Helsinki GSE

Five-year self-assessment report

Helsinki Graduate School of Economics

Jukka Pirttilä and Otto Toivanen

HANKEN

Aalto University

HELSINGIN YLIOPISTO
HELSINGFORS UNIVERSITET
UNIVERSITY OF HELSINKI

Contents

Five-year self-assessment report of Helsinki Graduate School of Economics

Jukka Pirttilä and Otto Toivanen*

June 14, 2023

1 Introduction

Helsinki Graduate School of Economics (GSE) was founded in the spring of 2018. It is now time to evaluate the progress that has been achieved thus far, as well as to chart the future.

GSE is a joint venture, bringing together economists at its member institutions – Aalto University, Hanken School of Economics, and University of Helsinki – as well as those affiliated at various research institutes. The motivation for forming the joint venture was twofold: First, that each of the economics units[1] is too small on its own, and by joining forces even more strongly than in the past, everybody would benefit. Without greater scale, the units themselves would not be able to run PhD programs and seminar series and generate a world-class research environment. Second, that even the joint scale of the units was too small, and new resources need to be channelled into economics.[2] This motivation was shared not only by the member institutions, but also the Bank of Finland, the Ministry of Finance and the Ministry of Education and Culture which all played a pivotal role when the GSE was established. [3]

The background for this development was the national and local cooperation in economics which has continued since the early 1970s at the latest – including courses organized by the Yrjö Jahnsson Foundation and the Finnish Doctoral Programme in Economics – and which got a big boost in 2004 when the economics units of the three universities all moved into the same building, Economicum, and were joined by the VATT Institute for Economic Research. Back then, the number of professors across all three units was 13, small in any international comparison.

With the resources committed by the partners, GSE could set its ambitions higher than had been possible before. Those resources, coupled with generous donations and improved cooperation with different ministries, have enabled GSE to grow from some 20 to over 30 professors by the start of the academic year 2023-2024. The growth of faculty is however not the objective, but the means to achieve the ambitions set upon GSE. These ambitions are the core of GSE strategy:

1. High-quality, impactful research
2. Improving the quality of teaching and the number of graduates at all levels, particularly at the PhD level
3. Fostering and improving interdisciplinary cooperation
4. Engage in projects with positive societal impact

Helsinki GSE is not only a research institute, but very much a joint venture geared towards improving the quality of teaching and the quantity of well-trained economists at all degree-levels. As each unit's research is evaluated regularly as part of university-level research evaluations, this evaluation focuses primarily the teaching side.

A short description of the institutional structure of GSE is helpful in order to be able to evaluate and appreciate the changes that have been implemented since 2018 and hence the following section is devoted to that theme. We provide a more detailed description and discussion of GSE's institutional structure in chapter 6 below.

For the busy reader, we suggest first having a look at chapters 12 and 13. In chapter 12 we provide an overview of how GSE has reached the objectives set in 2018. We have compiled development objectives into chapter 13.

1 We use the term "units" as the discipline economics is differently organized in the different universities. At Aalto, there is an economics department, located in the School of Business. At Hanken, economics is a subject located in the department of economics and finance. At University of Helsinki, the economics discipline is at the Faculty of Social Sciences. In addition, there is a department of economics and management at the Faculty of Agriculture and Forestry.

2 See Toivanen, O., and Vartiainen, H., 2015. "Taloustieteen asema Suomessa", ("Status of economics in Finland"), a memorandum written for a meeting convened by the Bank of Finland in September 2015. The memorandum demonstrated that in 2014 in Finland economics had 10% of the FTE resources of business disciplines or educational sciences, one third the resources of law and psychology and half the resources of political science. In a Nordic comparison, the number of economics professors at Finnish universities was one third of that in Denmark and Norway, and one quarter of that in Sweden.

3 See the article "Suomessa on pula tohtoritason ekonomisteista" ("There is a shortage of PhD economists in Finland"), 18.12.2015, Kauppalehti.

2 Overview of the institutional structure of GSE

The GSE needs to strike a balance between the structures of the host institutions and the structures needed to foster cooperation.

Each economics unit is responsible for teaching at the university in question, starting from bachelor and continuing all the way to doctoral studies. The university administrations take care of the associated processes, such as student admissions and the granting of degrees. Each university has its own processes, including a timeframe according to which the planning of teaching takes place.

Similarly, the GSE does not employ faculty directly. All academic positions are at one of the units: the universities are thus the employers and responsible for negotiating salaries, setting tenure-track criteria, and choosing the candidates. While hiring is done by the individual units, the GSE plays an important role in the process. All academic recruitment happens under the GSE banner, and GSE has a representative in each hiring committee. This reflects the GSEs role in coordinating research and teaching across units.

This institutional set-up means that GSE faces some constraints that a similar-sized economics department at a single university would not face. Chief among these are:

1. GSE faculty needs to maintain, develop, and teach a separate BSc level economics curriculum in each of the host universities.
2. The PhD and partly the MSc programs are planned jointly at the GSE level even though the host institutions grant the degrees. For the Bachelor-level teaching, GSE helps coordinate the planning of the BSc programs while the degree programs take the lead in curriculum development and are responsible for the teaching at their home institutions.
3. Student intake at all levels, including PhD, is by host universities.
4. GSE cannot directly affect the tenure / hiring criteria of faculty leading to a situation where the practices differ between the units within GSE.

The member institutions share the administrative costs of GSE in a rough proportion to the size of their economics programs, with Aalto and UH shouldering 40% of the costs each, and Hanken the remaining 20%.

GSE is not a closed club; of particular importance is the close cooperation with VATT Institute for Economic Research which is housed in the Economicum building where much of GSE's faculty resides and many GSE activities take place. VATT researchers are free to join GSE's research groups (see below) and play an instrumental role in many of them (organizing seminars, supervising theses, and so on). Similarly, many VATT researchers participate in teaching. This close cooperation rests on mutual benefits from creating as exciting a research environment as possible. Besides VATT researchers, GSE's Research Groups have members from other institutions as well, including the Bank of Finland, UNU-WIDER and Etla. The VATT seminar is an integral part of the supply of seminars and of course, GSE seminars are open to VATT researchers in particular and to all researchers in general.

The GSE works closely with the economists in the Department of Economics and Management at University of Helsinki Faculty of Agriculture and Forestry. The Faculty is not a formal member of GSE, but its economists participate in GSE activities, and its students have similar access to GSE courses as those of GSE units. At the same time, the Faculty provides a large number of courses specializing in agricultural and resource economics, and GSE students have free access to those courses. The Faculty's PhD students and researchers form an integral part of the Environmental Economics Research Group of GSE.

3 GSE's adopted approach to reaching teaching objectives

The key objective set to GSE was to increase the number of graduating PhD economists, especially for the domestic job market. However, GSE took early on the view that the demand for skills that an economics training provides are increasing at all levels of education, not just the PhD level.

As a discipline, economics is uniquely well suited for the current world. Economics provides an empirical and analytical

framework that has proven to be an effective tool for analyzing and addressing societal problems. The GSE departments and the training they provide prepares students at all levels for rigorous empirical work. These tools cut across interdisciplinary boundaries and provide an important perspective to examine societal questions.
Graduates with an economics training are well positioned. Their training prepares them to not only ask the right questions, but also to answer them. Students are taught how to analyze the likely market- or economy-wide consequences of various decisions, to provide solid empirical facts for decision-making, and to produce robust ex-post analyses of adopted policies.

This focus on developing strong analytical and empirical techniques is reflected in the training that modern economics programs provide. For example, GSE units either require or encourage students to study programming alongside economics.

To evaluate the changes in teaching since the establishment of GSE it is therefore important to analyze the development of all degree programs, not only the MSc and PhD programs. Consequently, we next turn to the following:

1. How have the different degree programs developed in terms of numbers?
2. How to ensure the students get a high-quality training?
3. How to ensure that the PhD program can be funded?

4 How have the degree programs developed in terms of student numbers?

4.1 BSc program

GSE member department enroll students differently:

1. At Aalto, students can since 2019 either directly apply to then English language BSc economics program, or to the general BSc business program where they can at the end of the first year choose economics as their major. Before 2019, only the latter route was available.
2. At UH, students can either directly apply to the Finnish language BSc economics program, or the BSc in mathematics, statistics and econometrics. The latter allows a direct transfer to the MSc in economics program later on.
3. At Hanken, students can apply to the Swedish language general BSc in business program and choose economics as their major at the end of the first year.[4]

We have collected data on 1) applicants 2) enrollees, i.e., those applicants that are admitted to the program and accept the offer, 3) students in the program and 4) the number of degrees.[5]

Given the different routes to becoming an economics BSc student, we have data on applicants for the Aalto English language and the UH Finnish language BSc programs since 2019 because in these programs the applicants directly apply to study economics. In the upper left-hand part of Table 1 one can see that since 2019, the number of applicants has developed very favorably. Some 40% of applicants are female, and some 20% international. Given that the UH BSc program is in Finnish, it is no surprise that the latter are almost exclusively applicants to Aalto. The number of enrollees has been steadily increasing, reaching 126 in 2022. Notice here that the two universities have a different system. UH has a quota which has been increased from 55 up until 2019 to 72; Aalto does not and cannot have a quota given the way the Finnish system treats English language programs.[6] UH essentially enrolls as many students as the quota allows whereas at Aalto, numbers fluctuate.

4 Hanken had a two-year pilot for BSc in economics intake in economics that was similar to Aalto, except that the intake was conditioned on the same language criteria (for the Swedish language) that apply to the main BSc intake at Hanken. This intake has been discontinued.

5 The student statistics do not contain data related to the students at the University of Helsinki Faculty of Agriculture and Forestry. The reason for this is that it is difficult to identify economics majors from the data available from the Faculty. The economics professors at the Faculty however provides a large number of courses which are part of the curriculum at GSE, and the economics students of the Faculty have access to all courses provided by GSE.

6 The application system works roughly as follows: Students apply earlier and separately for English language programs. They need to rank the programs. They then later apply for Finnish language programs which also are ranked. If they are admitted to both an English language and a Finnish language program, they can choose which one to enroll in. However, if they only applied to Finnish language programs, they only get offered one place, at the program ranked highest into which they are accepted. At the time of making offers, Aalto does not know how the applicants will fare in applying to Finnish language programs.

Table 1. BSc student statistics

Applicants				Enrollees		
year	**Number**	**Female %**	**Intl %**	**Number**	**Female %**	**Intl %**
2019	1,007	43	23	98	38	11
2020	1,717	44	19	119	36	7
2021	1,693	40	19	117	32	17
2022	1,984	36	29	126	29	13
average	1,600	41	23	115	34	12
	Students			Majors	Cohort size	Degrees
year	**Number**	**Female %**	**Intl %**	**Number**	**Number**	**Number**
2017	569	28	2	45		103
2018	581	29	2	59		79
2019	621	30	2	64	157	94
2020	637	32	4	56	183	111
2021	652	33	6	50	173	73
2022	649	31	8	43	176	119
average	618	31	4	53	172	97

Notes: Applicants: only Aalto and UH have a separate BSc economics program. Data only available since 2019. Enrollees = Number of applicants who enroll into one of the two BSc programs. Students = number of students in the BSc programs irrespective of their cohort. Majors = Number of students who in their 2nd year choose economics as their major in Aalto and Hanken, after entering the BSc business programs. Cohort size = the sum of enrollees and majors, where the majors are counted from the year before, as the choice of a major is done in the 2nd year.

To get an idea of cohort size, one needs to add the students choosing economics as their major at Aalto and Hanken at the end for their first year of BSc in business studies. These are tallied in the lower right-hand part of Table 1, in column “Majors”. The number of such students was increasing until 2019 when Aalto introduced the English language BSc in economics program and has been decreasing since. The decrease is mostly driven by a smaller number of BSc in business students opting for economics at Aalto, and by the fact that the Department of Economics has decreased the quota for such students.

The cohort size is reported in the column “Cohort”, also in the lower right-hand part of Table 1. This number fluctuates around 170 in the four years for which we can calculate it.

The size of the student body (see lower left-hand part of Table 1) has increased compared to the time before the establishment of GSE and is now around 650, with roughly one third female and less than 10% international. It is harder to spot any trend yet in the number of graduates (last column on the right in the bottom panel of Table 1). The reason is that it will take quite some years from the increase in the BSc-program intake to students graduating (with an MSc – they get automatically the right to study up to an MSc when enrolling into a BSc program), also because not all students decide to apply for the degree certificate even though they could do so. Thus, we expect an increasing trend in the number of master’s degrees in the coming years.

4.2 MSc program

All GSE member universities have two separate routes for a MSc: a research master track (rMSc) and a general master's program in economics. GSE member units jointly plan and implement the MSc teaching for the research master's track; the core contents of the rMSc are 1:1 across units. However, just like at the BSc level, the application process as well as granting of degrees is done by the host universities. For the general track, GSE acts as a coordinating institution, and each member university is responsible for the actual planning and the implementation of the teaching.

We have collected data on the MSc programs into Tables 2 and 3. Table 2 contains information on the number of applicants and enrollees, Table 3 on the number of students and degrees.

Table 2. MSc student statistics

Applicants						
year	**GSE**	**Aalto**	**Hanken**	**UH**	**Female %**	**Intl %**
2017		37		124		
2018	206	29	21	156	34	
2019	303	30	12	261	30	
2020	380	69	62	249	36	
2021	544	77	49	418	35	
2022	493	78	68	347		79
average	385	53	42	259	34	79
Enrollees						
year	**GSE**	**Aalto**	**Hanken**	**UH**	**Female %**	
2017		42		52		
2018	89	32	7	50	36	
2019	96	42	3	51	35	
2020	152	71	12	69	36	
2021	112	61	10	41	32	
2022	147	64	8	75	42	
average	119	52	8	56	36	

Notes: Applicants refer to the number of applicants to the MSc program, except for Female % and Intl % which refer to the share of female and international applicants for the whole of GSE. The Applicant numbers do not include those students that have enrolled for BSc at one of the GSE departments. Enrollees refer to the number of students enrolling into the MSc program. Note that the Enrollees - numbers are the sum of those that applied to the MSc program directly, and those that were admitted directly from the institution's own BSc program (except Hanken numbers include only those who applied to the MSc program directly). One cannot therefore calculate meaningful ratios.

The data on applicants refers to applications to the MSc program; it is important to note that those students admitted to a BSc program at one of the GSE units have automatically the right to continue towards an MSc. These students therefore do not show up in the application statistics.

As can be seen from the upper panel of Table 2, the number of applications to the GSE MSc program has been increasing and is now around 500, whereas before GSE it was between 200 and 300. UH receives by far the most applications and Hanken is not far behind Aalto. One third of the applicants are female, and for the one year we have data on it, the vast majority are international students. This reflects the fact that in their choice of MSc studies, Finnish students tend to stick both with their initial choice of field and university.

The number of enrollees contains students both from the GSE-internal BSc programs and from the MSc-intake (from which the applicant numbers emanate). Regarding the statistics on enrollees, three things stand out: First, the number of enrollees has been steadily increasing and is on par with the size of the BSc program in 2022. Second, at the host institution level, the enrollee numbers do not reflect the application numbers. Third, the share of female enrollees is on par or actually slightly higher than among the applicants.

Table 3. MSc student statistics

Students						
year	**GSE**	**Aalto**	**Hanken**	**UH**	**Female %**	**Intl. %**
2017	311	114	46	151	31	14
2018	318	117	56	145	33	14
2019	312	122	45	145	32	10
2020	326	135	47	144	34	8
2021	365	169	47	149	34	6
2022	368	173	39	156	36	8
average	333	138	47	148	33	10
Degrees						
year	**GSE**	**Aalto**	**Hanken**	**UH**	**Female %**	**Intl. %**
2017	79	26	19	34	46	1
2018	67	20	16	31	39	1
2019	92	34	21	37	38	0
2020	82	29	12	41	37	7
2021	67	25	10	32	40	1
2022	95	54	8	33	39	4
average	80	31	14	35	40	3

Notes: Students refer to the number of students registered to the MSc program, except for Female % and Intl % which refer to the share of female and international applicants for the whole of GSE. Degrees similarly refer to the number of students graduating from the MSc program.

Turning then to the size of the MSc student body and the number of degrees in Table 3, we find that the student body has been steadily increasing and is inching towards 400. Aalto and UH are roughly equally sized and Hanken clearly smaller. One third of students are female and the share of international students hovers around 10%. The number of MSc degrees shows more fluctuations (the two largest numbers are tallied in 2019 and 2022). The majority of students enter the MSc program by starting a BSc at GSE; hence it is still somewhat early to draw conclusions in that regard. What stands out though is that the share of females among the graduates is higher than their share among the applicants, enrollees and students. This means that female students are more likely to graduate than their male colleagues.

4.2.1 Research Master program

A key development has been the introduction of the research MSc program (rMSc). It consists of 9 of the 12 first-year courses of what used to be the first year of the PhD program.[7] In the second year, the rMSc students write their thesis and take field courses.

The rMSC places more emphasis on quantitative training than the MSc program. Other European institutions provide similar programs, such as the MSc in mathematical economics and econometrics at London School of Economics. This prepares students both for quantitatively oriented non-academic jobs and PhD studies, both at GSE and elsewhere. This focus on quantitative methods naturally comes at a cost, there is less room in the program for field and applied courses. These two tracks are complementary.

We have compiled statistics related to the rMSc program into Table 4. In interpreting the numbers one should keep in mind that the formal rMSc program was introduced at different point of time in the three units. The numbers show that the number of enrollees has increased to around 25 (though there was a decrease in 2022-2023). It is also clear from the lower panel that a relatively high share of the early cohorts has graduated and that a large share of enrollees but especially of the graduates has continued to PhD studies at GSE.

GSE is in a transition phase. Unlike in previous years, now a large fraction of such students come from the rMSc track. This is a welcome development, but it puts pressure on GSE continuing to attract enough academically oriented students to the rMSc track. The numbers in the above table suggest that while there are early signs of promise, more work is needed.

Table 4. rMSc Statistics

Student count	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Enrollees	6	8	8	25	24	17
Discontinued	1	0	0	7	7	5
Graduates	4	8	5	10	1	0
Continued to PhD at GSE	4	4	3	7	0	0
Per cent of enrollees						
Discontinued	14	0	0	28	29	29
Graduates	67	100	63	40	4	0
Continued to PhD at GSE, as % of Enrollees	67	100	63	40	4	0
Continued to PhD at GSE, as % of Graduates	100	50	60	70	0	-
UH	YES	YES	YES	YES	YES	YES
Aalto	NO	NO	NO	YES	YES	YES
Hanken	NO	NO	NO	NO	YES	YES

Notes: UH, Aalto and Hanken indicate whether the unit had a formal choice for students to enter the rMSc program.

7 Those students who enter the PhD program without having taken the rMSc still take these courses during their first year of PhD studies. Following international practice, these 12 courses consist of a microeconomic theory, macroeconomics and econometrics sequences, each with 4 courses that span the academic year.

4.3 PhD program

The inflow into the GSE PhD programs and its predecessors overwhelmingly comes from the GSE member institutions. There is little reason to think that this will change significantly in the near future. So, in order to increase not just the number of graduating PhD students in general, but also the number of PhD students interested in domestic (policy) careers, a decision was made to increase intake at all degree levels. Even if GSE manages to increase student intake from areas of potential, such as the Baltics and Central European countries without strong domestic programs, the increased intake at all levels is going to be important to secure a large PhD cohorts.

Table 5. PhD student statistics

Applicants					
year	**GSE**	**Aalto**	**Hanken**	**UH**	**Female %**
2017		21			
2018		24		6	
2019	116	19	73	24	29
2020	76	24	34	18	20
2021	92	38	38	16	32
2022		42			
Total	95	28	48	16	27
Enrollees					
year	**GSE**	**Aalto**	**Hanken**	**UH**	**Female %**
2017		4			
2018		5			
2019	16	3	4	9	31
2020	20	7	1	12	25
2021	11	3	3	5	18
2022		5			
Total	16	5	3	9	25

Notes: Applicants refer to the number of applicants to the PhD program, except for Female % which refers to the share of female and international applicants for the whole of GSE. Enrollees similarly refer to the number of students enrolling into the PhD program.

Table 5 contains statistics on the number of applicants and enrollees in the PhD program. Naturally, given the small numbers, there is some volatility. All in all, we have data at the GSE level for only three years, so no strong conclusions should be drawn. What is clear from the unfortunately patchy numbers on enrollees is that there is work to be done to increase the number of enrollees to a level that is commensurate with the ambition of the GSE PhD program.

Turning to the size of the student body (upper panel in Table 6) one can see that it has been rather steady at slightly below 100 except for in 2022 when there was a sizeable increase. Some half of the students are at UH and another third at Aalto. The share of female students is in line with the previous numbers; the share of international students is slightly above one fifth and steady.

Table 6. PhD student statistics

Students						
year	**GSE**	**Aalto**	**Hanken**	**UH**	**Female %**	**Intl. %**
2017	92	31	11	50	40	26
2018	94	34	11	49	38	23
2019	89	27	9	53	34	24
2020	94	29	13	52	28	22
2021	93	26	14	53	28	23
2022	106	35	17	54	31	21
average	95	30	13	52	33	23
Degrees						
year	**GSE**	**Aalto**	**Hanken**	**UH**	**Female %**	**Intl. %**
2017	6	2	1	3	67	33
2018	11	5	2	4	82	27
2019	15	7	0	5	33	20
2020	6	2	0	4	67	33
2021	3	0	0	3	33	0
2022	9	3	2	4	22	33
average	8	3	1	4	51	25

Notes: Students refer to the number of students registered to the PhD program, except for Female % and Intl % which refer to the share of female and international applicants for the whole of GSE. Degrees similarly refer to the number of students graduating from the PhD program.

The number of PhDs produced continues to develop. Given the long time it takes to graduate with a PhD (i.e., factoring in the transition to work and the time it takes from submitting the thesis to obtaining the degree), the number of graduates reflects a number of constraints from the past rather than only current situation or policies. The share of females among graduates fluctuates quite a bit but has on average been higher than their share in the student body. The share of international students among graduates is in line with their share in the student body.

5 Key GSE developments

5.1 Fundraising towards faculty positions

When GSE was founded, the host institutions pledged to increase the resources devoted to economics and, simultaneously, Bank of Finland donated a chair in macroeconomics and Ministry of Finance pledged to provide so-called sponsorship funding on an ongoing basis for a chair in public economics.[8] These initial commitments played a vital role in the development of the GSE. Following these donations from diverse sources and further sponsorship funding from the Ministry of Transport and Telecommunications. We have collected the sources of outside funding into Table 7 and want to use this opportunity to thank the originators of outside funding for their support to GSE.

8 The Ministry of Finance funding is now split to fund 50% of two professorships each.

Table 7. Donations and sponsorship of chairs

Donations			
Source	**Amount**	**Institution**	**Field**
Bank of Finland	2.5M	UH	macroeconomics
Yrjö Jahnsson Foundation	1.5M	UH	economics
Jenny and Antti Wihuri Foundation	1.25M	Aalto	econometrics and data science
Saastamoinen Foundation	1.25M	Aalto	econometrics and data science
Tre Smeder	1.2M	UH	economics
Ella and Georg Ehnrooth Foundation	0.2M	UH	economics
Espoo, Helsinki and Vantaa cities, Keva	2.5M	Aalto	urban economics
Sponsored chairs			
Source	Number	Institution	Field
Ministry of Finance	1	UH	public economics
Ministry of Transport and Telecommunications	1	Aalto	transport economics

Note: Both the urban economics and the transport economics chairs are joint with the Aalto School of Engineering. The chair financed by the donation from the Tre Smeder foundation is joint with the Swedish School of Social Science at the University of Helsinki.

5.2 Tenure-track recruitment

The above commitments have enabled GSE to grow to over 30 professors by the start of academic year 2023–2024. Given that in 2018 there were instances where a soon-to-retire professor was still in the faculty, but a replacement had already been hired (e.g. Otto Toivanen was hired into the position vacated through the retirement of Matti Pohjola, but both were in the faculty in 2018), it is not possible to give an easily comparable number for faculty size just prior to the establishment of GSE. All in all, there were 23 professors in GSE units in the spring of 2018, but the comparable number is lower than that.

All in all, factoring in new hires made possible through retirements, GSE has recruited 19 professors since 2018 and has currently one open slot (at Aalto). The recruitment processes for those recruited in 2018 were started prior to the establishment of GSE. As these recruitments occurred after the announcement of Helsinki GSE being established in 2017 (by then Prime Minister Juha Sipilä), it seems reasonable to view the 2018 recruitments as part of GSE recruitment. The recruitments are tabulated in Table 8.

Table 8. GSE tenure-track recruitment

Year	Institution	Professor	Level	PhD	Field
2018	Hanken	Ari Hyytinen	Full	Aalto	Industrial Organization
	UH	Jukka Pirttilä	Full	UH	Public
	Aalto	Tuukka Saarimaa	Assistant	Aalto	Urban
	Aalto	Matti Sarvimäki	Associate	Aalto	Labor
	UH	Roope Uusitalo	Full	UH	Public
	Hanken	Geert Van Moer	Assistant	U Antwerp	Industrial Organization
2019	UH	Matti Mitrunen	Assistant	Stockholm U	Economic History
	UH	Oskari Vähämaa	Assistant	U of Turku	Macroeconomics
	Hanken	Jiekai Zhang	Assistant	Paris Sciences Lettres (Mines ParisTech)	Industrial Organization
2020	Aalto	Ciprian Domnisoru	Assistant	Carnegie-Mellon	Labor
	Aalto	Daniel Hauser	Assistant	U of Pennsylvania	Microeconomics
	UH	Niku Määttänen	Full	Pompeu Fabra	Macroeconomics
	UH	Timm Prein	Assistant	Konstanz	Macroeconomics
	Aalto	Miri Stryjan	Assistant	Stockholm U	Development
2021	Aalto	Prottoy Akbar	Assistant	U of Pittsburgh	Urban and Transport
	Aalto	Kristiina Huttunen	Associate	UH	Labor
	UH	Torsten Santavirta	Associate	Aalto	Health and Labor
	Aalto	Pablo Warnes	Assistant	Columbia	Urban
2023	Aalto	Mikko Silliman	Assistant	Harvard	Labor

Notes: Institution = the hiring institution, Level = the level of the position into which the person in question was hired; PhD = the institution that granted the PhD to the person in question; Field = the field on economics the person works in. An associate professor at Aalto is tenured, but untenured at UH. The year refers to the year of recruitment; in some cases the person in question has started later due to taking first a post-doc. Those marked having graduated from Aalto may also have graduated from Helsinki School of Economics (Aalto was formed in a merger between Helsinki University of Technology, Helsinki School of Economics and the University of Art and Design Helsinki).

GSE has hired at all levels: 14 assistant professors, 1 associate professor (without tenure) and 4 full professors. This pattern is explained by a conscious effort to balance the age profile of GSE faculty.

The recruits represent 9 nationalities and 8 broad fields of economics. 11 of the 19 recruitments are Finnish citizens, though three of them were hired through the international job market (Mitrunen, Silliman, and Vähämaa). Nine of the recruitments are to Aalto, reflecting retirements and faculty leaving. Another seven are to UH, and Hanken has made three recruitments. Only three of the recruited are female. This outcome does not reflect the efforts in the recruitment process: Many economics departments are in a similar position regarding gender balance as GSE and therefore competition for excellent female candidates is fierce. Each year GSE has made several offers to female candidates.

All in all, these recruitments mean a large increase in the depth and breadth of GSE faculty. These improvements translate directly into a better capability of providing field courses at all levels, providing courses that are designed also to non-economics majors, and better PhD supervision. We are aware that gaps in area coverage still exist; these include, most importantly, international trade, macroeconomics and health economics (economics of health markets).

5.3 Development of the curriculum

A key internal effort at GSE has been and continues to be the development of the curriculum. Development takes place on a number of tracks:

1. Identifying and removing overlap in teaching between the units when appropriate

2. Allocating the new tenure track faculty to courses that best fit their expertise

3. Introducing new courses to complement the existing ones

4. Developing the contents of individual courses

The supply of courses has benefited not only from the expansion of GSE faculty, but also the increased cooperation with the Department of Economics and Management at the Faculty of Agriculture and Forestry at UH.

Our goal is to provide GSE PhD students training similar to what they would receive in the best international PhD programs. GSE continues to provide the requisite first year PhD courses; these are currently part also of the research MSc program's first year.

We have compared the course offering in 2022 to that in 2017. As can be seen from Table 9, the number of MSc and PhD courses offered has increased from 38 to 61, i.e., an increase of 60%. 6 courses have been discontinued. This means that in total 29 new courses are offered in 2022 compared to the time before the establishment of GSE. 9 of these new courses have come through teaching cooperation with the Department of Economics and Management at the Faculty of Agriculture and Forestry of the University of Helsinki.

Table 9. Development of MSc / PhD courses

2017	2022	discontinued	new MSc	new PhD	AGERE	new BSc
38	61	6	13	7	9	6

Notes: 2017 and 2022 refer to the number MSc / PhD courses that are part of GSE cooperation and were offered in these years. Discontinued is the number of courses offered in 2017 not offered in 2022; new MSc is the number of new courses offered to all MSc student, i.e., courses offered in 2022 that were not offered in 2017; new PhD is the number of new courses offered to rMSc and PhD students; AGERE refers to the number of courses offered by the Faculty of Agriculture and Forestry of the University of Helsinki; and new BSc refers to the number of BSc level courses now available for students outside of their home institution.

What is still in development is the supply of PhD-level second-year field courses. GSE has introduced 7 PhD-level field courses: 2 in structural econometrics and IO each, and one each in labor economics, microeconomics and public economics. These courses are suitable also for the (second year) rMSc students. We plan to increase the number of such courses in line with the increase in the number of rMSc and PhD students on the one hand, and faculty resources on the other hand.

The GSE has lead to wider availability of BSc courses, as summarized in Table 9: Six courses were available also to students outside of their home university in the fall 2022 and 16 course are offered in the spring 2023. Some of these courses are targeting a special need, namely providing a better technical background for those students that consider entering the rMSc program.

In addition, GSE faculty provide teaching outside GSE, e.g., at the Swedish School of Social Science of the University of Helsinki. It should also be mentioned that not all of this teaching expansion is due to GSE faculty. Researchers at other institutions participate in GSE teaching: at the moment, researchers from Bank of Finland, University of Turku, VATT Institute for Economic Research and ETLA.

5.4 National responsibility in PhD studies

The units comprising GSE have been responsible for providing the first-year PhD core courses and the vast majority of the PhD-level field courses for economics students in all Finnish universities. This national cooperation which dates to the 1970s has been organized as the Finnish Doctoral Program in Economics since the late 1980s. FDPE acts as a coordination unit between GSE and the other economics departments. In addition, GSE management meets the representatives annually in conjunction with the Annual Meeting of the Finnish Economic Association (early February).

The core courses are now offered online to non-GSE students. A possible future development is that the PhD-level field courses would also be offered online to non-GSE students.

All GSE activities targeting PhD students are open to economics PhD students in all Finnish universities. PhD students nationwide are welcome to present in GSE PhD seminars and workshops.

5.5 Credits and cross-institutional credits

An integral part of GSE is that the courses taught by faculty at the different units form a coherent selection of courses. To this end, GSE coordinates the planning of teaching and has pioneered a way of reducing the administrative burden that students face when they want to take a course at another university: In essence, all MSc and PhD students are automatically granted study rights at all host institutions when they apply for them.

The cross-university credits are first and foremost a measure of how well GSE students take advantage of the increased variety of courses offered to them through GSE as opposed to their individual programs; at the same time this is of course a measure of whether GSE has succeeded in improving the quality of the education it offers. These figures are important both because the Finnish university funding model rewards universities for cross-institutional credits and because the GSE is structured to take advantage of synergies across the universities.[9]

We have compiled statistics on credits from the last two years; these the data are not readily available for earlier years. As can be seen from the top panel of Table 10, which contains data on credits, the total number of credits has increased markedly, from slightly over 7,000 to over 9,000 between 2020 and 2021.

The table gives information on the number of credits obtained by students of a particular university through courses offered by each of the participating universities (we include the Faculty of Agriculture and Forestry in this table as these statistics are well defined). So, for example, Hanken students took courses offered by Aalto university worth 261 credits in 2020 and worth 428 credits in 2021. All in all, GSE students take well over 2,000 cross-university credits annually. These credits generate up to a million euros a year of extra income to GSE host institutions due to the university funding model of the Ministry of Education and Culture.

9 The exact reward is only known afterwards, as the funding model allocates a certain amount of funding to cross-institutional credits and this amount gets divided between universities according to their share of such credits. The current best guess is that one such credit yields up to 500€.

Table 10. Cross-university credits

	Credits 2020				Credits 2021			
University	**Aalto students**	**Hanken students**	**UH students**	**Total**	**Aalto students**	**Hanken students**	**UH students**	**Total**
Aalto	2118	261	600	2979	3218	428	718	4364
Hanken	230	335	185	750	240	490	200	930
UH, FSS	725	205	2130	3060	550	175	1900	2625
UH, FAgr&F	0	10	470	480	55	20	1145	1220
Total	3073	811	3385	7269	4063	1114	3963	9139
	Percent by producing university							
Aalto	71	9	20	100	74	10	16	100
Hanken	31	45	25	100	26	53	22	100
UH, FSS	24	7	70	100	21	7	72	100
UH, FAgr&F	0	2	98	100	5	2	94	100
Average	42	11	47	100	44	12	43	100
	Percent by students of a university							
Aalto	69	32	18	41	79	38	18	48
Hanken	7	41	5	10	6	44	5	10
UH, FSS	24	25	63	42	14	16	48	29
UH, FAgr&F	0	1	14	7	1	2	29	13
Total	100	100	100	100	100	100	100	100

Notes: Includes exchange student credits. FSS = Faculty of Social Sciences. Fagr&F = Faculty of Agriculture and Forestry. Aalto's courses are mainly worth of 6 cr and Hanken's and UH's 5 cr.
Art and Design Helsinki).

The middle panel of the table shows what percentage of credits taken through courses offered by a particular university are from students of each of the three universities. For example, in 2021, 21% of credits from courses offered by University of Helsinki (Faculty of Social Sciences) were from Aalto students and another 7% from Hanken students.

The bottom panel shows what percentage of the are taken at each of the universities. For example, in 2021, Hanken students took 38% of their credits through courses taught by Aalto faculty, 44% through courses offered by Hanken, and 16+2 = 18% through courses offered by the two Faculties of University of Helsinki. Quite naturally, given Hanken faculty's smaller size, Hanken students take a larger fraction of their courses at the other universities. It is, however, notable that the percentage of courses taken at other universities is high also for Aalto and UH students. It is also clear from the table that the cooperation with the Faculty of Agriculture and Forestry is a significant addition to the course selection, and students (especially those at the Faculty of Social Sciences) are making use of this. All in all, GSE students take roughly one third or more of their economics-course credits outside their own unit.

5.6 Cross-disciplinary teaching

During its expansion since 2018, GSE has established a number of faculty positions that are shared with other disciplines.

The chairs of urban economics and transport economics at Aalto University are shared 70/30 with the Department of Built Environment at the School of Engineering. The Department of Economics is responsible for the recruitment for both of these, and the tenure track criteria are the same as for other positions at the Department of Economics.

At University of Helsinki, the Swedish-speaking chair of economics is joint with the Swedish School of Social Sciences. Again, the tenure track criteria are those applied in economics, and discipline of economics is responsible for the recruitment.

The teaching load of all these chairs includes teaching geared towards students who do not study economics as a major: engineering students at Aalto, (Swedish-language) social science students at University of Helsinki.

The cross-disciplinary teaching is however wider than this: At Aalto, both the Department of Built Environment and the Department of Economics have identified courses that the students of the other department would benefit from. As one of many possible examples, the introductory econometrics course taught by the Department of Economics is now compulsory for the engineering students at the Department of Built Environment. In addition to the above, a large number of BSc-level courses are designed to be suitable for students not majoring in economics.

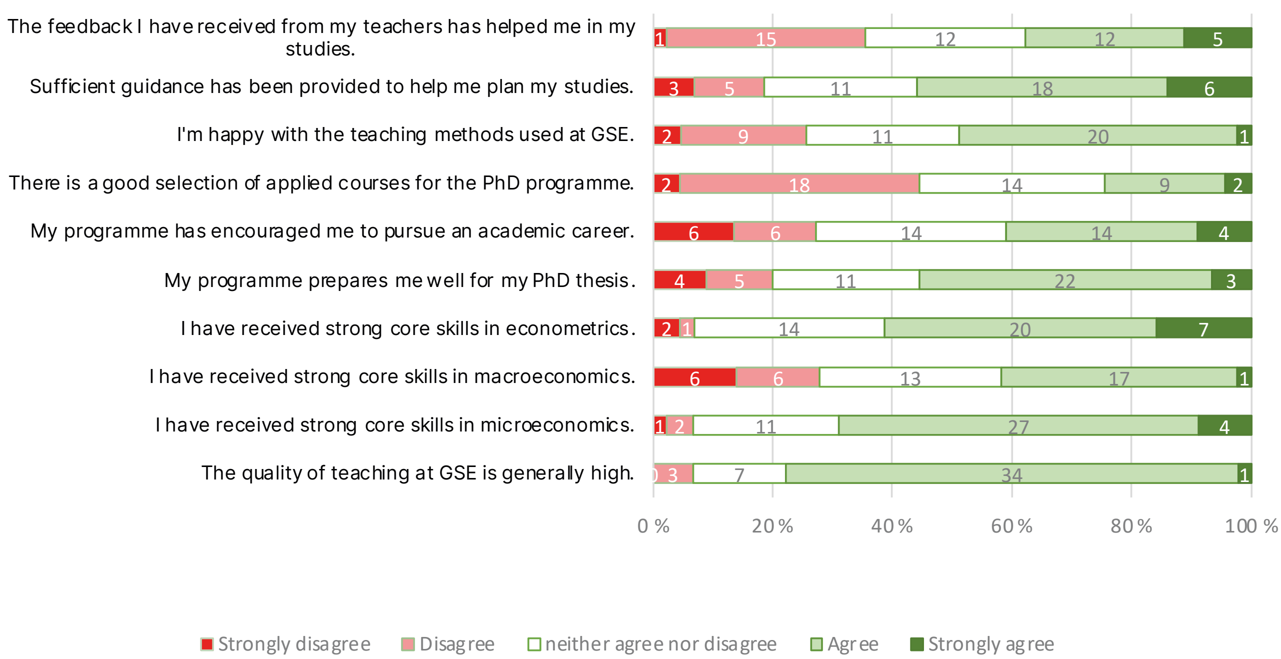
6 Student and faculty survey results

6.1 PhD student survey results summary

As part of this self-evaluation, GSE carried out a PhD student survey. 45 PhD students responded to the survey. We summarize the main results with a few graphs.

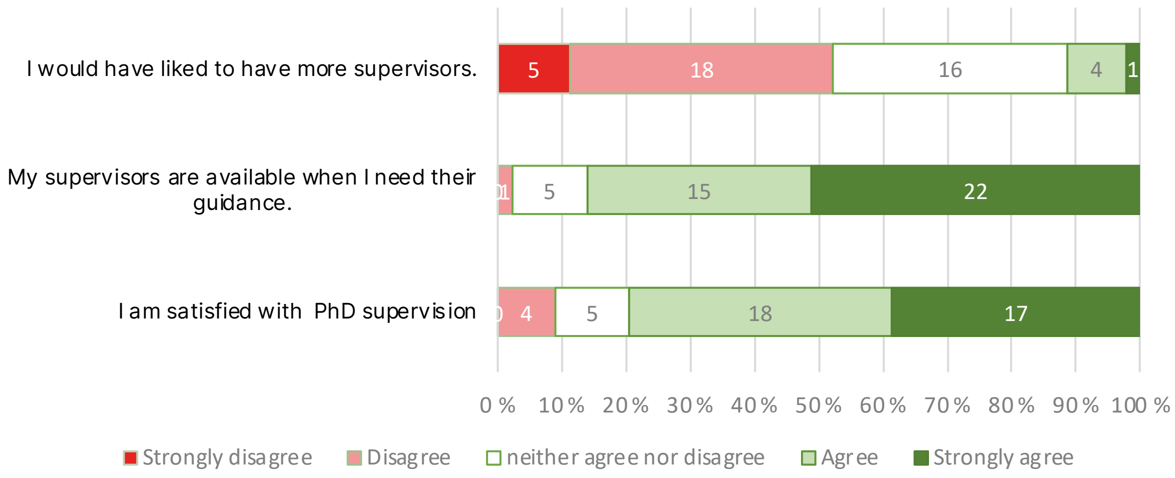
Perception of education (Figure 1): The majority of PhD students seem happy about the education they are receiving, but they are somewhat less satisfied about the skills they have learned in macroeconomics. This reflects the continued need to develop this area at the GSE. In addition, students are concerned about the lack of field courses at the PhD level. The relatively small number of PhD field courses is well-recognized and one of the development objectives.

Figure 1. PhD Students' perception of their education.



Supervision (Figure 2): A large majority of PhD students are happy with the supervision they receive, although roughly half would like to have more supervisors. All units at GSE organize supervision through PhD committees which consist of 2-4 members. The level of activity of committees and committee members varies and is determined by the individual committee members and the student. In addition to the committee, the research groups provide support for the PhD students through workshops and seminars.

Figure 2. PhD Students' feedback of PhD supervision.



Evaluation of the PhD program (Figure 3): Overall, PhD students are satisfied with the program. Only a small number of respondents disagrees with any of the positive statements, but a fairly large share of respondents neither agrees nor disagrees.

Figure 3. PhD students' evaluation of their programme.

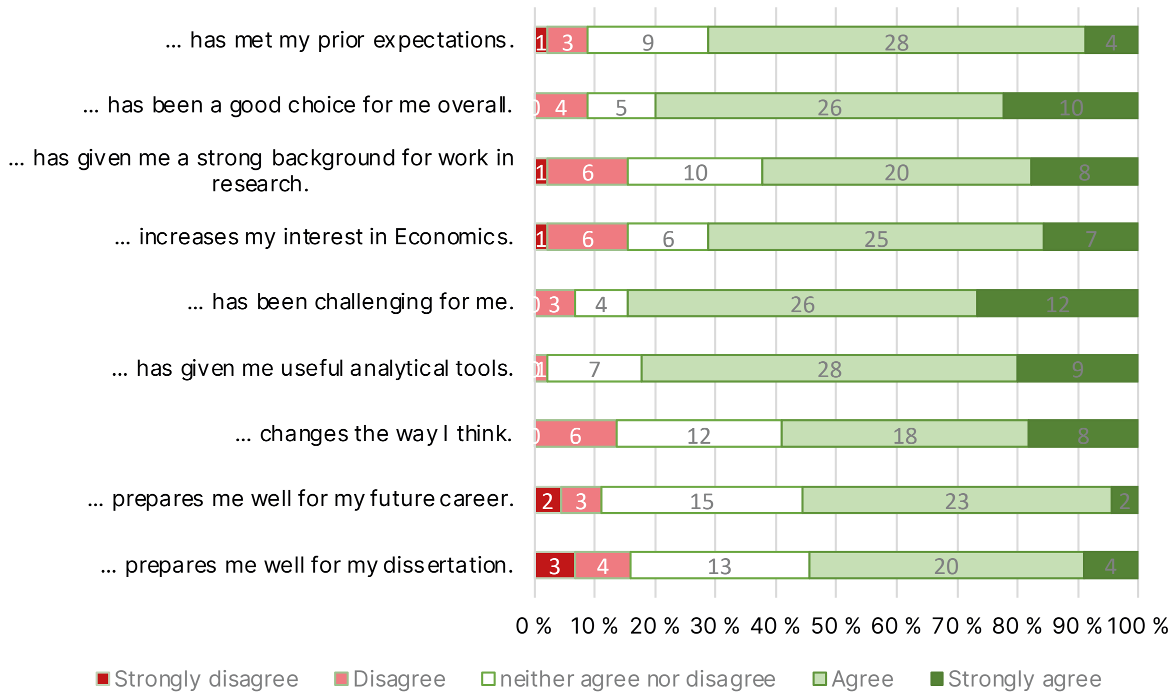
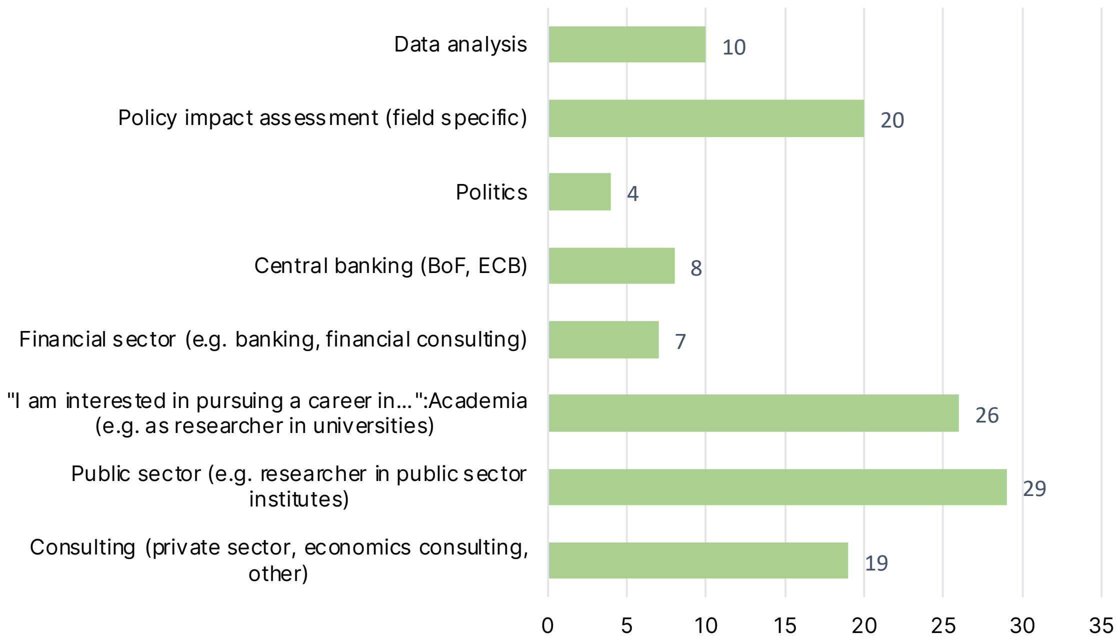


Figure 4. Future employment.



The top-3 future employments are in the public sector (including in public sector institutes), academia and in policy impact assessment. In their answers to open-ended questions, the students thought that they would appreciate more support in the writing process, in programming and when applying for grant financing. They also felt that equal treatment in getting supervision and expectations regarding seminar participation needs to be worked on. Some felt that the atmosphere in student seminars could be more friendly. The research track is seen as challenging and stressful, and improvements in these regards need to be considered.

6.2 Faculty survey (2021)

GSE carried out a faculty survey already in 2021 and it was therefore decided not to carry out a new survey for the purposes of this self-evaluation. Below we summarize the main take-aways of this survey. The survey was organized around GSE objectives.

The first set of questions was related to the objective of raising the quality of teaching and the number of graduates.

GSE faculty’s opinion (see table 11) is that we have managed to attract high-quality students and teachers, to improve the selection and quality of courses and to integrate PhD students into research groups. For all of these questions, the fraction of respondents disagreeing is well below 20% and the fraction agreeing well over 50%. In the view of the faculty, GSE has been less successful in promoting diversity and equality in student admissions and we have failed to integrate rMSc students into research groups.

Table 11. Raise quality of teaching and the number of graduates

Question / Grade	1	2	3	4	5	Mean	Median
We have managed to attract talented and passionate students.	0,0%	8,7%	34,8%	52,2%	4,3%	3,5	4,0
We have managed to attract talented and passionate teachers.	4,2%	4,2%	20,8%	58,3%	12,5%	3,7	4,0
We promote diversity and equality in student admissions.	0,0%	12,5%	37,5%	45,8%	4,2%	3,4	3,5
Course offering is now more diverse and in-depth.	0,0%	8,3%	20,9%	45,8%	25,0%	3,9	4,0
The quality of unique courses has improved.	0,0%	9,5%	14,3%	66,7%	9,5%	3,8	4,0
We have integrated PhD to the Research Groups.	0,0%	16,7%	20,8%	58,3%	4,2%	3,5	4,0
We have integrated research master students to the Research Groups.	12,5%	58,3%	12,5%	12,5%	4,2%	2,4	2,0

Notes: 1 = strongly disagree; 2= disagree; 3 = neither agree not disagree; 4= agree; 5= strongly agree.

Regarding interdisciplinary cooperation, responses summarized in table 12 show that there is more to do also in the opinion of GSE faculty.

Table 12. Fostering interdisciplinary cooperation

Question / Grade	1	2	3	4	5	Mean	Median
We have created study modules together with other disciplines.	9,1%	22,7%	50,0%	18,2%	0,0%	2,8	3,0
We conduct systematic interdisciplinary cooperation in research.	8,7%	26,1%	47,8%	13,0%	4,4%	2,8	3,0
We conduct systematic interdisciplinary cooperation in joint recruitments.	13,0%	26,1%	34,8%	17,4%	8,7%	2,8	3,0

Notes: 1 = strongly disagree; 2= disagree; 3 = neither agree not disagree; 4= agree; 5= strongly agree.

Turning then to societal outreach in table 13 we find that in GSE faculty's opinion GSE is educating an increasing number of economists into positions in various sectors; that we have a good dialogue with key decision makers and the science community, and that we have extended the access to economics.

Table 13. Societal outreach

	1	2	3	4	5	Mean	Median
We have managed to educate and increase the number of economists for positions in the academic, private and public sectors.	12,5%	4,2%	12,5%	54,1%	16,7%	3,6	4,0
An active and direct dialogue between key decision makers in the private and public sectors and the science community has increased.	9,5%	0,0%	9,5%	42,9%	38,1%	4,0	4,0
We have extended the access to economics to every Finn through for example online courses.	0,0%	4,0%	16,0%	60,0%	20,0%	4,0	4,0

Notes: 1 = strongly disagree; 2= disagree; 3 = neither agree not disagree; 4= agree; 5= strongly agree.

7 Institutional arrangements

As an institution that resides between well-established organizations – its member universities – GSE has no need to duplicate functions that already exist in triple, but has a need to complement those with new functions that enable GSE to fulfill its mission. Key pieces of GSE organization are briefly explained in this chapter.

7.1 Locations

GSE faculty are at two locations: Economicum in downtown Helsinki houses the economics faculty of the UH Faculty of Social Sciences as well as Hanken's economics faculty members. Also VATT Institute for Economic Research and Labore (a privately funded economics research institute) are located in Economicum. Since 2019, Aalto University Economics Department is housed on Aalto campus in neighboring Espoo (whereas until then it also resided in Economicum). The distance between these two locations is 20 minutes door to door.

7.2 Board

The governing body of GSE is its Board. The board has 8-10 members. It has become custom that Board members include the vice-rector for research of UH, the provost of Aalto, and the deans of the Faculty of Social Sciences at UH and Aalto School of Business. Hanken has been represented thus far by a professor of economics. In addition, there are 4 external Board members and a PhD students representative.

The Board convenes 4 times a year (thus far, in one year 3 times). The Board is instrumental in facilitating information exchange between the GSE and its member universities' administrations and in enabling external board members to have an influence on GSE development.

GSE's directors participate in all Board meetings.

7.3 Research groups

A key institutional development of GSE, implemented immediately, was the establishment of Research Groups. The objective of the Research Groups is to produce, develop and maintain activities in their field of economics. The Research Groups are essential in coordinating activities across the member institutions. Research Group activities include at a minimum

1. Running a seminar series.

2. Organizing twice a year a PhD workshop.

3. Developing courses and curriculum.

4. Supervising PhD students.

Many research groups have more activities, including running PhD seminar series in addition to the workshops and organizing reading groups for both faculty and PhD students.

GSE provides each Research Group a base funding (currently 5,000€/year), the idea being that the faculty members then look for additional funding.

Each GSE faculty member belongs to at least one Research Group, as does each PhD student. In addition, researchers employed by other institutions may join if they actively participate and are willing to provide supervision.

Initially there were 6 Research Groups was 6 but the number has grown to 10 (see Table 14). The need for each group is assessed periodically and new groups are established only if a critical mass of faculty exists. It is natural that the group sizes vary. Currently the largest groups are Environmental, Labor, and Industrial Organization, both in terms of faculty participation and in terms of student numbers. The faculty and students working at the Faculty of Agriculture and Forestry play a major role for the activities of the Environmental RG.

Table 14. Research Groups

Behavioral Economics
Development Economics
Econometrics
Environmental Economics
Industrial Organization
Labor Economics
Macroeconomics
Microeconomics
Public Economics
Transport, Regional and Urban Economics

With each group running a seminar series with international speakers (mostly biweekly, with some groups cooperating – Labor and Public and Microeconomics and IO run joint series) and GSE running a regular internal (“lunch”) seminar and a GSE wide seminar (“Colloquium”), the number of seminars provided is at a very respectable level in international comparison. In 2022, GSE organized 138 seminars in all in its various seminar series.

7.4 GSE internal meetings

7.4.1 Faculty Coffee

Given the administrative and physical separation of faculty, GSE needs institutional arrangements that bring faculty and students together. A key arrangement is the GSE Faculty Coffee organized on the last Friday of each month, excluding July and December. The Faculty Coffee is a venue where matters of joint interest can be discussed. It is also an important forum for GSE administration as the Directors can only operate and move forward initiatives that are approved by the faculty.

Issues that are regularly discussed at Faculty Coffee include but are not limited to

- Planning of teaching.
- Performance of students in the rMSc core courses.

- Student intake.
- PhD student performance and funding.
- Recruitment.
- Funding initiatives.

All members of GSE Research Groups (except students) are invited to the Faculty Coffee irrespective of their employer. The presentations are distributed afterwards to all invitees.

7.4.2 Colloquium

The Colloquium (faculty seminar) is the flagship seminar series taking place on Friday afternoons. The purpose is to invite top-level researchers to present their latest general interest research. Colloquium is also an important social event, as the social norm is to stay for some time after the seminar. Drinks and refreshments are on offer.

7.4.3 Research Group lunch

To facilitate information transmission between GSE management and the Research Groups and between the Research Groups, a Research Group lunch is on the second week of every month. With this timing, GSE management can discuss the issues that will be on the agenda of that month's Faculty Coffee.

Issues that are regularly discussed at the Research Group lunch are

- PhD student progress.
- Course planning and content.
- Funding of students and Research Groups.
- Seminar organization.

7.4.4 Departmental Head lunch

GSE also organizes a (lunch) meeting with the professors in charge of the economics units of the member universities 3-4 times a year. These discussions provide a platform to discuss organizational issues. As an example, the rules on how to use the Data Room funding were agreed by this group.

7.5 Equality Committee

GSE takes well-being seriously, regarding students, faculty and staff. To ensure that GSE has the requisite information, an Equality Committee has been established. The purpose of the Committee is to build on the systems in place in each of the member universities and to concentrate on those areas that are not well covered by these existing systems.

The Committee prepared a report on the (lack of) gender balance in the economics discipline in GSE, with guidelines for changing the situation. The Committee also organized a survey related to the work environment and possible harassment targeted at both students and faculty. The intention is to run the survey regularly. The Committee also reports to the board on an annual basis.

7.6 PhD student association

GSE encouraged the PhD students to organize themselves across university boundaries. In 2021 the GSE students formed a student association. This provides the students an ability to better channel the issues they want to discuss to the GSE management. In the future, GSE will regularly meet with student representatives to ensure the flow of information.

7.7 Staff and budget

GSE has a small staff of its own. This consists of a 60% coordinator position, a 40% secretary trainee position, and a full-time project manager position (the latter has funding until end of 2024 for the time being). It is with these resources

that GSE administers all the cross-university activities. These include for example arranging study rights at each of the three universities for several hundred graduate students and running the administrative tasks for the multiple seminar series and various GSE meetings. The current staffing has proved to be insufficient given the rise in GSE activities.
The project manager was originally hired to manage the MOOC and CORE projects. The current project manager has been responsible for the roll-out of these projects (e.g. contacting all the high schools and negotiating with the Universities of Applied Sciences). The project manager has also had a lead role in preparing for the next round of national responsibility funding (see below chapter 8). The applications were submitted in the spring of 2023; GSE is part of the University of Helsinki application, even though the funding would then be channeled to all member universities.
GSE Directors are not paid extra for their duties.

The budget of GSE has developed as follows:

Table 15. GSE Budget

Income source / Year	2018	2019	2020	2021	2022
MEC funding	5	49	55	55	55
External funding	67	116	86	89	122
Academy of Finland	0	0	0	0	0
EU	0	0	0	0	0
Business Finland	0	0	0	0	0
Corporate	0	0	0	0	0
Other income	67	116	86	89	122
Spending from restricted funds	0	0	0	0	0
Internal income	0	2	7	4	26
Operative income	72	167	149	148	203
Personnel	-22	-99	-118	-109	-129
Academic Personnel	-20	-36	-10	-7	-1
Service Personnel	-2	-63	-107	-101	-128
Facilities	-1	-7	-2	-3	-13
Service purchases	-42	-36	-19	-23	-26
Depreciations	0	0	0	0	0
Other expenses	-7	-29	-6	-13	-35
Travel	-5	-22	-3	-2	-32
Materials and Supplies	-1	-4	-2	-9	-2
Other expenses	-1	-3	0	-3	0
Internal expenses	0	0	0	0	0
Joint unit charge	0	0	0	0	0
Other internal expenses	0	0	0	0	0
Operative expenses	-72	-172	-144	-148	-203
Operative profit/loss	0	-5	5	0	0

8 Funding of the PhD program

A primary objective of GSE is to increase the number of PhD economists. This obviously requires an increase in the funding of the students. The cost of a full-time PhD student on the payroll of a student is roughly 45K€/year. With a planned intake of twenty students and a five-year program, the GSE members would have to fund roughly 100 PhD students. This would necessitate an annual budget of 4.5M€.

The actual funding requirements are somewhat alleviated by the large number of tax-free grants obtained by the students. The funding principles vary from unit to unit, but in all units a relatively high share of students is at least partly on grant funding.

While the current PhD student stock is at roughly the level of 100 students, this number also includes students who have already transitioned to jobs but have not yet obtained their degree. In order to support 100 active students, it is clear that GSE needs to obtain further funding for its PhD program. It is not clear whether the member universities are able to provide such new funding, though the current discussions that revolve around the general need to increase the supply of PhD trained individuals has raised hopes that there might be extra funding forthcoming. GSE might then be able to obtain part of this funding.
GSE-level efforts to ensure more funding include participation in the Data Room (see section 10.3), which currently generates five full-time PhD positions' worth of funding, and the ongoing application for a continuation (and increase) of National Responsibility funding (see below). Regardless of whether this application is successful or not, and whether the Data Room funding continues after 2025, it seems clear that further efforts by GSE faculty will be needed.

9 National Responsibility funding

The Ministry of Education and Culture chose GSE to be one of the units with a "National Responsibility", and granted in total 5M€ funding for the period 2021 -2024. The funding was apportioned to the host universities following the GSE 40/40/20 (Aalto/UH/Hanken) rule.

Aalto used its share of funding and university's own funding to establish a new chair in economics. Hanken has used its money to fund its tenure-track recruitments. In the University of Helsinki, it was decided that the funding is used for a partial support for one professorship (1 million), a small reservation for expenses related to the MOOC and visitors (60,000), and financing for PhD students (1.32 million).

GSE's member universities are in the process of applying for the next round of National Responsibility funding. The continuation (and increase of) GSE National Responsibility funding is a declared priority for all three universities. The Ministry of Education and Culture will make decisions by the end of 2023 or in early 2024. The new funding would be for a four-year period.

10 Societal outreach

Finnish universities have social outreach as a separate duty besides teaching and research. Below we briefly introduce the main social outreach activities of GSE.

10.1 MOOC

The Finnish high school curriculum does not contain economics. This is problematic both from a social point of view – in today's world, some understanding of how society functions that can be gained through economics seems a basic skill – and from a practical one in terms of university enrolment High school students lack an understanding of what type of a subject economics is. This makes is less likely that they will choose to apply to economics programs.

To ameliorate the situation, in 2020 GSE created and launched a massive open online course "How the economy functions" (in Finnish "Miten talous toimii?"). GSE contacted all (about 300) Finnish-language high schools in Finland (rectors and study councellors) to advertise the course.

GSE has also worked to establish cooperation with Universities of Applied Sciences (UAS), which rarely have economics faculty or provide courses in economics. At the time of writing, Aalto University has signed a cooperation agreement with two UAS: on the basis of these agreements, the GSE MOOC is a compulsory course for hundreds of students at these institutions. Table 16 summarizes participation in the MOOC.

Table 16. How Does the Economy Work? MOOC credits

	2021-22			2022-23		
University	Open univ.	Co-op	Total	Open univ.	Co-op	Total
Aalto	270	0	270	254	638	892
UH, FSS	832	0	832	870	0	870
Total	**1102**	**0**	**1102**	**1124**	**638**	**1762**

10.2 CORE

Another investment that GSE made was the translation of the very popular CORE "Economy" – economics principles textbook into Finnish. This effort included the localization of the examples to Finnish circumstances. This textbook is now in use not only at GSE member institutions but more widely.

Table 17 shows some statistics on CORE use during the last two academic years. The number of users is approximately 25 000 and the number of sessions approximately 75 000 in both years. Sessions are long, on average 45-50 minutes.

Table 17. CORE: The Economy Finnish translation readers

	2021-2022	2022-2023
Users	26627	25229
Sessions	74831	74615
Avg. session duration	0:51:23	0:47:55
Male	44%	42%
Female	56%	58%
Users	Users who have initiated at least one session during the date range.	
Sessions	Total number of Sessions within the date range. A session is the period time a user is actively engaged with your website, app, etc. All usage data (Screen Views, Events, Ecommerce, etc.) is associated with a session.	
Avg. session duration	The average length of a Session hh:mm:ss	

Table 18. CORE Number of readers

Rank	2021-2022		2022-2023	
By location				
1.	Helsinki	40251	Helsinki	42783
2.	Turku	7502	Espoo	5375
3.	Tampere	6669	Turku	5353
4.	Espoo	6103	Oulu	4265
5.	Oulu	3089	Tampere	2634
6.	Vantaa	1364	Vantaa	2133
7.	Vaasa	1018	Salo	724
8.	Jyvaskylä	627	Jyvaskylä	518
9.	Joensuu	617	Vaasa	501
10.	Kuopio	522	Järvenpää	450
By source				
1.	haaga-helia.fi	4904	haaga-helia.fi	8480
2.	aalto.fi	3966	aalto.fi	5319
3.	hanken.fi	2773	metropolia.fi	4625
4.	tuni.fi	2773	utu.fi	2981
5.	utu.fi	2713	hanken.fi	2321
6.	metropolia.fi	2678	digicampus.fi	1593
7.	digicampus.fi	1234	helsinki.fi	805
8.	aalto.fi	712	resource.itslearning.com	514
9.	google.com	642	utu.fi	428
10.	utu.fi	532	opintopolku.fi	364

Table 18 sheds light on the users both by location and by source (=”institution”). While the capital region produces the largest number of users, a respectable number of users come from other locations. In addition to university students, students at universities of applied sciences have also used CORE.

10.3 GSE Situation Room / VATT Dataroom

When the COVID-19 crises hit Finland in March 2020, GSE offered help to the Finnish government. It turned out that the government did not have access to timely data. With the help of the Ministry of Finance, Statistics Finland and VATT Institute for Economic Research GSE founded the GSE Situation Room.

The Situation Room got access to an unprecedented amount of register-based data the bulk of which was almost real-time. For instance, the Situation Room obtained data on furloughed workers with two days’ delay. The Situation

Room proved critical, for example in the design of support schemes for Finnish firms, for identifying the professions of those infected with COVID, and later to identify where and what type of people got vaccinated.

The Situation Room was closed at the end of 2021 due to lack of funding. GSE made clear from get-go that it is not a suitable host for an operation whose mission is to help government decision-making, but that a new institutional arrangement is needed. It was decided that the VATT Institute for Economic Research will host a Data Room which builds on the legacy of the GSE Situation Room. VATT has partnered with Statistics Finland and the GSE in this endeavor.

The Situation Room showed that many things thought not possible could be done. New data sets were made available, GSE got fast-track administrative support from Statistics Finland and fast-track delivery of research results. These developments have now led not only to the establishment of the VATT Data Room but also to the launch of the Data Room concept at Statistics Finland. Other major changes are that Statistics Finland now offers Linux servers and accepts universities' Windows licenses. The data sets made initially available to the GSE Situation Room are now available to all researchers. The Situation Room thus acted as a major catalyst both in developing the government's use of timely administrative data based economics analysis in policy-making and in developing the Finnish research infrastructure. This is a major improvement for social science research and its societal impact in Finland.

GSE's formal role as a partner in the Data Room generates funding of 265K€/year. GSE has decided to use this funding primarily to fund graduate students. The funding is apportioned using GSE's 40/40/20 rule. This means that Aalto and UH get funding equivalent of 2 full-time PhD slots and Hanken the equivalent of 1 PhD slot. The universities can decide how to allocate the funding (e.g., whether to use it for full- or part-time positions). Funded students are required to participate in the Data Room activities, possibly also beyond their immediate thesis work.

10.4 Other societal activities

GSE Faculty members have various significant roles via their expertise in society more generally. Such roles include, but are not limited to, memberships in The Finnish Economic Policy Council, the Climate Panel and advisory roles in ministries, various agencies and the central bank.

10.5 Aalto Economic Institute

As the name suggests, Aalto Economic Instititute (AEI, https://www.aaltoei.fi/) is primarily an initiative of Aalto university economics department. The purpose of AEI is to facilitate social outreach activities and offer help to public sector decision-making, to promote the visibility of economics, and to reach these goals in an efficient manner. Since AEI was founded it has conducted about 20 joint projects with the public sector. The topics are wide-ranging (see the website, only in Finnish). As examples, one report described the use of policy evalutions in improving public sector decision-making; another project was concerned with how to efficiently reach the goal of reducing transport-based emissions by 50% by 2030; yet another analyzed the economics of non-compete clauses in the labor market.

All projects are executed with the same template: A team consisting of senior academics, junior researchers and civil servants who are tightly linked to the case. AEI management makes sure that information transmission between the parties functions and that the senior academics do not spend more time than needed on the projects. AEI projects have involved academics also from outside of Aalto University. AEI employs a project manager and is self-financed. Senior academics are not paid extra for their involvement in the projects.

AEI projects have turned out to be a two-way street. Although the idea is to utilize the knowledge and skills of senior academics, several projects have spawned academic research projects. Two examples are a project on transport emissions and a project on public procurement of health services.

11 Research

As all GSE units take part in university-level research assessment exercises, it was decided that the research part of this self-evaluation should be concise. Nonetheless, one of the central objectives of GSE is to raise the quality and quantity of economic research in Finland.

While quantity is relatively straightforward to measure, quality is not. There are many ways to do it. To provide a measure that is comparable across fields in Finland we resorted to the Finnish Publication Forum (PF) classification, as imperfect as it is. Its advantages are that it is applied to all fields of research in Finland, and it enters the funding model of Finnish universities. In the PF classification, the higher the category, the better the journal. The highest category is 3[10].

We have collected the GSE – level publication statistics into Table 19 for the years 2017 – 2022. It should be kept in mind that the research and publication process in economics is quite long and therefore even the 2022 statistics likely reflect to a large extent research that was started before or round the time GSE was established.

With those caveats in mind, the following observations can be made:

1. The number of publications (column "Total") fluctuates, with the highest numbers being achieved in the early years.

2. The first observation is largely explained by a reduction in the number of publications ranked low (category 1)

3. The number of publications ranked highest (category 3) seems to have increased.

Table 19. Helsinki GSE member university publications by Publication Forum classification

	no PF-rating	PF: 0	PF: 1	PF: 2	PF: 3	Total
2022	2	1	15	18	18	54
2021	4	0	19	19	18	60
2020	1	2	19	15	8	45
2019	1	0	20	16	8	45
2018	8	2	30	17	16	73
2017	12	0	25	16	10	63

12 Has GSE reached its objectives?

Originally, Helsinki GSE was given a set of objectives. We list them below and comment on them in the light of the material presented above. Comments on each objective are in bold italics.

1. Conduct high quality research in economics

- By facilitating interaction between researchers through e.g. the organization of activities into Research Groups. All GSE faculty is a member in at least one Research Group, VATT researchers are free to join any research group they want on condition they participate in its activities; researchers in other organizations are welcome on an invitation-basis. Research Groups are the engine of GSE's research and teaching and constitute a significant improvement to the situation before GSE.
- By recruiting top-level researchers and graduate students and promoting diversity and equality in recruitment. GSE has recruited 19 professors; faculty comprises of 9 nationalities. At the graduate student level, MSc student cohort size has increased substantially and the rMSc has a promising start. The recruitment of PhD students needs further strengthening.
- Through a more systematic approach of applying for research funding. This objective has been partially met, with GSE Data Room funding being the prime example. There are other initiatives, but their success is more mixed.

2. Raise substantially the quality of teaching and the number of graduates at all study levels

- By attracting talented and passionate students and teachers and promoting diversity and equality in student admissions. GSE attracts talented and passionate students, but the level of diversity and equality is not at right level.

10 The list of journals in Category 3 is available in the Appendix.

- Through a more diverse and in-depth course offering, achieved through elimination of overlaps
- in content and by utilizing new teaching resources dedicated to GSE. There has been considerable progress in this regard, but especially the selection of PhD level field courses needs further development.
- By improving the quality of teaching of individual courses. The PhD student feedback is mostly positive.
- By integrating PhD and Master students more seamlessly as part of Research Groups. All PhD students are part of at least one Research Group; the (r)MSc students are as of now not well integrated into the Research Groups. The integration of rMSc students should be on a voluntary basis also in the future, but participation in Research Group activities could increase the number of rMSc students who consider taking a PhD.
- The number of graduates will be increased to 120 MScs and 15 PhDs yearly, which requires a substantial increase in intake quotas and degree targets, as applicable. The current MSc intake is promising, with cohort sizes at round 150; the PhD cohort size should be increased further.

3. Promote the cooperation between economics and other disciplines

- By creating study modules together with other disciplines. Considerable progress has been made in this regard in particular with the Department of Built Environment in the Aalto School of Engineering. Further work is planned.
- Through systematic interdisciplinary cooperation in research and joint recruitments. At the moment there are three interdisciplinary / interdepartmental positions: Two positions at Aalto are 70/30 shared between the Department of Economics and the Department of Built Environment; at University of Helsinki, one position is shared between the Faculty of Social Sciences and the Swedish School of Social Sciences. Several courses are aimed at students in other disciplines. On the research side, a prime example is the Ministry of Education and Culture two-year preschool experiment where GSE researchers work together with educational researchers. This reflects the GSE's goal to facilitate policy making through academically ambitious research.

4. Increase the societal impact of economics

- By educating an increased number of economists for positions in the academic, private and public sectors. GSE is well on the way to reaching this target, but (see below) likely there is reason to increase intake further.
- By encouraging an active and direct dialogue between key decision makers in the private and public sectors and the science community. GSE has been highly visible in public and has had an oversize impact on policymaking and not only through the Situation Room (current VATT Data Room) but more generally.
- By extending the access to economics to every Finn through for example online courses. The GSE MOOC and Finnish translation of CORE are both success stories.

More generally, the establishment of GSE has led to a sea-change in the level of activities and in the general atmosphere, with the GSE now providing a research and teaching environment that is comparable to well-managed international benchmarks.

13 Development objectives

When GSE was established, the goal of 120 graduating MSc and 15 PhD students a year was set. The current graduate numbers (approx. 80 MSc and 8 PhD students a year) are still far below the target. Student intake has increased and we anticipate a similar increase in graduation rates. Based on current intake, the PhD graduation rates will still fall short of the target.

Based on GSE's performance since its establishment and its stated objectives, we see the following as the most important goals of GSE for the next 5 years:

1. The long-term goal of the MSc and PhD programs is to be competitive at the highest European level. This requires the following:

a. Increase the number of rMSc students. The rMSc track provides a solid quantitative training which is useful fornon-academic analytical jobs and a gateway to PhD studies in economics. Given a target of 15 graduating PhDs a year, the enrolment into rMSc should be doubled.

a) To achieve this goal, efforts to engage BSc students in research should be strengthened. The current Aalto practice of hiring the best 2nd year BSc students as research assistants during their 3rd year could be adopted in the other units.

b) Improve international visibility of the program. We plan to increase efforts to place GSE students in leading PhD programs. This would be a sign of the quality of the training the GSE provides.

b. Increase PhD student intake to 20. This is necessary to reach the goal of having a graduating cohort of 15 PhD students.

a) Improve the application practices when necessary and in particular improve the understanding that BSc and MSc students have about the opportunities that a PhD training offers.

c. While GSE should intensify efforts to recruit students to these programs from other institutions in Finland and from other countries – and there is room to attract students e.g. from Central Eastern European (including Baltic) nations where there is only a limited number of high-quality economics MSc programs – reaching the research student targets is unlikely to succeed without also further significant increases in BSc and MSc student intakes. This may also be achieved via setting up new intake routes. The planned Liberal Arts and Sciences program at UH, if established, represents one such channel. International student intake is not only important in itself, but also because international students create positive externalities.

d. Further development of the curriculum. While the curriculum has developed well, there is still a lack of

a) rMSc / PhD field courses. The objective is to provide a similar course supply to top US economics programs.

b)BSc courses that better prepare students for the rMSc program. Not entirely unexpectedly, it has turned out that the rMSc program challenges the technical skills of even very good students. The current efforts in this direction should be continued and possibly strengthened.

c) Improved access of non-GSE base (FDPE) PhD students to all PhD level courses.

d) Continue the development of the MSc curriculum by taking into account student and employer needs.

e. Improve the support for graduating PhD students.

a) Increase the number of PhD students going to the academic job market.

b) Ensure all students complete the program in a timely fashion. Like all PhD programs, GSE struggles with graduating students in reasonable time. Developing procedures for students who decide to pursue non-academic career paths is of particular importance.

c) Increase the share of female students at all levels. Here, the efforts to inform high school students of the possibilities that economics offers is of first-order importance.

2. While GSE needs to continue to take seriously its national responsibility in covering important fields of economics (see below), it has reached the size where it should

a. Reach a level of quality and visibility in research on par with best European economics departments and

b. Seek ways to strengthen emerging areas of strength in research to reach global visibility and recognition.

3. Field coverage of faculty and gender balance: GSE has a national responsibility especially in graduate education in general and PhD education in particular. Given the small size of the economics faculty at other Finnish universities one

cannot rely on all important fields of economics being covered merely through different departments specializing. The fact that all departments need to cover basic teaching needs prevents extreme specialization.

a) GSE needs to continue to work hard to improve the gender balance among faculty.

b) It is essential that all GSE institutions be able to continue participating in the international economics recruiting processes at all levels, including the so-called junior market.

c) There are no economics professors specializing in international trade. This is worrying especially given the fact that Finland is a small export-oriented economy. GSE should look for outside funding possibilities, but basic university funding should be considered as a potential solution, too.

d) The demand for macroeconomists continues to be high. Even though GSE has been successful in recruiting macroeconomists, the number of professors in macroeconomics is still not commensurate with the importance of the area and the demand for (PhD level) macroeconomists.

e) Another field of national importance with inadequate faculty coverage is economics of health markets. Finland used more than 10 years to plan and implement a reform of the social and health care sector. Given the large size of this sector and the age structure of the population it is clear that economists specializing in this sector are needed for the foreseeable future.

4. GSE continues to engage in activities related to societal impacts.

5. GSE should continue to develop cross-disciplinarity in both research and teaching.

This self-evaluation has focused on teaching and dealt with the role of GSE in the policy process. GSE's role in strengthening research via building institutions, recruiting new faculty, and seeking new financing needs to be evaluated going forward, in particular in the cycle of home institutions' research assessment processes.

14 Appendix & External Evaluation

Below is a list of economics journals ranked in the highest (3rd) category in the Finnish Publication Forum.

Table A.1 Economics and related journals ranked in group 3 in the Finnish Publication Forum

American economic journal: applied economics
American economic journal: economic policy
American economic journal: macroeconomics
American economic journal: microeconomics
American economic review
American journal of agricultural economics
Econometrica
Economic journal
International economic review
International review of law and economics
Journal of accounting and economics
Journal of business and economic statistics
Journal of development economics
Journal of econometrics
Journal of economic geography
Journal of economic history
Journal of economic literature
Journal of economic theory
Journal of environmental economics and management
Journal of finance
Journal of financial and quantitative analysis
Journal of financial economics
Journal of financial intermediation
Journal of health economics
Journal of international economics
Journal of labor economics
Journal of monetary economics
Journal of political economy
Journal of public economics
Journal of the European economic association
Journal of urban economics
Quantitative economics
Quarterly journal of economics
Rand journal of economics
Review of economic dynamics
Review of economic studies
Review of economics and statistics
Review of finance
Review of financial studies
The American economic review : insights
Theoretical economics

EXTERNAL EVALUATION OF THE HELSINKI GRADUATE SCHOOL OF ECONOMICS

by

Helena Skyt Nielsen and Mikko Puhakka

August 2023

1. Introduction

Helsinki Graduate School of Economics (HGSE) has asked us to evaluate the "Five-year self-assessment report of the Helsinki Graduate School of Economics". The self-assessment report was mainly prepared by Professor Otto Toivanen and Professor Jukka Pirttilä. In our evaluation we pay most attention to the stated objectives of the HGSE. These objectives are the core of the HGSE's strategy, and are compactly stated as follows:

1. Conduct high-quality, impactful research in economics.
2. Improve the quality of teaching and the number of graduates at all levels, particularly at the PhD level (goals: 120 graduates with the MSc degree, 15 doctors with a PhD degree).
3. Foster and improve interdisciplinary cooperation
4. Engage in projects with positive societal impact.

The overall key objective of HGSE was to increase the number of graduating PhD economists, especially for the domestic job market. We will concentrate on the strengths and weaknesses of the HGSE's operation in 2018 -2023 and will offer suggestions for the improvement of the HGSE in the future. We applaud this possibility to evaluate the Helsinki Graduate School of Economics and encourage the School to conduct such periodic reviews in the future. These reviews should have an important role in advancing the HGSE to achieve its goals and contribute to the positive development of the HGSE over time.

We organize our report as follows:

1. Introduction
2. Background
3. Assessment of the strategic goals
4. Comments and Suggestions for the Future.

2. Background

The Helsinki Graduate School of Economics is a cooperative arrangement of the three economics departments located in the Helsinki area: Aalto University, Hanken School of Economics and University of Helsinki. The HGSE started its operation in 2018. There are two important reasons, which led to the foundation of the HGSE: (1) by international standards small departments in each university, and (2) the need and possibility to get more resources into the discipline of economics in Finland. By joining forces, e.g., in doctoral education, the three universities can run a joint PhD program in economics. This is a clear example of a positive externality from a joint operation. The second reason is very much an answer to an increased demand, expressed by many societal entities such as ministries, the central bank, and other operatives, for a shortage of PhD economists in Finland. Economics was also underrepresented in business disciplines, social sciences, educational sciences, and law in the Finnish universities.[1] In a relevant international comparison, the number of economics professors in Finland was substantially lower than in other Nordic countries.

The Helsinki Graduate School of Economics was not founded in a vacuum. HGSE is in a sense a natural development after about 20 years of cooperation between all the economics departments in Finland. The Finnish Doctoral Programme (FDPE) was founded in 1989 by 14 Finnish universities, which offered economics as a major, and a PhD degree.[2] Even before 1989 there were joint doctoral courses available for all the PhD students in Finland. These courses, on a rather vast array of topics over the years, were organized and arranged by the Yrjö Jahnsson Foundation. The first such course in 1975 on the theory of resource allocation was lectured by Kenneth Arrow (Harvard) and Jerry Green (Harvard). The FDPE is still in operation as a network for cooperating especially in PhD education. It does not, however, have a direct responsibility for arranging and organizing courses.

The main reason for establishing the FDPE was almost the same as the first reason to establish the HGSE: small departments sparsely located in the country. The goal of the FDPE in the beginning was to increase the number of people with doctoral degrees in economics. In quite a short time the number was doubled. The FDPE organized annually the core courses (micro, macro, econometrics), and in addition a few special courses. The courses did not last for the whole semester, which put a lot of pressure for students, but helped the financing of costs for the students participating from outside Helsinki. Many teachers for the special courses were recruited from abroad. Students were also encouraged to attend courses outside Finland in Europe, and especially in other Nordic countries. Overall, FDPE contributed strongly for the betterment of the research quality, and the competitive position of Finnish economics.

There is thus a logical continuum from the courses arranged by the Yrjö Jahnsson Foundation via FDPE to the present day HGSE for organizing and arranging doctoral courses also for the economics departments outside Helsinki. Via modern techniques (teams, zoom) the full-blown courses (lasting the whole semester) are much easier and cheaper to implement than in earlier times. The national responsibility of the HGSE is reflected in the fact that the Ministry of Education and Culture chose HGSE to be one of the "National Responsibility" units for the period 2021 – 2024. This reflects the importance of the HGSE for economics in Finland, and not just for the participating universities in Helsinki. The HGSE thus creates a positive externality for all of economics in Finland.

3. Assessment of the strategic goals

Below we assess how the HGSE reached the four strategic goals.

Ad. 1. Conduct high-quality, impactful research in economics.

[1] All the departments of economics in Finland, except that of the University of Helsinki, are in business schools of the respective universities.
[2] Currently there are 9 universities, which offer economics as a major.

HGSE aims for a high quality and a high quantity of publications. The number of publications per year range between 45-73 (year 2022: 54) of which 8-18 per year (year 2022: 18) are at the highest level in the Finnish Publication Forum classification [Table 19]. Considering that the number of professors is around 30, this is a solid record: around 1.8 publication per person in year 2022 or 0.6 top level publication per person in year 2022. According to the (extra) list of papers submitted to us afterwards [Extra Table 3], it is clear that the outlets include the most prominent journals in the field of economics.

HGSE aims to recruit top-level faculty and promote diversity and equality. The number of professors has grown from 13 in 2004 to some 20 in 2018/19 to over 30 professors in 2023/24. This is an impressive record, which should further facilitate reaching the goals. The participating universities have hired[3] 19 tenure-track recruitments – 12 assistant professors, 3 associate professors (without tenure) and 4 full professors [Table 8]. The quantity of hires is impressive. However, only 3/19 are females and all the females are untenured as far as we see, which is unimpressive. 11/19 are Finnish citizens and 8/19 are international, which indicates a fine level of diversity. The report does not specify clearly how those groups are divided into tenured/untenured hires.

HGSE aims to get a more systematic approach to applying for funding. The repeated donations and sponsorships of chairs are impressive [Table 7]. Acquiring external funding is most likely an important key to continued success and continued critical mass of students and faculty. Therefore, a continuous focus on new public and private sources and new fields is necessary.

Ad. 2. Improve the quality of teaching and the number of graduates at all levels, particularly at the PhD level (goals: 120 graduating MSc, 15 graduating PhD students)

HGSE aims to attract talented and passionate students and promote diversity and equality. It has attracted an increasing number of BSc and MSc students. The share of females has been 30-40% among applicants/enrollees/student stock/degrees. The share of international students is less than 10% in BSc and MSc. [Tables 1-3]

The quantity of BSc students is fine, whereas the number of MSc graduates is below the target level 80<120. The share of females is fine in international comparison with other economics programs**.** The share of international students is rather low and is perhaps below the critical mass for being an attractive study environment for non-Finns.

The quality of students could possibly be assessed by looking at drop-out, time-to-graduation, graduation rates or grades. A back-of-the-envelope calculation suggests a 67% graduation rate (=80/119, compare Table 3 with Table 2), which seems rather low and reflects that the number of degrees does not yet mirror the uptick in enrollment rates.

[3] The role of the HGSE in recruitments of professors for the universities has been essential.

The rMSc program is a splendid way to improve the quality of master's students who are qualified for a PhD program**.** This program provides a great potential to reach the goals of HGSE.

HGSE has enrolled 16 PhD students per cohort (average over 3 years). The stock is slightly below 100 and the number of degrees is 8 per year. The share of females is around 25%. The share of international students is around 20%. [Tables 5+6]

The quantity of PhD students is lower than required to deliver 15 degrees per year. The share of female students is at par with other European programs, whereas the share of international students should ideally be slightly higher to have a sufficiently critical mass for the program to be attractive for good international students.

The quality of PhD students - or of the PhD program - could be assessed by looking at dropout rate, time-to-graduation, graduation rates and, importantly, placement. Comparing the stock [Table 6] with the number of enrollees [Table 5] and the conferred degrees [Table 6] indicate that either the students or the program are shockingly ineffective (the numbers are consistent with an average enrollment time of 6 years combined with an average dropout rate of 50%). The reasons could be many: dropout, delay, parental leave, sick leave, or a long time between submitting the thesis and getting the degree.

The PhD graduates who graduated from 2019 onwards, have primarily got domestic jobs as PhD economists (as wanted). A total of 42% continued research in academia or research centers (hereof 4/31 in international academic jobs). [Extra Tables 1+2] This is a satisfactory pattern of placements for a place like HGSE; the focus is on domestic students and the domestic labour market, but a couple of good international placements per year would improve internationalization and academic network.

HGSE strives for a diverse and in-depth course offering. HGSE obviously needs a good supply of core courses and a provision of some PhD level field courses to cater for a broad cohort of PhD students. Course supply has grown from 38 to 61 MSc/PhD courses from 2017-2022 [Table 9]. HGSE has developed an ambitious course supply and a good track of acquiring cross-university course credits. However, the supply still does not cover all the fields of economics sufficiently. Therefore, new avenues of action may be necessary.

Ad. 3. Foster and improve interdisciplinary cooperation.

HGSE is engaged in many meaningful activities in terms of cooperation between economics and other disciplines in terms of joint study modules, joint research, and joint recruitments.

Ad. 4. Engage in projects with positive societal impact.

HGSE has done an impressive work in terms of societal impact. A core impact is of course through placement of graduates in private and public positions in society. Other impacts go through offering policy advice and popular dissemination and extending access to economics through MOOC and CORE. Relatedly, the HGSE data room during covid is a success, which is also internationally recognized.

4. Comments and suggestions for the future

In the self-evaluation report five items are listed in the section 13 on development objectives. We regard those objectives as well thought through. We agree with them, and we will not repeat them here. Instead, we will supply our suggestions and comments.

Ad 1. The long-term goal of the MSc and PhD programs is to be competitive at the highest European level.

We agree with all the ideas to increase intake, internationalization, and development of curriculum. However, we suggest that HGSE puts immediate focus on ensuring that all students complete the PhD program in a timely fashion. This is needed to ensure effective use of resources and thus supply PhD economists at a faster rate. However, we also think that improvement along these lines will make the program more attractive for good national and international students. We provide the following range of specific suggestions:

- <u>Set a fixed duration on the PhD program.</u> The fixed duration could e.g., be 4 years, but it might depend on previous education level. In the Danish context, the PhD program is a 3-year program for students who enter with a 120 ECTS MSc degree. Most students complete on time.
- <u>Use the rMSc to leverage changes.</u> If rMSc students take PhD courses, they should get credit for this in some way. In the Danish context, so-called flexible programs have been developed, where some students enrol in a “PhD track” already before completing the master’s degree. The interplay between the rMSc and the PhD in the Finnish system is not yet clear, and perhaps the rMSc could be used to create a more attractive and clearer path to a PhD. A formal “flexible program” is one suggestion, while another suggestion might be to have a sponsor to fund an extra stipend for X rMSc students for Y years. With the current number of students, this would be cheap, and it might help label the education as attractive for a select group of students.
- <u>The course program and the mandatory activities should support timely completion</u>. The coursework should help the students complete on time. Some field courses could for example include term papers that are first drafts of dissertation chapters. A mandatory annual workshop where PhD students present and discuss their work could serve as an annual milestone to complete a chapter. [In Denmark there is an annual workshop, where 100 economics PhD students present and discuss their ongoing research: DGPE wprkshop, <u>https://econ.au.dk/talent-development/phd-programme/phdcourses/dgpe-courses</u>]
- <u>Look at the numbers in more detail to understand the reasons for the extremely long time-to-graduation.</u> Address the reasons one-by-one. Enrolment time for students who dropout should be minimized by monitoring progress closely and firing/failing students who make no progress. Time from submission to degree could be fixed at a max of e.g., 3 months.

- Establish incentives for completion on time. Some ideas may be: max salary period, completion bonus, avoid part-time enrolment and sideline employment, avoid employing PhD students after their scheduled submission date if they have not submitted their dissertation, engage fewer supervisors per student (only one person should be responsible for overseeing progress) and require that supervisor-student dyads/triads formulate supervision agreements early in the process.

In line with the ambition to increase internationalization, it would be natural to utilize the Nordic network better.

- There exists a network "Scandinavian PhD Seminar Exchange", where economics departments help each other train students to go on the international junior job market by use of "mock fly-outs". Each department delivers 0-3 outgoing PhD students and arrange the same number of "mock fly-outs" for incoming PhD students. The network members exchange 20-30 students across departments for such seminars every year. It could easily become the "Nordic PhD Seminar Exchange" instead, if HGSE wants to be part of that.

Ad 2. HGSE has reached a size where it should reach a quality and visibility on par with the best European universities and seek ways to strengthen emerging areas of strength in research.
We agree.

Ad 3. Field coverage of faculty and gender balance
We agree on all the points mentioned. We would like to further stress a few points:

- The gender balance in new recruits is extremely skewed. It is particularly worrying that the recruited females do not have tenure. There is a general phenomenon known as the leaking pipeline in academia, and the gender imbalance should be taken seriously**.** Females are disproportionally represented across fields. It so happens that the fields mentioned in "high demand" are fields with very few females, and therefore, those two goals counteract each other.
- The MSc/PhD course supply is large (61 courses). However, it does not cover all the fields of studies sufficiently. Perhaps the size of HGSE is not large enough to fulfill all needs for field courses annually and inhouse. Instead, (1) some courses could be offered interchangeably in a cycle every second year, (2) some courses could be requested ad hoc by external teachers as PhD mini courses (one week, 5 ECTS or two weeks, 10 ECTS) and (3) some mini courses could be offered in collaboration with other Nordic universities.
- It is a fair point that there is a national responsibility to deliver teaching in fields in high demand by the labour market, and therefore HGSE needs more macro courses and international trade. However, at the same time, times are changing, and new courses may be as important today. Some of the more modern fields are also in high demand in research and labour markets, e.g., empirical register-based research and data science incl. big data, machine learning, artificial intelligence.
- Use the Nordic network to share course supply and improve the supply of field courses where there is not teacher capacity or a critical mass of students to develop own courses. The Nordic Graduate Programme in Economics is perhaps not formally in operation, but

the Nordic Economics departments still invite each other's students to PhD courses for free.

Ad 4. GSE continues to engage in activities related to societal impact.
We agree.

Ad 5. GSE should continue to develop cross-disciplinarity in both research and teaching.
We agree.

Extra Table A1. Allocation across sectors

Sector	Count	%
private sector	11	35
universities	7	23
research institutes	6	19
government	6	19
other	1	3
Total	31	100

Notes: Private sector includes labor unions (1).

Extra Table A2. Selected publications, Helsiniki GSE, by unit

Note: publications with authors from more than one unit are reported for each unit.

1. Selected Aalto Publications, 2021-2023 Department of Economics – Research output — Aalto University's research portal

2023

Klein Lecture Parental Education and Invention : The Finnish Enigma, Aghion, P., Akcigit, U., Hyytinen, A. & Toivanen, O., May 2023, In: INTERNATIONAL ECONOMIC REVIEW. 64, 2, p. 453-490 38 p.

Censorship and Reputation Hauser, D., Feb 2023, In: AMERICAN ECONOMIC JOURNAL: MICROECONOMICS. 15, 1, p. 497-528 32 p.

Lost Boys? Secondary Education and Crime, Huttunen, K., Pekkarinen, T., Uusitalo, R. & Virtanen, H., Feb 2023, In: JOURNAL OF PUBLIC ECONOMICS. 218, 19 p., 104804.

Love Thy (Elected) Neighbor? Residential Segregation, Political Representation, and Local Public Goods, Harjunen, O., Saarimaa, T. & Tukiainen, J., Jul 2023, In: Journal of Politics. 85, 3, p. 860-875 16 p.

Mobility and Congestion in Urban India, Akbar, P., Couture, V., Duranton, G. & Storeygard, A., Apr 2023, In: American economic review. 113, 4, p. 1083-1111 29 p

Partisan political beliefs and social learning, Robbett, A., Colón, L. & Matthews, P., Apr 2023, In: JOURNAL OF PUBLIC ECONOMICS. 220, 104834.

2022

AUCTIONS FOR CHARITY: THE CURSE OF THE FAMILIAR, Carpenter, J., Damianov, D. S. & Matthews, P. H., Aug 2022, In: INTERNATIONAL ECONOMIC REVIEW. 63, 3, p. 1109-1135 27 p.

Expectations, Stagnation and Fiscal Policy: a Nonlinear Analysis, Evans, G. W., Honkapohja, S. & Mitra, K., Aug 2022, In: INTERNATIONAL ECONOMIC REVIEW. 63, 3, p. 1397-1425

Global Externalities, Local Policies, and Firm Selection, Ahlvik, L. & Liski, M., Jun 2022, In: Journal of the European Economic Association. 20, 3, p. 1231-1275 45 p

Habit Formation and the Misallocation of Labor: Evidence from Forced Migrations, Sarvimäki, M., Uusitalo, R. & Jäntti, M., Dec 2022, In: Journal of the European Economic Association. 20, 6, p. 2497-2539 42 p.

The Intergenerational Transmission of Human Capital: Evidence from the Golden Age of Upward Mobility, Card, D., Domnisoru, C. & Taylor, L., Apr 2022, In: Journal of Labor Economics. 40, S1, p. S39-S95

Welfare Effects of Housing Transaction Taxes: A Quantitative Analysis with an Assignment Model, Määttänen, N. & Terviö, M., May 2022, In: ECONOMIC JOURNAL. 132, 644, p. 1566–1599 34 p.

2021

Choice Architecture to Improve Financial Decision Making, Carpenter, J., Huet-Vaughn, E., Matthews, P., Robbett, A., Beckett, D. & Jamison, J., Mar 2021, In: REVIEW OF ECONOMICS AND STATISTICS. 103, 1, p. 102-118 17 p.

Gender Identity, Coworking Spouses, and Relative Income within Households, Zinovyeva, N. & Tverdostup, M., Oct 2021, In: AMERICAN ECONOMIC JOURNAL: APPLIED ECONOMICS. 13, 4, p. 258-284 27 p.

Inequality in mortality between Black and White Americans by age, place, and cause and in comparison to Europe, 1990 to 2018, Schwandt, H., Currie, J., Bär, M., Banks, J., Bertoli, P., Bütikofer, A., Cattan, S., Chao, B. Z. Y., Costa, C., González, L., Grembi, V., Huttunen, K., Karadakic, R., Kraftman, L., Krutikova, S., Lombardi, S., Redler, P., Riumallo-Herl, C., Rodríguez-González, A., Salvanes, K. G., & 7 others, 5 Oct 2021, In: Proceedings of the National Academy of Sciences of the United States of America. 118, 40, 9 p., 2104684118.

Learning With Heterogeneous Misspecified Models: Characterization and Robustness, Bohren, J. A. & Hauser, D. N., Nov 2021, In: Econometrica. 89, 6, p. 3025-3077 53 p.

Waiting for my neighbors, Gordon, S., Henry, E. & Murto, P., Jun 2021, In: RAND Journal of Economics. 52, 2, p. 251-282 32 p. 3

2020

Price level targeting with evolving credibility, Honkapohja, S. & Mitra, K., Dec 2020, In: JOURNAL OF MONETARY ECONOMICS. 116, p. 88-103 16 p.

Spillover effects of stricter immigration policies, Bratu, C., Dahlberg, M., Engdahl, M. & Nikolka, T., Oct 2020, In: JOURNAL OF PUBLIC ECONOMICS. 190, 22 p., 104239.

The Association Between Unemployment and Mortality: A Cohort Study of Workplace Downsizing and Closure, Junna, L., Moustgaard, H., Huttunen, K. & Martikainen, P., 1 Jul 2020, In: American Journal of Epidemiology. 189, 7, p. 698-707 10 p.

2. Selected Hanken Publications, 2020-2023

2023

2023, "Financial incentives for vaccination do not have negative unintended consequences", *Nature* 613, 2023, 526–533 [Paper]

2023, "Economic Preferences and Personality Traits Among Finance Professionals and the General Population" , forthcoming *Economic Journal*

2023, Intelligence disclosure and cooperation in repeated interactions conditionally accepted at *American Economic Journal: Microeconomics*

2022

2022, A year older, a year wiser (and farther from frontier): Invention spillovers and human capital depreciation, Review of Economics and Statistics. 2022

2022 (FT50 list), 'CEO Health', The Leadership Quarterly, vol. 34, no. 3, pp. 101672. https://doi.org/10.1016/j.leaqua.2022.101672

2022 (FT50 list) 'Ex Ante Predictability of Rapid Growth: A Design Science Approach', Entrepreneurship Theory and Practice, https://doi.org/10.1177/10422587221128268

2021

2021, 'Monetary incentives increase COVID-19 vaccinations', Science, vol. 374, no. 6569, pp. 879-882. https://doi.org/10.1126/science.abm0475

2020

2020, 'Exploration in Teams and the Encouragement Effect: Theory and Evidence', Management Science

2020, 'Active Investors, Passive Investors, and Common Ownership', AEA Papers and Proceedings , vol. 110, pp. 565-568. https://doi.org/10.1257/pandp.20201028

3. Selected UoH Publications, 2021-2023

2023

Lost boys? Secondary education and crime, Uusitalo, R., Huttunen, K., Pekkarinen, T. & Virtanen, H., 2023, In: Journal of Public Economics. 218, 19 p., 104804.

2022

Famine, Inequality, and Conflict, Merilainen, J., Mitrunen, M. & Virkola, T., Nov 2022, (E-pub ahead of print) In: Journal of the European Economic Association. 32 p.

Habit formation and the misallocation of labor: evidence from forced migrations, Sarvimäki, M., Uusitalo, R. & Jäntti, M., 2022, In: Journal of the European Economic Association. 20, 6, p. 2497-2539 43 p.

Identifying Structural Vector Autoregression via Leptokurtic Economic Shocks, Lanne, M., Liu, K. & Luoto, J., 13 Oct 2022, (E-pub ahead of print) In: Journal of Business and Economic Statistics.

Welfare Effects of Housing Transaction Taxes: A Quantitative Analysis with an Assignment Model

Määttänen, N. I. & Terviö, M., 9 May 2022, In: Economic Journal. 132, 644, p. 1566–1599 34 p.

2021

Testing for observation-dependent regime switching in mixture autoregressive models, Meitz, M. & Saikkonen, P., May 2021, In: Journal of Econometrics. 222, 1, p. 601-624 24 p.

2020

Do coalitions matter in designing institutions? Korpela, V., Lombardi, M. & Vartiainen, H., Jan 2020, In: Journal of Economic Theory. 185, 19 p., 104953.