PROGRAMME EVALUATION

MASTER OF SCIENCE IN
ECONOMICS AND BUSINESS ADMINISTRATION

NHH

Report from the Academic
Programme Committee,
Master (PMU)
June 2015

Programme evaluation
of the
Master of Science in Economics and Business Administration

2015

Final version, June 2015

Preface

This report is the final version of the Programme evaluation of the Master of Science in Economics and Business Administration at NHH Norwegian School of Economics. The programme evaluation was initiated in 2013 and conducted in 2014 and early 2015. The work was led by (former) Dean for the master programmes, Professor Kenneth Fjell, with administrative support from the Section for Analysis and Quality Assurance, and with the Academic Programme Committee for master programmes (PMU) as the responsible entity.

A tentative version of the evaluation report was submitted on 2nd February 2015 and was subject to a formal hearing at NHH in February and March 2015.

The present report includes a new Executive summary, which summarises the main findings of the evaluation, the hearing requests and responses, and the decisions made by PMU so far based on the evaluation and the hearing. The main part of the report – chapters 1 to 7 – is basically the same as the tentative report from February 2015. It includes all the discussions and findings from the tentative report, as well as all the hearing questions. However, due to the sensitivity of some of the data, a few sections have been revised (made more aggregate) in order to ensure that the whole report can be made publicly available.

Please note that any recommendations and decisions made after the hearing of the report, are summarised in the Executive Summary; these have, however, not been integrated in the main chapters of the report.

PMU has been responsible for the entire evaluation process and submits the present report to the Board of NHH for information and further action. As of April 2015, Professor Jan I. Haaland has taken over as Dean of the master programmes, and he has thus been in charge of the final stages of the evaluation process, including the final revisions of the report.

Bergen 24.05.15

Jan I. Haaland

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Executive Summary

The Programme evaluation of the Master of Science in Economics and Business Administration was conducted during autumn 2014 and spring 2015. A tentative report was subject to a formal hearing process in February and March of 2015. This executive summary presents the *main* conclusions, recommendations and hearing requests in the initial report as well as a summary of the received statements from the NHH community in the hearing process, and the decisions reached so far by the Academic Programme Committee for the Master Programmes (Programutvalget for masterutdanningen, PMU).

Summary of main findings[1]

The NHH Strategy 2014 – 2017 has specific goals regarding education, and the primary ones concerning the master's degree are:

1. **Admission quality**: The programmes should attract the best Norwegian students and highly qualified international students
2. **Quality of studies**: Teaching, study programmes and the study environment at NHH will be on a par with the best international institutions in its field
3. **Graduate quality**: Our candidates will be preferred in the national labour market and will be attractive in the international labour market.

The quality of admitted students is high and the Norwegian application to the Master of Science in Economics and Business Administration (MScEBA) is good. The overall number of students is at target capacity. However, a main challenge is that the number and share of international degree (not exchange) students is considerably below the strategic ambitions. Hence, various measures to increase the number of high quality international degree students are discussed in the report and addressed in the hearing requests. One measure under way is to increase the number of majors open to international students from three to six. This is in line with survey data suggesting that international applicants associate a wide selection of programmes with high educational quality. Still, NHH is slightly low on number of international master programmes offered relative to benchmark institutions.[2] This suggests that there is room to offer additional international majors based on new, mandatory combinations of the vast English course portfolio to attract more and better international students. The international admission is more flexible than that for Norwegian students. The latter must have the Norwegian Bachelor in Business Administration or similar, and they receive the additional title of "siviløkonom" upon graduation. Despite a more heterogeneous background with less business and economics, international students achieve on average only marginally lower grades at NHH than "siviløkonom" bachelors.[3] However, more detailed analysis is necessary before concluding that little business background is not a significant impairment on grades.

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[1] The section is based on the summary chapter from the initial report, with only minor modifications.

[2] The core of benchmark institutions has been Norwegian School of Business (BI), Copenhagen Business School (CBS), and Stockholm School of Economics (SSE). Other schools included in various comparisons have been, among others, Aalto University, HEC-Paris, St. Gallen, Harvard, Stanford, and London Business School.

[3] 0.2 lower average on a scale where A = 5, B = 4, etc.

It is quite common for Master in Management (MiM) programmes to admit bachelor students who do not have prior business or economics education. Indeed, about half of the top ten MiM programmes on the Financial Times ranking admit non-business applicants. Widening the search for talent by considering non-business bachelors, would increase the pool of potential international students of high quality. However, it might also exacerbate the need for distinguishing these non-"siviløkonom" candidates by a separate degree, e.g. a MiM degree, tailored towards the international market. Today, they are distinguished from other MScEBA candidates by (not having) the additional title of "siviløkonom".

An important conclusion in the previous programme evaluation (from 2009) was that the strategy of ensuring graduates with a broad background in business, economics and administrative areas had proven successful. It was cautioned that: "To change this profile by educating candidates who, for instance, have never seen a financial statement or an investment analysis, is regarded to weaken NHH's position as a business school and in the long term make our candidates in less demand." (Programevalueringen, 2009, p. 9). However, the flexible structure of the MScEBA does not ensure such a broad background. Rather it is ensured by the comprehensive admission requirement for "siviløkonom" candidates. Hence, it remains a challenge for international degree students, as they have a more flexible admission requirement and thus quite heterogeneous backgrounds.

Tightening this admission requirement as a means of ensuring a broad business background for all international students would reduce the pool of potential talent and the number of international students, contrary to the strategic goal of internationalisation. An alternative measure could be to ensure a broad business background through *mandatory courses in the master* (for international students only), instead of through *tightened admission requirements*. Whether the admission requirements should be adjusted, and if so, how to ensure sufficient business knowledge for the graduates, were among the key questions in the hearing process.

A comparison of programme content with several benchmark institutions suggests that NHH has exceptionally flexible majors with much student choice. This is appreciated by students and many of the faculty as well, but presents some challenges regarding how to ensure specific learning outcomes within majors, as well as sufficient academic progression. This was an issue raised in the previous programme evaluation as well. Compared to other programmes, there should be ample room for NHH to increase its share of mandatory courses somewhat while maintaining its differentiating feature of high flexibility, if other measures are found insufficient.

Teaching methods and the development of the candidates' skills are addressed in several chapters. Student feedback suggests that NHH performs well relative to our cooperating institutions (exchange partners) on most dimensions, with the exception of teaching methods. Hence, there should be a focus on developing teaching methods further, in particular with regard to more active student participation in class. At the same time, there is strong pressure on the teaching resources, for various reasons. The growth in student numbers (discussed in Chapter 2) has significantly increased the need for resources for coursework and feedback to students as well as for supervision of master theses. Average class size has increased by 43 per cent in the period of 2008 to 2013, and the number of master theses has increased by 113 per cent in the same period. Furthermore, based on feedback from alumni and employers, NHH should do more to develop the master candidates' cooperative skills and to focus on application on theory; both of which tend to require more resources per student than traditional lecturing. And finally, in order to strengthen bachelor-level teaching, NHH plans to reallocate some resources from the master to the bachelor level. In sum, this implies that it will be challenging to fulfill high ambitions with regard to developing and using new teaching methods.

The graduate quality of the Master of Science in Economics and Business Administration (MScEBA) is evaluated through surveys of alumni as well as HR managers. The graduate quality is high by national standards, while the picture is more mixed when comparing to candidates with an international background. The *theoretical and analytical skills* of our candidates are a positive and differentiating feature. A clear recommendation is that NHH must develop and strengthen this edge. One measure under way is mandatory empirical methodology in the master programme as of autumn 2015. Further measures should be considered, such as more mandatory courses that ensure theoretical and analytical progression. The current structure of MScEBA is highly flexible, making it difficult to ensure both specific skills and academic progression for all students (both were challenges raised in the previous programme evaluation, as well.) Other measures are discussed in the report, and were subject to the hearing process.

Furthermore, NHH should strengthen the *practical experience, cooperation skills* and *international experience* of its candidates. PMU decided already prior to the programme evaluation to introduce clear and ambitious requirements for all students to ensure intended learning outcomes with regard to *interpersonal management skills*, including for instance communication or teamwork skills[4]. This mainly addresses the issue of cooperation skills. Practical experience in applying theory could be enhanced through expanding internship opportunities as well as the use of case method teaching. Further measures are discussed in the report, and recommendations were requested through the hearing.

Summary of the hearing process and decisions made so far
PMU received feedback from all six academic departments, four profile coordinators, the central administration, The Student Association (NHHS), the Academic Programme Committee for the bachelor programme (PBU) and the International Committee (IU). Below we present the *main* hearing requests and the feedback given in the hearing process, as well as PMU's decisions made so far.

The main hearing requests, as these were stated in the introductory chapter of the initial report, were:

Q1: How to attract a greater number of high quality international degree students, e.g.
 (a) by opening for combining existing courses into new, focused (high mandatory content) international majors, such as "Finance and strategy" or "Finance and accounting"
 (b) by admitting non-business bachelors?

Q2: How to ensure that all non-"siviløkonom"/international degree students (across majors) share a minimum set of business administrative knowledge upon graduation, e.g. through admission requirements or through mandatory courses in the master programme?

Q3: Whether non-"siviløkonom"/international degree students should
 (a) continue within MScEBA , or
 (b) receive a separate degree (e.g. a Master in Management)

Q4: How should we best achieve academic progression within each major for all students, for instance
 (a) through mandatory courses that build on each other, or

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[4] The implementation of this requirement was touched upon in the hearing process, and will be further discussed in the next section.

(b) through electives that build on introductory courses, i.e. require students to take at least one advanced type course?

Q5: How to improve teaching methods used to further the skills development of students, in light of resource demanding challenges, higher student numbers and plans for transfer of resources to the bachelor? Several measures are discussed, such as:
   (a) An increased focus on application of theoretical and analytical skills through practical experience, for instance, through expanding internship opportunities.
   (b) An increased focus on cooperation skills
   (c) Facilitating the case method through establishing an amphitheatre-style case auditorium

Questions 1 to 4 relate to the structure and content of NHH's MScEBA, and they are all, at least partially, interconnected. Hence, the hearing responses and subsequent PMU decisions with regard to these questions will be discussed together first. Then the responses and follow-up decisions to question 5 will be reviewed.

The question of combining existing courses into new <u>focused international majors</u> received support from several departments and profile coordinators. Although some units did not comment on this suggestion at all, there were no negative responses. The new focused international majors are expected not only to help showcase NHH's offerings to potential international students (Q1); they may also address the question of how to ensure a minimum set of common business administrative knowledge (Q2) and how to achieve academic progression within a major (Q4).

PMU has subsequently approved changing the international Financial Economics profile into a more focused Finance profile with a high share of mandatory content. PMU has furthermore invited all the academic departments at NHH to suggest new international profiles of this type, with the aim of evaluating the initiative after two years.

Although the admittance of <u>non-business bachelors</u> to increase the talent pool (Q1) received broad support, there were also voices against this. PMU sees it as natural to treat this question in connection to the issue of whether or not to establish a new degree.

The question of whether to <u>establish a new degree for non-"siviløkonom" and international degree students</u> (Q3) is both complex and strategically important. This is again reflected in the responses from the NHH community, which were divided on the issue. Even if one does not alter the admission requirements for international degree students or start admitting non-business bachelors, the report finds that there are good reasons to consider this issue carefully.

Given the strategic importance and the complexity of the question, PMU has decided to investigate this question further and in more depth in order to present a recommendation to the Board at a later stage. The investigation will also deal with the question of admitting non-business bachelors, and if so, how to ensure that such candidates graduate with a minimum set of business administrative knowledge. Admission requirements in general, including the possibility of profile-specific requirements, will be on the agenda for the investigation.

The question of ensuring a <u>minimum set of business administrative knowledge</u> is valid for today's internationally recruited students (Q2) as well. As noted above the academic background of our international candidates is more heterogeneous than that of the "siviløkonom" students. PMU recognizes

that this question is not one of either or, but rather to what extent one should utilize the different ways to secure common knowledge and skills in the graduating class. Should NHH decide to open up for students with a non-business bachelor, the question of how to secure a common set of business administrative knowledge becomes even more important. On the other hand, if non-business bachelors are admitted into a new, more specialised masters' degree, it should be discussed how much business knowledge to require from students with various specialisations. The hearing responses differ in their views on how and to what extent business knowledge should be required, but there seems to be broad agreement that the question is closely related to the choice of degree structure, as discussed above.

The new focused majors with a high proportion of mandatory content will also give valuable experience when it comes to ensuring academic progression within majors (Q4). PMU recognizes that the best way of ensuring progression might vary between profiles, and will monitor and follow up this issue. PMU has requested an inquiry to be made into the extent to which students choose advanced courses today, as an indication of the actual degree of academic progression.

The fifth main hearing request was related to various aspects of teaching methods and skills acquisition.

Most hearing statements support an increased focus on skill development of students. As noted above, PMU had already prior to the programme evaluation decided on the development of a new degree requirement, where students must satisfy clearly specified learning outcomes related to *interpersonal management skills*, including both communication and teamwork skills. Some of the hearing responses give valuable inputs to how these requirements could best be implemented, and PMU is currently planning to test out various ways of achieving the intended learning outcomes for such skills during the next academic year. Thereafter, the requirement will be implemented for all students. PMU has also decided on introducing mandatory empirical methodology courses in all majors, to help student develop the ability to apply theory to real world problems and to prepare them for their work on the master thesis.

PMU has after the hearing process decided to establish a committee to look further into the possibility of expanding internship opportunities at NHH, both nationally and internationally.

PMU has also asked the central administration to look into the feasibility and cost of establishing an amphitheatre-style auditorium for case-method teaching.

In addition to these main hearing requests, the Programme evaluation also raised a number of other issues, some of which were overwhelmingly supported by the hearing statements and will be followed up in due course. Among there were the suggestion to harmonize the timing of the international and national admission processes to MScEBA. While good international applicants can get an early offer based on their academic achievements already in April, students in the normal admission cycle will not receive an offer until the final grades are clear in July/August. With courses beginning mid-August, this is believed to hamper the acceptance rate among the best applicants to NHH.

Another suggestion in the report, strongly supported in the hearing process, is to change the criteria deciding which admission cycle (national or international) a student is included in from the student's nationality to his or her academic background and merits. Under the present rules, a Norwegian (or Nordic) student would always be treated in the national admission cycle no matter if the degree was from Norway (or a Nordic country) or abroad, meaning e.g. that a Nordic and a non-Nordic student with the same degree from a foreign business school would be treated in different admission cycles, with different admission criteria. In the current admission round (2015) an exception from this rule has been

tested out, but no permanent changes to the rules and procedures have been made yet. In its meeting in June 2015, PMU plans to review and revise the admission criteria and procedures in accordance with the recommendations in the programme evaluation and the experiences made so far from the 2015 admission round.

In terms of the quality of teaching and learning, questions related to active student participation and to feedback to students on their work have been highlighted in the evaluation report as well as in some of the hearing statements. As a first response to this, PMU has decided to ask the administration to include questions about the extent and type of individual or group based feedback in the lecturer's standard course reports. Such a mapping of actual feedback given to students should subsequently form the basis for further actions to improve the situation.

The programme evaluation as well as the hearing responses touch upon a number of other issues of potential importance for the quality and development of the Master programme. PMU will assess and follow up these in due course. However, this executive summary gives the status of decisions and plans made so far.

1. Introduction

All study programmes at NHH are to be evaluated at least every sixth year. The previous programme evaluation of the MSc in Economics and Business Administration was conducted by the Academic Programme Committee responsible for full time master level courses (Programutvalget for masterutdanning – PMU) in 2008 and presented to the Board in 2009. This report is the next of its kind.

The evaluation consists of two parts; the report itself and an appendix. In the report, we address all the topics required by the guidelines for the programme evaluation such as admission, quality of courses, course portfolio, work and learning environment, achieved results and programme relevance. The appendix gives background information and more detailed analyses on some of the topics in the report. Due to the sensitivity of some of the data, as well as the status of the analyses as internal working papers, the appendix is exempted from public disclosure (Off.l § 13 and 14, ref. Fvl § 13.1 pkt 2)[5].

In Chapter 1, we tie the strategic goals to the topics of the quality guidelines, we then briefly review the highlights of the previous evaluation and how its recommendations have been followed up. We end Chapter 1 with an explanation of some of the terms and programme abbreviations used in the evaluation.

Chapters 2 – 7 constitute the evaluation. Each chapter begins by an introduction followed by a short listing of recommendations or hearing requests in brief. The main body of the chapter provides discussion and analyses, leading up to the conclusions with a more in-depth discussion of the recommendations/hearing requests.

1.1 Strategic goals

The NHH Strategy 2014 – 2017 has specific goals regarding education, and the primary ones concerning the master's degree are:

1. **Admission quality**: The programs should attract the best Norwegian students and highly qualified international students
2. **Quality of studies**: Teaching, study programmes and the study environment at NHH will be on a par with the best international institutions in its field
3. **Graduate quality**: Our candidates will be preferred in the national labour market and will be attractive in the international labour market.

The goals are interrelated. The overall goal of a better programme makes our candidates more productive and valuable during their careers. This in turn makes the programme more attractive to potential students and raises admission quality. A high admission quality has itself a positive effect on graduate quality. Preferred candidates will get better job offers, which will make the programme more attractive to potential students and again raise admission quality. Goals 2 and 3 are thus mutually reinforcing.

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[5] The appendix is organised in the same main chapters as this report, and for completeness, references to the appendix are made several places in the report, even if the appendix is not publicly available.

Figure 1: The strategic goals on education
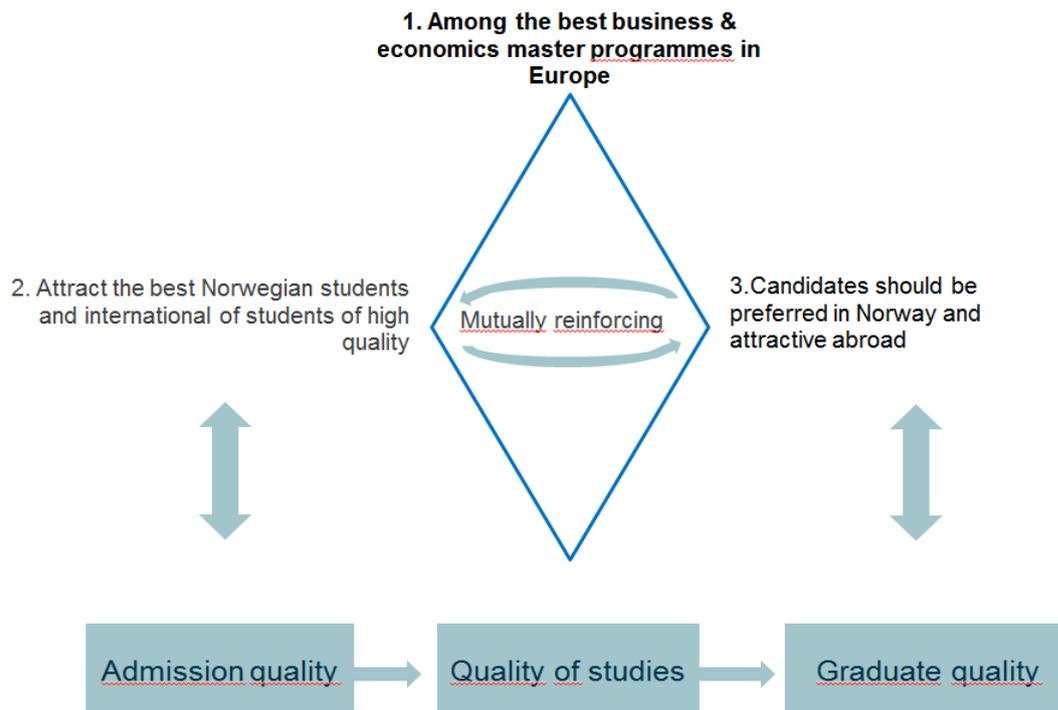
1.2 Programme Evaluation Guidelines

The NHH Quality Assurance System[6] states that all programmes should be evaluated at least every sixth year. The evaluations should assess the quality of the following areas in an integral manner:

- Admission
- Quality of courses/modules
- Course portfolio/programme content
- Work and learning environment
- Production/achieved results
- The educational programme's relevance

PMU conducted the previous evaluation of the Master of Science in Economics and Business Administration (MScEBA) in 2008 and presented it to the Board in the first quarter of 2009.

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[6] http://www.nhh.no/kvalitet [01.12.2014]

1.3 Highlights of the previous report of 2008 and follow-up

The previous programme evaluation covered both the Master of Science in Accounting and Auditing (MScAA) and MScEBA.[7] The report was approved by the NHH Board in April 2009. The MScAA was evaluated separately in 2012; hence this evaluation covers MScEBA only[8].

At the time of the previous programme evaluation, MScEBA had already experienced a considerable growth in the total number of students, 30 per cent increase in enrolment over the two years prior to 2008 with an enrolment of 477 new students in MScEBA in the calendar year 2008. The growth has since continued to an enrolment of 695 new students for the calendar year 2014. Similarly, the number of registered MScEBA-students has increased from 1125 in the autumn of 2008 to 1831 in the autumn of 2014.

1.3.1 Key features of MScEBA in 2008
Key features of MScEBA in 2008 were:

    a)   The programme was very attractive among applicants and employers. However, competition for applicants was increasing and it was expected to be challenging to maintain the good application to the programme.
    b)   It would be challenging to ensure high academic quality with the increased number of students.
    c)   Experience with the new major, Energy, Natural Resources and the Environment (ENE), had been positive, but had meant extra challenges for the staff involved.
    d)   MScEBA had become considerably more internationally oriented in recent years.

1.3.2 Key conclusions in 2008 regarding future development of MScEBA
Some key conclusions in 2008 regarding future development were:

Management of the majors
- PMU would still manage the majors based on maximum number of courses per major. Course limits have been gradually relaxed as the enrolment has increased. Still, the average size of courses (in student numbers) has increased since 2008
- The overlap of courses (shared between majors) should be limited. This has been maintained.
- PMU wanted a stronger requirement for academic progression. This has been followed up in three ways:
    - As of autumn 2015, all students will be required to take at least one empirical methodology course
    - A Research Distinction Track was established autumn 2014 which includes progression requirements
    - As considered in 2008, an ethics requirement will be in place autumn 2015

Management of students' choice
Students should still have a lot of flexibility in choice of majors and courses. Topics to be further investigated were whether the extensive flexibility available to students was appropriate, or whether there should be more mandatory courses as part of their (major) specialisation. Students (80 %) found the balance between mandatory and elective courses of their (major) specialisation to be correct.

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[7] In Norwegian, «Master i økonomi og administrasjon» (MScEBA) and «Master i regnskap og revisjon» (MScAA).
[8] Please see Appendix 1.3 for Chapter 1 of the previous evaluation, summarising the conclusions.

Businesses/potential employers found it difficult to have an opinion on the issue. PMU's conclusion was that it wanted to facilitate a stronger demand for progression. The process of application for admission to the MSc programme was to be maintained twice a year and there were to be no restrictions on the possibilities of which minors to elect (be independent of specialisation).

- PMU wanted stronger demands to academic progression. One measure PMU would consider was to require all students to take a secondary level (advanced) master course, "star marked" course, or course of higher level of difficulty. PMU has since:
  - established a Research Distinction Track (voluntary) autumn 2014
  - made empirical methodology and ethics mandatory (autumn 2015) as well as interpersonal management skills (starting autumn 2016)
- PMU wanted to continue with two Norwegian admissions annually. However, the spring enrolment was discontinued in 2014 as result of an analysis of their relative academic strength and costs (NHH bachelors are still admitted also in spring).
- PMU wanted free choice of minor. This has been continued (international students, i.e. non-"siviløkonom", are still not required to take a minor).

Structural changes, or changes in major or course offerings

- PMU wanted to explore the possibilities for making the master programme more PhD preparatory. As a result:
  - a Research Distinction Track was established in autumn 2014
  - Empirical methodology will be mandatory from autumn 2015
- The major Marketing and Brand Management (MBM) was added to the international offering in 2010 (and in part replaced the discontinued Norwegian major in Marketing and Industrial Economics (MIE)).
- PMU did not want to establish specialised master degrees with separate admission requirements. The strategy of ensuring graduates with a broad background in business, economics and administration had proven successful. "Employers know today what they get when they recruit from NHH, without having to go into details of what the individual has studied. This gives NHH a very strong profile within economic-administrative education. To change this profile by educating candidates who, for instance, have never seen a financial statement or an investment analysis, is regarded to weaken NHH's position as a business-school and in the long term make our candidates in less demand." (p. 9).
  - MScEBA has two admissions, the traditional "siviløkonom" (requires a rather specific bachelor in business) and a more flexible requirement for international applicants.[9]
    - For the 2015 enrolment, PMU tightened the international admission requirement to include 30 ECTS of business administration subjects.
    - PMU has also started an analysis of additional measures to best ensure the mentioned academic breadth in relation to internationalisation ambitions (as additional admission requirements will reduce the pool of potential, international students).
- PMU wanted to continuously consider measures to improve internationalisation.

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[9] The international requirement is similar to that of the previous "Høyere Avdeling" (HA) which required a university degree with at least one and a half year of business or economics ("cand. mag. med minst mellomfag i sosialøkonomi, eller mellomfag i bedriftsøkonomi (30 vekttall bedriftsøkonomiske fag)" https://web.archive.org/web/20010617141103/http://www.nhh.no/stud/has/ [1.12.2014].

- o A significant measure is the opening of three additional majors to international degree students (Economics, Finance, and Strategy) in 2015.
- o Increasing international student exchange, new double-degrees and continuous assessments on which specialisations to be offered the international students were areas to be worked on. Work here is still ongoing and with even more concentration as internationalisation is emphasised as one of the schools main strategic areas.

General measures for improving the quality of the master programme

Master thesis

With an increased number of students together with the restructuring of some majors, one challenge was more resources needed for master thesis supervision. To relieve some of the pressure on supervisors, it is now the main rule that the thesis is written in groups of two students. There remains a challenge of matching demand and supply for supervision in certain topics.

At the moment there is also a contract under development aiming to clarify the obligations between students and supervisor when it comes to how much and how supervision is to be conducted.

In addition, the mandatory, empirical methodology courses will include learning outcomes for writing a thesis as of autumn 2015, thereby improving the students' preparation and reducing the supervisory burden at the individual level.[10]

Teaching and skills

To improve the academic quality of the master studies, it was PMU's wish to further develop the teaching-tools used. The course-responsibles should implement more obligatory elements and make these count towards the final grade or at least exam relevant. It was also PMU's desire that the students to a greater degree should be more exposed to cases demanding skills in oral presentations, teamwork, project management and contact with business life etc.

- It has been decided that there will be an Interpersonal Management Skills requirement for MScEBA-students.
- PMU has organised several case method seminars for lecturers, and several are now using the case method in their teaching. However, a suitable case auditorium for mid-level class sizes (40-60 students) is missing.

1.4 The 2014-evaluation

The planning of the 2014-evaluation started early spring 2013. The work on the 2014-report has been led by Dean Kenneth Fjell[11], with administrative assistance from Section for Analysis and Quality Assurance.

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[10] The report "Recommendations on mandatory skills in the Master of Science Programme in Economics and Business Administration at NHH" September 6, 2013.

[11]Professor Kenneth Fjell was Dean of the master programmes until April 2015; hence, he was in charge of the whole programme evaluation process. In April 2015 Professor Jan I. Haaland took over as Dean, and he has thus been responsible for the completion of final version of the report.

In addition to data that are reported on a semester or yearly basis, several surveys have been initialised in order to shed light on the issues raised:

- Alexander Jakubanec and Magne Supphellens analysis of Norwegian HR managers view on candidates from NHH
- Throughput survey (students attitudes towards being delayed in their studies and what are the causes of delay)
- Additional questions of course difficulty, workload, pace and teaching methods have been added to the regular course evaluations during autumn 2013 and spring 2014
- No-show survey, asking applicants who received offers during 2014 but did not enrol, for reasons why they did not start their studies at NHH
- Supervision survey of students on the supervision they received when working on their master thesis

There has also been extensive use of data from the student system FS ("Felles Studentsystem"), the Database for Statistics in Higher Education (DBH), and external surveys like Universum and Trendence. In addition, the webpages of the benchmarking institutions have provided crucial information on (among other things) admission requirements and programme content.

The report is written by Kenneth Fjell, Arild Schanke, Lene Baldersheim, Eirik Laastad and Maja Dame, with contributions from Tor Aase Johannessen and Frank Mortensen. The evaluation has been discussed in several meetings by the Academic Programme Committee responsible for full time master level courses (Programutvalget for masterutdanning – PMU) during the autumn 2014. The PMU is chaired by the Dean, and consists in additon of the following members: Iver Bragelien, Kirsen Foss, Carstein Bienz, Ragnhild Balsvik and student representatives Henny Marie Fløysland and Marianne Larsen [12].

1.5 Terms used in the evaluation – an explanation

With different institutions using different names on what de facto are the same things, a discussion of programmes, degrees and specialisations across institutions may be confusing. In this report, we refer to "hovedprofiler" as majors. Majors are synonymous with concentrations or specialisations.

A programme may be both a major *and* a degree; referring to a course of study. Institutions may offer stand-alone degrees ("single major degrees", i.e. just one track), or several majors within a degree. With this definition, NHH has a total of nine programmes, including the single major degree MScAA and eight majors within the MScEBA.

Majors (or programmes) that consist largely of mandatory courses will be referred to as focused majors, whereas majors consisting largely of elective courses, i.e. offers students choice among different courses in the major, will be referred to as flexible majors. By this definition, NHH has mainly flexible majors.

The "master i økonomi og administrasjon" (MØA) is abbreviated as MScEBA. The "master i regnskap og revisjon" (MRR) is abbreviated MScAA. The Norwegian «bachelor i økonomi og administrasjon» (BØA) is abbreviated BcBA, and the Norwegian «bachelor i regnskap og revisjon» (BRR) is abbreviated BcAA. NHH offers the three former degrees, but not the BcAA.

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[12] Student representatives in 2015 are Kaja Karinsdatter Toset and Helge Jystad Ratvik.

The combination of BcBA (or BcAA) and MScEBA qualifies for the Norwegian title "siviløkonom" as described in the respective recommended plans by the National Council of Higher Education in Business Administration (NRØA). These plans can be downloaded here:

- BcBA http://www.uhr.no/documents/Plan_for_bachelorstudier_engCJS_endelig.pdf
- MScEBA (Norwegian only)
  http://www.uhr.no/documents/Vedtatt_Plan_for_to_rig_masterstudium_i__konomi_og_administrasjon.pdf

2. Admission, Recruitment and Intake Quality

One of the strategic goals of NHH is to "attract the best Norwegian students and highly qualified international students". In this chapter, we address this by looking at the admission, intake quality and recruitment. The two admission requirements into the MScEBA are discussed, and compared to requirements of other institutions. The attractiveness of the master programme is discussed based on applications, offers, and acceptance and enrolment rates. As a contribution to the discussion of admission requirements, we investigate if certain admission characteristics may be related to "success" at NHH, defined as grades and finishing within the standard period of two years. Then we summarise and conclude with recommendations.

2.1 Hearing requests in brief

On the basis of the discussion in this chapter, PMU requests considerations and recommendations on the following:

1. Whether to harmonise national admission with international admission timing, so that Norwegian students also may receive acceptance offers while they are still in their last bachelor year (with admission conditional upon satisfactory completion of their bachelor degree).
2. How to increase the number of international students; should we consider admitting non-business bachelors?
3. Should we admit based on nationality or academic merit? If merit based, then how should the non-"siviløkonom" admission best achieve our goal of high quality students (regardless of nationality) as well as our goal of a significant increase in the number of international students?
4. Measures to ensure that student numbers (demand) match educational resources (supply), particularly regarding thesis supervision, in the short term.

2.2 Admission in numbers

Starting with the Norwegian applicants from other institutions, the number of enrolled students is increasing in accordance with a planned escalation of the programme, reaching 695 enrolled MScEBA students in 2014.[13] A grade requirement for external bachelors of around 4.0 (A=5, B=4, etc.) indicates strong candidates and a satisfactory intake quality (see Table 1). It is particularly strong in light of the considerable increase in enrolment that has taken place in the same period (Figure 2).The intake quality will be further analysed when we later look at how different student groups perform at NHH.

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[13] The planned increase is due to an agreement with the Ministry of Education and Research. Spring and Autumn, external applicants and students with their bachelors from NHH. MScAA not included.

Table 1 GMAT scores and grades for admission 2008-2014

	2008	2009	2010	2011	2012	2013	2014
Avg GMAT-score (enrolled)					665	676	656
Required avg grade (A=5, B=4, etc.) [14]	3.8	3.8	3.8	4.0	4.1	4.0	3.,9
Avg. grade enrolled for external bachelors (A=5, B=4, etc.)	4.1	4.1	4.1	4.2	4.3	4.3	4.2

Source: Rapport og planer

Figure 2: Development of new enrolments (in student numbers) 2008 - 2014
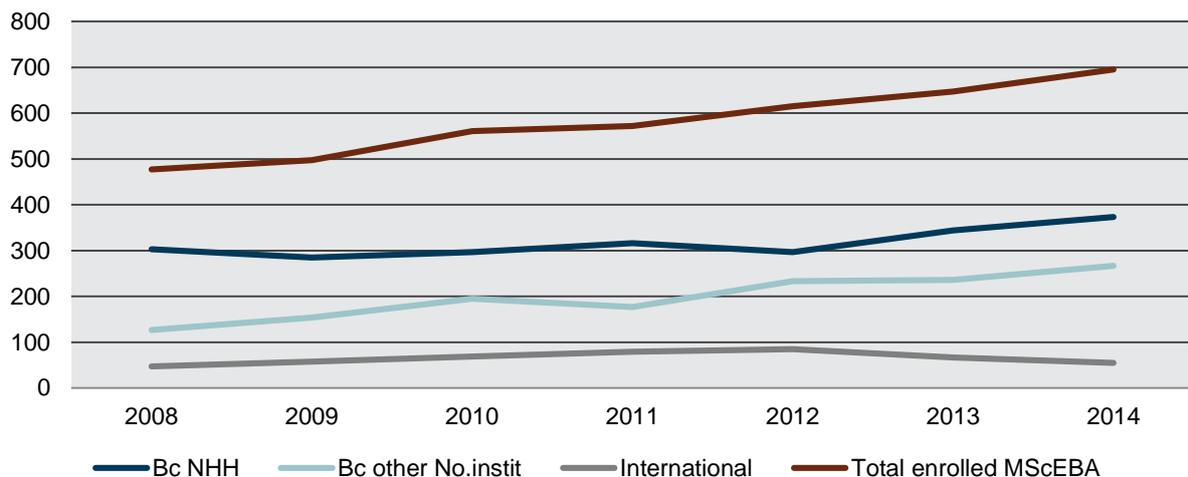
For the international majors, the number of applications has gone from 264 in 2008 to 1342 in 2013 (all time high); an increase of over 400 per cent. The number fell slightly in 2014 in comparison to 2013, but is still above 2012[15]. The strong growth in applications indicates an increasing interest in NHH programmes. This growth in applications should be reflected in the number of offers sent, as we typically send offers to all qualified students. However, this is not the case (see Figure 3). We even see a drop in number of offers from 2012 to 2014, implying that the numbers of qualified applicants actually has decreased. If the majority of the applicants do not meet the minimum requirements, the growth in applications is a waste of resources both for the applicant and the Admission's office at NHH. Part of the explanation may be due to the increase in the grade admission requirement as Norwegian admission requirements on the A-F scale are translated into an analogous international requirement. Hence, the increase in applications has coincided with an increase in the grade requirement. Regrettably, the number of enrolled international degree students is falling (from 85 in the top-year 2012 to 55 in 2014), contrary to the strategic goal of internationalisation which among other things includes an ambition for a significant increase in the number of international students.

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[14] The numbers are based on the autumn admission.

[15] One applicant may apply to all programmes. The admission counts applications, not unique applicants. It is therefore probable that the number of applications is inflated, and is affected by the opening of another major, MBM, in 2011. However, the number of applicants to MBM is relative small, and the growth in applications is substantial.

Figure 3: The difference between applications and offers sent, international applicants
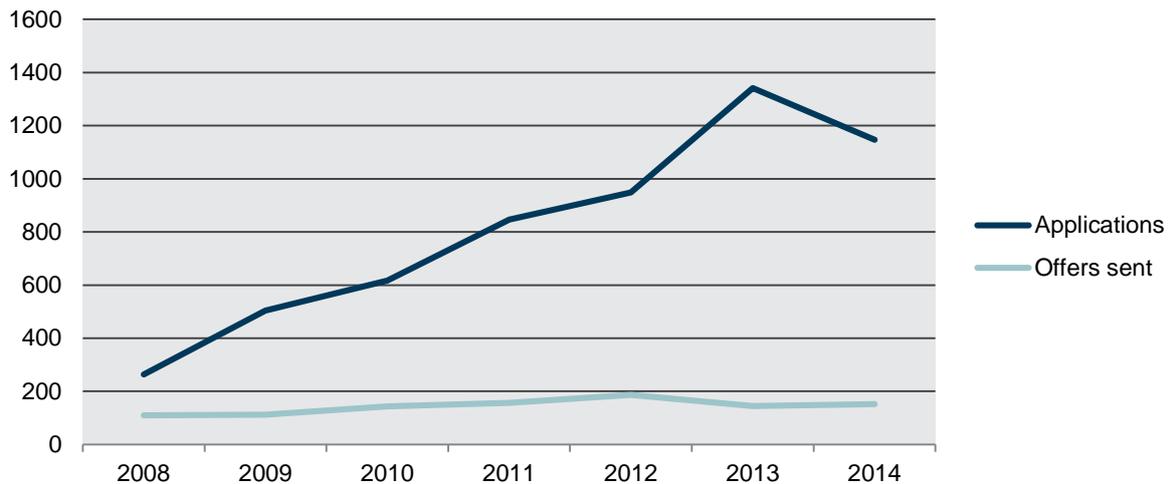
Note: International students: Applications are the units, not applicants. One applicant may apply for all three programmes, and thus have three applications.

As discussed in recent issues of "Rapport og planer", NHH has fallen short of its ambition of significantly increasing the number of international students. When the ambition was formed, MScEBA had approximately a 15 per cent share of international degree-seeking students. Both SSE and CBS have higher shares of international students (58 and 54%, respectively) in their FT-MiM ranked programmes,[16] and NHH has an ambition of increasing its share. The arithmetic mean share of international students on the FT-MiM ranking of 2014 was 45 per cent with a median of 35 per cent and a 25-percentile of 19 per cent. NHH's MScEBA had a share of 11 per cent (same as BI's MScEBA). However, as CBS and SSE only reports parts of their master programmes to the FT-MiM ranking, and the programmes reported presumably have a higher share of international students than their traditional national programmes, the comparison to NHH is not completely valid. A look at more comparable data nevertheless sustains the impression of NHH having a lower share of international students. The share of international degree-seeking students of the total student population (including bachelor and master studies) at CBS, SSE and NHH is 17 , 20 and 7.5 per cent, respectively. [17]

2.3 Academic admission requirement

PMU has previously debated whether international students should have the same admission requirements as the Norwegian students in terms of the content of business and economics in their bachelor degree. As this may lead to significantly fewer qualified international applicants, PMU decided in their meeting 9th of September 2014 only to implement a moderate increase in the requirement.[18] Furthermore, PMU has started a process analysing the implications of changing the admission requirements. The analysis is expected to be completed in 2015.

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[16]http://rankings.ft.com/businessschoolrankings/masters-in-management-2014 .[05.01.2015].

[17] Exchange students not included. CBS: Numbers from 2014.
http://www.cbs.dk/files/cbs.dk/call_to_action/cbs_factsfigures_2014_pdf_0.pdf [15.01.2015]. SSE: E-mail from Natalia Antsiferova, MSc program Manager SSE 29.01.2015. Not including foreign students at bachelor's level since nationality is not recorded for undergraduates (presumably "there is quite a number of citizens from Finland and Norway"). NHH: numbers from DBH. Including all students with foreign citizenship, including at bachelor's level. CBS also offers bachelor's programmes in English, SSE and NHH offer programmes in English only at Master's level.

[18] A minimum of 30 (out of 90) ECTS must be within business administration (i.e. other than economics).

Based on the historical application data, there is reason to believe that a further tightening of the international admission requirements at this point will lead to a further decline in qualified applicants, which is contrary to the international ambitions of NHH. There is therefore a need for balancing the strategic ambition of admitting highly qualified international students (as measured by the share of business/economics in their bachelor degree) with our ambition for internationalisation.

2.3.1 NHH's admission requirements and practice

Admission based on nationality or educational merits?
NHH has, for many years, operated with two academic admission requirements to MScEBA; a Nordic "siviløkonom" admission, and an international, non-"siviløkonom" admission, the latter referring to non-Nordic nationalities.

The Nordic admission requirement is a Bachelor in business administration (BcBA) according to the "Plan for the Bachelor's Degree in Business Administration"[19] or equivalent. To gain the additional title "siviløkonom", this admission requirement must be met (120 ECTS of business/economics content of which 90 ECTS are specified). [20]

Figure 4: Illustration of the current two admissions into MScEBA, and their corresponding diplomas

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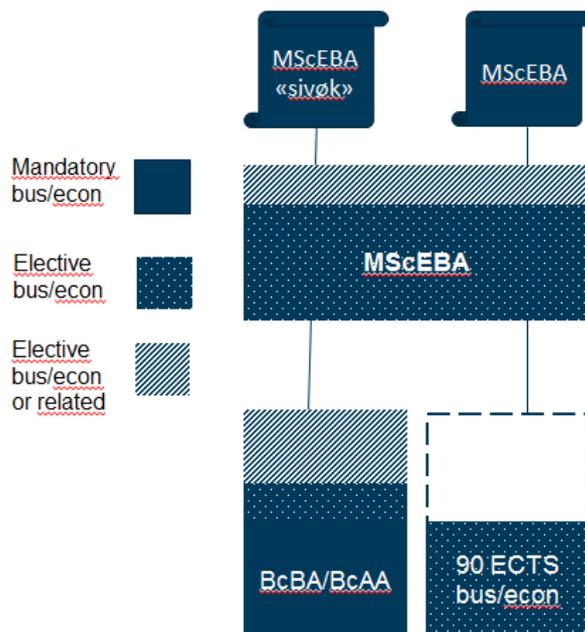
[19] Adopted on 17 October 2011 by the National Council of Higher Education in Business Administration (NRØA): http://www.uhr.no/documents/Plan_for_bachelorstudier_engCJS_endelig.pdf
[20] http://www.nhh.no/no/studietilbud/søknad-og-opptak/master-i-økonomi-og-administrasjon/opptaksregler-og-søknad.aspx [05.12.2014]

The international requirement has traditionally been softer, both in total business content (90 ECTS business/economics/methodology), but particularly since it does not require coverage of specific subjects in the bachelor's degree. The requirement in terms of grade point average is on par with that of "siviløkonom", however, with an additional GMAT requirement of 600 for some international groups.[21] As mentioned, PMU has recently added a requirement that 30 of the 90 ECTS must be within business administration including methodology (i.e. non-economics). This was to ensure that all graduates have some business knowledge (not only economics).[22]

The more flexible international admission requirement means that the bachelor foundation of international students is rather heterogeneous, from full-fledged business bachelors on par with NHH's own to other degrees with only a modest amount of pure business and/or economics content. Due to the inaccessible nature of these data, a process of electronic registration during admission was started in the 2014 intake along with plans for more detailed future analysis.

Under current practice, nationality (not academic qualification) is the determining factor for whether an applicant is considered according to the "siviløkonom" or international admission requirement.[23] If a Norwegian citizen and an international citizen have taken the same Bachelor's degree abroad, the Norwegian student must meet the more specified "siviløkonom" requirements (and probably not be accepted), while the international applicant, with the same subjects, title and grades, could be accepted due to the more flexible international requirements.

An advantage of distinguishing applicants based on nationality is that it is quite directly aimed at the goal of internationalisation. For instance, HEC appears to aim its Master in management degree explicitly at international students, but in general, most degrees seem to admit based on academic merit.[24] A challenge is that it may seem more appropriate to distinguish based on academic merits alone. An internal, legal assessment suggests that a more appropriate admission practice would be based on academic merit, but with secondary measures supporting internationalisation goals, maybe quotas.

This practice of admission separation based on nationality should presumably be replaced by a practice based on educational merits. However, the relatively strong attractiveness of the NHH MScEBA in the Norwegian market may cause Norwegians with a high grade point average to crowd out international degree students since the international market position of NHH is relatively weaker and as marketing internationally is relatively costlier (per potential student). Thus, the strategy of internationalisation warrants a special focus on the share and composition of international candidates in the MScEBA. This could potentially be addressed through additional qualitative measures or indicators (e.g. an emphasis

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[21] http://www.nhh.no/en/study-at-nhh/admission.aspx [05.12.2014]

[22] With the opening of ECN to international students, in principle, an international student with a bachelor in economics could major in economics at NHH and graduate without ever having taken business courses.

[23] As a trial measure to gain experience in the 2015 admission, applicants with foreign bachelor degrees are all evaluated by the international admission requirements regardless citizenship.

[24] As indicated by the following quote: "HEC Paris' Master in Management is the international students' gateway to the prestigious Grande Ecole program…" though it does not necessarily mean that French students are excluded. Source: http://www.hec.edu/Masters-programs/Master-s-Programs/Grande-Ecole-Master-s-Programs/Master-in-Management/Key-Features [18.12.2014]

on international experience or orientation in letters of recommendation and motivation letters), or maybe a quota for international citizens.

A challenge when considering applicants with Norwegian educations that all use the same A to F grading scale is that grading practice may differ among institutions, i.e. an "A" student at one institution would have been a "B" student at another.[25] An admission test or a GMAT requirement applied to all external applicants (both those with a Norwegian and those with an international bachelor degree) could be a way to improve the search for the truly strongest applicants. However, admission testing would probably be quite costly for NHH whereas a universal GMAT requirement would be costly for the applicants (reduce the pool).

The heterogeneity of international educations means that a direct comparison with more familiar and homogenous Norwegian or Nordic educations often is difficult. This means that it may be advisable to handle foreign educations separately from Norwegian educations (regardless of the applicant's nationality).

Direct admission to major or degree for international students?
We have discussed the current practice of separating on nationalities in the admission process. A different (but related) question is whether a softer international admission requirement than the "siviløkonom" requirements should be continued, regardless of the nationality of the applicant or his/her education.

The "siviløkonom" students are in a sense admitted to all majors of the MScEBA degree rather than to a specific major. That is, students decide during their master's studies what subject to major in. In theory, their thesis could be the deciding factor for what major they have (if they have fulfilled the course requirements for two potential majors).

Contrary to this, the international students are admitted directly to a major (ENE, INB or MBM) of the MScEBA degree. If international students wish to change major after admission, this is considered on a case by case basis. Formally, the admission requirements for each of the international majors are the same and as such, this should not be an argument against a free choice of major like for the "siviløkonom" students. In practice, however, there are admission committee assessments of the applicants' academic potential that may vary between the majors. This practice of additional assessments of academic potential should probably be formalised.

A benefit of admission to the major is tailored admission requirements that are only as tough as they need to be for that programme and its mandatory courses. Regarding electives outside the major, students may self-select into elective courses for which they have sufficient background.

With the opening of three new majors for international admission (ECN, FIE, and STR), the profile coordinators were asked if they desired other than the established international admission requirements. These might be specific to their major. All of them decided to follow the established international admission requirement.

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[25] See e.g. SØF-rapport nr. 03/13. Karakterbruk i høyere utdanning (Senter for økonomisk forskning AS)

Although admission requirements currently are the same for all six international majors, it might still be sensible to continue to admit to majors for international students for purposes of aligning student numbers with teaching resources, in particular supervision of master thesis. Furthermore, this will make it easier at a later date to implement additional admission requirements specific to each major if this is deemed appropriate.

An additional benefit of admitting directly to majors is better matching of student numbers with educational capacity. This is particularly challenging at NHH when it comes to master thesis supervision of certain topics as well as when there are courses with limited enrolment.

A drawback for students is obviously that they must make their decision on major prior to admission. It may also reduce the internal focus on quality by reducing the internal competition for students. Still, application numbers to each major, and its grade point averages and GMAT scores for admission will provide signals of each major's attractiveness (competitiveness).

2.3.2 The MiM market's admission requirements: what do other institutions do?

A comparison of admission requirements at Nordic benchmark institutions and Top 10 FT-ranked Master in Management (MiM) degrees, reveals a wide variety of practices (see Appendix 2.3.2). Half of the Top 10 accepts any bachelor degree, whereas the other half, as well as all of the Nordic benchmark institutions, require either a business bachelor or considerable business content often specified in terms of credits at the subject level, e.g. finance or microeconomics. Despite the vast differences in admission requirements, all the degrees compete on the same FT-ranking.

All the FT MiM degrees or the majors within them, typically have considerably more mandatory content then the NHH MScEBA, ensuring their graduates a shared set of core competence. This could be because most of the master degrees have more flexible admission requirements than the Norwegian "siviløkonom" requirement. The "siviløkonom" students share a broad and common base from their bachelor degree ensured through the admission process. Hence, one could argue that there is less need to ensure a common competence at the master level, and possible to allow for more individual freedom. The issue of common competences in the master programmes will be further addressed in Chapter 4.

Currently, NHH's international admission requirement is almost identical to that of SSE's MSc in Business and Management. The other three Nordic benchmarks (Aalto, BI, and CBS) all have requirements that are more specific.

The common practice in the market and among all the Nordic benchmarks is to admit directly to majors (programmes within the MSc degree)[26]. This is sometimes combined with additional specific admission requirements for each major, beyond those for the degree.

Further, the common practice among benchmark institutions seems to be to admit based on degrees/academic merits alone, and not nationalities. There are several examples of distinguishing

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[26] Indeed, in practice, the educational difference between a programme (within a degree) and a separate degree (for that programme) is in the name only.

applicants based on nationality of their educations, i.e. in national and international educations. For instance, for the MSc in Business Administration and Philosophy at CBS, "Applicants with an international bachelor degree will be able to apply for the programme in the late application round."[27] Similarly, Aalto considers foreign educations separately and has a quota for these into their MScEBA-equivalent programmes.[28]

BI is the only benchmark institution which offers "siviløkonom" and BI, too, operates with two admissions into its MScEBA ("siviløkonom" applicants and others). However, both appear to be based on academic merit only, neither on the nationality of the applicant nor of the education. The remaining two benchmark institutions appear to have one, common admission requirement (also merit based) to each degree, possibly with additional requirement for certain majors within the degree. On the other hand, HEC Paris' MiM seems to have an admission explicitly targeting international students, so we cannot rule out that admission based on nationality is a factor at other institutions.[29]

2.4 The admission timing

If our goal is to attract the best applicants nationally and internationally, we need to form the application process accordingly. The international admission process at NHH follows an international practice of accepting applications and giving offers to students in their last year of their bachelor's degree. Admission is conditional upon completion of the bachelor prior to programme start. At NHH, the international admission process starts in November and closes in February.

In comparison, Nordic applicants do not receive their offers until their bachelor degree is completed, approximately in July.[30] By then, the best applicants who have applied abroad will have received their offers long ago.

At SSE, the application deadline is in January, and preliminary scores are accepted (nationals and international applicants).[31] At BI, the deadline for international applicants is 1st of March, with rolling admittance if availability.[32] CBS have different application deadline for each of the applicant groups, but all applicants receive their answer the 15th of June.[33]

Given that NHH increasingly competes for students in an international market which also affects Norwegian students relevant to both markets, NHH should consider adopting the international timing also for the "siviløkonom" admission to ensure that excellent candidates receive early offers also from NHH, not only from our international competitors.

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[27] http://www.cbs.dk/en/study/graduate-programmes [12.07.2014]
[28] Source: http://www.aalto.fi/en/midcom-serveattachmentguid-1e40e5024933bbe0e5011e4ac13cb234c7c0af00af0/admission_quota_2015.pdf [02.09.2014]
[29] See http://www.hec.edu/Masters-programs/Master-s-Programs/Grande-Ecole-Master-s-Programs/Master-in-Management/Admission [18.12.2014]
[30] Students who have complete degrees, who do not take courses during the spring semester, are accepted/rejected as soon as their applications are complete. Students who take courses during the spring semester get their answer in mid-July.
[31] http://www.hhs.se/en/Education/MSc/MFIN/mfin-im-admission/ [01.12.2014]
[32] http://www.bi.edu/master/admissionInternational/ [01.12.2014]
[33] http://www.cbs.dk/en/study/graduate/graduate-admission-overview/graduate-admission/graduate-admission-step-3 [01.12.2014]

2.5 The attractiveness of the master programme

As previously mentioned in this chapter, there are good indications that the MScEBA is attractive. Despite the significant increase in student numbers, there has simultaneously been an increase in the grade point average for admission. Also, there has been a dramatic increase in international applications, although this has failed to produce an increase in offers of admission.

Other measures of the popularity of MScEBA are the development over time of i) how many of the offers by NHH where accepted by applicants, and ii) how many of the applicants who accepted their offers were actually enrolled.

Offers accepted[34] indicates how NHH is prioritised among applicants and how good the applicants' alternatives are. NHH has a high standing among Norwegian applicants, and lower among the international students. The acceptance rate among Norwegian students (with a Bachelor's degree from other Norwegian institutions) is high and stable around 80 per cent over the period 2008 – 2014. This suggests a strong attractiveness among Norwegian students, particularly in light of the increase in enrolment over the same period. The acceptance share for international students is about 50 per cent and relatively stable in the period 2008 – 2014.

Looking at our second measure of the popularity of MScEBA, how many students enrolled of those that accepted NHHs offer, we do not observe large disparities between the two student groups except in 2014. Whereas the share of accepted students enrolled is high for both Norwegian and international students in 2008-2013 (90-97%) it drops to about 70 per cent for the international students in 2014. Our analyses do not reveal differences between 2014 and 2013 that would account for the sudden drop in the share. We may, however, shed some light on the status of NHH among the international applicants in general.

2.5.1 The international market

As discussed in recent years' "Rapport og Planer", NHH has not reached its strategic goal of a significant increase in the number of international students seeking the MScEBA degree. Indeed, there has been a decline in the share of international degree students. Thus, this presents an ongoing challenge. One measure that is under implementation is the increase in number of majors offered to international degree students (from three to six). However, PMU would like suggestions for additional measures to increase the share of high quality international degree-seeking students.

When asked, 62 per cent of the international applicants who received an offer but decided not to start their studies at NHH responded that they had started their studies at another institution[35]. Seven of the applicants chose well-known institutions like St.Gallen, CBS, Alto, RSM, SSE and Bocconi. Six respondents preferred Vienna University of Economics and Business,[36] three choose BI, and the rest chose other institutions. 54 per cent stated financial issues as their reason, and almost half of the students choosing another institution said that financial issues were a reason why they did not start their studies at NHH. Because we do not send out this survey each year, we do not know whether this is representative over time or there are special features of this year's applicants that may explain the drop in enrolment.

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[34] NO: Ja-svar i prosent av tilbud
[35] Survey autumn 2014 to all applicants who received an offer, 37 respondents
[36] The applicants choosing Vienna University were all from Europe; Slovakia, Russia, Germany, Austria and Bulgaria. The Slovaks and Bulgarian also stated financial reasons for their choice.

When the same survey was run in 2008, living costs were considered very important for the choice of studies. Due to a low response-rate (12 respondents in 2008), it is difficult to draw conclusions.

The data above reveals three challenges regarding the international applicants;

i)   the discrepancy between the number of applicants and the number of offers sent legitimises the question whether we are certain that we attract the right type of applicants,

ii)   there is a decline in the number of qualified applicants (indicated by the decline in the number of offers), and

iii)   the acceptance in percent of offers is considerably lower than for Norwegian students

A main problem is that we are not enrolling enough international students. The acceptance rate (in share of offers) is lower for the international market than for the Norwegian market. Special efforts have been made to follow up international offers to increase the acceptance and enrolment rates, unfortunately, without significant effect.

Another approach would be to increase the number of qualified applicants. Survey responses suggest that a wider selection of programmes (i.e. more majors) would increase the attractiveness of NHH.[37] By opening three new majors (ECN, FIE, and STR) to international students from 2015, PMU have already increased the number of available programmes to international students. This effort should be followed up by additional measures to increase the international attractiveness of NHH's master. A broader selection of courses in English could be one measure. For instance, NHH could consider as a main rule that new courses should be given in English. This would possibly require a change in NHH's language policy which states that all bi-lingual programmes should contain a broad selection of Norwegian courses. Alternatively, we could tailor new majors for the international market. International majors typically have a high share of mandatory courses (see Chapter 4), combined to provide (and signal) a more specific knowledge and skill-set than the highly flexible NHH majors. This is further discussed in Chapter 4.

Surveys also suggest that internship opportunities and a heightened focus on career opportunities could significantly increase the attractiveness. NHH has already responded to this by establishing an international career centre (ICC). A remaining measure could be to expand on existing internship possibilities (currently found in ENE and Gründerskolen). This would also be in line with EQUIS recommendations. This is further discussed in Chapter 4.

The NHH Board decided upon a plan of action for Internationalisation during the autumn 2014, of which the recruitment of international students is a part. Several measures are identified, and the plan of action is followed up by the International Committee (IU).

2.5.2 The Norwegian market

The data presented in *2.5 The attractiveness of the master programme* indicate that the Norwegian students find the NHH master programme highly attractive. When students from *other* Norwegian

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[37] Admission survey 2014

universities or university colleges (business/commerce) were asked what institution they would choose if they were to choose their studies again,[38] NHH is ranked highest with 20 per cent. The highest ranked Norwegian university, the University of Oslo (UiO), gets 10 per cent and NTNU gets 9 per cent. [39] 6 per cent would choose BI.

When asking NHH students, 73 per cent said they would choose NHH again. Of the students who would not choose NHH, 25 per cent would choose NTNU. We know that many NHH students consider engineering as an alternative when applying to higher education.[40] We see that 33 per cent of the NHH students who said they would choose another institution would choose a foreign college or university.[41] In comparison, only 21 per cent of CBSs students and 15 per cent of SSEs students would choose a foreign university or college.[42]

Table 2: If NHH students could begin their studies again

University	Rank	Percent
Foreign college or university	1	33 %
NTNU	2	25 %
BI Norwegian Business School	3	11 %
University of Oslo (UiO)	4	10 %
University of Bergen (UiB)	5	9 %
Bergen University College (HiB)	6	1 %
Molde University College (HiMolde)	7	1 %
Oslo and Akershus University College (HiOA)	8	1 %
Telemark University College (HiT)	9	1 %
NITH	10	1 %

Q: If you could begin your studies again at any college or university, which would you choose?
NOTE: Only NHH-students who would not choose NHH (27 %).
Universum 2014

Another survey, Trendence, ask students whether they would consider a master's degree abroad. In 2014, almost 80 per cent of our students (bachelor and master) are considering this. The share is rising, up from 59 per cent in 2013 and 40 per cent in 2011.

16 per cent of the applicants to our five year MScEBA programme (i.e. bachelor + master at NHH) also applied to foreign universities, and the share is stable from 2012 (15 %).[43] Almost half of these applied to CBS (numbers from 2014 only).

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[38] Including bachelor and master students in all colleges/universities in Norway except NHH, Universum 2014

[39] Neither UiO nor NTNU offer «siviløkonom» degrees. UiO offer samfunnsøkonomi (economics) (3 and 5 years), helseledelse og helseøkonomi (health economics and management) (3 years), offentlig administrasjon og ledelse (public administration and management) (3 years); NTNU offer finansiell økonomi (financial economics) (2 years), industriell økonomi og teknologi ledelse (industrial economics and technology management) (5 years), politisk økonomi (political economy) (3 years), samfunnsøkonomi (economics) (1, 2, 3 and 5 years).

[40] NTNU is also the first choice of students having NHH as their second alternative when applying to higher education through Samordna Opptak (Applicants may rank their top-10 choices when applying for higher education though Samordna opptak)

[41] A twist in the 2013 question makes figures incomparable but the overall impression is that the share is rising.

[42] E-mail from Alexis Beaussant, Partnership Manager Universum 24.10.2014

[43] Rekrutteringsundersøkelse BØA 2014.

If foreign master programmes are found increasingly attractive, we might expect to see a "brain-drain" from the NHH bachelor programme, where the best graduates take their master's degree elsewhere. An analysis of the choices made by the 50 best NHH bachelor students, shows that this is not the case[44].

Figure 5: Where do NHHs "top-50"–bachelor students go?
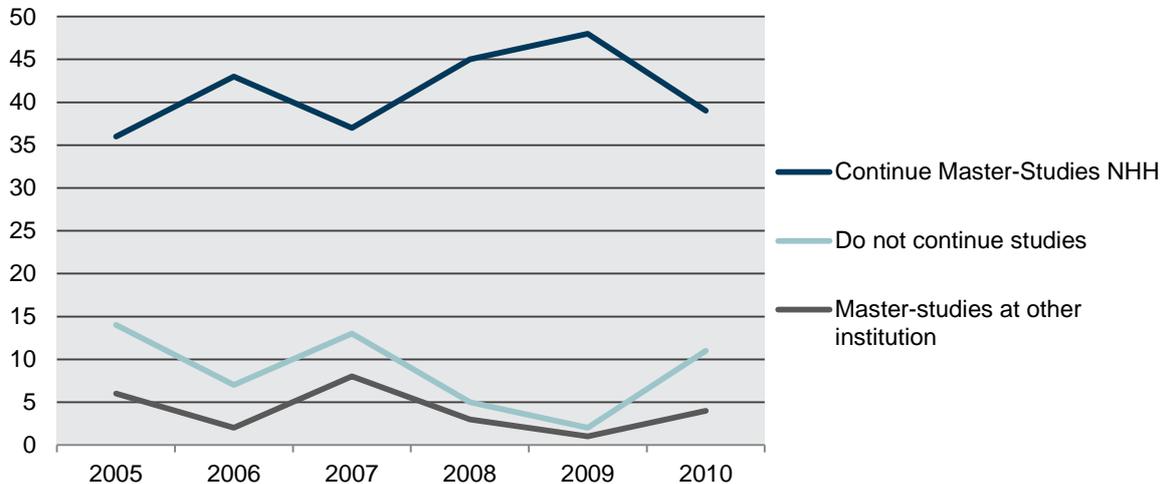
Contrary to what could be expected from surveys such as Trendence and Universum referred to above, we do not see a rise in the number of NHH bachelors going abroad for their master's; at least not among our best bachelor students. As seen in Figure 5, the vast majority of our best bachelor students continue their master's studies at NHH, 48 out of 50 in 2009, and 39 of 50 in 2010. The share has been relatively stable throughout the period.

Of those continuing their studies at other institutions, several go to different institutions abroad. Almost all go to excellent institutions in Europe and the U.S., like St. Gallen, HEC, Harvard Business School, Saïd Business School at the University of Oxford, LSE, Cass Business School, SSE, CBS, Duke University, University of Virginia, and University of Manchester.

The last group does not pursue further studies (at least in the short run). Of these students, we know that some started working at McKinsey, Swedbank, First Securities, Boston Consulting Group, Morgan Stanly, among others.

In the next section of this chapter, we investigate whether i) the possibility of not attracting the right type of students and ii) the decline in the number of qualified applicants affect the quality of the international students. Do the international students enrolled at NHH fulfil the strategic goal of "high quality"? In the pursuit of an answer, we compare the different student groups by grades and the ability to finish the MScEBA degree within the standard period of time.

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[44] We choose students that started their Bachelor's studies during the years between 2005 and 2010 and singled out 50 of these students (approximately 10%) finishing their Bachelor's degree with the highest grades.

2.6 Who achieves the best results at NHH?

In this section, we attempt to shed light on how the various admission groups perform at NHH. Better knowledge about this can improve decisions on admission requirements. We use OLS and Logistic regression when investigating differences between student groups with regard to MScEBA grades and finishing within the standard period. Students are separated into three groups according to current admission practice; 1) students with their Bachelor's degree from NHH 2) Nordic students with Bc degree from another (mainly) Norwegian institution and 3) international students applying for the programmes INB, ENE or MBM. [45] A challenge has been the manual nature of the data available, as well as measurement difficulties when it comes to the precise knowledge covered in various educational backgrounds (particularly internationals). Thus, the analysis at this stage has been at an aggregate level and conducted on two datasets: 1) average MScEBA grades of all students starting their master in 2011, and 2) grades of the five largest courses (in student numbers) taught in English in spring/autumn 2011.[46]

2.6.1 Comparing MScEBA grades

Comparing average MScEBA grades across the three student groups reveal only minor differences:

Table 3: Average MScEBA grade of students by the three student groups

Student group	Mean		Min	Max	N
NHH Bc	4.10	(0.5)	1.96	4.92	317
External Bc	3.95	(0.4)	2.56	4.92	168
International Student	3.85	(0.5)	2.28	4.71	80

Data: Students beginning their MScEBA 2011. Std.dev in parantheses A=5, B=4, C=3 etc

From Table 3 above we see that MScEBA students with NHH BcBA have the highest average grade (4.1), followed by other Nordic students with an External Bc (3.95), and international degree students (3.85). The standard deviation shows that there is little dispersion around the mean for all groups. Even if differences in grades between MScEBA students with NHH bachelors and international degree students are statistically significant (t-test), observed differences amounts to only ¼ of a grade. In Table 4 below, OLS regression is used to estimate the "effects" of the three student groups on MScEBA grades. Even when controlling for other relevant variables (likely to affect grades) differences between student groups are still statistically significant. [47] The model only explains a small part of the variation in MScEBA grades (10.5%), but results supports the notion that differences between students groups are unlikely to be accidental. We also get very similar results when doing the same analyses on the other dataset. [48]

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[45] Abbr: 1) NHH Bc, 2) External Bc, 3) International students

[46] The five largest English courses spring/autumn 2011 were STR404, FIE400E, FIE402E, FIE434 and ENE421..

[47] Control variables are (1) age, (2) gender, (3) whether the student started the MScEBA in the spring or autumn semester, and (4) major. The regression indicates that we have included useful controls: all except gender are statistically significant Stepwise regression also tells that dummies representing majors significantly improve model fit.. Lastly it should be noted that our model probably excludes an important control variable; *the share of types of grades*. We know from experience that anything other than school exam grades are inflated. Ideally, we would have run the regression controlled for the share of those types of grades to see if that influences results. Due to limited resources this has not been done. For more on control variables and model diagnostics, see appendix 2.6.1

[48] For increased reliability the same analyses were run on the dataset containing students in the five largest MScEBA courses 2013-2014. Running regressions on these data produce almost identical results as those just presented. See appendix 2.6.1.

Table 4: Average MScEBA grade of students regressed on dummy variables for student groups

	Coefficient
International degree student	-.287***(.095)
Bachelor degree other Norwegian institution	-.132***(.045)
Bachelor degree NHH (reference group)	-
R2	.105
N	565

Students beginning the MScEBA 2011. *** =p<0.01. Robust standard errors in parentheses. Controls not displayed. A=5

Exchange students are a large group of visiting (for one semester) international students at the master level. When analysing our second dataset – containing the course level data – we find that grades of exchange students are weaker than that of the other groups; differences between NHH Bcs and exchange students being more than a half grade.[49]

So far we have found that NHH Bcs do marginally better in term of grades than the other groups. We now continue by looking at whether the students finish the degree within the standard period of two years.

2.6.2 Finishing within the standard period time: Comparing student groups

Throughput is one important measure for NHH, as financing partly comes from completion of new courses as well as degrees. It is also a potential measure of how well students are prepared to take courses at the NHH master.

Table 5 contains descriptive statistics on the percentage of students finishing their NHH MScEBA within the standard period of two years for all the students beginning their MScEBA 2011 (spring and autumn).

Table 5: Students finishing their MScEBA within the standard period of time

	On time	%	Not on time	%	Total
All students	397	69 %	176	31 %	573
Bc NHH	229	71 %	93	29 %	322
Bc other Norwegian institution	127	75 %	43	25 %	170
International degree students	41	51 %	40	49%	81

Data: Students beginning their MScEBA in 2011.

By looking at all students pooled together, we see that 69 per cent finished their MScEBA within the standard period of two years. Examining the student groups separately reveals only small differences between the two groups having Norwegian bachelors: 71 per cent of students with an NHH Bc degree finished within the standard period of time; for those having obtained their Bc degree at another Norwegian institution it is higher, 75 per cent. The difference between the Norwegian groups and the international degree students is much larger; only 51 per cent of international degree students finished their MScEBA within the standard period of time. Or, put a little differently: about 3/4 of the Norwegian students finished the MScEBA degree within the standard period; among the international degree students only ½ did so.

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[49] Statistical significant at 1 % level.

Using logistic regression (Table 6) we see that differences with regard to finishing the MScEBA degree within the two year standard period significantly differ between the student groups:

Table 6: Likelihood of finishing within the standard period of time by student groups

	Odds Ratio (OR)
Bc NHH	2.87** (1.31)
Bc other Norwegian institution	3.04** (1.45)
International degree student (reference group)	1
Pseudo R2	.124
LL	-309
N	573

Data: Students beginning their MScEBA 2011. p<0.1 * = p<0.05 ** Standard errors in parentheses. Odds Ratios for control variables not displayed.

Controlling for other relevant factors, the differences are statistically significant (5%) and MScEBA students with Bcs from NHH and MScEBA students with Bcs from other Norwegian institutions are estimated to have about three times higher odds than that of international degree students of finishing the MScEBA within the standard period.[50] However, in Chapter 6 we find that the reason behind the delay may be planned by international students, rather than a consequence of weaker academic ability. This is also supported by the student course evaluation (Chapter 3) which suggests that international students do not find the courses more difficult than other student groups.

2.6.3 In-group analyses

The analyses above treat the three student groups as being homogeneous in the sense that students within the groups are alike. However, there are differences within the three groups, especially the students from other Norwegian institutions and the international grade students. Due to limited availability of data, we cannot fully explore these differences. We may, however, shed some light on the differences within the groups.

Starting with the Norwegian students from other institutions, we find that there are relatively large differences between the institutions from where they obtained their bachelor's degrees, ranging from an average grade of 3.5 to 4.0.

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[50] Controls "whether students began their MScEBA spring or autumn 2011" and "age" are statistically significant (1%): the odds ratio is close to 3. Hence, students beginning their MScEBA autumn semester have three times higher odds of finishing within the standard period than those students beginning in the spring. The odds ratio for age is less than 1. This implies decreased odds of finishing within the standard period as age increases. The Hosmer-Lemeshow goodness of fit test is not statistically significant signifying that the model fit data reasonably well. The Linktest turns out different: a statistically significant hatsq tells us that we might have gotten the link function wrong and/or omitted other important variables. Statas boxtid option reject the null hypothesis that the variable age is of a linear term (p=.046). Doing a square root transformation of age and running the regression over again seems to help: hatsq of the linktest is no longer statistically significant implying better model specification with a squared term.

For the international students, GMAT scores are positively correlated with grades, but the correlation is weak (0.18). There are also differences between regions/countries of origin, with German students having the strongest average grade followed by Chinese students. Students with degrees from an FT-ranked institution also do well as a group; 67 per cent of their grades are As or Bs and their average is 4.1.

We also looked at a small selection of the best as well as poorest performing international degree students (in terms of grades achieved) at NHH to see if there were any clear patterns related to their educational backgrounds (degrees, courses, etc.).[51] The hypothesis was that candidates with a broad and substantial background from business and administration courses (similar to the NRØA-requirements) would do better at NHH. However, no clear patterns were observed; but the small sample is insufficient for firm conclusions.

Having looked at both grades and throughput (completion of degree on time) of the international students (getting a degree from NHH), we find the quality of this group in sum is good. As we have seen in the beginning of the chapter, the main challenge is that we have not reached the strategic goal of a significant increase in number international students.

2.7 International admission into separate degree?

Currently, there is a tension in that the majority of MScEBA students have the Norwegian "BØA" (BScBA) with a comprehensive and rather homogeneous business background, whereas the international students face a lower business requirement and as a result are more heterogeneous and not fulfilling the "siviløkonom" requirement.

Rather than having two admission requirements into the same degree (like we have today), NHH could consider establishing a new degree (or resurrecting an old) for the purposes of serving the international market. The analyses presented in this chapter suggest that the current quality of international students is near that of the other admission groups. The largest challenge when it comes to admission is thus to enrol a sufficient number of international students.

Opening admission for applicants with less of a business background would expand the potential pool of applicants, allowing us to admit students of high quality also outside the business field. The analysis presented above suggests that current international students (many without the broad "siviløkonom" business background) are of high quality. Furthermore, a large share of top business schools in the FT-MiM ranking admit non-business bachelors into their degrees. Thus, the best talent may not always come with a bachelor degree in business or even a modest amount of business background. Given the national, normative plan for the MScEBA degree, which NHH should uphold, we cannot reduce its business requirements for international admission. If it is desirable to reduce the international business requirements, it must be done in a separate MSc-degree.

Another issue is the heterogeneity in output produced by such heterogeneous admission requirements combined with a very flexible master programme. The previous programme evaluation emphasised the

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[51] Four of the best and four of the poorest. The small selection of data is due to the availability of data and that the data we do have must be compiled manually

broad competence of the Norwegian "siviløkonom" graduate as a significant contribution to the success of NHH. However, this broad set of businesss competence is ensured by the relatively homogeneous "siviløkonom" admission requirement, *not by mandatory courses in the MScEBA*. Hence, an additional concern might be that the heterogeneous international admission requirement indirectly could dilute the NHH brand. The additional title "siviløkonom" does distinguish the candidates. However, whether the distinction is ever going to be sufficiently clear as long as the students receive the same degree, is an open question. A separate degree would indisputably distinguish the candidates more clearly.

NHH has by law the right to offer and establish master's degrees in the field of economics and business administration. The admission requirement must be a bachelor degree with a concentration of at least 80 ECTS, though the law does not specify what type of bachelor degree (business or other discipline). This should imply that NHH may establish a MiM-type degree targeted towards applicants with non-business bachelor degrees. NHH could, for example, offer a master's degree to strong international applicants from different fields, as other reputed institutions, such as HEC Paris and about half of the top 10 FT-ranked MiM degrees, do. This may be offered as a fulltime, pre-experience degree tailored to non-business bachelors.[52] Due to the strict requirements attached to the title "siviløkonom, a degree open for non-business bachelors would not give the graduates the "siviløkonom"-title.

The possibilities of an MBA for non-business bachelors were last thoroughly analysed in 2002 ("MBA program ved NHH – Forslag til et toårig mastergradstilbud på heltid i økonomi og ledelse», Innstilling April 2002). The committee's mandate was to explore the possibilities of a pre-experience, fulltime MBA to students with non-business background. Analysing the market and the trends in Europe, and following the EQUIS recommendations, the committee concluded that it would be difficult to deviate from the norm of a post-experience MBA. It therefore proposed a post-experience, student fee-financed MBA parallel to MScEBA. Due to changes in the MBA market at the time, this type of programme was in the end considered not competitive, and the plans were dropped.

A separate international degree tailored to a more heterogeneous bachelor background would make it easier to put in place special programme requirements in terms of mandatory business courses to ensure broad business competences before graduation. This structure would be more in line with most of the international practice we have observed.

While we here have restricted most of the discussion to the admission aspect of this issue, the programme aspect will be elaborated on in Chapter 4.

2.8 Summing up: Challenges and potential measures

One of the strategic goals of NHH is to "attract the best Norwegian students and highly qualified international students". In this chapter, we have addressed this goal by looking at the admission practice, intake quality and recruitment. The admission requirements have been discussed and compared to requirements of other institutions. As a contribution to the discussion on admission requirements, we also have investigated if certain admission characteristics may be related to "success" at NHH in terms of high grades and finishing within the standard period of two years.

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[52] Please see Appendix 2.7 for details on the laws regulating grades and admission requirements.

NHH has two admissions into MScEBA, the "siviløkonom" admission and the international one. The "siviløkonom" admission requirement is comprehensive (120 ECTS business and economics) with a broad combination of business and economics knowledge specified for a total of 90 ECTS. This broad business knowledge was considered to be a main reason for NHH's success in the previous programme evaluation. The "siviløkonom" admission requirement ensures a homogenous bachelor background. This admission ensures a broad business competence of all graduates despite a very flexible master programme (i.e. little mandatory content relative to benchmark institutions).

The international admission requirement is significantly softer in that it admits quite heterogeneous students with a more modest requirement of 90 ECTS of unspecified business or economics, including methodology. This could mean that the international intake quality is lower, despite a comparable grade point average (GPA) requirement. Preliminary analysis of the academic performance of international students does not substantiate a need for stricter admission requirements, like "siviløkonom." As a group, i.e. on average, the international students perform about as well as the "siviløkonom" in terms of grades (0.2 lower GPA). Still, more detailed studies should be undertaken to confirm that low levels of business/economics in the bachelor are not correlated with low grades. These are planned, but awaiting necessary data collection. International degree students experience the master courses as equally difficult (or easy) as the "siviløkonom" students (Chapter 3). International students tend to take longer to graduate; i.e. the group has poorer throughput. However, this is believed to be due to labour market issues and employment, not academic difficulties (Chapter 6).

Based on the analysis of this chapter, we find that the achievement of strategic goals related to the Norwegian admission is quite satisfactory. Grade requirement is high, and so are the acceptance rates and enrolment rates relative to offers made. This is particularly impressive given the simultaneous and significant increase in enrolment numbers over the period 2008 – 2014. However, there is one potential challenge related to recruiting the best Norwegian students: Norwegian applicants applying to both NHH and institutions abroad receive their offers from the international institutions long before the NHH offer.

At NHH, the international admission process starts in November and closes in February. Offers are conditional on satisfactory completion of the bachelor degree by the time the programme starts. This is in line with international practice. In comparison, Nordic applicants do not receive their offers until their bachelor degree is completed, approximately in July. By then, the best Norwegian or Nordic applicants who have also applied abroad will have received their offers from foreign schools long ago.

As a measure, NHH could consider adopting the international timing also for the "siviløkonom" admission to ensure that excellent candidates receive early offers also from NHH, not only from our international competitors. The admission would be conditional upon satisfactory completion of their bachelor degree, same as for international students.

The main admission challenge is that NHH recruits too few international students and thus falls short of its strategic ambitions. The number of international applicants has increased dramatically since 2008. This is not, however, reflected in the number of international students enrolled, which, after a small increase until 2012, has since declined and is now back at the 2008-level. Special efforts on following up offers to increase acceptance and enrolment rates have thus far not produced the desired results.

Both SSE and CBS have significantly higher shares of international students (58 and 54%, respectively) in their FT-MiM ranked programmes, and NHH has an ambition of increasing its share. The arithmetic mean for share of international students on the FT-MiM ranking of 2014 was 45 per cent with a median

of 35 per cent and a 25-percentile of 19 per cent. NHH's MScEBA had a share of 11 per cent (the same as BI's MiM-ranked programme).

Measures to increase the number of qualified applicants through making the *programmes* more attractive, e.g. by increasing the number of English courses and international majors, or expanding on internship possibilities, should be mentioned here, but are discussed more closely in other chapters. From 2015, three new majors are open to international students, and the recent establishment of the International Career Centre ICC, aims to strengthen the international career opportunities for NHH students. Programme innovation is discussed in depth in Chapter 4, and practice elements will be discussed in Chapter 7.

One direct admission measure could be to increase the pool of potential international students through admitting non-business bachelor students. This is the practice of about half of the top 10 FT-ranked MiM degrees (i.e. no business requirement). Admitting talent regardless of their bachelor degree will increase the pool of potential applicants, and hopefully increase the number of enrolled international students. However, the bigger the discrepancy of business background is between the "siviløkonom" and international admission, the more likely is it that the latter group would require a separate master programme tailored to a low or no business background (see Chapter 4).

If NHH is to consider accepting non-business students, there is also a need to discuss what type of students we want to attract. Should there still be a minimum of basic business background? Should the admission be open to talents from all educational backgrounds, or, for instance, limited to methodologically strong types such as engineering, mathematics, and statistics?

A flexible admission requirement implies that measures should be taken in the programme (i.e. mandatory topics) if we want to ensure that international students have a specific breadth of business knowledge, along the lines of "siviløkonom", before they graduate from NHH. This will be discussed in Chapter 4.

Another issue discussed is that of admission based on nationality versus purely on academic merits. Under current practice, nationality (not academic qualification) is the determining factor for whether an applicant is considered according for the "siviløkonom" or international admission requirement. All the degrees from our benchmarking institutions seem to admit based on academic merits, not nationality. An internal, legal assessment suggests that a more appropriate practice would be based on academic merits. The main challenge would be that Norwegian students who do not fulfil the "siviløkonom" requirements, could crowd out the international applicants. This may be addressed through quotas or qualitative guidelines to ensure a sufficiently high number of international students enrolled.

Finally, the issue of admission to a major versus to the degree was discussed. Currently, "siviløkonom"-students are admitted to the degree (MScEBA) with free choice of major, whereas international students apply to and are admitted to a specific major in the degree. The former practice offers students more flexibility, but at the expense of a potential mismatch between educational resources (supply) and student numbers (demand). This is particularly challenging with respect to supervision of master theses. Suggestions for measures to better match student numbers with educational resources are requested.

3. Quality of the MScEBA courses

A strategic goal of NHH is to offer "among the best programmes" in Europe. In this chapter we address an aspect of this strategy by examining how students experience the quality of the MScEBA courses. We do so by examining data covering students' experiences with and perceptions of:

1) the usefulness and relevance of MScEBA courses to their degree,
2) whether lecturers presented the curriculum in an adequate way,
3) course difficulty, workload and pace, and
4) to what extent class teaching methods were considered as being student centred or teacher centred.[53]

We also look at grade distributions for the MScEBA programme. Then, we discuss results from a survey of how students evaluate the supervision of their master thesis. Finally, we summarise and make recommendations.

3.1 Hearing requests in brief
Based upon the analysis of this chapter, PMU requests feedback on the following:
1. Continued monitoring of the course evaluation to ensure high quality
2. Follow up the new descriptions of grades on master thesis as agreed upon by NRØA
3. How to meet the challenge of improving teaching methods, with increased student numbers and plans for a transfer of resources to the bachelor level?

3.2 Course usefulness and relevance; lecturer presentation of curriculum
We begin by reviewing how students perceive course usefulness and relevance to their degree. As illustrated by Figure 6 below, on a scale ranging from a low of 1 to a high of 5, the average of the indicator measuring *MScEBA course usefulness and relevancy to degree* is 4.26. There is little variation across the semesters (4.2-4.3). Hence, at the general level, experienced course usefulness and relevance is high and this is valid for all semesters.

A similar pattern is found for *students' perception of how well the lecturer presented the curriculum*: on a scale from 1 to 5, an average of 3.98 implies that, at a general level, satisfaction with lecturers is high. Again, there is little variation between semesters (autumn 2010 being the only exception).[54]

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[53] Data going back to 2010 are available for dimensions one and two, enabling us to look for fluctuations in student perceptions of lecturer and course relevance across time. The other dimensions were added to the standard survey as part of the programme evaluation. Data on course difficulty, workload and pace were collected for autumn 2013 and spring 2014, teaching methods spring 2014.

[54] There are only modest differences between the different majors with regard to student perception of "course usefulness and relevancy to degree" and "lecturer presentation of curriculum". Means for both indicators also vary very little throughout the semesters for the majors. See Appendix 3.2.

Figure 6: Student perception of (1) course usefulness and relevance to degree, and (2) Lecturer presentation of curriculum
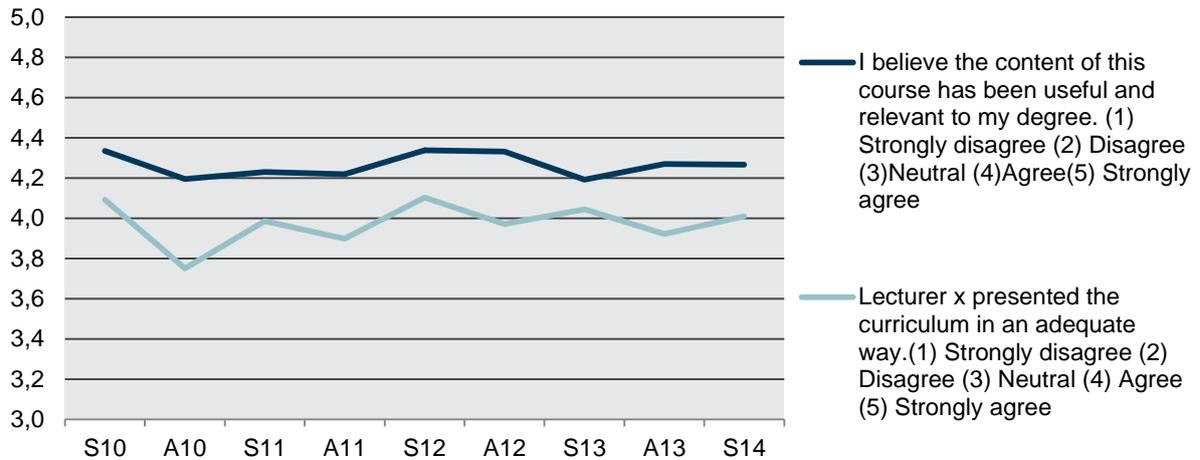
S (Spring) and A (Autumn) for the years 2010-2014.

Lastly, it should be mentioned that there are only very small differences for both measures for the different student groups; international students (both those taking their degree at NHH and exchange students) as well as students with bachelor degrees from NHH and from other Norwegian institutions rank lecturer presentation similarly (4 - 4.25). For the course relevance, the average varies from a low of 3.96 (exchange students) and a high of 4.4 (students with bachelor degrees from NHH).

3.3 Experienced course difficulty, workload, and pace

Table 7 contains the average student experience of difficulty, workload and pace for all MScEBA courses pooled together. When measuring difficulty of the MScEBA courses on a scale ranging from 1 to 5 (5= very difficult, 1= very elementary), the average is 3.29. It is therefore located somewhat above the value representing "about right."

Table 7: Average student experience of course difficulty, workload and pace

	Average	Std.Dev.	N
Difficulty	3.29	(.76)	3096
Workload	3.31	(.85)	3108
Pace	3.15	(.64)	3108

All courses autumn 2013, spring 2014.

Q: For my preparation and ability, the level of difficulty of this course was: (5) very difficult (4) somewhat difficult (3) about right (2) somewhat elementary (1) very elementary.

Q: The workload of this course in relation to other courses: (5) much heavier (4) heavier (3) about the same (2) lighter (1) much lighter.

Q: For me, the pace at which the lecturer covered the material during the term was (5) very fast (4) somewhat fast (3) just about right (2) somewhat slow (1) very slow.

When students were asked to evaluate course workload, *in relation to other courses,* on a scale from 1 to 5 (5= much heavier 3= about the same and 1= much lighter), the average was 3.31 with a standard deviation of 0.85.

When it comes to pace relative to the students' preferences, an average of 3.15 is close to the value corresponding to "just about right". We do nevertheless observe differences when comparing the eight majors (see Appendix 3.3): while average difficulty, workload and pace do not vary much between most majors, relatively large differences are visible when comparing ECO and STR: for all indicators averages are significantly higher for ECO; for difficulty the difference is 0.76.[55] [56]

Table 8 displays differences in perceived difficulty, workload and pace between the student groups: exchange students, international degree students and CEMS students, as well as students with their bachelor's degree from NHH or another Norwegian institution. There is little to almost no variation between groups on any of the indicators, except for CEMS students; while the average on the indicators for four of the groups lay at 3.1 - 3.35, they appear as being lower for CEMS students. A T-test nevertheless tells us that the only difference that is statistically significant is that international degree students experience course pace as faster than the CEMS students do.[57] [58]

Table 8: Experienced course difficulty, workload, and pace by student groups

Student group	Exchange	Int. Degree	Bc. NHH	Bc. external No. Inst.	CEMS
Difficulty	3,25	3,28	3,27	3,33	3,05
	(0,81)	(0,75)	(0,76)	(0,75)	(0,75)
Workload	3,24	3,33	3,34	3,33	3
	(0,78)	(0,85)	(0,87)	(0,87)	(0,79)
Pace	3,12	3,20	3,1	3,2	2,85
	(0,70)	(0,68)	(0,59)	(0,66)	(0,67)

All courses autumn 2013 and spring 2014

3.4. Teaching methods and other course quality dimensions

NHH has had an increased focus on pedagogy in recent years, and established a permanent pedagogical committee (Pedagogikkutvalget) to initiate and coordinate pedagogical measures. It has among other things organised seminars primarily for faculty on various teaching methods. While attendance is modest, participant feedback is quite positive. Topics covered have been e.g. how to improve teaching and engage students in large lectures, as well as how to improve learning by use of IT. A few years back, the dean of master programmes organised a series of three seminars for faculty on the case method, a particularly student centred teaching method.

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[55] Differences between ECO and STR are according to t-tests statistically significant.

[56] Larger differences in difficulty, workload and pace are revealed when looking at individual courses.

[57] Because other factors can be hypothesised to affect student experience of difficulty, workload and pace these were regressed on dummies for student groups. When controlling for major, lecturer presentation of curriculum and semester we obtain the same results; only pace is significant. See Appendix 3.3 for the regression. By changing reference group we compared other groups as well; no significant differences. English and Norwegian courses were also examined separately: only very small differences between groups.

[58] We also examined whether there were difference between student groups within specific courses. Comparisons are difficult due to few observations, especially with international students. However, we did compare student groups for FIE402 (spring and autumn), a large course with a sufficient number of students in each group. We find that international students experience FIE402E as significantly more difficult than the other groups (0.4 difference). There were no significant differences between them regarding workload and pace.

3.4.1 Teacher versus student centred teaching methods

In connection with the programme evaluation, we gathered data in spring 2014 on whether students experienced courses as being "teacher or student centred". In teacher centred courses the focus is on the teacher (teacher talks – students listen). If on the other hand courses are student centred, focus is on both teachers and students; students interact with instructor and one another. To assess this, students were asked to evaluate their courses on a scale ranging from 1 to 11 were 1=100% teaching centred, 6=50-50 (an even mix of the two teaching methods), 11= 100% student centred.

For all MScEBA courses pooled together we get an average of 4.2, which implies that on average, students consider courses to be slightly more teacher than student centred. For the different majors, the averages range between 3.1 (BUS) and 5.4 (MBM).

At the course level, we find quite large differences between the extremes. As seen below, courses A, B, C, D, E display averages indicating that students experience these as being highly teacher centred while courses F, G, H, I, and J are experienced as being rather student centred.

Table 9: Five most teacher and student centred MScEBA courses (1=100% teacher centred, 11=100% student centred)

Course	Average	N
A	1.89	47
B	1.91	22
C	1.97	36
D	2.63	40
E	2.66	38
F	10.00	13
G	8.80	16
H	7.80	30
I	7.50	28
J	7.38	34

Spring 2014. Courses with less than 10 observations excluded. Q*: To what extent did you find the class meetings to be: (Please select the option best representing the mix of the two teaching methods below) teacher centred (focus is on teacher; teacher talks –students listen; classroom is quiet; teacher answers questions) student centred (focus is on both teacher and students; students interact with instructor and one another; classroom is often noisy/busy; students answer each other's questions) Teacher centred (100%) 90-10 80-20 70-30 60-40 50-50 40-60 30-70 20-80 10-90 student centred (100%).*

These results indicate a fairly balanced use of teaching methods. However, the increase in student numbers discussed in Chapter 2 (Figure 2) puts additional pressure on educational resources for feedback to students, examinations, and courses with a high degree of student participation, as well as for supervision of master thesis. Average class size has increased by 43 per cent in the period of 2008 to 2013, and the number of master theses has increased by 113 per cent in the same period.[59] In addition, there are plans for a reallocation of teaching resources from the master-level programmes at NHH to the bachelor's degree programme. In sum this will be a challenge to the ambition of developing and using new teaching methods.

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[59] From 282 in 2008 to 601 in 2013.

3.4.2 Students' view on NHH versus our cooperating institutions

NHH students on exchange have the last semesters been asked to evaluate the quality at NHH compared to their host institution on six different dimensions. At the same time, incoming exchange students are asked the same, giving us a way of comparing the quality of study from a student perspective. Figure 7 presents the results for NHH students who finished their exchange during autumn 2013 and spring 2014. Positive numbers mean that the students rate NHH better; indicators below zero mean that the host institution is rated better. [60]

Figure 7: MScEBA Exchange students comparing NHH and host institution
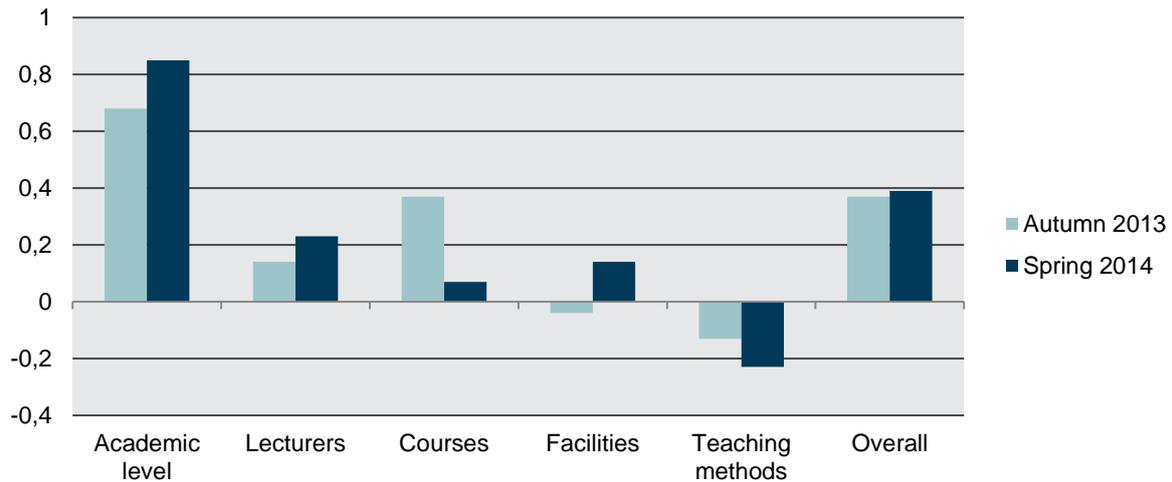
Positive result = NHH is better. Negative result = NHH is worse. 0 = 3 "just as good"

We see that by our own students, NHH is rated better on all indicators, except teaching methods. When asked, the students mention more student involvement in class (active participation) and more practical use of theory (cases) as the most important reason for this.

We also asked the incoming exchange students the same question; the results are displayed in Figure 8 below.

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[60] The original scale from 1 (NHH is much worse) to 5 (NHH is much better), the value 3 is "just as good".

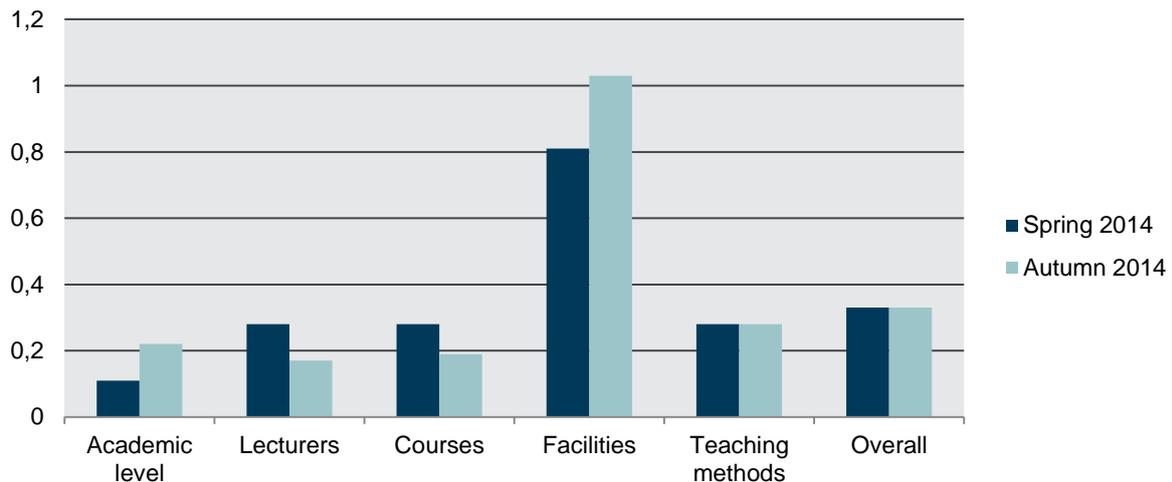*Figure 8: Incoming exchange students comparing NHH and their home institution (master level)*

Positive result = NHH is better. Negative result = NHH is worse. 0 = 3 "just as good"

The incoming exchange students rate NHH better on all indicators; including teaching methods. When asked, a few incoming students remarked that the teaching methods were less interactive, but as seen above, the majority rate it to better than at their home institutions.

When only students from high ranked institutions (FT-ranked) are singled out, we see that they give NHH a lower score on academic level, and high score on lecturers and teaching methods. These students also remark that NHH focuses too much on theory, and that more practice in form of business cases would be useful. Mathematics was emphasised as the main difference with regard to academic level, where the students from top-ranked institutions generally felt their level in mathematics were higher than the NHH students'.

When asked about their academic level compared to students from their host institution, 57 per cent of the NHH students felt that it was slightly or much better. Only 4 per cent felt it to be slightly lower. For the incoming students, 30 per cent felt that their academic level was slightly or much better, and 13 per cent felt it was slightly lower.[61]

3.5 Grades

Grades may be one (of several) indications of student quality. Figure 9 shows the grade distribution for students from NHH compared to all master students within the field of economics and business administration in Norway in 2013. The share of A's and B's are higher at NHH than the rest of the sector, with 62 per cent of the NHH students receiving the two highest grades versus 54 per cent of the other students.

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[61] None of the respondents answered that their academic level was much lower.

Figure 9: Grade distribution for NHH MScEBA and all Ec. and BA master students in Norway 2013
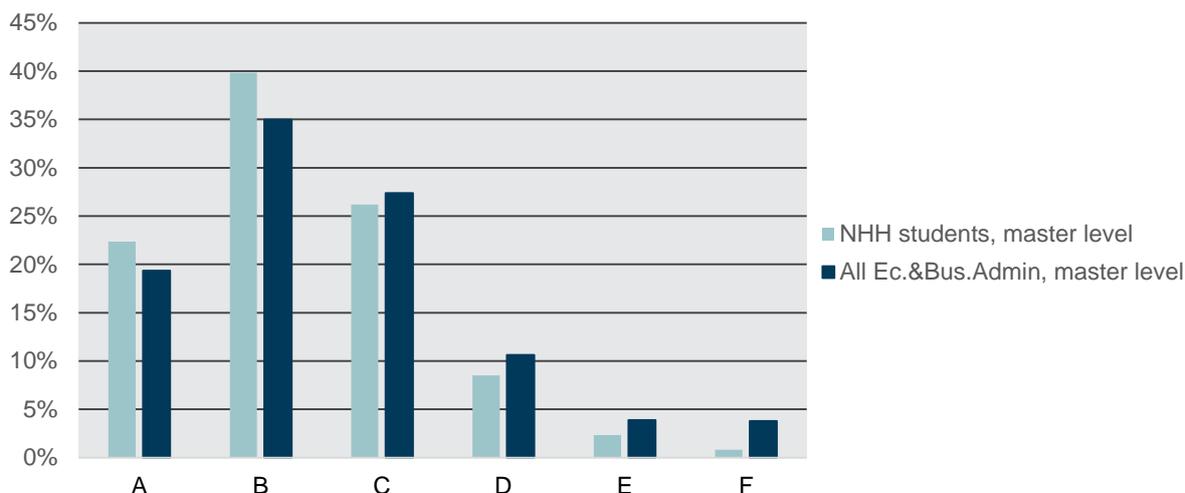
Source: DBH. All exams, including school exams, home exams, etc.

Looking at grades for the master theses (Figure 10) 92 per cent are A's and B's at NHH, and the share of A's reached 50 per cent for the first time in 2013. The numbers are stable over time. Comparing with the sector average, NHH has a higher share of A's, but about equal share of B's. It should be added that the field of economics and business administration (as well as law) in general has a high share of top grades for their master theses, relative to other disciplines in Norway.

Figure 10: Grade distribution for master theses for the NHH MScEBA, for all Ec. and BA master students and for all disciplines in Norway 2013
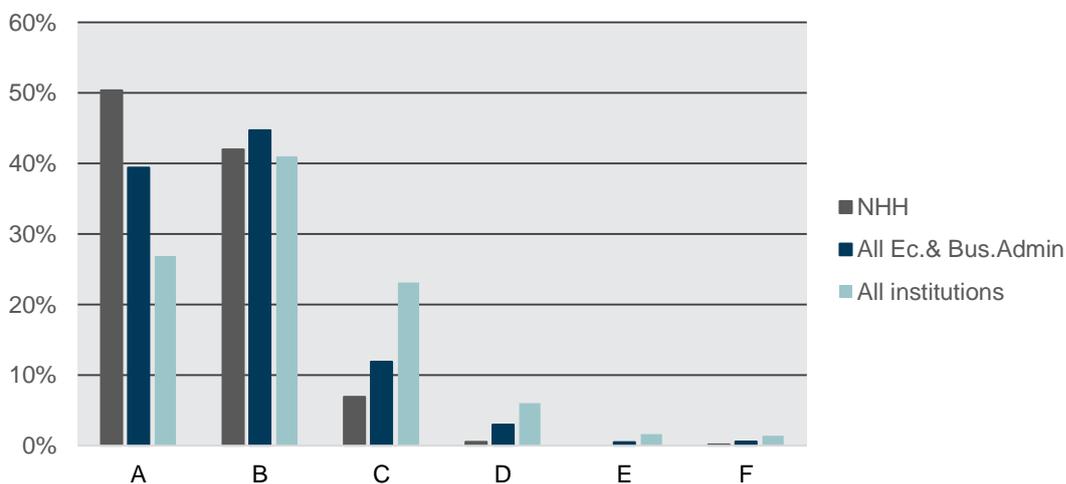
Source: DBH and the report "Karakterbruk i UH-sektoren 2013"

According to the Ministry of Education and Research, a grade for a thesis should meet the same criteria across institutions, e.g. an A thesis should be of same quality across institutions. With NHH having the toughest grade requirements for admission of all MSc in Economics and Business Administration in the country, would the grades not be a natural reflection of the academic level of the students? A report published in 2013, concluded that NHH, along with the four "old" universities, generally have a stricter

practice in determining grades than the new universities and the state university colleges,[62] indicating that the overall grade setting at NHH is not too "kind". However, as seen above, there is a relatively big difference between the grades for exams and the grades of the master theses. NHH is not unique; grade distributions for master theses generally are more "top-heavy" in most institutions and disciplines. However, the field of economics and business administration (along with law) has over several years stood out as a discipline where students achieve an unusually high share of A's and B's on their theses. To address this, NRØA has recommended a new set of grade descriptions for master theses to be implemented spring 2015. This is followed up as a separate issue by PMU, and will not be discussed further here.[63]

3.6 Quality of master thesis supervision

The grades received for master thesis have been mainly A's and B's, and students writing together have received higher grades than students writing alone. This suggests a high quality of learning outcomes achieved (although it also in part implies an inflated grading, as mentioned above). Matching supervisory resources with student demands (for topics) has remained a challenge. As of spring 2014, PMU established writing the thesis together (two students) as a main rule. This is one measure taken to balance teaching resources with increased student numbers.

There is no regular evaluation of the thesis supervision every semester, like for courses. In connection with the programme evaluation, the MScEBA students at NHH were asked during the autumn 2014 about their experiences with the supervision process when writing the master thesis.[64] The central findings are presented in the following.

3.6.1 Preparatory stage

Nearly half of the students replied that they had reached an agreement with a supervisor of their choice prior to the formal application process. Many had listed no preference for supervisor in the formal application. About 12 per cent stated that they had not gotten the supervisor they requested in the application form.

When asked *"How academically prepared did you feel to write the thesis?"* most students answered they felt very well prepared (21%) or well prepared (43%). Only 10 per cent felt very poorly or poorly prepared. Examining the students' comments regarding academic preparations,[65] courses in methodology and econometrics are frequently mentioned as particularly useful. PMU has already made the decision that empirical methodology is mandatory for all MScEBA students from the autumn 2015. These courses will then also be required to include learning outcomes particularly preparing students for the thesis writing process.

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[62]https://www.regjeringen.no/globalassets/upload/kd/vedlegg/rapporter/karakterbruk_og_kvalitet_i_hoyere_utdanning.pdf
(Senter for økonomisk forskning AS) [02.02.2015]
[63] PMU 38/14, treated in the PMU meeting of the 9th of September 2014.
[64] 160 students responded
[65] Formulated as following in the survey: *"Comments regarding your academic preparation (e.g. what courses where particularly useful in writing the thesis, what was missing in your preparation, etc.)".* 68 responses

3.6.2 Overall experience with the supervisory process

When asked *"Overall, how did you experience the supervisory process?"* 36 per cent of the students answered very satisfactory, 31 per cent satisfactory, 16 per cent answered unsatisfactory or very unsatisfactory while 18 per cent found it neither satisfactory nor dissatisfactory. This, as well as a mean of 3.8 (on a scale from 1 to 5 where 1 = very unsatisfactory and 5 = very satisfactory), indicates that most students in general experience the supervisory process as satisfactory. However, there is still room for improvement as 16 per cent experienced the thesis supervision process as dissatisfactory. One distinguishing feature was that these students did not find the feedback from the supervisor to be useful.

When asked what NHH can do to improve learning experiences from the thesis process, the students had different thoughts. One student suggested "to produce guidelines for supervisors to follow" (PMU has already started this work); another said "that the learning process is up to the student". Other suggestions were to provide more classes on how to write a thesis as well as more information and help to figure out the problem/statements/theme for the thesis prior to applying for supervisor. This will be addressed in the previously mentioned requirement for empirical methodology starting autumn 2015.

3.6.3 Feedback and Communication

The number of sessions between students and supervisors range from zero to 10, the average being 5; the standard deviation of 2.4 indicates some dispersion. Regarding how many drafts students received feedback on, (min/max values are 0 to 10) the average is 2.61 with a standard deviation of 1.7. Students respond that they have received feedback from their supervisor on a variety of topics, the most frequent being research questions/delimitation of the topic, structure, literature, analysis and results, choice of methodology and how to apply methodology, language, getting data, and theory.[66]

When asked how students would rate the overall usefulness of the feedback (regarding above themes) 53 per cent responded very useful, 25 per cent reported it to be useful while only 4 per cent answered not at all useful. Among those 16 per cent who were dissatisfied with the supervisory process (mentioned earlier), none found the feedback to be useful.

Suggestions from students on what may improve supervisor's feedback show a great variety; written feedback, oral feedback, number of times receiving feedback, to what extent the supervisor is expected to take part in building thesis structure, how to process data, and on what level the supervisor should "get involved in the thesis".

Lastly, regarding communication, the survey shows that the main form is some combination of in-person meetings, e-mail and comments in the manuscript.[67]

3.6.4 Work effort and results

The survey shows that the amount of time the students spent working on the thesis varies a lot, from less than 10 hours and up to 70-80 hours a week. On average, students work about 34 hours a week while the standard deviation indicates a high dispersion (12.5).

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[66] Themes less frequently discussed with supervisor are: notification of the Data Protection Official for Research – NSD, recording/storing personal data collected, interview guides/survey questions.

[67] Less frequent forms of communication between supervisor and student are by telephone, skype, etc.

Figure 11: Hours spent on the thesis per week
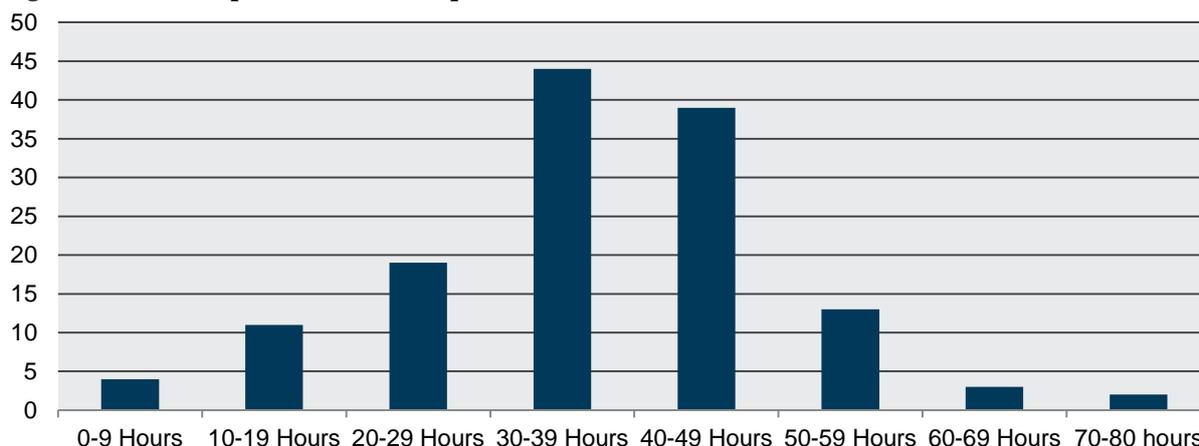
Q*: Approximately how many hours did you personally spend on the thesis on average per week?*

Lastly, looking at grades on the thesis, 58 per cent and 38 per cent of the responding students received an A or a B, respectively.[68] The average hours spent on the thesis per week for those receiving a grade of A is 34.7 hours (standard deviation of 12), a B is 33.75 hours (standard deviation of 14), and a C is 31 hours (standard deviation of 21).

Currently, PMU is developing a set of guidelines to harmonise the supervisory process at NHH. In addition, educational seminars on how to supervise (pedagogy for supervision) should be made available for all lecturers and potentially made mandatory for inexperienced supervisors.

3.7 Summing up: Challenges and potential measures

In this chapter, we have discussed quality of courses and supervision of master thesis. Examination of the survey data tells us that students (at a general level) experience the MScEBA courses as useful and relevant for their degrees, and that they are satisfied with how lecturers present the curriculum. We do not detect large differences between students groups and majors with regard to experienced difficulty, workload and pace. On average, students find courses to be at about the right level of difficulty and that lecturers teach at about the right pace. The variance in workload between courses (standard deviation) is not very high.

Regarding teaching methods, the average student response is that courses are slightly more teacher than student centred. The tails show that there are large differences between courses, from highly teacher centred to highly student centred, suggesting a variety in teaching methods. While the responses suggest a balanced use of teaching methods, PMU would still like to receive suggestions for how to improve teaching methods.

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[68] The grade distribution is not fully representative for the student group as a whole; the share of A grades reported here is a little larger than that of the original distribution, "A"-students are therefore a little overrepresented.

Student feedback suggests that NHH performs well relative to our cooperating institutions (exchange partners) on most dimensions, with the exception of teaching methods. The increase in student numbers discussed in Chapter 2 (Figure 2) puts additional pressure on educational resources for feedback to students, examinations, and courses with a high degree of student participation, as well as for supervision of master thesis. Average class size has increased by 43 per cent in the period of 2008 to 2013, and the number of master theses has increased by 113 per cent in the same period. In addition, there are plans for a reallocation of teaching resources from the master-level programmes at NHH to the bachelor's degree programme. In sum this will be a challenge in relation to the ambition of developing and using new teaching methods.

Regarding grade distributions for all exams, we see that the MScEBA programme has about the same grade distribution as other similar programmes in the sector. However, grades for the master's theses are considerably higher, with more than 90 per cent A's and B's. PMU is following up recommendations by NRØA to implement a new set of grade descriptions for master thesis in business administration in spring 2015.

4. Course portfolio, programme portfolio and programme content

In this chapter, we assess the course portfolio, programme portfolio, and programme contents of the Master of Science in Economics and Business Administration (MScEBA). The method adopted is mainly one of comparison with benchmark institutions. We will refer to the Norwegian term "hovedprofiler" (concentrations) in the NHH MScEBA as majors. Further, the term "programme" is used as a general reference to any structured masters education, such as a ("single major") master degree or a major – one of several – within such a degree. Some of the discussion will relate closely to admission requirements from Chapter 2 and expand on issues mentioned there.

As mentioned earlier, the MScEBA is governed by a national, normative plan (Norwegian only) adopted on 15 October 2012 by the National Council of Higher Education in Business Administration (NRØA). In brief, it requires a major (specialisation) of at least 30 ECTS (excluding methodology) and at least 20 ECTS (excluding methodology) outside the major to ensure broadness.

We also address issues of academic progression or how to manage student choice, as well has how to attract more and better qualified international students through establishing additional majors. Finally, we raise the issue of ensuring broad business knowledge also for international students, and whether the international strategy might be better served by establishing a separate degree.

4.1 Hearing requests in brief

Based on the discussions in this chapter, PMU requests considerations and recommendations on the following:

1. How should we best achieve academic progression within each major, for instance
   a. through *mandatory* courses that build on each other,
   b. or through electives that build on introductory courses, i.e. require students to take at least one advanced type course?
2. Should we make the minor optional for all students (candidates of the MScEBA with additional title "siviløkonom" must still take three courses outside their major)?
3. How to attract a greater number of high quality international degree students, for instance
   a. by opening for combining existing courses into new international majors, such as finance and strategy, or finance and accounting
   b. by using English, as a main rule, for new courses (may require change of NHH language policy)?
4. How to ensure that all non-"siviløkonom"/international degree students (across majors) share a minimum set of business administrative knowledge upon graduation, e.g. through
   a. admission requirements,
   b. or through mandatory courses in the master programme?
5. Whether non-"siviløkonom"/international degree students should
   a. Continue within MScEBA
   b. Or receive a separate degree (e.g. MiM)

4.2 The course portfolio of the master

The smallest building block of MScEBA is a course or seminar. NHH has a standard course size of 7.5 ECTS credits. However, there are also seminars of 2.5 ECTS as well as some non-standard course sizes. The course portfolio of the master consists of approximately 120 unique courses including six courses[69] offered only in the Master in Accounting and Auditing (MScAA). For a complete list of courses, see nhh.no

The course portfolio is quite broad covering numerous areas of economics and business administration. Given available capacity at the course level, these courses may be arranged in a multitude of ways to provide interesting and challenging programmes that produce excellent candidates tailored for certain professions in a heterogeneous work place.

The courses are delivered by the departments, but are in a sense owned by their majors ("hovedprofiler") as indicated by a three-letter abbreviation in the course code (e.g. FIEXXX for finance courses). The majors are governed primarily by the profile coordinators, who report to PMU. While courses may be included in majors outside the assigned course code, this practice has been discouraged. As will be discussed later, this is in part due to the NHH-structure of MScEBA with much student choice within majors combined with limits on overlap between majors (as opposed to mandatory course within the majors). Student choice has been indirectly managed through limits on the number of courses (and topical focus) for each major.

The course coding may lead to a perception of courses being "used up" by their designated major and that they thus are unavailable to other programmes or majors. Such a perception would hamper the parallel use of a course in multiple programmes as well as programme innovation. If all of the 120 courses are already perceived as being "used up" it is very challenging for anyone to suggest a new programme as this would entail the establishment of a large number of new courses. The establishment of a course entails a large portion of sunk costs which exacerbates this barrier to programme innovation.

A relatively extensive practice of sharing courses between majors and degrees can be observed at several of the benchmark institutions. However, as mentioned in Chapter 2, their programmes typically also have a much higher share of mandatory content (courses). Facilitating parallel use of courses in new, more focused programmes also at NHH, could reduce risk and encourage innovation. Put differently, it could allow for considerable economies of scope and differentiation at the programme level.

Course sharing might be more marketable if codes were either "generic" (which is also often the case at other institutions) or if each major could use its own three letter abbreviation on the same course (multiple codes for the same course coding). NHH already uses double codes for some courses that are shared between MScEBA and MScAA (e.g. BUS426N and MRR411 is the same course, but with two separate codes depending on which programme the student follows).

Sharing of courses is done in dialogue and agreement between profile coordinators and the teacher who is responsible for the course. Finally, it must be approved by PMU who has the overall responsibility for overseeing the degree and major portfolios including general admission requirements.

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[69] MRR416 Foretaksrett, MRR417 Skatt og avgift, MRR451 Revisjon, MRR452 Finansregnskap, MRR446 Juss, MRR443 Verdsettelse

An important issue is the students' qualifications to take a given course. MScEBA and MScAA have the same academic admission requirements (though at times differing grade requirements), such that the students are in general equally well prepared. The course responsible also has the opportunity to signal additional needs for qualifications in the prerequisites text of the course description. This is particularly relevant for more advanced master courses intended to be taken after the first semester.

4.3 The programme portfolio of the master

Currently, the master course portfolio of some 120 unique courses is allocated (and partially shared) among two degrees; MScEBA and MScAA. MScAA is highly structured with 60+ ECTS of mandatory courses. Contrary to this, MScEBA is very flexible and has no mandatory courses at the degree level, i.e. across its majors.

4.3.1 Management of student choice and progression in the majors

The MScEBA-courses are loosely organised into eight flexible majors and there are few, if any, mandatory course requirements in them. One conclusion of the previous programme evaluation was that the majors should continue to be governed by limits on the number of courses in each major and by limiting the overlap between majors. If each major had very few courses, this could potentially still mean a tight management of student choice and an indirect ability to ensure academic progression (that students would have to take upper level courses that built on introductory courses).

However, the growth in student numbers has necessitated a flexible approach to the number of courses allowed per major, and the dean has thus not upheld the course limits. Instead, new course offerings have been welcomed without requiring the same number of old courses to be closed. Despite this, the average size of master courses has risen dramatically since the previous evaluation, from 40 to 57 students per course or by 43 per cent (Figure 12).

Figure 12: Development in the avg. number of students per course in MScEBA per calendar year
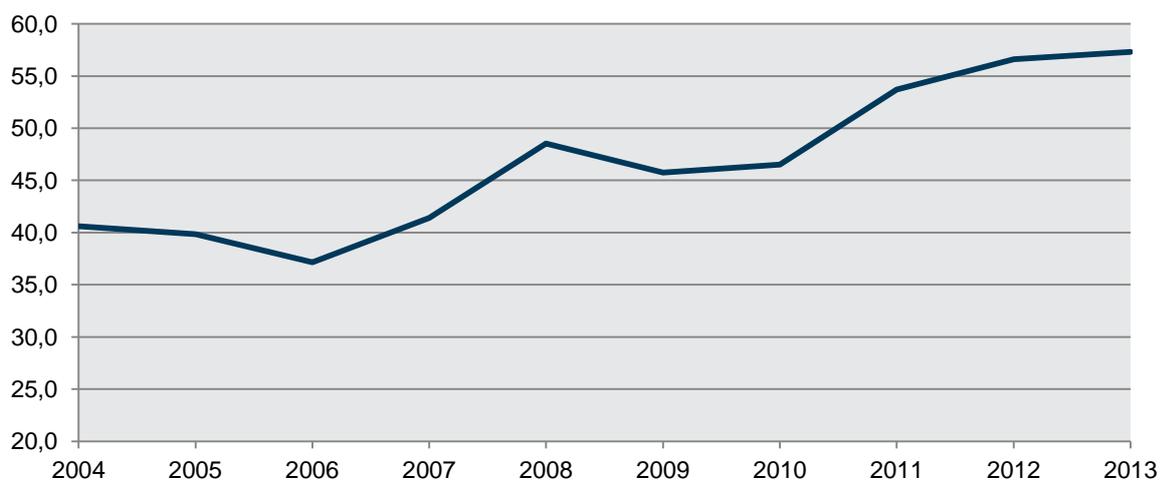
Adjusted for ENE-seminars. Including MScAA-students in shared MScEBA-courses. Not adjusted for duplication of courses within the same semester. Excluding repeat students. 2004 includes only the autumn semester

The need for increased academic progression was a concern in the previous evaluation, i.e. to make students take upper level courses that build on introductory master courses. The previous programme evaluation launched the possibility of defining some "advanced" courses in each major, of which students would be required to take at least one. The Research Distinction Track starting in 2014 is a result of this process. However, taking advanced courses is still voluntary, and it is still possible for students to only choose more or less "basic" level courses, avoiding academic progression.

One possibility to ensure progression could be to make some courses mandatory in every major, with a requirement to take at least one "advanced" course that builds on a mandatory course. NHH should consider a mandatory solution to ensure academic progression during the MScEBA. As we will see later, all the benchmark institutions have rather focused majors where most major courses are mandatory. This makes it easy to ensure academic progression, of course, at the expense of students' freedom to choose courses.

Another challenge of flexible majors is that it is difficult to describe the learning outcomes of the major in any detail. However, for focused majors, where most or all major courses are mandatory, it is possible to provide a detailed description of learning outcomes for its candidates. Sharing of courses between majors is of less concern since it is the particular course combination of the major which defines it. Such focused majors would allow for specified combinations of learning outcomes of, for instance, finance and strategy or finance and accounting, that could be highly marketable. This type of programme innovation is also demanded by employers, as we will see in Chapter 7.

4.3.2 The eight majors of MScEBA

Nearly all of the 120 courses are currently assigned to one of eight majors offered in the Master of Science in Economics and Business Administration (MScEBA). Historically, NHH has offered a relative stable programme portfolio, presented in the table below[70].

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[70] Note that the MScEBA was established in 2004, as a consequence of the «Quality Reform» for Norwegian higher education, in which Norway adopted the Bologna system with three-year bachelor and two-year master programmes.

Table 10: Programme portfolio, history of majors in MScEBA

Abbr.	Name	Established	Closed
BUS	Økonomisk styring	Autumn 2004	
ECN	Economics 🇬🇧	Autumn 2014	
ECO	Økonomisk analyse	Autumn 2004	
ENE	Energy, Natural Resources and the Envirement 🇬🇧	Autumn 2008	
FIE	Finansiell økonomi/Finance 🇬🇧	Autumn 2004	
INB	International Business 🇬🇧	Autumn 2004	
MBM	Marketing and Brand Management 🇬🇧	Spring 2010	
STR	Strategi og ledelse/Strategic Management 🇬🇧	Autumn 2004	
COM	Fagspråklig kommunikasjon	Autumn 2004	Autumn 2008
EPN	Økonomisk politikk og offentlig organisering	Autumn 2004	Autumn 2008
LHR	Ledelse av menneskelige ressurser	Autumn 2004	Autumn 2008
MIE	Markedsføring og konkurranse	Autumn 2004	Spring 2013
SAM	Samfunnsøkonomi	Autumn 2006	Autumn 2014

Period of teaching

ECN replaces SAM from autumn 2014. MBM largely replaced MIE in 2010.

The two majors, Finance (FIE) and Business Analysis and Performance Measurement (BUS), together attract approximately 60 per cent of the students. Compared to BUS, FIE is fairly homogeneous. BUS is fairly broad, perhaps the broadest of all of the majors, and contains courses in accounting (management and financial), auditing, logistics and supply chain management, and management control.

Figure 13: Share of students in the majors
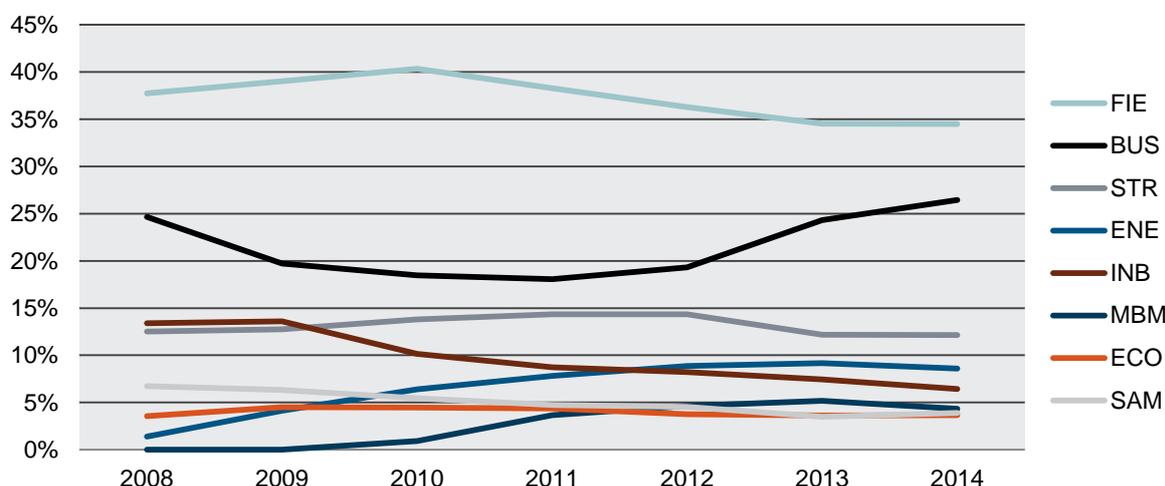
INB was the "original" international programme at NHH. Prior to the establishment of MScEBA in 2004, it was organised as an independent degree, Master of International Business (MIB). It has since been accompanied by ENE in 2008, which was a new major, and MBM in 2010, which was a continuation and an internationalisation of the marketing courses in MIE, a major which was discontinued.

In addition, three of the existing eight majors will be opened for international degree students as of autumn 2015, a doubling from previous years.[71] These are ECN (which will replace SAM), FIE and STR. All three will have the core courses in English as well as the majority of elective courses.

Several of the benchmark institutions have most or all of their comparable programmes in English. To attract highly qualified international students, it is important for NHH to present a visible and broad portfolio of master programmes in English.[72] While it is important to develop the English course and programme offerings, it may neither be necessary nor desirable to eliminate courses in the Norwegian language. However, one might argue that mainstream courses should be offered in English first, and then duplicated in Norwegian if necessary. This is contrary to the old practice where large courses (in Norwegian) were duplicated in English if duplication was necessary or desirable. It would presumably also require a change in the NHH language policy.

4.3.3. A programme portfolio comparison

We now compare the NHH programme portfolio with that of five benchmark institutions. The comparison includes degrees that could have been organised as majors in MScEBA. Many of the benchmark institutions provide a majority of programmes in English. Several of the institutions offer many, separate business/economics degrees beyond their MScEBA equivalent.

Based on geographical proximity to NHH and the Financial Times' Master in Management (MiM) ranking, we have chosen five institutions for our benchmarking of programme portfolio. The starting point is the degree reported in the FT MiM ranking 2014. As we see from Table 11, three of the institutions (BI, CBS and Aalto) have several specialisations (majors) within their degree, the same as NHH. All institutions, except Aalto, also have different degrees.

We use programme as a generic term for both stand-alone degrees ("single major degrees") and majors within a degree. NHH thus has a total of nine programmes (the single major degree, MScAA, and eight majors within MScEBA).

The difference in course portfolio between a major and a degree with the "same name" is often minimal. For example are the majority of the courses required by the *degree* in Finance and the *specialisation* in Finance (the degree MSc in Business) at BI identical.

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[71] Indicated by the British flag inTable 10, ECN (previously SAM), FIE, and STR are all opening for international students from autumn 2015.

[72] In the 2014 Admissions Survey, international applicants responded that they associated a broad selection of programmes with high quality institutions.

Table 11: Comparison of programme portfolio with benchmark institutions

	Norwegian School of Economics NHH	Norwegian Business School BI	Stockholm School of Economics (SSE)	Copenhagen Business School (CBS)	Aalto University	St Gallen
Degree name	Master of Science in Economics and Business Administration	Master of Science in Business	MSc International Business[73] (including CEMS)	Master of Science in General Management[74]	MSc in Economics and Business Administration[75]	Master of Arts in Strategy and International Management
Specialisations	8 majors: Finansiell økonomi (NO*) Økonomisk styring (NO) Økonomisk analyse (NO) Strategi og ledelse (NO*) International Business (ENG) Energy, Natural Resources and the Environment (ENG) Marketing and Brand Management (ENG) Economics (ENG)	8 majors: Economics Finance (ENG) Marketing Leadership and Change (ENG, new) Strategy (ENG) Logistics, Operations and Supply Chain Management (ENG) Business Law, Tax and Accounting (NO) International Business (ENG)	None	14 specialisations: Accounting, Strategy and Control (ENG) Applied Economics and Finance (ENG) Brand and Communication Management (ENG) Finance and Investments (ENG) Finance and Strategic Management (ENG) Finansiering og Regnskab (DK) Human Resources Management (ENG) International Business (ENG) International Marketing Management (ENG) Management of Innovation and Business Development (ENG)	14 specialisations (programmes): Accounting (ENG+FI) Economics (ENG+FI) Entrepreneurship (ENG) Finance (ENG) Information and Service Management (ENG) International Business (ENG) International Business Communication (ENG) Management (ENG+FI) Marketing (ENG+FI) Business Law (FI) Communication in Business and Economy (FI) Creative Sustainability (ENG)	None

[73] SSEs MSc International Business is found in the FT ranking for the first time in 2014. In 2013, the Master Program in Business Management is reported.
[74] There are no graduate programmes at CBS called *MSc in General Management*. We therefore present MSc EBA http://www.cbs.dk/uddannelse/kandidatuddannelser/optagelse-paa-kandidat-oversigt/optagelse-paa-kandidat-trin-1 [21.10.2014]
[75] http://studyguides.aalto.fi/biz/2014-05/en/master-of-science-degree-studies/study-programmes.html [21.10.2014]

				Strategic Market Creation (ENG) Strategy, Organisation and Leadership (ENG) Supply Chain Management (ENG) Økonomisk Markedsføring (DK)	International Design Business Management (ENG) Strategy (ENG)	
*offered in ENG from 2015						
Other degrees offered	Master i Revisjon og Regnskap (NO)	MSc in Strategic Marketing Management (ENG) MSc in Leadership and Organisational Psychology (ENG) MSc in Finance (ENG) Master of Professional Accountancy (NO)	MSc in Finance (ENG) MSc in Business & Management (ENG) MSc in Economics (ENG) MSc in Accounting and Financial Management (ENG)	MSc in Advanced Economics and Finance (ENG) Business Economics and Auditing (DK) MSc in Business Administration and Management Science (DK)		Master of Arts in Marketing, Services and Communication Management (ENG) Master of Arts in Banking and Finance (ENG) Master of Arts in Economics (ENG) Master of Arts in Quantitative Economics and Finance (ENG) Master of Arts, International Affairs and Governance (ENG+GER) Master of Arts in International Law (ENG)
Programmes	9	12	5	17	14	7

Degrees from Financial Times' Master in Management ranking 2014

The programmes and degrees are hyperlinked to direct the interested reader to the programme/degree webpages.

As indicated by the table, there are many ways in which to organise the course portfolio, and often with considerable overlaps between programmes. For instance, CBS has three explicit finance majors; Applied Economics and Finance, Finance and Investments, and Finance and Strategic Management. Each is a "focused major" with a strong management of student's learning outcomes (60 ECTS of mandatory courses). Hence, each of the three majors provides its unique set of financial knowledge. In comparison, BI has both a degree in finance and a "focused major" in finance (within its MScEBA). However, at BI the courses and learning outcomes are seemingly the same for the two.

4.3.4 A potential for new majors aimed at the international market

At NHH, the vast course portfolio means that we could potentially duplicate most of the above programmes offered at the benchmark institutions, if we so desired. As mentioned in Chapter 2, a main strategic challenge is to increase the number of international students, and surveys suggest that they associate a wide selection of majors with high quality. One measure to attract more international students of high quality could thus be to launch additional majors. These majors should be of the focused kind typically found in the international market, i.e. mainly consisting of mandatory courses.

An increase in the number of majors would increase the number of options for the students. The high share of mandatory content would also make it easier for students to show their competence to employers. Chapter 7 shows that programme innovation is welcomed by employers. As seen in Table 11, CBS, Aalto and BI all have more programmes than NHH; CBS has a total of 17 versus the 9 programmes of NHH. Thus, there could be room for a few extra majors.

A modest experimentation with "focused majors" in the international market could also provide us with valuable experiences and allow us to explore the effects on student recruitment, admission quality, academic progression, as well as relevance in the labour market

As is the case currently, departments, the programme committees, the student organization (NHHS) and the Ministry of education and research, can all suggest new majors. Any such suggestion would be treated by PMU and then decided upon by the Board. This is important so that PMU can maintain the overall responsibility for regulating the course portfolio of each major (or master degree).

Course overlaps between focused majors is also of less concern than for flexible majors, since it is the unique and mandatory combination of courses which defines each major. However, given the flexible nature of the existing majors, it would make little sense if the new majors were to be equally flexible.

To facilitate programme innovation, it would be beneficial if the threshold for re-using courses in new international majors was low. To achieve this, one could consider a practice where re-use of courses is allowed provided:

- The course responsible, other profile coordinators or the departments do not have valid objections
- The course has available capacity
- The proposed student group (of the new major) fulfils the course prerequisites

A challenge with more majors, though, is that it might increase coordination costs both for faculty and administration.

4.3.5 Ensuring a broad business knowledge for international students

The previous programme evaluation concluded that the strategy of ensuring graduates with a broad business, economics and administrative background had proven successful. "Employers know today what they get when they recruit from NHH, without having to go into details of what the individual candidate has studied. This gives NHH a very strong profile within economic-administrative education. To change this profile by educating candidates who, for instance, have never seen a financial statement or an investment analysis, is regarded to weaken NHH's position as a business school and in the long term make our candidates in less demand." (p. 9).

Currently, we have a flexible international admission requirement combined with a flexible master programme that in sum does *not* ensure such a broad competence for our international graduates.

Structurally, NHH may require such trademark topics to be covered:

- Prior to application (e.g. in the applicants bachelor degree),
- Through summer school or preparatory courses, i.e. conditional admission where deficiencies are remedied at summer school/preparatory courses
- Through mandatory courses in the master programme

To ensure central business competencies for the international students, the most obvious requirement would be that the students possess these skills prior to admission. However, this will reduce the number of potential students to recruit from, and exclude talent without that background.

The second alternative is to offer a summer school option to make up for deficiencies. Such a summer school portfolio could also be useful to improve NHH bachelor throughput and improve internationalisation in our bachelor programme. To be useful to the master programme, the portfolio should consist of the most common deficiencies among the strongest applications. A further analysis of the applicants' background is under way and should shed light on what subjects these might be.

As discussed in earlier chapters, we find only marginal support for international degree students *on average* performing poorer than the Norwegians who have BcBA or equivalent background. Some international students perform very well despite having few prior business courses. This suggests that any deficiencies in central topics may be made up in the master programme (rather than prior to it). While this would be master level courses, and therefore more analytical in nature than bachelor courses, the essential issue would be exposure to central topics (rather than the level at which they are covered). Such a mandatory course portfolio is indicated by "Mandatory" on the left-hand side of Figure 14.

The content of such a "Mandatory" portfolio could be similar to that required by Master of International Business (MIB) students in the past. The old MIB degree, which was discontinued or turned into the INB major when MScEBA was established, did not require previous business courses. However, it compensated by containing significantly more mandatory business content than most majors in MScEBA today. The following courses were mandatory in the MIB programme (2001):

- Managerial economics and management accounting (BEA301)
- International finance (FIN306)
- International marketing (MAR307)

- International economics (SAM301)
- International organisations and management (SOL303)

As can be seen, the mandatory courses covered quite a broad set of business and economics competence thus ensuring a relatively broad set of knowledge for international graduates.

The "Mandatory" portfolio would not need to apply to international students who could document a sufficiently broad business background from their bachelor.

Figure 14: Alternative degree structure
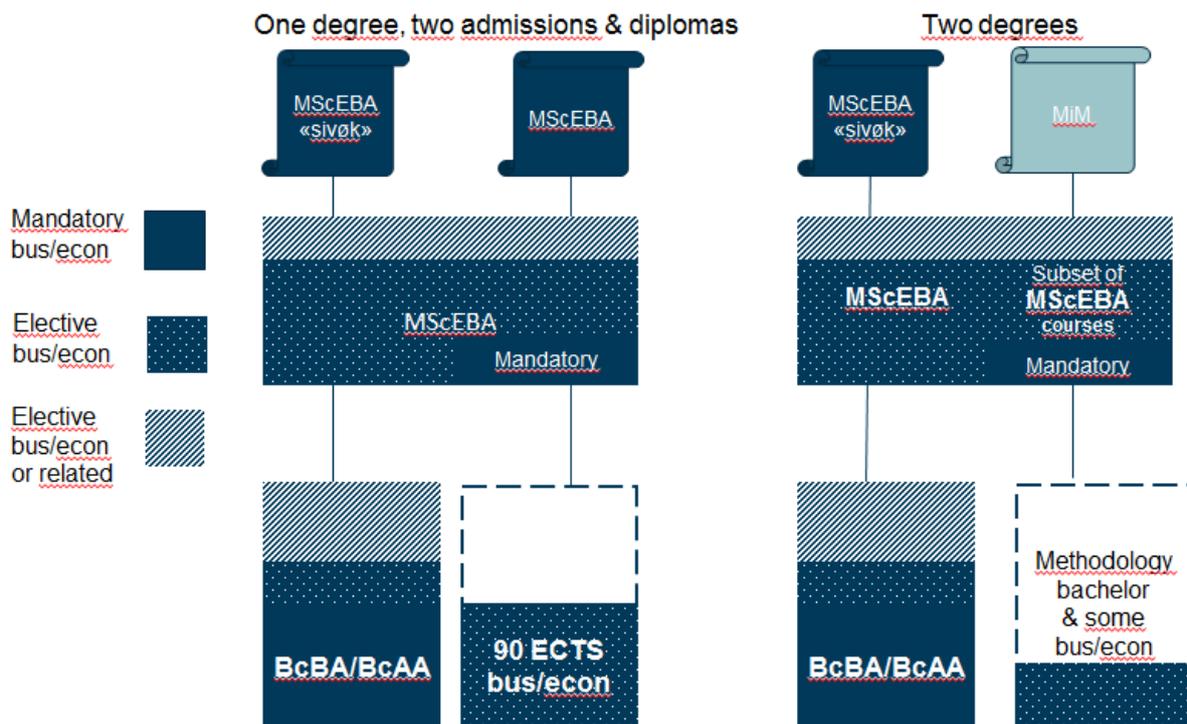
4.3.6 Two admission requirements, two degrees?

The international degree students (as discussed in Chapter 2) have a less comprehensive admission requirement, and are therefore not awarded the additional title of "siviløkonom" on their MScEBA diploma. However, other than that, they currently follow the same courses/majors and receive the same diploma. This is illustrated on the left hand side of Figure 14.

One concern might be that the additional title of "siviløkonom" is not sufficient to signal the difference in level of business competence to the labour market. The need for a distinction by means of a separate degree for international students seems more appropriate the lower the business requirement is for admission, e.g. if for instance a decision is made to admit non-business bachelors. For example, the old

Master in International Business (MIB), admitted students with non-business degrees and did not require prior business courses. These were the 2001 admission requirements for MIB:[76]

- "A bachelor's degree (or equivalent) from a university of high standing
- Preferably introductory courses in statistics, accounting, economics, finance, computing, and management
- Good command of the English language"

The MIB could be resurrected, or one could establish a new MiM degree or similar for international students (Figure 14, right-hand side). This degree could more freely be adapted to the international market, both in terms of programme structure and requirements, as well as admission requirements.

Such a degree could for instance also target students with methodology type bachelor degrees, e.g. mathematics, statistics or engineering. As mentioned in Chapter 2, many of the highly ranked MiM degrees on the FT ranking admit bachelor students without a business background. There could, of course, still be a minimal business requirement.

Furthermore, with admission directly into the international majors (like in MScEBA today), each major could have additional admission requirements, if necessary. For instance, finance related majors could require finance, mathematics and microeconomics. Also in the case of a separate MiM degree, coverage of central topics should be ensured for all graduates. This is indicated by the same set of "Mandatory" courses in the master programme on the right hand side of Figure 14.

At this stage, PMU is seeking opinions on a principle level for which of the options above seems most desirable. If there is strong support for establishing a separate degree, there will still be a need for additional and more detailed analyses of potential effects on for instance exchange agreements, double degree arrangements, accreditation processes and rankings, before a final decision is made.

Regardless of chosen diploma structure for international students (i.e. inside MScEBA or a separate MiM degree), PMU believes that a set of central business competences should be ensured across all majors for international students prior to graduation, as discussed in the previous section.

4.3.7 On the organisation of CEMS

At NHH, students may currently apply to CEMS and take it as an integral part of MScEBA. CEMS may be combined with any of the majors. This means that there are only a few CEMS elective courses available in each major, and that the 30-50 CEMS students are spread across eight majors. This reduces the visibility of CEMS as well as class affiliation. Formally, CEMS "takes the place" of a minor. However, CEMS could be organised in several other ways.

An alternative organisation of CEMS is as an autonomous major or even a degree. At CBS, CEMS is restricted to students of certain degrees, for instance MSc in Economics and Business Administration or MSc in Advanced Economics and Finance. SSE has chosen a different model, integrating CEMS into

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[76] https://web.archive.org/web/20010803193702/http://www.nhh.no/stud/mib/ [04.12.2014]

one of their Master degrees (International Business), which is the programme SSE reports to the Financial Times' MiM ranking. The organisation of the CEMS MiM programme at NHH has been discussed by a "task force" during 2014.[77] The task force recommended the establishment of CEMS as its own major on par with the other majors in the MScEBA degree. This was preferred above alternative organisations such as a stand-alone degree (the SSE-model). The task force recommends the establishment of a formal group who can look deeper into the alternatives..

4.3.8 On exchange opportunities

NHH has 162 exchange agreements divided between 47 countries. As seen in Figure 15, 300 students were on exchange from NHH during 2013. Almost 90 per cent of the applicants to the exchange programme got an offer of exchange, and 63 per cent of the students got their 1st, 2nd or 3rd choice fulfilled. 38 per cent of the students got their 1st choice. Due to the large number of applicants, almost all the exchange agreements are filled up.[78] The possibility for exchange is considered attractive by potential applicants; it is therefore important to be able to grant as many students as possible a possibility for exchange.

Figure 15: Exchange 2009 – 2013
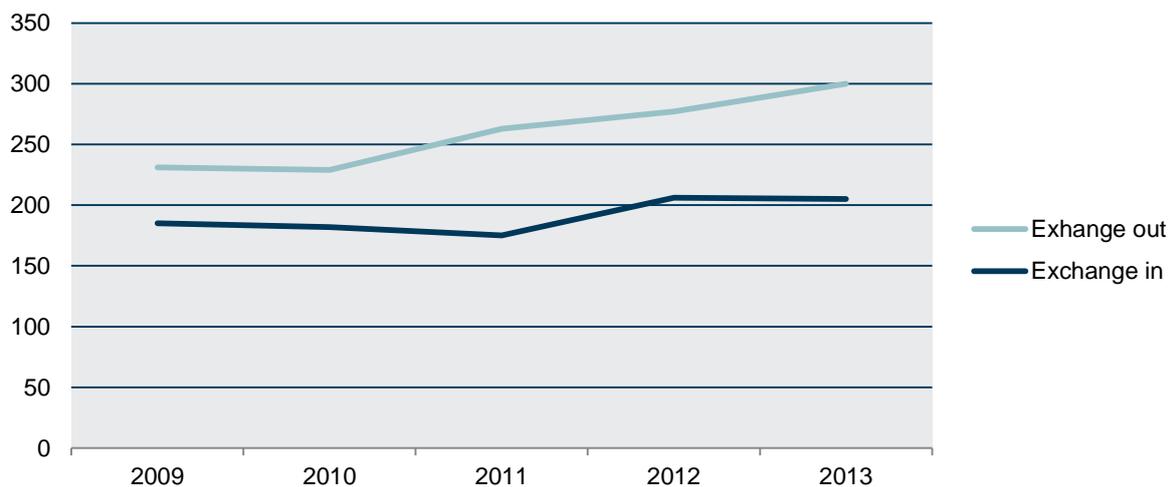
Source: Rapport og planer 2013/2014

The majority of the students go to Europe, and of countries outside Europe, USA and Australia are the most popular ones. There is, however, an imbalance in the number of exchange students from NHH and the number of students coming to NHH from USA and Australia. As opposed to Europe, where most agreements are tuition-free, NHH has a combination of tuition-free agreements (exchange agreements) and "tuition agreements" (study abroad agreements) with USA and Australia. The latter agreements open for the flexibility to send more students, while the pure exchange agreements seek balance in the number of students in and out, which is the reason for the imbalance. The imbalance also has a financial

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[77] The members of the task force were CEMS Academic Director Tor Askild Aase Johannessen, Senior Advisor James Hosea and Professor Rolf Brunstad

[78] Numbers from Section of Exchange and Internationalisation. Admission 2014. The CEMS and Double degree programmes are not included.

cost in terms of lost revenue due to the reduction of study points produced at NHH when the number of outgoing exchange students exceeds the number of incoming students.

Several of our benchmarking institutions require student exchange in certain programmes. Students majoring in International Business at BI, for example, have compulsory exchange in the third semester. At SSE, the International Business degree fully integrates CEMS, and thereby also student exchange. Should NHH aim for 100 per cent exchange for certain majors? Today, exchange is spread on all majors, and the share of students on exchange varies from 19 per cent (ECO) to 71 per cent (SAM), with most majors having around 40 to 50 per cent of students on exchange.[79] 27 per cent of the students in the International Business major exchanged during their master programme, which is somewhat lower than the average. However, this major has, together with MBM, by far the largest share of CEMS students (24 and 18 per cent of the students in these majors took CEMS as part of their degree).

There may be good reasons for exchange to be mandatory for certain majors, for example International Business, with its explicit international orientation. Findings in Chapter 7 also indicate that the employers value international experience; and employers would probably expect this from INB graduates[80] (as is the case for INB at BI and SSE).

4.4 Programme by programme content comparisons

We conjecture that employers will measure the competencies of NHH candidates from a given programme and/or degree against the natural benchmark candidates in the market. Hence, we should ensure that the mandatory content of our programmes matches or surpasses that of naturally corresponding mandatory content in the market place, i.e. at benchmark institutions.

Structurally, the low level of mandatory content in most NHH programmes is unique compared to our benchmark institutions. Rather than mandatory content, the norm for most NHH master programmes is constrained flexibility, e.g. that students must choose two from a portfolio of four core courses. Typically, the content of the core course portfolio is rather heterogeneous thus providing little assurance of common skills among our candidates from the same programme.

In contrast, most of our benchmark institutions have a clearly identified, academic core shared by all graduates from the programme (Table 12). Some benchmark institutions even have mandatory courses across majors within the same degree (HiST, BI, HEC, and Aalto) thereby providing a set of identifying skills for the candidates with that degree. Mandatory content across majors means that all students take the same (identical) courses, e.g that all students at MSs in Business at BI have 5 courses in common, regardless what their specialisation is.

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[79] Data from students who graduated during Autumn 2013 and Spring 2014. Exchange means exchange only, CEMS, Double degree and attendance to "Gründerskolen" comes in addition.

[80] It should, however, be remembered that a large share of the INB students have an international background from their bachelor degrees.

Table 12: Common/identical mandatory content at NHH and some benchmark institutions (ECTS)

	NHH	HiST	BI	Aalto	CBS[81]	SSE[82]
Across majors	0	15	24	6	0	0
Within majors	0-22,5	0-22,5	36	12-34	60	60
Sum mandatory	0-22,5	15-37,5	60	18-40	60	60
Sum share of degree	0-19%	13-31%	50 %	15-33%	50 %	50 %

See Appendix 4.4 for details

In particular, if there is a largely common set of skills shared by candidates from several benchmark institutions, this skillset would probably be expected by employers and eventually be considered a market norm to that type of programme. It then seems all the more important that NHH candidates meet or exceed such employer expectations.

From the table above, we see that NHH has the most flexibility (highest degree of student choice), or conversely, the lower share of common, mandatory content. We also see that both CBS and SSE have majors as complete "silos" within the same degree without any common, mandatory content within the degree. However, unlike NHH, they have considerable common content within each major (60 ECTS).

Currently, our Economics (ECN) major has the largest share of identical content shared among its graduates; three mandatory courses or 22.5 ECTS. However, this is a very small major in terms of number of graduates. The two largest majors (FIE and BUS) which include some 60 per cent of the MScEBA graduates, do not have mandatory content within the major. They do, however, have limited choice, in that students must choose two from a subset of core courses. This means that some courses are shared by many of the majors' graduates (but not all). Furthermore, through popularity, some of the elective courses in the major are also shared by many.

The requirement of the NHH majors is to take a minimum of six courses (45 ECTS) from the major's course portfolio, including any mandatory courses or courses from subsets such as core courses.

While a minor (22.5 ECTS) is mandatory for MScEBA students receiving the additional title of "siviløkonom", it is optional for the international students. Making the minor optional for all, while still requiring minimum three courses outside the major for "siviløkonom" students, would increase the flexibility for the students, but simultaneously ensure a minimum of breadth. This would also balance the suggestion of more mandatory content in the master programme, giving students more flexibility outside the major while reducing the flexibility within the major. However, it would weaken the implicit requirement for academic progression (outside the major), and it could weaken the signal of broad skills to employers.

4.4.1 Content comparison for four majors

In this section, we look at the mandatory content in corresponding programmes at the benchmark institutions BI, CBS and SSE. The primary purpose is to uncover any "must have" topics, which NHH should include as well. However, an added benefit would be if it also gives rise to ideas for how NHH

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[81] http://www.cbs.dk/en/study/graduate/msc-in-economics-and-business-administration/economics-finance-and-accounting/finance-and-strategic-management [12.07.2014]

[82] http://www.hhs.se/Education/MSc/MBM/M/Pages/Curriculum.aspx [12.07.2014]

could better distinguish its programmes. We have limited the content comparison to the programmes which most closely correspond to one of the three largest NHH majors in terms of student numbers; FIE, BUS, and STR, as well as INB. Details of this content survey are found in Appendix 4.4.1.

Finance (FIE)

FIE has no mandatory courses, but restrictions of choice for its core courses (students must choose two out of three core courses; marked with CORE in Table 13 below). Thus, the share of students graduating with a given course will vary over time. The most common courses among FIE graduates are the two core courses FIE400 Investments and FIE402 Corporate Finance which are shared by 82-93 per cent of its graduates. The most common elective major course is FIE432 Private Finance, which is shared by 74-82 per cent. The sixth most common course is FIE403 Business Cycle Analysis (the smallest core course) which is shared by 39-43 per cent of FIE graduates.

Table 13: Major courses shared by FIE graduates of 2012 and 2013

Course abbr	Course name		2012	2012 %	2013	2013 %
FIE400N/E	Finansmarkeder/Investments	CORE	214	88 %	239	98 %
FIE402N/E	Foretakets finansiering/Corporate finance	CORE	201	82 %	226	93 %
FIE432	Personlig økonomi		181	74 %	199	82 %
FIE426	Asset management		117	48 %	114	47 %
FIE420	Pengemarkeder og bankvesen		94	39 %	104	43 %
FIE403	Konjunkturanalyse	CORE	104	43 %	94	39 %
FIE437	Valuation		74	30 %	93	38 %
FIE431	Krakk og kriser		62	25 %	64	26 %
FIE434	Behavioral Finance and Wealth Management		44	18 %	63	26 %
FIE435	Financial Modeling		53	22 %	60	25 %
FIE421	Langsiktig makroøkonomisk analyse		66	27 %	58	24 %
FIE438	Applied Portfolio Management		45	18 %	54	22 %
FIE422	Internasjonale finansmarkeder og finansiell stabilitet		53	22 %	53	22 %

A comparison of the mandatory content in eight finance programmes (degrees and majors within degrees) at BI, CBS and SSE shows that finance for several programmes is combined (both in title and mandatory courses) with other topics such as strategy or accounting. This points to a possibility for exploring additional mandatory combinations of finance with complementary topics that may increase the visibility of skills attainable at NHH and thereby increase the attractiveness of the school.

Furthermore, the comparison showed among other things that:

- The common *finance* content shared by graduates of any finance-related programme is between 22.5 and 30 ECTS (or three – four standard NHH courses)
- The minimum common content (finance and other) shared by graduates of any programme is 30 ECTS with a median of 52.5 and a maximum of 60
- The topic "corporate finance" is mandatory in all eight programmes indicating that this topic is a "must have" for a finance graduate. At NHH, 82-93 per cent of FIE-graduates take FIE402 Corporate Finance (Table 13), hence, it is a relatively small share of graduates that are missing this competence.

- Other topics shared across several institutions are: portfolio theory, asset pricing, investments, financial statements analysis and empirical methodology

Business Analysis and Performance Measurements (BUS)

BUS is perhaps the broadest of all majors at NHH in terms of various subjects covered. Analogous to FIE, BUS has no mandatory courses. However, there are restrictions on choice where students must choose two out of four core courses (see Table 14).

The core courses BUS400 and BUS401 are the most common courses among BUS graduates and are shared by 79-94 per cent of BUS graduates. The remaining courses are shared by less than 50 per cent of BUS graduates. The sixth most common course among BUS graduates is shared by 36 per cent of students.

Table 14: Major courses shared by BUS graduates of 2012 and 2013

Course abbr.	Course name		2012	2012 %	2013	2013 %
BUS400N/E	Styring av større foretak/Management control	CORE	106	86 %	116	94 %
BUS401	Strategiske lønnsomhetsanalyser og prising	CORE	97	79 %	108	88 %
BUS402	Finansregnskap	CORE	53	43 %	60	49 %
BUS441	Konkurranseanalyse		50	41 %	59	48 %
STR435	Personalpolitikk og incentiver		28	23 %	53	43 %
BUS425	Regnskapsanalyse og Verdsettelse		44	36 %	44	36 %
BUS428	Økonomisk organisasjonsteori		25	20 %	41	33 %
BUS424	Strategic Financial Statement Analysis		38	31 %	38	31 %
BUS426N(E	Revisjon/Auditing		33	27 %	46	37 %
BUS442	Konkurranserett		30	24 %	36	29 %
BUS420HEKS	Strategisk økonomistyring		29	24 %	35	28 %
BUS403	Supply chain management	CORE	31	25 %	24	20 %

In terms of topical organisation, the benchmark programmes typically are dividing the BUS-content into two categories:

- Logistics, operations and supply chain management (only BI and CBS)
- Accounting and remaining BUS-topics such as taxes, law, control

This raises the question of whether NHH would more easily communicate its variety in skills offered by showing both topics rather than combining them in one major (BUS) as today. The title of "Business Analysis and Performance Management" may not do justice to the logistics topics and in a sense "hides them" from potential applicants.

A logistics major is offered at both BI and CBS. *Supply chain management/strategy is mandatory in both programmes* (Operations 2 at BI). All three institutions offer accounting related majors/degrees. *Financial (statement) analysis is mandatory in all programmes*. In addition, accounting is combined with yet other topics, such as strategy and finance (that are organised only as separate majors at NHH).

Strategic Management (STR)

The Strategy major at NHH has a mandatory methodology course (STR402A/405 Methodology for Master Thesis). In addition, students are required to take at least one of the following two courses: STR404 - Strategic Analysis and STR432 - Strategic Alliances and Networks.

Some observations regarding the two benchmark institutions which offer strategy type majors (BI and CBS) are that:
- they have a large share of mandatory strategy content, between 30 and 60 ECTS
- they offer several (3-4) varieties of strategy majors each
- CBS offers human resources management as a separate major
- BI has 12-18 ECTS of mandatory methodology
- In some of its strategy majors, CBS combines strategy with mandatory management accounting, marketing, and finance
- The "purest" strategy programmes at BI (Major in Strategy) and CBS (MSc programme in Strategy, Organization and Leadership) both seem to include mandatory coverage of at least:
  - "broad representation of differing, and often conflicting, perspectives and theories related to strategy content and strategy context" (BI Economic and Organisational Foundation of Strategic Management), and to relate various theories related to business strategy to each other, and apply them in order to analyze issues of business strategy" (CBS Organisational Identity).
  - business strategies and competitive advantage (BI's Strategies of Industrial Competitiveness and CBS's Business Strategy)

In addition, the profile coordinator for STR, did a content analysis of strategy programmes at Harvard, Stanford and London Business School, concluding among other things that NHH had fewer methodology courses and practical skills courses (consultancy and leadership).[83] Two specific recommendations from the profile coordinator was to expand STR by:

- Methodology course in multivariate statistics
- Practical skills course(s) in consultancy and leadership

International Business (INB)

All three benchmark institutions (BI, CBS, and SSE) each have one programme with the "International Business" label. At SSE, the programme is fully integrated with the CEMS MiM.

Following the initial content analysis, the management committee ("referansegruppen") for INB proposed a new study plan to PMU which was approved on October 15, 2014. The new plan was more structured and included five mandatory courses in international business. Hence, the 2015 INB programme is included in the content analysis table (see Appendix 4.4.1).

Regarding mandatory content:
- All programmes (including NHH) include
  - (international) strategy/strategy topics

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[83] Incidentally, two of BI's three strategy majors include practical skills courses (Managing for Excellence, Generative Practices, and The Practicing Strategist).

- o   marketing or market understanding
- Three (including NHH) of four programmes include
  - o   finance
  - o   empirical research methodology
  - o   ethics

A distinguishing feature for the NHH programme is still that it offers more flexibility/student choice than any of the other programmes, although it is currently the programme with the largest share of mandatory courses at NHH (five mandatory courses and one each from strict portfolios of empirical research methodology and ethics). Furthermore, it is the only international business programme to make accounting mandatory.

Summary of comparisons

The comparison of the four sample majors shows that there are quite different organisations of courses into majors between the institutions. Furthermore, some of the majors at NHH are somewhat broadly defined relative to what is done at some benchmark institutions, e.g. BUS includes logistics and accounting which may be organised separately elsewhere, and similarly STR includes human resource management which is offered separately at CBS.

NHH majors are differentiated by their great flexibility (few or no mandatory courses), which is appreciated by our students. In contrast, all benchmark programmes are focused (many mandatory courses). Thus, there is a high degree of shared content *within* majors at the other institutions compared to NHH. However, for finance programmes the finance content is typically rather modest (22.5 – 30 ECTS) whereas for strategy programmes the strategy content quite high (30 – 60 ECTS).

Additionally, many of the programmes have mandatory content outside of the specialisation or major (i.e. a finance programme may have several mandatory non-financial courses).

An interesting observation is that BI in general is putting a significantly higher emphasis on methodology content than the rest (including NHH). Indeed, a full 18 ECTS equally divided among the three courses: Research Methodology in Finance, Multivariate Statistics with Econometrics, and Mathematics. This may be to remedy lower intake quality. However, it may also be an effort to eliminate the gap to NHH in the labour market where NHH graduates are considered theoretically and analytically superior (see Chapter 7). CBS also has several programmes where empirical methodology is mandatory. As of autumn 2015, all NHH master students will be required to complete at least one empirical methodology course.

Total mandatory content (including methodology and non-specialisation courses) in all 23 programmes benchmarked against BUS, FIE, INB, and STR typically ranges from 52.5 to 66 ECTS mandatory content with a median of 60 ECTS mandatory content. Only three programmes had less than 52.5 ECTS mandatory content, ranging from 30 – 45 ECTS. Hence, in comparison, the NHH majors are exceptionally flexible with hardly any mandatory content.

Student choice is indeed a differentiating feature of NHH, and it is appreciated by our students. The previous programme evaluation raised the concern for academic progression or to ensure specific learning outcomes in such a flexible programme environment. So far, measures introduced by PMU have typically conformed to the model of limited choice. For example, as of autumn 2015, all master students must have empirical methodology, but they can typically choose from a varied portfolio of

courses. However, the benchmarking in this chapter suggests that it is possible to maintain its differentiation on flexibility and still introduce a modest increase in mandatory content if it is found desirable to address issues like ensuring academic progression or certain common skills.

4.5 Summing up: Challenges and potential measures

The study programmes at NHH should be on par with the best international institutions in its fields. To assess the achievement of this strategic goal, we have compared the NHH master programme with similar programmes at other institutions. We find large differences in both the organisation of majors (specialisations/concentrations) and degrees, and in the share and composition of mandatory content. Differences do not necessarily mean lower quality, but the findings are worth reflecting over, as the majority of the other institutions are well reputed and highly ranked on the FT MiM ranking.

As seen in Chapter 2, the number of international students enrolled to complete MScEBA has been decreasing the last two years, opposite of the strategic goal for internationalisation. There is a need to attract more qualified international students. Chapter 2.8 list some possible measures to this challenge concerning admission. Here, we focus on measures with regard to the programme portfolio.

International applicants consider a wide selection of programmes as a sign of high quality. Encouraging programme innovation and exploration by trying out new "focused" majors, i.e. with high share of mandatory content, may therefore attract more international applicants. These majors could consist of mandatory course combinations inspired by the international market and based on the existing master course portfolio. Offers at benchmarking institutions show some of the possibilities for NHH's vast course portfolio.

Programme innovation is also welcomed by the employers (See Chapter 7). Given the vast number of courses offered at NHH, some of the courses could in theory be re-arranged into new majors without the high cost of establishment of all new courses. Given the flexible nature of the existing majors, it would make little sense if the new majors were to be equally flexible. Course sharing might be more marketable if codes were either "generic" (which is often the case at other institutions) or each major was able to use its own three-letter abbreviation on the same course (i.e. multiple codes for the same course).

A main concern at NHH has been that the candidates all possess some central business and economics subjects (e.g. finance, financial accounting, economics, strategy and marketing). The previous evaluation concluded that such a set of broad competences was the reason for the success of MScEBA. We may refer to this as an NHH "trademark". How are we to ensure that all non-"siviløkonom"/international degree students (across majors) share a minimum set of business administrative knowledge upon graduation?

The softer, more heterogeneous international admission requirement combined with a flexible master with no mandatory courses across majors, means that many international students may not have such central competences. The international admission requirements thus challenge the notion of every NHH graduate possessing the broad, homogenous business knowledge of the "siviløkonom". Further, if NHH is to consider accepting non-business students into their master's degree, as discussed in Chapter 2, the question becomes even more obvious. What would a more differentiated student group do to the "trademark" of NHH? The challenge only regards applicants who do not fulfil the "siviløkonom" requirements, and the measures are therefore restricted to these applicants (i.e mostly international

students, but also Norwegian students without the "siviløkonom" requirements if NHH is to change its admission procedures to separate on academic merits rather than nationalities, as discussed in Chapter 2).

The most obvious solution would be that the students possess these skills prior to admission. However, this will reduce the number of potential students to recruit from, and exclude talent without that background. A second alternative is requiring the missing trademark topics to be covered through a summer school or preparatory courses. This is assumed to be a relatively costly measure, and would obviously require more analysis. Like the previous measure, it would, on the positive side, ensure that all students had a broad business background prior to enrolment, while simultaneously enlarging the pool of qualified applicants. A third option is to ensure that central business competences are ensured through mandatory courses across majors during the master's degree.

As discussed in earlier chapters, we find only marginal support for international degree students *on average* performing poorer than the Norwegians who have BcBA or BcBA-equivalent background. Some international student groups perform very well indeed. This suggests that any core subject deficiencies may be made up in the master programme (rather than prior to it). The international backgrounds are rather heterogeneous, from degrees closely resembling BcBA to vastly different degrees, but still containing at least 90 ECTS of business, economics and methodology. A more detailed analysis of how the various international backgrounds influence performance in certain core subjects in MScEBA should thus also be performed.

We conjecture that employers will measure the competencies of NHH candidates from a given programme and/or degree against the natural benchmark candidates in the market. Structurally, the low level of mandatory content in most NHH majors is unique compared to our benchmark institutions, which all have between 13 to 50 per cent mandatory content in their programmes. BI, CBS and SSE all have 50 per cent mandatory content.

As there is a largely common set of skills shared by candidates from several benchmark institutions, this skillset would probably be expected by employers and eventually be considered a market norm to that type of programme. It then seems all the more important that NHH candidates meet or exceed such employer expectations.

In addition to the lack of common mandatory content, the flexibility of the majors makes it possible for the students to choose only "basic" level courses, avoiding any academic progression. One possibility to ensure progression could be to make some courses mandatory in every major, with a requirement to take at least one "advanced" course that builds on a mandatory course. The previous programme evaluation launched the possibility of defining some "advanced" courses in each major, of which students would be required to take at least one. The Research Distinction Track starting in 2014 is a result of this process. However, taking advanced courses is still voluntary.

NHH may consider a mandatory solution to ensure academic progression during the MScEBA, or requirement to take advanced courses. A softer measure could be to make it optional for students to take tracks within the major which are shown on their diplomas, e.g. BUS with an accounting track, FIE with a corporate finance track, or STR with a human resources management track. NHH should still ensure a high degree of flexibility, particularly for its "siviløkonom" students who have a very homogenous bachelor, to tailor their master studies. Freedom to pursue elective courses within their major is motivating for students.

A discussion on how to increase the number of enrolled international students is closely linked to the question whether to accept non-business bachelors, as it would enlarge the pool of applicants. Acceptance of bachelors with little or no business background prior to admission to NHH would presumably be difficult to combine with today's MScEBA degree. Another possibility is to consider a new, international MiM degree or similar, tailored to the international market (including all students who do not meet the "siviløkonom" requirements). This degree could still ensure the NHH trademark through mandatory courses, but would more clearly distinguish between the traditional "siviløkonom" graduates and international graduates.

While a minor (22.5ECTS) is mandatory for MScEBA students receiving the additional title of "siviløkonom", it is optional for the international students. Making the minor optional for all, while still requiring minimum three courses outside their major, would increase the flexibility for the students, but simultaneously ensure a minimum of breadth. This would balance the suggestion of more mandatory content in the master programme, giving students more flexibility outside the major while reducing the flexibility within.

5. Work and learning environment

The NHH Strategy 2014-2017 states that in order to achieve the goals of internationalisation, quality of studies, specialisation of research, corporate relations and partnerships, a good infrastructure and a well-functioning organisation is needed. Needless to say, this is dependent upon having a good work and learning environment. We assess aspects of the latter by examining various survey data on student perceptions and experiences of the quality of studies, quality of life and infrastructure. We also consider processes that regards supervision of the master thesis. Through examination of different surveys, we see that in general students at NHH are satisfied with most aspects of the work and learning environment even though there is room for improvement.

5.1 Hearing requests in brief

Based on the discussion in this chapter, PMU requests views on the following:

1. Should NHH turn an existing auditorium into a medium sized (40-60 students) amphitheatre-style case auditorium?
2. How could NHH improve the feedback that students receive on their own work as well as provide more individual follow-up of students?
3. How can we encourage faculty to develop teaching skills, and in particular make more use of IT technologies both in existing and new courses (both as "on campus" and as online courses)?

5.2 Quality of studies

According to Studiebarometeret[84], the NHH MScEBA scores a little higher on most indicators of quality of studies than MScEBA at other institutions in Norway. For NHH students it is especially the school's reputation and the expectation of good study quality, as well as future job prospects, that are essential for their choice of institution. Most NHH MScEBA students are satisfied with lecturers as well as supervision. There is nevertheless room for improvement when it comes to feedback on own work and individual follow-up of students. Students rate the quality of feedback on their work to 3.0 out of 5, which is the same as the average of all business administrative educations. When it comes to individual follow up, NHH students rate their master programme to 2.5. This is below the sector average of 2.8. Obviously, many of the programmes offered by other institutions are smaller than the NHH programme, which makes each student more "visible".

Looking at Trendence[85], we see similar tendencies; for master students at NHH the importance of academic reputation, reputation among employers and quality of teaching is very important when

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[84]Studiebarometeret is a Norwegian web portal that shows the students perception of study quality and study programmes at Norwegian university colleges and universities. Data comes from a yearly national survey by NOKUT and provides comparable data on study quality over time and between institutions.

[85] Trendence Graduate Barometer is being marketed as Europe's largest survey which addresses the themes career, education and employers. Students are asked about their preferences and expectations concerning their future career, satisfaction with own educational institution and future employers attractiveness on the job-market. In total 105.442 students responded to the survey conducted in 2013. 1.180 respondents were from Norway and of these 501 respondents were from NHH. 48,3% of the responding students from NHH were currently attending the master programme.

choosing educational institution. NHH respondents give a much higher score than students in Europe and Norway. This has been consistent for the last two years. Nearly all responding students (96.9 %) believe that NHH's reputation among employers is good; this is also the case for academic reputation (95.2 %). The *importance* of the structure and content of the master programme is experienced as marginally more important for NHH students than for students in Europe and other institutions in Norway. The same applies for student's *satisfaction* with these factors.

5.3 Quality of Life

According to SHOT2014,[86] NHH students report to be very satisfied with student life. Compared to other major educational institutions in Bergen (HiB and UiB), NHH students experience a higher level of quality of life, a greater mastering of studies, exceptionally good physical health and are substantially more robust financially. On the negative side, the share of NHH-students with a risky consumption of alcohol is high compared to UiB and HiB. In addition, female NHH students experience more than three times the psychological distress than the male students.

5.4 Infrastructure

By looking at Trendence, we can shed light on how students evaluate various aspects of the infrastructure at NHH. Regarding administration, students rated this as quite unimportant when choosing educational institution – lower than students in general in Europe and Norway. However, students evaluate their experience with the administration as being very satisfactory. Even though the administration experienced a "dip" in 2012 compared to 2011, overall satisfaction is nearly 15 per cent better than for Europe and Norway. Looking at IT-facilities, however, NHH scores lower than Europe and the rest of Norway both on importance and satisfaction; the number of satisfied students has declined nearly 30 per cent over the last two years.

5.4.1 Digital infrastructure

Massive Open Online Courses (MOOCs) are currently high on the agenda of most higher education institutions. These are online courses, characterised by no formal entry requirements and being open to any number of students. For a detailed description of MOOCs, see appendix 5.4.1. Further development at NHH need not necessarily focus on MOOCs in particular, but rather on a digital development of regular teaching into for instance pure online courses. Online courses or lectures could complement on-campus lectures for NHH students. They could also be offered to a limited group of students first, then later – once concepts are thoroughly tested – presented to a wider audience.

Certain measures are already in motion. NHH Executive is collaborating with the Department of Accounting, Auditing and Law on establishing a fully online course to be launched in January 2015. Furthermore, NHH is taking part in an application (where HIB is the driving force in the partnership) to Norway Opening Universities (Norgesuniversitetet) for funds to develop a MOOC. NHH also opened its new Smart Lab in November 2014, where lecturers are encouraged to try out new teaching methods. The Pedagogical Committee (PU) at NHH has signalled that they wish to support measures regarding new pilot projects. A prerequisite for the development of online courses is nevertheless a good digital

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[86] SHOT2014 is a survey conducted to identify health and wellbeing among Norwegian (citizenship) students. Respondents are full-time students at Norwegian educational institutions affiliated with 10 Student Associations.

infrastructure. High quality tools (software, cameras, recording equipment, servers, etc.) must be available. Many of these are already in place.

5.4.2 Case auditorium

The case method represents a shift from a traditional, teacher-centred model of education to a student centred in which students play a lead role in their own and each other's learning. It is a form of instructor-guided, discussion-based learning and introduces complex and often ambiguous real-world scenarios in the classroom. NHH has invested in several seminars for its lecturers on the case method, and at least 10-20 members of faculty have received professional training in the case method.

However, facilitating learning through excellent case discussions demands a suitable auditorium with quite specific requirements. To facilitate dialogue between students as well as between students and lecturer, an amphitheatre style auditorium is particularly useful. It is designed with seating in a U-shape and rows on different levels so that all students can see and hear each other as well as the lecturer, as seen in the photo of the «Wiener Auditorium» at Harvard.

Photo: «Wiener Auditorium» at Harvard Kennedy School of Government.

NHH has suitable rooms for plenary lectures and class room/group discussions, but *none* for mid-size (40-60 students[87]) case method courses. Aiming for high quality of teaching, NHH should consider changing an existing auditorium (for instance, Karl Borch's Auditorium or Auditorium 24) into such a case auditorium.

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[87] According to Professor Kamran Kashani of IMD, who lectures on use of the case method, the class size limit for efficient case discussions is 90 students.

5.5 Summing up: Challenges and potential measures

In this chapter, we have looked at the work and learning environment at NHH. The findings are overall positive, but some challenges are revealed. We concentrate on the challenges that concern the quality of study.

According to Studiebarometeret 2013, the MScEBA students rate the teaching at NHH to be average (3.3 on a scale from a low of 1 to a high of 5), the same as the sector average. "Teaching" is an indicator consisting of several underlying questions. Two of these are individual follow-up and the quality of feedback on the student's work. Students rate the quality of feedback on their work, to 3.0 out of 5, which is the same as the average of all business administrative educations. When it comes to individual follow-up, NHH students rate their master programme to 2.5 which is below the sector average of 2.8.

Based on these results, NHH should follow up the results of Studiebarometeret 2014[88], and consider measures improving the quality of feedback on their own work as well as more individual follow up. Measures have to be elaborated in collaboration with students and staff.

Traditional classroom lectures are challenged by new digital development. To offer high-quality education, we must make sure to keep up with new teaching methods. Technical infrastructure for filming is in place in several auditoria, and the Smart Lab (a film studio) opened in November 2014. Many lecturers are already experimenting with the new possibilities this equipment gives. How can faculty be incentivised to make more use of digital technologies?

NHH has invested in coursing lecturers in the case method, and today 10-20 members of faculty have received training in the case method. However, facilitating learning through excellent case discussions demands a suitable auditorium with quite specific requirements; an auditorium designed so that students can see and hear each other in the class. NHH has suitable rooms for plenary lectures and class room/group discussions, but *none* for mid-size case method courses. NHH should consider turning an existing auditorium into an amphitheatre-style case auditorium suited for mid-sized (40-60 students) classes.

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[88] To be published February 2015

6. Production and achieved results

This chapter focuses mainly on throughput ("gjennomstrømming") as a measure of production. Throughput is also one of the Ministry of Education and Research's measures of quality in education, and is linked to NHH's financing. We look at the status for throughput at the MScEBA programme, before we investigate who are delayed, students' attitudes towards being delayed and the reasons for delay. Finally, we take a short look at drop out and retakes.

6.1 Hearing requests in brief

Based on the conclusions of this chapter, the PMU requests feedback on the following conclusions:

1. No additional measures beyond those already planned or under implementation, are considered necessary to increase the throughput at MScEBA at the time. However, throughput still needs to be watched closely in the years to come.
2. Consider how a possible change in the programme structure, i.e. more mandatory content, may affect throughput.

6.2 Throughput

In their orientation on the state budget 2015[89], the Ministry of Education and Research states finishing within the standard period of time ("gjennomføring på normert tid") as a quantitative goal for 2015, as has been the case for previous years. The topic is high on the sector's agenda, and there is an explicit expectation to act on weak results. It has also been a topic of the NHH board.

The share of students finishing their master degree within the standard period of time has been stable around 60-70 per cent the last years (Figure 16).[90] Using data from the Ministry of Education and Research for comparison with other institutions, the NHH results are well above the average of 35.5 per cent. If we single out the master programmes in economics and business administration, the sector average is 52.1 per cent[91] (Tilstandsrapport høyere utdanning 2014[92]).

The data for 2014 in Figure 16 below shows only the students graduating during the spring semester (as opposed to the earlier years, when both autumn and spring are reported). Throughput is normally higher for students starting in the autumn semester (and finishing in the spring) than for students starting the programme in the spring semester. It is therefore likely that the numbers for 2014 will decline somewhat when the spring semester students are added.

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[89] Orientering om forslag til statsbudsjettet for universiteter og høyskoler 2015

[90] Data in Figure 16 are extracted from the student system FS locally at NHH. The share differs from the official statistics from the Ministry of Education and Research as reported in Tilstandsrapport for høyere utdanning 2014 because the Ministry's data 1) do not separate MScEBA and MScAA, and 2) do not include graduates in MScAA who due to late examination results receive their diploma after the time of reporting.

[91] Data from BI is not included. NHHs students account for over half of the population.

[92] Table V2.15 and V2.18 http://www.regjeringen.no/nb/dep/kd/dok/rapporter_planer/rapporter/2014/tilstandsrapport-uh-2014.html?id=758598 [22.10.2014]

Figure 16: Students finishing their degree (%)
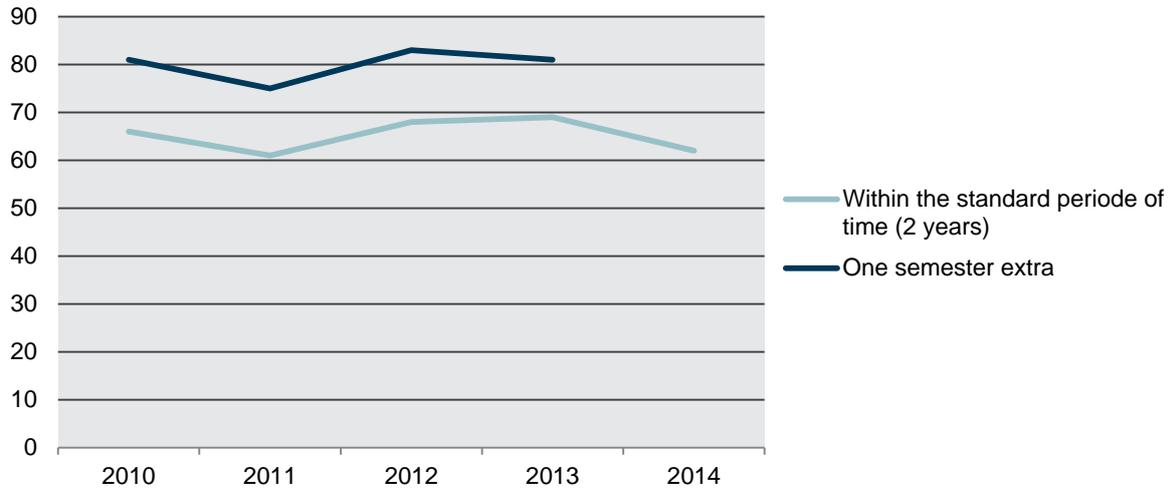
Source: Rapport og planer and FS. 2014: only spring semester

A deeper look at the data behind Figure 16 confirms the results found in Chapter 2; two groups have substantially lower rates of finishing within the standard period, namely the international students and students enrolling in the spring semester. As of 2015, the external spring admission of Norwegian bachelor students into MScEBA has been discontinued, and only NHH bachelor students may now start their master studies in the spring semester. Presumably, these are students already delayed in their bachelor degree, and may possibly continue to be delayed also in the master.

6.2.1 Who are delayed?

During autumn 2014, we conducted a throughput survey of all active master students. Of all respondents[93], 18 per cent said they were delayed. Based on admission groups, the international students were more delayed (28%), than both the NHH-bachelors (18%) and those with a bachelor degree from another Norwegian institution (external students, 14%). Which students that were delayed was also addressed in the programme evaluation of 2008, but the responses were too few to conclude. Both the data presented above and the analysis in Chapter 2, suggest that international students use more time on their studies than Norwegian students do. This finding is also reflected in the English majors, which have slightly higher shares of students being delayed. An exception is SAM where 44 per cent of the students state that they are delayed. This is far above any of the other majors.

About 90 per cent of the students in the BUS and FIE majors expected to finish on time. This is positive, as these are the two largest majors in terms of student numbers. Students in ENE, INB, and SAM expected to a lesser extent to finish their degree on time than for the other majors.

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[93] The survey on progression and attitudes was sent to all active students at the master programmes during August/September 2014. Response rate: 22 %.

6.2.2 What are students' attitudes towards being delayed?

The throughput survey asked the students about their attitudes towards being delayed. As shown in Figure 17, 77 per cent of the respondents find it important to finish their degree on time.

*Figure 17: Importance of finishing the degree on time*
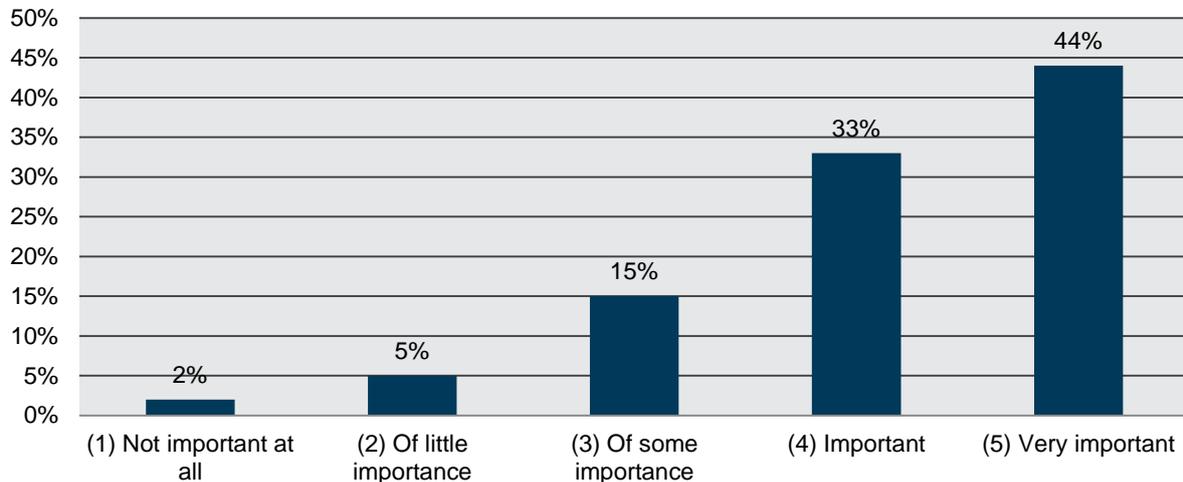
How important is it for you to finish your master's degree on time (2 years/4 semesters)? N=491

International students find it a little less important than the Norwegian students to finish on time (69 vs. 80%), which may be one reason why they are also more delayed than the Norwegian students, as mentioned above.

70 per cent of all the respondents found it acceptable among fellow students to use one extra semester on their studies (Figure 18), but there seems to be a limit at three or more semesters. The data also suggests that NHH bachelors find it more acceptable to use one or two extra semesters, than the other groups.

Figure 18: Attitudes. To what extent do you agree or disagree with the following statements
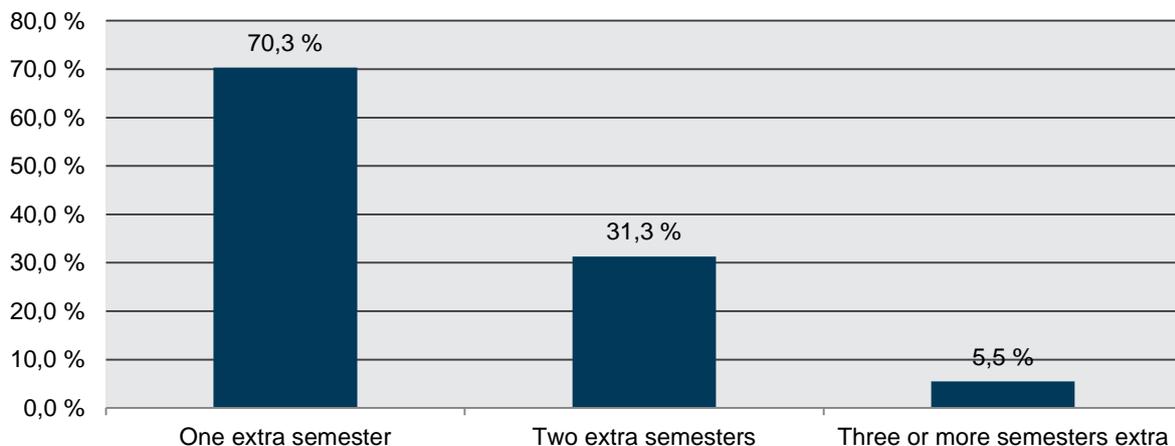

In my experience, it is fully acceptable among my fellow students to use XX extra semester on ones studies. N=515

Part of the explanation for the acceptance of one semester extra of studies may be found in the respondents attitudes towards employers. When asked to agree or disagree on *"employers are more concerned with good grades than whether I finish my degree on time"*, 45 per cent agreed or strongly agreed. 37 per cent neither agreed nor disagreed. NHH bachelors seem more prone to agree (53%) than both international students and external students, i.e. with a bachelor from other Norwegian institutions (both around 40%). This may imply that the emphasis on grades is NHH-specific and that any change of attitudes must be implemented from the very start of the bachelor studies.

6.2.3 Why are students delayed?

We also asked the students why they were delayed. They were asked to answer both to pre-set alternatives (Figure 19), and provide free text responses (Table 15). 46 per cent of the students stated *Priorities outside NHH, including paid and non-paid work, children/family, etc.* as a major reason for their delay, followed by illness (26 %).

Figure 19: Reasons for delay
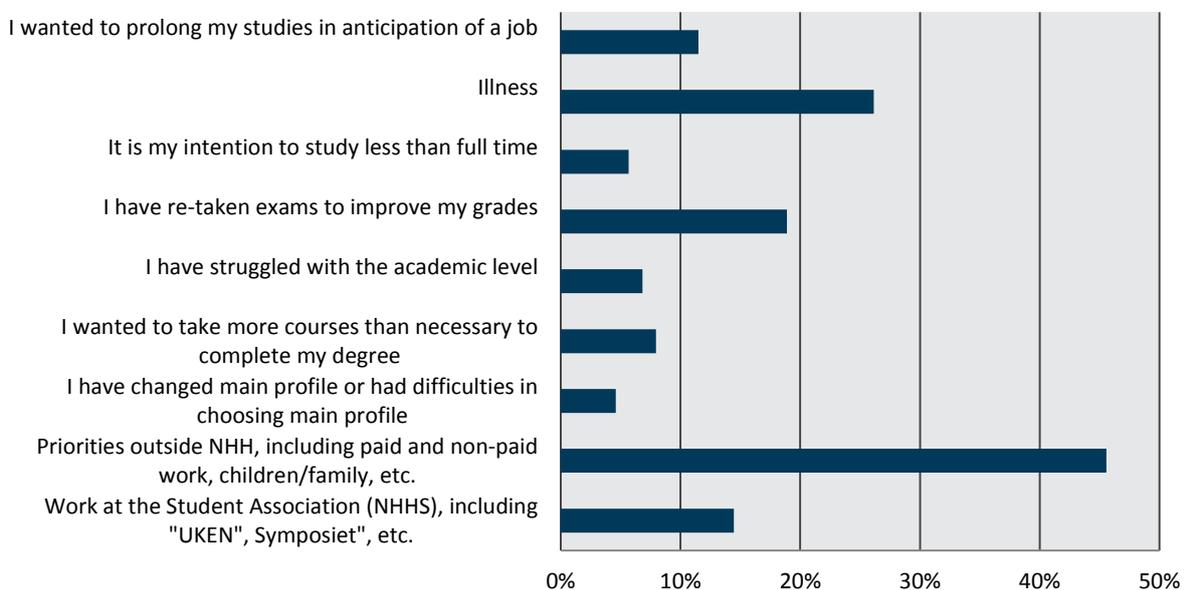
Q: To what extent are the following reasons for your delay?
All respondents. N=87

Priorities outside NHH was the main reason for delay among all student groups (NHH bachelor, external and the international students). The 11 per cent who *wanted to prolong their studies in anticipation of a job* were all international students from the ENE and INB majors. For the MBM students, *re-taking exams* was the most important reason for delay. For the other majors, *illness* (together with *priorities outside NHH*) was stated as the most important reasons for delay.

Students who responded that they had retaken exams to improve their grades were asked what grades they found satisfactory. The majority responded that the grade B was satisfactory, followed by the grade C[94]. The external students were to a larger extent content with the grade C than the other two groups, but the number of respondents is very small.

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[94] N=17.

When asked to state the three most important reasons for delay in free text, we find many of the same reasons as in Figure 19.

Table 15: Reasons for delay, free text

| Reason 1	Reason 2	Reason 3
Illness (19)	Work (7)	Extracurricular activity / NHHS (3)
Work (14)	Extracurricular activity / NHHS (5)	Distance to NHH (3)
Extracurricular activity / NHHS (7)	Improvement of results (5)	The Study plan (2)
CEMS (6)	Motivation (4)	Family (2)
Improvement of results (6)	The thesis (3)	Enjoying life (2)
N=85	**N=39**	**N=17**

The number in parenthesis is the number of respondents stating this reason
Reason 3: Few respondents.

Both the structured and the unstructured responses point to priorities outside of NHH and illness as the most important reasons for delay. The unstructured responses reveal other reasons that may be worthwhile looking into, such as the CEMS programme and motivation. However, with the current data availability, the number of respondents (6 and 4 respondents) is too low to know if this also is true for the population.

In terms of potential measures to improve overall throughput, there is a need to distinguish between i) causes that NHH may remedy, and ii) causes beyond the scope of NHH's influence. The most common cause for delay is activities outside of NHH. This includes work (part- and fulltime) and children/family. NHH explicitly encourages all master students to study full time and finish their degree before starting to work. However, students are still free to prioritise differently. In general, relatively few students provide reasons for which NHH may provide remedies, such as "struggled with the academic level". When asked directly what NHH could have done to prevent their delay, 75 per cent responded "nothing. The delay is due to my own choices or reasons outside of NHHs scope". 8 per cent responded that certain pedagogical measures could have helped. This does not mean that measures should not be taken, but that the scope for improvement is rather limited.

Does the survey give us any answers as to why the international students are more prone to use more time one their degree? The biggest difference in the response of the international degree students and the total group, is that a larger share of the international grade students wanted to prolong their studies in anticipation of a job (40 vs.11 %, se Figure 20 and Figure 19).

Figure 20: Reasons for delay, international grade students
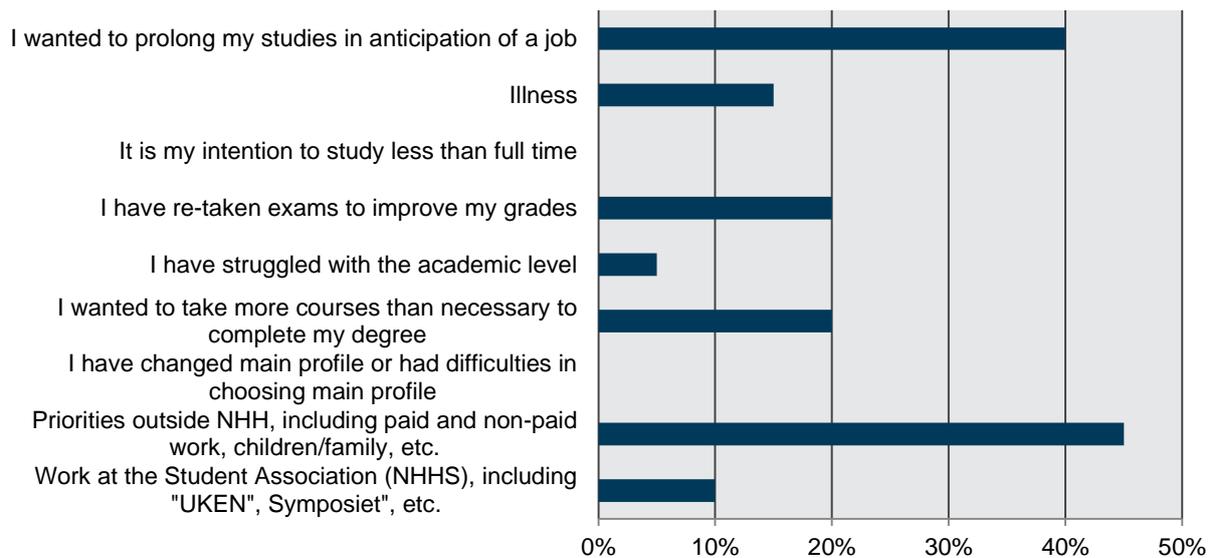
Q: To what extent are the following reasons for your delay?
N=20

Taking this into account, the international students do not necessarily use more time on their study because they are academically weaker, but there are structural incentives for them to prolong their studies. While many of the Norwegian NHH students have employment before graduation, the international students may take longer to get a job, and the prolonged period of study may give them the time they need to get a job. The establishment of an International Career Centre at NHH will hopefully facilitate faster employment. Meanwhile, being a student gives the internationals a "safe platform" which include continued permit of residents, a place to live and the network and facilities of the school, while they apply for jobs. As all MScEBA students initially have the right to study for three years, there is no cost (except living costs) for the students who want to prolong their studies for up to a year.

The notion that international students deliberately prolong their studies in anticipation of a job is supported by the fact that while Norwegian students typically are delayed in their first semester, the international students are typically delayed in their fourth semester[95]. The evaluation of the NHH Bachelor programme in 2013 also found it to be more likely for the Norwegian students to get delayed during the first and second semester of their bachelor studies.

6.2.4 Students delayed with thesis
A separate study focusing on delays related to the thesis, found that about ¼ of the students are delayed with their thesis[96]. A survey of this group suggested the following reasons for the delay:

- Difficulties in finding a topic for the thesis
- Relationship to supervisor; students want more follow-up
- Students engage in several other activities apart from writing their thesis, and they generally underestimate how much time they need writing their thesis

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[95] Results from survey on progression autumn 2014.
[96] Based on numbers from one class only; 24% of the students who started autumn 2012 were delayed with their thesis; defined as the share of these students not having completed their thesis in autumn 2014.

- Illness and pregnancy

As of autumn 2015, empirical methodology will be mandatory in MScEBA, and these courses shall include learning outcomes related to the master thesis, such as developing research questions and topics. This is expected to improve throughput of the thesis writing. In addition, PMU has started developing new guidelines for supervision, among other things to improve supervisor-student relations and thereby increase throughput.

6.3 Drop out

The drop-out rate for MScEBA at NHH is low compared to the national average. For the students who started their studies in 2011, 8.4 per cent of the NHH students at the master's level had dropped out after two years, versus the national average of 24 per cent. Data for the last three years reveal that a relatively stable share of about 10 per cent of the NHH master students have dropped out after two years of studies, see Figure 21. It is probable that the final drop-out rate will end somewhat higher.

Figure 21: Drop-out rate after 2 years of studies, students enrolled in 2009-2011
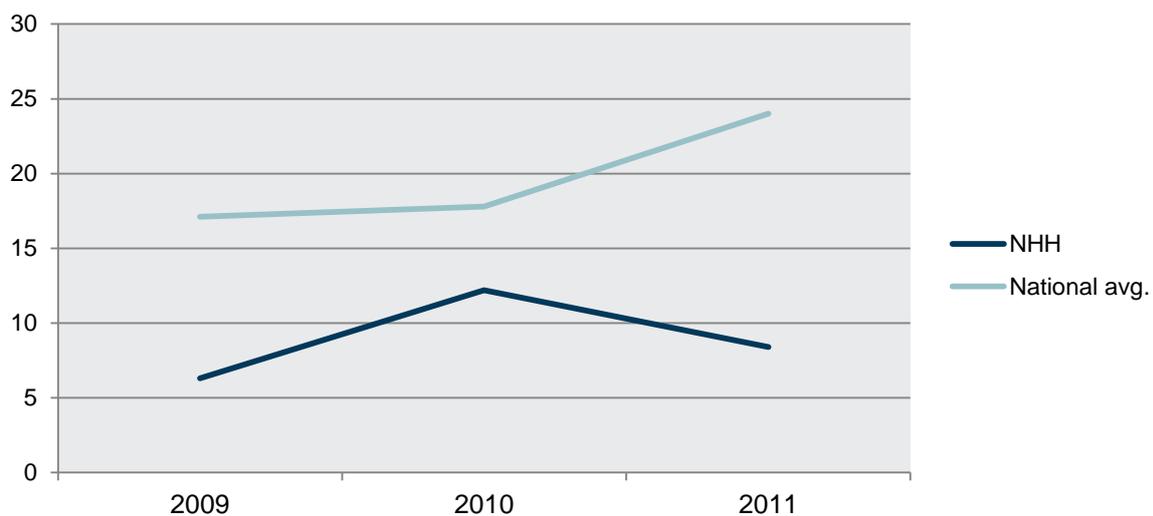
Source: Tilstandsrapport høyere utdanning 2014

6.4 Retake

Retakes may slow down students' progression towards completed studies. Of all study points achieved at in the MScEBA, 4.1 per cent are retakes. This is slightly above comparable degrees at other Norwegian institutions (3.4%)[97], and also the average of all degrees (2.5%). There are a few courses which stand out with higher retake rates. The highest of these has a stable share of over 20 per cent retakes. A decrease in the share of retakes for this course alone would result in the same level as for

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[97] Compared to economic and business degrees, higher level. From «Database for statistikk om høgre utdanning», Studiepoengproduksjon fordelt på studieprogram som emnet primært tilhører 2013.

comparable Norwegian degrees. Courses with unusually high retake rates are followed up to see if there are remedies that can be made.

An increased share of mandatory courses – as suggested in chapter 4 – may increase the retake share as students cannot simply avoid courses for which they fail to achieve a grade they are satisfied with. Thus, more mandatory courses may reduce throughput.

6.5 Summing up: Challenges and potential measures

This chapter focused mainly on throughput ("gjennomstrømming") as a measure of production. Official data for throughput show that over 60 per cent of MScEBA at NHH finish within the standard period of time. Compared to other master programmes in Norway, this is a good result.

The most important reasons student present for delay are priorities outside NHH (probably work) and illness. These are factors beyond the scope of NHH. On the other hand, almost 20 per cent of the respondents said they had retaken exams to improve their grades, which may reflect high ambitions. Also, there is a high level of acceptance among students in general to use one semester extra on their studies (70%).

The international students report *prolongation of studies in anticipation for a job* as an important reason for their delay. In addition, the international students typically get delayed in their fouth semester (which is consistent with prolonging in anticipation of a job offer), while the Norwegian students are delayed from the start of their studies.

Most of the reasons for delay are beyond the scope of NHH to remedy. Several measures for improving throughput, where possible, are already under implementation, such as an international career centre to facilitate employment, learning outcomes for writing thesis in mandatory empirical methodology courses, and new guidelines to improve supervisor-student relations. No additional measures are considered necessary to increase the throughput in the MScEBA at this time. However, the throughput needs to be watched closely in the years to come.

7. The master programme's relevance

In this chapter, we take a closer look at the master programme's educational relevance. In NHH's strategy, one of the goals concerns the quality of our graduates:

> "NHH graduates will be preferred in the national labour market and will be attractive in the international labour market"

To reach this goal, the strategy suggests that:

> "In the future, NHH wishes to take steps to facilitate a higher proportion of graduates choosing the international labour market. Among other things, this will entail improving the students' communication skills, making more use of international guest lecturers, establishing closer contact with international companies and giving students relevant career guidance"

We investigate the strengths and weaknesses of the master programme – both from a business perspective, and based on feedback from our own alumni. We do this mainly based on three sources – research by Jakubanecs and Supphellen on Norwegian HR managers views on the NHH's MScEBA and its candidates, the annual NHH Employment Survey (AMU) and the Candidate Survey performed by the Student Welfare Organisation in Bergen (SiB) in 2011.

7.1 Hearing requests in brief

Based on the discussions in this chapter, PMU requests considerations and recommendations on how to:

1. develop and strengthen the competitive edge that NHH candidates have on theoretical and analytical skills
2. bring weaknesses to parity with rival programmes, i.e.:
   a. An increased focus on *application* of theoretical and analytical skills through *practical experience*. This will enable our candidates to highlight what is considered their strongest skills, and further strengthen our competitive edge
   b. Expansion of internship opportunities as part of MScEBA
   c. An increased focus on *internationalisation*.
      i. Not only the possibility to study abroad, but an increased possibility to gain experience from international business – first-hand through internships abroad or secondments, but also by bringing international lecturers to NHH.
      ii. Allowing Norwegian applicants with an international bachelor degree to be evaluated by the more flexible international admission requirements would increase their admission rate and thus the international experience of the student body.
   d. An increased focus on *cooperation skills*. Combined with more practice and experience, students should be able to see different subjects in context and thereby enhance their own ability to cooperate

7.2 The employers' perspectives

As a part of the programme evaluation, A. Jakubanecs and M. Supphellen did a research project on Norwegian Human Resource (HR) managers' views on candidates from NHH in a comparative perspective, autumn 2014. There were 321 respondents in the HR survey (256 completed all questions), followed up by six in-depth interviews with HR-managers in Telenor, Orkla, Deloitte, DnB, the Ministry of Finance, and a major recruitment agency. This section is based upon their work.

The HR managers were asked to compare candidates from NHH, BI and European business schools based on their own recruitment experience, and to assess the candidates' skills and competences as well as their suitability for various functional areas. Furthermore, they were asked about their views on the master programme at NHH.

The analysis shows that the relevant candidate skills can be grouped according to four factors:

1. analytical and theoretical skills,
2. problem solving skills,
3. moral character and
4. leadership skills.

In a national comparison, candidates from NHH score significantly better on all four dimensions, but in particular so on analytical and theoretical skills, and on moral character. For problem solving and leadership skills, the differences are smaller, and the in-depth interviews indicate that the comparison can go either way on these dimensions, depending on whom you ask. NHH candidates have a high academic level and are perceived to be structured and analytical; however, they score less well on practical skills and experience with teamwork. Some also mention international experience as an area of improvement for NHH candidates.

Compared to candidates from (top) European business schools[98], NHH candidates score significantly weaker on three of the four skill factors: Analytical and theoretical skills, problem solving skills and leadership skills. The exception is moral character, for which there is no significant difference. The feedback from in-depth interviews indicates that HR managers attribute the quality of the candidates from European business schools to the students' personal characteristics, as well as the experience of studying in a different culture, rather than to the higher quality of the foreign programmes.

The participants were also asked to evaluate how well the candidates from different schools matched positions within various functional areas: financial management, finance, strategy, marketing, HR, innovation and economic analysis. Nationally, NHH candidates score well on all functional areas with the exception of HR and marketing (no significant differences). In an international comparison, the NHH candidates score equal on the areas of financial management, HR and economic analysis, but otherwise significantly lower. In-depth interviews reveal, however, that the HR managers views may be based on their own, or someone else's, experience with the teaching some 15-20 years ago.

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[98] The most frequently referred to schools were LSE, LBS, ESADE, CBS and IMD – i.e. all at a high level.

When asked about NHH's master programme, the HR managers were generally positive to the academic content of the programme. The objections and the proposals for change relate primarily to the degree of practical experience, the development of cooperation skills, integration of disciplines and internationalisation.

In line with the evaluation of the candidates' skills, the HR managers call for more practical experience in NHH's master programme. Secondments/internships are suggested as a solution to this need. According to the respondents, practical experiences will enhance the students' ability to translate knowledge into practical value creation. The practice will also enhance their ability to cooperate and to integrate subjects in relevant contexts. The participants also suggest that integration of subjects should be further developed in the programme itself. Separate fields and subjects should be combined and integrated into the same course and new subjects should be linked to the more established ones (e.g. Economics & Design, Economics & Political Science, and Econometrics and IT). According to the respondents, more team- and project work will further strengthen the ability to collaborate and prepare students for a real business life setting. Stronger internationalisation is about the possibility to study abroad, but also the possibility to gain practical experience from international business. Furthermore, participants suggest that NHH increases the use of international lecturers, both from academia and business.

7.3 The alumni perspective

NHH candidates are attractive in the Norwegian job market. Over 90 per cent of the graduates from 2013 had a job six months after graduation, and 75 per cent found a job before they graduated[99]. The numbers are stable over time, and are confirmed by external surveys such as the 2011 Candidate Survey (Kandidatundersøkelse), performed by SiB[100]. This survey shows that 99 per cent of our candidates are employed two years after graduation, and that 95 per cent finds the job relevant to their education.

When asked to evaluate various characteristics of their studies at NHH, both the NHH AMU and the SiB Kandidatundersøkelse point in the same direction. They both reveal a high score for analytical and theoretical skills. These are also skills appreciated by the employers; as concluded by Jakubanecs and Supphellen. In addition, the alumni also to a large extent agree that the study has given them *the ability to absorb new knowledge* and *problem solving skills*.

Of the skills the alumni rates the lowest, are *oral presentations skills (AMU)* and *networking skills* (Candidate survey). In the candidate survey, only 58 per cent of the candidates responded that their education has helped them improve their *cooperation skills*, and 60 per cent said it had improved their *ability to use theoretical knowledge in practice*.

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[99] The annual NHH employment survey (AMU) 2013. Response rate: 54 % (of 484 graduates).
[100] The survey was sent to all 2009-graduates; that is two years after they graduated.

Figure 22 Evaluation of outcome (average)
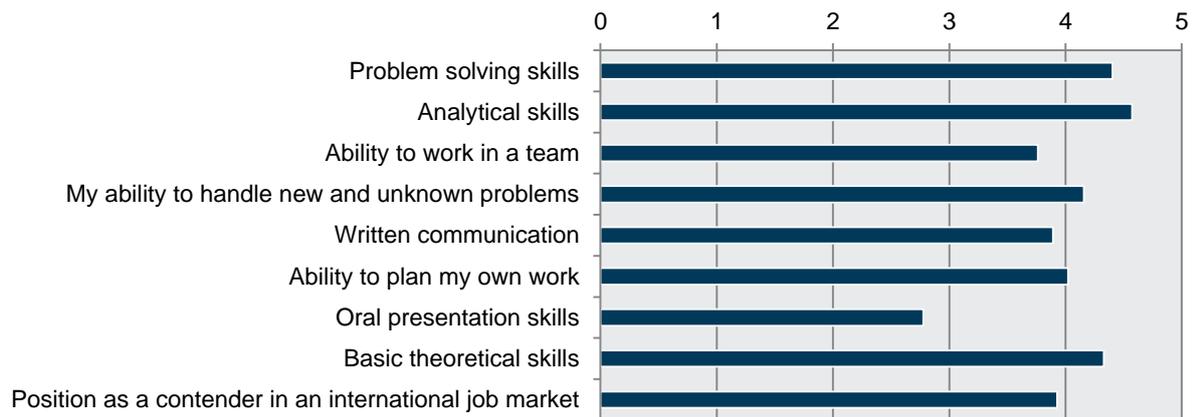
Q: The study helped improve my… (scale: 1= totally disagree, 5=totally agree)
From AMU 2013

When asked to elaborate on which skills they were lacking, based on their job experience so far, some areas were frequently mentioned:
- A more practical / real-life approach to problems (rather than a theoretical one)
- Software skills (especially Excel)
- Oral presentational skills

When asked what the study programme should focus less on, theory was frequently mentioned. Some suggest theoretical technicalities should be replaced by a more hands-on approach to the usage of theoretical models.

The NHH alumni point to several factors also highlighted by the HR managers in the study by Jakubanecs and Supphellen. On the positive side, both groups agree that the master programme give students a strong theoretical and analytical background. There are, however, several skills and abilities the HR managers consider higher in candidates from our competitors, i.e practical experience, cooperation and international experience. Next, we turn to the implications the results have on the master programme.

PMU has already decided to introduce clear and ambitious intended learning outcomes for all master students related to interpersonal management skills, including for instance communication or teamwork skills. The decision was, in part, due to feedback from alumni on the needs for this, as mentioned above. In addition, it was strongly recommended by EQUIS in its 2011 accreditation process.

7.4 Implications for the master programme at NHH[101]
A good positioning of the master programme first implies a clear set of differentiation factors, that is, elements that positively differentiate NHH's master programme from competing programmes. NHH's

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[101] This section is closely based on the recommendations of Jakubanecs and Supphellen.

master programme educates candidates who are clearly better on theoretical and analytical skills than other candidates. This competitive edge must be further developed and strengthened. In this effort, we should keep in mind that the employers' assessment of the candidates' analytical skills is based on their ability to apply the skills in practice. Hence, training students in how to use their analytical skills in practice in companies, and preferably in an international setting, will enhance the possibility for the candidates to demonstrate and highlight their analytical skills. More practice is therefore an appropriate instrument to strengthen the perception and evaluation of the candidates' analytical skills. In addition, of course, the academic content must be constantly developed and stay ahead of what can be found in competing programmes.

A clear differentiation will have limited effects if the programme is clearly weaker than competing programmes in other areas that are important to the target audience. In these other areas the programme must be in parity (at the same level) for the differentiation to pay off. The survey and the interviews suggest that NHH's master programmes are perceived to be weaker with regard to *practical experience, cooperation skills* and *international experience*. In developing the programmes further, NHH should thus focus on strengthening these types of skills/experiences. Hence, an increase in practical experience should be given special attention and priority in the further development of the programme, both in order to strengthen the candidates' practical skills and to train the students in applying analytical competences and skills. In connection with this work, we should take into account the need for more international experience. Finally, the responses from the interviews suggest that many of the HR managers have limited knowledge of the pedagogy and the international elements of today's master programme. More targeted and frequent communication with this important target group is thus called for.

7.5 Summing up: Challenges and potential measures

The NHH candidates should be preferred in the national labour market and be attractive in the international market. We have asked HR managers about NHH candidates' strengths and weaknesses; both in a survey and in-depth interviews, employers have compared NHH candidates with candidates from BI and institutions abroad. This study is supplemented by insights from two surveys conducted among our alumni. The following are measures drawn from these sources.

The study of the HR managers confirms a well-known feature of the NHH candidate; namely *the theoretical and analytical skills*. Jakubanecs and Supphellen emphasise that this factor positively differentiates NHH's master programme from competing programmes. It is imperative to develop and strengthen this edge. We have seen in Chapter 4 that BI already has a strong focus on improving this factor in their master students' through several mandatory courses in methodology and theory. Furthermore, the comparison with candidates from international institutions show that NHH candidates score significantly lower on both theoretical and analytical skills. Thus, the requirement of mandatory empirical methodology in the MScEBA from autumn 2015 is highly appropriate and should quite possibly be followed up by additional, similar measures. For instance, the Research Distinction Track (RDT) implemented in autumn 2014 provides a model for how courses may be organised into different levels and where students are required to take a minimum of upper level (advanced) master courses. A similar structure was debated in the previous programme evaluation.

Both HR managers and the NHH alumni call for more practical experience. As Jakubanecs and Supphellen point out, theoretical and analytical skills are best observed by employers through practice. More practice is an appropriate instrument to strengthen the perception and evaluation of the candidates' analytical skills.

Practical experience could enhance both cooperation skills and international experience, which are the two other challenges emphasised in this chapter. According to Jakubanecs and Supphellen, an increase in practical experience should therefore be given a special attention and priority in the further development of the programme.

In addition, practice-related elements in programmes is one of the features that applicants to NHH consider to increase the attractiveness of NHH (Chapter 2.5.1). More practice could also have the side-effect of attracting better applicants to NHH.

Internships opportunities may be offered within the master programme, giving the students credits that would show on the diploma. Currently, a 2.5 ECTS internship is possible in the ENE major.[102] Students find the internships, but must have them approved by NHH to receive credit. Expanding this opportunity to other majors would require additional efforts by faculty to ensure academic relevance. There would also be need for administrative support. The internships may be national or international, where the latter would have the additional effect of furthering internationalisation goals as well as the position on the FT MiM ranking.

There is also the measure of increasing practice-related subjects within courses, for example a more extensive use of the case method.

HR managers and NHH alumni also agree that the master programme should give the students more cooperation skills. Combining theory with more practice and experience, the programme will enable the students to see different subjects in context, thus enhancing their own ability to cooperate. This is in part addressed by the new requirement for interpersonal management skills to be implemented in MScEBA. PMU has recommended that these skills be taught as an integral part of the master programme, i.e. in conjunction with the application of theoretical skills, for instance on a business project.

Internationalisation is high on the NHH agenda, and a prioritised part of the NHH strategy. The development of the master programme should reflect this. To recruit a larger number of highly qualified students with an international background is thus important. This does not only include international students, as discussed in previous chapters, but also Norwegian or Nordic students with e.g. their bachelor degree from high-quality institutions abroad. NHH's practice of considering Norwegian/ Nordic applicants only for the comprehensive "siviløkonom" admission, no matter where they have their bachelor degree from, has barred a great number of such applicants. Hence, we should consider admitting Norwegian students with an international education through the more flexible international admission, i.e. the non-"siviløkonom" admission, as discussed in Chapter 2. Allowing more such students into the MScEBA would also increase the international experience of the student body.

NHH should continue its focus on internationalisation, through expanding exchange options as well as providing more opportunities for gaining experience from international business – first-hand through internships or secondments, but also by bringing more international lecturers to NHH.

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[102] Gründerskolen and CEMS also include internships.