board of Examiners regarding the quality of assessments. Although the Board of Examiners has already implemented several improvement measures, the panel states that further professionalisation is required. The Education and Examination Regulations lack specific information for research master's students. The panel advises increasing the transparency regarding the thesis procedure, criteria and grading and improving the quality of the assessment. It concludes that due to the small number of students and the close contact between teachers and students, the assessment system functions informally but adequately.

Standard 4: Achieved learning outcomes

According to the panel, there is a good connection between the research master's programme and PhD positions. In addition, the panel stated that the selected theses were all of a solid research master's level, and one of them was considered to be publishable. According to the panel, the theses are an excellent tool to show to students what is expected from a PhD dissertation. It also enables teachers to judge their students on their research capacity. The panel confirmed that the intended learning outcomes are achieved upon graduation.

Research master's programme Economic and Financial Research

Standard 1: Intended learning outcomes

The research master's programme Economic and Financial Research aims to equip future PhD candidates and economic, finance, and business analysts with a broad range of scientific methods and approaches relevant to the analysis of economic and financial issues, while at the same time instilling in them a critical attitude to the concepts and approaches used in these fields. In the past few years, the programme has been built around five intended learning outcomes geared towards achieving this aim. According to the panel, the intended learning outcomes are adequately formulated and exceed the level of a general master's programme. In addition, they are in line with the Dublin criteria and contribute to the international reputation of the programme.

Standard 2: Teaching-learning environment

Economic and Financial Research is a two-year (120 EC) full-time research master's programme, taught in English. The first year of the curriculum provides all students with the same solid basis in both methodology and economic content. It puts a strong emphasis on research methodology and techniques relevant to the analysis of economic and financial issues, while instilling a critical attitude to the concepts and approaches used in these fields. It consists of ten courses in total. Students follow eight core courses, of which seven provide a solid basis in mathematical methods, microeconomics, macroeconomics, econometrics and finance. Students also attend *Computational Econometrics/Operations Research Software* and *Experimental Economics Methods/World of Research*. The second year of the curriculum allows for four tailor-made specialisation courses fitting the needs of individual students. It concludes with a course on *Presentation skills* and the *Research master's thesis*.

The panel studied the content and structure of the curriculum and concluded that the content of the courses reflects the state of the art in the fields of macroeconomics, microeconomics and econometrics. The courses cover a broad spectrum and are exactly what one would expect from a research master's programme Economic and Financial Research. The panel confirmed that the intended learning outcomes are embedded in the core courses and contribute to the profile of the programme. Economic and Financial Research is embedded in the academic context of six research programmes provided by the School of Business and Economics, which have been evaluated with an average score ranging between very good and excellent in the latest research assessment. The panel is happy that students have the opportunity to become a research or teaching assistant. It is also pleased that the frequently held seminars are open to research master's students. These seminars contribute to the academic research character of the programme. The panel therefore suggests making attendance at the seminars compulsory.

Economic and Financial Research adopted the Problem-Based Learning (PBL) approach for educating students. A wide range of didactic teaching methods is applied throughout the courses. Students have access to EleUM, the electronic learning environment, a computer lab, and the library. The Programme Committee consists of students and teachers and meets monthly. Its members have created task forces to tackle different issues of concern. The panel found that the Programme Committee functions adequately, but advises its members to reflect carefully on the size and scale of the programme.

The panel agrees with the current entry requirements and is satisfied that the research master's programme attracts a relatively substantial number of international students.

Economic and Financial Research has a study load of 120 EC, divided over two years and based on an average study load of 36 hours per week, for 40 weeks per year.

Due to the low student numbers, the teachers outnumber the students. However, teachers are also involved in other educational programmes. The panel studied the cv's and recent publications of the teachers and confirmed that the programme houses excellent researchers who generally have a good reputation and publish in highly ranked journals. It agreed that the quality and quantity of the teaching staff suit the programme well.

According to the panel, the curriculum, staff, services, and facilities constitute a coherent teaching-learning environment for the students.

Standard 3: Assessment

The panel concluded that there is a sufficient and adequate variety of exam types in place and that students are well aware of the methods of assessment. There is an Assessment Committee which informs the Board of Examiners regarding the quality of assessments. Although the Board of Examiners has already implemented several improvement measures, the panel feels that further professionalisation is required. The Education and Examination Regulations lack specific information for research master's students. The panel advises increasing the transparency regarding the thesis procedure, criteria and grading and improving the quality of the assessment. It concluded that due to the small number of students and the close contact between teachers and students, the assessment system functions informally but adequately.

Standard 4: Achieved learning outcomes

According to the panel, there is a good connection between the research master's programme and PhD positions. In addition, the panel found that five out of the six selected theses were of a solid research master's level. According to the panel, the theses are an excellent tool to show to students what is expected from a PhD dissertation. It also enables teachers to judge their students on their research capacity. The intended learning outcomes are achieved upon graduation.

Research master's programme Business Research:

Standard 1: Intended learning outcomes	satisfactory
Standard 2: Teaching-learning environment	satisfactory
Standard 3: Assessment	satisfactory
Standard 4: Achieved learning outcomes	good

General conclusion satisfactory

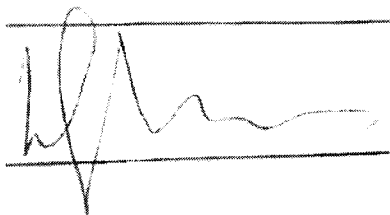
Research master's programme Economic and Financial Research:

Standard 1: Intended learning outcomes	satisfactory
Standard 2: Teaching-learning environment	good
Standard 3: Assessment	satisfactory
Standard 4: Achieved learning outcomes	good

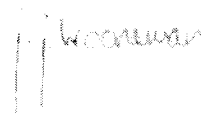
General conclusion good

The chair and the secretary of the panel hereby declare that all members of the panel have studied this report and that they agree with the judgements laid down in it. They confirm that the assessment has been conducted in accordance with the demands relating to independence.

Date: 16-12-2015

A handwritten signature in black ink, appearing to be 'V. Ginsburgh', written between two horizontal lines.

Prof. Victor Ginsburgh
(chair)

A handwritten signature in black ink, appearing to be 'J. Krooneman', written between two horizontal lines.

Jasne Krooneman MSc
(secretary)



Description of the standards from the Assessment framework for limited programme assessments

Standard 1: Intended learning outcomes

The intended learning outcomes of the programme have been concretised with regard to content, level and orientation; they meet international requirements.

Explanation:

As for level and orientation (bachelor's or master's; professional or academic), the intended learning outcomes fit into the Dutch qualifications framework. In addition, they tie in with the international perspective of the requirements currently set by the professional field and the discipline with regard to the contents of the programme. Insofar as is applicable, the intended learning outcomes are in accordance with relevant legislation and regulations.

Findings

This section provides insight into the panel's findings concerning the content, level and orientation of the intended learning outcomes of the research master's programmes Business Research (BR) and Economic and Financial Research (EFR).

These research master's programmes are part of the School of Business and Economics. This school is headed by a dean appointed by the Maastricht University Executive Board. The School of Business and Economics Board and the dean are jointly in charge of the management and organisation of education and research. The school houses four bachelor's programmes and twelve master's programmes, including the two research master's programmes.

Business Research prepares students to handle a variety of managerial challenges in all types of national and international companies and organisations. Its aim is to deliver graduates that are equipped to conduct competitive, high-level research autonomously within the field of business. The research master's programme Economic and Financial Research aims to equip future PhD candidates and economic, finance and business analysts with a broad range of scientific methods and approaches relevant to the analysis of economic and financial issues, while at the same time instilling in them a critical attitude to the concepts and approaches used in these fields. Graduates of both research master's programmes should be fully prepared for a career in scientific research, have extensive knowledge of the various disciplines taught in the programme, and be able to work and communicate in a multidisciplinary team of academics and non-academics. The research master's programmes prepare graduates for two types of career paths. Some will opt for an academic career and a PhD position. Others will be employed as a business analyst, marketing intelligence analyst, procurement assistant or consultant in the case of Business Research. Economic and Financial Research graduates may be employed by public and private research institutes and think tanks at the national, European or international level.

Over the past few years, both programmes have been built around five intended learning outcomes:

1. *General intellectual competences*

Graduates have demonstrated knowledge and understanding in the field of BR/EFR that:

- are founded upon and extend and/or enhance their BA level

- provide a basis or opportunity for originality in developing and/or applying ideas within scientific research
 - surpass the level of a one-year master's degree.
2. *General research competences*
Graduates are able to apply their knowledge, understanding and problem-solving abilities in new or unfamiliar environments within broader business-related contexts (BR) or broader contexts related to economics and finance (EFR), and are able to integrate knowledge and handle complexity.
 3. *Competences related to the fields of BR/EFR*
Graduates are able to formulate judgements with incomplete or limited information and reflect on social and ethical responsibilities linked to the application of their knowledge and judgements.
 4. *Communication and professional skills*
Graduates are able to communicate their conclusions, and the knowledge and rationale underpinning them, to specialist and non-specialist audiences clearly and unambiguously.
 5. *Learning skills*
Graduates have the learning skills that allow them to continue to study in a manner that may be largely self-directed or autonomous.

The intended learning outcomes are in line with the Dublin criteria, which were also adopted by AACSB, EQUIS and AMBA, which have already granted international accreditations for all of the school's programmes, including both research master's programmes. However, the School of Business and Economics has reformulated the intended learning outcomes on a higher aggregate level, and from September 2015 the following intended learning outcomes are in place:

1. *Knowledge & Insight*
Graduates are able to contribute to academic knowledge in a self-directed manner
2. *Academic Attitude*
Graduates are able to demonstrate an academic attitude
3. *Global Citizenship*
Graduates are able to actively engage in the global community in a globally responsible manner
4. *Interpersonal Competences*
Graduates are able to demonstrate excellent interpersonal competences in an international professional and academic setting.

During the site visit, the management of both research master's programmes explained that the four new intended learning outcomes belong to an operation that is going on throughout the entire faculty. They are formulated generally so they fit bachelor's, master's and research master's programmes of the entire school, but they will be further defined per programme, level and orientation. The management is currently working on the operationalisation of the intended learning outcomes for both research master's programmes as they need to be ready prior to the AACSB accreditation in May. The idea behind the new intended learning outcomes is that they are "one size that fits all [accreditations], while clearly reflecting the school's mission".

The panel confirmed that the five intended learning outcomes contribute to the profile of both research master's programmes and that their content exceeds the level of a general

master's programme. The four new intended learning outcomes are still rather general, and need to be defined further.

According to the panel, both programmes prepare students especially for a PhD position as well as a job in the professional field. General research competences and communication skills are useful assets in functions outside academia as well. In addition, both programmes have an excellent international reputation and are embedded in a strong international network. From the interview with Economic and Financial Research students, it became clear that their interest in the programme was aroused by its international reputation. The combination of economics and finance in one programme is rather unique and considered an advantage by the panel.

Considerations and conclusions

Research master's programme Business Research

The research master's programme Business Research aims to deliver graduates who are equipped to conduct competitive high-level research autonomously within the field of business. In the past few years, the programme has been built around five intended learning outcomes geared towards achieving this aim. According to the panel, the intended learning outcomes are adequately formulated and exceed the level of a general master's programme. In addition, they contribute to the international reputation of the programme. Since September 2015, the programme has adapted four new intended learning outcomes which should be developed further.

The panel assesses Standard 1 as **satisfactory**.

Research master's programme Economic and Financial Research

The research master's programme Economic and Financial Research aims to equip future PhD candidates and economic, finance and business analysts with a broad range of scientific methods and approaches relevant to the analysis of economic and financial issues, while at the same time instilling in them a critical attitude to the concepts and approaches used in these fields. In the past few years, the programme has been built around five intended learning outcomes geared towards achieving this aim. According to the panel, the intended learning outcomes are adequately formulated and exceed the level of a general master's programme. In addition, they contribute to the international reputation of the programme. Since September 2015, the programme has adapted four new intended learning outcomes which should be developed further.

The panel assesses Standard 1 as **satisfactory**.

Standard 2: Teaching-learning environment

The curriculum, staff and programme-specific services and facilities enable the incoming students to achieve the intended learning outcomes.

Explanation:

The contents and structure of the curriculum enable the students admitted to achieve the intended learning outcomes. The quality of the staff and of the programme-specific services and facilities is essential to that end. Curriculum, staff, services and facilities constitute a coherent teaching-learning environment for the students.

Findings

This section provides an insight into the curriculum (2.1) and the relationship between the intended learning outcomes and the curriculum (2.2) of the research master's programmes Business Research and Economic and Financial Research. Section 2.3 provides an overview of the teaching concept, programme-specific services and the Programme Committee, and in 2.4, the feasibility is discussed. This section concludes with the panel's analysis of the quality and quantity of the teaching staff (2.5) in both programmes.

2.1 Curriculum

Research master's programme Business Research

Business Research is a two-year (120 EC) full-time research master's programme, taught in English. See Appendix 4 for a schematic overview of the curriculum.

The first year of the curriculum puts a strong emphasis on the research methodology and techniques relevant to the analysis of business topics, while instilling a critical attitude to the concepts and approaches used in this field. It consists of ten courses in total. Students follow four core courses of 6.5 EC each: *Applied Quantitative Analysis*, *Advanced Quantitative Research Methods in Business I*, *Advanced Quantitative Research Methods in Business II*, and *Business Research Design*. They provide a solid basis in statistics, applied econometrics and research design. Students also select four International Business (IB) electives (6.5 EC each), which are also available to regular master's students. In practice, they will select courses in their field of research to prepare themselves for the MSc thesis and a prospective PhD track. In the course *Data Analysis Skill* (4 EC), students are trained in the use of relevant software packages. *World of Research* (4 EC) consists of a series of modules spread across the academic year. In each module an international expert introduces students to a particular aspect of scientific practice.

The second year of the curriculum allows for tailor-made specialisation courses fitting the needs of individual students. They can choose two specialisation courses (6.5 EC each) connected to the business-related Graduate School of Business and Economics (GSBE) research programmes. There are several specialisation courses available, such as the courses *Advanced Research in Organisations*, *Advanced Research in Strategy*, *Advanced Course in Accounting* or *Advanced Course in Information Management*. Students also have two *free/methodology electives* (6.5 EC each). The second year concludes with a course on *Presentation skills* (4 EC) and the *Research master's thesis* (30 EC). The thesis is prepared under the supervision of an expert researcher. The quality of the thesis should reach the level of a good first draft of a chapter in a PhD dissertation.

During the site visit, Business Research students explained that they have a lot of freedom in choosing their electives. They frequently consult a professor in the programme to choose electives that not only match their interests, but also fit the curriculum as a whole. The electives have to be approved by the research department, the course coordinator and the

Board of Examiners. In current practice, this means that one of the two students in the programme attends courses for PhD students in Utrecht while the other student attends strategic marketing courses from the regular strategic marketing master's programme at Maastricht University. The panel was somewhat surprised by the limited attention to operations research in the curriculum. According to the panel, the freedom is a weakness since it allows for too much variation in the content and level of the curriculum. Business Research alumni argued that their approach to literature was generally different to that of regular master's students and that even in regular master's courses, they tended to delve deeper into the topic. On the other hand, they were not assigned a different role in group assignments, nor were they assessed more thoroughly than regular master's students. Although the students underlined that they were happy to be treated like 'normal students' in the regular master's courses and receive no special treatment as research master's students, the panel believes that teachers should increase the challenge of the courses for research master's students. Alternatively, the curriculum should consist of fewer electives and more core courses. According to the panel, the current freedom of choice also creates a deficit in the profile of the programme. When opting for Business Research, students have no clear vision of what to expect.

From the interview with teachers, it became clear that the methodology courses, *Applied Quantitative Analysis*, *Advanced Quantitative Research Methods in Business I*, *Advanced Quantitative Research Methods in Business II*, do not solely deal with methodology. Teachers incorporate their own research in them, and hence the methods are mixed with content. This applied method of discussing methodology, which is favoured by the panel, might be more attractive to (potential) students than the current course titles suggest. Alumni stated that they would have liked a course on qualitative research methods or at least more attention being paid to them. The current methodology courses all deal with quantitative research methods, while qualitative research methods, such as interview techniques or case studies, might have been a useful addition.

The panel remarked that the one soft skills course, *Presentation skills*, only enters the curriculum in the second year. It advises the programme management to reconsider the position of this course in the curriculum, as it is not only useful to acquire presentation skills prior to entering the labour market or academia, it can also be considered an advantage during the two-year master's programme itself. It also recommends to consider including other soft skills, such as academic writing. The panel is satisfied that students are offered the opportunity to become a research or teaching assistant. It is also pleased that the frequently held seminars are open to research master's students.

The Business Research director is responsible for safeguarding the consistency and coherence of the programme. This is achieved through frequent reflective interactions with course coordinators, lecturers, and students. All changes to the curriculum are discussed with the Graduate School of Business and Economics Board, the Bachelor's-Master's Management Team, the Programme Committee, the Board of Examiners, the School of Business and Economics Council. The School of Business and Economics Board takes the final decision.

Research master's programme Economic and Financial Research

Economic and Financial Research is a two-year (120 EC) full-time research master's programme, taught in English. See Appendix 4 for a schematic overview of the curriculum.

The first year of the curriculum places a strong emphasis on research methodology and techniques relevant to the analysis of economic and financial issues, while instilling a critical

attitude to the concepts and approaches used in these fields. It consists of ten courses in total. Students follow eight core courses of 6.5 EC each: *Mathematical Research Tools*, *Empirical Econometrics*, *Microeconomics I*, *Macroeconomics I*, *Microeconomics II*, *Financial Markets*, *Research Strategy*, *Empirical Econometrics II*. Seven of them provide a solid basis in mathematical methods, microeconomics, macroeconomics, econometrics and finance. Students also attend *Computational Econometrics/Operations Research Software* (4 EC) and *Experimental Economics Methods/World of Research* (4EC). In the former, students are trained in the use of relevant software packages. The latter consists of a series of modules, and in each module an international expert introduces students to a particular aspect of scientific practice.

The second year of the curriculum allows for tailor-made specialisation courses fitting the needs of individual students. They can choose four specialisation courses (6.5 EC each) connected to the economics and finance-related Graduate School of Business and Economics (GSBE) research programmes. There are several specialisation courses available, such as *Labour Economics*, *Workshops in Finance*, *Asset Pricing*, *Macroeconomics II*, *Empirical Methods in Financial Research*, *Game Theory*, *Behavioural Economics*, *Equilibrium Theory*, *Industrial Organisation and Public Economics*, *Role of Technology in the Economy*, *Technology and Productivity Growth*, *Technology, Networks and the New Economy*. In addition, there is one specialisation course available which is not linked to any specific research programme: *Capita Selecta Economic and Financial Research*. The second year concludes with a course on *Presentation skills* (4 EC) and the *Research master's thesis* (30 EC). The thesis is prepared under the supervision of an expert researcher. The quality of the thesis should reach the level of a good first draft of a chapter in a PhD dissertation.

The panel studied the curriculum and concluded that the content of the courses reflects the state of the art in the field of macroeconomics, microeconomics and econometrics. They cover a broad spectrum and are exactly what one would expect from a research master's programme Economic and Financial Research. During the site visit, students elaborated that they are also offered the opportunity to become a research assistant or teaching assistant in the second year of the programme. In addition, students can attend frequently held seminars and have the opportunity to bilaterally meet the speaker to discuss their own research ideas in further detail. The panel is satisfied about these specific features of the curriculum.

Although the alumni were on the whole satisfied with the curriculum, they suggested making the second-year courses more challenging, particularly the quantitative ones, and offering seminars in macroeconomics. According to the panel, there is room for more advanced econometrics during the second year. It also remarked that the one soft skills course, *Presentation skills*, only enters the curriculum in the second year. It advises the programme management to reconsider the position of this course in the curriculum, as while it is useful to acquire presentation skills prior to entering the labour market or academia, it can also be considered an advantage during the two-year master's programme itself. It also recommends to consider including other soft skills, such as academic writing.

Teachers explained that there is always room for improvement of the curriculum. They actively try to address new topics and new questions in the courses and keep the literature up to date. The Economic and Financial Research director is responsible for safeguarding the consistency and coherence of the programme. This is achieved through frequent reflective interactions with course coordinators, lecturers and students. All changes to the curriculum are discussed with the Graduate School of Business and Economics Board, the Bachelor's-Master's Management Team, the Programme Committee, the Board of Examiners, the

School of Business and Economics Council. The School of Business and Economics Board takes the final decision.

2.2. Relationship between the intended learning outcomes and the curriculum

Research master's programme Business Research

All of the courses in the curriculum have their own course description. These descriptions cover the course content, the required literature, the teaching and assessment methods, and the intended learning outcomes. For example, the course *Business Research Design* has the intended learning outcome a) *understand and learn how to design and conduct a research study by applying the appropriate methodology*. This matches the overarching learning outcome 2) *general research competences* (see chapter 1.1) and the programme objective *to use relevant methodologies from the business sciences, including conceptual analysis, archival research, etc.* (see Appendix 3). The course *Presentation skills* also deals with several intended learning outcomes. One of them is intended learning outcome a) *to increase your awareness of the range of issues that needs to be considered when preparing and delivering a presentation for a multilingual and multicultural audience*. This matches the overarching intended learning outcome 4) *communication and professional skills* (see chapter 1.1). It also firmly connects with the programme objective *to acquire knowledge of ethical rules related to scholarly work and the ability and willingness to use them (including styles of acknowledgement, use of other person's sources, use of data, referencing, peer review, anonymity)* (see Appendix 3).

The curriculum is closely linked to the five intended learning outcomes and simultaneously embedded in an academic context. Research activity at the Graduate School of Business and Economics (GSBE) is structured into six coherent research programmes. In the latest assessment (2009), the four business-related research programmes received an average score between very good and excellent. Research programme leaders advise the Business Research director on the content of the courses, and course coordinators and lecturers on the latest developments in their field of research. In addition, students are invited and encouraged to participate in scientific events organised by the research programmes. GSBE offers Research Master's Assistantship Grants to the most promising students. Research assistants collaborate closely with a GSBE fellow from a research programme that matches the student's field of interest.

The panel confirmed that the intended learning outcomes are embedded in the core courses and contribute to the profile of the programme. However, the way in which the intended learning outcomes of the regular master's electives fit the profile of the research master's programme is less clear to the panel. When it comes to the set of four new intended learning outcomes, the relationship has not yet been worked out. The panel stresses the importance of adding a research master's component to the intended learning outcomes, especially in the regular master's electives. Attendance at seminars, which can be considered an important aspect of creating global citizenship (newly introduced intended learning outcome 2), should be compulsory according to the panel. Research assistantships and teaching assistantships are two features of the curriculum which may strengthen the context in which students can acquire the learning outcomes.

Research master's programme Economic and Financial Research

All of the courses in the curriculum have their own course description. These descriptions cover the course content, the required literature, the teaching and assessment methods, and the intended learning outcomes. For example, the course *Research Strategy* includes the intended learning outcome that *students acquire understanding of methodological and practical issues when developing an empirical research strategy in economics*. This intended learning outcome matches

the overarching intended learning outcome 2) *general and research competences* (see chapter 1.1). In particular, it fits with the objective *to critically reflect upon the relation between methodology, theoretical framework, and empirical research* (see Appendix 3). The course *Microeconomics I* is set up to *teach students to apply mathematical tools to model economics problems, to develop the theoretical framework of microeconomics and to prove its results*. This matches the overarching intended learning outcome 3) *competences related to the fields of EFR* (see chapter 1.1) and the programme objective *to apply standard approaches from the disciplines of economics and finance* (see Appendix 3).

The curriculum is closely linked to the five intended learning outcomes and simultaneously embedded in an academic context. Research activity at the Graduate School of Business and Economics (GSBE) is structured into six coherent research programmes. In the latest assessment (2009), the four economics and finance-related research programmes received an average score between very good and excellent. Research programme leaders advise the Economic and Financial Research director on the content of the courses, and course coordinators and lecturers on the latest developments in their field of research. In addition, students are invited and encouraged to participate in scientific events organised by research programmes. GSBE offers Research Master's Assistantship Grants to the most promising students. Research assistants collaborate closely with a GSBE fellow from a research programme that matches the student's field of interest.

The panel confirmed that the intended learning outcomes are embedded in the courses and contribute to the profile of the programme. However, when it comes to the set of four new intended learning outcomes, the relationship has not yet been worked out. Attendance at seminars, which can be considered an important aspect of creating global citizenship (newly introduced intended learning outcome 2), should be compulsory according to the panel. Research assistantships and teaching assistantships are two features of the curriculum which may strengthen the context in which students can acquire the learning outcomes.

2.3 Teaching concept, programme-specific services and the Programme Committee

Both research master's programmes adopted the Problem-Based Learning (PBL) approach for educating students. By focusing on cases, students are stimulated to acquire the relevant knowledge, insights and skills in a relatively independent manner. Teaching takes place in small tutorial groups where students meet once or twice a week. During these sessions, problems and intended learning outcomes are discussed under the supervision of experienced tutors who guide and monitor the learning process. During the curriculum, individual work alternates with teamwork. Students are encouraged not to work repeatedly with the same fellow student, but to team up with other students as well. A wide range of didactic teaching methods is applied throughout the courses; examples include plenary lectures, tutorial group sessions, research meetings, scientific presentations, etc. During the site visit, the students argued that they are generally satisfied with the PBL concept, although it is not always feasible due to the low student numbers and in mathematical courses the concept does not apply adequately.

Students of the research master's programmes have access to EleUM, the electronic learning environment, and a computer lab with computers for educational purposes and ones for research purposes. In addition, they have access to the library which contains a large and constantly updated collection of over 400,000 books. During the site visit, it became clear that the library is generally very crowded and that more rooms are needed for group work. The Programme Committee asserted that space is currently a faculty-wide issue.

The Programme Committee consists of students and teachers and meets monthly. They have created task forces to tackle different issues of concern. During the site visit, the members of the Programme Committee explained that they process course evaluation forms and give requested and unsolicited advice to the management of the programmes. They monitor course levels and handle issues regarding changes in curricula, coherence between courses and thesis procedures. The panel found that the Programme Committee functions adequately. However, it wonders whether the small number of students of the research master's programmes is taken into account. Since the Programme Committee has to monitor 360 courses, courses with multiple unsatisfactory student evaluations are first on the agenda. It advises the Programme Committee to carefully reflect on the size and scale of the programmes.

During the site visit, Economic and Financial Research students confirmed that they fill out an evaluation at the end of each course and receive updates on the way their feedback has been processed. The panel recommends that the programme management involve alumni in the quality control procedures and invite them to provide suggestions for improvement.

2.4 Feasibility

Research master's programme Business Research

The programme is aimed at university graduates with a bachelor's degree in economics, econometrics, business administration, psychology, sociology, engineering or other disciplines with applied quantitative components. Parts of the programme are also open to PhD candidates who need to acquire additional (methodological) qualifications. Each student has to submit an application file that comprises a curriculum vitae, motivation essay, two letters of recommendation, transcripts from the bachelor's record or certificate (if already obtained), an official GMAT/GRE school score report of at least 550 and 4.0 for analytical writing and a TOEFL/IELTS/Cambridge Proficiency Exam of 90/233/575 or a 6.5. The Board of Admissions decides whether candidates are admitted to the programme.

The panel agrees with the current entry requirements, even though it means that student numbers remain rather low. From the site visit it became clear that students often consider the two-year research master's programme as "quite a commitment". Students tend to go directly into industry after graduation.

Business Research has a study load of 120 EC, divided over two years and based on an average study load of 36 hours per week, for 40 weeks per year. Business Research students confirmed that they generally try to study during office hours, but sometimes have to do extra preparation during weekends. Study progress is monitored carefully in order to prevent study delays. The School of Business and Economics has a Student Advisory and Academic Counselling Office comprising a number of student advisers who hold regular open office hours. These advisers are usually the first port of call for students who need general study support, including study planning and choice of study programme.

Although study advisors are considered the initial point of contact, it became clear from the interviews during the site visit that the students usually contact their teachers first. Alumni expressed great satisfaction with them: their teachers were always available, and they could always knock on their teacher's doors or send them an e-mail when they had questions. They always received a prompt reply.

From the cohorts starting in the years 2009, 2010, 2011 and 2012, 63% of the students have completed the programme successfully; of these graduates 90% were able to do so within two years. According to the panel, the student numbers are too low to make any general statements about the yield of the programme.

Research master's programme Economic and Financial Research

The programme is aimed at university graduates with a bachelor's degree in economics, econometrics, business administration, psychology, sociology, engineering or other disciplines with applied quantitative components. Parts of the programme are also open to PhD candidates who need to acquire additional (methodological) qualifications. Each student has to submit an application file that comprises a curriculum vitae, copy of passport, portrait picture, motivation essay, two letters of recommendation, transcripts from the bachelor's record or certificate (if already obtained), an official GMAT/GRE school score report of at least 550 and 4.0 for analytical writing and a TOEFL/IELTS/Cambridge Proficiency Exam of 90/233/575 or a 6.5. The Board of Admissions decides whether candidates are admitted to the programme.

The panel approved the current entry requirements and was happy that the programme attracts many international students. Economic and Financial Research has a study load of 120 EC, divided over two years and based on an average study load of 36 hours per week, for 40 weeks per year. The students explained that the workload differs per student and per year. Study progress is monitored carefully in order to prevent study delays. The School of Business and Economics has a Student Advisory and Academic Counselling Office comprising a number of student advisers who hold regular open office hours. These advisers are usually the first port of call of students who need general study support, including study planning and choice of study programme.

Although study advisors are considered the initial point of contact, it became clear from the interviews during the site visit that the students usually contact their teachers first. Students explained that they can easily make an appointment with their teacher via e-mail, or just knock on their door.

From the cohorts starting in the years 2009, 2010, 2011 and 2012, 82% of the students have completed the programme successfully; of these graduates, 91% were able to do so within two years. The panel agreed with the yield of the programme.

2.5 Teaching staff

To ensure that all core staff members involved in Business Research and Economic and Financial Research possess solid research experience, they must all be (or soon qualify as) Graduate School of Business and Economics (GSBE) fellows. These fellowships are awarded based on qualitative and quantitative criteria regarding academic publications in peer-reviewed journals. Fellowships are granted for a period of four years, after which the fellowship is re-evaluated. According to School of Business and Economics policy, all senior research staff holding a position of at least 0.6 FTE are required to have a University Teaching Qualification (UTQ) or, in the case of newly hired staff, obtain it as soon as possible.

Currently, all teachers involved in the core of Business Research and Economic and Financial Research hold a UTQ or are in the process of acquiring it. Roughly four out of five staff members involved in the research master's programmes are experienced PhD supervisors. During the evaluation period the average total number of students enrolled in Business

Research was 7, while the average of GSBE fellows was 31.4. Hence, the student-staff ratio is 1:4.5. At the moment of the assessment, the Business Research staff consisted of four full professors, four associate professors, eight assistant professors, one researcher holding a PhD and one external teacher holding an MA. In the case of Economic and Financial Research, the average total number of students enrolled was 21, while the average of GSBE fellows was 56.8. Hence, the student-staff ratio is 1:2.7. At the moment of the assessment, the Economic and Financial Research staff consisted of eleven professors, seven associate professors, seven assistant professors and one external teacher holding an MA. To the panel, however, it was unclear how the fte are divided between teachers in electives. It was also not clear to the panel how the research background and teaching expertise are ensured for electives.

During the site visit, it became clear that all teachers are involved in the bachelor's and master's programmes. Hence, although the student numbers in Business Research and Economic and Financial Research do not increase, the total increase of student numbers at the School of Business and Economics affects the workload of teachers in the research master's programmes as well. The panel studied the cv's and recent publications of the teachers and confirmed that both programmes house excellent researchers who generally have a good reputation and publish in highly ranked journals. Business Research teachers explained that they aim to share their enthusiasm for research with research master's students more than with regular master's students. Economic and Financial Research teachers explained that they find the research master's students more ambitious and very motivated in comparison to regular master's students. As a result, they tend to pick more challenging topics and, since they might pursue a PhD position, talk to them as fellow researchers in the making.

According to the panel, it could be fruitful if teachers and students of both research master's programmes would interact more in the courses. In addition, the panel encourages incentives to foster joint research.

Considerations and conclusions

Research master's programme Business Research

The panel studied the content and structure of the curriculum and is satisfied about the core courses and the way in which teachers explain the methodology in an applied manner, related to their own research background. The panel argued that the rather large number of electives allows too much variation in the content and level of the curriculum. The way in which the intended learning outcomes of the regular master's electives contribute to the profile of the research master's programme is not entirely clear to the panel. When it comes to the core courses, the intended learning outcomes are embedded and contribute to the profile of the programme. It might also be worthwhile to change the titles of the core courses since they suggest a strictly methodological approach. Business Research is embedded in the academic context of six research programmes, which have been evaluated with an average score between very good and excellent in the latest research assessment. The panel is happy that students are offered the opportunity to become a research or teaching assistant. It is also pleased with the frequently held seminars that are open to research master's students, as this contributes to the academic research character of the programme.

Business Research adopted the Problem-Based Learning (PBL) approach for educating students. Students have access to EleUM, the electronic learning environment, and to the library. The panel states that the Programme Committee functions adequately, but it advises its members to carefully reflect on the size and scale of the programme.

The panel agreed with the current entry requirements, even though it means that student numbers remain rather low. Business Research has an adequate study load.

The panel is very positive about the accessibility of teachers: students can always knock on their teacher's doors or send them an e-mail when they have questions. It confirmed that the programme houses excellent researchers who generally have a good reputation and publish in highly ranked journals. Hence, it found that the quality and quantity of the teaching staff suit the programme well. According to the panel, the curriculum, staff, services, and facilities constitute a coherent teaching-learning environment for the students.

The panel assesses Standard 2 as **satisfactory**.

Research master's programme Economic and Financial Research

The panel studied the content and structure of the curriculum and concluded that the content of the courses reflects the state of the art in the field of macroeconomics and microeconomics. The courses cover a broad spectrum and are exactly what you would expect from a research master's programme Economic and Financial Research. The panel confirmed that the intended learning outcomes are embedded in the courses and contribute to the profile of the programme. However, when it comes to the set of four new intended learning outcomes, the relationship is not yet worked out. Economic and Financial Research is embedded in the academic context of six research programmes, which have been evaluated with an average score between very good and excellent in the latest research assessment. The panel is happy that students are offered the opportunity to become a research or teaching assistant. It is also pleased with the frequently held seminars that are open to research master's students, as this contributes to the academic research character of the programme.

Economic and Financial Research adopted the Problem-Based Learning (PBL) approach for educating students. Students have access to EleUM, the electronic learning environment and to the library. The panel found that the Programme Committee functions adequately, but it advises its members to carefully reflect on the size and scale of the programme.

The panel approves the current entry requirements and is satisfied that the programme attracts international students. Economic and Financial Research has an adequate study load.

The panel is very positive about the accessibility of teachers: students can always knock on their teacher's doors or send them an e-mail when they have questions. It confirmed that the programme houses excellent researchers who generally have a good reputation and publish in highly ranked journals. Hence, it found that the quality and quantity of the teaching staff suit the programme well. According to the panel, the curriculum, staff, services, and facilities constitute a coherent teaching-learning environment for the students.

The panel assesses Standard 2 as **good**.

Standard 3: Assessment

The programme has an adequate assessment system in place.

Explanation:

The tests and assessments are valid, reliable and transparent to the students. The programme's examining board safeguards the quality of the interim and final tests administered.

Findings

This section considers the panel's findings regarding the assessment system of the research master's programmes Business Research and Economic and Financial Research.

In line with the concept of Problem-Based Learning (PBL), students of both research master's programmes are formatively assessed throughout each course, mainly via an evaluation of attendance, reports of practical work, and presentations. They are also summatively assessed at the end of each course, either through a written exam or an individual assignment. Students are informed in advance about the mode of assessment and the weight of each test. If students wish to inspect their graded test, they may do so within a 10-day period that commences on the day the grades are published. Students can submit their complaints about the test to the Board of Examiners. Students who disagree with a decision by the Board of Examiners can submit an appeal to the Maastricht University Board of Appeal for Examinations.

During the site visit, Business Research students confirmed that there is a variety of assessments such as written exams, presentations, and oral exams. They stated that you can always contact the teachers and ask questions regarding the grading of the assessment. When it comes to presentations, students receive feedback from their peers, but the teachers elaborate on the feedback and grade it. Economic and Financial Research students argued that there is no possibility to free-ride in group assignments. They clarified that due to the structure of the group assignment, you are obliged to participate. In addition, although they might provide feedback, students do not officially grade each other's contribution in group assignments.

The Board of Examiners is responsible for the quality control of assessments. Its members – of whom at least one is external – are appointed by virtue of their expertise. An Assessment Committee informs the Board of Examiners about the quality of assessments and testing procedures and recommends possible improvements, with an emphasis on validity, reliability, and transparency. Teachers holding a UTQ are appointed as examiners. Recently, the faculty introduced the four-eyes principle to exchange exams between teachers in a more systematic manner.

From the interviews with the management of the research master's programmes, the teachers of Business Research, and the teachers of Economic and Financial Research, it became clear that they are unaware of the fact that teachers have to be appointed as an examiner in order to take and grade exams. The management assumed that teachers holding a UTQ were automatically appointed as examiners, and the teachers of both programmes argued that their appointment as a coordinator of a course consequently lead to the title of examiner. The panel advises the programme management to inform the teaching staff about the legal task of the Board of Examiners to appoint examiners to take exams and determine the grade. It also noted that the presence of the Assessment Committee can be emphasised more. Currently, teachers from both programmes stated that they usually discuss their questions regarding exams with other teachers or coordinators and rarely contact the Assessment Committee.

During the site visit, members of the Assessment Committee explained that they have an advisory role as well as a monitoring role. One of their tasks, for example, is to analyse what went wrong in an exam and provide a recommendation of how to correct this issue or how to prevent future errors. Currently, they are developing an assessment plan. The members of the Assessment Committee admitted that the evaluation and assessment on the programme level are still works in progress.

The Board of Examiners explained its task to the panel as safeguarding the quality of diplomas. Its members are all appointed by the School of Business and Economics Board, and they have followed a number of courses in order to professionalise. There are a number of inspection moments to see whether the teachers who design the exams are qualified to do so, and the Board of Examiners takes measures during and after assessments. For example, if there is a low passing rate in a particular course, it will contact the coordinator and ask for clarification. There are prevention procedures in place, but it has never come across fraud in the assessments of the two research master's programmes.

The panel studied the Education and Examination Regulations of the School of Business and Economics. It noted that the document contains relevant information for students regarding the assessment and publication of examination results, examination periods and dates, writing assignments, the right of inspection, resit procedures and exemptions. Although many assessment procedures are included in the document, there is not yet an assessment policy nor an assessment plan.

The Education and Examination Regulations also include a chapter on the deadlines and grading of the master's thesis. However, this chapter is not applicable to Business Research and Economic and Financial Research. During the site visit, the panel received a guideline for writing a master's thesis, but again, this document was solely meant for regular master's students. In the additional interview with thesis supervisors of both research master's programmes, it became clear that instructions regarding the thesis are provided orally. The panel advises the management of the programmes to improve the transparency of the thesis procedure.

The thesis is the final test for students to show that they meet the desired research qualifications. The assessment is based on the following six categories: thesis layout (25%), methods (20%), discussion (25%), final product (10%), thesis writing process (10%) and defence (10%). The first examiner grades the content and structure of the thesis, practical skills, independence and attitude. The second examiner only grades the final product. The mean of the two grades, which are equally weighted, rounded to the nearest grade will be the final grade. According to the management, one of the key elements to distinguish between the research master's programmes and regular master's programmes is the contribution to academia. This is translated in the criterion that the thesis should be written in the form of a chapter of a dissertation, and hence be publishable. Business Research alumni explained that, depending on the PhD position, the thesis is indeed used as a draft of a chapter of a dissertation.

The panel studied 12 theses and their corresponding assessment forms, six from Business Research and six from Economic and Financial Research. It concluded that the grading of the theses of both research master's programmes was generally on the high side. Thesis supervisors of both research master's programmes elaborated in the additional interview that they grade the thesis from 1-10 and argued that "if there is such a scale in place, you should

use it". When asked what they considered to be the minimum criteria for a research master's thesis, they explained that creativity or novelty should determine the fail/pass grade. Students who choose a complicated topic and contribute to existing work should receive a 9. As one of the teachers added, "We have a broader perspective on the thesis, and we do not solely grade on the [assessment] criteria". Alumni of both research master's programmes confirmed that they received a grade for their thesis which was more or less in line with what they expected. The panel concluded that the assessment criteria are clear to the teachers. However, it seems like the teachers are trying to fit their own criteria on a form which does not provide sufficient freedom in the grading process. Surprisingly enough, when studying the assessment forms of the 12 theses, the panel noticed that the comments box was often empty. It believes that the criteria are weighted differently between teachers, and that the criterion which weighs the contribution to academia and the criterion which weighs creativity are both missing on the form. From the interviews during the site visit, it became clear that students receive sufficient oral feedback, but the panel stresses that written summative feedback is also useful. The panel recommends improving the quality and transparency of the thesis procedure, criteria and grading.

Considerations and conclusions

Research master's programmes Business Research and Economic and Financial Research

The panel concludes that there is a sufficient and adequate variety of exam types in place and that students are well aware of the methods of assessment. The Board of Examiners is responsible for the quality control of assessments. An Assessment Committee informs the Board of Examiners about the quality of assessments and testing procedures and recommends possible improvements. Although the Board of Examiners has already installed several measures to check and improve the assessment system, the panel feels that further professionalisation is required. The Assessment Committee is aware of this need and is currently developing an assessment plan at the programme level. The Education and Examination Regulations contain relevant information for students regarding assessments, but lack specific information for research master's students. The panel therefore advises the management to increase the transparency and quality regarding the thesis procedure, criteria and grading for Business Research and Economic and Financial Research students. Although the assessment system requires further protocolling, the panel also concluded that due to the low student numbers and the close contact between teachers and students, the assessment system functions informally but adequately.

The panel assesses Standard 3 of the *research master's programme Business Research* as **satisfactory**.

The panel assesses Standard 3 of the *research master's programme Economic and Financial Research* as **satisfactory**.

Standard 4: Achieved learning outcomes

The programme demonstrates that the intended learning outcomes are achieved.

Explanation:

The level achieved is demonstrated by interim and final tests, final projects and the performance of graduates in actual practice or in post-graduate programmes.

Findings

This section deals with the question of whether the graduates of the research master's programmes Business Research and Economic and Financial Research have achieved the intended learning outcomes.

Research master's programme Business Research

The aim of Business Research is to prepare students for a career in a research setting: either within the academic community or outside, as an analyst. Graduates are actively followed via social media, such as LinkedIn. Of the alumni who graduated between 2007-2014, 62% continued in a PhD programme. However, due to the low student numbers, this percentage can be considered irrelevant. Some graduates continued to do their PhD at Maastricht University, and some applied for positions at other highly ranked (inter)national universities. Other graduates continued in research positions outside academia, for example as an analyst, procurement assistant or consultant. According to Business Research alumni, there is an Alumni Association, and they were asked by the management for input to help develop the curriculum. Since the panel only spoke to alumni currently enrolled in a PhD position, it could not analyse the fit between the research master's programme and the research positions outside academia. The alumni present during the site visit had entered their PhD positions rather smoothly. The PhD policy in the Business Research programme is as follows: the top three students, based on their grade point average, get an offer for a PhD position at Maastricht University. According to the panel, there is a good connection between the research master's programme and PhD positions. It also opens doors for students to find a PhD position at other universities.

The panel studied six Business Research theses and their corresponding assessment forms. Within this selection, there were low, middle and high grades, and a spread over years of submission and supervisor. In general, the students seemed to apply a consistent and logical line of reasoning, conclusions followed logically from the presented material, the research method was presented in a well considered way, and the methods and techniques of the research were adequately and correctly applied. However, the panel found that the grading was somewhat on the high side. The median grade was 8.5, which is a little too generous considering the fact that the use of English and the referencing were not always correct. In some cases, the panel felt that the supervisors had not looked at the thesis in detail. Following an alphabetical order for referencing, for instance, could have been a recommendation from the supervisor to the student prior to submitting the thesis. According to the panel, all selected theses were of a solid research master's level, and one was considered to be publishable. The theses are an excellent tool to show to students what is expected from a PhD dissertation. It enables teachers to judge their students on their research capacity.

Research master's programme Economic and Financial Research

The aim of Economic and Financial Research is to prepare students for a career in a research setting, either within the academic community or outside, as an analyst. Graduates are actively followed via social media, such as LinkedIn. Of the alumni who graduated between 2007-2014, 84% continued in a PhD programme. Some graduates continued to do their PhD at

Maastricht University, and some applied for positions at other highly ranked (inter)national universities. Other graduates continued in a research position as an analyst outside the academic community. According to Economic and Financial Research alumni, there is an Alumni Association. However, they have not yet been asked for input by the management to help develop the curriculum. Since the panel only spoke to alumni currently enrolled in a PhD position, it could not analyse the fit between the research master's programme and the research positions outside academia. The alumni present during the site visit had entered their PhD positions rather smoothly. The PhD policy in the Economic and Financial Research programme is as follows: the top three students, based on their grade point average, get an offer for a PhD position at Maastricht University. Economic and Financial Research students were not aware of this PhD policy, however. According to the panel, there is a good connection between the research master's programme and PhD positions. It also opens doors for students to find a PhD position at other universities.

The panel studied six Economic and Financial Research theses and their corresponding assessment forms. Within this selection, there were low, middle and high grades, and a spread over years of submission and supervisor. In general, the students seemed to apply a consistent and logical line of reasoning, conclusions followed logically from the presented material, the research method was presented in a well-considered way, and the research methods and techniques were adequately and correctly applied. However, the panel found that the grading was somewhat on the high side. The median grade was an 8, which is a little too generous considering the fact that the use of English and the referencing were not always correct. In one of the cases, the thesis was graded with a 9.5 whereas the panel would only have given it a 7. The thesis had no research question, and the assessment form did not clarify why the work received such a high grade. Another thesis was graded with an 8 while the panel classified the work as unsatisfactory. According to the panel, the structure of the thesis was unclear, and the student did not answer the research question. This particular case was discussed in the additional interview with thesis supervisors during which a clear explanation was given for the grading of this particular case. More generally, during this interview it became clear that supervisors have a broader perspective on the thesis and thesis procedure and that not all criteria are sufficiently covered on the assessment form. The use of English and the referencing need improvement. Nevertheless, the panel confirmed that five out of six theses did achieve a solid research master's level. The theses are an excellent tool to show to students what is expected from a PhD dissertation. It enables teachers to judge their students on their research capacity.

Considerations and conclusions

Research master's programme Business Research

According to the panel, there is a good connection between the research master's programme and PhD positions. In addition, the panel states that the theses were all of a research master's level, and one was considered to be publishable. This proves that the intended learning outcomes are achieved upon graduation.

The panel assesses Standard 4 as **good**.

Research master's programme Economic and Financial Research

According to the panel, there is a good connection between the research master's programme and PhD positions. In addition, the panel states that five out of six theses were a research master's level. This proves that the intended learning outcomes are achieved upon graduation.

The panel assesses Standard 4 as **good**.



General conclusion and recommendations

The research master's programmes Business Research and Economic and Financial Research prepare students for a PhD position as well as a job in the professional field. Both research master's programmes have a good international reputation and are embedded in a strong international network. They house excellent researchers and are closely linked to six research programmes, which have been evaluated with top scores in the latest research assessment. Students achieve the intended learning outcomes upon graduation, and due to the PhD policy, the top three students of both programmes are offered a PhD position at Maastricht University. According to the panel, the curriculum of Economic and Financial Research is better structured than that of Business Research, which results in a variation in the overall scores.

The panel assesses the *research master's programme Business Research* as **satisfactory**.

The panel assesses the *research master's programme Economic and Financial Research* as **good**.

In addition to the positive assessments, the panel has the following recommendations.

Standard 1: Intended learning outcomes

- The four new intended learning outcomes need to be defined further.

Standard 2: Teaching and learning environment

- It might be worthwhile to change the titles of the core courses of Business Research since they suggest a strictly methodological approach.
- The rather large number of electives in Business Research allow too much variation in the content and level of the curriculum. In particular, the way in which the intended learning outcomes of the regular master's electives fit the profile of the research master's programme is not entirely clear to the panel.
- The management of the research master's programme Business Research might consider paying attention to qualitative research methods in the core courses.
- The management of the research master's programme Economic and Financial Research might consider making the second-year courses more challenging (particularly the quantitative courses) and offering seminars on macroeconomics as well.
- The management of both research master's programmes should reconsider the position of the *Presentation Skills* course in the curricula, as it is not only useful to acquire presentation skills prior to entering the labour market or academia, it can also be considered an advantage during the programmes themselves.
- Attendance at seminars should be made compulsory, especially in light of the new intended learning outcome 'global citizenship'.
- The Programme Committee functions adequately, but its members should reflect carefully on the size and scale of the programme.

- The library is generally very crowded, and more rooms are needed for group work.
- It could be fruitful if teachers and students of both research master's programmes would interact more in the courses. In addition, the panel encourages incentives to foster joint research.

Standard 3: Assessment system

- The management of both research master's programmes should inform the teaching staff about the legal task of the Board of Examiners to appoint examiners to take exams and determine grades.
- An assessment policy and assessment plan need to be made.
- The management of both research master's programmes should increase the transparency regarding the thesis procedure, criteria and thesis grading.

Standard 4: Achieved learning outcomes

- The management of both research master's programmes should also involve alumni to provide suggestions for improvement of the curricula. This procedure is currently not embedded in any of the quality control procedures.

Appendices



Appendix 1: Curricula vitae of the members of the assessment panel

Prof. Victor Ginsburgh is honorary professor of economics at Université Libre de Bruxelles, and former co-director of the European Center for Advanced Research in Economics and Statistics (ECARES). He is also a member of the Center for Operations Research and Econometrics (CORE), Université catholique de Louvain since 1972. He was a visiting professor at Yale University, University of Chicago, University of Virginia, University of Louvain, as well as in Marseilles, Paris, Strasbourg and Alexandria (Egypt). Ginsburgh wrote and edited a dozen books and is the author or co-author of over 200 papers on topics in applied and theoretical economics, including industrial organization and general equilibrium analysis. His more recent interests extend to the economics of languages, as well as to art history and art philosophy, two fields in which he tries to put his knowledge of economics (self-taught) to use. He has published over 60 papers on these topics, some of which appeared in the *American Economic Review*, the *Journal of Political Economy*, *Games and Economic Behavior*, the *Journal of Economic Perspectives*, the *Journal of the European Economic Association*, *European Economic Review* and the *Economic Journal*.

Prof. Herman van Dijk is professor of econometrics at VU University Amsterdam. He was director of the Tinbergen Institute, director of the Econometric Institute, and professor of econometrics with a personal chair at Erasmus University Rotterdam. He has been a visiting fellow and a visiting professor at Cambridge University, the Catholic University of Louvain, Harvard University, Duke University, Cornell University, and the University of New South Wales. In addition, van Dijk is a fellow of the International Society of Bayesian Analysis, honorary fellow of the Tinbergen Institute, elected member of the International Statistical Institute and senior fellow at the Rimini Center for Economic Analysis. He has extensive experience as a (co-)manager and coordinator of research initiatives and conferences. He received the Savage Prize for his PhD dissertation and is listed in the Econometricians Hall of Fame amongst the top ten European econometricians in the *Journal Econometric Theory*. His research interests cover a range of topics in econometrics with as the common theme: simulation-based bayesian econometric techniques for inference, forecasting and decision analysis. He is serving on the Editorial Board of major journals in econometrics. His publications consist of several books and more than 200 international scientific journal papers and reports.

Prof. Jeroen Suijs is professor of the economics of accounting at the Department of Accountancy, Tilburg University. He graduated from the Econometrics and Operations Research programme and completed his PhD studies in the field of stochastic cooperative game theory, both at Tilburg University. His current research focuses on information economics, in particular the role of information (accounting) in financial markets. His research has been published in top international journals like the *Journal of Accounting and Economics*, *Journal of Accounting Research* and *Review of Accounting Studies*. During 1999-2004, Suijs received a fellowship from the Royal Netherlands Academy of Arts and Sciences. Prior to his appointment at Tilburg University, he was professor of financial accounting at the Rotterdam School of Management. In 2000, he spent one year as a visiting post-doc at the Kellogg School of Management.

Prof. Tom Elfring is professor of strategic management and entrepreneurship at VU University Amsterdam. He is head of the Department of Management and Organisation. Elfring studied in the United States for one year, and has done part of his doctoral work at the European Institute in Florence, Italy. Prior to his appointment at VU University, he worked at the Rotterdam School of Management and had a part-time chair in innovative

entrepreneurship at Wageningen University (1997-2002). He has been visiting professor at the Copenhagen Business School, at Mays Business School, University of Texas A&M, at the Aarhus School of Business, and at University of Bologna. His research interests include corporate entrepreneurship and venturing, networking in emerging organisations, strategic entrepreneurship, and managing service innovation. He has published over 60 international articles/book chapters in journals, such as, *Academy of Management Journal*, *Journal of Business Venturing*, *Journal of Business and Psychology*, *Long Range Planning*, *Organization Studies*, *Scandinavian Management Journal*, *Scientometrics and Small Business Economics*. He has published seven books, the latest *Corporate Entrepreneurship and Venturing* (2005, Springer). His book *Rethinking Strategy* has won the ERIM best book award. Two recent Academy of Management conference papers have been awarded to be included in the Best Paper Proceedings. Elfring received the Emerald Management Reviews Citations of Excellence Award 2012 for his article with Wouter Stam in the *Academy of Management Journal*, 2008.

Dr. Desirée Joosten-ten Brinke is associate professor at the Open University of the Netherlands and lector at the Teacher Training College at Fontys University of Applied Sciences in Tilburg. She studied Educational Science at the University of Twente and graduated from the Department of Educational Measurement and Data Analysis. Her research and teaching focus lies on the quality of testing and assessment, e-assessment, Assessment of Prior Learning and formative assessment. She assists teachers and PhD candidates in their research on these topics and provides training for teachers and members of Boards of Examiners. Joosten-ten Brinke is a member of the Expert Group on assessment for primary education, a member of review committees and editor of a Dutch journal on assessment.

Gabriele Ciminelli Mphil is a PhD candidate in Applied Macroeconomics at the University of Amsterdam. His current research projects focus on (i) the relation between central banks' unconventional policies and market expectations of the future policy rate, and (ii) the impact of tax policy on income inequality. He graduated from the MPhil programme in Economics at Tinbergen Institute in August 2015. However, his original background is in European Studies. He holds a BSc in Political Science from Rome Three University (November 2008) and a MA in International and Diplomatic Sciences from Bologna University (March 2011). During the course of his formation he did internships in institutions such as the European Commission and the European Bank for Reconstruction and Development.

Appendix 2: Domain-specific framework of reference

Business Research

1. Subject-specific reference framework

The subject-specific reference framework provides the framework within which programmes are assessed. This can be very important for smaller or niche programmes which compare themselves against a very limited number of other programmes. In this respect, the more focused the programme, the more important the benchmarks that are chosen, because comparing with a programme with a different focus will then show substantial omissions in the programme. However, in the broad fields of business and economics, it is well understood that a university will discuss a number of fields in-depth, and others only marginally. The reference frameworks reflect this.

1.1. The Business discipline

Business programmes focus on the interdisciplinary study of organizations with respect to their internal processes as well as their interaction with their environment. Due to its broad nature, a precise definition of Business as an academic discipline is difficult to give. Academic Business programmes emphasize research, analysis and reflection and do not offer specialized professional training.

Business students study the complex and dynamic functioning of organizations in its broadest sense. The aim is to understand how the various activities within an organization contribute to achieving the organization's goals, and how these activities may be managed to increase this contribution. The Business discipline does not differentiate between for-profit and not-for-profit organizations, as commercial, governmental, voluntary and international organizations are all object of study.

Students will encounter sub-disciplines such as Marketing, Strategy, Human Resource Management, Organizational Behaviour, Business Ethics, Information Management, Accounting, Finance, Economics, International Management, Logistics, Business Law and Entrepreneurship. The common theme underlying all these sub-disciplines is a link with organizational activities and change. Business students distinguish themselves through their ability to integrate two or more disciplines, to tackle organizational problems and to understand and participate in organizational change processes.

Due to the broad nature of this multidisciplinary field, Business programmes will differ in the emphasis on each of the disciplines, since they cannot all be covered to the same extent. For example, programmes may profile and position themselves as an economics programme, a social sciences programme, or a technical programme. Also, programmes may focus more on understanding organizational processes or on designing interventions to improve these processes.

The relevance of the programmes follows from a reference frame consisting of the business and management practice, programmes offered by schools and universities which are internationally recognized as being of high quality, and academic research communities. There are a number of international accreditation bodies that focus on the business field (e.g., EQUIS, AACSB) whose activities help in identifying good programmes. However, these bodies typically refrain from meeting discipline-specific learning outcomes as part of their accreditation, which is a reflection of the broad nature of the field. As such, individual programmes will emphasize different aspects within the general reference frame.

The broad nature of business and management professions implies that many students soon find themselves working in jobs that make demands on know-how beyond their specialization. In this respect, it is imperative that BSc degree programmes provide their graduates with acquired academic, research and communicative skills to a basic standard. In addition, the learning outcomes need to be related to the admission requirements of at least one MSc degree programme and, where applicable, the professional sphere. Additionally, the MSc degree programmes provide graduates with academic, research and communicative skills to an advanced level, and graduates are able to link these learning outcomes to the professional sphere.

1.2. Aims, level and orientation of the degree programmes

The degree programmes aim to train students both in the chosen discipline (i.e. in relation to the field of practice) and academically. This means that students should gain knowledge and understanding of the field and acquire both relevant subject-related and general academic skills. Hence the programmes emphasize the characteristics and value of academic research, the importance of knowledge and understanding of theory and methodology, and the relative nature of interpretations; they also offer a framework within which students can learn to apply that knowledge and understanding appropriately.

A BSc degree programme offers a broad, general education to an elementary academic standard. Students who have completed a BSc degree meet the criteria for entry to an MSc degree programme. An MSc programme offers the opportunity to go deeper into a particular field, subfield or combination of subfields than is possible in a BSc programme. The various degree programmes also prepare students for careers in society at large, where the knowledge and skills gained during their studies may be put to use. Generally speaking, this is not so much a case of preparation for specific career paths; rather, it is about acquiring an academic attitude and a box of academic tools.

1.3. Subject-specific skills

The skills acquired by students on a degree programme depend on the subfield and specialization of the programme in question. Thus, the content-related exit qualifications depend on the specific choices made by the student. However, in general, students on a BSc degree programme learn how to use their knowledge when confronted with a relatively straightforward problem in the realm of business or public policy. They must also be able to put what they have learned into perspective. For instance, this can be achieved by comparing one theory with another, or by confronting disciplinary concepts (e.g. from psychology) with approaches from other disciplines (e.g. from economics).

The subject-specific skills of students on MSc degree programmes build on the skills they acquired in the BSc degree programme. In the spirit of the Treaty of Bologna, and given the increasing international character of degree programmes, quality standards must be as 'international' as possible.

Students with a BSc degree in Business will have acquired the following skills:

- ☐ Reproduction and interpretation – graduates can reproduce conceptual and methodological principles of business, and can discuss them with colleagues.
- ☐ Analysis and explanation – graduates can analyse and explain phenomena and problems in various sub-disciplines of business using the conceptual and methodological principles of the disciplines.

Graduates of an MSc degree programme in Business meet the following profile:

- ☐ Graduates are able to work independently, and can formulate relevant research questions themselves and draft a plan of action in justification. This includes sourcing and using relevant subject-specific literature, and plugging any gaps there may be in the knowledge required to answer the research question.
- ☐ Graduates are able to read and understand recent articles from journals and relevant sections of renowned academic publications and put their own research question in the context of existing literature.
- ☐ Graduates should also be able to analyse variations on existing models to some extent.

1.4. General skills

General academic skills

- ☐ Graduates of BSc degree programmes have the skills needed to devise and sustain arguments and to solve problems within the field of study. Graduates of MSc degree programmes are

able to apply the same skills to new or unfamiliar circumstances within a wider, or multidisciplinary, context within the field of study.

- ☐ Graduates of BSc degree programmes have a general understanding of the nature and function of academic research. Graduates of MSc degree programmes have an in-depth knowledge of their subject.
- ☐ Graduates of BSc degree programmes are able to collect and interpret relevant information from a range of sources and subfields. Graduates of MSc degree programmes are able to assimilate knowledge and deal with complex subject matter.
- ☐ Graduates of BSc degree programmes are able to form an opinion that is at least partly based on a comparative assessment of relevant social, scientific or ethical aspects. Graduates of MSc degree programmes are able to form an opinion based on incomplete or limited information, taking into account the aforementioned aspects when applying their own knowledge and judgement.
- ☐ Graduates of BSc degree programmes are able to work independently under supervision and as part of a team. Graduates of MSc degree programmes are able to work both independently and as part of a multidisciplinary team.

Research skills

- ☐ Graduates of BSc degree programmes are, under supervision, able to set up and carry out a modest literature search or other research on a limited scale that has a reasonable and realistic programme. Graduates of MSc degree programmes are able independently to set up and carry out an academic research project that meets the requirements of the field of study.
- ☐ Graduates of MSc degree programmes have a thorough understanding of the relevant research methods and techniques in the field of study. Graduates of BSc degree programmes have a passive understanding of all these methods, and an active understanding of some of them.

Communication skills

- ☐ Graduates of BSc degree programmes are able to communicate information, ideas and solutions to both specialist and non-specialist audiences. Graduates of MSc degree programmes are able to draw conclusions and use their knowledge, understanding, motivation and considered reasoning to substantiate these conclusions and convey them to similar audiences.
- ☐ Graduates of BSc degree programmes are able to summarize the results of research on a limited scale orally or in writing, in a way that is clear and precise. Graduates of MSc degree programmes are able to do the same for research where the scope and complexity matches the level of the degree programme.

Relationship with the professional sphere

The learning outcomes are tailored to the expectations of future employers, regardless of diversity or otherwise.

- ☐ Graduates have the necessary skills to perform work in which an academic education to BSc level or MSc level is required or preferred.
- ☐ Graduates of BSc degree programmes are aware of the possible relevance and use of academic insights in their field of study in relation to social issues and needs. Graduates of MSc degree programmes are able to make a considered judgement on the possible relevance or use of academic insights within their field of study in relation to social issues and needs.
- ☐ Graduates will have been able to consider the options for possible future work at the appropriate level.

Learning environment

A salient feature of academic degree programmes is that they encourage students to do things that enrich their academic experience. Stimulating independence and allowing students to work in teams without undue external influence are important in this regard.

2. Domain-specific requirements

The Research Master programme aims to prepare students for PhD thesis research in business.

Students who successfully complete the research master in Business Research should:

- ☑ have an understanding of the core of business sciences- that allows them to
 - broadly read and understand the current scientific literature in business and follow scientific debates across the business sciences, and
 - successfully embark on independent study of at least one specialized field of business research;
- ☑ have a sufficiently deep understanding of one field of business research to allow them
 - to actively participate in current scientific debates in this field and
 - contribute original research to this field, initially under academic supervision;
- ☑ be able, initially under academic supervision, to write research papers in business that can be submitted to an international, peer-reviewed journal for publication;
- ☑ be able to present and defend their research to an audience of academic researchers;
- ☑ have an attitude to independently keep track of the developments in one field of specialization and to embark on independent study in this field.

The program's intended learning outcomes should be confronted with the domain's standards or requirements for PhD students trained in other international graduate programs.

The first requirement is that BR students master a business discipline at an advanced level. This ensures that students embark on their PhD research and subsequent academic career with a sufficiently advanced understanding of the discipline to follow academic discourse and to initiate independent study of the domain's specialized fields of research.

Knowledge of the business discipline may foster independent study in specialized fields of research, but is, by itself, not sufficient to actively debate and carry out research at the frontier of the business sciences. The second requirement is that students further specialize in one field of business research and is part of the second-year requirements.

The other requirements encompass that students are able to write research papers and to present and defend their research work are natural goals of any research training and are obviously shared with all undivided PhD programmes. In the BR programme students prepare a research proposal in the first year and produce a research paper, the research master's thesis, as part of their second-year requirements. The standards for the thesis are high: it is a (good first draft of) a proper research contribution to the field that can be submitted to an international, peer-reviewed journal in business.

Economic and Financial Research

1. Subject-specific reference framework

The subject-specific reference framework provides the framework within which programmes are assessed. This can be very important for smaller or niche programmes which compare themselves against a very limited number of other programmes. In this respect, the more focused the programme, the more important the benchmarks that are chosen, because comparing with a programme with a different focus will then show substantial omissions in the programme. However, in the broad fields of business and economics, it is well understood that a university will discuss a number of fields in-depth, and others only marginally. The reference frameworks reflect this.

1.1. The Economics discipline

Economics is the social science that analyses the production and distribution of scarce resources. Many economists study the factors which drive agents to act in markets and within organizations. Such analyses focus on the important role played by the allocation of scarce production factors and the impact this has on the prosperity of society as a whole. General economics takes a primarily social perspective, whereas business economics goes deeper into the various business processes. Another key focus area is the study of business process management. Methodology is another important aspect of this domain: this is where subjects such as decision-making, econometrics and mathematics come into play.

The skills acquired by students on an Economics degree programme depend on the subfield and specialization of the programme in question. A degree programme referred to as 'Economics' must give students a coherent understanding of economic concepts that goes further than an 'Introduction to...' course. These concepts encompass general economics (for example macroeconomics, microeconomics, public sector economics and international economics), business economics (for example reporting, finance, marketing, organization, information science and strategy) and the methodological subjects (mainly statistics and mathematics). Methodological courses are by definition core parts of the econometrics and decision-making field. A BSc degree programme provides students with the basic tools needed to study one or more disciplines in depth.

1.2. Aims, level and orientation of the degree programmes

The degree programmes aim to train students both in the chosen discipline (i.e. in relation to the field of practice) and academically. This means that students should gain knowledge and understanding of the field and acquire both relevant subject-related and general academic skills. Hence the programmes emphasize the characteristics and value of academic research, the importance of knowledge and understanding of theory and methodology, and the relative nature of interpretations; they also offer a framework within which students can learn to apply that knowledge and understanding appropriately.

A BSc degree programme offers a broad, general education to an elementary academic standard. Students who have completed a BSc degree meet the criteria for entry to an MSc degree programme. An MSc programme offers the opportunity to go deeper into a particular field, subfield or combination of subfields than is possible in a BSc programme. The various degree programmes also prepare students for careers in society at large, where the knowledge and skills gained during their studies may be put to use. Generally speaking, this is not so much a case of preparation for specific career paths; rather, it is about acquiring an academic attitude and a box of academic tools.

1.3. Subject-specific skills

The skills acquired by students on a degree programme depend on the subfield and specialization of the programme in question. Thus, the content-related exit qualifications depend on the specific choices made by the student. However, in general, students on a BSc degree programme learn how to use their knowledge when confronted with a relatively straightforward problem in the realm of business or public policy. They must also be able to put what they have learned into perspective. For

instance, this can be achieved by comparing one theory with another, or by confronting disciplinary concepts (e.g. from psychology) with approaches from other disciplines (e.g. from economics).

The subject-specific skills of students on MSc degree programmes build on the skills they acquired in the BSc degree programme. In the spirit of the Treaty of Bologna, and given the increasing international character of degree programmes, quality standards must be as 'international' as possible.

Students with a BSc degree in Economics will have acquired the following skills:

- ☐ Reproduction and interpretation – graduates can reproduce conceptual and methodological principles of business, and can discuss them with colleagues.
- ☐ Analysis and explanation – graduates can analyse and explain phenomena and problems in various sub-disciplines of economics using the conceptual and methodological principles of the disciplines.

Graduates of an MSc degree programme in Economics meet the following profile:

- ☐ Graduates are able to work independently, and can formulate relevant research questions themselves and draft a plan of action in justification. This includes sourcing and using relevant subject-specific literature, and plugging any gaps there may be in the knowledge required to answer the research question.
- ☐ Graduates are able to read and understand recent articles from journals and relevant sections of renowned academic publications and put their own research question in the context of existing literature.
- ☐ Graduates should also be able to analyse variations on existing models to some extent.

1.4. General skills

General academic skills

- ☐ Graduates of BSc degree programmes have the skills needed to devise and sustain arguments and to solve problems within the field of study. Graduates of MSc degree programmes are able to apply the same skills to new or unfamiliar circumstances within a wider, or multidisciplinary, context within the field of study.
- ☐ Graduates of BSc degree programmes have a general understanding of the nature and function of academic research. Graduates of MSc degree programmes have an in-depth knowledge of their subject.
- ☐ Graduates of BSc degree programmes are able to collect and interpret relevant information from a range of sources and subfields. Graduates of MSc degree programmes are able to assimilate knowledge and deal with complex subject matter.
- ☐ Graduates of BSc degree programmes are able to form an opinion that is at least partly based on a comparative assessment of relevant social, scientific or ethical aspects. Graduates of MSc degree programmes are able to form an opinion based on incomplete or limited information, taking into account the aforementioned aspects when applying their own knowledge and judgement.
- ☐ Graduates of BSc degree programmes are able to work independently under supervision and as part of a team. Graduates of MSc degree programmes are able to work both independently and as part of a multidisciplinary team.

Research skills

- ☐ Graduates of BSc degree programmes are, under supervision, able to set up and carry out a modest literature search or other research on a limited scale that has a reasonable and realistic programme. Graduates of MSc degree programmes are able independently to set up and carry out an academic research project that meets the requirements of the field of study.
- ☐ Graduates of MSc degree programmes have a thorough understanding of the relevant research methods and techniques in the field of study. Graduates of BSc degree programmes

have a passive understanding of all these methods, and an active understanding of some of them.

Communication skills

- ☐ Graduates of BSc degree programmes are able to communicate information, ideas and solutions to both specialist and non-specialist audiences. Graduates of MSc degree programmes are able to draw conclusions and use their knowledge, understanding, motivation and considered reasoning to substantiate these conclusions and convey them to similar audiences.
- ☐ Graduates of BSc degree programmes are able to summarize the results of research on a limited scale orally or in writing, in a way that is clear and precise. Graduates of MSc degree programmes are able to do the same for research where the scope and complexity matches the level of the degree programme.

Relationship with the professional sphere

The learning outcomes are tailored to the expectations of future employers, regardless of diversity or otherwise.

- ☐ Graduates have the necessary skills to perform work in which an academic education to BSc level or MSc level is required or preferred.
- ☐ Graduates of BSc degree programmes are aware of the possible relevance and use of academic insights in their field of study in relation to social issues and needs. Graduates of MSc degree programmes are able to make a considered judgement on the possible relevance or use of academic insights within their field of study in relation to social issues and needs.
- ☐ Graduates will have been able to consider the options for possible future work at the appropriate level.

Learning environment

A salient feature of academic degree programmes is that they encourage students to do things that enrich their academic experience. Stimulating independence and allowing students to work in teams without undue external influence are important in this regard.

2. Domain-specific requirements

The Research Master programme aims to prepare students for PhD thesis research in economics, econometrics and finance.

Students who successfully complete the research master in Economic and Financial Research should:

- ☐ have an understanding of the core of economics – microeconomics, macroeconomics or finance, and econometrics – that allows them to
 - broadly read and understand the current scientific literature in economics and follow scientific debates across the economic sciences, and
 - successfully embark on independent study of at least one specialized field of economic research;
- ☐ have a sufficiently deep understanding of one field of economic research to allow them
 - to actively participate in current scientific debates in this field and
 - contribute original research to this field, initially under academic supervision;
- ☐ be able, initially under academic supervision, to write research papers in economics that can be submitted to an international, peer-reviewed journal for publication;
- ☐ be able to present and defend their research to an audience of academic researchers;
- ☐ have an attitude to independently keep track of the developments in one field of specialization and to embark on independent study in this field.

The program's intended learning outcomes should be confronted with the domain's standards or requirements for PhD students trained in other international graduate programs.

The first requirement is that EFR students master a common core of economics, irrespective of their often diverse backgrounds and ultimate fields of research. This ensures that students embark on their PhD research and subsequent academic career with a sufficiently broad understanding of economics to broadly follow academic discourse in economics and to initiate independent study of the domain's specialized fields of research. There is broad agreement in the economic sciences on a core of microeconomics, macroeconomics, and econometrics; and specialized economic research, reading, and debate usually requires broad knowledge of these core courses. All top PhD programs in economics, teach a core sequence of courses in microeconomics, macroeconomics, and econometrics in one way or the other, usually covering the entire first year, as in our EFR programme.

Knowledge of the economics core may foster independent study in specialized fields of research, but is, by itself, not sufficient to actively debate and carry out research at the frontier of the economic sciences. The second requirement is that students further specialize in one field of economic research and is part of the second-year requirements of many of the best international PhD programs in economics.

The other requirements encompass that students are able to write research papers and to present and defend their research work are natural goals of any research training and are obviously shared with all undivided PhD programs. In the EFR programme student prepare a research proposal in the first year and produce a research paper, the research master's thesis, as part of their second-year requirements. The standards for the thesis are high: it is a (good first draft of) a proper research contribution to the field that can be submitted to an international, peer-reviewed journal in economics.

Appendix 3: Intended learning outcomes

Business Research

Learning goals	Programme objectives
General intellectual competences	<ul style="list-style-type: none"> - to reason logically - to participate in scholarly and scientific discussions - to compare models and theories from different subdisciplines and levels of analysis - to combine models and theories without falling into the trap of eclectic superficiality - to critically reflect upon one's own work and performance, and to adapt that work accordingly - to integrate ethical and normative views in one's scholarly work
General research competences	<ul style="list-style-type: none"> - to carry out a comprehensive literature search and bibliographical analysis, using classic library resources as well as internet sources - to critically appraise the quality of various source materials - to use relevant methodologies from the business sciences, including conceptual analysis, archival research, etc. - to select the appropriate research methodology for a particular research question - to critically reflect upon the relation between methodology, theoretical framework, and empirical research - to critically use the internet for literature research, publishing drafts, interacting with online peer review systems, and empirical research
Competences related to the field of BR	<ul style="list-style-type: none"> - to gain critical insight into business - to apply standard approaches from the disciplines of business - to critically appraise standard approaches in these disciplines - to apply in an original and creative way existing knowledge and approaches and to develop new knowledge in the field of business - to evaluate a scholarly argument in the field of business - to communicate research results with other researchers within and outside the field of business - to discuss recent developments in the field of business - to acquire disciplinary knowledge as relevant for the field of business - to transfer concepts, methods and theoretical perspectives from an established field of study to a new research domain so as to facilitate intellectual and methodological innovation - to combine concepts, theories and methods from diverse disciplines in a reflexive and well-reasoned manner - to see the structure underlying the scholarly field of business and the relations between subfields - to contribute in an original, sound and scholarly way to the body of knowledge production, as certified by the final master's thesis, at the quality level of a peer reviewed international journal article
Communication and professional skills	<ul style="list-style-type: none"> - to acquire knowledge of ethical rules related to scholarly work and the ability and willingness to use them (including styles of acknowledgement, use of other persons' sources, use of data, referencing, peer review, anonymity) - to evaluate and handle complex situations with incomplete information - to relate one's research project to other disciplinary frameworks - to work in a research team - to ensure adequate time management - to acquire practical knowledge concerning national and

	<p>international research funding possibilities, and the ability to apply for such funds</p> <ul style="list-style-type: none">- to contribute to the various means of knowledge production and dissemination, as regularly used in the field of business (e.g. research paper, article, report, edited volume, workshops and conferences)
Learning skills	<ul style="list-style-type: none">- to identify new events, relations, and patterns in seemingly random data- to acquire an original and critical style of analysis- to make one's own substantive choices related to research topic, questions, and approach; including in relation to societal circumstances.- to acquire an attitude of lifelong learning

Economic and Financial Research

Learning goals	Programme objectives
General intellectual competences	<ul style="list-style-type: none"> - to reason logically - to participate in scholarly and scientific discussions - to compare models and theories from different sub-disciplines and levels of analysis - to combine models and theories without falling into the trap of eclectic superficiality - to critically reflect upon one's own work and performance, and to adapt that work accordingly - to integrate ethical and normative views in one's scholarly work
General research competences	<ul style="list-style-type: none"> - to carry out a comprehensive literature search and bibliographical analysis, using classic library resources as well as internet sources - to critically appraise the quality of various source materials - to use relevant methodologies from the economics and finance sciences, including conceptual analysis, archival research, etc. - to select the appropriate research methodology for a particular research question - to critically reflect upon the relation between methodology, theoretical framework, and empirical research - to critically use the internet for literature research, publishing drafts, interacting with online peer review systems, and empirical research
Competences related to the fields of EFR	<ul style="list-style-type: none"> - to gain critical insight into economics and finance - to apply standard approaches from the disciplines of economics and finance - to critically appraise standard approaches in these disciplines - to apply in an original and creative way existing knowledge and approaches, and to develop new knowledge in the field of economics and finance - to evaluate a scholarly argument in the fields of economics and finance - to communicate research results with other researchers within and outside the fields of economics and finance - to discuss recent developments in the fields of economics and finance - to acquire disciplinary knowledge as relevant for the fields of economics and finance - to transfer concepts, methods and theoretical perspectives from an established field of study to a new research domain so as to facilitate intellectual and methodological innovation - to combine concepts, theories and methods from diverse disciplines in a reflexive and well-reasoned manner - to see the structure underlying the scholarly fields of economics and finance and the relations between subfields - to contribute in an original, sound and scholarly way to the body of knowledge production, as certified by the final master's thesis, at the quality level of a peer-reviewed international journal article
Communication and professional skills	<ul style="list-style-type: none"> - to acquire knowledge of ethical rules related to scholarly work and the ability and willingness to use them (including styles of acknowledgement, use of other persons' sources, use of data, referencing, peer review, anonymity) - to evaluate and handle complex situations with incomplete information - to relate one's research project to other disciplinary frameworks - to work in a research team - to ensure adequate time management - to acquire practical knowledge concerning national and international research funding possibilities, and the ability to apply for such funds - to contribute to the various means of knowledge production and

	dissemination, as regularly used in the fields of economics and finance (e.g. research paper, article, report, edited volume, workshops and conferences)
Learning skills	<ul style="list-style-type: none">- to identify new events, relations, and patterns in seemingly random data- to acquire an original and critical style of analysis- to make one's own substantive choices related to research topic, questions, and approach; including in relation to societal circumstances- to acquire an attitude of lifelong learning

Appendix 4: Overview of the curricula

Business Research

Year	Period	Courses	
1	1	Applied Quantitative Analysis (6.5 ECTS)	IB Elective (6.5 ECTS)
	2	Advanced Quantitative Research Methods in Business I (6.5 ECTS)	IB Elective (6.5 ECTS)
	3	Data Analysis Skill (4 ECTS)	
	4	Advanced Quantitative Research Methods in Business II (6.5 ECTS)	IB Elective (6.5 ECTS)
	5	Business Research Design (6.5 ECTS)	IB Elective (6.5 ECTS)
	6	World of Research (4 ECTS)	
2	1	Specialisation (6.5 ECTS)	Free / Methodology Elective (6.5 ECTS)
	2	Specialisation (6.5 ECTS)	Free / Methodology Elective (6.5 ECTS)
	3	Presentation skills (4 ECTS)	
	4	Research Master's thesis (30 ECTS)	
	5		
	6		

Economic and Financial Research

Year	Period	Courses	
1	1	Mathematical Research Tools (6.5 ECTS)	Empirical Econometrics I (6.5 ECTS)
	2	Microeconomics I (6.5 ECTS)	Macroeconomics I (6.5 ECTS)
	3	Computational Econometrics / Operations Research Software (4 ECTS)	
	4	Microeconomics II (6.5 ECTS)	Financial Markets (6.5 ECTS)
	5	Research Strategy (6.5 ECTS)	Empirical Econometrics II (6.5 ECTS)
	6	Experimental Economics Methods / World of Research (4 ECTS)	
2	1	Specialisation 1 (6.5 ECTS)	Specialisation 2 (6.5 ECTS)
	2	Specialisation 3 (6.5 ECTS)	Specialisation 4 (6.5 ECTS)
	3	Presentation skills (4 ECTS)	
	4	Research Master thesis (30 ECTS)	
	5		
	6		



Appendix 5: Quantitative data regarding the programmes

Business Research

Data on intake, transfers and graduates

Diploma	2009	2010	2011	2012	2013
Cohort size	2	0	3	11	3
Drop-outs year 1	0		0	3	1
Drop-outs year 2 or later	0		0	3	
Graduates after year 2	1		3	5	
Graduates after year 3	1		3		
Graduates after year 4	2				
Still in programme					2
Completion rate	100%		100%	45%	
Average study duration of graduates in column year	1.83	2.00	2.42	1.96	2.34

Teacher-student ratio achieved

During the evaluation period, the average number of newly enrolled students was 3.5. The average total number of students enrolled was roughly 7, while the average number of GSBE fellows was 88.2 (in FTE). This results in an estimated student-staff ratio of more than 10 teachers per student during the evaluation period.

Average amount of face-to-face instruction per stage of the study programme

Year 1

8 courses (each with 14 meetings of 2 hours)	224 hours
2 skills (each with 8 meetings of 2 hours)	32 hours
Total	256 hours

Year 2

4 courses (each with 14 meetings of 2 hours)	112 hours
1 skill (8 meetings of 2 hours)	16 hours
Master thesis	20 hours
Research assistantship (36 weeks, 1 hour meeting per week)	36 hours
Total	184 hours

Average contact hours per study year

220 hours

Economic and Financial Research

Data on intake, transfers and graduates

Diploma	2009	2010	2011	2012	2013
Cohort size	4	5	5	14	14
Drop-outs within one year	1		1	2	3
Drop-outs	1		1	3	
Graduates within two years	2	4	4	11	
Graduates within three years	2	5	4		
Graduates	3	5			
Still in programme					11
Completion rate	75%	100%	80%	79%	
Average study duration of graduates in column year	1.83	2.00	2.42	2.29	1.96

Teacher-student ratio achieved

During the evaluation period, the average number of newly enrolled students was 10.3 such that the average number of students enrolled was 20.7, while the average number of GSBE fellows was 88.2 in fte. This leads to an estimated student-staff ratio of slightly more than four teachers per student during the evaluation period. Although the ratio has dropped in the later years due to an increased inflow of students, for the academic year 2014/2015 there are still almost three teachers per student.

Average amount of face-to-face instruction per stage of the study programme

Year 1

8 courses (each with 14 meetings of 2 hours)	224 hours
2 skills (each with 8 meetings of 2 hours)	32 hours
Total	256 hours

Year 2

4 courses (each with 14 meetings of 2 hours)	112 hours
1 skill (8 meetings of 2 hours)	16 hours
Master thesis	20 hours
Research assistantship (36 weeks, 1 hour meeting per week)	36 hours
Total	184 hours

Average contact hours per study year

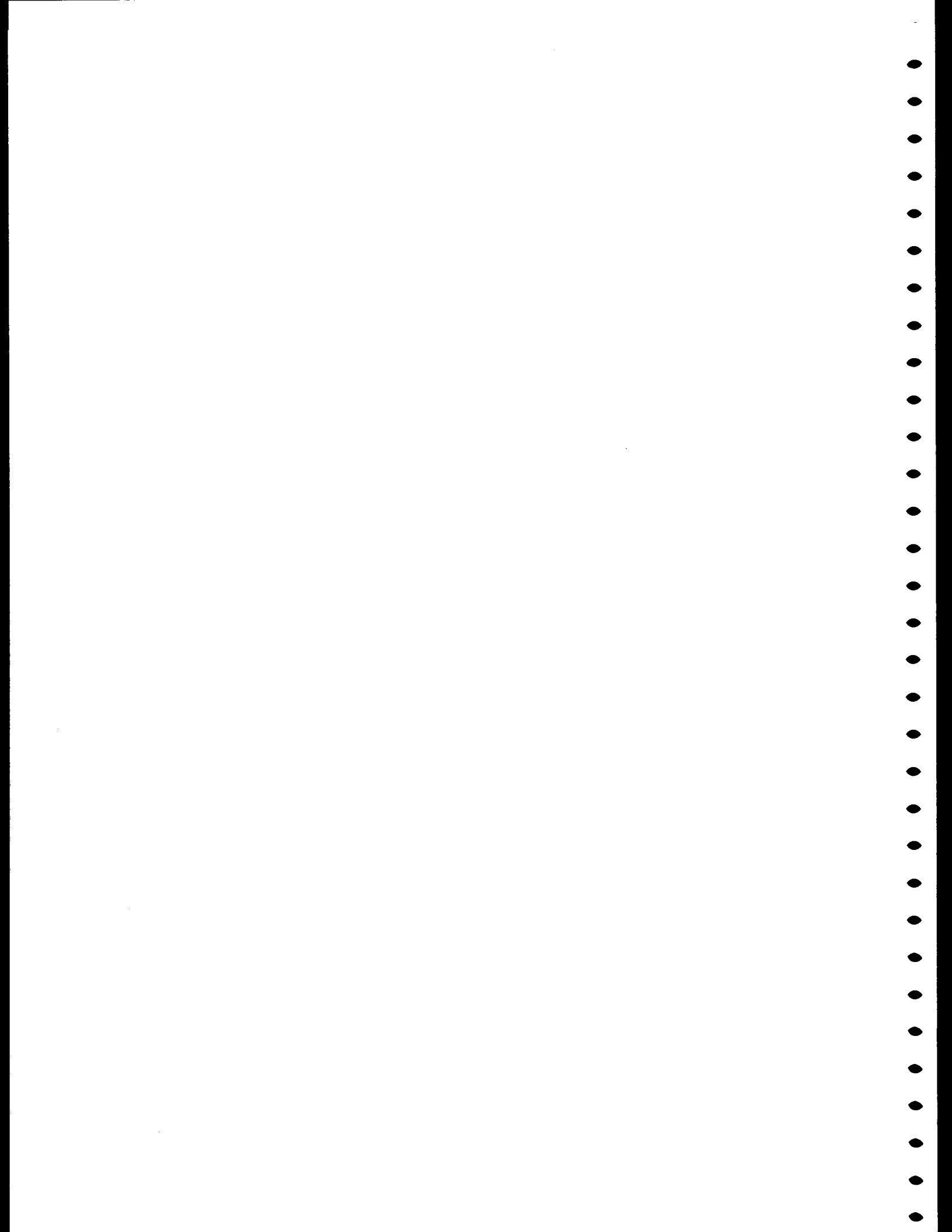
220 hours

Appendix 6: Programme of the site visit

Visiting timetable School of Business and Economics – Maastricht University Room D0.03		
Wednesday 21 October 2015		
-	12.30	Welcome Prof. Philip Vergauwen (Dean) & GSBE Board
12.30	15.30	Preparatory meeting Reading additional documentation Lunch
15.30	15.45	Break
15.45	16.45	Interview with the management of the programmes Dr. Ronald Peeters (Director EFR) Dr. Wilko Letterie (Director BR) Prof. Frank Moers (Scientific Director) Prof. Peter Schotman (FB)
16.45	17.00	Break
17.00	17.30	Interview with alumni Business Research Anika Schumacher MSc (PhD MSCM) Ulrike Thurheimer MSc (PhD AIM) Jasper Brinkerink MSc (PhD O&S) Lei Zou MSc (PhD AIM) Tim Hilken MSc (PhD MSCM)
17.30	18.00	Interview with alumni Economic and Financial Research Henrik zaunbrecher MSc (PhD AE1) Rasmus Lönn MSc (PhD KE) Runliang Li MSc (PhD FIN) Marina Friedrich MSc (PhD KE) Adam Kuczynski MSc (PhD AE2) Sean Telg MSc (PhD KE)
Thursday 22 October 2015		
09.00	09.15	Internal meeting panel

09.15	10.00	<p>Interview with students Business Research</p> <p style="text-align: right;">Nina Karthaus Bas van de Werff</p>
10.00	10.45	<p>Interview with teachers Business Research</p> <p style="text-align: right;">Prof. Jean-Pierre Urbain (HGL) Dr. Bram Foubert (UD) Prof. Martin Carree (HGL) Dr. Boris Blumberg (UD) Prof. Frank Moers (HGL) Dr. Kelly Geyskens (UD)</p>
10.45	11.00	<p>Break</p>
11.00	11.45	<p>Interview with students Economic and Financial Research</p> <p style="text-align: right;">Niels Moermans Sander Aarts Raginee Baruah Giang Tran Song Zhang Michael Gratz Cécile Magnée</p>
11.45	12.30	<p>Interview with teachers Economic and Financial Research</p> <p style="text-align: right;">Prof. Hans Peters (HGL) Dr. Arkadi Predtetchinski (UHD) Dr. Christian Seel (UD) Dr. Thomas Post (UD) Prof. Jean-Pierre Urbain (HGL) Dr. Olivier Marie (UD)</p>
12.30	13.00	<p>Additional interview with thesis supervisors</p> <p style="text-align: right;">Prof. Jean-Pierre Urbain (EFR + BR) Dr. Olivier Marie (EFR) Dr. Yannick Bammens (BR)</p>
13.00	13.30	<p>Open office hour (no show) Lunch Internal meeting panel</p>
13.30	13.50	<p>Interview with Programme Committee (students + teaching staff)</p> <p style="text-align: right;">Bas van Diepen MSc (lecturer)</p>

		Jeanette Hommes MSc (obp) Lisa Gloos (student) Leon Reuss (student)
13.50	14.35	Board of Examiners, Assessment Committee, Study Advisor Dr. Ad van Iterson (Board of Examiners) Nathalie Dirks MBA (Board of Examiners) Jeanette Hommes MSc (Assessment Committee) Dr. Dirk Tempelaar (Assessment Committee) Wim Bogaert MEd (Study Advisor)
14.35	14.50	Break
14.50	15.50	Interview with the management of the programmes Dr. Ronald Peeters (Director EFR) Dr. Wilko Letterie (Director BR) Prof. Frank Moers (Scientific Director) Prof. Peter Schotman (FB) Prof. Philip Vergauwen (Dean)
15.50	16.00	Break
16.00	17.30	Internal meeting panel
17.30	17.45	Presentation of preliminary findings



Appendix 7: Theses and documents studied by the panel

Prior to the site visit, the panel studied the theses of the students with the following student numbers:

Business Research

617288	6005497	6012812	471100	355941	561517
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Economic and Financial Research

6033425	6053663	6002440	6047088	6034548	6040938
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During the site visit, the panel studied, among other things, the following documents of each research master's programme:

- Subject-specific reference framework and the learning outcomes of the programme;
- Overview of the curriculum;
- Outline description of the curriculum components;
- Teaching and examination regulations;
- Overview of allocated staff;
- Selection of interim and final tests.

In addition, the panel was provided with information focused on the individual and collective research quality, in the form of the following (mandatory) documents:

- A list of the responsible and senior staff members who are actively involved in the research master's programme, and any expected significant changes in the staff. Each name on the list was provided with a brief resume and a list of five distinctive publications;
- A description of the manner in which and the extent to which the (top) researchers involved in the programme actually play an active and executive role in the curriculum;
- A list of the number of PhD students supervised by the staff members involved;
- The most recent data from research assessments (QANU, KNAW), and a description of the relation between this data and the research master's programme, which shows that the level of the research groups concerned is demonstrably very good to excellent;
- A list of active collaborations with research units at home and abroad, with a brief description of their nature and scope (e.g. Graduate Schools or Research Schools);
- A list of the substantial subsidies.

