

Research Quality Assessment at the Department of Economics

University of Copenhagen, Faculty of Social Sciences

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The assessment has been performed by:

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Introduction

Background for the research quality assessment

The University of Copenhagen is going through a systematic research assessment based on internationally recognised academic standards. During winter 2015 and spring 2016, the Faculty of Social Sciences at the University of Copenhagen is performing this assessment, where the quality of the research at the Department of Anthropology, the Department of Economics, the Department of Political Science, the Department of Psychology and the Department of Sociology is assessed. This should contribute to maintaining and developing the quality of research.

The assessment panel performing the assessment of this Department has been composed with the purpose of covering the breadth of the Department's research areas. As background information the assessment panel has received the Department's self-evaluation, the Department's strategy, a Facts & Figures report both on the Department and the Faculty, a bibliometric analysis, a description of the University's structure and governance, and lastly, a description of the evaluation model.

The panel visited the department 14-15.03 2016. This report was submitted 10.05 2016.

Presentation of the assessment panel

The assessment panel consists of three tenured professors at leading European economics departments. Jointly, they cover the core areas of economics: econometrics (Andrew Harvey), microeconomics (Volker Nocke), and macroeconomics (Kjetil Storesletten).

Andrew Harvey is Professor of Econometrics in the Faculty of Economics, University of Cambridge, and a Fellow of Corpus Christi College. Prior to that he was Professor of Econometrics at the London School of Economics. He is a Fellow of the Econometric Society and a Fellow of the British Academy (FBA). His main research interests are in time series econometrics.

Professor Volker Nocke holds the chair in microeconomics at the University of Mannheim, Germany. He obtained a PhD in economics at the London School of Economics in 1999, and previously held positions at the University of Oxford and the University of Pennsylvania. He has broad research interests in the areas of industrial organization and international trade. He holds a Starting Grant from the European Research Council and is a Council Member and Fellow of the European Economic Association.

Kjetil Storesletten is a professor of macroeconomics at University of Oslo. He obtained a PhD in economics at Carnegie Mellon University in 1995. He has also worked at Minneapolis Fed and Stockholm University (IIES). He has been a managing editor of the Review of Economic Studies, and is currently chairman of the same journal. He is a member of the Norwegian Executive Monetary Policy Committee and holds an Advanced Grant from the European Research Council. Storesletten is a Fellow of Econometric Society.

Governance and organisation

The department is generally well organized and the balance between research and education seems in line with the practice at other economics departments in leading European universities. By international standards, decision-making within the department is very centralized, with the head of department holding a lot of power. When used wisely, as has been the case with the current post holder, this enables efficient governance.

Centers: The department is organized in groups, but with overlapping membership. The strong emphasis on research groups is unusual – we are not aware of other top departments pursuing a similar strategy. Some of these groups work very well, in the sense that the existence of the group seems to enhance the research output of its members. This is especially true for groups that represent natural work units in terms of topics and methodology, for example, the Development Economics Research Group (DERG) and the Centre of Experimental Economics (CEE). In other cases it is not evident that the group construction is useful. In particular, some groups, such as the Microeconomics Research Unit (MRU), are significantly more heterogeneous than others and it is difficult to see additional cooperation induced by such groups, over and above what would be natural in a regular department of economics.

Guidance for junior faculty. Junior faculty need guidance from their senior colleagues, be it in terms of promising lines of research, inroads to the profession, or more specific professional advice (such as addressing referee reports). Such guidance is needed in all departments. From what we understand, the junior faculty at the department seek such guidance mainly from their former advisor (this applies also to faculty trained abroad). This situation offers a possibility of improvement. The department has an institution in place that could in principle provide junior faculty with additional guidance, namely the “yearly dialogue meeting”. Using this meeting to give professional advice (perhaps supported by outside letters of recommendation) could give valuable help and could serve as a stand-in for the so-called “mid-term review” in the U.S. tenure track system. We recommend that the department consider using the dialogue meetings to give sharper and more pointed guidance to the junior faculty.

Publication bonus. There exists a publication bonus system. The existence of such system is important in order to send the right signal to young people. However, the current system could be improved. First, there should be a larger bonus for articles published in top-5 journals relative to articles published outside the top 5.¹ Second, the list of “second-tier” journals yielding a bonus is too large in our view (about 30-40 journals). There is no need to incentivize people to publish in a journal ranked below, say, the top 15-20 journals in economics, statistics and finance. First, there is a very large gap from top-15 to journals ranked below top-20. Second, the department is already publishing relatively well, so the quality of journal outlet should be rewarded. Moreover, the bonus should to some extent discount papers an author has written with his/her advisor.

¹ The top-5 journals in economics are: *American Economic Review*, *Econometrica*, *Journal of Political Economy*, *Quarterly Journal of Economics*, and *Review of Economic Studies*.

Research quality and international impact

During the review period (since 2010), the department's research performance has been on an upward trajectory, as evidenced by the strong positive trend in publications. When counting top-5 articles (and excluding comments and papers & proceedings), the department faculty has published 12 papers since 2011, i.e., 2.4 top-5 papers per year. When counting a broader set of journal publications (i.e., what the department labels as A and B journals), which includes top field journals, the pattern holds up: the number of published articles per year is significantly higher than that of the period 2005-2009 (i.e., 25 versus 20 per year). This is a strong performance, and on par with other top two or three departments in the Scandinavian countries and on par with a top-20 department in Europe, both in terms of quality (i.e., papers in the top journals), and in terms of quantity (i.e., papers in A and B journals). The current rate of publications (i.e., papers published during 2011-2015) is also significantly higher than the publication rate in the years proceeding the period we have evaluated.

All in all this is a very respectable performance in terms of publications. In our view, the department should not strive to increase the quantity of publications per faculty member but instead aim at increasing the quality and impact. In particular, faculty in the top departments in Europe and the world publish about the same number articles per faculty member as faculty at KU, although in slightly better journals.

We note that publications – including top publications – are widely distributed in the sense that many faculty members (17 in all, or 26% of the faculty) have published in top-five journals in economics or the top journal in political science since 2010. Thus, the strong publication record is not just due to two or three outstanding researchers. It follows that more than 26% of the faculty would be characterized as being a researcher on a four star level in the UK Research Assessment system. Again, this is impressive.

Using the UK Research Assessment system the faculty and their publications can be roughly characterized as follows (we consider it to be a conservative ranking)

Four star: 27%

Three star: 41%

Two star: 29%

One star: 3%

We also note that many of the junior faculty members (postdocs, assistant professors and also associate professors) publish well. Incidentally, many papers are co-authored with senior authors and with the advisor of the faculty member. While we believe it can be extremely useful to write a paper with one's advisor (as the junior author then learns a lot from such cooperation), it is important to become independent and develop one's own agenda. Junior faculty members should be encouraged to spread out in terms of co-authorship.

Over the last 10-15 years, research at the department has tended to become more applied, in line with the general world-wide trend in economics. The availability and use of the high-quality Danish register data has been a core strategy over the last two decades. As we discuss further below, the groups CAM and EPRU have explicitly pursued an interesting strategy, whereby junior faculty members are encouraged to

coauthor paper with senior international stars, often providing access to the exceptionally good Danish register data. This strategy has been fruitful and should be maintained.

Groups: We now discuss performance on group level

CEE (Centre for Experimental Economics)

The CEE was founded by Jean-Robert Tyran, an internationally recognized expert in experimental economics. Tyran has since moved to the University of Vienna and only holds a 20%-position at KU.

The CEE appears to be a coherent and closely-knit research group, with a state-of-the-art laboratory at its disposal. The group consists mostly of four “young senior” researchers (associated professors), who completed their PhDs between 2007 and 2009. In part because of their young academic age, none of them has yet acquired the reputation of Tyran or other European leaders in the field of experimental/behavioral economics. Their work has had some impact, as evidenced by the number of citations (between 149 and 386 in Google Scholar, and between 23 and 123 in the ISI Web of Knowledge).

Over the last six years, the full-time members of the group published two articles in a top-5 journal (although each article has three other co-authors, each including a senior member of the profession), and three articles in top field or very good general interest journals (Journal of Labor Economics, Economic Journal). Most publications are in journals such as the Journal of Applied Econometrics or the Journal of Economic Behavior and Organization, the European Economic Review or lower-ranked journals. For a group consisting of four senior researchers in their prime age, this is a decent record.

Overall, the group is well recognized at the European level, although it ranks behind the leading European departments in the field (such as Zürich or Bonn). However, given the young age of the group members, there is clearly a large upside potential.

MRU (Microeconomic Research Unit)

The MRU represents one of the core fields in economics. On paper, the group is quite large. However, once one excludes the members of the experimental group (CEE) and members who are either retired or close to retirement, the group is not large by international standards: Not including postdocs and PhD students, it consists essentially of one full professor, two associate professors, and three assistant professors. In terms of topics covered, the group is quite heterogeneous, with relatively little co-authoring among group members.

Over the last six years, the non-CEE members of the group have published one article in a top-5 journal (American Economic Review), and four articles in top field journals (Journal of Public Economics, RAND Journal of Economics, Journal of Economic Theory) or very good general interest journal (Economic Journal). In addition, they have published in good journals such as the Journal of Mathematical Economics, Economic Theory, the European Economic Review, and the International Journal of Industrial Organization as well as in lesser journals. Given the size and reputation of the group, one might have hoped for a slightly larger number of top publications over the evaluation period. Interestingly, more than half of the best five publications over the last six years have been produced by a single assistant professor. Moreover, the head

of the group has an excellent international reputation, with a large impact, several publications in the top journals, and participation in an advanced ERC grant.

Nevertheless, while microeconomic theory at KU has a long and distinguished tradition, it is probably fair to say that the group does not currently belong to the top 20 in its field in Europe in terms of publications and impact. In light of this, the recruitment of Tomas Sjöström is an important step to re-establish KU as a leading European department in this field.

FRU (Finance Research Unit)

The FRU comprises all department members interested in financial economics. As finance does not appear to be the main research area of any group member, all group members are also members of other groups. Over the last six years, no group member has published in a leading finance journal. This should, however, not be interpreted as a criticism – it merely reflects the fact that the group members are economists with some interests in topics related to finance (both finance theory as well as financial econometrics). Some of the papers at the intersection of economics and finance have been published in the very best economics journals (American Economic Review, Econometrica).

Many of the best universities in the world do not have a finance group within the economics department but they typically do have a finance group within their business school. A closer collaboration with the finance group at the Copenhagen Business School (as well as with financial economists in the Central Bank) may be advisable in case the economics department aims to foster research in finance-related topics.

EPRU (Economic Policy Research Unit)

EPRU is a broad group comprising 32 people. The fields covered by this group can roughly be distributed into public economics, international trade, and macroeconomics. The common theme for the group is economic policy. The group has produced a number of papers including four articles in top-5 journals, plus a range of top field publications (on average, one top field per member). Moreover, 19 out of the 32 have published in a top field journal or better during the evaluation period. This indicates that the activity of the group is high although somewhat uneven.

A closer inspection in the fields reveals that the group has an impressive record in public economics, which accounts for the majority of the articles published in top-5 and in top-20 journals. These contributions fit well into the department's strategy of focusing on applied work and taking advantage of the Danish register data. In terms of public economics, the department is a leading department in Europe (and certainly among the top five departments in this field). Publications in international trade are also of a very high quality. However, we see a need to strengthen the output in macroeconomics, which we view to be a core field in economics.

Development Economics Research Group (DERG)

This group focuses on development studies and comprises eight researchers. In line with the tradition in the field of development studies, the group is quite applied and members of the group have been directly involved in a number of survey projects in developing countries.

Members of the group have published two top-5 publications during the evaluation period (in Review of Economic Studies), although strictly speaking not in the field of development studies. However, members of the group have published a number of papers in top field journals, including the Review of Economics and Statistics, Economic Journal, and Journal of Development Economics. It seems reasonable to us to compare DERG with groups of development studies at other universities in Europe. With this benchmark, DERG stands out as quite successful. We also note that many of the papers published by the group have had a large impact (for example, one of the articles in the Journal of Globalization and Development has more than 200 Google Scholar citations).

Centre for Macroeconomics and the Historical Record (MEHR)

This group consists of about seven researchers focusing on economic growth from an historical perspective. The group has been very productive. Members of the group have published one top-5 paper (in Review of Economic Studies) and eight papers in top field journals or very good general-interest journals during the evaluation period. Moreover, a member of the group has an ERC grant on the topic. The group is focused and tightly knit. It seems to us that this is an example where the group construction has served the department well.

Time Series Econometrics

This is a strong group, one of the best time-series econometrics groups in Europe. Setting aside the members who have retired or are likely to retire in the near future, there are three core members, one Professor, one Associate Professor and one Assistant Professor. Thus there is a good balance. They have collaborated on some papers, which has clearly been to the benefit of all concerned.

All three core members are publishing in top journals or top field journals. Having said that it could be argued that the recent research carried out by the group has not been very influential in mainstream economics, primarily because it is very theoretical. However, the research is very high quality technically and very much respected by time series theorists.

Applied Microeconometrics (CAM)

This group is comprised of twelve researchers, many of whom overlap with other groups. The group is very productive and has achieved high international recognition: the members have published four papers in top

five journals and a large number of papers in top-20 journals. Four members have published papers in top five journals and ten members have published one or more papers in top field journals or very good general-interest journals during the evaluation period.

The group is bigger than the Time Series Group and more heterogeneous. The research is more applied, with the availability of Danish data being a great asset, especially as it encourages collaboration with researchers from abroad.

Centre for Health Economics and Policy (CHEP)

This group is comprised of 17 researchers, many of whom overlap with other groups, especially with the group Applied microeconometrics. The aim of the group is to do research on health economics, broadly defined. The group has published work on health economics in good economics journals and more specialist journals such as Health Economics which have a high impact factor. The most influential work has been on ageing and on the industrial organization of health insurance. There is a healthy degree of international collaboration.

Internationalization: While a large fraction of the faculty is Danish, the department is very much internationalized in the sense of being well integrated with the elite of the profession. The fact that KU faculty members have published papers with the leading stars of the profession (such as e.g. Chetty at Stanford and Saez at UC Berkeley) is evidence that the department is participating at the research frontier. The department also has an active visiting program, which involves both top international researchers visiting KU, as well as encouraging KU faculty to spend time at top departments abroad. It is particularly good that so many of the junior faculty travel abroad.

The department has also had a clear strategy of internationalization when it comes to hiring at the levels of assistant and associate professor, for example by hiring fresh PhDs at the international market. This strategy is working: there has been a higher share of foreigners among the new hires than among the existing staff. We applaud this strategy. It is important for any department to get fresh ideas, and hiring PhD graduates from other institutions is a good way to branch out.

PhD students. The department should think strategically about placement of postdoctoral fellows and graduating PhD students. Placing students at top departments should be considered an achievement of similar importance as publishing in top journals. This is an important way to spread the ideas developed at the department. Moreover, many of those who take jobs at top departments will eventually return to Copenhagen. According to the department's strategy plan, a stated goal is: "It is a goal for the Department to be able to place PhD students in other highly esteemed Departments, and the Department will support PhD students going on the international market." Unfortunately, the outcome falls short of this aim: only one out of 76 PhD students got hired in the equivalent to an assistant professor job abroad (a lectureship at Cambridge). In addition, four students got postdoctoral positions abroad. This is substantially weaker than

comparable departments in other Nordic countries (where one might expect a roughly similar “home bias” to that of Denmark). It is also surprising, given the strong academic performance of the department of economics at KU. One possible contributor to this outcome is a disadvantage built into the Danish system, namely that the time a student has to complete his/her PhD is quite short (four years) relative to PhD students in leading departments who spend on their PhD thesis (where time is typically five or six years). As a consequence, the ideal time to go on the market for graduates from KU might be when they complete their (two-year) postdoctoral position rather than when they complete their (four-year) PhD. Another possible contributor to this outcome might be that there are not sufficiently many role models, i.e., a group of students who successfully went on the market. This suggests that with some effort and patience, the department could achieve the stated goal.

Cross-disciplinary research. We recognize that the department has done a lot to facilitate interdisciplinary work. One example is the recently established Centre for Health Economics and Policy (CHEP) that provides a platform for all economists interested in health-related issues and facilitates the interaction with researchers working on such issues outside the economics department. As a result, KU department of economics has become unusually strongly involved in cross-disciplinary research, at least compared to most economics departments, including the top-20 departments in Europe. This involves development studies, economics and psychology, economics and political science, and economics and health. It is impressive that KU has been able to branch out to such a degree. However, we view this success as a potential problem given our view (as discussed below) that the department has become too thin in core areas of economics. Put succinctly, the department’s stated goals are partly inconsistent. Namely, on the one hand to heed “an obligation to cover all important areas of economics”, and on the other hand that “the department [should be] actively involved in interdisciplinary research”, are not fully compatible, at least not given the current size of the department.

In our view, interdisciplinary work should be bottom-up. The department should provide conditions so that interdisciplinary work can flourish. It should be up to the researchers themselves to decide whether and how this is done. The cases of political economy, development studies, and psychology/behavioral economics are examples where this seems to work very well at KU. For example, in development studies we believe that economics has a lot to offer the field, and that the field has many interesting questions and approaches to offer to economics. An important argument against interdisciplinary work is that with top-down directions, cross-disciplinary research is in most cases unsuccessful and a waste of resources. One must not forget that in order to have impact, the researchers must ultimately publish in their own field. Moreover, economics is already a very broad field, encompassing a large degree of cross-disciplinary fields and methodology.

Visibility. In light of the high quality of the department and the impressive publication record of the faculty, we find it somewhat puzzling that the department is not more visible in the profession. For instance, only one faculty member is currently a co-editor of a top-20 journal in economics (i.e., one of the twelve co-editors of *Journal of Public Economics*), and no faculty member is an associate editor of a top-20 journal. One reason for this lack of international visibility might be the fact that while the average quality of faculty members is high, there are not many (if any) internationally “research stars” at KU’s economics

department. This is evidenced by the fact that, so far, only one department member has obtained one of the prestigious grants of the European Research Council (ERC) as a Principal Investigator, and that this grant was obtained not through the economics & business panel of the ERC (SH1) but through the political science & sociology panel (SH2).²

Communication, outreach and impact

Many members of the department are deeply engaged in various outreach activities. For instance, some faculty members provide advice to the Danish government or government agencies. In particular, several faculty members have been members of the Danish Economic Council (De Økonomiske Råd), which is a major undertaking. Our sense is that the faculty of economics at KU are significantly more involved in outreach activities and various aspects of government advice than most faculty at the top-20 universities in Europe. The outreach is roughly in line with that of the other top departments in the Nordic countries, but our sense is that KU's activities have more of an impact on government policy, than comparable activities in Norway and Sweden.

² Note, however, that the department does have one faculty member participating as a senior researcher on an advanced ERC grant in the SH1 panel. This is a significant achievement.

Resources and capacity

Financial foundation: From our perspective, the financial foundation of the department has been managed very well over the period we have surveyed. In particular, we view it as a very wise policy to build up a financial buffer. A buffer allows the department to smooth out variations in funding and costs. The problem is twofold – both funding and (desired) costs are volatile. Volatile funding creates two very large problems: (1) If funding for new hires is volatile, then the department could miss out on top talent in years when few people are hired and it could end up hiring relatively weak people when funding is ample. (2) If funding for postdoctoral positions and assistant professors are correlated (i.e., that a squeeze on hiring happens simultaneously for the two groups), then one would get a squeeze of assistant professors precisely when there is a big supply of postdoctoral fellows who complete their term. A relatively big buffer fund can help the department smooth out volatile cycles in funding

Given the high quality of the department, it is natural to be continually on the lookout for top senior people. All top departments are on the lookout for good senior hires and have open chairs that potentially could be filled. This work takes time and effort. And if a “Martin Browning” comes around, there must be funds available to hire him or her. This process should not be a random function of temporary budget issues. Instead, funds should be available to move if needed. A large buffer fund can serve this purpose.

Our understanding is that the central administration of KU is pressuring the department to remove its financial buffer. This is in our view an extremely unwise strategy

Hiring policy. Over the last five years, the department has hired a large number of postdoctoral researchers, assistant professors, and some associate professors. The rate of new hires is on par with (or slightly higher than) that of departments of similar size and stature as the department of economics at KU.

In terms of where new hires come from, the vast majority of the postdoctoral candidates at the department originate from the department’s own PhD program. About half the PhD students get a postdoctoral position in KU.

Of the assistant professors, about half the new hires have been from the local postdocs and the rest from abroad. About half the postdoctoral students have eventually gotten assistant professor jobs at KU. Finally, about half of the assistant professors have in turn been promoted to tenured jobs in the department.

Given the general positive development of the department in terms of research output (see below for details), we feel the hiring process is generally working very well. In particular, we view it as very important that the department hires (foreign-trained) PhD graduates on the international market in assistant professor positions. This is in line with hiring policies in top departments in Europe and departments that are naturally comparable with department of economics at KU.

Nevertheless, we have identified some areas where there might be room for improvement or at least some second thoughts.

Breadth in terms of fields. The department has hired in a very broad set of fields. In particular, the degree to which new hires focus on cross-disciplinary research is high relative to comparable departments (as we argue below, this is also true for the research output). This breadth has come at the cost of relatively fewer hires in core fields of economics. In our view, this has had the consequence that the department has become somewhat weaker in core fields of economics than comparable departments in other European countries. In the same vein we note that the share of female associate professors hired is low even by international standards (and incidentally, this share is notably lower than for professors and assistant professors at the department).

The department is very strong in some core fields of economics such as econometrics and labor economics. However it is weaker in traditional microeconomics and macroeconomics. In terms of micro, the department should strengthen for example its capacity in industrial organization (which, incidentally, could fit well with the computational group) and applied theory. The recent hiring of Thomas Sjöström is an excellent step toward bridging some of the gap in microeconomics. In terms of macroeconomics, the department might consider an explicit or implicit cooperation with the research department in the central bank, Danmarks Nationalbank, since there is some complementarity between these departments. Also finance is a field where the department should be stronger (although many departments of economics struggle with this challenge, and Denmark has arguably existing strength in finance through CBS). One strategy to strengthen financial economics (and macroeconomics) might be to build on already existing strengths at the department of economics. For example, the department's strength in labor economics could be useful in terms of building up competence in household finance. Another strategy might be to hire someone part time from the Copenhagen Business School.

In a nutshell, we believe that over the next five-year period the department should put more emphasis on strengthening the core areas of economics through external and internal hires. This would be in line with its stated goal that it has "an obligation to cover all important areas of economics". We understand that the department might receive pressure from outside, including funding agencies, the central university administration, and the faculty of sciences, for more cross-disciplinary research (see below for more on this). Such interdisciplinary research and hires could be good, but such broadening of the agenda of the department should happen in a way that does not compromise the department's strength in the core areas of economics.

There is a danger in relying too much on external money. Such reliance could take the department in random directions, spreading it more thinly in terms of fields.

A department must always emphasize quality when hiring and promoting faculty and one should always be prepared to hire a star when the opportunity arises, irrespectively of his/her field. However, in the current situation we believe the department can afford to apply a somewhat higher quality standard for hiring faculty in fields where the department is already very strong and in fields that are outside the core of economics. The recommended solution is to set your sights high in the areas of current strength such as econometrics, labor economics, public finance, and behavioral economics. Another part of the strategy should be to rely on external hiring mainly for fields where the department strategically must strengthen

(i.e., the core fields). It should not be viewed as a disaster to fail to fill a position. The funding should not be lost and one must be patient to wait for the right opportunity to hire the right person.

Incidentally, we note that the marginal person who has been hired as an associate professor (or promoted to an associated professorship) is perhaps slightly weaker than the marginal person who has been hired in tenured positions in comparable departments of economics in other Nordic countries.

Tenure track. We note that the department has the possibility to hire in tenure-track positions but that this type of position has not yet been used, and that the department offered non-tenure-track positions instead. However, the department has actively tried to fill such positions and has made some tenure track offers which subsequently were rejected. We believe it is important to continue to use this type of positions to recruit new faculty from abroad since the predictability embedded in tenure-track positions (for the candidate) can help attract better candidates as assistant professors.

Hiring own PhD graduates. Another issue related to hiring is whether or not the department should hire its own PhD graduates. In many countries such practice is generally avoided, with the broad motivation that the locally trained PhD students should bring out the ideas developed locally, and that hiring is a good opportunity to bring in new ideas from PhD graduates trained at other universities. Economic departments in the U.S. do generally not hire their own students. Such practices are being discussed also by departments in Nordic countries. For example the Institute for International Economic Studies at Stockholm University, has introduced an embargo where fresh PhD students have to take positions outside the home institution for at least two years before being hired back. As documented above, the department has predominantly hired its own students in postdoctoral positions and, to a lesser extent, in assistant professor positions.

We understand that mobility is low in Denmark and that an embargo might compromise the department's ability to attract good PhD students and, the department's ability to secure that the most promising PhD graduates aim for an academic career. Nevertheless, we think the department should consider slowly changing the culture of (im)mobility. For instance, no systematic effort is currently being exerted in placing PhD graduates (or postdoctoral researchers) on the international job market, and there are almost no role models for successful careers outside of Copenhagen. We believe that it would be in the interest of PhD students but also of the department (at least in the long run) to change this.

Moreover, given that the PhD program is very short (four years) relative to PhD programs in the U.S., it might be natural to consider allowing PhD graduates to take on postdoctoral positions in the department, but to introduce an embargo after such a two-year postdoctoral position.

Recruits for the PhD program. The PhD program at the department is generally functioning well. The fact that many of the former PhD students have subsequently developed strong academic careers is evidence that the program is on a good track. However, we believe there might be scope for improvement, especially in terms of the selection of prospective PhD students. As it turns out, the PhD program has remarkably few international students relative to PhD programs at comparable economics departments (Nordic countries and top-20 in Europe). There are also remarkably few students from outside of Copenhagen. Of the current

PhD students, as much as 90% seem to originate from Copenhagen (based on our informal poll). Assuming that talent is evenly distributed across Denmark, it seems that KU could benefit from broadening the base, given that Copenhagen accounts for only 22% of the Danish population. The culprit might be the admission process, which serves as an obstacle for non-local applicants.

The bottom line is that we believe there would be a high return to broadening the pool of potential PhD students, especially since such a large share the department's hires have ultimately been from among the pool of former PhD students.

Other issues:

There exists support for applications for external funding. This system seems to be working well.

Summary

The KU Economics Department is one of the best in Europe and it has continued to improve over the review period, which started in 2010. The publication record is excellent and the PhD students produced are of high quality. Given the Department's adopted strategy we see every reason for the upward trajectory to continue.

We have no significant criticisms to make and the points below are intended to summarize some key points and in doing so make some constructive suggestions for possible improvements.

1. On the financial side it is vital that the Department is able to retain a 'buffer'. This is always prudent but in economics it is particularly important because of the challenging nature of the market for economists, especially at the senior level.
2. The inter-disciplinary work is impressive. However, it is important that it is 'bottom up' in the sense that its directions are driven by the interests of the researchers and that it does not take resources away from core areas of economics.
3. There is a clear strategy of internationalization with a higher proportion of foreigners hired. On the other hand, the number of KU students taking up posts outside Copenhagen is small and likewise the number of students entering the KU PhD program from outside Copenhagen is small.

The department should strive to broaden the pool from which the PhD students are recruited. Moreover, more should be done to increase the rate at which PhD students and postdoctoral fellows at the department go on the international market for academic jobs.

Sincerely,

Professor Andrew Harvey

Professor Volker Nocke

Professor Kjetil Storesletten