

External programme evaluation for MSc in Finance  
and MSc in Quantitative Finance

Completed January 11, 2021

**Report prepared by external evaluation committee consisting of:**

Professor Snorre Lindset, NTNU (leader of the committee)

Associate Professor Aksel Mjøs, NHH

Lars Qvigstad Sørensen, Storebrand Asset Management

Mattias Orava, 2nd year MSc-student in Quantitative Finance at BI (student  
representative)

The programme must be assessed in accordance with the following accreditation criteria given in NOKUT's Academic Supervision Regulations and Regulations on Quality Assurance in Higher Education.

Studiekvalitetsforskriften: Regulations on Quality Assurance in Higher Education

Studietilsynsforskriften: Academic Supervision Regulations

## **1. Programme content (study plan, candidate profile, learning outcomes and course descriptions)**

Relevant sections from Academic Supervision Regulations and Regulations on Quality Assurance in Higher Education:

*§2-1 (2) Information provided about the programme must be correct and show the programme's content, structure and progression, as well as opportunities for student exchanges. (Academic Supervision Regulations).*

*§2-2 (1) The learning outcomes for the programme must be in accordance with the National Qualifications Framework for Lifelong Learning, and the programme must have an appropriate title. (Academic Supervision Regulations).*

*§2-2 (3) The total workload of the programme must be between 1,500 and 1,800 hours per year for full-time students. (Academic Supervision Regulations).*

*§3-2 (1) Master's degree programmes shall be defined, delimited and have sufficient academic breadth. (Regulations on Quality Assurance in Higher Education).*

The evaluation committee shall assess whether the study plan is informative enough from a student perspective. Furthermore whether the learning outcome descriptions are in line with [The Norwegian qualifications framework for lifelong learning](#), are academically updated and relevant and whether the courses and the composition of courses help the students achieve the learning outcomes for the programme.

The evaluation committee shall make an assessment of whether the programme has an appropriate title that communicates well to the outside world.

When assessing master programmes, we ask the committee to consider whether the programme is defined, delimited and with sufficient academic breadth.

**Assessment:**

The study plans give a lot of useful information current and potential students can use to learn about the two study programs. The general impression is that the descriptions give a thorough overview of the course content, including links to the reading material. The description of each course follows a standardized set-up, making it easy to seek information.

One of the learning outcomes is to “Understand the ethical issues and conflicts of interest that arise in finance.” The description of how this important goal is to be achieved can be improved. Will each course cover relevant aspects related to the particular topics in the course? How does one assure that all students obtain sufficient knowledge about these issues?

We find it priceworthy that the students have the possibility to do internships. However, it appears that few students do internships. Also, we find it unfortunate that more detailed information about internships is only available from password protected web pages. It is unclear to us how well the program works, and whether the low participation is due to few opportunities, low student interest, or unsatisfactory matching between students and companies.

International academic exchange is an important element in higher education, even if 2020 is an exception. In the national comparisons prepared by NSD, only 17% of graduates from BI in 2019 had been on exchange, compared to 60% at NHH and a national average of 16%. The absolute number of exchange students has also fallen marginally from 2018 to 2019. These ratios relate to all programs and may be higher for the finance master students, but it still appears as an area that needs to be improved. We are not in a position to assess neither the causes of the low exchange activity, nor what are effective remedies.

Some students and potential students may seek information about possible career paths. Different course combinations and profiles can be better suited for certain types of positions than other combinations. We think such guidance can help current and potential students make more informed decisions about their choice of study. It can also be worthwhile to specify directions and course work particularly suited for those who are interested in further studies (Ph.D).

For jobs in the finance industry as well as other jobs the candidates are qualified for, technology competence is important. We therefore appreciate that programming and development of computer skills are focus areas in both programs.

In the bachelor's program, it seems an effort has been made to choose a consistent set of tools across courses: Excel (including VBA), Bloomberg, and R. It is highlighted that NBIM uses R, and we know that NBIM is very influential in the finance industry, thereby making R skills relevant and marketable.

However, in the master's program, there does not seem to be any such consistency. Several courses use MATLAB (e.g. GRA 6515 Quantitative Methods for Finance) instead of R. Other courses use Python.

In our view, consistency in the programming languages used in the BSc and MSc would be beneficial. As few students in the regular master's program are likely to have an engineering or computer science background, it seems unrealistic to assume that they can switch between languages with ease and reach a high level of proficiency in more than one, or at most two programming languages.

In our experience, Matlab is now less widely used in the finance industry and is being replaced by open source alternatives. It is our impression that few asset managers and banks in Norway now use Matlab for quantitative analysis. The two most popular alternatives seem to be Python and R, in that order. For an introduction to general purpose programming, Python seems to be the best choice. It is ubiquitous in introductory computer science classes. It is also becoming increasingly popular in the quant industry (e.g., investment banks (Goldman Sachs) and asset managers (AQR)). It is also the most widely used language for machine learning and neural networks (deep learning). For advanced statistics, R seems to be the preferred choice, including Stan for Bayesian analysis.

BI emphasizes the use of Bloomberg. Bloomberg has embarked on a large project offering clients a programming interface using Python and Jupyter notebooks. This initiative is called BQuant (which includes BQL, the Bloomberg query language). This project is likely to grow in importance and would be an attractive skill to equip students with.

Thus, in conclusion, we do not think Matlab is the right choice for students today. Python and R seem like better alternatives. Both languages will be powerful enough to cover the students' needs. Python will give a better introduction to modern principles of programming, including object oriented programming, which are not as developed in R. For statistical analysis, R is the preferred choice in many fields. We think BI should choose one of these as the default language used across all courses at the master's and bachelor's level, unless other strategies serve the students better.

We find the learning outcome descriptions to be in line with the Norwegian qualification framework for lifelong learning. Besides the above comments, we find the study programs to be academically updated. The students have access to a balanced course portfolio.

We find the title "Master of Science in Finance" to be descriptive for the program and as such appropriate.

For the program "Master of Science in Quantitative Finance", the documentation we have been given shows that it has been considered if the program title should be changed to financial engineering. Internationally, there are several good master programs in financial engineering (UCLA, Berkeley, and Columbia University etc.). It is our impression that common for these programs, is a set of courses with in-depth coverage of stochastic calculus, numerical methods, (applied) programming, and finance. We therefore think that for such a program to be successful BI has to make sure that the relevant topics are sufficiently covered.

Our impression is that BI likes to market the program as an "elite" program. This choice requires that the program can recruit good students, preferably with a strong quantitative background. We also think the information given to potential students should make it possible for them to clearly distinguish the program from other programs. As we understand it, not all students in the program experience the program content to be aligned with the expectations they had before entering the program.

As a somewhat different program than the Master of Science in Finance, we would appreciate more information about job placements. Furthermore, we find it difficult to see if the program content differs enough from the larger finance master to justify being a separate master program. We find the programs to differ by only four courses. An alternative could therefore be to organize the program as a track within the much larger finance program, or to reposition it even more distinctly from the main master.

It is our opinion that both programs have a well-defined structure where the focus is on theory and empirical and quantitative methods for analysis of a wide set of topics in finance. While the quantitative finance program is more narrowly defined than the Master of Science in Finance program, both programs have sufficient academic breadth.

## **2. Learning outcome and learning environment**

Relevant sections from Academic Supervision Regulations:

*§2-2 (4) The programme's content, structure and infrastructure must be adapted to the programme's learning outcomes.*

*§2-2 (5) The teaching, learning and assessment methods must be adapted to the programme's learning outcomes. The programme must facilitate students taking an active role in the learning process.*

§2-2 (6) The programme must have relevant links to research and academic development work and/or artistic research.

We ask the committee to evaluate the students' view of the quality of teaching, feedback and assessment in the programme.

Is it facilitated for students to take an active role in the learning process? Furthermore, are teaching, learning and assessment forms adapted to the learning outcomes of the study programme in addition to an appropriate variation and balance.

The Committee is also asked to assess whether the study program has a relevant link to research.

**Assessment:**

Most of the students (about 75%) evaluate different aspects of teaching quality for the program to a 3 or a 4 on a scale from 1-5. Few students evaluate it as a 1 or a 5. In absolute terms, this ranking is slightly below the average for programs offered by other institutions. With the high standing in the research community that the finance faculty at BI has, we would like to see a higher score on the students' teaching evaluations.

The average score for feedback is 3.3, the same as the average for comparable programs at other institutions.

Data shows that the students are mostly satisfied with the student assessment in the program. A weak point appears to be unclear evaluation criteria. It is difficult for students to study the learning material and prepare for the exam if it is unclear what criteria they will be evaluated on. This perception among (some of) the students can influence negatively on their learning outcome. Some students also find the assessment form not to contribute to their academic development. We do not have information to say something about the joint distribution of the students who give both these issues a low score. We recommend the AD to look further into this issue.

The program does not do well when it comes to giving students influence on the program structure. We think the AD should cooperate better with student organizations to come up with strategies to increase student involvement. In class, the students evaluate their ability to take an active role in the learning process to a 3.6, about the same as the national average.

In our experience, the students can take an active role in the learning process. The evaluation process contains midterm evaluation and course evaluation at the end of the semester. At the midterm evaluations, the students can give feedback on the learning outcomes of the course and the teaching that might lead to changes for the rest of the course and may improve the course for future students. At the course evaluation at the end of the semester, the students can give feedback that will result in changes for the coming students.

It is unclear to us how well the internship program works in practice.

We find it difficult to address the task "Furthermore, are teaching, learning and assessment forms adapted to the learning outcomes of the study program in addition to an appropriate variation and balance.", and have therefore not commented on it.

More than 75% of the students report a 4 or a 5 on their knowledge about scientific methods and research. We think this finding shows that the study program has a relevant link to research. When it comes to their own experience with research, the reported results are somewhat lower. This observation indicates that some more effort should be made to let students work on research projects.

### 3. The academic environment connected to the programme

Relevant sections from Academic Supervision Regulations:

*§2-3 (1) The academic environment for each programme must be of a size proportionate to the number of students and the programme's characteristics, be stable over time in terms of competence and have a composition that covers the programme's topics and subjects.*

*§2-3 (2) The academic environment must have relevant educational competence.*

*§2-3 (3) The programme must have a clear academic leadership with defined responsibilities for quality assurance and the development of the study programme.*

*§2-3 (4) At least 50 per cent of the academic full-time equivalents affiliated to the programme must be staff with their primary employment at the institution. Of these, academic staff with at least associate professor qualifications must be represented among those who teach the core elements of the programme. In addition, the following requirements apply to the academic environment's level of competence:*

- a) For first-cycle programmes, at least 20 per cent of the members of the academic environment must have at least associate professor qualifications.*
- b) For second-cycle programmes, at least 50 per cent of the members of the academic environment must have at least associate professor qualifications. Within this 50 per cent, at least 10 per cent must have professor or docent qualifications.*
- c) For third-cycle programmes, the academic environment must consist of academic staff with at least associate professor qualifications. At least 50 per cent must have professor or docent qualifications.*

*§2-3 (5) The academic environment must be actively engaged in research and academic development work and/or artistic research and be able to demonstrate documented results with a satisfactory quality and scope in relation to the programme's content and level.*

*§2-3 (6) The academic environment for programmes that lead to a degree must actively participate in national and international partnerships and networks that are relevant for the programme.*

The committee is asked to evaluate whether the programme's academic environment has a size that is proportionate to the number of students, as well as the right composition of competence. Similarly, whether the academic community has relevant educational competence. Where a programme is offered at several campuses, the overall academic environment must be assessed.

Is the requirement that the academic management of a program consist of employees in teaching and research positions fulfilled? (These have the formal responsibility for the study being conducted in accordance with the curriculum and for the curriculum being developed.)

**Assessment:**

We have counted 16 unique faculty members teaching the master students in finance. A handful of these teachers are from other departments than the finance department. We find the composition of the faculty to be a healthy mix of assistant professors, associate professors, and professors. The minimum levels of academic competence are clearly satisfied. We think the size of the group of teachers is appropriate for the size of the student body.

To evaluate if the faculty can qualify as being research active, we have looked at their research publications over the past ten years. Research traditions at other departments may differ from what is common in finance, but it is our view that these teachers are research active. For the relevant faculty at the finance department, there is variation in publishing frequency across faculty members. However, it seems clear that all are research active. We like to emphasize that the finance faculty, as a whole, has an impressive publication record, substantiating our view of them as being research active.

We lack information to assess the pedagogical qualifications of the faculty. It would be interesting to see how BI works with its faculty members to further develop the pedagogical qualifications. Do all faculty undergo pedagogical training? If not, what share of faculty has covered this? Such information is currently not reported.

The academic management of the program is occupied by the AD, who is employed as an associate professor.

**4. Recruitment and throughput of students**

Relevant sections from Academic Supervision Regulations:

*§3-1 (4) The institution must have regular admission of students and a satisfactory number of candidates who graduate within the normal length of study.*

We ask the committee to consider whether the information regarding the programme is sufficient and informative enough for potential students. (bi.no / bi.edu)

Further whether the student numbers are satisfactory and the completion rate good enough after nominal length of study and within prolonged time (fullføringsfrist).

**Assessment:**

BI's webpages (BI.no and BI.edu) are informative, easy to navigate, and give a good description of the study programs. We consider them to be informative for potential students. If anything, we think BI undersells the programs on these webpages. The programs give the candidates competence in finance, economics, and quantitative methods that are sought after also in the public sector, not just in the private sector.

The numbers of applicants for the master's in finance program have been stable over the last few years, with a significant increase for 2020. The program attracts good students with an average grade of about B.

For the master's in quantitative finance program, the application numbers are lower. It appears that the program attracts good students.

For the cohorts starting in 2015-2018, the completion rates are about 80-90%, with some variation between the cohorts. For a two-year master's program, we find these completion rates to be very good. For instance, for the Master of Science in Financial Economics at NTNU, the completion rates for the cohorts from 2008-2015 were on average about 15%-points lower.

Because the master's program in quantitative finance is relatively new and has few students, the completion rates are less informative.

**5. Relevance (for further studies and society and working life) and internationalisation**

Relevant sections from Academic Supervision Regulations:

*§2-2 (2) The programme must be academically up-to-date and have clear academic relevance for further studies and/or employment.*

The committee is asked to consider whether the study programme gives the students the skills that are important for the future working life, a sustainable society and possible further studies. Does the programme contribute to the students' ability to identify ethical dilemmas and make ethical considerations?

**Assessment:**

It is our opinion that the master's programs are of an adequate quality (see our other assessments).

We can gauge the market's perception of the programs and the candidates by evaluating the percentage of candidates employed by the end of (or during) the programs. This percentage is very high (96%) and above the total at NHH (92%). Another interesting measure is how the starting salary compares with similar and competing institutions. The salary is only 15% lower than that of candidates graduating from NHH, at NOK 487 000 vs. NOK 569 000, which, in a Norwegian context, is very high. The share of students who start working abroad is 9.6%, compared to 7% for NHH. Note that the two last indicators relate to the whole MSc program, not only the finance masters.

In our opinion, these numbers are impressive considering the fact that on average the students at BI have lower grades from secondary school than those commencing studies at NHH. Achieving similar numbers in terms of employment and salary is thus no small feat.

At the master's level, in contrast to at the Bachelor level, BI has a course in sustainable finance, which seems to adequately cover sustainability and ethical perspectives in finance. However, the corporate perspective is somewhat lacking in the course content in favour of the investor/portfolio management perspective. We expect the competence and teaching in sustainable finance to further improve now that BI is launching a degree program in sustainable finance. Sustainable finance is an area which is highly topical, equipping students with skills that are valued in the broader finance industry, from asset management to consulting.

*§2-2 (7) The programme must have internationalisation arrangements adapted to the programme's level, scope and other characteristics.*

*§2-2 (8) Programmes that lead to a degree must have arrangements for international student exchanges. The content of the exchange programme must be academically relevant.*

We ask the committee to consider whether the students are adequately prepared to work in an international context by introducing them to international perspectives within the field of study? In addition to whether the possibilities for exchange are sufficiently comprehensive and academically relevant. (Exchange is not relevant for Executive)

**Assessment:**

Finance, as an academic field, is international. This fact is reflected by an international faculty and mostly international textbooks and learning material. It is therefore our view that the students are adequately prepared to work in an international context after completing the program. However, we like to emphasize that relatively few students use the opportunity to study as an international exchange student. We recommend BI to investigate why so few students exploit this opportunity to gain international experience.

Compared to the students in the Bachelor's program, the master students have fewer schools to choose from if they want to do an exchange. Most of the listed schools and universities are located in Europe. This listing may seem somewhat restrictive. However, based on our experience, doing exchange studies in Australia and in North America can be challenging for finance students at the master level. Universities in these regions typically have not organized their study programs in accordance with the Bologna declaration. Finding suitable courses can therefore be difficult. Thus, we think BI's choice of partner universities for the master students is a good choice. Further, we think the students' exchange opportunities are academically relevant.

For the Master of Science in Quantitative Finance, it is our understanding that the information to the students about the possibilities for exchange has been unclear or even contradictory. In the information we are given, it is made clear that students can do an exchange in their third semester. However, in another part of our documentation (<https://www.bi.edu/study-at-bi/resources-and-opportunities/exchange/>), it is explicitly stated that there are no exchange opportunities. We find this fact problematic. It is important that there are clear guidelines when it comes to exchange opportunities, application deadlines, and so on. Exchange studies abroad can increase the students' learning outcome, but they also require a lot of planning.

**6. Special focus areas / additional questions from the Associate Dean**

If the Associate Deans wants a special focus on something, this can be added to the mandate.

*No additional questions from Associate Dean.*

**7. Comparison and summary**

Finally we ask the committee consider:

- To what extent is the study programme up to date compared to the leading international programs that it is natural to compare with?
- What specific development trends should BI focus on for the next three to five years when it comes to this programme

**Assessment:**

When considering the first point here, we have looked to comparable master of science programs at Stockholm School of Economics, Copenhagen Business School, and London Business School. While the information we obtain from browsing these schools' programs has its limitations, it gives us an idea of the programs' focus areas.

It is our view that BI has a comprehensive course offering for the students. Based on the information we have available, we judge the core courses (corporate finance, asset pricing, and derivatives) to be up to date compared to similar courses in these other programs.

Throughout our report, we have emphasized the importance and timeliness of sustainability-related perspectives and computer literacy. Ethics, sustainability, and governance is an area well covered at the Stockholm School of Economics and probably at London Business School as well through their course "The purpose of finance". We view BI's effort in this topic to be on par with these other programs. Compared to Copenhagen Business School, it could well be that BI's focus is more up to date. When it comes to computer literacy, it seems like Stockholm School of Economics focuses on R, while London Business School focuses on Python (at least they offer a course in Python for finance). As we have commented on earlier, BI's "computer strategy" for the master's programs seems less clear.

As an example of how Stockholm School of Economics makes their classes timely, their Fixed Income and Derivatives course, in addition to technical material, covers topics such as investing under low rates, bond pricing in crisis times, and safe asset demand. It may well be that BI focuses on timely topics in its courses, but this focus is not easy for us to learn about in all course descriptions. While most theories and empirical results change slowly over time, the current setting in which they must be applied and understood changes more rapidly (just think about the financial crisis and the current covid-19 pandemic). Being able to present course material in light of current events can be important to compete with leading international programs.

(As a side remark: after having looked at other schools' webpages, BI's webpages stand out in a positive way.)

We have compared the curriculum for the Master in Quantitative Finance with those of leading international programs, such as those of Carnegie Mellon University, Stony Brook University, Columbia University, and UC Berkeley. Except for Stony Brook's program, these are programs in financial engineering/computational finance rather than quantitative finance and hence not necessarily directly comparable to BI's program in its current form.

Our impression is that the core courses at BI and the programs identified above share much in terms of contents and literature. Some of the required textbooks are advanced even for the top international programs. For example, it is our understanding that Steven Shreve's book Stochastic Calculus for Finance II is required in the quantitative finance program. This is an advanced book, and students mastering continuous time finance at this level are in our view highly skilled in the topic. It is, however, hard to gauge the degree to which content is taught and mastered by students based on a reading list.

When it comes to relevant electives, the choices at BI seem limited compared to the leading programs. Too many courses must be chosen from the regular Master in Finance program compared to the best programs, which have a comprehensive list of courses directly targeting marketable skills in financial engineering to choose from.

We acknowledge that there is a kind of catch-22 situation associated with the Quantitative Finance program in its current form. On the one hand, it may seem hard for BI to justify large expenditures on a degree program with few students enrolled. On the other hand, in order to attract a critical mass of talented students, the program must offer something that sets it apart from regular finance master's programs. Currently, the program seems to be somewhere in between a track and a fully developed master program.

We do, however, think that for the program to be successful, BI must invest in it and keep a long-term perspective in order to increase awareness of its existence and its quality among students and employers. We think that BI must strategically invest in building its reputation for it to become a success. Otherwise, it may be better suited as a track in the regular Master in Finance program.

For the regular Master in Finance program, we have advocated sticking to one programming language. If the Master in Quantitative Finance program moves toward financial engineering, the expectation would be that enrolled students are comfortable programming in more than one language, and thus our cautioning against using more than one language does not apply to this program.

Development trends:

We think both master's programs at BI have been judiciously constructed to offer students a solid foundation of finance knowledge, enabling them to pursue careers both in academia and the industry. Thus, we advocate no major changes, but rather wish to suggest that BI considers an added emphasis on two nascent areas that we have identified as the most important in the finance industry: sustainability and data science. In addition, we think that BI should strengthen its focus on internationalization, for example through encouraging students to participate in exchange programs.

## **1. ESG**

In the asset management industry, arguably the most important trend we have seen the last couple of years is the focus on sustainability. There is an increased focus on environmental, social, and corporate governance (ESG) matters. In 2020, ESG funds experienced large positive net inflows, a trend not shared by broad non-ESG equity funds. We expect this trend to continue as the EU taxonomy is introduced in 2021. Thus, BI's focus on sustainable investing seems entirely warranted and likely to cater to a future demand by both students and employers. It may also open the field of finance to candidates with more diverse backgrounds and interests.

ESG dimensions are also highly relevant in a corporate finance perspective, as they represent additional material risks, but also potential opportunities worth exploring. Finance education needs to prepare students for project assessments, investment budgeting, and financing strategies with respect to ESG initiatives. In addition, initiatives by the EU commission and national governments like the "EU Green deal", which imply huge investments by corporates and government to meet emission-reductions and other environmental objectives, require specific financial capabilities.

There is now a shift in perception of the responsibilities of companies, asset managers, and asset owners; some might claim the Friedman doctrine is under pressure. Maximizing shareholder value is no longer the only requirement. There is a broader responsibility to invest and act in ways that

do no harm (EU taxonomy for sustainable investments) with respect to e.g. the UN Sustainable Development Goals.

We note that ESG matters are not limited to the asset management industry, but also an area of focus in e.g. corporates, consulting and marketing, and even law firms. Therefore, added emphasis on sustainability equips students with marketable skills also in areas other than asset management. We think BI should continue its effort and focus in this direction.

## **2. Data Science**

Competence to exploit the opportunities that lie in technology is important. Every year huge amounts of data that can be used to support business decisions are generated. To analyze this data requires computing skills.

While businesses used to expect new employees to have the skills to learn to use in-house software and computer systems, the expectation today is that they bring new computer skills and ideas to the business. Financial institutions rely heavily on advanced computer systems and are advanced technology firms. This shift has changed the recruitment in the finance sector to put more focus on STEM-like competence. We think equipping finance candidates with programming skills will make them more attractive in the coming years. The need for data science skills is further increased by the growth in ESG which, in our opinion, is the most dominant trend in finance now.

The increased focus and growth in assets under management in ESG investing has spurred a massive growth in data pertaining to ESG matters. Incorporating such data into the decision-making process is important and requires knowledge in data science. It is often necessary to combine data from different sources and parsing and adjusting the input such that the data are suitable for the task at hand. Excel is often inadequate for such tasks. Rather, skills in handling data in databases and computer programming are key to being effective. Therefore, BI should continue and possibly increase its focus on coding and include basics about databases and SQL. Today, there exist alternatives that do not require setup costs. For example, SQLite, easily included both in R and Python, can give students insights into SQL and databases without requiring a database server.

## **3. Internationalization**

Although 2020 was a difficult year for internationalization, going forward we think it still will be important. Sending students abroad for one or two semesters and accepting exchange students are nice ways to obtain experience from other countries and cultures. BI already has a highly international finance faculty but going forward we suggest that BI work on its exchange programs as well.

The Committee's overall assessment of the study:

**Assessment:**

Master of Science in Financial Economics: Our overall assessment is that this is a very good program. The program covers the core courses in finance and has a good range of more specialized courses the students can choose from. We have earlier in our report pointed to areas where we think BI should put in more work or consider making some changes. These include, but are not limited to, a consistent strategy for use of software and programming language(s), internationalization through student exchanges, and more focus on the "G" in "ESG".

Master of Science in Quantitative Finance: This program is new, and it is our impression that BI is working on finding a good form for it. In general, we think the program has good and interesting features. A possible concern that has been raised is whether the program is sufficiently rigorous.

Finally, a topic that we have not discussed, but that warrants a discussion at the end, is the use of grades. We think grades are important, not just for the individual students, but also for society at large. Grades are an important quality signal and help allocate candidates to different work positions in the society. When grades are used in such a way that they cannot help ranking candidates, they lose their function and pass/fail grades are just as informative.

Many of the courses in the Master of Science in Financial Economics program have reasonable mean grades. However, there are courses with a mean grade of A (GRA 6559 Fintech has a mean grade of 5(!), which we interpret as all students that passed the exam got an A). It is important that courses do not compete on grades, but on academic content and quality. We also observe that the master theses are in most cases rewarded with A or B, only rarely with a C. The definition of As and Bs is that they represent work that clearly stands out. Obviously, every master thesis cannot stand out as being exceptionally good or very good. Some of them are probably just good (C) or even just satisfactory (D). At NTNU the problem with grade inflation for master thesis has partly been resolved by not letting the supervisor be one of the two examiners.

We think BI should work on how to better use the whole range of the grade distribution. If grades from BI do not contain useful information about the quality of the candidates, it can be damaging for BI's reputation as a good provider of finance candidates. It can also be damaging for recruitment of the best students as they cannot signal their high quality.

Snorre Lindset, Aksel Mjøs, Mattias J. Orava and Lars Qvigstad Sørensen.